

# Submersible Motors & Accessories Catalog



Franklin Electric

## **Commitment To Quality**

**Franklin Electric is committed to provide customers with defect free products through our program of continuous improvement. Quality shall, in every case, take precedence over quantity.**



**Franklin Electric**

# Submersible Motors & Accessories Catalog





# Submersible Motors Catalog Contents

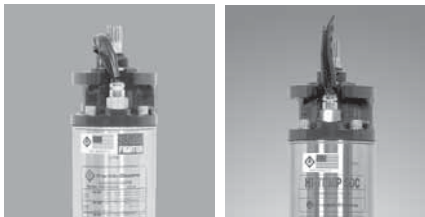
## 4" Motors & Leads

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## 4" Submersible Motors Super Stainless



### Applications

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
- Kingsbury-type thrust bearing
- Pressure-equalizing diaphragm
- Built-in lightning arrestors (All single-phase; 200 & 300 V three-phase)
- Removable water bloc lead
- Franklin-manufactured control boxes available for single-phase motors
- UL 778 recognized (North American voltages)
- CSA certified
- ANSI/NSF 61 certified
- Industry standard NEMA mounting dimensions

### Special Features

- Flow inducer sleeve not required in water up to 86 °F (30 °C) for motors through 2 hp.
- Two-wire motors are split-phase designs with integral starting components and do not require a control box. They feature Franklin's patented 2-wire BIAC starting switch which provides Reverse Impact Torque to aid starting in adverse environments and prevents extreme fast cycling (e.g. water logged tank).
- Three-wire motors through 1 hp use Franklin's exclusive three-wire QD (Quick Disconnect) Control Box with the patented QD Relay. This relay provides the ultimate in operational life.
- Single-phase motors can be used with Pumptec products to protect against dry-run and other installation conditions that can damage motors and/or pumps. See Single-phase Protection Devices for details.

### Constant Pressure Options

- Use Franklin's MonoDrive controller with 1½ hp three-wire single-phase motors to provide constant water pressure.
- Three-phase motors can be used with SubDrive controllers to provide constant water pressure.

### Pollution Recovery Option

- Pollution Recovery motors are equipped for use in monitoring and recovery wells in which hydrocarbons and other chemicals may be present.
- Special Viton® rubber parts and other chemical resistant materials as listed in Construction Materials chart.

# 4" Submersible Motors Super Stainless

## 4-Inch Super Stainless Motor Specifications

| Hz | Ph          | Hp Range  | kW Range   | Poles | RPM  | Max. Ambient Temp. | Duty Rating |
|----|-------------|-----------|------------|-------|------|--------------------|-------------|
| 60 | 2-Wire      | 0.3 - 1.5 | 0.25 - 1.1 | 2     | 3450 | 86 °F / 30 °C      | Continuous  |
| 50 | 2-Wire      | 0.5 - 1.5 | 0.37 - 1.1 | 2     | 2875 | 86 °F / 30 °C      | Continuous  |
| 60 | 3-Wire      | 0.3 - 3   | 0.25 - 2.2 | 2     | 3450 | 86 °F / 30 °C      | Continuous* |
| 50 | 3-Wire      | 0.3 - 3   | 0.25 - 2.2 | 2     | 2875 | 86 °F / 30 °C      | Continuous* |
| 60 | Three-Phase | 0.5 - 3   | 0.37 - 2.2 | 2     | 3450 | 86 °F / 30 °C      | Continuous* |
| 50 | Three-Phase | 0.5 - 3   | 0.37 - 2.2 | 2     | 2875 | 86 °F / 30 °C      | Continuous* |

## 4-Inch Pollution Recovery Motor Specifications

| Hz | Ph          | Hp Range  | kW Range   | Poles | RPM  | Max. Ambient Temp. | Duty Rating |
|----|-------------|-----------|------------|-------|------|--------------------|-------------|
| 60 | 2-Wire      | 0.3 - 1.5 | 0.25 - 1.1 | 2     | 3450 | 86 °F / 30 °C      | Continuous  |
| 50 | 2-Wire      | 0.5 - 1.5 | 0.37 - 1.1 | 2     | 2875 | 86 °F / 30 °C      | Continuous  |
| 60 | 3-Wire      | 0.3 - 2   | 0.25 - 1.5 | 2     | 3450 | 86 °F / 30 °C      | Continuous* |
| 50 | 3-Wire      | 0.3 - 2   | 0.25 - 1.5 | 2     | 2875 | 86 °F / 30 °C      | Continuous* |
| 60 | Three-Phase | 0.5 - 2   | 0.37 - 1.5 | 2     | 3450 | 86 °F / 30 °C      | Continuous* |
| 50 | Three-Phase | 0.5 - 2   | 0.37 - 1.5 | 2     | 2875 | 86 °F / 30 °C      | Continuous* |

\* 3 hp motors require 0.25 ft/sec flow past motor.

## 4-Inch Construction Materials

| Component            | Construction Type   |                               |
|----------------------|---------------------|-------------------------------|
|                      | Standard Water Well | Pollution Recovery            |
| Castings             | 304 SS over Iron    | 304 SS over Iron              |
| Stator Shell         | 301 SS              | 301 SS                        |
| Shaft Extension      | 17-4 SS or 303 SS   | 303 SS                        |
| Fasteners            | 305 SS or 302 SS    | 316 SS                        |
| Seal Cover           | Acetal              | Tefzel®                       |
| Seal                 | Nitrile Rubber Lip  | Viton®                        |
| Diaphragm            | Nitrile Rubber      | Viton®                        |
| Slinger              | Nitrile Rubber      | Viton®                        |
| Lead Wire (or Cable) | XLPE                | Lead not furnished with motor |
| Lead Potting         | Epoxy               | Lead not furnished with motor |
| Lead Jam Nut         | 303 SS              | Lead not furnished with motor |

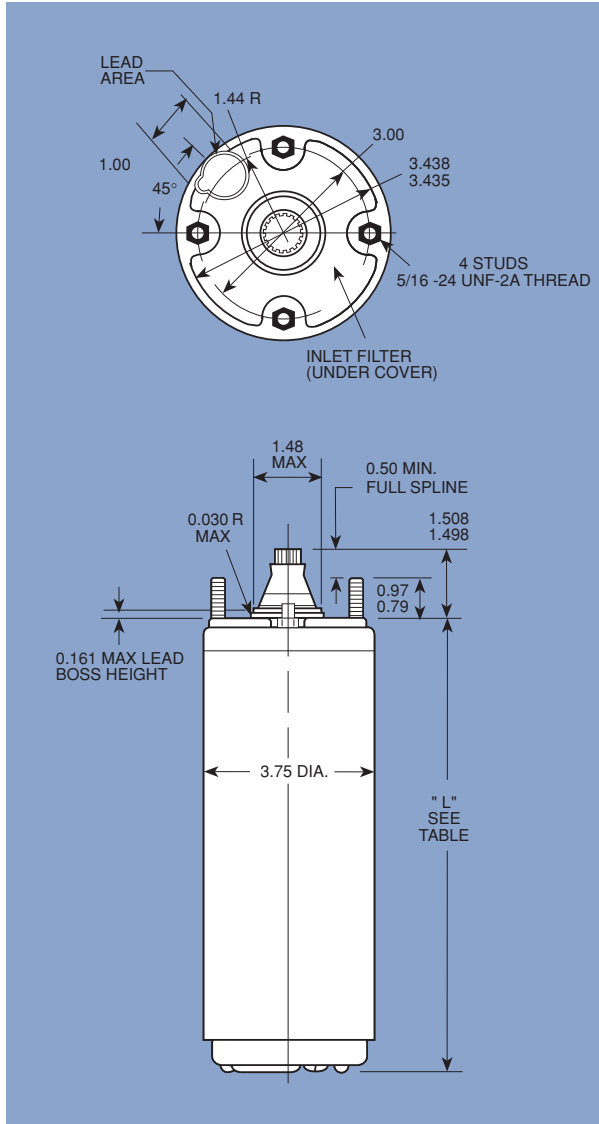
Specifications subject to change without notice. Contact Franklin Electric if current material types are required for bid specifications.

Viton® is a registered trademark of DuPont Dow Elastomers.

Tefzel® is a registered trademark of E.I. du Pont Nemours and Company.

# 4" Submersible Motors Super Stainless

## 4-Inch Dimensions and Weights



### Single-Phase Motors - 2-wire

| HP   | KW   | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|------|------|-----------------|-----------------|------|----------------------------------|
|      |      |                 | LBS             | KG   |                                  |
| 1/3  | 0.25 | 8.78            | 16              | 7.3  | 4 x 4.375 x 16                   |
| 0.5  | 0.37 | 9.53            | 18              | 8.2  | 4 x 4.375 x 16                   |
| 0.75 | 0.55 | 10.66           | 21              | 9.5  | 4 x 4.375 x 19                   |
| 1    | 0.75 | 11.75           | 24              | 10.9 | 4 x 4.375 x 19                   |
| 1.5  | 1.1  | 15.12           | 31              | 14.1 | 4 x 4.375 x 21                   |

### Single-Phase Motors - 3-wire

| HP   | KW   | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|------|------|-----------------|-----------------|------|----------------------------------|
|      |      |                 | LBS             | KG   |                                  |
| 1/3  | 0.25 | 8.78            | 17              | 7.7  | 4 x 4.375 x 16                   |
| 0.5  | 0.37 | 9.53            | 19              | 8.6  | 4 x 4.375 x 16                   |
| 0.75 | 0.55 | 10.66           | 21              | 9.5  | 4 x 4.375 x 19                   |
| 1    | 0.75 | 11.75           | 24              | 10.9 | 4 x 4.375 x 19                   |
| 1.5  | 1.1  | 13.62           | 28              | 12.7 | 4 x 4.375 x 21                   |
| 2    | 1.5  | 15.12           | 33              | 15.0 | 5 x 4.375 x 21                   |
| 3    | 2.2  | 19.06           | 41              | 18.6 | 6 x 4.375 x 21                   |

### Three-Phase Motors

| HP   | KW   | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|------|------|-----------------|-----------------|------|----------------------------------|
|      |      |                 | LBS             | KG   |                                  |
| 0.5  | 0.37 | 9.53            | 18              | 8.2  | 4 x 4.375 x 16                   |
| 0.75 | 0.55 | 10.66           | 21              | 9.5  | 4 x 4.375 x 16                   |
| 1    | 0.75 | 11.75           | 24              | 10.9 | 4 x 4.375 x 19                   |
| 1.5  | 1.1  | 11.75           | 24              | 10.9 | 4 x 4.375 x 19                   |
| 2    | 1.5  | 13.62           | 28              | 12.7 | 4 x 4.375 x 21                   |
| 3    | 2.2  | 16.06           | 35              | 15.9 | 4 x 4.375 x 21                   |

All dimensions listed above are for models supplied with lead. Consult factory for other models.

# 4" Submersible Motors Super Stainless

## 4-Inch 2-wire Models

| HP (kW)                         | DESCRIPTION |                    |       |    |      |             | MODEL         | STOCK STATUS | DOWNWARD THRUST RATING |
|---------------------------------|-------------|--------------------|-------|----|------|-------------|---------------|--------------|------------------------|
|                                 | W/PH        | CONSTRUCTION       | VOLTS | HZ | S.F. | LEAD IN MTR |               |              |                        |
| <b>1/3 hp</b><br><b>0.25 kW</b> | 2-WIRE      | WATER WELL         | 115   | 60 | 1.75 |             | 244 502 01--S |              | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 115   | 60 | 1.75 | YES         | 244 502 90--S | YES          |                        |
|                                 |             |                    | 230   | 60 | 1.75 |             | 244 503 01--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.75 | YES         | 244 503 90--S | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 115   | 60 | 1.75 |             | 244 502 09--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.75 |             | 244 503 09--S |              |                        |
| <b>1/2 hp</b><br><b>0.37 kW</b> | 2-WIRE      | WATER WELL         | 115   | 60 | 1.60 |             | 244 504 01--S |              | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 115   | 60 | 1.60 | YES         | 244 504 90--S | YES          |                        |
|                                 |             |                    | 220   | 50 | 1.00 |             | 244 555 01--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.60 |             | 244 505 01--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.60 | YES         | 244 505 90--S | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 115   | 60 | 1.60 |             | 244 504 09--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.60 |             | 244 505 09--S |              |                        |
| <b>3/4 hp</b><br><b>0.55 kW</b> | 2-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 244 557 01--S |              | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 230   | 60 | 1.50 |             | 244 507 01--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.50 | YES         | 244 507 90--S | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.50 |             | 244 507 09--S |              |                        |
| <b>1 hp</b><br><b>0.75 kW</b>   | 2-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 244 558 12--S |              | 650 LBS<br>(3000 N)    |
|                                 |             |                    | 230   | 60 | 1.40 |             | 244 508 12--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.40 | YES         | 244 508 90--S | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.40 |             | 244 508 23--S |              |                        |
| <b>1.5 hp</b><br><b>1.1 kW</b>  | 2-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 244 359 12--S |              | 650 LBS<br>(3000 N)    |
|                                 |             |                    | 230   | 60 | 1.30 |             | 244 309 12--S |              |                        |
|                                 |             |                    | 230   | 60 | 1.30 | YES         | 244 309 90--S | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.30 |             | 244 309 23--S |              |                        |

### NOTES:

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.

# 4" Submersible Motors Super Stainless

## 4-Inch 3-wire Models

| HP (KW)                         | DESCRIPTION |                    |       |    |      |             | MOTOR MODEL   | CONTROL BOX MODEL | STOCK STATUS | DOWNWARD THRUST RATING |
|---------------------------------|-------------|--------------------|-------|----|------|-------------|---------------|-------------------|--------------|------------------------|
|                                 | W/PH        | CONSTRUCTION       | VOLTS | HZ | S.F. | LEAD IN MTR |               |                   |              |                        |
| <b>1/3 hp</b><br><b>0.25 kW</b> | 3-WIRE      | WATER WELL         | 115   | 60 | 1.75 |             | 214 502 44--S | 280 102 49        |              | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 115   | 60 | 1.75 | YES         | 214 502 90--S | 280 102 49        | YES          |                        |
|                                 |             |                    | 220   | 50 | 1.00 |             | 214 553 41--S | 280 353 01        |              |                        |
|                                 |             |                    | 230   | 60 | 1.75 |             | 214 503 44--S | 280 103 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.75 | YES         | 214 503 90--S | 280 103 49        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 115   | 60 | 1.75 |             | 214 502 49--S | 280 102 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.75 |             | 214 503 49--S | 280 103 49        |              |                        |
| <b>1/2 hp</b><br><b>0.37 kW</b> | 3-WIRE      | WATER WELL         | 115   | 60 | 1.60 |             | 214 504 44--S | 280 104 49        |              | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 115   | 60 | 1.60 | YES         | 214 504 90--S | 280 104 49        | YES          |                        |
|                                 |             |                    | 220   | 50 | 1.00 |             | 214 555 41--S | 280 355 01        | YES          |                        |
|                                 |             |                    | 230   | 60 | 1.60 |             | 214 505 44--S | 280 105 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.60 | YES         | 214 505 90--S | 280 105 49        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 115   | 60 | 1.60 |             | 214 504 49--S | 280 104 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.60 |             | 214 505 49--S | 280 105 49        |              |                        |
| <b>3/4 hp</b><br><b>0.55 kW</b> | 3-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 214 557 41--S | 280 357 01        | YES          | 300 LBS<br>(1500 N)    |
|                                 |             |                    | 230   | 60 | 1.50 |             | 214 507 44--S | 280 107 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.50 | YES         | 214 507 90--S | 280 107 49        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.50 |             | 214 507 49--S | 280 107 49        |              |                        |
|                                 |             | SERIES 600M        | 230   | 60 | 1.50 | YES         | 214 507 0600S |                   | YES          |                        |
| <b>1 hp</b><br><b>0.75 kW</b>   | 3-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 214 558 19--S | 280 358 01        | YES          | 650 LBS<br>(3000 N)    |
|                                 |             |                    | 230   | 60 | 1.40 |             | 214 508 12--S | 280 108 49        |              |                        |
|                                 |             |                    | 230   | 60 | 1.40 | YES         | 214 508 90--S | 280 108 49        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.40 |             | 214 508 23--S | 280 108 49        |              |                        |
|                                 |             | SERIES 600M        | 230   | 60 | 1.40 | YES         | 214 508 0610S |                   | YES          |                        |
| <b>1.5 hp</b><br><b>1.1 kW</b>  | 3-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 224 350 19--S | 282 350 81        | YES          | 650 LBS<br>(3000 N)    |
|                                 |             |                    | 230   | 60 | 1.30 |             | 224 300 19--S | 282 300 81        | YES          |                        |
|                                 |             |                    | 230   | 60 | 1.30 | YES         | 224 300 92--S | 282 300 81        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.30 |             | 224 300 23--S | 282 300 81        |              |                        |
|                                 |             | SERIES 600M        | 230   | 60 | 1.30 | YES         | 224 300 0610S |                   | YES          |                        |
| <b>2 hp</b><br><b>1.5 kW</b>    | 3-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 224 351 19--S | 282 351 81        | YES          | 650 LBS<br>(3000 N)    |
|                                 |             |                    | 230   | 60 | 1.25 |             | 224 301 19--S | 282 301 81        | YES          |                        |
|                                 |             |                    | 230   | 60 | 1.25 | YES         | 224 301 92--S | 282 301 81        | YES          |                        |
|                                 |             | POLLUTION RECOVERY | 230   | 60 | 1.25 |             | 224 301 23--S | 282 301 81        |              |                        |
|                                 |             | SERIES 600M        | 230   | 60 | 1.25 | YES         | 224 301 0610S |                   | YES          |                        |
| <b>3 hp</b><br><b>2.2 kW</b>    | 3-WIRE      | WATER WELL         | 220   | 50 | 1.00 |             | 224 352 25    | 282 352 81        | YES          | 900 LBS<br>(4000 N)    |
|                                 |             |                    | 230   | 60 | 1.15 |             | 224 302 25    | 282 302 81        |              |                        |
|                                 |             |                    | 230   | 60 | 1.15 | YES         | 224 302 26    | 282 302 81        | YES          |                        |
|                                 |             | SERIES 600M        | 230   | 60 | 1.15 | YES         | 224 302 0620  |                   | YES          |                        |

### NOTES:

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.

# 4" Submersible Motors Super Stainless

## 4-Inch Three-Phase Models

| HP (KW)                   | DESCRIPTION |                    |         |    |      |             | MODEL         | STOCK STATUS | DOWNWARD THRUST RATING |
|---------------------------|-------------|--------------------|---------|----|------|-------------|---------------|--------------|------------------------|
|                           | W/PH        | CONSTRUCTION       | VOLTS   | HZ | S.F. | LEAD IN MTR |               |              |                        |
| <b>1/2 hp<br/>0.37 kW</b> | 3-PHASE     | WATER WELL         | 200     | 60 | 1.60 |             | 234 501 41--S |              | 300 LBS<br>(1500 N)    |
|                           |             |                    | 200     | 60 | 1.60 | YES         | 234 501 92--S |              |                        |
|                           |             |                    | 220     | 50 | 1.00 |             | 234 551 41--S |              |                        |
|                           |             |                    | 230     | 60 | 1.60 |             | 234 511 41--S |              |                        |
|                           |             |                    | 230     | 60 | 1.60 | YES         | 234 511 92--S |              |                        |
|                           |             |                    | 380/415 | 50 | 1.00 |             | 234 561 31--S | YES          |                        |
|                           |             |                    | 460     | 60 | 1.60 |             | 234 521 31--S |              |                        |
|                           |             |                    | 460     | 60 | 1.60 | YES         | 234 521 94--S |              |                        |
|                           |             | POLLUTION RECOVERY | 200     | 60 | 1.60 |             | 234 501 49--S |              |                        |
|                           |             |                    | 230     | 60 | 1.60 |             | 234 511 49--S |              |                        |
|                           |             |                    | 460     | 60 | 1.60 |             | 234 521 49--S |              |                        |
| <b>3/4 hp<br/>0.55 kW</b> | 3-PHASE     | WATER WELL         | 200     | 60 | 1.50 |             | 234 502 41--S |              | 300 LBS<br>(1500 N)    |
|                           |             |                    | 200     | 60 | 1.50 | YES         | 234 502 92--S |              |                        |
|                           |             |                    | 220     | 50 | 1.00 |             | 234 552 41--S |              |                        |
|                           |             |                    | 230     | 60 | 1.50 |             | 234 512 41--S |              |                        |
|                           |             |                    | 230     | 60 | 1.50 | YES         | 234 512 92--S |              |                        |
|                           |             |                    | 380/415 | 50 | 1.00 |             | 234 562 31--S | YES          |                        |
|                           |             |                    | 460     | 60 | 1.50 |             | 234 522 31--S |              |                        |
|                           |             |                    | 460     | 60 | 1.50 | YES         | 234 522 94--S |              |                        |
|                           |             | POLLUTION RECOVERY | 200     | 60 | 1.50 |             | 234 502 49--S |              |                        |
|                           |             |                    | 230     | 60 | 1.50 |             | 234 512 49--S |              |                        |
|                           |             |                    | 460     | 60 | 1.50 |             | 234 522 49--S |              |                        |
|                           |             | SERIES 600M        | 230     | 60 | 1.50 | YES         | 234 512 0600S | YES          |                        |
|                           |             |                    | 460     | 60 | 1.50 | YES         | 234 522 0600S |              |                        |
| <b>1 hp<br/>0.75 kW</b>   | 3-PHASE     | WATER WELL         | 200     | 60 | 1.40 |             | 234 503 19--S |              | 650 LBS<br>(3000 N)    |
|                           |             |                    | 200     | 60 | 1.40 | YES         | 234 503 92--S |              |                        |
|                           |             |                    | 220     | 50 | 1.00 |             | 234 553 41--S |              |                        |
|                           |             |                    | 230     | 60 | 1.40 |             | 234 513 19--S |              |                        |
|                           |             |                    | 230     | 60 | 1.40 | YES         | 234 513 92--S | YES          |                        |
|                           |             |                    | 380/415 | 50 | 1.00 |             | 234 563 31--S | YES          |                        |
|                           |             |                    | 460     | 60 | 1.40 |             | 234 523 16--S |              |                        |
|                           |             |                    | 460     | 60 | 1.40 | YES         | 234 523 94--S | YES          |                        |
|                           |             | POLLUTION RECOVERY | 200     | 60 | 1.40 |             | 234 503 23--S |              |                        |
|                           |             |                    | 230     | 60 | 1.40 |             | 234 513 23--S |              |                        |
|                           |             |                    | 460     | 60 | 1.40 |             | 234 523 23--S |              |                        |
|                           |             | SERIES 600M        | 230     | 60 | 1.40 | YES         | 234 513 0610S | YES          |                        |
|                           |             |                    | 460     | 60 | 1.40 | YES         | 234 523 0610S |              |                        |

# 4" Submersible Motors Super Stainless

## 4-Inch Three-Phase Models

| HP (KW)          | DESCRIPTION |                    |         |       |           |             | MODEL         | STOCK STATUS | DOWNWARD THRUST RATING |
|------------------|-------------|--------------------|---------|-------|-----------|-------------|---------------|--------------|------------------------|
|                  | W/PH        | CONSTRUCTION       | VOLTS   | HZ    | S.F.      | LEAD IN MTR |               |              |                        |
| 1.5 hp<br>1.1 kW | 3-PHASE     | WATER WELL         | 200     | 60    | 1.30      |             | 234 504 19--S |              | 650 LBS<br>(3000 N)    |
|                  |             |                    | 200     | 60    | 1.30      | YES         | 234 504 92--S | YES          |                        |
|                  |             |                    | 220     | 50    | 1.00      |             | 234 554 19--S |              |                        |
|                  |             |                    | 230     | 60    | 1.30      |             | 234 514 19--S |              |                        |
|                  |             |                    | 230     | 60    | 1.30      | YES         | 234 514 92--S | YES          |                        |
|                  |             |                    | 460/380 | 60/50 | 1.30/1.00 |             | 234 524 16--S |              |                        |
|                  |             |                    | 460/380 | 60/50 | 1.30/1.00 | YES         | 234 524 94--S | YES          |                        |
|                  |             |                    | 575     | 60    | 1.30      |             | 234 534 16--S |              |                        |
|                  |             |                    | 575     | 60    | 1.30      | YES         | 234 534 94--S | YES          |                        |
|                  |             | POLLUTION RECOVERY | 200     | 60    | 1.30      |             | 234 504 23--S |              |                        |
|                  |             |                    | 230     | 60    | 1.30      |             | 234 514 23--S |              |                        |
|                  |             |                    | 460/380 | 60/50 | 1.30/1.00 |             | 234 524 23--S |              |                        |
|                  |             | SERIES 600M        | 230     | 60    | 1.30      | YES         | 234 514 0610  | YES          |                        |
|                  |             |                    | 460/380 | 60    | 1.30/1.00 | YES         | 234 524 0610  |              |                        |
| 2 hp<br>1.5 kW   | 3-PHASE     | WATER WELL         | 200     | 60    | 1.25      |             | 234 305 16--S |              | 650 LBS<br>(3000 N)    |
|                  |             |                    | 200     | 60    | 1.25      | YES         | 234 305 92--S | YES          |                        |
|                  |             |                    | 220     | 50    | 1.00      |             | 234 355 19--S |              |                        |
|                  |             |                    | 230     | 60    | 1.25      |             | 234 315 16--S | YES          |                        |
|                  |             |                    | 230     | 60    | 1.25      | YES         | 234 315 92--S | YES          |                        |
|                  |             |                    | 460/380 | 60/50 | 1.25/1.00 |             | 234 325 16--S | YES          |                        |
|                  |             |                    | 460/380 | 60/50 | 1.25/1.00 | YES         | 234 325 94--S | YES          |                        |
|                  |             |                    | 575     | 60    | 1.25      |             | 234 335 16--S |              |                        |
|                  |             |                    | 575     | 60    | 1.25      | YES         | 234 335 94--S | YES          |                        |
|                  |             | POLLUTION RECOVERY | 200     | 60    | 1.25      |             | 234 305 23--S |              |                        |
|                  |             |                    | 230     | 60    | 1.25      |             | 234 315 23--S |              |                        |
|                  |             |                    | 460/380 | 60/50 | 1.25/1.00 |             | 234 325 23--S |              |                        |
|                  |             | SERIES 600M        | 230     | 60    | 1.25      | YES         | 234 315 0610  | YES          |                        |
|                  |             |                    | 460/380 | 60    | 1.25/1.00 | YES         | 234 325 0610  |              |                        |
| 3 hp<br>2.2 kW   | 3-PHASE     | WATER WELL         | 200     | 60    | 1.15      |             | 234 306 25    |              | 900 LBS<br>(4000 N)    |
|                  |             |                    | 200     | 60    | 1.15      | YES         | 234 306 26    | YES          |                        |
|                  |             |                    | 220     | 50    | 1.00      |             | 234 356 25    |              |                        |
|                  |             |                    | 230     | 60    | 1.15      |             | 234 316 25    |              |                        |
|                  |             |                    | 230     | 60    | 1.15      | YES         | 234 316 26    | YES          |                        |
|                  |             |                    | 380     | 60    | 1.15      |             | 234 346 25    |              |                        |
|                  |             |                    | 380     | 60    | 1.15      | YES         | 234 346 26    | YES          |                        |
|                  |             |                    | 460/380 | 60/50 | 1.15/1.00 |             | 234 326 25    |              |                        |
|                  |             |                    | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 326 26    | YES          |                        |
|                  |             |                    | 575     | 60    | 1.15      |             | 234 336 25    |              |                        |
|                  |             |                    | 575     | 60    | 1.15      | YES         | 234 336 26    | YES          |                        |
|                  |             | SERIES 600M        | 230     | 60    | 1.15      | YES         | 234 316 0620  |              |                        |
|                  |             |                    | 460/380 | 60    | 1.15/1.00 | YES         | 234 326 0620  |              |                        |

### NOTES:

1. Pack Designation: --S = Single Pack, available in any quantity. All 3 hp motors are single-packed.
2. Contact factory for lead time for non-stocked items.
3. Pallet packs available but not shown. Please contact customer service for availability.

## 4" Submersible Motors High Thrust



### Application

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

### Basic Features

- Corrosion-resistant construction
- Stainless steel splined shaft
- Hermetically-sealed windings
- StatorShield™ resin system
- Filter check valve
- Water lubrication
- Kingsbury-type thrust bearing
- Pressure-equalizing diaphragm
- Sand fighting slinger
- Built-in lightning arrestors (single-phase)
- New lead assembly
- Franklin-manufactured control boxes available for single-phase motors
- UL 778 recognized (North American voltages)
- CSA certified
- ANSI/NSF 61 certified
- Industry standard NEMA mounting dimensions

### Special Options

- **316 SS Construction**  
Special construction option for corrosive applications, including acids, low pH and seawater.
- **Sand Fighter™ Construction**  
Special construction option for sandy water wells. Motors include Sand Fighter sealing system with silicon carbide mechanical shaft seal and are warranted against sand entry failure.
- **Coalbed Methane Construction**  
Special construction option for coalbed methane wells. Includes Sand Fighter sealing system, reinforced diaphragm housing to resist damage from bottom tagging and protective filter to shield diaphragm from debris.
- **Oil Stripper Construction**  
Special construction option for secondary oil recovery wells where there is a mixture of oil and water. They are also suitable for geothermal and other water well applications where high temperatures and/or high pH conditions exist. Three-phase Oil Stripper motors are equipped with Subtrol™ heat sensor for use with SubMonitor™ protection devices.

# 4" Submersible Motors High Thrust

## 4-Inch High Thrust Motor Specifications

| Hz | Ph | Hp Range | kW Range  | Poles | RPM  | Max. Ambient Temp. | Duty Rating                               |
|----|----|----------|-----------|-------|------|--------------------|-------------------------------------------|
| 60 | 1  | 1.5 - 5  | 1.1 - 3.7 | 2     | 3450 | 86 °F / 30 °C      | Continuous at 0.25 ft/sec flow past motor |
| 50 | 1  | 1.5 - 5  | 1.1 - 3.7 | 2     | 2875 | 86 °F / 30 °C      | Continuous at 0.25 ft/sec flow past motor |
| 60 | 3  | 1.5 - 10 | 1.1 - 7.5 | 2     | 3450 | 86 °F / 30 °C      | Continuous at 0.25 ft/sec flow past motor |
| 50 | 3  | 1.5 - 10 | 1.1 - 7.5 | 2     | 2875 | 86 °F / 30 °C      | Continuous at 0.25 ft/sec flow past motor |

**NOTE:** Not all ratings available in all construction options.

## 4-Inch High Thrust Construction Materials

| Component            | Construction Type                   |                                     |                                     |
|----------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|                      | Standard Water Well                 | Coalbed Methane                     | Sand Fighter™                       |
| Top Castings         | 303 SS                              | 303 SS                              | 303 SS                              |
| Bottom Castings      | 303 SS Over Iron, Painted Cast Iron | 303 SS Over Iron, Painted Cast Iron | 303 SS Over Iron, Painted Cast Iron |
| Stator Shell         | 301 SS                              | 301 SS                              | 301 SS                              |
| Stator Ends          | Low Carbon Steel                    | Low Carbon Steel                    | Low Carbon Steel                    |
| Shaft Extension      | 17-4 SS                             | 17-4 SS                             | 17-4 SS                             |
| Fasteners            | 300 Series SS                       | 300 Series SS                       | 300 Series SS                       |
| Seal Cover           | Acetal                              | Sintered Bronze                     | Sintered Bronze                     |
| Seal                 | Nitrile Rubber Lip                  | Sand Fighter™ SiC/ SiC Mech Seal    | Sand Fighter SiC/ SiC Mech Seal     |
| Diaphragm            | Nitrile Rubber                      | Nitrile Rubber                      | Nitrile Rubber                      |
| Diaphragm Cup        | 316 SS                              | 316 SS                              | 316 SS                              |
| Diaphragm Spring     | 316 SS                              | 316 SS                              | 316 SS                              |
| Diaphragm Cover      | Gray Iron                           | Gray Iron                           | 304 SS                              |
| Slinger              | Nitrile Rubber                      | Nitrile Rubber                      | Nitrile Rubber                      |
| Lead Wire (or Cable) | XLPE*                               | XLPE*                               | XLPE*                               |
| Lead Potting         | Epoxy                               | Epoxy                               | Epoxy                               |
| Lead Screws / Clamp  | 316 SS                              | 316 SS                              | 316 SS                              |
| Filter               | Delrin & Polyester                  | Delrin & Polyester                  | Delrin & Polyester                  |

| Component            | Construction Type          |                     |
|----------------------|----------------------------|---------------------|
|                      | Chemical (316 STNLS)       | Oil Stripper        |
| Top Casting          | 316 SS                     | 316 SS              |
| Bottom Casting       | 316 SS                     | 316 SS              |
| Stator Shell         | 316 SS                     | 316 SS              |
| Stator Ends          | 316 SS                     | 316 SS              |
| Shaft Extension      | 17-4 SS                    | 17-4 SS             |
| Fasteners            | 316 SS                     | 316 SS              |
| Seal Cover           | 316 SS                     | 316 SS              |
| Seal                 | Sand Fighter SiC Mech Seal | Sand Fighter Viton® |
| Diaphragm            | Nitrile Rubber             | Viton®              |
| Diaphragm Cup        | 316 SS                     | 316 SS              |
| Diaphragm Spring     | 316 SS                     | 316 SS              |
| Diaphragm Cover      | 316 SS                     | 316 SS              |
| Slinger              | Nitrile Rubber             | Viton®              |
| Lead Wire (or Cable) | XLPE*                      | Nitrile Rubber      |
| Lead Potting         | Epoxy                      | Epoxy               |
| Lead Screws / Clamp  | 316 SS                     | 316 SS              |
| Filter               | 316 SS Plug                | 316 SS Plug         |

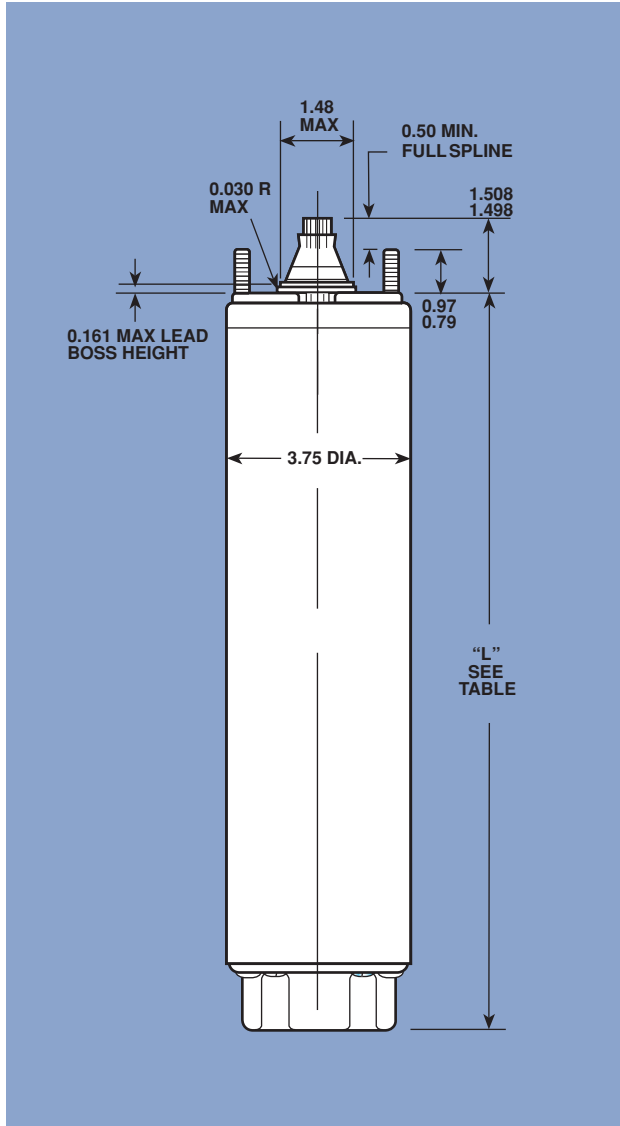
\* Removable type, factory-installed in 60 Hz and dual frequency rated water well motors. Consult catalog for additional leads.

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

*Viton® is a registered trademark of DuPont Dow Elastomers.*

# 4" Submersible Motors High Thrust

## 4-Inch High Thrust Dimensions and Weights



### Single-Phase Motors\*

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|-----|-----|-----------------|-----------------|------|----------------------------------|
|     |     |                 | LBS             | KG   |                                  |
| 1.5 | 1.1 | 19.12           | 35              | 15.9 | 6 x 6 x 23                       |
| 2   | 1.5 | 20.62           | 43              | 19.5 | 6 x 6 x 25                       |
| 3   | 2.2 | 23.20           | 56              | 25.4 | 6 x 6 x 28                       |
| 5   | 3.7 | 29.20           | 71              | 32.2 | 6 x 6 x 34                       |

### Single-Phase Motors - Oil Stripper

| HP | KW  | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|----|-----|-----------------|-----------------|------|----------------------------------|
|    |     |                 | LBS             | KG   |                                  |
| 2  | 1.5 | 22.87           | 46              | 20.9 | 6 x 6 x 28                       |
| 3  | 2.2 | 23.20           | 56              | 25.4 | 6 x 6 x 34                       |
| 5  | 3.7 | 29.20           | 71              | 32.2 | 6 x 6 x 37                       |

### Three-Phase Motors\*

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|-----|-----|-----------------|-----------------|------|----------------------------------|
|     |     |                 | LBS             | KG   |                                  |
| 1.5 | 1.1 | 18.00           | 37              | 16.8 | 6 x 6 x 23                       |
| 2   | 1.5 | 19.12           | 44              | 20.0 | 6 x 6 x 23                       |
| 3   | 2.2 | 20.20           | 44              | 20.0 | 6 x 6 x 25                       |
| 4   | 3.0 | 23.20           | 56              | 25.4 | 6 x 6 x 28                       |
| 5   | 3.7 | 23.20           | 56              | 25.4 | 6 x 6 x 28                       |
| 5.5 | 4.0 | 25.68           | 63              | 28.6 | 6 x 6 x 28                       |
| 7.5 | 5.5 | 29.20           | 71              | 32.2 | 6 x 6 x 34                       |
| 10  | 7.5 | 32.20           | 77              | 34.9 | 6 x 6 x 34                       |

### Three-Phase Motors - Oil Stripper

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |      | MOTOR CARTON<br>SIZE (in inches) |
|-----|-----|-----------------|-----------------|------|----------------------------------|
|     |     |                 | LBS             | KG   |                                  |
| 2   | 1.5 | 21.37           | 42              | 19.1 | 6 x 6 x 25                       |
| 3   | 2.2 | 20.20           | 44              | 20.0 | 6 x 6 x 28                       |
| 5   | 3.7 | 25.68           | 63              | 28.6 | 6 x 6 x 34                       |
| 7.5 | 5.5 | 29.20           | 71              | 32.2 | 6 x 6 x 37                       |

\* Represents standard and Sand Fighter™ construction models. Consult factory for Coalbed Methane and 316 SS weights and dimensions.

## 4" Submersible Motors High Thrust

### 4-Inch High Thrust Models

| HP (KW)          | DESCRIPTION  |    |         |       |           |             | MODEL        | STOCK STATUS | DOWNWARD THRUST RATING |
|------------------|--------------|----|---------|-------|-----------|-------------|--------------|--------------|------------------------|
|                  | CONSTRUCTION | PH | VOLTS   | HZ    | S.F.      | LEAD IN MTR |              |              |                        |
| 1.5 hp<br>1.1 kW | WATER WELL   | 1P | 230     | 60    | 1.30      |             | 224 300 8600 |              | 1500 LBS<br>(6500 N)   |
|                  |              | 3P | 200     | 60    | 1.30      |             | 234 504 8600 |              |                        |
|                  |              | 3P | 230     | 60    | 1.30      |             | 234 514 8600 |              |                        |
|                  |              | 3P | 460/380 | 60/50 | 1.30/1.00 |             | 234 524 8600 |              |                        |
|                  |              | 3P | 575     | 60    | 1.30      |             | 234 534 8600 |              |                        |
|                  | 316 SS       | 1P | 230     | 60    | 1.30      | YES         | 224 300 8502 |              |                        |
|                  |              | 3P | 200     | 60    | 1.30      | YES         | 234 504 8502 |              |                        |
|                  |              | 3P | 230     | 60    | 1.30      | YES         | 234 514 8502 |              |                        |
|                  |              | 3P | 460/380 | 60/50 | 1.30/1.00 | YES         | 234 524 8502 |              |                        |
|                  |              | 3P | 575     | 60    | 1.30      | YES         | 234 534 8502 |              |                        |
| 2 hp<br>1.5 kW   | WATER WELL   | 1P | 230     | 60    | 1.25      | YES         | 224 301 8602 |              | 1500 LBS<br>(6500 N)   |
|                  |              | 3P | 200     | 60    | 1.25      |             | 234 305 8600 |              |                        |
|                  |              | 3P | 230     | 60    | 1.25      |             | 234 315 8600 |              |                        |
|                  |              | 3P | 460/380 | 60/50 | 1.25/1.00 |             | 234 325 8600 |              |                        |
|                  |              | 3P | 575     | 60    | 1.25      |             | 234 335 8600 |              |                        |
|                  | SAND FIGHTER | 1P | 230     | 60    | 1.15      | YES         | 224 301 8802 |              |                        |
|                  | 316 SS       | 1P | 230     | 60    | 1.25      | YES         | 224 301 8502 |              |                        |
|                  |              | 3P | 200     | 60    | 1.25      | YES         | 234 305 8502 |              |                        |
|                  |              | 3P | 230     | 60    | 1.25      | YES         | 234 315 8502 |              |                        |
|                  |              | 3P | 460/380 | 60/50 | 1.25/1.00 | YES         | 234 325 8502 |              |                        |
|                  |              | 3P | 575     | 60    | 1.25      | YES         | 234 335 8502 |              |                        |
|                  | OIL STRIPPER | 1P | 230     | 60    | 1.25      | YES         | 224 301 8702 |              |                        |
|                  |              | 3P | 230     | 60    | 1.25      | YES         | 234 315 8702 |              |                        |
|                  |              | 3P | 460/380 | 60/50 | 1.25/1.00 | YES         | 234 325 8702 |              |                        |

# 4" Submersible Motors High Thrust

## 4-Inch High Thrust Models

| HP (KW)        | DESCRIPTION      |    |             |       |           |             | MODEL        | STOCK STATUS | DOWNWARD THRUST RATING |
|----------------|------------------|----|-------------|-------|-----------|-------------|--------------|--------------|------------------------|
|                | CONSTRUCTION     | PH | VOLTS       | HZ    | S.F.      | LEAD IN MTR |              |              |                        |
| 3 hp<br>2.2 kW | WATER WELL       | 1P | 220         | 50    | 1.00      |             | 224 352 8600 |              | 1500 LBS<br>(6500 N)   |
|                |                  | 1P | 230         | 60    | 1.15      |             | 224 302 8600 |              |                        |
|                |                  | 1P | 230         | 60    | 1.15      | YES         | 224 302 8602 |              |                        |
|                |                  | 3P | 200         | 60    | 1.15      |             | 234 306 8600 |              |                        |
|                |                  | 3P | 200         | 60    | 1.15      | YES         | 234 306 8602 |              |                        |
|                |                  | 3P | 220         | 50    | 1.00      |             | 234 356 8600 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      |             | 234 316 8600 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 8602 |              |                        |
|                |                  | 3P | 380         | 60    | 1.15      |             | 234 346 8600 |              |                        |
|                |                  | 3P | 380         | 60    | 1.15      | YES         | 234 346 8602 |              |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 |             | 234 326 8600 |              |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 | YES         | 234 326 8602 |              |                        |
|                |                  | 3P | 575         | 60    | 1.15      |             | 234 336 8600 |              |                        |
|                |                  | 3P | 575         | 60    | 1.15      | YES         | 234 336 8602 |              |                        |
|                | COALBEAD METHANE | 3P | 200         | 60    | 1.15      | YES         | 234 306 8902 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 8902 |              |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 | YES         | 234 326 8902 | YES          |                        |
|                |                  | 3P | 575         | 60    | 1.15      | YES         | 234 336 8902 |              |                        |
|                |                  | 3P | 380         | 60    | 1.15      | YES         | 234 346 8902 |              |                        |
|                | SAND FIGHTER     | 1P | 230         | 60    | 1.15      | YES         | 224 302 8802 | YES          |                        |
|                |                  | 3P | 200         | 60    | 1.15      | YES         | 234 306 8802 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 8802 | YES          |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 | YES         | 234 326 8802 | YES          |                        |
|                |                  | 3P | 575         | 60    | 1.15      | YES         | 234 336 8802 |              |                        |
|                |                  | 3P | 380         | 60    | 1.15      | YES         | 234 346 8802 |              |                        |
|                | SERIES 600M      | 1P | 230         | 60    | 1.15      | YES         | 224 302 0630 | YES          |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 0630 | YES          |                        |
|                |                  | 3P | 460/380     | 60    | 1.15/1.00 | YES         | 234 326 0630 |              |                        |
|                | 316 SS           | 1P | 230         | 60    | 1.15      | YES         | 224 302 8502 |              |                        |
|                |                  | 3P | 200         | 60    | 1.15      | YES         | 234 306 8502 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 8502 |              |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 | YES         | 234 326 8502 |              |                        |
|                |                  | 3P | 575         | 60    | 1.15      | YES         | 234 336 8502 |              |                        |
|                | OIL STRIPPER     | 1P | 230         | 60    | 1.15      | YES         | 224 302 8702 |              |                        |
|                |                  | 3P | 230         | 60    | 1.15      | YES         | 234 316 8702 |              |                        |
|                |                  | 3P | 460/380     | 60/50 | 1.15/1.00 | YES         | 234 326 8702 |              |                        |
| 4 hp<br>3 kW   | WATER WELL       | 3P | 460/415-380 | 60/50 | 1.15/1.00 |             | 234 395 8600 |              | 1500 LBS<br>(6500 N)   |
|                |                  | 3P | 460/415-380 | 60/50 | 1.15/1.00 | YES         | 234 395 8602 |              |                        |

# 4" Submersible Motors High Thrust

## 4-Inch High Thrust Models

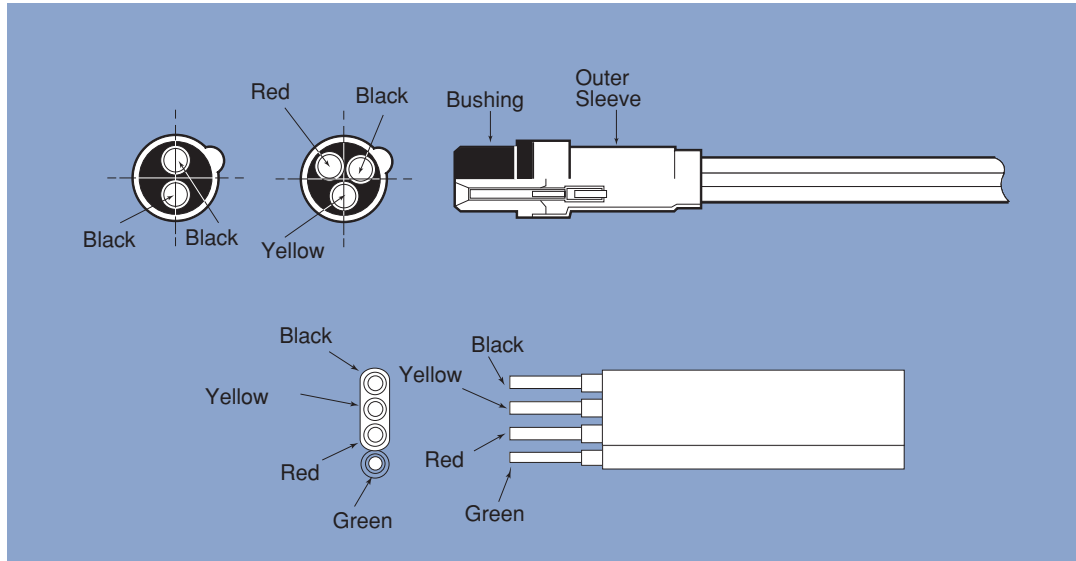
| HP (KW)        | DESCRIPTION     |    |         |       |           |             | MODEL         | STOCK STATUS | DOWNWARD THRUST RATING |
|----------------|-----------------|----|---------|-------|-----------|-------------|---------------|--------------|------------------------|
|                | CONSTRUCTION    | PH | VOLTS   | HZ    | S.F.      | LEAD IN MTR |               |              |                        |
| 5 hp<br>3.7 kW | WATER WELL      | 1P | 220     | 50    | 1.00      |             | 224 353 8600  | YES          | 1500 LBS<br>(6500 N)   |
|                |                 | 1P | 230     | 60    | 1.15      |             | 224 303 8600  |              |                        |
|                |                 | 1P | 230     | 60    | 1.15      | YES         | 224 303 8602  | YES          |                        |
|                |                 | 3P | 200     | 60    | 1.15      |             | 234 307 8600  |              |                        |
|                |                 | 3P | 200     | 60    | 1.15      | YES         | 234 307 8602  | YES          |                        |
|                |                 | 3P | 220     | 50    | 1.00      |             | 234 357 8600  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      |             | 234 317 8600  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 8602  | YES          |                        |
|                |                 | 3P | 380     | 60    | 1.15      |             | 234 347 8600  |              |                        |
|                |                 | 3P | 380     | 60    | 1.15      | YES         | 234 347 8602  |              |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 |             | 234 327 8600  | YES          |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 327 8602  | YES          |                        |
|                |                 | 3P | 575     | 60    | 1.15      |             | 234 337 8600  |              |                        |
|                |                 | 3P | 575     | 60    | 1.15      | YES         | 234 337 8602  | YES          |                        |
|                | COALBED METHANE | 3P | 200     | 60    | 1.15      | YES         | 234 307 8902  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 89042 |              |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 327 8902  | YES          |                        |
|                |                 | 3P | 575     | 60    | 1.15      | YES         | 234 337 8902  |              |                        |
|                |                 | 3P | 380     | 60    | 1.15      | YES         | 234 347 8902  |              |                        |
|                | SAND FIGHTER    | 1P | 230     | 60    | 1.15      | YES         | 224 303 8802  | YES          |                        |
|                |                 | 3P | 200     | 60    | 1.15      | YES         | 234 307 8802  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 8802  | YES          |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 327 8802  | YES          |                        |
|                |                 | 3P | 575     | 60    | 1.15      | YES         | 234 337 8802  |              |                        |
|                |                 | 3P | 380     | 60    | 1.15      | YES         | 234 347 8802  |              |                        |
|                | SERIES 600M     | 1P | 230     | 60    | 1.15      | YES         | 224 303 0630  | YES          |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 0630  | YES          |                        |
|                |                 | 3P | 460/380 | 60    | 1.15/1.00 | YES         | 234 327 0630  |              |                        |
|                | 316 SS          | 1P | 230     | 60    | 1.15      | YES         | 224 303 8502  |              |                        |
|                |                 | 3P | 200     | 60    | 1.15      | YES         | 234 307 8502  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 8502  |              |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 327 8502  |              |                        |
|                |                 | 3P | 575     | 60    | 1.15      | YES         | 234 337 8502  |              |                        |
|                | OIL STRIPPER    | 1P | 230     | 60    | 1.15      | YES         | 224 303 8702  |              |                        |
|                |                 | 3P | 230     | 60    | 1.15      | YES         | 234 317 8702  |              |                        |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 327 8702  |              |                        |
| 5.5 hp<br>4 kW | WATER WELL      | 3P | 460/380 | 60/50 | 1.15/1.00 |             | 234 397 8600  |              | 1500 LBS<br>(6500 N)   |
|                |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 397 8602  |              |                        |

## 4" Submersible Motors High Thrust

### 4-Inch High Thrust Models

| HP (KW)                  | DESCRIPTION     |    |         |       |           |             | MODEL        | STOCK STATUS | DOWNWARD THRUST RATING |
|--------------------------|-----------------|----|---------|-------|-----------|-------------|--------------|--------------|------------------------|
|                          | CONSTRUCTION    | PH | VOLTS   | HZ    | S.F.      | LEAD IN MTR |              |              |                        |
| <b>7.5 hp<br/>5.5 kW</b> | WATER WELL      | 3P | 200     | 60    | 1.15      |             | 234 308 8600 |              | 1500 LBS<br>(6500 N)   |
|                          |                 | 3P | 200     | 60    | 1.15      | YES         | 234 308 8602 | YES          |                        |
|                          |                 | 3P | 220     | 50    | 1.00      |             | 234 358 8600 |              |                        |
|                          |                 | 3P | 230     | 60    | 1.15      |             | 234 318 8600 |              |                        |
|                          |                 | 3P | 230     | 60    | 1.15      | YES         | 234 318 8602 | YES          |                        |
|                          |                 | 3P | 380     | 60    | 1.15      |             | 234 348 8600 |              |                        |
|                          |                 | 3P | 380     | 60    | 1.15      | YES         | 234 348 8602 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 |             | 234 328 8600 | YES          |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 328 8602 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      |             | 234 338 8600 |              |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 338 8602 | YES          |                        |
|                          | COALBED METHANE | 3P | 200     | 60    | 1.15      | YES         | 234 308 8904 |              |                        |
|                          |                 | 3P | 230     | 60    | 1.15      | YES         | 234 318 8904 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 328 8904 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 338 8904 |              |                        |
|                          |                 | 3P | 380     | 60    | 1.15      | YES         | 234 348 8904 |              |                        |
|                          | SAND FIGHTER    | 3P | 200     | 60    | 1.15      | YES         | 234 308 8802 |              |                        |
|                          |                 | 3P | 230     | 60    | 1.15      | YES         | 234 318 8802 | YES          |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 328 8802 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 338 8802 |              |                        |
|                          |                 | 3P | 380     | 60    | 1.15      | YES         | 234 348 8802 |              |                        |
|                          | 316 SS          | 3P | 200     | 60    | 1.15      | YES         | 234 308 8502 |              |                        |
|                          |                 | 3P | 230     | 60    | 1.15      | YES         | 234 318 8502 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 328 8502 |              |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 338 8502 |              |                        |
|                          | OIL STRIPPER    | 3P | 230     | 60    | 1.15      | YES         | 234 318 8702 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 328 8702 |              |                        |
| <b>10 hp<br/>7.5 kW</b>  | WATER WELL      | 3P | 380     | 60    | 1.15      |             | 234 549 8602 |              | 1500 LBS<br>(6500 N)   |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 |             | 234 595 8602 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      |             | 234 598 8602 | YES          |                        |
|                          | COALBED METHANE | 3P | 380     | 60    | 1.15      | YES         | 234 549 8904 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 595 8904 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 598 8904 |              |                        |
|                          | SAND FIGHTER    | 3P | 380     | 60    | 1.15      | YES         | 234 549 8802 |              |                        |
|                          |                 | 3P | 460/380 | 60/50 | 1.15/1.00 | YES         | 234 595 8802 | YES          |                        |
|                          |                 | 3P | 575     | 60    | 1.15      | YES         | 234 598 8802 |              |                        |

## 4" Submersible Motors Leads



### 4-Inch Motor Leads And Cables

| WIRE      | CONSTRUCTION     | MATERIAL | LEAD LENGTH |      | WIRE SIZE | GROUNDED | JAM NUT MODEL | CLAMP STYLE MODEL |
|-----------|------------------|----------|-------------|------|-----------|----------|---------------|-------------------|
|           |                  |          | IN / FT     | M    |           |          |               |                   |
| <b>2W</b> | INDIVIDUAL       | NITRILE* | 48 in       | 1.2  | AWG 14    | NO       | 152 328 905   | N/A               |
|           | INDIVIDUAL       | NITRILE* | 100 in      | 2.5  | AWG 14    | NO       | 152 328 906   | N/A               |
|           | INDIVIDUAL       | XLPE     | 48 in       | 1.2  | AWG 14    | YES      | 152 552 905   | N/A               |
|           | INDIVIDUAL       | XLPE     | 100 in      | 2.5  | AWG 14    | YES      | 152 552 906   | N/A               |
| <b>3W</b> | INDIVIDUAL       | XLPE     | 48 in       | 1.2  | AWG 14    | YES      | 152 553 905   | 152 735 911       |
|           | INDIVIDUAL       | XLPE     | 100 in      | 2.5  | AWG 14    | YES      | 152 553 906   | 152 735 941       |
|           | INDIVIDUAL       | NITRILE* | 48 in       | 1.2  | AWG 14    | NO       | 152 255 901   | N/A               |
|           | INDIVIDUAL       | NITRILE* | 100 in      | 2.5  | AWG 14    | NO       | 152 255 902   | 152 744 902       |
|           | INDIVIDUAL       | NITRILE* | 160 in      | 4.0  | AWG 14    | NO       | 152 255 904   | 152 744 904       |
|           | INDIVIDUAL       | NITRILE* | 30 ft       | 9.1  | AWG 14    | NO       | 152 255 906   | 152 744 906       |
|           | INDIVIDUAL       | NITRILE* | 50 ft       | 15.2 | AWG 14    | NO       | 152 255 907   | 152 744 907       |
|           | INDIVIDUAL       | NITRILE* | 100 ft      | 30.5 | AWG 14    | NO       | 152 255 910   | 152 744 910       |
|           | INDIVIDUAL       | NITRILE* | 150 ft      | 45.7 | AWG 14    | NO       | 152 255 912   | 152 744 912       |
|           | INDIV / DBL CONN | XLPE     | 48 in       | 1.2  | AWG 14    | YES      | 152 570 901   | N/A               |
|           | INDIV / DBL CONN | XLPE     | 100 in      | 2.5  | AWG 14    | YES      | 152 570 902   | N/A               |

\* Nitrile material not for use in potable water.

#### NOTES:

1. Refer to Franklin Application Installation Maintenance (AIM) Manual for accurate cable sizing.
2. MOTOR WARRANTY IS VOID if Franklin-supplied leads are not used.

## 6" Submersible Motors Standard



### Applications

These motors are built for dependable operation in 6" diameter or larger water wells.

### Basic Features

- Double flanged NEMA mounting design
- Stainless steel splined shaft
- StatorShield™ Franklin's six feature encapsulation system
- High capacity Kingsbury type water lubricated thrust bearing
- Factory filled with Franklin's non-toxic water soluble fill solution
- Field replaceable lead using Franklin's exclusive Water Bloc™ technology
- Full 3450 rpm 60 Hz design point
- External sand slinger on shaft
- Mechanical face seal at shaft exit
- Copper bar rotor
- All models variable frequency drive (VFD) approved
- Single-phase models must be used with a Franklin Electric control box

### Special Options

- Sand Fighter™ Models are equipped with:
  - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
  - Franklin's Exclusive on winding SubTrol™ heat sensor for use with SubMonitor™.
- 316 Stainless Steel construction models come standard with:
  - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
  - Franklin's Exclusive on winding SubTrol heat sensor for use with SubMonitor™.
- SubMonitor is a state-of-the-art electronic motor overload that is sold separately.
  - Mounts in the above ground panel requiring no additional wiring to the motor.
  - User friendly, field proven.
  - Protection monitors for balanced power, overload, underload, overheating, rapid cycling and more.
  - Can be used with or without a SubTrol heat sensor.
  - Supplies superior heat protection when manufactured with the SubTrol heat sensor.

Consult factory for other voltage, hertz and horsepower ratings not listed in this catalog.

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

# 6" Submersible Motors Standard

## Standard 6-Inch Motor Specifications

| Hz | Ph | Hp Range | kW Range | Poles | RPM  | Max. Ambient Temp. | Duty Rating                              |
|----|----|----------|----------|-------|------|--------------------|------------------------------------------|
| 60 | 1  | 5 - 15   | 3.7 - 11 | 2     | 3450 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |
| 60 | 3  | 5 - 40   | 3.7 - 30 | 2     | 3450 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |
| 60 | 3  | 50 - 60  | 37 - 45  | 2     | 3450 | 122 °F / 50 °C     | Continuous at 0.5 ft/sec flow past motor |
| 50 | 1  | 5 - 15   | 3.7 - 11 | 2     | 2875 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |
| 50 | 3  | 5 - 40   | 3.7 - 30 | 2     | 2875 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |
| 50 | 3  | 50 - 60  | 37 - 45  | 2     | 2875 | 122 °F / 50 °C     | Continuous at 0.5 ft/sec flow past motor |

## 6-Inch Construction Materials

| Component                                     | Construction Type                                                     |                          |                              |
|-----------------------------------------------|-----------------------------------------------------------------------|--------------------------|------------------------------|
|                                               | Standard Water Well                                                   | Sand Fighter™            | Corrosion Resistant (316 SS) |
| UL Insulation Class Rating                    | Class F                                                               | Per Standard Water Well  | Per Standard Water Well      |
| Motor Ambient Temperature Rating              | 86 °F / 30 °C (5-40 hp)<br>122 °F / 50 °C (50-60 hp)                  | Per Standard Water Well  | Per Standard Water Well      |
| Stator Resin Type                             | FE Standard (5-40 hp)<br>FE Hi-Temp (50-60 hp)                        | Per Standard Water Well  | Per Standard Water Well      |
| Motor Fill Solution (Water Soluble/Non-Toxic) | FES91                                                                 | Per Standard Water Well  | Per Standard Water Well      |
| Top End Bell & Thrust Housing                 | Epoxy Coated Gray Iron                                                | Per Standard Water Well  | 316 SS                       |
| On Winding SubTrol™ heat sensor               | No (5-40 hp)<br>Yes (50-60 hp)                                        | Yes                      | Yes                          |
| Stator Shell                                  | 300 SS Series                                                         | Per Standard Water Well  | 316 SS                       |
| Stator Ends                                   | Carbon Steel                                                          | Per Standard Water Well  | 316 SS                       |
| Shaft Extension                               | 300 SS Series (5-30 hp)<br>17-4 SS (40-60 hp)                         | Per Standard Water Well  | 17-4 SS                      |
| Bushing                                       | Bronze                                                                | Per Standard Water Well  | 316 SS                       |
| Bushing Retainer                              | 300 SS Series                                                         | Per Standard Water Well  | 316 SS                       |
| Shaft Mechanical Seal                         | Carbon Ceramic Seal (5-40 hp)<br>Sand Fighter™ Seal System (50-60 hp) | Sand Fighter Seal System | Sand Fighter Seal System     |
| Mechanical Seal Rubber Components             | Nitrile (5-40 hp)<br>Viton® (50-60 hp)                                | Per Standard Water Well  | Per Standard Water Well      |
| Diaphragm Material                            | Nitrile (5-40 hp)<br>Viton® (50-60 hp)                                | Per Standard Water Well  | Per Standard Water Well      |
| Diaphragm Plate                               | 300 SS Series                                                         | Per Standard Water Well  | 316 SS                       |
| Diaphragm Spring                              | 300 SS Series                                                         | Per Standard Water Well  | 25-6 MO SS                   |
| Shaft Slinger                                 | Nitrile (5-40 hp)<br>Viton® (50-60 hp)                                | Per Standard Water Well  | Nitrile                      |
| Lead Wire                                     | XLPE                                                                  | Per Standard Water Well  | Per Standard Water Well      |
| Lead Potting                                  | Epoxy                                                                 | Per Standard Water Well  | Per Standard Water Well      |
| Lead Jam Nut                                  | Brass                                                                 | Per Standard Water Well  | 316 SS                       |
| Thrust Bearing Rating (86 °F / 30 °C)         | 3500 lbs (5-30 hp)<br>6000 lbs (40-60 hp)                             | Per Standard Water Well  | Per Standard Water Well      |
| Method Of Connecting System Ground To Motor   | Ground Wire In Power Lead Connector                                   | Per Standard Water Well  | Per Standard Water Well      |

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

Viton® is a registered trademark of DuPont Dow Elastomers.

# 6" Submersible Motors Standard

## 6-Inch Dimensions and Weights

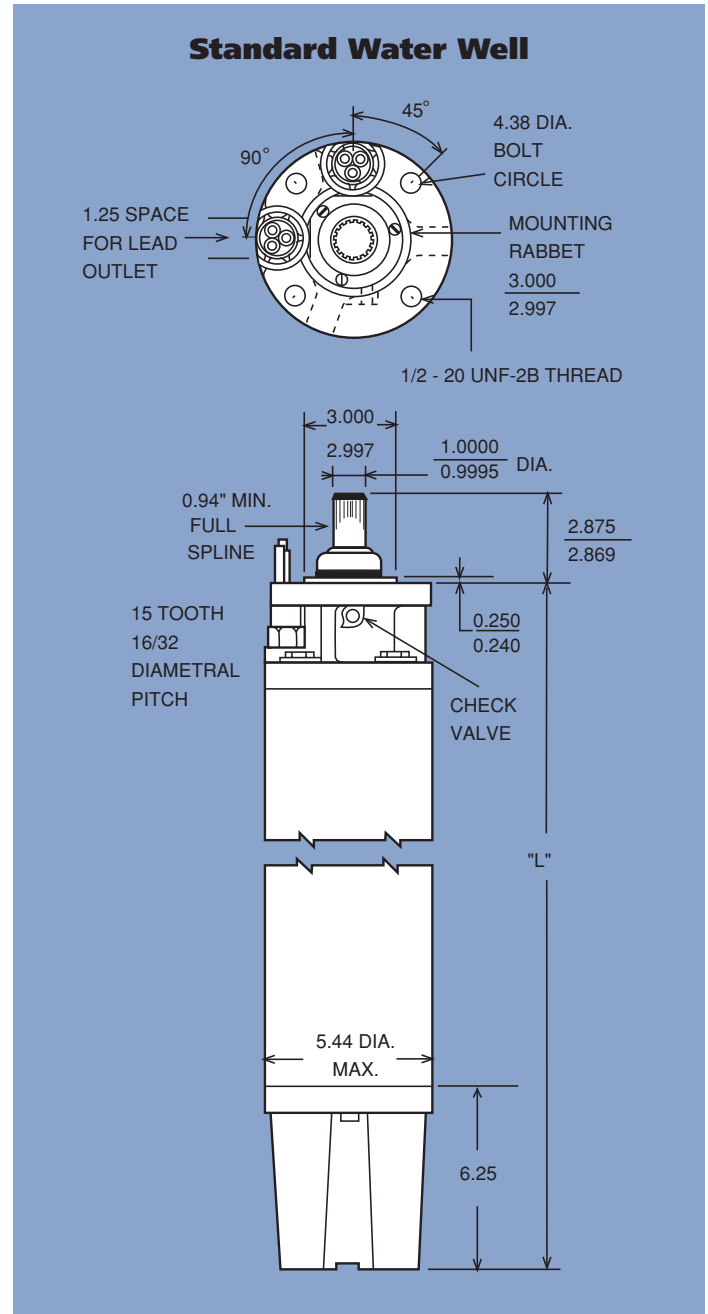
### Standard Single-Phase Water Well

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |    | MOTOR CARTON SIZE (in inches) |
|-----|-----|-----------------|-----------------|----|-------------------------------|
|     |     |                 | LBS             | KG |                               |
| 5   | 3.7 | 25.4            | 110             | 50 | 7.50 x 10.75 x 34.50          |
| 7.5 | 5.5 | 28              | 123             | 56 | 7.50 x 10.75 x 34.50          |
| 10  | 7.5 | 30.6            | 141             | 64 | 7.50 x 10.75 x 37.00          |
| 15  | 11  | 33.1            | 154             | 70 | 7.50 x 10.75 x 42.25          |

### Standard Three-Phase Water Well

| HP  | KW   | "L"<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----|------|-----------------|-----------------|-----|-------------------------------|
|     |      |                 | LBS             | KG  |                               |
| 5   | 3.7  | 22.9            | 101             | 46  | 7.50 x 10.75 x 34.50          |
| 7.5 | 5.5  | 24.2            | 108             | 49  | 7.50 x 10.75 x 34.50          |
| 10  | 7.5  | 25.4            | 116             | 53  | 7.50 x 10.75 x 34.50          |
| 15  | 11   | 28.0            | 129             | 59  | 7.50 x 10.75 x 34.50          |
| 20  | 15   | 30.6            | 145             | 66  | 7.50 x 10.75 x 37.00          |
| 25  | 18.5 | 33.1            | 156             | 71  | 7.50 x 10.75 x 42.25          |
| 30  | 22   | 35.7            | 174             | 79  | 7.50 x 10.75 x 42.25          |
| 40  | 30   | 40.8            | 202             | 92  | 7.50 x 10.75 x 47.25          |
| 50  | 37   | 55.3            | 300             | 136 | 8.75 x 10.50 x 71.75          |
| 60  | 45   | 61.3            | 330             | 150 | 8.75 x 10.50 x 71.75          |

6-Lead Y-Δ models available. (Add 5 lbs to shipping weight.)



# 6" Submersible Motors Standard

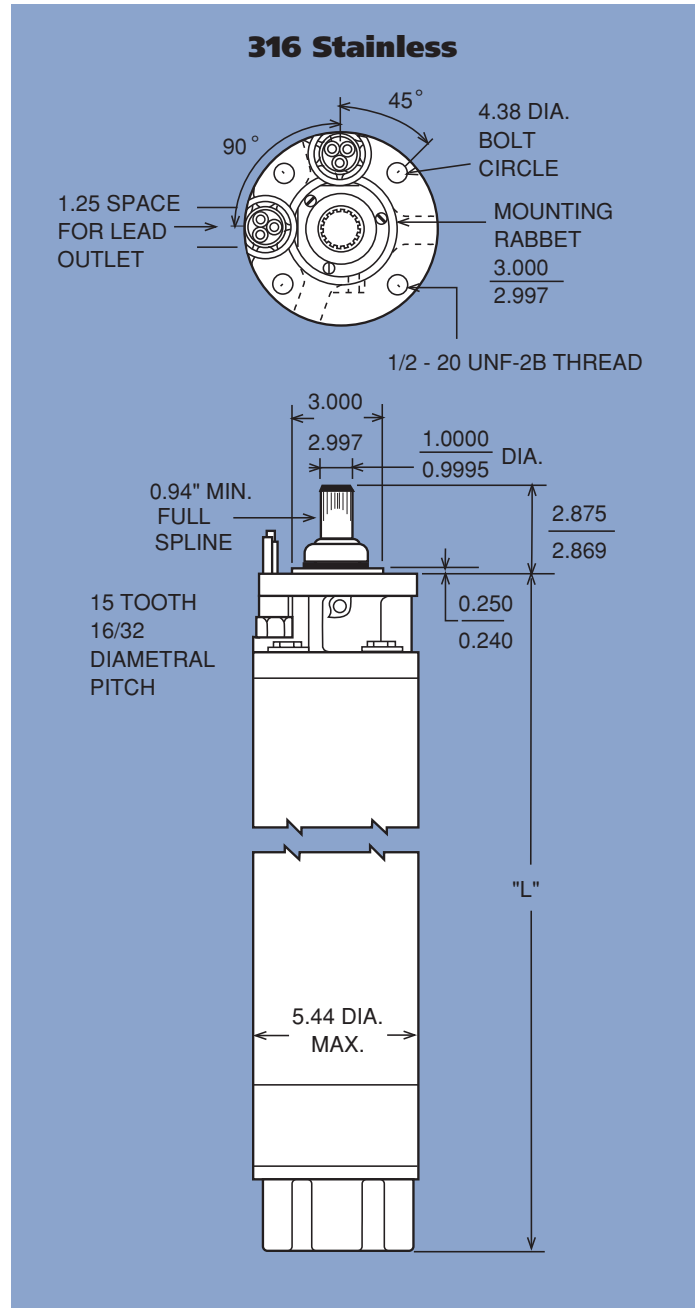
## 316 SS Shell Single-Phase 3-Lead

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |    | MOTOR CARTON SIZE (in inches) |
|-----|-----|-----------------|-----------------|----|-------------------------------|
|     |     |                 | LBS             | KG |                               |
| 5   | 3.7 | 25.4            | 110             | 50 | 7.50 x 10.75 x 34.50          |
| 7.5 | 5.5 | 28              | 123             | 56 | 7.50 x 10.75 x 34.50          |
| 10  | 7.5 | 30.6            | 141             | 64 | 7.50 x 10.75 x 37.00          |
| 15  | 11  | 33.1            | 154             | 70 | 7.50 x 10.75 x 42.25          |

## 316 SS Shell 3-Lead

| HP  | KW   | "L"<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----|------|-----------------|-----------------|-----|-------------------------------|
|     |      |                 | LBS             | KG  |                               |
| 5   | 3.7  | 22.5            | 101             | 46  | 7.50 x 10.75 x 34.50          |
| 7.5 | 5.5  | 23.8            | 108             | 49  | 7.50 x 10.75 x 34.50          |
| 10  | 7.5  | 25.0            | 116             | 53  | 7.50 x 10.75 x 34.50          |
| 15  | 11   | 27.6            | 129             | 59  | 7.50 x 10.75 x 34.50          |
| 20  | 15   | 30.2            | 145             | 66  | 7.50 x 10.75 x 37.00          |
| 25  | 18.5 | 32.7            | 156             | 71  | 7.50 x 10.75 x 42.25          |
| 30  | 22   | 35.3            | 174             | 79  | 7.50 x 10.75 x 42.25          |
| 40  | 30   | 40.4            | 202             | 92  | 7.50 x 10.75 x 47.25          |
| 50  | 37   | 59.2            | 300             | 136 | 8.75 x 10.50 x 71.75          |
| 60  | 45   | 65.2            | 330             | 150 | 8.75 x 10.50 x 71.75          |

6-Lead Y-Δ models available. (Add 5 lbs to shipping weight.)



# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)                | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|------------------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                        |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| <b>5 hp<br/>3.7 kW</b> | WATER WELL   | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 110 90 | YES          |
|                        |              | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 650 90 | YES          |
|                        |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 680 90 |              |
|                        |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 670 90 |              |
|                        |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 600 90 | YES          |
|                        |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 720 90 |              |
|                        |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 660 90 |              |
|                        |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 780 90 |              |
|                        |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 690 90 |              |
|                        |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 610 90 | YES          |
|                        |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 710 90 |              |
|                        |              | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 620 90 |              |
|                        | SAND FIGHTER | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 110 80 | YES          |
|                        |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 650 81 | YES          |
|                        |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 680 81 |              |
|                        |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 670 81 |              |
|                        |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 600 81 | YES          |
|                        |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 720 81 |              |
|                        |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 660 81 |              |
|                        |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 780 81 |              |
|                        |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 690 81 |              |
|                        |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 610 81 | YES          |
|                        |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 710 81 |              |
|                        |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 620 81 | YES          |
|                        | 316 SS       | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 110 39 |              |
|                        |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 650 40 |              |
|                        |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 680 40 |              |
|                        |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 670 40 |              |
|                        |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 600 40 | YES          |
|                        |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 720 40 |              |
|                        |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 660 40 |              |
|                        |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 780 40 |              |
|                        |              | 3P          | 415         | 50    | YES                    | 1.15      | 3          | #10 w/GND          | 236 690 40 |              |
|                        |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 610 40 | YES          |
|                        |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 710 40 |              |
|                        |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 620 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)          | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|------------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                  |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 7.5 hp<br>5.5 kW | WATER WELL   | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 111 90 | YES          |
|                  |              | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 651 90 | YES          |
|                  |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 681 90 |              |
|                  |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 671 90 |              |
|                  |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 601 90 | YES          |
|                  |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 721 90 |              |
|                  |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 661 90 | YES          |
|                  |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 781 90 |              |
|                  |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 691 90 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 611 90 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 711 90 | YES          |
|                  |              | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 621 90 |              |
|                  | SAND FIGHTER | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 111 80 | YES          |
|                  |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 651 81 | YES          |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 681 81 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 671 81 |              |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 601 81 | YES          |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 721 81 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 661 81 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 781 81 |              |
|                  |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 691 81 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 611 81 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 711 81 |              |
|                  |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 621 81 | YES          |
|                  | 316 SS       | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 111 39 |              |
|                  |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 651 40 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 681 40 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 671 40 |              |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 601 40 | YES          |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 721 40 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 661 40 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 781 40 |              |
|                  |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 691 81 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 611 40 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 711 40 |              |
|                  |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 621 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)         | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|-----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                 |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 10 hp<br>7.5 kW | WATER WELL   | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 112 90 | YES          |
|                 |              | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 652 90 | YES          |
|                 |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 682 90 |              |
|                 |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 672 90 |              |
|                 |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 602 90 | YES          |
|                 |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 722 90 |              |
|                 |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 662 90 | YES          |
|                 |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 782 90 |              |
|                 |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 692 90 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 612 90 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 712 90 | YES          |
|                 |              | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 622 90 |              |
|                 | SAND FIGHTER | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 112 80 | YES          |
|                 |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 652 81 | YES          |
|                 |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 682 81 |              |
|                 |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 672 81 |              |
|                 |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 602 81 | YES          |
|                 |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 722 81 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 662 81 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 782 81 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 692 81 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 612 81 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 712 81 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 622 81 | YES          |
|                 | 316 SS       | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 112 39 |              |
|                 |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 652 40 |              |
|                 |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 682 40 |              |
|                 |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 672 40 |              |
|                 |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 602 40 | YES          |
|                 |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 722 40 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 662 40 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 782 40 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 692 40 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 612 40 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 712 40 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 622 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)        | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 15 hp<br>11 kW | WATER WELL   | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 113 90 | YES          |
|                |              | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 653 90 | YES          |
|                |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 683 90 |              |
|                |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 673 90 |              |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 603 90 | YES          |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 723 90 | YES          |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 663 90 | YES          |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 783 90 |              |
|                |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 693 90 |              |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 613 90 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 713 90 | YES          |
|                |              | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 623 90 |              |
|                | SAND FIGHTER | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 113 80 | YES          |
|                |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 653 81 | YES          |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 683 81 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 673 81 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 603 81 | YES          |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 723 81 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 663 81 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 783 81 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 693 81 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 613 81 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 713 81 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 623 81 | YES          |
|                | 316 SS       | 1P          | 230         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 226 113 39 |              |
|                |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 653 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 683 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 673 40 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 603 40 | YES          |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 723 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 663 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 783 40 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 693 40 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 613 40 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 713 40 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 623 40 |              |

## 6" Submersible Motors Standard

### 6-Inch Models

| HP (KW)        | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 20 hp<br>15 kW | WATER WELL   | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 654 90 | YES          |
|                |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #8 w/GND           | 236 684 90 |              |
|                |              | 3P          | 220         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 674 90 |              |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 604 90 | YES          |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 724 90 |              |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 664 90 | YES          |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 784 90 |              |
|                |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 694 90 |              |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 614 90 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 714 90 | YES          |
|                | SAND FIGHTER | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 624 90 |              |
|                |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 654 81 | YES          |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 684 81 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 674 81 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 604 81 | YES          |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 724 81 | YES          |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 664 81 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 784 81 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 694 81 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 614 81 | YES          |
|                | 316 SS       | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 714 81 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 624 81 | YES          |
|                |              | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 654 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 684 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 674 40 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 604 40 | YES          |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 724 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 664 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 784 40 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 694 40 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 614 40 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 714 40 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 624 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)          | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|------------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                  |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 25 hp<br>18.5 kW | WATER WELL   | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 655 90 | YES          |
|                  |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #8 w/GND           | 236 685 90 |              |
|                  |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 675 90 |              |
|                  |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 605 90 | YES          |
|                  |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 725 90 |              |
|                  |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 665 90 | YES          |
|                  |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 785 90 |              |
|                  |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 695 90 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 615 90 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 715 90 | YES          |
|                  | SAND FIGHTER | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 655 81 | YES          |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 685 81 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 675 81 |              |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 605 81 | YES          |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 725 81 | YES          |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 665 81 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 785 81 |              |
|                  |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 695 81 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 615 81 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 715 81 |              |
|                  | 316 SS       | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 655 40 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 685 40 |              |
|                  |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 675 40 |              |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 605 40 |              |
|                  |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 725 40 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 665 40 |              |
|                  |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 785 40 |              |
|                  |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 695 40 |              |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 615 40 | YES          |
|                  |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 715 40 |              |
|                  |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 625 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)        | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 30 hp<br>22 kW | WATER WELL   | 3P          | 200-208     | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 656 90 | YES          |
|                |              | 3P          | 220         | 50    | Not Available          | 1.00      | 3          | #8 w/GND           | 236 686 90 |              |
|                |              | 3P          | 220         | 50    | Not Available          | 1.00      | 6-90°      | #10 w/GND          | 236 676 90 |              |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 606 90 | YES          |
|                |              | 3P          | 230         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 726 90 |              |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 666 90 | YES          |
|                |              | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 786 90 |              |
|                |              | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #10 w/GND          | 236 696 90 |              |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #10 w/GND          | 236 616 90 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 716 90 | YES          |
|                |              | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #10 w/GND          | 236 626 90 |              |
|                | SAND FIGHTER | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 656 81 | YES          |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 686 81 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 676 81 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 606 81 | YES          |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 726 81 | YES          |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 666 81 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 786 81 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 696 81 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 616 81 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 716 81 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 626 81 | YES          |
|                | 316 SS       | 3P          | 200-208     | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 656 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 686 40 |              |
|                |              | 3P          | 220         | 50    | YES                    | 1.00      | 6-90°      | #10 w/GND          | 236 676 40 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 606 40 |              |
|                |              | 3P          | 230         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 726 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 666 40 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 786 40 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #10 w/GND          | 236 696 40 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #10 w/GND          | 236 616 40 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 716 40 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #10 w/GND          | 236 626 40 |              |

# 6" Submersible Motors Standard

## 6-Inch Models

| HP (KW)        | CONSTRUCTION                               | DESCRIPTION |             |       |                        |           |            |                    | MODEL      | STOCK STATUS |
|----------------|--------------------------------------------|-------------|-------------|-------|------------------------|-----------|------------|--------------------|------------|--------------|
|                |                                            | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE<br>(AWG) |            |              |
| 40 hp<br>30 kW | WATER WELL                                 | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 667 90 |              |
|                |                                            | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #10 w/GND          | 236 787 90 |              |
|                |                                            | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #8 w/GND           | 236 697 90 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #8 w/GND           | 236 617 90 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 717 90 |              |
|                |                                            | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #8 w/GND           | 236 627 90 |              |
|                | SAND FIGHTER                               | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 667 81 | YES          |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 787 81 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 697 81 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 236 617 81 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 717 81 | YES          |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 627 81 | YES          |
|                | 316 SS                                     | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 667 40 |              |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #10 w/GND          | 236 787 40 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 236 697 40 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 236 617 40 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #10 w/GND          | 236 717 40 |              |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 236 627 40 |              |
| 50 hp<br>30 kW | WATER WELL<br>WITH<br>SAND FIGHTER<br>SEAL | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 668 60 | YES          |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/GND           | 276 788 60 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 276 698 60 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 276 618 60 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/GND           | 276 718 60 | YES          |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 628 60 | YES          |
|                | 316 SS                                     | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 668 40 |              |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/GND           | 276 788 40 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 276 698 40 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 276 618 40 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/GND           | 276 718 40 |              |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 628 40 |              |
| 60 hp<br>45 kW | WATER WELL<br>WITH<br>SAND FIGHTER<br>SEAL | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 669 60 | YES          |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/GND           | 276 789 60 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 276 699 60 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 276 619 60 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/GND           | 276 719 60 | YES          |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 629 60 | YES          |
|                | 316 SS                                     | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 669 40 |              |
|                |                                            | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/GND           | 276 789 40 |              |
|                |                                            | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/GND           | 276 699 40 |              |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/GND           | 276 619 40 | YES          |
|                |                                            | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/GND           | 276 719 40 |              |
|                |                                            | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/GND           | 276 629 40 |              |

### NOTES:

1. Models designated above as Sand Fighter™ are water well construction.
2. All 316 SS and Ni-Resist models are equipped with Sand Fighter sealing system.
3. All models listed above include factory-installed leads (13 ft).

## 6" Submersible Motors Hi-Temp 90



### Applications

These motors are built for dependable operation in 6" diameter or larger water wells, in applications with higher temperature, high thrust or low flow.

### Basic Features

- Able to operate in water ambients up to 194 °F (90 °C)
- In 86 °F (30 °C) ambient or less they supply 25% more downthrust and 100% more upthrust than standard product
- No flow capable when submerged in lakes or wells 12" diameter or larger and water 86 °F or less
- Double flanged NEMA mounting design
- Stainless steel splined shaft
- StatorShield™ Franklin's six feature encapsulation system
- High Capacity Kingsbury type water lubricated thrust bearing
- Factory filled with Franklin's non-toxic water soluble fill solution
- Field replaceable lead using Franklin's exclusive Water Bloc™ Technology
- Full 3450 rpm 60 Hz design point
- External sand slinger on shaft
- Sand Fighter™ mechanical face seal system at shaft exit
- Copper bar rotor
- All models variable frequency drive (VFD) approved

### Special Options

- SubMonitor™ is a state-of-the-art electronic motor overload that is sold separately.
  - Mounts in the above ground panel requiring no additional wiring to the motor.
  - User friendly, field proven.
  - Protection monitors for balanced power, overload, underload, overheating, rapid cycling and more.

Consult factory for other voltage, hertz and horsepower ratings not listed in this catalog.

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

# 6" Submersible Motors Hi-Temp 90

## 6-Inch Three-Phase Hi-Temp 90 Motor Specifications

| Hz | Phase | Hp Range | kW Range | Poles | RPM  | Max. Ambient Temp. | Duty Rating                               |
|----|-------|----------|----------|-------|------|--------------------|-------------------------------------------|
| 60 | 3     | 5 - 40   | 3.7 - 30 | 2     | 3450 | 195 °F / 90 °C     | Continuous at 0.5 ft/sec flow past motor* |
| 50 | 3     | 5 - 40   | 3.7 - 30 | 2     | 2875 | 195 °F / 90 °C     | Continuous at 0.5 ft/sec flow past motor* |

\* Motors are also rated for continuous duty up to 86 °F (30 °C) water temperature with NO FLOW in lakes or in wells 12 inches or larger in diameter.

## 6-Inch Hi-Temp 90 Construction Materials

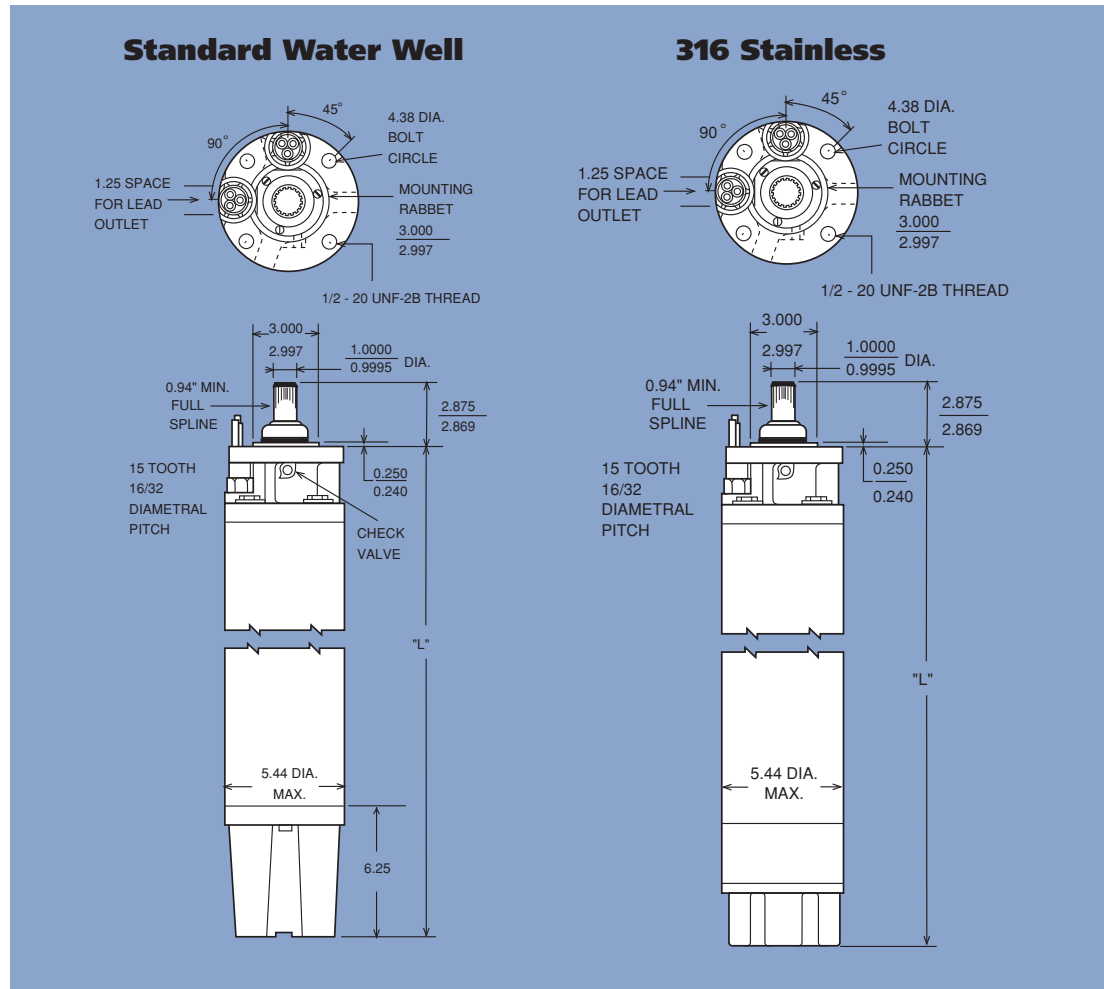
| Component                                        | Construction Type                                             |                                                               |
|--------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
|                                                  | Hi-Temp 90C<br>(300 SS Series Shell)                          | Hi-Temp 90C<br>(316 SS Construction)                          |
| UL Insulation Class Rating                       | Class F                                                       | Class F                                                       |
| Motor Ambient Temperature Rating                 | 194 °F / 90 °C (5-40 hp)                                      | 194 °F / 90 °C (5-40 hp)                                      |
| Stator Resin Type                                | FE Hi-Temp                                                    | FE Hi-Temp                                                    |
| Motor Fill Solution<br>(Water Soluble/Non-Toxic) | FES92                                                         | FES92                                                         |
| Top End Bell & Thrust Housing                    | Epoxy Coated Gray Iron                                        | 316 SS                                                        |
| On Winding SubTrol™ heat sensor                  | Not Available                                                 | Not Available                                                 |
| Stator Shell                                     | 300 SS Series                                                 | 316 SS                                                        |
| Stator Ends                                      | Carbon Steel                                                  | 316 SS                                                        |
| Shaft Extension                                  | 300 SS Series (5-20 hp), 17-4 SS (25-40 hp)                   | 17-4 SS                                                       |
| Bushing                                          | Bronze                                                        | 316 SS                                                        |
| Bushing Retainer                                 | 300 SS Series                                                 | 316 SS                                                        |
| Seal Mechanical Seal                             | Sand Fighter™ Mechanical Seal System                          | Sand Fighter Mechanical Seal System                           |
| Mechanical Seal Rubber<br>Compnents              | Viton®                                                        | Viton®                                                        |
| Diaphragm Material                               | Viton®                                                        | Viton®                                                        |
| Diaphragm Plate                                  | 300 SS Series                                                 | 316 SS                                                        |
| Diaphragm Spring                                 | 300 SS Series                                                 | 25-6 MO SS                                                    |
| Shaft Slinger                                    | Viton®                                                        | Viton®                                                        |
| Lead Wire                                        | XLPO                                                          | XLPO                                                          |
| Lead Potting                                     | Epoxy                                                         | Epoxy                                                         |
| Lead Jam Nut                                     | Brass                                                         | 316 SS                                                        |
| Thrust Bearing Rating<br>(86 °F / 30 °C)         | Standard 5-20 hp • 4,500 lbs<br>Standard 25-40 hp • 7,500 lbs | Standard 5-20 hp • 4,500 lbs<br>Standard 25-40 hp • 7,500 lbs |
| Method Of Conneting System<br>Ground To Motor    | Ground Wire In Power Lead Connector                           | Ground Wire In Power Lead Connector                           |

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

Viton® is a registered trademark of DuPont Dow Elastomers.

# 6" Submersible Motors Hi-Temp 90

## 6-Inch Hi-Temp Dimensions and Weights



### 304 SS Shell 3-Lead

| HP  | KW   | "L"<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----|------|-----------------|-----------------|-----|-------------------------------|
|     |      |                 | LBS             | KG  |                               |
| 5   | 3.7  | 26.40           | 116             | 53  | 8.75 x 11.25 x 34.50          |
| 7.5 | 5.5  | 28.96           | 129             | 59  | 8.75 x 11.25 x 37.00          |
| 10  | 7.5  | 31.52           | 145             | 66  | 8.75 x 11.25 x 42.25          |
| 15  | 11   | 34.09           | 156             | 71  | 8.75 x 11.25 x 42.25          |
| 20  | 15   | 36.65           | 174             | 79  | 8.75 x 11.25 x 51.25          |
| 25  | 18.5 | 41.77           | 202             | 92  | 8.75 x 11.25 x 51.25          |
| 30  | 22   | 56.27           | 300             | 136 | 8.75 x 10.50 x 71.75          |
| 40  | 30   | 62.27           | 330             | 150 | 8.75 x 10.50 x 71.75          |

### 316 SS Shell 3-Lead

| HP  | KW   | "L"<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----|------|-----------------|-----------------|-----|-------------------------------|
|     |      |                 | LBS             | KG  |                               |
| 5   | 3.7  | 26.40           | 116             | 53  | 8.75 x 11.25 x 34.50          |
| 7.5 | 5.5  | 28.96           | 129             | 59  | 8.75 x 11.25 x 37.00          |
| 10  | 7.5  | 31.52           | 145             | 66  | 8.75 x 11.25 x 42.25          |
| 15  | 11   | 34.09           | 156             | 71  | 8.75 x 11.25 x 42.25          |
| 20  | 15   | 36.65           | 174             | 79  | 8.75 x 11.25 x 51.25          |
| 25  | 18.5 | 41.77           | 202             | 92  | 8.75 x 11.25 x 51.25          |
| 30  | 22   | 56.27           | 300             | 136 | 8.75 x 10.50 x 71.75          |
| 40  | 30   | 62.27           | 330             | 150 | 8.75 x 10.50 x 71.75          |

6-Lead Y-Δ models available. (Add 5 lbs to shipping weight.)

# 6" Submersible Motors Hi-Temp 90

## Hi-Temp 90 6-Inch Models

| HP (KW)          | CONSTRUCTION                      | DESCRIPTION |             |       |           |         |                 | MODEL      | STOCK STATUS |
|------------------|-----------------------------------|-------------|-------------|-------|-----------|---------|-----------------|------------|--------------|
|                  |                                   | PH          | VOLTS       | HZ    | S.F.      | # LEADS | WIRE SIZE (AWG) |            |              |
| 5 hp<br>3.7 kW   | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 650 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 680 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 670 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 600 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 720 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 660 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 780 00 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 690 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 610 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 710 00 |              |
|                  | 316 SS                            | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 620 00 |              |
|                  |                                   | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 650 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 680 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 670 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 600 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 720 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 660 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 780 30 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 690 30 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 610 30 |              |
| 7.5 hp<br>5.5 kW | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 710 30 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 620 30 |              |
|                  |                                   | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 651 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 681 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 671 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 601 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 721 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 661 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 781 00 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 691 00 |              |
|                  | 316 SS                            | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 611 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 711 00 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 621 00 |              |
|                  |                                   | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 651 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 681 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 671 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 601 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 721 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 661 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 781 30 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 691 30 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 611 30 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 711 30 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 621 30 |              |
|                  |                                   | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 651 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 681 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 671 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 601 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 721 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 661 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 781 00 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 691 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 611 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 711 00 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 621 00 |              |
|                  |                                   | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 651 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 681 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 671 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 601 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 721 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 661 30 |              |

# 6" Submersible Motors Hi-Temp 90

## Hi-Temp 90 6-Inch Models

| HP (KW)         | CONSTRUCTION                      | DESCRIPTION |             |       |           |         |                 | MODEL      | STOCK STATUS |
|-----------------|-----------------------------------|-------------|-------------|-------|-----------|---------|-----------------|------------|--------------|
|                 |                                   | PH          | VOLTS       | HZ    | S.F.      | # LEADS | WIRE SIZE (AWG) |            |              |
| 10 hp<br>7.5 kW | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 652 00 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 682 00 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 672 00 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 602 00 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 722 00 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 662 00 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 782 00 |              |
|                 |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 692 00 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 612 00 | YES          |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 712 00 |              |
|                 |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 622 00 |              |
|                 | 316 SS                            | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 652 30 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 682 30 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 672 30 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 602 30 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 722 30 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 662 30 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 782 30 |              |
|                 |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 692 30 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 612 30 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 712 30 |              |
|                 |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 622 30 |              |
| 15 hp<br>11 kW  | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 653 00 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 683 00 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 673 00 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 603 00 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 723 00 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 663 00 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 783 00 |              |
|                 |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 693 00 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 613 00 | YES          |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 713 00 |              |
|                 |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 623 00 |              |
|                 | 316 SS                            | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 653 30 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 683 30 |              |
|                 |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 673 30 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 603 30 |              |
|                 |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 723 30 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 663 30 |              |
|                 |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 783 30 |              |
|                 |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 693 30 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 613 30 |              |
|                 |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 713 30 |              |
|                 |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 623 30 |              |

# 6" Submersible Motors Hi-Temp 90

## Hi-Temp 90 6-Inch Models

| HP (KW)          | CONSTRUCTION                      | DESCRIPTION |             |       |           |         |                 | MODEL      | STOCK STATUS |
|------------------|-----------------------------------|-------------|-------------|-------|-----------|---------|-----------------|------------|--------------|
|                  |                                   | PH          | VOLTS       | HZ    | S.F.      | # LEADS | WIRE SIZE (AWG) |            |              |
| 20 hp<br>15 kW   | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 654 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 684 00 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 674 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 604 00 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 724 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 664 00 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 784 00 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 694 00 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 614 00 | YES          |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 714 00 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 624 00 |              |
|                  | 316 SS                            | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 654 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 684 30 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 674 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 604 30 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 724 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 664 30 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 784 30 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 694 30 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 614 30 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 714 30 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 624 30 |              |
| 25 hp<br>18.5 kW | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 655 01 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 685 01 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 675 01 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 605 01 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 725 01 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 665 01 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 785 01 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 695 01 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 615 01 | YES          |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 715 01 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 625 01 |              |
|                  | 316 SS                            | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 655 31 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 685 31 |              |
|                  |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 675 31 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 605 31 |              |
|                  |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 725 31 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 665 31 |              |
|                  |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 785 31 |              |
|                  |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 695 31 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 615 31 |              |
|                  |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 715 31 |              |
|                  |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 625 31 |              |

# 6" Submersible Motors Hi-Temp 90

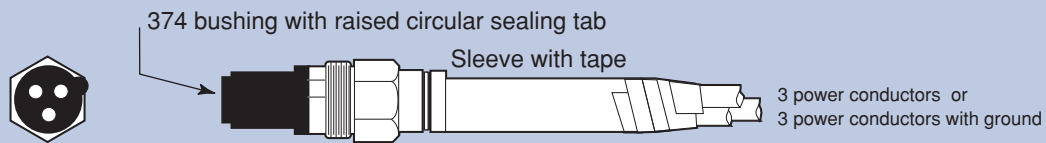
## Hi-Temp 90 6-Inch Models

| HP (KW)        | CONSTRUCTION                      | DESCRIPTION |             |       |           |         |                 | MODEL      | STOCK STATUS |
|----------------|-----------------------------------|-------------|-------------|-------|-----------|---------|-----------------|------------|--------------|
|                |                                   | PH          | VOLTS       | HZ    | S.F.      | # LEADS | WIRE SIZE (AWG) |            |              |
| 30 hp<br>22 kW | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 656 01 |              |
|                |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 686 01 |              |
|                |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 676 01 |              |
|                |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 606 01 |              |
|                |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 726 01 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 666 01 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 786 01 |              |
|                |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 696 01 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 616 01 | YES          |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 716 01 |              |
|                |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 626 01 |              |
|                | 316 SS                            | 3P          | 200         | 60    | 1.15      | 3       | #8 w/GND        | 276 656 31 |              |
|                |                                   | 3P          | 220         | 50    | 1.00      | 3       | #8 w/GND        | 276 686 31 |              |
|                |                                   | 3P          | 220         | 50    | 1.00      | 6-90°   | #8 w/GND        | 276 676 31 |              |
|                |                                   | 3P          | 230         | 60    | 1.15      | 3       | #8 w/GND        | 276 606 31 |              |
|                |                                   | 3P          | 230         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 726 31 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 666 31 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 786 31 |              |
|                |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 696 31 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 616 31 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 716 31 |              |
|                |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 626 31 |              |
| 40 hp<br>30 kW | WATER WELL WITH SAND FIGHTER SEAL | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 667 01 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 787 01 |              |
|                |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 697 01 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 617 01 | YES          |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 717 01 |              |
|                |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 627 01 |              |
|                | 316 SS                            | 3P          | 380         | 60    | 1.15      | 3       | #8 w/GND        | 276 667 31 |              |
|                |                                   | 3P          | 380         | 60    | 1.15      | 6-90°   | #8 w/GND        | 276 787 31 |              |
|                |                                   | 3P          | 415         | 50    | 1.00      | 3       | #8 w/GND        | 276 697 31 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 3       | #8 w/GND        | 276 617 31 |              |
|                |                                   | 3P          | 460/380-415 | 60/50 | 1.15/1.00 | 6-90°   | #8 w/GND        | 276 717 31 |              |
|                |                                   | 3P          | 575         | 60    | 1.15      | 3       | #8 w/GND        | 276 627 31 |              |

### NOTES:

1. All models listed above include leads (13 ft).
2. 6-Lead wye-delta models available in additional voltage ratings. Consult factory for availability.

## 6" Submersible Motors Leads



### 6" Lead Construction Material

| Component | Material        |
|-----------|-----------------|
| Wire      | XLPE 125 °C     |
| Sleeve    | Brass or 316 SS |
| Potting   | Epoxy           |
| Jam Nut   | Brass or 316 SS |

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

### Standard XLPE 125 °C Lead

Excellent resistance to ozone, abrasion, heat, and oxidizing chemicals.

## 6" Submersible Motors Leads

### Standard XLPE 125 °C Lead

| FITS FE MOTOR RATING<br>(460 V or 575 V 60 Hz) | JAM NUT<br>MATERIAL | LEAD LENGTH |    | WIRE SIZE<br>(AWG) | POWER<br>WIRES | FE PART<br>NUMBER | REPLACEMENT KIT<br>NUMBER |
|------------------------------------------------|---------------------|-------------|----|--------------------|----------------|-------------------|---------------------------|
|                                                |                     | FT          | M  |                    |                |                   |                           |
| <b>All 6" Ratings</b>                          | Brass               | 13          | 4  | #8                 | 3 w/GND        | 152 671 901       | 305 517 901               |
|                                                | Brass               | 26          | 8  | #8                 | 3 w/GND        | 152 671 902       | 305 517 902               |
|                                                | 316 SS              | 13          | 4  | #8                 | 3 w/GND        | 152 671 951       | 305 517 951               |
|                                                | 316 SS              | 26          | 8  | #8                 | 3 w/GND        | 152 671 952       | 305 517 952               |
| <b>5-30 hp<br/>3.7-22 kW</b>                   | 316 SS              | 50          | 15 | #10                | 3 w/GND        | 152 672 955       | 305 518 955               |
|                                                | 316 SS              | 75          | 23 | #10                | 3 w/GND        | 152 672 957       | 305 518 957               |
|                                                | 316 SS              | 100         | 30 | #10                | 3 w/GND        | 152 672 960       | 305 518 960               |
|                                                | 316 SS              | 125         | 38 | #10                | 3 w/GND        | 152 672 962       | 305 518 962               |
|                                                | 316 SS              | 150         | 45 | #10                | 3 w/GND        | 152 672 965       | 305 518 965               |
| <b>5-40 hp<br/>3.7-30 kW</b>                   | 316 SS              | 50          | 15 | #8                 | 3 w/GND        | 152 671 955       | 305 517 955               |
|                                                | 316 SS              | 75          | 23 | #8                 | 3 w/GND        | 152 671 957       | 305 517 957               |
|                                                | 316 SS              | 100         | 30 | #8                 | 3 w/GND        | 152 671 960       | 305 517 960               |
|                                                | 316 SS              | 125         | 38 | #8                 | 3 w/GND        | 152 671 962       | 305 517 962               |
|                                                | 316 SS              | 150         | 45 | #8                 | 3 w/GND        | 152 671 965       | 305 517 965               |

#### NOTES:

1. Refer to Franklin Application Installation Maintenance (AIM) Manual for accurate cable sizing.
2. Nitrile cable uses lead sleeve 1" longer than standard.
3. MOTOR WARRANTY IS VOID if Franklin-supplied leads are not used.
4. Replacement leads are available in 25 ft. increments up to 150 ft. Special-cut lengths may be available at an additional charge. Consult factory for price and availability.

### XLPO 125 °C - Hi-Temp 90 Motors

| FITS FE MOTOR RATING<br>(460 V or 575 V 60 Hz) | JAM NUT<br>MATERIAL | LEAD LENGTH |    | WIRE<br>SIZE | POWER WIRES | FE PART<br>NUMBER | REPLACEMENT KIT<br>NUMBER |
|------------------------------------------------|---------------------|-------------|----|--------------|-------------|-------------------|---------------------------|
|                                                |                     | FT          | M  |              |             |                   |                           |
| <b>All 6" Ratings</b>                          | 316 SS              | 13          | 4  | #8           | 3 w/GND     | 152 683 951       | 305 519 951               |
|                                                | 316 SS              | 26          | 8  | #8           | 3 w/GND     | 152 683 952       | 305 519 952               |
|                                                | 316 SS              | 50          | 15 | #8           | 3 w/GND     | 152 683 955       | 305 519 955               |
| <b>5-40 hp<br/>3.7-30 kW</b>                   | 316 SS              | 75          | 23 | #8           | 3 w/GND     | 152 683 957       | 305 519 957               |
|                                                | 316 SS              | 100         | 30 | #8           | 3 w/GND     | 152 683 960       | 305 519 960               |
|                                                | 316 SS              | 125         | 38 | #8           | 3 w/GND     | 152 683 962       | 305 519 962               |
|                                                | 316 SS              | 150         | 45 | #8           | 3 w/GND     | 152 683 965       | 305 519 965               |

#### NOTES:

1. Refer to Franklin Application Installation Maintenance (AIM) Manual for accurate cable sizing.
2. MOTOR WARRANTY IS VOID if Franklin-supplied leads are not used.

## 8" Submersible Motors Standard



### Applications

These motors are built for dependable operation in vertical 8" diameter or larger water wells.

### Basic Features

- Double Flanged NEMA mounting design
- Stainless steel splined shaft
- StatorShield™ Franklin's six feature encapsulation system
- High capacity Kingsbury type water lubricated thrust bearing
- Factory filled with Franklin's non-toxic water soluble fill solution
- Field replaceable lead using Franklin's exclusive Water Bloc™ technology
- Full 3525 rpm 60 Hz design point
- External sand slinger on shaft
- Mechanical face seal at shaft exit
- Copper bar rotor
- All models variable frequency drive (VFD) approved
- Franklin's Exclusive on winding SubTrol™ heat sensor for use with SubMonitor™

### Special Options

- Sand Fighter™ Models are equipped with:
  - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
- 316 Stainless Steel construction models come standard with:
  - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
  - Franklin's Exclusive on winding SubTrol™ heat sensor for use with SubMonitor.
- SubMonitor is a state-of-the-art electronic motor overload that is sold separately.
  - Mounts in the above ground panel requiring no additional wiring to the motor.
  - User friendly, field proven.
  - Protection monitors for balanced power, overload, underload, overheating, rapid cycling and more.

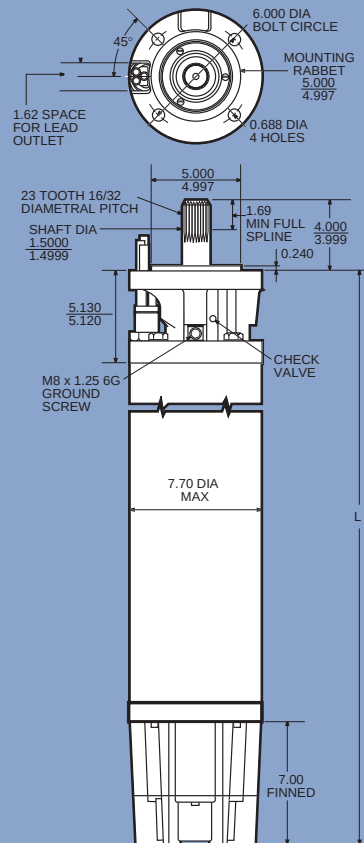
Consult factory for other voltage, hertz and horsepower ratings not listed in this catalog.

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

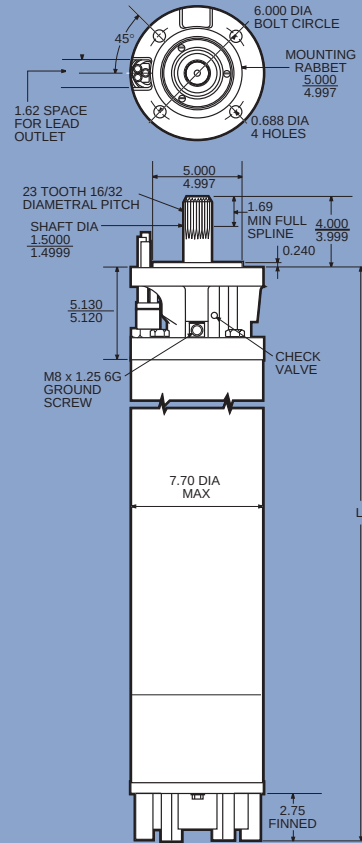
# 8" Submersible Motors Standard

## 8-Inch Dimensions and Weights

**40 hp to 100 hp  
Type 2.1**



**125 hp to 200 hp  
Type 1.0**



## 3-Lead Three-Phase Motors

| HP  | KW  | "L"<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----|-----|-----------------|-----------------|-----|-------------------------------|
|     |     |                 | LBS             | KG  |                               |
| 40  | 30  | 36.4            | 320             | 146 | 17 x 9.25 x 51                |
| 50  | 37  | 39.4            | 345             | 157 | 17 x 9.25 x 51                |
| 60  | 45  | 42.4            | 375             | 171 | 17 x 9.25 x 51                |
| 75  | 55  | 47.4            | 430             | 196 | 17 x 9.25 x 64                |
| 100 | 75  | 54.9            | 530             | 241 | 17 x 9.25 x 64                |
| 125 | 93  | 68.8            | 700             | 318 | 17 x 9.25 x 79                |
| 150 | 110 | 77.8            | 840             | 382 | 17 x 9.25 x 96                |
| 175 | 130 | 85.8            | 945             | 430 | 17 x 9.25 x 96                |
| 200 | 150 | 94.8            | 1040            | 473 | 17 x 9.25 x 108               |

6-Lead Y-Δ models available. (Add 5 lbs to shipping weight.)

# 8" Submersible Motors Standard

## Standard 8-Inch Three-Phase Motor Specifications

| Hz | Phase | Hp Range | kW Range | Poles | RPM  | Max. Ambient Temp. | Duty Rating                              |
|----|-------|----------|----------|-------|------|--------------------|------------------------------------------|
| 60 | 3     | 40 - 200 | 30 - 150 | 2     | 3525 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |
| 50 | 3     | 40 - 200 | 30 - 150 | 2     | 2900 | 86 °F / 30 °C      | Continuous at 0.5 ft/sec flow past motor |

Higher temperature ambient motors are available in the 8" Hi-Temp motor line.

## Standard 8-Inch Construction Materials

| Component                                        | Construction Type                                                        |                                            |                                                         |
|--------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|
|                                                  | Standard Water Well<br>(300 SS Series Shell)                             | Sand Fighter™ Water Well<br>(300 SS Shell) | Corrosion Resistant<br>(316 SS Construction)            |
| Stator Resin Type                                | FE Standard                                                              | Per Standard Water Well                    | Per Standard Water Well                                 |
| Motor Fill Solution<br>(Water Soluble/Non-Toxic) | FES91                                                                    | Per Standard Water Well                    | Per Standard Water Well                                 |
| Top End Bell & Thrust Housing                    | Epoxy Coated Gray Iron                                                   | Per Standard Water Well                    | 316 SS                                                  |
| SubTroI™ heat sensor<br>(Mounted On Winding)     | Yes                                                                      | Per Standard Water Well                    | Per Standard Water Well                                 |
| Stator Shell                                     | 300 SS Series                                                            | Per Standard Water Well                    | 316 SS                                                  |
| Stator Ends                                      | Carbon Steel                                                             | Per Standard Water Well                    | 316 SS                                                  |
| Shaft Extension                                  | 17-4 SS                                                                  | Per Standard Water Well                    | Per Standard Water Well                                 |
| Bushing                                          | Bronze                                                                   | Per Standard Water Well                    | 316 SS                                                  |
| Bushing Retainer                                 | 300 SS Series                                                            | Per Standard Water Well                    | 316 SS                                                  |
| Shaft Mechanical Seal                            | Carbon Ceramic Seal (40-125 hp)<br>Sand Fighter Seal System (150-200 hp) | Sand Fighter Seal System                   | Sand Fighter Seal System                                |
| Mechanical Seal Rubber<br>Components             | Nitrile                                                                  | Per Standard Water Well                    | Per Standard Water Well                                 |
| Diaphragm Material                               | Nitrile                                                                  | Per Standard Water Well                    | Per Standard Water Well                                 |
| Diaphragm Plate                                  | 300 SS                                                                   | Per Standard Water Well                    | 316 SS                                                  |
| Diaphragm Spring                                 | 300 SS                                                                   | Per Standard Water Well                    | 316 SS                                                  |
| Shaft Slinger                                    | Nitrile                                                                  | Per Standard Water Well                    | Per Standard Water Well                                 |
| Lead Wire                                        | XLPE (#8 AWG)<br>Hypalon (#4 & #2 AWG)                                   | Per Standard Water Well                    | Per Standard Water Well                                 |
| Lead Potting                                     | Epoxy                                                                    | Per Standard Water Well                    | Per Standard Water Well                                 |
| Lead Jam Nut or Compression<br>Plate             | Brass Jam Nut (40-125 hp)<br>316 SS Plate (150-200 hp)                   | Per Standard Water Well                    | 316 SS Jam Nut (40-125 hp)<br>316 SS Plate (150-200 hp) |
| Thrust Bearing Rating<br>(86 °F / 30 °C)         | 10,000 lbs                                                               | Per Standard Water Well                    | Per Standard Water Well                                 |
| Method Of Connecting System<br>Ground To Motor   | Ground Lug On Top End Bell                                               | Per Standard Water Well                    | Per Standard Water Well                                 |

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

# 8" Submersible Motors Standard

## 8-Inch Models

| HP (KW)        | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                | MODEL      | STOCK STATUS |
|----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|----------------|------------|--------------|
|                |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | POWER<br>WIRES |            |              |
| 40 hp<br>30 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 660 60 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 680 20 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 740 60 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 600 60 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 620 20 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 610 60 |              |
|                | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 660 85 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 680 86 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 740 85 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 600 85 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 620 86 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 610 85 |              |
|                | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 660 62 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 680 22 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 740 62 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 600 62 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 620 22 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 610 62 |              |
| 50 hp<br>37 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 661 60 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 681 20 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 741 60 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 601 60 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 621 20 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 611 60 |              |
|                | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 661 85 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 681 86 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 741 85 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 601 85 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 621 86 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 611 85 |              |
|                | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 661 62 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 681 22 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 741 62 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 601 62 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 621 22 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 611 62 |              |

# 8" Submersible Motors Standard

## 8-Inch Models

| HP (KW)        | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                | MODEL      | STOCK STATUS |
|----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|----------------|------------|--------------|
|                |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | POWER<br>WIRES |            |              |
| 60 hp<br>45 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 662 60 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 682 20 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 742 60 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 602 60 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 622 20 | YES          |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 612 60 | YES          |
|                | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 662 85 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 682 86 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 742 85 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 602 85 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 622 86 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 612 85 |              |
|                | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 662 62 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #8 w/o GND     | 239 682 22 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #8 w/o GND     | 239 742 62 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #8 w/o GND     | 239 602 62 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #8 w/o GND     | 239 622 22 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #8 w/o GND     | 239 612 62 |              |
| 75 hp<br>55 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 663 60 | YES          |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 683 20 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 743 60 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 603 60 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 623 20 | YES          |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 613 60 | YES          |
|                | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 663 85 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 683 86 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 743 85 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 603 85 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 623 86 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 613 85 |              |
|                | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 663 62 |              |
|                |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 683 22 |              |
|                |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 743 62 |              |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 603 62 | YES          |
|                |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 623 22 |              |
|                |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 613 62 |              |

# 8" Submersible Motors Standard

## 8-Inch Models

| HP (KW)         | CONSTRUCTION | DESCRIPTION |             |       |                        |           |            |                | MODEL      | STOCK STATUS |
|-----------------|--------------|-------------|-------------|-------|------------------------|-----------|------------|----------------|------------|--------------|
|                 |              | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | POWER<br>WIRES |            |              |
| 100 hp<br>75 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 664 60 | YES          |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 684 20 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 744 60 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 604 60 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 624 20 | YES          |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 614 60 | YES          |
|                 | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 664 85 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 684 86 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 744 85 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 604 85 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 624 86 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 614 85 |              |
|                 | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 664 62 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 684 22 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 744 62 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 604 62 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 624 22 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 614 62 |              |
| 125 hp<br>93 kW | WATER WELL   | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 165 60 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 185 20 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 274 365 60 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 105 60 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 125 20 | YES          |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 115 60 | YES          |
|                 | SAND FIGHTER | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 165 85 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 185 86 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 365 85 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 105 85 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 125 86 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 115 85 |              |
|                 | 316 SS       | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 165 62 |              |
|                 |              | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 185 22 |              |
|                 |              | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #4 w/o GND     | 239 365 62 |              |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #4 w/o GND     | 239 105 62 | YES          |
|                 |              | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 125 22 |              |
|                 |              | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #4 w/o GND     | 239 115 62 |              |

# 8" Submersible Motors Standard

## 8-Inch Models

| HP (KW)          | CONSTRUCTION                            | DESCRIPTION |             |       |                        |           |            |                | MODEL      | STOCK STATUS |
|------------------|-----------------------------------------|-------------|-------------|-------|------------------------|-----------|------------|----------------|------------|--------------|
|                  |                                         | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | POWER<br>WIRES |            |              |
| 150 hp<br>110 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 166 85 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 186 86 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 366 85 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 106 85 | YES          |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 126 86 | YES          |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 116 85 | YES          |
|                  | 316 SS                                  | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 166 62 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 186 22 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 366 62 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 106 62 | YES          |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 126 22 |              |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 116 62 |              |
| 175 hp<br>130 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 167 85 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 187 86 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 367 85 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 107 85 | YES          |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 127 86 |              |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 117 85 |              |
|                  | 316 SS                                  | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 167 62 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 187 22 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 367 62 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 107 62 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 127 22 |              |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 117 62 |              |
| 200 hp<br>150 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 168 85 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 188 86 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 368 85 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 108 85 | YES          |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 128 86 |              |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 118 85 |              |
|                  | 316 SS                                  | 3P          | 380         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 168 62 |              |
|                  |                                         | 3P          | 380         | 60    | YES                    | 1.15      | 6-90°      | #4 w/o GND     | 239 188 22 |              |
|                  |                                         | 3P          | 415         | 50    | YES                    | 1.00      | 3          | #2 w/o GND     | 239 368 62 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 3          | #2 w/o GND     | 239 108 62 |              |
|                  |                                         | 3P          | 460/380-415 | 60/50 | YES                    | 1.15/1.00 | 6-90°      | #4 w/o GND     | 239 128 22 |              |
|                  |                                         | 3P          | 575         | 60    | YES                    | 1.15      | 3          | #2 w/o GND     | 239 118 62 |              |

### NOTES:

1. Models designated above as Sand Fighter™ are water well construction.
2. All 316 ss models are equipped with Sand Fighter sealing system.
3. All models listed above include factory installed leads (13 ft).
4. Motor leads do not include ground.

## 8" Submersible Motors Hi-Temp 75



### Applications

These motors are built for dependable operation in vertical 8" diameter or larger wells, in applications with higher temperature, higher thrust or low flow.

### Basic Features

- Able to operate in water temperatures up to 167 °F (75 °C)
- In 86 °F (30 °C) ambient or less they supply 25% more downthrust and upthrust than standard product
- No flow capable when submerged in lakes or wells 14" diameter or larger and water 86 °F or less
- Double flanged NEMA mounting design
- Stainless steel splined shaft
- StatorShield™ Franklin's six feature encapsulation system
- High capacity Kingsbury type water lubricated thrust bearing
- Factory filled with Franklin's non-toxic water soluble fill solution
- Field replaceable lead using Franklin's exclusive Water Bloc™ technology
- Full 3525 rpm 60 Hz design point
- External sand slinger on shaft
- Sand Fighter™ mechanical face seal system at shaft exit
- Copper bar rotor
- All models variable frequency drive (VFD) approved

### Special Options

- SubMonitor™ is a state-of-the-art electronic motor overload that is sold separately.
  - Mounts in the above ground panel requiring no additional wiring to the motor.
  - User friendly, field proven.
  - Protection monitors for balanced power, overload, underload, overheating, rapid cycling and more.

Consult factory for other voltage, hertz and horsepower ratings not listed in this catalog.

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

# 8" Submersible Motors Hi-Temp 75

## Hi-Temp 75 8-Inch Three-Phase Motor Specifications

| Hz | Phase | Hp Range | kW Range | Poles | RPM  | Max. Ambient Temp. | Duty Rating                               |
|----|-------|----------|----------|-------|------|--------------------|-------------------------------------------|
| 60 | 3     | 40 - 150 | 30 - 110 | 2     | 3525 | 167 °F / 75 °C     | Continuous at 0.5 ft/sec flow past motor* |
| 50 | 3     | 40 - 150 | 30 - 110 | 2     | 2900 | 167 °F / 75 °C     | Continuous at 0.5 ft/sec flow past motor* |

\* Motors are also rated for continuous duty in 86 °F (30 °C) maximum water temperature with NO FLOW in lakes or in wells 14 inches or larger in diameter.

## Hi-Temp 75 8-Inch Construction Materials

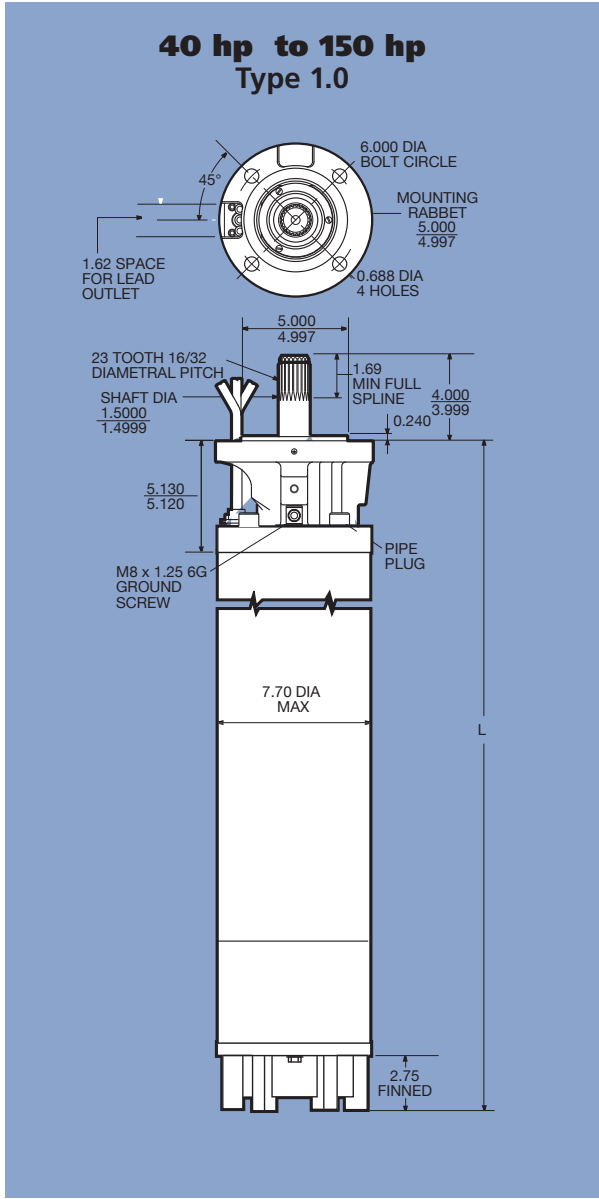
| Component                                        | Construction Type                                         |                                                           |
|--------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|
|                                                  | Hi-Temp 75<br>(300 SS Series Shell)                       | Hi-Temp 75<br>(316 SS Construction)                       |
| UL Insulation Class Rating                       | Class F                                                   | Class F                                                   |
| Motor Ambient Temperature Rating                 | 167 °F / 75 °C                                            | 167 °F / 75 °C                                            |
| Stator Resin Type                                | FE Hi-Temp                                                | FE Hi-Temp                                                |
| Motor Fill Solution<br>(Water Soluble/Non-Toxic) | FES92                                                     | FES92                                                     |
| Top End Bell & Thrust Housing                    | Epoxy Coated Gray Iron                                    | 316 SS                                                    |
| SubTrol™ heat sensor<br>(Mounted On Winding)     | No                                                        | No                                                        |
| Stator Shell                                     | 300 SS Series                                             | 316 SS                                                    |
| Stator Ends                                      | Carbon Steel                                              | 316 SS                                                    |
| Shaft Extension                                  | 17-4 SS                                                   | 17-4 SS                                                   |
| Bushing                                          | Bronze                                                    | 316 SS                                                    |
| Bushing Retainer                                 | 300 SS Series                                             | 316 SS                                                    |
| Shaft Mechanical Seal                            | Sand Fighter™ Seal System                                 | Sand Fighter Seal System                                  |
| Mechanical Seal Rubber<br>Components             | Viton®                                                    | Viton®                                                    |
| Diaphragm Material                               | Viton®                                                    | Viton®                                                    |
| Diaphragm Plate                                  | 316 SS                                                    | 316 SS                                                    |
| Diaphragm Spring                                 | 316 SS                                                    | 316 SS                                                    |
| Shaft Slinger                                    | Viton®                                                    | Viton®                                                    |
| Lead Wire                                        | XLPO                                                      | XLPO                                                      |
| Lead Potting                                     | Epoxy                                                     | Epoxy                                                     |
| Lead Jam Nut or<br>Compression Plate             | 316 SS Plate (150-200 hp)                                 | 316 SS Plate (150-200 hp)                                 |
| Thrust Bearing Rating<br>(86 °F / 30 °C)         | 12,500 lbs (86 °F / 30 °C)<br>10,000 lbs (167 °F / 75 °C) | 12,500 lbs (86 °F / 30 °C)<br>10,000 lbs (167 °F / 75 °C) |
| Method Of Connecting<br>System Ground To Motor   | Ground Lug On Top End Bell                                | Ground Lug On Top End Bell                                |

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

Viton® is a registered trademark of DuPont Dow Elastomers.

# 8" Submersible Motors Hi-Temp 75

## 8-Inch Hi-Temp 75 Dimensions and Weights



### Three-Phase Motors

| HP  | KW  | “L”<br>(inches) | SHIPPING WEIGHT |     | MOTOR CARTON<br>SIZE (in inches) |
|-----|-----|-----------------|-----------------|-----|----------------------------------|
|     |     |                 | LBS             | KG  |                                  |
| 40  | 30  | 44.8            | 400             | 181 | 17 x 9.25 x 51                   |
| 50  | 37  | 49.8            | 455             | 206 | 17 x 9.25 x 64                   |
| 60  | 45  | 57.3            | 555             | 252 | 17 x 9.25 x 64                   |
| 75  | 55  | 68.8            | 700             | 318 | 17 x 9.25 x 79                   |
| 100 | 75  | 77.8            | 840             | 382 | 17 x 9.25 x 96                   |
| 125 | 93  | 85.8            | 945             | 430 | 17 x 9.25 x 96                   |
| 150 | 110 | 94.8            | 1040            | 473 | 17 x 9.25 x 108                  |

# 8" Submersible Motors Hi-Temp 75

## 8-Inch Hi-Temp 75 Models

| HP (KW)        | CONSTRUCTION                            | DESCRIPTION |             |       |                        |           |            |            | MODEL      | STOCK STATUS |
|----------------|-----------------------------------------|-------------|-------------|-------|------------------------|-----------|------------|------------|------------|--------------|
|                |                                         | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE  |            |              |
| 40 hp<br>30 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 160 90 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 180 90 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 360 90 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 100 90 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 120 90 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 110 90 |              |
|                | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 160 92 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 180 92 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 360 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 100 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 120 92 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 110 92 |              |
| 50 hp<br>37 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 161 90 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 181 90 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 361 90 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 101 90 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 121 90 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 111 90 |              |
|                | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 161 92 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 181 92 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 361 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 101 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 121 92 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 111 92 |              |
| 60 hp<br>45 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 162 90 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 182 90 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 362 90 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 102 90 | YES          |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 122 90 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 112 90 |              |
|                | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 162 92 |              |
|                |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 182 92 |              |
|                |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 362 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 102 92 |              |
|                |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 122 92 |              |
|                |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 112 92 |              |

# 8" Submersible Motors Hi-Temp 75

## 8-Inch Hi-Temp 75 Models

| HP (KW)         | CONSTRUCTION                            | DESCRIPTION |             |       |                        |           |            |            | MODEL      | STOCK STATUS |
|-----------------|-----------------------------------------|-------------|-------------|-------|------------------------|-----------|------------|------------|------------|--------------|
|                 |                                         | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE  |            |              |
| 75 hp<br>55 kW  | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 163 90 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 183 90 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 363 90 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 103 90 | YES          |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 123 90 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 113 90 |              |
|                 | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 163 92 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 183 92 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 363 92 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 103 92 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 123 92 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 113 92 |              |
| 100 hp<br>75 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 164 90 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 184 90 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 364 90 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 104 90 | YES          |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 124 90 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 114 90 |              |
|                 | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 164 92 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 184 92 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 364 92 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 104 92 | YES          |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 124 92 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 114 92 |              |
| 125 hp<br>93 kW | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 165 90 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 185 90 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 365 90 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 105 90 | YES          |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 125 90 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 115 90 |              |
|                 | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 165 92 |              |
|                 |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 185 92 |              |
|                 |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 365 92 |              |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 105 92 | YES          |
|                 |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 125 92 |              |
|                 |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 115 92 |              |

## 8" Submersible Motors Hi-Temp 75

### 8-Inch Hi-Temp 75 Models

| HP (KW)                  | CONSTRUCTION                            | DESCRIPTION |             |       |                        |           |            |            | MODEL      | STOCK STATUS |
|--------------------------|-----------------------------------------|-------------|-------------|-------|------------------------|-----------|------------|------------|------------|--------------|
|                          |                                         | PH          | VOLTS       | HZ    | SUBTROL<br>HEAT SENSOR | S.F.      | #<br>LEADS | WIRE SIZE  |            |              |
| <b>150 hp<br/>110 kW</b> | WATER WELL<br>WITH SAND<br>FIGHTER SEAL | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 166 90 |              |
|                          |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 186 90 |              |
|                          |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 366 90 |              |
|                          |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 106 90 | YES          |
|                          |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 126 90 |              |
|                          |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 116 90 |              |
|                          | 316 SS                                  | 3P          | 380         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 166 92 |              |
|                          |                                         | 3P          | 380         | 60    | Not Available          | 1.15      | 6-90°      | #2 w/o GND | 279 186 92 |              |
|                          |                                         | 3P          | 415         | 50    | Not Available          | 1.00      | 3          | #2 w/o GND | 279 366 92 |              |
|                          |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 3          | #2 w/o GND | 279 106 92 |              |
|                          |                                         | 3P          | 460/380-415 | 60/50 | Not Available          | 1.15/1.00 | 6-90°      | #2 w/o GND | 279 126 92 |              |
|                          |                                         | 3P          | 575         | 60    | Not Available          | 1.15      | 3          | #2 w/o GND | 279 116 92 |              |

#### NOTES:

1. All models listed above include leads (13 ft).
2. Motor leads do not include ground.

# 8" Submersible Motors Leads

**FIGURE 1: Standard XLPE 125 °C Lead**

Motor construction for 40, 50 & 60 hp

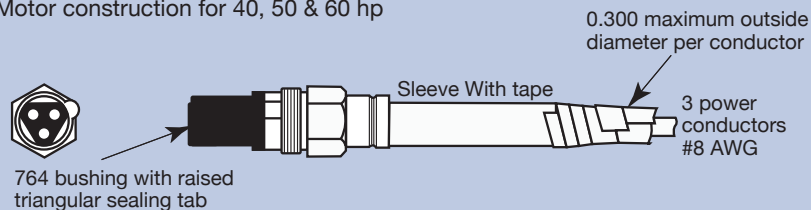


**FIGURE 2: Standard Hypalon 75 °C Lead**

Motor construction for 75, 100 & 125 hp

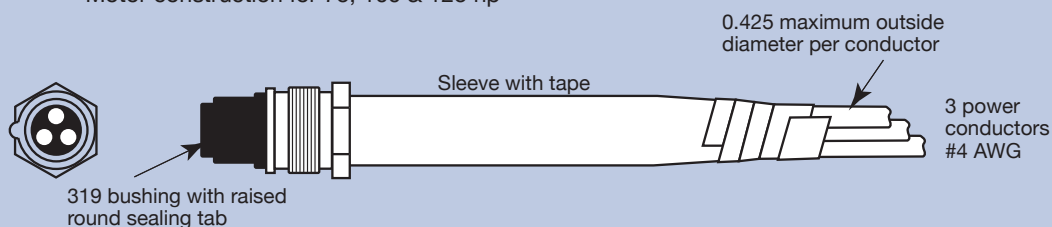
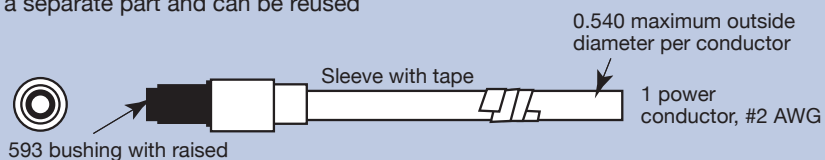


**FIGURE 3: Standard Hypalon 75 °C Lead**

Motor construction for 150, 175 & 200 hp lead clamping plate is a separate part and can be reused



| FIGURE | FITS FE MOTOR RATING<br>(460 V or 575 V 60 Hz) | JAM NUT<br>MATERIAL | LEAD LENGTH |   | WIRE<br>SIZE<br>(AWG) | POWER<br>CONDUCTOR PER<br>CONNECTOR | FE PART<br>NUMBER | REPLACEMENT<br>KIT NUMBER |
|--------|------------------------------------------------|---------------------|-------------|---|-----------------------|-------------------------------------|-------------------|---------------------------|
|        |                                                |                     | FT          | M |                       |                                     |                   |                           |
| 1      | 40-60 hp<br>30-45 kW                           | Brass               | 13          | 4 | #8                    | 3 (1 Shipped) No Ground             | 152 698 901       | 305 516 901               |
|        |                                                | Brass               | 26          | 8 | #8                    | 3 (1 Shipped) No Ground             | 152 698 902       | 305 516 902               |
|        |                                                | 316 SS              | 13          | 4 | #8                    | 3 (1 Shipped) No Ground             | 152 698 950       | 305 516 950               |
|        |                                                | 316 SS              | 26          | 8 | #8                    | 3 (1 Shipped) No Ground             | 152 698 951       | 305 516 951               |
| 2      | 75-125 hp<br>55-93 kW                          | Brass               | 13          | 4 | #4                    | 3 (1 Shipped) No Ground             | 165 238 901       | 305 210 901               |
|        |                                                | Brass               | 26          | 8 | #4                    | 3 (1 Shipped) No Ground             | 165 238 924       | 305 210 924               |
|        |                                                | 316 SS              | 13          | 4 | #4                    | 3 (1 Shipped) No Ground             | 165 238 903       | 305 210 903               |
|        |                                                | 316 SS              | 26          | 8 | #4                    | 3 (1 Shipped) No Ground             | 165 238 928       | 305 210 928               |
| 3      | 150-200 hp<br>110-150 kW                       | 316 SS              | 13          | 4 | #2                    | 1 (3 shipped) No Ground             | 165 617 901       | 305 315 901               |
|        |                                                | 316 SS              | 26          | 8 | #2                    | 1 (3 shipped) No Ground             | 165 617 902       | 305 315 902               |

## 8" Submersible Motors Leads

### 8-Inch 125 °C XLPO Hi-Temp 75C and Booster Motor Leads

| FITS FE MOTOR RATING<br>(460 V or 575 V 60 Hz) | JAM NUT<br>MATERIAL | LEAD LENGTH |   | WIRE<br>SIZE<br>(AWG) | POWER WIRES                | FE PART<br>NUMBER | REPLACEMENT KIT<br>NUMBER |
|------------------------------------------------|---------------------|-------------|---|-----------------------|----------------------------|-------------------|---------------------------|
|                                                |                     | FT          | M |                       |                            |                   |                           |
| All Ratings                                    | 316 SS              | 13          | 4 | #2                    | 1 (3 shipped)<br>No Ground | 165 617 901       | 305 315 901               |
|                                                | 316 SS              | 26          | 8 | #2                    | 1 (3 shipped)<br>No Ground | 165 617 902       | 305 315 902               |

### 8-Inch Lead Construction Materials

| Component              | Material                        |
|------------------------|---------------------------------|
| Wire                   | RHW Hypalon 75°, or XLPO 125 °C |
| Sleeve                 | Brass or 316 SS                 |
| Potting                | Epoxy                           |
| Jam Nut or Clamp Plate | Brass or 316 SS                 |

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

# Submersible Motor Control Boxes



## Applications

### QUICK DISCONNECT (QD) & CAPACITOR RUN CONTROL (CRC)

– These control boxes are designed for use with Franklin 3-wire single-phase submersible motors through 1 hp.

**STANDARD & DELUXE** – These control boxes are designed for use with Franklin 3-wire single-phase submersible motors from 1 through 15 hp. Recommended for water systems that use pressure switches, level switches, or other pilot devices. Deluxe boxes (only) contain magnetic line contactors carefully matched to the motor rating, eliminating the need for external line contactors.

## Basic Features – All Boxes

- Suitable for outdoor mounting
- Capacitor Start / Capacitor Run design (except QD boxes)
- UL Listed for US and Canada (60 Hz models)

## Basic Features – Standard & Deluxe Boxes

- Heavy duty box-type terminals accept up to AWG #2 wire
- External access to overload resets
- Multiple-size knockouts
- User-friendly connection diagrams
- Easy access to grounding lugs

## Single-Phase Control Box Specifications

| BOX TYPE                    | HZ | HP RANGE | KW RANGE    | ENCLOSURE     | TERMINAL BLOCK |          | MAG CONTACTOR | AGENCY APPROVALS            |
|-----------------------------|----|----------|-------------|---------------|----------------|----------|---------------|-----------------------------|
|                             |    |          |             |               | TERMINALS      | MAX WIRE |               |                             |
| Quick Disconnect (QD)       | 60 | 1/3 - 1  | 0.25 - 0.75 | NEMA 3R, IP23 | 5              | AWG 10   | No            | UL listed for US and Canada |
| Quick Disconnect (QD)       | 50 | 1/3 - 1  | 0.25 - 0.75 | NEMA 3R, IP23 | 5              | AWG 10   | No            | CSA Certified               |
| Capacitor Run Control (CRC) | 60 | 1/2 - 1  | 0.37 - 0.75 | NEMA 3R, IP23 | 5              | AWG 10   | No            | UL listed for US and Canada |
| Standard (S)                | 60 | 1 - 10   | 0.75 - 7.5  | NEMA 3R, IP23 | 5              | AWG 2    | No            | UL listed for US and Canada |
| Standard (S)                | 50 | 1.5 - 5  | 0.75 - 3.7  | NEMA 3R, IP23 | 5              | AWG 2    | No            | CSA Certified               |
| Deluxe (D)                  | 60 | 2 - 15   | 1.5 - 11    | NEMA 3R, IP23 | 6              | AWG 2    | Yes           | UL listed for US and Canada |
| Extra Large Deluxe (D-XL)   | 60 | 15       | 11          | NEMA 3R, IP23 | 5              | AWG 00   | Yes           | UL listed for US and Canada |

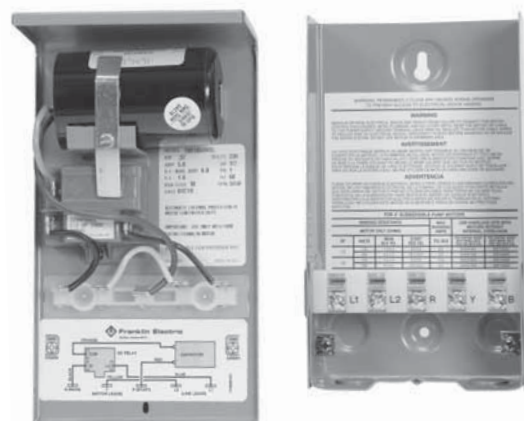
# Submersible Motor Control Boxes

## Enclosure – Quick Disconnect (QD) & Capacitor Run Control (CRC) Boxes

### ■ Knockouts:

- Bottom: Two 0.88” knockouts and one 1.31” knockout.
- Side: One 0.88” knockout and one 1.31” knockout on each side.

- ### ■ Terminal Block:
- five terminals provided for wiring up to AWG #10 wire.



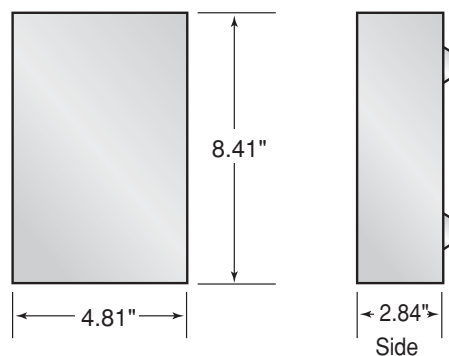
## Quick Disconnect (QD) Control Boxes

| HP  | KW   | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) | ENC SIZE |
|-----|------|-----------------|-----|-------------------------------|----------|
|     |      | LBS             | KG  |                               |          |
| 1/3 | 0.25 | 4               | 1.8 | 5.5 x 3.25 x 9                | QD       |
| 1/2 | 0.37 | 4               | 1.8 | 5.5 x 3.25 x 9                | QD       |
| 3/4 | 0.55 | 4               | 1.8 | 5.5 x 3.25 x 9                | QD       |
| 1   | 0.75 | 4               | 1.8 | 5.5 x 3.25 x 9                | QD       |

## Capacitor Run Control (CRC) Boxes

| HP  | KW   | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) | ENC SIZE |
|-----|------|-----------------|-----|-------------------------------|----------|
|     |      | LBS             | KG  |                               |          |
| 1/2 | 0.37 | 5               | 2.3 | 5.5 x 3.25 x 9                | QD       |
| 3/4 | 0.55 | 5               | 2.3 | 5.5 x 3.25 x 9                | QD       |
| 1   | 0.75 | 5               | 2.3 | 5.5 x 3.25 x 9                | QD       |

QD Box Dimensions



# Submersible Motor Control Boxes

## Enclosure – Standard & Deluxe Boxes

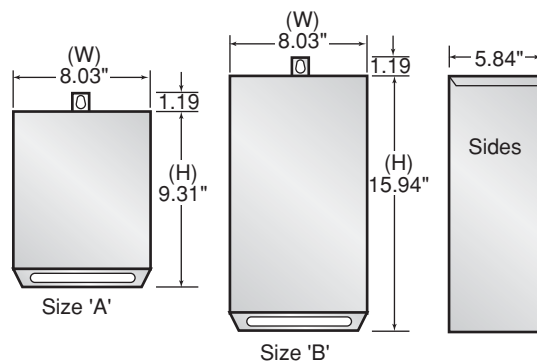
- **Knockouts:** Two 1.31" diameter holes for 1" conduit connection. One 1.75" knockout for 1.25" conduit. One 0.88" knockout for 0.5" conduit connection.
- **Terminal Block:** six terminals provided for wiring up to AWG 2 wire.



## Standard & Deluxe Dimensions

### Standard Control Boxes

| HP        | KW  | SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) | ENC SIZE |
|-----------|-----|-----------------|-----|-------------------------------|----------|
|           |     | LBS             | KG  |                               |          |
| 1.5       | 1.1 | 7               | 3.2 | 8.125 x 6.25 x 11.25          | A        |
| 2         | 1.5 | 7               | 3.2 | 8.125 x 6.25 x 11.25          | A        |
| 3         | 2.2 | 7               | 3.2 | 8.125 x 6.25 x 11.25          | A        |
| 5 (60 Hz) | 3.7 | 8               | 3.6 | 8.125 x 6.25 x 11.25          | A        |
| 5 (50 Hz) | 3.7 | 8               | 3.6 | 8.125 x 6.25 x 18             | B        |
| 7.5       | 5.5 | 12              | 5.5 | 8.125 x 6.25 x 18             | B        |
| 10        | 7.5 | 14              | 6.4 | 8.125 x 6.25 x 18             | B        |



### Deluxe Control Boxes

| HP      | KW  | SHIPPING WEIGHT |      | MOTOR CARTON SIZE (in inches) | ENC SIZE |
|---------|-----|-----------------|------|-------------------------------|----------|
|         |     | LBS             | KG   |                               |          |
| 2       | 1.5 | 7.0             | 3.2  | 8.125 x 6.25 x 11.25          | A        |
| 3       | 2.2 | 7.3             | 3.3  | 8.125 x 6.25 x 11.25          | A        |
| 5       | 3.7 | 11.2            | 5.1  | 8.125 x 6.25 x 18             | B        |
| 7.5     | 5.5 | 13.1            | 6.0  | 8.125 x 6.25 x 18             | B        |
| 10      | 7.5 | 14.7            | 6.7  | 8.125 x 6.25 x 18             | B        |
| 15      | 11  | 16.5            | 7.5  | 8.125 x 6.25 x 18             | B        |
| 15 (XL) | 11  | 28.0            | 12.7 | 16 x 7.125 x 19               | C        |

# Submersible Motor Control Boxes

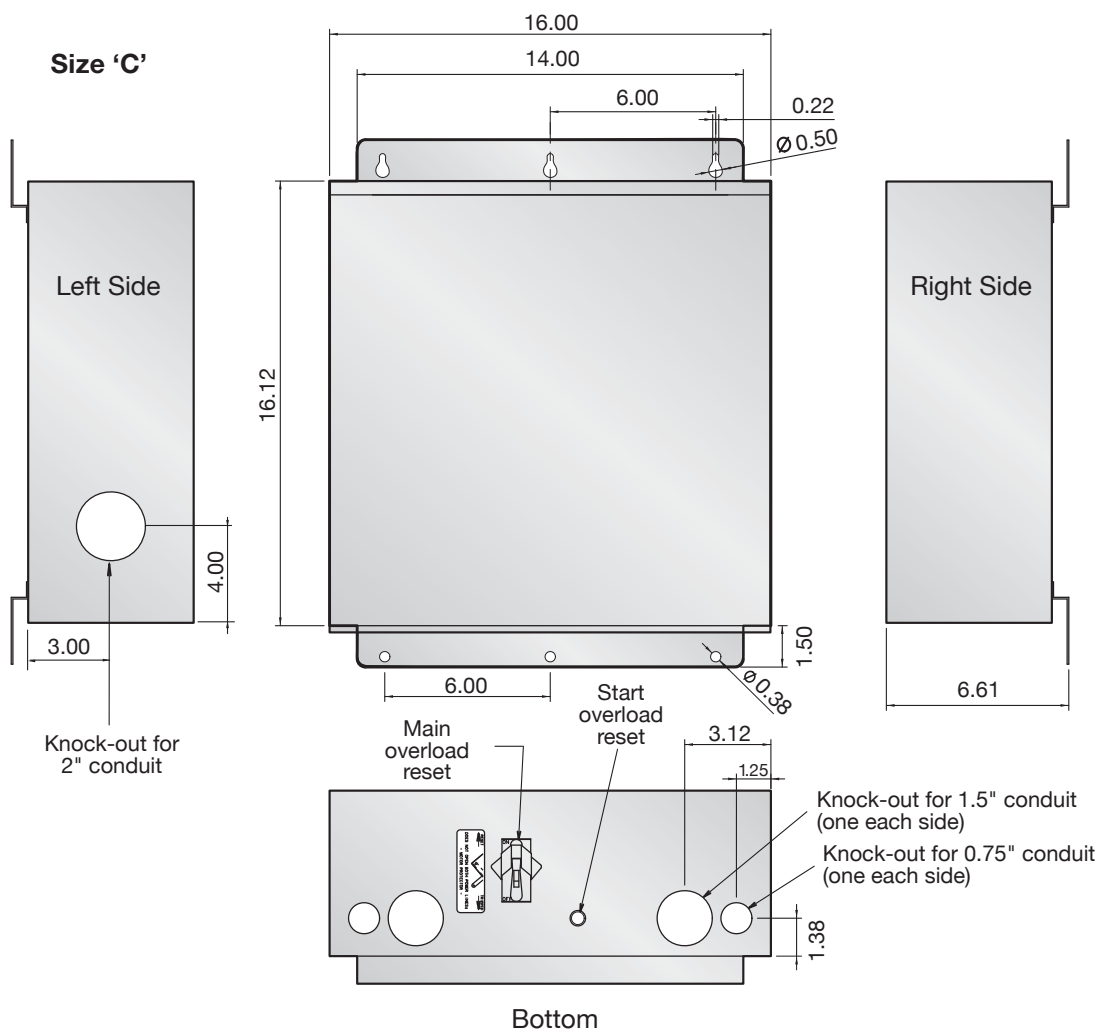
## Enclosure - Extra Large Deluxe (D-XL) Boxes

### ■ Knockouts:

- Bottom: two knockouts for 0.75" conduit, and two for 1.5" conduit.
- Side: one knockout for 2" conduit.

### ■ Terminal Block: two terminals provided for incoming power and three terminals provided for drop cable for conductors from AWG 14 to 00.

### ■ Control Switch Terminal Block: accepts conductors from AWG 20 to 6.



# Submersible Motor Control Boxes

## Control Box Models

| HP (KW)                 | DESCRIPTION |       |    |      | MODEL        | STOCK STATUS |
|-------------------------|-------------|-------|----|------|--------------|--------------|
|                         | PH          | VOLTS | HZ | TYPE |              |              |
| <b>1/3 hp (0.25 kW)</b> | 1P          | 115   | 60 | Q    | 280 102 4915 | YES          |
|                         | 1P          | 220   | 50 | Q    | 280 353 0115 |              |
|                         | 1P          | 230   | 60 | Q    | 280 103 4915 | YES          |
| <b>1/2 hp (0.37 kW)</b> | 1P          | 115   | 60 | Q    | 280 104 4915 | YES          |
|                         | 1P          | 220   | 50 | Q    | 280 355 0115 | YES          |
|                         | 1P          | 230   | 60 | Q    | 280 105 4915 | YES          |
|                         | 1P          | 230   | 60 | CRC  | 282 405 5015 | YES          |
| <b>3/4 hp (0.55 kW)</b> | 1P          | 220   | 50 | Q    | 280 357 0115 | YES          |
|                         | 1P          | 230   | 60 | Q    | 280 107 4915 | YES          |
|                         | 1P          | 230   | 60 | CRC  | 282 407 5015 | YES          |
| <b>1 hp (0.75 kW)</b>   | 1P          | 220   | 50 | Q    | 280 358 0115 | YES          |
|                         | 1P          | 230   | 60 | Q    | 280 108 4915 | YES          |
|                         | 1P          | 230   | 60 | CRC  | 282 408 5015 | YES          |
| <b>1.5 hp (1.1 kW)</b>  | 1P          | 220   | 50 | S    | 282 350 8110 | YES          |
|                         | 1P          | 230   | 60 | S    | 282 300 8110 | YES          |
| <b>2 hp (1.5 kW)</b>    | 1P          | 220   | 50 | S    | 282 351 8110 | YES          |
|                         | 1P          | 230   | 60 | S    | 282 301 8110 | YES          |
|                         | 1P          | 230   | 60 | D    | 282 301 8310 | YES          |
| <b>3 hp (2.2 kW)</b>    | 1P          | 220   | 50 | S    | 282 352 8110 | YES          |
|                         | 1P          | 230   | 60 | S    | 282 302 8110 | YES          |
|                         | 1P          | 230   | 60 | D    | 282 302 8310 | YES          |
| <b>5 hp (3.7 kW)</b>    | 1P          | 220   | 50 | S    | 282 253 9010 | YES          |
|                         | 1P          | 230   | 60 | S    | 282 113 8110 | YES          |
|                         | 1P          | 230   | 60 | D    | 282 113 9310 | YES          |
| <b>7.5 hp (5.5 kW)</b>  | 1P          | 230   | 60 | S    | 282 201 9210 | YES          |
|                         | 1P          | 230   | 60 | D    | 282 201 9310 | YES          |
| <b>10 hp (7.5 kW)</b>   | 1P          | 230   | 60 | S    | 282 202 9230 | YES          |
|                         | 1P          | 230   | 60 | D    | 282 202 9330 | YES          |
| <b>15 hp (11 kW)</b>    | 1P          | 230   | 60 | D    | 282 203 9330 | YES          |
|                         | 1P          | 230   | 60 | D-XL | 282 203 9621 | YES          |

### NOTES:

Q = Quick Disconnect Control Box

CRC = Capacitor Run Control Box

S = Standard Control Box

D = Deluxe Control Box

D-XL = Extra Large Deluxe Control Box

# Submersible Motor Control Boxes

## Control Box Parts

### QD Control Box Parts - 60 Hz

| HP Voltage Model No.                      | Rating                             | No. Req. | Component Part No. | Kit Order No. |
|-------------------------------------------|------------------------------------|----------|--------------------|---------------|
| <b>1/3 hp - 115 V</b><br>280 102 4915     | Start Capacitor 159-191 MFD, 110 V | 1        | 275 464 125        | 305 207 925   |
|                                           | QD Relay                           | 1        | 223 415 905        | 305 101 905   |
| <b>1/3 hp - 230 V</b><br>280 103 4915     | Start Capacitor 43-53 MFD, 220 V   | 1        | 275 464 126        | 305 207 926   |
|                                           | QD Relay                           | 1        | 223 415 901        | 305 101 901   |
| <b>1/2 hp - 115 V</b><br>280 104 4915     | Start Capacitor 250-300 MFD, 125 V | 1        | 275 464 201        | 305 207 951   |
|                                           | QD Relay                           | 1        | 223 415 906        | 305 101 906   |
| <b>1/2 hp - 230 V</b><br>280 105 4915     | Start Capacitor 59-71 MFD, 220 V   | 1        | 275 464 105        | 305 207 905   |
|                                           | QD Relay                           | 1        | 223 415 902        | 305 101 902   |
| <b>3/4 hp - 230 V</b><br>280 107 4915     | Start Capacitor 86-103 MFD, 220 V  | 1        | 275 464 118        | 305 207 918   |
|                                           | QD Relay                           | 1        | 223 415 903        | 305 101 903   |
| <b>1 hp - 230 V</b><br>280 108 4915       | Start Capacitor 105-126 MFD, 220 V | 1        | 275 464 113        | 305 207 913   |
|                                           | QD Relay                           | 1        | 223 415 904        | 305 101 904   |
| <b>1/2 hp - 230 V</b><br>CRC 282 405 5015 | Start Capacitor 43-53 MFD, 220 V   | 1        | 275 464 126        | 305 207 926   |
|                                           | Run Capacitor 15 MFD, 370 V        | 1        | 156 362 101        | 305 203 907   |
|                                           | QD Relay                           | 1        | 223 415 912        | 305 105 901   |
| <b>3/4 hp - 230 V</b><br>CRC 282 407 5015 | Start Capacitor 59-71 MFD, 220 V   | 1        | 275 464 105        | 305 207 905   |
|                                           | Run Capacitor 23 MFD, 370 V        | 1        | 156 362 102        | 305 203 908   |
|                                           | QD Relay                           | 1        | 223 415 913        | 305 105 902   |
| <b>1 hp - 230 V</b><br>CRC 282 408 5015   | Start Capacitor 86-103 MFD, 220 V  | 1        | 275 464 118        | 305 207 918   |
|                                           | Run Capacitor 23 MFD, 370 V        | 1        | 156 362 102        | 305 203 908   |
|                                           | QD Relay                           | 1        | 223 415 914        | 305 105 903   |

### QD Control Box Parts - 50 Hz

| HP Voltage Model No.                  | Rating                           | No. Req. | Component Part No. | Kit Order No. |
|---------------------------------------|----------------------------------|----------|--------------------|---------------|
| <b>1/3 hp - 220 V</b><br>280 353 0115 | Start Capacitor 43-53 MFD, 220 V | 1        | 275 461 123        | 305 205 923   |
|                                       | Capacitor Overload Assembly      | 1        | 151 033 957        | 305 218 957   |
|                                       | Relay 220 V                      | 1        | 155 031 112        | 305 213 912   |
| <b>1/2 hp - 220 V</b><br>280 355 0115 | Start Capacitor 43-53 MFD, 220 V | 1        | 275 461 123        | 305 205 923   |
|                                       | Capacitor Overload Assembly      | 1        | 151 033 957        | 305 218 957   |
|                                       | Relay 220 V                      | 1        | 155 031 112        | 305 213 912   |
| <b>3/4 hp - 220 V</b><br>280 357 0115 | Start Capacitor 59-71 MFD, 220 V | 1        | 275 461 108        | 305 205 908   |
|                                       | Capacitor Overload Assembly      | 1        | 151 033 918        | 305 218 918   |
|                                       | Relay 220 V                      | 1        | 155 031 112        | 305 213 912   |
| <b>1 hp - 220 V</b><br>280 358 0115   | Start Capacitor 86-103 MFD, 220V | 1        | 275 461 106        | 305 205 906   |
|                                       | Capacitor Overload Assembly      | 1        | 151 033 906        | 305 218 906   |
|                                       | Relay 220 V                      | 1        | 155 031 112        | 305 213 912   |

### Replacement Parts for Older Style QD Control Boxes

| Description                        | Rating                           | No. Req. | Component Part No. | Kit Order No. |
|------------------------------------|----------------------------------|----------|--------------------|---------------|
| <b>Voltage Relay Kit</b>           | 115 Volt with bracket and screws | 1        | 155 031 901        | 305 102 901   |
|                                    | 230 Volt with bracket and screws | 1        | 155 031 902        | 305 102 902   |
|                                    | 208 Volt with bracket and screws | 1        | 155 031 903        | 305 102 903   |
| <b>Capacitor Overload Assembly</b> | 1/3 hp, 115 Volt                 | 1        | 151 033 973        | 305 218 973   |
|                                    | 1/3 hp, 230 Volt                 | 1        | 151 033 974        | 305 218 974   |
|                                    | 1/2 hp, 115 Volt                 | 1        | 151 033 975        | 305 218 975   |
|                                    | 1/2 hp, 230 Volt                 | 1        | 151 033 976        | 305 218 976   |
|                                    | 3/4 hp, 230 Volt                 | 1        | 151 033 978        | 305 218 978   |
|                                    | 1 hp, 230 Volt                   | 1        | 151 033 979        | 305 218 979   |
|                                    | 1.5 hp, 230 Volt                 | 1        | 151 033 980        | 305 218 980   |
| <b>Overload Kit</b>                | 1/3 hp, 115 Volt                 | 1        | NA                 | 305 100 901   |
|                                    | 1/3 hp, 230 Volt                 | 1        | NA                 | 305 100 902   |
|                                    | 1/2 hp, 115 Volt                 | 1        | NA                 | 305 100 903   |
|                                    | 1/2 hp, 230 Volt                 | 1        | NA                 | 305 100 904   |
|                                    | 3/4 hp, 230 Volt                 | 1        | NA                 | 305 100 905   |
|                                    | 1 hp, 230 Volt                   | 1        | NA                 | 305 100 906   |

**NOTE:** Some Franklin motors, controls & parts are not stock items and may need to be special ordered.

# Submersible Motor Control Boxes

## Control Box Parts

### Standard Control Box Parts - 60 Hz

| HP Size<br>Model No.                      | Rating                              | No.<br>Req. | Component<br>Part No. | Kit<br>Order No. |
|-------------------------------------------|-------------------------------------|-------------|-----------------------|------------------|
| <b>1/1.5 hp - 4"</b><br>282 300 8110      | Start Capacitor 105-126 MFD, 220 V  | 1           | 275 464 113           | 305 207 913      |
|                                           | Run Capacitor 10 MFD, 370 V         | 1           | 155 328 102           | 305 204 902      |
|                                           | Overload                            | 1           | 275 411 107           | 305 215 907      |
|                                           | Relay - 230 V*                      | 1           | 155 031 102           | 305 213 902      |
| <b>2 hp - 4"</b><br>282 301 8110          | Start Capacitor 105-126 MFD, 220 V  | 1           | 275 464 113           | 305 207 913      |
|                                           | Run Capacitor 20 MFD, 370 V         | 1           | 155 328 103           | 305 204 903      |
|                                           | Start Overload                      | 1           | 275 411 117           | 305 215 917      |
|                                           | Run Overload                        | 1           | 275 411 113           | 305 215 913      |
| <b>3 hp - 4"</b><br>2823028110            | Relay - 230 V*                      | 1           | 155 031 102           | 305 213 902      |
|                                           | Start Capacitor 208-250 MFD, 220 V  | 1           | 275 463 111           | 305 206 911      |
|                                           | Run Capacitor 45 MFD, 370 V         | 1           | 155 327 109           | 305 203 909      |
|                                           | Start Overload                      | 1           | 275 411 118           | 305 215 918      |
| <b>5 hp - 4" &amp; 6"</b><br>282 113 8110 | Run Overload                        | 1           | 275 411 115           | 305 215 915      |
|                                           | Relay - 230 V*                      | 1           | 155 031 102           | 305 213 902      |
|                                           | Start Capacitor 270-324 MFD, 330 V  | 1           | 275 468 119           | 305 208 919      |
|                                           | Run Capacitor 40 MFD, 370 V         | 2           | 155 327 114           | 305 203 914      |
| <b>7.5 hp - 6"</b><br>282 201 9210        | Start Overload                      | 1           | 275 411 119           | 305 215 919      |
|                                           | Run Overload                        | 1           | 275 406 102           | 305 214 902      |
|                                           | Relay - 230V*                       | 1           | 155 031 601           | 305 213 961      |
|                                           | Start Capacitor 270-324 MFD, 330 V  | 1           | 275 468 119           | 305 208 919      |
| <b>10 hp - 6"</b><br>282 202 9230         | Start Capacitor 216-259 MFD, 330 V  | 1           | 275 468 118           | 305 208 918      |
|                                           | Run Capacitor 45 MFD, 370 V         | 1           | 155 327 109           | 305 203 909      |
|                                           | Start Overload                      | 1           | 275 411 102           | 305 215 902      |
|                                           | Run Overload                        | 1           | 275 406 122           | 305 214 922      |
| <b>208 V Relay *</b>                      | Relay - 230V*                       | 1           | 155 031 601           | 305 213 961      |
|                                           | Start Capacitor 270-324 MFD, 330 V  | 1           | 275 468 119           | 305 208 919      |
|                                           | Start Capacitor 130-154 MFD, 330 V  | 1           | 275 463 120           | 305 206 920      |
|                                           | Start Capacitor 216-259 MFD, 330 V  | 1           | 275 468 118           | 305 208 918      |
| <b>All</b>                                | Run Capacitor 35 MFD, 370 V         | 2           | 155 327 102           | 305 203 902      |
|                                           | Start Overload                      | 1           | 275 406 103           | 305 214 903      |
|                                           | Run Overload                        | 1           | 155 409 101           | 155 409 101      |
|                                           | Relay - 230V*                       | 1           | 155 031 601           | 305 213 961      |
| <b>208 V Relay *</b>                      | Lightning Arrestor                  | 1           | 150 814 902           | 150 814 902      |
|                                           | Relay 1.5-3 hp (replaces 155031102) | 1           | 155 031 103           | 305 213 903      |
|                                           | Relay 5-15 hp (replaces 155031601)  | 1           | 155 031 602           | 305 213 904      |

### Standard Control Box Parts - 50 Hz

| HP Voltage<br>Model No.               | Rating                             | No.<br>Req. | Component<br>Part No. | Kit<br>Order No. |
|---------------------------------------|------------------------------------|-------------|-----------------------|------------------|
| <b>1.5 hp - 220 V</b><br>282 350 8110 | Start Capacitor 105-126 MFD, 220 V | 1           | 275 464 113           | 305 207 913      |
|                                       | Run Capacitor 10 MFD, 370 V        | 1           | 155 328 102           | 305 203 909      |
|                                       | Overload Assembly - Run            | 1           | 275 411 114           | 305 215 914      |
|                                       | Relay 220 V                        | 1           | 155 031 112           | 305 213 912      |
| <b>2 hp - 220 V</b><br>282 351 8110   | Start Capacitor 189-227 MFD, 220 V | 1           | 275 468 115           | 305 208 915      |
|                                       | Run Capacitor 20 MFD, 370V         | 1           | 155 328 103           | 305 204 903      |
|                                       | Overload Assembly - Run            | 1           | 275 411 102           | 305 215 902      |
|                                       | Overload Assembly - Start          | 1           | 275 411 106           | 305 215 906      |
| <b>3 hp - 220 V</b><br>282 352 8110   | Relay 220 V                        | 1           | 155 031 112           | 305 213 912      |
|                                       | Start Capacitor 270-324 MFD, 220 V | 1           | 275 468 119           | 305 208 919      |
|                                       | Run Capacitor 35 MFD, 370 V        | 1           | 155 327 102           | 305 203 902      |
|                                       | Overload Assembly - Run            | 1           | 275 406 107           | 305 214 907      |
| <b>5 hp - 220 V</b><br>282 253 9010   | Overload Assembly - Start          | 1           | 275 411 107           | 305 215 907      |
|                                       | Relay 220 V                        | 1           | 155 031 112           | 305 213 912      |
|                                       | Start Capacitor 189-227 MFD, 220 V | 2           | 275 468 115           | 305 208 915      |
|                                       | Run Capacitor 30 MFD, 220 V        | 1           | 155 327 101           | 305 203 901      |
| <b>208 V Relay *</b>                  | Run Capacitor 45 MFD, 220 V        | 1           | 155 327 109           | 305 203 909      |
|                                       | Overload Assmbly - Run             | 1           | 275 406 102           | 305 214 902      |
|                                       | Overload Assembly - Start          | 1           | 275 411 102           | 305 215 902      |
|                                       | Relay 220 V                        | 1           | 155 031 112           | 305 213 912      |

**NOTE:** Some Franklin motors, controls and parts are not stock items and may need to be special ordered.

\* For 208 V systems or where line voltage is between 200 V and 210 V a low voltage relay and larger cable are required:

- Use relay part number 155 031 103 in place of 155 031 102 on 1.5 through 3 hp applications.
- Use relay 115 031 602 for 5-15 hp applications.
- Use the next size larger cable than is specified in the 230 V table.
- Boost transformers are an alternative to special relay and cable.

# Submersible Motor Control Boxes

## Control Box Parts

### Deluxe Control Box Parts

| HP Size<br>Model No.                                          | Rating                                | No. Req. | Component<br>Part No. | Kit Order No. |
|---------------------------------------------------------------|---------------------------------------|----------|-----------------------|---------------|
| <b>2 hp - 4"</b><br>282 301 8310                              | Start Capacitor 105-126 MFD, 220 V    | 1        | 275 464 113           | 305 207 913   |
|                                                               | Run Capacitor 20 MFD, 370 V           | 1        | 155 328 103           | 305 204 903   |
|                                                               | Start Overload                        | 1        | 275 411 117           | 305 215 917   |
|                                                               | Run Overload                          | 1        | 275 411 113           | 305 215 913   |
|                                                               | Contactor                             | 1        | 155 325 102           | 305 226 901   |
|                                                               | Relay - 230 V*                        | 1        | 155 031 102           | 305 213 902   |
| <b>3 hp - 4"</b><br>282 302 8310                              | Start Capacitor 208-250 MFD, 220 V    | 1        | 275 463 111           | 305 206 911   |
|                                                               | Run Capacitor 45 MFD, 370 V           | 1        | 155 327 109           | 305 203 909   |
|                                                               | Start Overload                        | 1        | 275 411 118           | 305 215 918   |
|                                                               | Run Overload                          | 1        | 275 411 115           | 305 215 915   |
|                                                               | Contactor                             | 1        | 155 325 102           | 305 226 901   |
|                                                               | Relay - 230 V*                        | 1        | 155 031 102           | 305 213 902   |
| <b>5 hp - 4" &amp; 6"</b><br>282 113 9310                     | Start Capacitor 270-324 MFD, 330 V    | 1        | 275 468 119           | 305 208 919   |
|                                                               | Run Capacitor 40 MFD, 370 V           | 2        | 155 327 114           | 305 203 914   |
|                                                               | Start Overload                        | 1        | 275 411 119           | 305 215 919   |
|                                                               | Run Overload                          | 1        | 275 406 102           | 305 214 902   |
|                                                               | Contactor                             | 1        | 155 326 101           | 305 347 903   |
|                                                               | Relay - 230 V*                        | 1        | 155 031 601           | 305 213 961   |
| <b>7.5 hp - 6"</b><br>282 201 9310                            | Start Capacitor 270-324 MFD, 330 V    | 1        | 275 468 119           | 305 208 919   |
|                                                               | Start Capacitor 216-259 MFD, 330 V    | 1        | 275 468 118           | 305 208 918   |
|                                                               | Run Capacitor 45 MFD, 370 V           | 1        | 155 327 109           | 305 203 909   |
|                                                               | Start Overload                        | 1        | 275 411 102           | 305 215 902   |
|                                                               | Run Overload                          | 1        | 275 406 121           | 305 214 921   |
|                                                               | Contactor                             | 1        | 155 326 102           | 305 347 902   |
|                                                               | Relay - 230 V*                        | 1        | 155 031 601           | 305 213 961   |
| <b>10 hp - 6"</b><br>282 202 9330                             | Start Capacitor 270-324 MFD, 330 V    | 1        | 275 468 119           | 305 208 919   |
|                                                               | Start Capacitor 130-154 MFD, 330 V    | 1        | 275 463 120           | 305 206 920   |
|                                                               | Start Capacitor 216-259 MFD, 330 V    | 1        | 275 468 118           | 305 208 918   |
|                                                               | Run Capacitor 35 MFD, 370 V           | 2        | 155 327 102           | 305 203 902   |
|                                                               | Start Overload                        | 1        | 275 406 103           | 305 214 903   |
|                                                               | Run Overload                          | 1        | 155 409 101           | 155 409 101   |
|                                                               | Contactor                             | 1        | 155 326 102           | 305 347 902   |
| <b>15 hp - 6"</b><br>282 203 9330                             | Relay - 230 V*                        | 1        | 155 031 601           | 305 213 961   |
|                                                               | Start Capacitor 270-324 MFD, 330 V    | 2        | 275 468 119           | 305 208 919   |
|                                                               | Start Capacitor 161-193 MFD, 330 V    | 1        | 275 463 122           | 305 206 912   |
|                                                               | Run Capacitor 45 MFD, 370 V           | 3        | 155 327 109           | 305 203 909   |
|                                                               | Start Overload                        | 1        | 275 406 103           | 305 214 903   |
|                                                               | Run Overload                          | 1        | 155 409 102           | 155 409 102   |
|                                                               | Contactor                             | 1        | 155 429 101           | 305 347 901   |
| <b>15 hp - 6"</b><br>282 203 9621<br><b>X-Large Enclosure</b> | Relay - 230 V*                        | 1        | 155 031 601           | 305 213 961   |
|                                                               | Start Capacitor 350-420 MFD, 330 V    | 2        | 275 468 120           | 305 208 920   |
|                                                               | Run Capacitor 45 MFD, 370 V           | 3        | 155 327 109           | 305 203 909   |
|                                                               | Start Overload                        | 1        | 275 406 103           | 305 214 903   |
|                                                               | Run Overload                          | 1        | 155 409 102           | 155 409 102   |
|                                                               | Contactor                             | 1        | 155 429 101           | 305 347 901   |
| <b>All</b>                                                    | Relay - 230 V*                        | 2        | 155 031 601           | 305 213 961   |
|                                                               | Lightning Arrestor                    | 1        | 150 814 902           | 150 814 902   |
| <b>208 V Relay*</b>                                           | Relay 1.5-3 hp (replaces 155 031 102) | 1        | 155 031 103           | 305 213 903   |
|                                                               | Relay 5-15 hp (replaces 155 031 601)  | 1        | 155 031 602           | 305 213 904   |

**NOTE:** Some Franklin motors, controls & parts are not stock items and may need to be special ordered.

\* For 208 V systems or where line voltage is between 200 V and 210 V a low voltage relay and larger cable are required:

- Use relay part number 155 031 103 in place of 155 031 102 on 1.5 through 3 hp applications.
- Use relay 115 031 602 for 5-15 hp applications.
- Use the next size larger cable than is specified in the 230 V table.
- Boost transformers are an alternative to special relay and cable.

# Single-Phase Motor Protection

## Single-Phase Protection Devices



## Applications

These protection devices are designed to protect Franklin Electric single-phase motors from the various conditions listed below.



QD Pumptec is designed to easily plug into any Franklin QD Relay Control Box.

|                                     | QD Pumptec | Pumptec IR | Pumptec-Plus |
|-------------------------------------|------------|------------|--------------|
| Air or Gas Locked Pump (Cavitation) | ■          | ■          | ■            |
| Broken Shaft or Coupling            | ■          | ■          | ■            |
| Clogged Well Screen                 | ■          | ■          | ■            |
| Drop in Water Level                 | ■          | ■          | ■            |
| Faulty Check Valve                  |            | ■          | ■            |
| High Voltage                        | ■          | ■          | ■            |
| Low Voltage                         | ■          | ■          | ■            |
| Low Yield Wells                     | ■          | ■          | ■            |
| Rapid Cycling                       |            | ■          | ■            |
| Water Logged Tank                   |            | ■          | ■            |
| Worn Pump Parts                     | ■          | ■          | ■            |

### QD Pumptec

Exclusively designed for Franklin QD Relay Control Boxes, QD Pumptec is a solid state sensing device that monitors motor load and incoming power to automatically shut off a Franklin single-phase, 3-wire motor when related fault conditions are detected. QD Pumptec easily plugs into 3-wire Franklin QD Control Boxes with no additional wiring or tools required.

### Pumptec IR

Pumptec is a microcomputer-based device that monitors motor load and power line conditions to provide protection against dry well conditions, waterlogged tanks, and abnormal line voltage conditions. Pumptec interrupts power to the motor whenever the load drops quickly or below a preset level. Indicator lights provide complete system status.

### Pumptec-Plus

The Pumptec-Plus solid state pump protection system is designed for 1/2 to 5 hp single-phase submersible pump motors. Pumptec-Plus protects against a variety of fault conditions. Run and fault lights make diagnosis quick and easy. Push button Snap Shot™ calibration makes Pumptec-Plus simple to install and an effective troubleshooting tool.

# Single-Phase Motor Protection

## Single-Phase Electronic Protection Device Specifications

| PRODUCT               | HP RANGE  | KW RANGE    | VOLTS   | HZ    | RESET TIME                           | AGENCY APPROVALS |
|-----------------------|-----------|-------------|---------|-------|--------------------------------------|------------------|
| Pumptec W/ IR Control | 1/3 - 1.5 | 0.25 - 1.1  | 115/230 | 60/50 | Adjustable (2-120 Minutes)           | UL/cUL Listed    |
| Pumptec-Plus          | 1/2 - 5.0 | 0.37 - 3.7  | 230     | 60    | Adjustable (1-240 Minutes or Manual) | UL/cUL Listed    |
| Pumptec-Plus          | 1/2 - 5.0 | 0.37 - 3.7  | 220     | 50    | Adjustable (1-240 Minutes or Manual) | UL/cUL Listed    |
| QD Pumptec            | 1/3 - 1.0 | 0.25 - 0.75 | 230     | 60    | Adjustable (2-240 Minutes)           | UL/cUL Listed    |

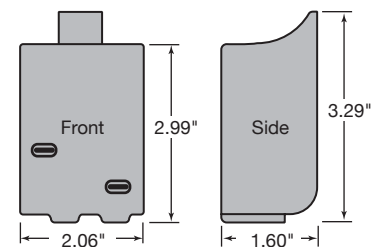
## Models

| PRODUCT               | DESCRIPTION |           |         |       | MODEL        | STOCK STATUS |
|-----------------------|-------------|-----------|---------|-------|--------------|--------------|
|                       | PH          | HP        | VOLTS   | HZ    |              |              |
| Pumptec W/ IR Control | 1P          | 1/3 - 1.5 | 115/230 | 60/50 | 580 002 0600 | YES          |
| Pumptec-Plus          | 1P          | 1/2 - 5.0 | 230     | 60    | 580 006 0100 | YES          |
|                       | 1P          | 1/2 - 5.0 | 220     | 50    | 580 006 0500 | YES          |
| QD Pumptec            | 1P          | 1/3 - 1.0 | 230     | 60    | 580 007 0600 | YES          |

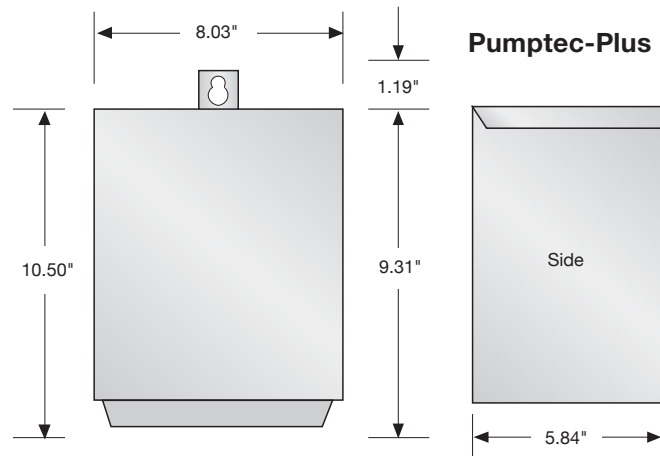
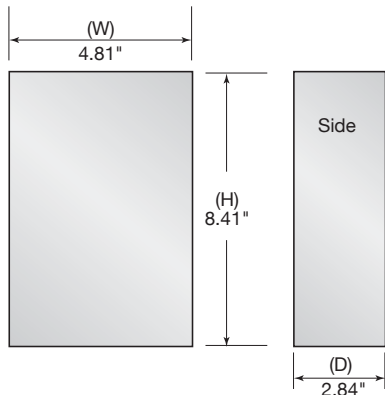
## Single-Phase Protection Devices

| PRODUCT               | SHIPPING WEIGHT |       | MOTOR CARTON SIZE (in inches) |
|-----------------------|-----------------|-------|-------------------------------|
|                       | LBS             | KG    |                               |
| Pumptec W/ IR Control | 3               | 1.3   | 5.25 x 8.875 x 3.25           |
| Pumptec-Plus          | 7               | 3.1   | 8.25 x 11.25 x 6.25           |
| QD Pumptec            | <1              | <0.05 | 4.25 x 2.375 x 2.25           |

QD Pumptec



Pumptec IR



# Three-Phase Control Panels



## Applications

Franklin's heavy duty three-phase panels are optimized for water and irrigation applications. The spacious layout makes installation and maintenance simple and easy, so there's no need to spend time wrestling with wires, and adding components is easy. With a Franklin three-phase control panel, you can be sure that your system is set-up according to Franklin's recommendations.

Franklin Electric three-phase control panels are available from 3 to 200 hp, in ratings from 200 to 575 Volts.

## Basic Features

- UL approved, heavy-duty NEMA 3R enclosure
- Class R fusible disconnect
- Service entrance rated
- Lightning arrestor
- Motor logic or Franklin SubMonitor protected
- NEMA contactor
- Door wind hinge
- Pilot device and alarm terminal block
- H-O-A switch
- Manual push-to-start switch
- Easy hook-up

# Three-Phase Control Panels

## Models

| HP     | DESCRIPTION | VOLTS | HZ | AMPS   | MODEL        | WT  |
|--------|-------------|-------|----|--------|--------------|-----|
| 3 hp   | MOTOR LOGIC | 200   | 60 | 6-18   | 281 101 2203 | 56  |
|        |             | 230   | 60 | 6-18   | 281 101 3303 | 56  |
|        |             | 460   | 60 | 3-9    | 281 101 4402 | 56  |
|        |             | 575   | 60 | 3-9    | 281 101 5502 | 56  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 101 2200 | 59  |
|        |             | 230   | 60 | ALL    | 281 101 3300 | 59  |
|        |             | 460   | 60 | ALL    | 281 101 4400 | 59  |
|        |             | 575   | 60 | ALL    | 281 101 5500 | 59  |
| 5 hp   | MOTOR LOGIC | 200   | 60 | 9-27   | 281 101 2204 | 56  |
|        |             | 230   | 60 | 9-27   | 281 104 3304 | 56  |
|        |             | 460   | 60 | 3-9    | 281 101 4402 | 56  |
|        |             | 575   | 60 | 3-9    | 281 101 5502 | 56  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 101 2200 | 59  |
|        |             | 230   | 60 | ALL    | 281 101 3300 | 59  |
|        |             | 460   | 60 | ALL    | 281 101 4400 | 59  |
|        |             | 575   | 60 | ALL    | 281 101 5500 | 59  |
| 7.5 hp | MOTOR LOGIC | 200   | 60 | 15-45  | 281 104 2206 | 60  |
|        |             | 230   | 60 | 15-45  | 281 104 3306 | 60  |
|        |             | 460   | 60 | 6-18   | 281 101 4403 | 56  |
|        |             | 575   | 60 | 6-18   | 281 101 5503 | 56  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 104 2200 | 63  |
|        |             | 230   | 60 | ALL    | 281 104 3300 | 63  |
|        |             | 460   | 60 | ALL    | 281 101 4400 | 59  |
|        |             | 575   | 60 | ALL    | 281 101 5500 | 59  |
| 10 hp  | MOTOR LOGIC | 200   | 60 | 15-45  | 281 104 2206 | 60  |
|        |             | 230   | 60 | 15-45  | 281 104 3306 | 60  |
|        |             | 460   | 60 | 9-27   | 281 101 4404 | 56  |
|        |             | 575   | 60 | 6-18   | 281 101 5503 | 56  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 104 2200 | 63  |
|        |             | 230   | 60 | ALL    | 281 104 3300 | 63  |
|        |             | 460   | 60 | ALL    | 281 101 4400 | 59  |
|        |             | 575   | 60 | ALL    | 281 101 5500 | 59  |
| 15 hp  | MOTOR LOGIC | 200   | 60 | 45-135 | 281 204 2208 | 147 |
|        |             | 230   | 60 | 30-90  | 281 204 3308 | 145 |
|        |             | 460   | 60 | 15-45  | 281 104 4406 | 60  |
|        |             | 575   | 60 | 15-45  | 281 104 5506 | 60  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 204 2200 | 150 |
|        |             | 230   | 60 | ALL    | 281 204 3300 | 148 |
|        |             | 460   | 60 | ALL    | 281 103 4400 | 63  |
|        |             | 575   | 60 | ALL    | 281 104 5500 | 59  |
| 20 hp  | MOTOR LOGIC | 200   | 60 | 30-90  | 281 205 2208 | 145 |
|        |             | 230   | 60 | 30-90  | 281 205 3308 | 145 |
|        |             | 460   | 60 | 15-45  | 281 104 4406 | 60  |
|        |             | 575   | 60 | 15-45  | 281 104 5506 | 60  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 205 2200 | 148 |
|        |             | 230   | 60 | ALL    | 281 205 3300 | 148 |
|        |             | 460   | 60 | ALL    | 281 103 4400 | 63  |
|        |             | 575   | 60 | ALL    | 281 104 5500 | 59  |

| HP     | DESCRIPTION | VOLTS | HZ | AMPS   | MODEL        | WT  |
|--------|-------------|-------|----|--------|--------------|-----|
| 25 hp  | MOTOR LOGIC | 200   | 60 | 30-90  | 281 206 2208 | 145 |
|        |             | 230   | 60 | 30-90  | 281 206 3308 | 145 |
|        |             | 460   | 60 | 15-45  | 281 104 4406 | 60  |
|        |             | 575   | 60 | 15-45  | 281 104 5506 | 60  |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 206 2200 | 148 |
|        |             | 230   | 60 | ALL    | 281 206 3300 | 148 |
|        |             | 460   | 60 | ALL    | 281 104 4400 | 63  |
|        |             | 575   | 60 | ALL    | 281 104 5500 | 63  |
| 30 hp  | MOTOR LOGIC | 200   | 60 | 45-135 | 281 207 2209 | 147 |
|        |             | 230   | 60 | 45-135 | 281 207 3309 | 147 |
|        |             | 460   | 60 | 30-90  | 281 104 4407 | 145 |
|        |             | 575   | 60 | 30-90  | 281 204 5507 | 145 |
|        | SUB-MONITOR | 200   | 60 | ALL    | 281 207 2200 | 151 |
|        |             | 230   | 60 | ALL    | 281 207 3300 | 151 |
|        |             | 460   | 60 | ALL    | 281 106 4400 | 148 |
|        |             | 575   | 60 | ALL    | 281 204 5500 | 148 |
| 40 hp  | MOTOR LOGIC | 460   | 60 | 30-90  | 281 205 4408 | 145 |
|        | SUB-MONITOR | 575   | 60 | 30-90  | 281 204 5507 | 145 |
|        |             | 460   | 60 | ALL    | 281 205 4400 | 148 |
|        |             | 575   | 60 | ALL    | 281 204 5500 | 148 |
| 50 hp  | MOTOR LOGIC | 460   | 60 | 30-90  | 281 206 4408 | 145 |
|        | SUB-MONITOR | 575   | 60 | 30-90  | 281 205 5508 | 145 |
|        |             | 460   | 60 | ALL    | 281 206 4400 | 148 |
|        |             | 575   | 60 | ALL    | 281 205 5500 | 148 |
| 60 hp  | MOTOR LOGIC | 460   | 60 | 45-135 | 281 207 4409 | 147 |
|        | SUB-MONITOR | 575   | 60 | 45-135 | 281 307 5510 | 147 |
|        |             | 460   | 60 | ALL    | 281 207 4400 | 150 |
|        |             | 575   | 60 | ALL    | 281 307 5500 | 150 |
| 75 hp  | MOTOR LOGIC | 460   | 60 | 45-135 | 281 207 4409 | 147 |
|        | SUB-MONITOR | 575   | 60 | 45-135 | 281 307 5510 | 147 |
|        |             | 460   | 60 | ALL    | 281 207 4400 | 150 |
|        |             | 575   | 60 | ALL    | 281 307 5500 | 150 |
| 100 hp | MOTOR LOGIC | 460   | 60 | 90-270 | 281 308 4411 | 390 |
|        | SUB-MONITOR | 575   | 60 | 45-135 | 281 307 5510 | 147 |
|        |             | 460   | 60 | ALL    | 281 308 4400 | 393 |
|        |             | 575   | 60 | ALL    | 281 307 5500 | 150 |
| 125 hp | MOTOR LOGIC | 460   | 60 | 90-270 | 281 309 4411 | 390 |
|        | SUB-MONITOR | 575   | 60 | 90-270 | 281 309 5511 | 390 |
|        |             | 460   | 60 | ALL    | 281 309 4400 | 393 |
|        |             | 575   | 60 | ALL    | 281 309 5500 | 393 |
| 150 hp | MOTOR LOGIC | 460   | 60 | 90-270 | 281 310 4412 | 390 |
|        | SUB-MONITOR | 575   | 60 | 90-270 | 281 309 5511 | 390 |
|        |             | 460   | 60 | ALL    | 281 310 4400 | 393 |
|        |             | 575   | 60 | ALL    | 281 309 5500 | 393 |
| 175 hp | MOTOR LOGIC | 460   | 60 | 90-270 | 2813104412   | 390 |
|        | SUB-MONITOR | 575   | 60 | 90-270 | 2813105512   | 390 |
|        |             | 460   | 60 | ALL    | 2813104400   | 393 |
|        |             | 575   | 60 | ALL    | 2813105500   | 393 |
| 200 hp | MOTOR LOGIC | 460   | 60 | 18-540 | 2813114413   | 660 |
|        | SUB-MONITOR | 575   | 60 | 90-270 | 2813105512   | 390 |
|        |             | 460   | 60 | ALL    | 2813114400   | 663 |
|        |             | 575   | 60 | ALL    | 2813105500   | 393 |

# Three-Phase Control Panels

## Three-Phase Control Panel Accessories



225 552 107

### Omega CN7500 Digital Reader for PT100 Sensor\*

The Omega CN7500 digital reader displays the temperature from Franklin Electric's PT100. The PT100 is a precision platinum wire resistor that is optional in Franklin's six- and eight-inch motors as a temperature input for process control equipment. The CN7500 digitally displays the temperature and can be set for certain temperature ranges. It trips the panel contactor in an over-temperature condition and resets the contactor once the temperature returns to the desired level.

See page 74 for PT100 sensor details

\* Due to space limitations, only auxiliary contacts and/or padlock attachments are available for NEMA 1 and 2 panels when a PT100 reader is selected.



### Control Circuit Transformers

Control circuit transformers convert the supply voltage required to power a piece of equipment to a voltage that is needed for various control circuits (pilot lights, selector switches, push buttons, etc.). The line voltage supplying the equipment is converted to control voltage by the transformer, eliminating the need to bring in a second source of power. (Note: Fuses are not supplied.)

| PART #    | NEMA SIZE | PRIMARY | SECONDARY | VOLT AMPS |
|-----------|-----------|---------|-----------|-----------|
| 225552131 | 1         | 240     | 120       | 100       |
| 225552141 | 1         | 480     | 120       | 100       |
| 225552132 | 2         | 240     | 120       | 100       |
| 225552142 | 2         | 480     | 120       | 100       |
| 225552133 | 3         | 240     | 120       | 150       |
| 225552143 | 3         | 480     | 120       | 150       |
| 225552134 | 4         | 240     | 120       | 300       |
| 225552144 | 4         | 480     | 120       | 300       |
| 225552135 | 5         | 240     | 120*      | 50        |
| 225552145 | 5         | 480     | 120*      | 50        |

#### NOTE:

For additional voltages, please specify both primary and secondary voltages.

\* Equipped with a NEMA rated AC control relay (open style) with two normally-open convertible instantaneous contacts (8501 XO20 Relay).

### Pilot Lights

Mounted on the enclosure door, the pilot light indicates when power is on/off or when a motor is in operation. It can easily be seen from the front of the panel. Choose your color to fit your application.



| PART #    | NEMA RATED | SIZE  | LENS COLOR |
|-----------|------------|-------|------------|
| 225552101 | Yes        | 30 mm | Red        |
| 225552102 | Yes        | 30 mm | Green      |
| 225552103 | Yes        | 30 mm | Amber      |
| 225552104 | Yes        | 30 mm | Clear      |

## Three-Phase Control Panels

### Three-Phase Control Panel Accessories — Cont.



225 552 110

#### Contacts

When adding control devices, auxiliary contacts may be required. These contacts mount on the side of the contactor and include one normally-open and one normally-closed auxiliary contact.



225 552 105

#### Padlock Attachment for H-O-A Switch

The padlock attachment allows the owner to lock the hand-off auto switch in the “on” or “off” position to prevent tampering with the pump panel.



225 552 171

#### Analog Style Elapsed Time Meter

The elapsed time meter keeps track of the total running time of the motor in hours. It is ideal for applications which require routine maintenance.



#### SubMonitor

See page 68 for details



225 552 108

#### cUL Rating

Panels can be equipped with the cUL rating to meet Canadian requirements.

# Three-Phase Motor Protection

## SubMonitor™ Three-Phase Protection



### Applications

SubMonitor is designed to protect three-phase pumps by monitoring current, voltage and motor temperature\* using three integrated current transformers. A face mounted digital display provides real-time current and voltage readings for all three legs and allows the user to set up the SubMonitor quickly and easily.

### Protects Against

- Under/Overload
- Under/Overtvoltage
- Current Unbalance
- Overheated Motor (Subtrol-equipped)
- False Start (Chattering)
- Phase Reversal

### Features

- Quick, menu-driven set-up
- Digital display shows voltage and current on all three legs at once
- Fault messages in easily understandable text
- Rated for 190 to 600 volts
- No need for additional turns around the CT or to add external CTs
- Password protection option
- Din rail mounting option
- Stored fault, setting changes, and pump run-time information easily accessed through display head
- Detachable NEMA 3R display unit easily mounted on panel door
- Turn-and-push adjustment knob
- Base unit can operate independent of detachable head
- UL and cUL listed

### Three-Phase Electronic Protection Device Specifications

**Input Voltage** ..... 190 – 600 VAC  
**Frequency** ..... 60/50 Hz  
**Motor Service Factor Amps**..... 5 to 350 Amps  
**Maximum Conductor Size Through Sensors**  
Max Diameter ..... 0.920 in. (23 mm)  
**Trip Response**  
Motor Under/Overload, Under/Overtvoltage,  
Overheat, Unbalance ..... 3 seconds  
**Control Circuit Rating** ..... 1.5 Amp AC, up to 600 V

**Signal Circuit Rating**..... 1 Amp AC, up to 250 V  
**Wiring Terminals**  
Wire Gauge ..... #12 to #18 AWG  
Tighten to ..... 4.5 in-lbs  
**Weight (SubMonitor)** ..... 3.3 lbs/1.5 kg  
**Carton Size (Std. Unit)** ..... 7.75 in x 11.5 in x 6.75 in  
(19.7 cm x 29.2 cm x 17.1 cm)  
**Shipping Weight (Std. Unit)** ..... 3.5 lbs/1.5 kg  
**Agency Approval** ..... UL and cUL listed

\* For motors equipped with a Subtrol heat sensor

# Three-Phase Motor Protection

## SubMonitor™ Three-Phase Protection

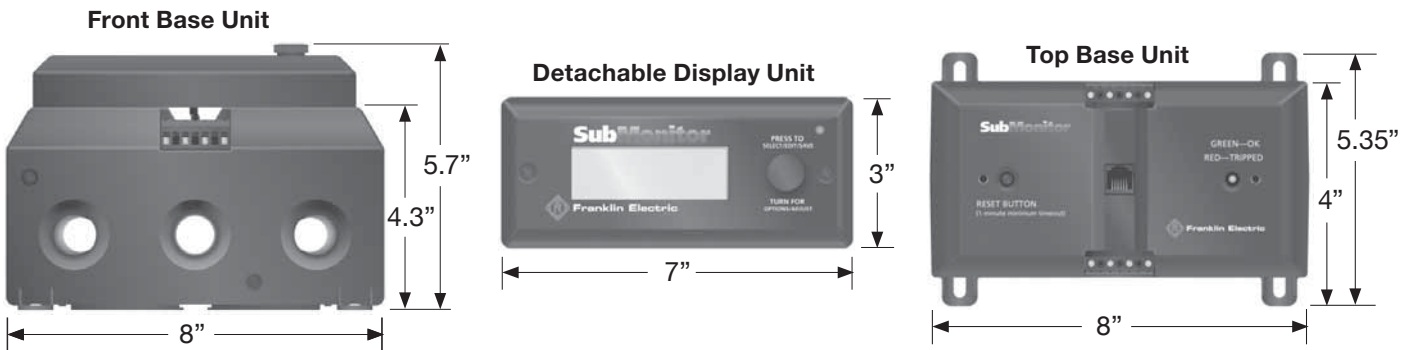
### Models

| PRODUCT             | DESCRIPTION |                |           |       | MODEL        | STOCK STATUS |
|---------------------|-------------|----------------|-----------|-------|--------------|--------------|
|                     | PH          | MAX AMPS RANGE | VOLTS     | HZ    |              |              |
| SubMonitor Standard | 3           | 5 - 350        | 190 - 600 | 60/50 | 586 000 5000 | YES          |
| SubMonitor Premium* | 3           | 5 - 350        | 190 - 600 | 60/50 | 586 000 5100 | YES          |
| Display             | N/A         | N/A            | N/A       | N/A   | 225 190 902  | YES          |
| Base Only           | N/A         | N/A            | N/A       | N/A   | 225 210 902  | YES          |

\* Includes lightning arrestor and 3-year warranty on SubMonitor and Subtrol-equipped motor

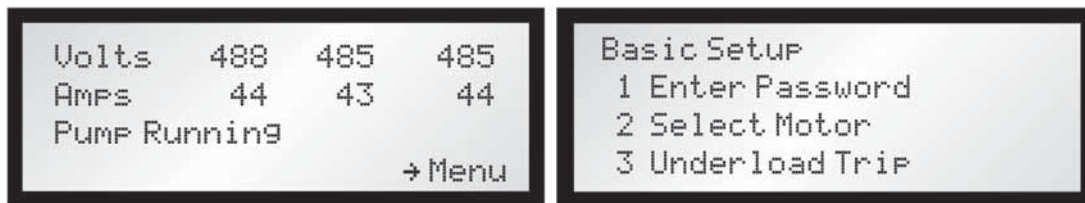
### Dimensions and Weights

| SHIPPING WEIGHT |     | MOTOR CARTON SIZE (in inches) |
|-----------------|-----|-------------------------------|
| LBS             | KG  |                               |
| 3.3             | 1.5 | 7.75 x 11.5 x 6.75            |



### Display

- Real-time display of voltage and current for each leg.
- Easy menu-driven setup and adjustment of monitoring parameters.



## SubMonitor Accessory



585 001 1100

### D3 Data Download Tool

D3 is a service tool that provides the capability to download data from SubMonitor and transfer that data to a PC.

Includes:

- D3 unit
- Transfer software
- USB cable

# Constant Pressure Controllers



## Applications

Franklin Electric's constant pressure controllers use state-of-the-art technology to provide constant water pressure through variable speed control of submersible water well pumps.

## Features—All Controllers

- Constant water pressure with a wide range of settings (25 to 80 psi)
- NEMA 4 (Outdoor) and NEMA 1 (Indoor) Enclosures
- Easy installation
- Soft start feature prevents water hammer and increases motor life
- Works with small pressure tanks or existing larger tanks
- Smart Reset® technology allows well recovery before restarting the pump
- Single-phase input power with three-phase motor performance (SubDrive models)
- Excellent radio frequency interference shielding
- UL and cUL listed
- Built-in Diagnostics and Protection
  - Surge protection
  - Underload
  - Undervoltage
  - Locked pump
  - Open circuit
  - Short circuit
  - Overheated controller

# Constant Pressure Controllers

## Features — MonoDrive & MonoDriveXT

- Selectable hp rating: MonoDrive (½, ¾, and 1 hp), MonoDriveXT (1.5 and 2 hp)
- Easy installation – remove the 3-wire control box and install the MonoDrive
- Can retrofit existing systems – no need to pull the pump
- NEMA 4 & NEMA 1 enclosure
- Single-phase, 3-wire

## Features — SubDrive75, SubDrive100, SubDrive150 & SubDrive300

- Works with a standard three-phase Franklin Electric submersible motor
- NEMA 4 & NEMA 1 enclosure
- Three-phase performance with single-phase input
  - High starting torque
  - More efficient
  - Smooth running

## Constant Pressure Controls Specifications

|                           |      | MonoDrive    | MonoDriveXT  | SubDrive75   | SubDrive100  | SubDrive150  | SubDrive300  |
|---------------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|
| Model No.<br>(Enclosure*) | (N1) | 587 020 3110 | 587 020 4110 | 587 020 3380 | 587 020 4100 | 587 020 4150 | N/A          |
|                           | (N4) | 587 020 3114 | 587 020 4114 | 587 020 3384 | 587 020 4104 | 587 020 4154 | 587 020 6300 |

### Input (From Power Source)

|                   |                                               |                               |                   |                   |                   |                   |
|-------------------|-----------------------------------------------|-------------------------------|-------------------|-------------------|-------------------|-------------------|
| Voltage           | 190-260 V 1-Phase                             | 190-260 V 1-Phase             | 190-260 V 1-Phase | 190-260 V 1-Phase | 190-260 V 1-Phase | 190-260 V 1-Phase |
| Frequency         | 60/50 Hz                                      | 60/50 Hz                      | 60/50 Hz          | 60/50 Hz          | 60/50 Hz          | 60/50 Hz          |
| Max Amps<br>(RMS) | 5.7 A (½ hp),<br>8.7 A (¾ hp),<br>11 A (1 hp) | 13 A (1.5 hp),<br>16 A (2 hp) | 11 A              | 19 A              | 23 A              | 36 A              |
| Power Factor      | 1 (Constant)                                  | 1 (Constant)                  | 1 (Constant)      | 1 (Constant)      | 1 (Constant)      | 1 (Constant)      |

### Output (To Motor)

|                   |                                                |                               |                     |                     |                     |                     |
|-------------------|------------------------------------------------|-------------------------------|---------------------|---------------------|---------------------|---------------------|
| Voltage           | Variable/1-Phase                               | Variable/1-Phase              | Variable/3-Phase    | Variable/3-Phase    | Variable/3-Phase    | Variable/3-Phase    |
| Frequency         | Variable (30-60 Hz)                            | Variable (30-60 Hz)           | Variable (30-80 Hz) | Variable (30-80 Hz) | Variable (30-80 Hz) | Variable (30-80 Hz) |
| Max Amps<br>(RMS) | 4.0 A (½ hp),<br>6.6 A (¾ hp),<br>9.0 A (1 hp) | 10 A (1.5 hp),<br>12 A (2 hp) | 5.9 A               | 8.1 A               | 10.9 A              | 17.8 A              |

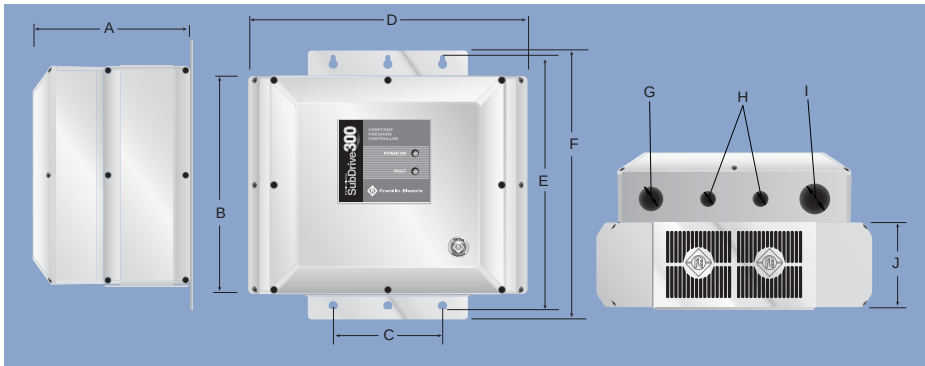
### For Use With:

|                               |                                                |                                           |                                           |                                           |                                           |                                           |
|-------------------------------|------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| Pump Rating                   | ½, ¾ or 1 hp<br>(Selectable)                   | 1.5 or 2 hp<br>(Selectable)               | ¾, 1 or 1.5 hp<br>(Selectable)            | 1, 1.5 or 2 hp<br>(Selectable)            | 1.5, 2 or 3 hp<br>(Selectable)            | 3 or 5 hp<br>(Selectable)                 |
| Motor Rating                  | ½, ¾ or 1 hp,<br>230 VAC (1-Phase)             | 1.5 or 2 hp,<br>230 VAC (1-Phase)         | 1.5 hp, 230 VAC<br>(3-Phase)              | 2 hp, 230 VAC<br>(3-Phase)                | 3 hp, 230 VAC<br>(3-Phase)                | 5 hp, 230 VAC<br>(3-Phase)                |
| Pressure Sensor<br>(Included) | External                                       | External                                  | External                                  | External                                  | External                                  | External                                  |
| Controller<br>Weight          | (N1) 15.00 lbs (6.80 kg)                       | 17.50 lbs (7.94 kg)                       | 15.00 lbs (6.80 kg)                       | 17.50 lbs (7.94 kg)                       | 17.50 lbs (7.94 kg)                       | N/A                                       |
|                               | (N4) 24.14 lbs (10.95 kg)                      | 28.32 lbs (12.84 kg)                      | 24.14 lbs (10.95 kg)                      | 28.32 lbs (12.84 kg)                      | 28.32 lbs (12.84 kg)                      | 35.15 lbs (15.94 kg)                      |
| Carton Size<br>(H x W x D)    | (N1) 16½ x 12¾ x 9"<br>41.9 x 31.4 x 22.9 cm   | 16½ x 12¾ x 9"<br>41.9 x 31.4 x 22.9 cm   | 16½ x 12¾ x 9"<br>41.9 x 31.4 x 22.9 cm   | 16½ x 12¾ x 9"<br>41.9 x 31.4 x 22.9 cm   | 16½ x 12¾ x 9"<br>41.9 x 31.4 x 22.9 cm   | N/A                                       |
|                               | (N4) 17½ x 16¾ x 11¾"<br>44.5 x 41.6 x 28.9 cm | 17½ x 16¾ x 11¾"<br>44.5 x 41.6 x 28.9 cm | 17½ x 16¾ x 11¾"<br>44.5 x 41.6 x 28.9 cm | 17½ x 16¾ x 11¾"<br>44.5 x 41.6 x 28.9 cm | 17½ x 16¾ x 11¾"<br>44.5 x 41.6 x 28.9 cm | 19½ x 17½ x 14¼"<br>50.5 x 44.5 x 36.2 cm |
| Shipping<br>Weight            | (N1) 19.23 lbs (8.72 kg)                       | 21.28 lbs (9.65 kg)                       | 19.23 lbs (8.72 kg)                       | 21.28 lbs (9.65 kg)                       | 21.28 lbs (9.65 kg)                       | N/A                                       |
|                               | (N4) 30.91 lbs (14.02 kg)                      | 35.09 lbs (15.92 kg)                      | 30.91 lbs (14.02 kg)                      | 35.09 lbs (15.92 kg)                      | 35.09 lbs (15.92 kg)                      | 40.95 lbs (18.57 kg)                      |

\*N1 = NEMA 1 (Indoors), N4 = NEMA 4 (Outdoors)

# Constant Pressure Controllers

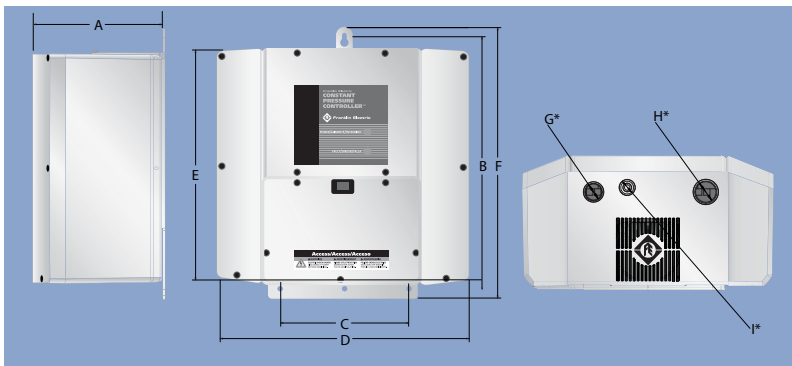
## SubDrive300



### NEMA 4 Dimensions in Inches (approximate)

| NEMA 4       | A    | B  | C | D     | E  | F     | G    | H     | I    | J    |
|--------------|------|----|---|-------|----|-------|------|-------|------|------|
| Dimension    | 8.75 | 12 | 6 | 15.34 | 14 | 14.75 | 1.37 | 0.885 | 1.71 | 4.75 |
| Conduit Size | -    | -  | - | -     | -  | -     | 1    | ½     | 1¼   | -    |

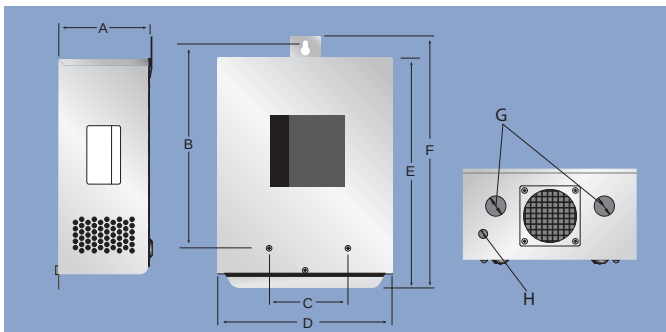
## SubDrive75/100/150/MonoDrive/MonoDriveXT



### NEMA 4 Dimensions in Inches (approximate)

| NEMA 4       | A    | B    | C | D    | E    | F    | G               | H               | I                          |
|--------------|------|------|---|------|------|------|-----------------|-----------------|----------------------------|
| Dimension    | 7.25 | 12.6 | 7 | 13.6 | 12.5 | 14.8 | 0.875/<br>1.100 | 1.100/<br>1.375 | closed/<br>0.473/<br>0.875 |
| Conduit Size | -    | -    | - | -    | -    | -    | ½ / ¾           | ¾ / 1           | ½                          |

## SubDrive75/100/150/MonoDrive/MonoDriveXT



### NEMA 1 Dimensions in Inches (approximate)

| NEMA 4       | A    | B    | C   | D    | E    | F  | G    | H   |
|--------------|------|------|-----|------|------|----|------|-----|
| Dimension    | 5.25 | 11.5 | 5.5 | 9.75 | 12.8 | 14 | 1.12 | 0.5 |
| Conduit Size | -    | -    | -   | -    | -    | -  | ¾    | -   |

\* Use knock-outs as required.

# Constant Pressure Controllers

## SubDrive Accessories



585 001 2000

### SubDrive Duplex Alternator

The SubDrive Alternator allows a water system to alternate between two parallel pumps controlled by separate SubDrives or MonoDrives. The user-selected switching interval balances the run time of each pump system to evenly disperse the workload. In addition, when demand exceeds the capacity of one pumping system, the other system comes online to supplement production. The SubDrive Alternator can be used with any SubDrive or MonoDrive controller.

|                                      |                  |                                         |
|--------------------------------------|------------------|-----------------------------------------|
| Input (From Power Source)            | Voltage          | 115 VAC                                 |
|                                      | Frequency        | 60 Hz                                   |
| Pressure Setting*                    | Factory Preset   | 50 psi                                  |
|                                      | Adjustment Range | 25-80 psi                               |
| Approximate Controller Size (NEMA 4) | Outer Dimensions | 5.8 x 5.8 x 3.6" (14.7 x 14.7 x 9.1 cm) |
|                                      | Weight           | 1.3 lbs (0.59 kg)                       |

\* Pressure sensors must be set at least 3 psi apart.



### SubDrive/MonoDrive Fan Kits

Installers can remove the fan and make an attempt to clean the fan by removing any particles that may restrict movement. In applications where the fan cannot be cleaned or freed from particles, or is damaged or malfunctioning, the fan replacement kit is an easy and inexpensive fix.

#### NEMA 4

| CONTROLLER                                | KIT PART NUMBER                      |
|-------------------------------------------|--------------------------------------|
| MonoDrive<br>SubDrive75                   | 225 635 901                          |
| MonoDriveXT<br>SubDrive100<br>SubDrive150 | 225 635 902                          |
| SubDrive300                               | External cooling fans<br>225 635 903 |
|                                           | Internal stirring fan<br>225 635 904 |

#### NEMA 1

| CONTROLLER                         | DATE CODE      | KIT PART NUMBER |
|------------------------------------|----------------|-----------------|
| SubDrive75 and MonoDrive           | 08L45 or prior | 225 635 905     |
| SubDrive75 and MonoDrive           | After 08L45    | 225 635 908     |
| SubDrive100/150<br>and MonoDriveXT | 08K45 or prior | 225 635 907     |
| SubDrive100/150<br>and MonoDriveXT | After 08K45    | 225 635 909     |

# Submersible Motor Accessories

## Surge Arrestors

### Applications

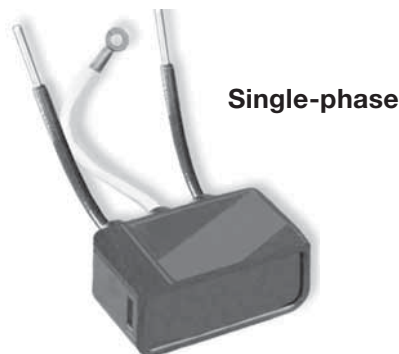
These surge arrestors or their equivalents are highly recommended for protecting submersible motors from a variety of commonly occurring high voltage spikes which can damage the motor insulation system and cause motor winding failure. These arrestors will not, as is true of any surge protection equipment, protect the motor from a direct lightning strike.

| MOTOR TYPE   | NO. REQUIRED PER MOTOR | FRANKLIN PART NUMBER |
|--------------|------------------------|----------------------|
| Single-phase | 1*                     | 150 814 902          |
| Three-phase  | 1**                    | 155 440 902          |

#### NOTES:

\*Single-phase surge arrestor number 150 814 902 can be used on supply voltage systems up to 125 Volts to ground.

\*\*Three-phase surge arrestor number 155 440 902 can be used on supply voltage systems up to 650 Volts to ground.



Single-phase



Three-phase

## PT100 Sensors

### Applications

The PT100 is a precision platinum wire resistor that is specified occasionally as a temperature input for process control equipment. A jacketed control lead must be run from the PT100 lead to the above-ground equipment. The above-ground equipment is not available from Franklin Electric and is typically part of a custom panel or data acquisition system.

PT100 sensor retrofit kits from Franklin Electric come with complete instructions and allow for easy field installation.

The PT100 is not approved as motor overload protection. Motor warranty will be void if agency approved motor overload protection is not installed as required by Franklin Electric's Application Installation Maintenance (AIM) Manual.



PT100-6"

PT100-8"

| KIT NUMBER  | FRANLIN PART NUMBER | FOR USE WITH MOTOR TYPES | INSULATION | LEAD INFORMATION   |           |        |        |
|-------------|---------------------|--------------------------|------------|--------------------|-----------|--------|--------|
|             |                     |                          |            | TEMPERATURE RATING | WIRE SIZE | LENGTH |        |
|             |                     |                          |            |                    |           | FEET   | METERS |
| 305 327 901 | 165 608 901         | 6" (1/2 - 20 Threads)*   | PVC        | 60 °C              | AWG 20    | 29     | 8      |
| 305 327 903 | 165 608 903         | 6" (1/2 - 13 Threads)*   | PVC        | 60 °C              | AWG 20    | 29     | 8      |
| 305 326 902 | 165 624 902         | 8" (40 to 100 hp)        | PVC        | 60 °C              | AWG 20    | 29     | 8      |
| 305 326 901 | 165 624 901         | 8" (125 to 200 hp)       | PVC        | 60 °C              | AWG 20    | 29     | 8      |

#### NOTES:

\*6-inch motor PT100 selection:

Oct. 2001 and earlier date coded motors use the 1/2-20 thread PT100.

Nov. 2001 date coded motors have thread type verified for correct selection.

Dec. 2001 and later date coded motors use the 1/2-13 thread PT100.

# Submersible Motor Accessories

## Couplings

### Applications

Franklin Electric offers this line of motor-pump couplings for maximum customer convenience in matching the Franklin motor to a variety of pump shafts. Couplings are designed to transmit the pump thrust to the motor in order to provide maximum benefits from the Franklin internal thrust bearing construction.

Hardened stainless steel spacer discs in the 4" and 6" couplings assure positive bearing between motor and pump shafts, and assure full support for downward thrust created by the pump.

8" couplings DO NOT contain hardened spacer discs, since the motor shaft itself is hardened.

All couplings include Allen head 300 series stainless steel set screws.



### #416 Stainless Steel Couplings

| MOTOR SIZE | PUMP SHAFT DIA. | STAINLESS STEEL KEY (INCLUDED) WxDxL | COUPLING PART NUMBER |
|------------|-----------------|--------------------------------------|----------------------|
| 4-Inch     | 3/4             | 3/16 x 1/8 x 1 3/8                   | 151 551 911          |
| 6-Inch     | 3/4             | 3/16 x 1/8 x 1 3/4                   | 151 935 902          |
| 6-Inch     | 7/8             | 1/4 x 3/16 x 1 3/4                   | 151 935 901          |
| 6-Inch     | 1               | 1/4 x 3/16 x 1 3/4                   | 151 935 909          |
| 8-Inch     | 1               | 1/4 x 1/4 x 2                        | 151 922 901          |
| 8-Inch     | 1 3/16          | 1/4 x 1/4 x 2                        | 151 922 906          |
| 8-Inch     | 1 3/16          | 5/16 x 5/16 x 2                      | 151 922 902          |
| 8-Inch     | 1 1/4           | 5/16 x 5/16 x 2                      | 151 922 903          |
| 8-Inch     | 1 1/2           | 3/8 x 3/8 x 2                        | 151 922 904          |

### #316 Stainless Steel Couplings

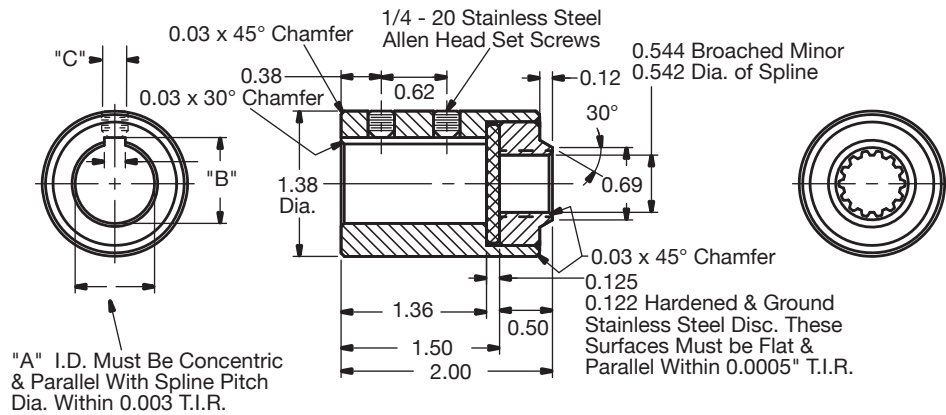
| MOTOR SIZE | PUMP SHAFT DIA. | STAINLESS STEEL KEY (INCLUDED) WxDxL | COUPLING PART NUMBER |
|------------|-----------------|--------------------------------------|----------------------|
| 4-Inch     | 3/4             | 3/16 x 1/8 x 1 3/8                   | 151 551 931          |
| 6-Inch     | 3/4             | 3/16 x 1/8 x 1 3/4                   | 151 935 922          |
| 6-Inch     | 7/8             | 1/4 x 3/16 x 1 3/4                   | 151 935 921          |
| 6-Inch     | 1               | 1/4 x 3/16 x 1 3/4                   | 151 935 929          |
| 8-Inch     | 1 3/16          | 1/4 x 1/4 x 2                        | 151 922 926          |
| 8-Inch     | 1 1/4           | 5/16 x 5/16 x 2                      | 151 922 923          |
| 8-Inch     | 1 1/2           | 3/8 x 3/8 x 2                        | 151 922 924          |
| 8-Inch     | 1 11/16         | 3/8 x 3/8 x 2                        | 151 922 929          |

#### NOTE:

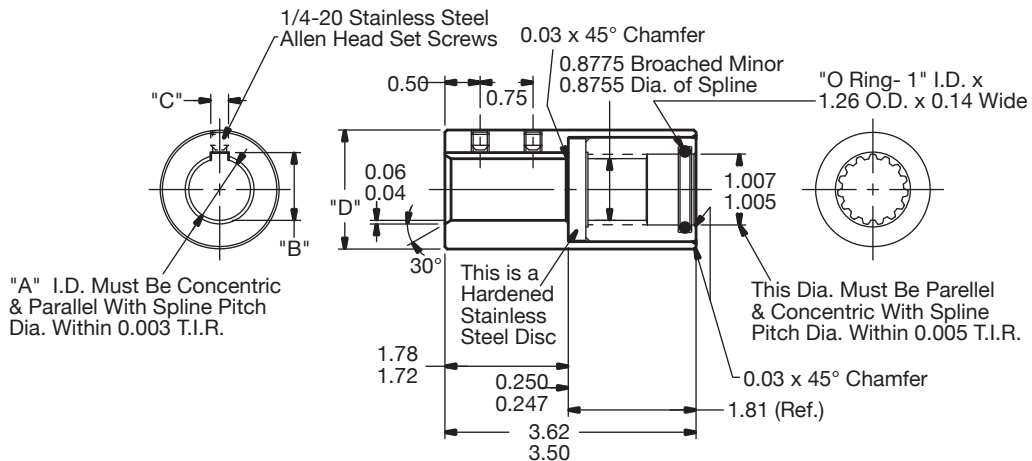
316 SS couplings are normally used with corrosion-resistant motors.

# Submersible Motor Accessories

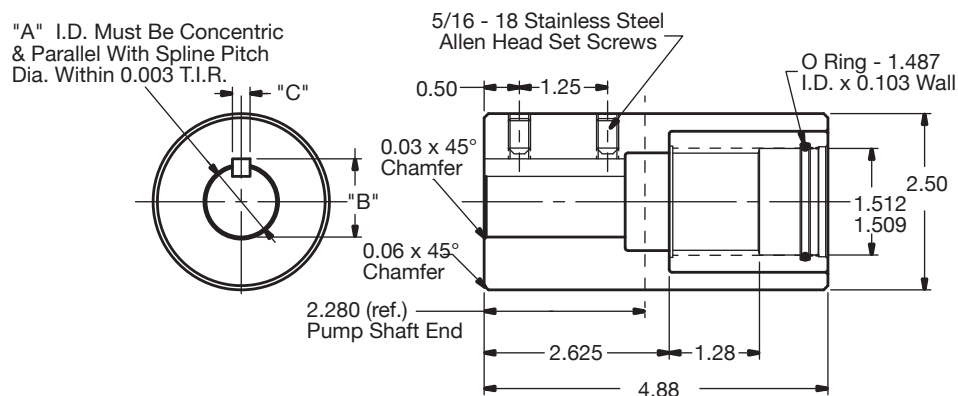
## 4-Inch Coupling



## 6-Inch Coupling



## 8-Inch Coupling



# Submersible Motor Accessories

## QD Service Box

### Applications

Franklin Electric's QD service box is a service tool that provides capability to measure motor amps and line voltage with the motor running. The QD service box fits between the base and cover of an installed QD control box.

### Features

- Compatible with any Franklin Electric QD or CRC control box
- Meter jacks for measuring voltage while the motor is running
- Clamp-on ammeter access to all three motor leads for installations with jacketed cable or conduit
- Easy to use



| Compatible With                  | Part Number |
|----------------------------------|-------------|
| All QD & CRC Control Box Ratings | 305 510 901 |

## Special Services

Special testing services are available for motors purchased from Franklin Electric. These services must be specified at time of order and will result in additional lead time.

### Performance Test - Calibrated Motor

1/3 - 3 hp, 4" Dia. motor  
5 - 10 hp, 4" Dia. motor  
5 - 60 hp, 6" Dia. motor  
40-200 hp, 8" Dia. motor

### Submergence Performance Test

1/3 - 2 hp, 4" Dia. motor @ 1000 PSI (2-W 500 PSI)  
3 - 10 hp, 4" Dia. motor @ 1000 PSI  
5 - 30 hp, 6" Dia. motor @ 1000 PSI  
40 - 60 hp, 6" Dia. motor @ 1000 PSI  
8" Dia. motor @ 1000 PSI



**ATTENTION!**  
**IMPORTANT INFORMATION FOR INSTALLERS OF THIS EQUIPMENT!**

This equipment is intended for installation by technically qualified personnel. Failure to install it in compliance with national and local electrical codes, and within Franklin Electric recommendations, may result in electrical shock or fire hazard, unsatisfactory performance, and equipment failure. Franklin installation information is available from pump manufacturers and distributors, and directly from Franklin Electric. Call Franklin toll free 800-348-2420 for information.

**WARNING**

Serious or fatal electrical shock may result from failure to connect the motor, control enclosures, metal plumbing, and all other metal near the motor or cable, to the power supply ground terminal using wire no smaller than motor cable wires. To reduce risk of electrical shock, disconnect power before working on or around the water system. Do not use motor in swimming areas.

**ATTENTION!**  
**INFORMATIONS IMPORTANTES POUR L'INSTALLATEUR DE CET EQUIPEMENT.**

Cet équipement doit être installé par un technicien qualifié. Si l'installation n'est pas conforme aux lois nationales ou locales ainsi qu'aux recommandations de Franklin Electric, un choc électrique, le feu, une performance non acceptable, voire même le non-fonctionnement peuvent survenir. Un guide d'installation de Franklin Electric est disponible chez les fabricants de pompes, les distributeurs, ou directement chez Franklin. Pour de plus amples renseignements, appelez sans frais le 800-348-2420.

**AVERTISSEMENT**

Un choc électrique sérieux ou même mortel est possible, si l'on néglige de connecter le moteur, la plomberie métallique, boîtes de contrôle et tout métal proche du moteur à un câble allant vers une alimentation d'énergie avec borne de mise à la terre utilisant au moins le même calibre que les fils du moteur. Pour réduire le risque de choc électrique. Couper le courant avant de travailler près ou sur le système d'eau. Ne pas utiliser ce moteur dans une zone de baignade.

**ATENCION!**  
**INFORMACION PARA EL INSTALADOR DE ESTE EQUIPO.**

Para la instalación de este equipo, se requiere de personal técnico calificado. El no cumplir con las normas eléctricas nacionales y locales, así como con las recomendaciones de Franklin Electric durante su instalación, puede ocasionar, un choque eléctrico, peligro de un incendio, operación defectuosa e incluso la descompostura del equipo. Los manuales de instalación y puesta en marcha de los equipos, están disponibles con los distribuidores, fabricantes de bombas o directamente con Franklin Electric. Puede llamar gratuitamente para mayor información al teléfono 800-348-2420.

**ADVERTENCIA**

Puede ocurrir un choque eléctrico, serio o fatal debido a una errónea conexión del motor, de los tableros eléctricos, de la tubería, de cualquier otra parte metálica que está cerca del motor o por no utilizar un cable para tierra de calibre igual o mayor al de la alimentación. Para reducir el riesgo de choque eléctrico, desconectar la alimentación eléctrica antes de iniciar a trabajar en el sistema hidráulico. No utilizar este motor en albercas o áreas en donde se practique natación.

**TOLL FREE HELP FROM A FRIEND**

**1.800.348.2420**

**1.260.827.5102 (FAX)**



**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)**