

# Submersible Motors

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DATE: December 1, 2000  
SUPERSEDES: 8-31-99

## 6" • Water Well • Three Lead DOL



### APPLICATIONS

These motors are built for dependable operation in 6" diameter or larger water wells. **Do not use motor in swimming areas.**

### SPECIFICATIONS

**Temperature and Time Rating:** Continuous in 86°F (30°C) max. water at 1/2 ft/sec. flow past motor.

**Enclosure:** Hermetically sealed stator and stainless steel outer shell.

**Shaft:** Splined, stainless steel.

**Bearings:** Water lubricated radial and thrust bearings. Thrust bearings Kingsbury type.

**Control Box:** Single-phase controls available from Franklin Electric.<sup>①</sup> Three-phase controls-see footnote.<sup>②</sup> SUBTROL-PLUS available for three-phase units.<sup>③</sup>

**Leads:** Removable type, 13 ft. (4m) length installed. See page "Six-Inch Leads" page for additional leads.<sup>④</sup>

**Rotation:** Single-phase, CCW facing shaft end. Three-phase, electrically reversible.

### FOOTNOTES:

- ① Refer to page "Accessories" section for single-phase control box.
- ② Franklin does not manufacture three-phase controls. Franklin's Subtrol-Plus or three-phase ambient-compensated quick-trip overload protection in all three legs is required for motor protection. WARRANTY IS VOID where this protection is not employed.
- ③ Subtrol-Plus heat sensor standard in three-phase 6" 40-60 Hp ratings, optional in 5-30 Hp.
- ④ WARRANTY IS VOID if Franklin supplied leads or cables are not used.

### SINGLE-PHASE, CAPACITOR START, CAPACITOR RUN, 60Hz-3450 RPM Control Box Required<sup>①</sup>

HP	KW	DOWNWARD THRUST	VOLTS	HZ	SERVICE FACTOR	MODEL NUMBER	CONTROL BOX MODEL NUMBER
5	3.7	1500 LBS	230	60	1.15	226 110 90	282 113 81
7½	5.5	1500 LBS	230	60	1.15	226 111 90	282 201 92
10	7.5	3500 LBS	230	60	1.15	226 112 90	282 202 92
15	11	3500 LBS	230	60	1.15	226 113 90	282 203 93

### THREE-PHASE: 60Hz-3450 RPM, 50Hz-2875 RPM Special Controls Required<sup>②</sup>

HP	KW	DOWNWARD THRUST	VOLTS	HZ	SERVICE FACTOR	MODEL FACTOR	WIRE SIZE (AWG)
5	3.7	1500 LBS. 6500 N	200	60	1.15	236 650 90	10 W/GND
			230	60	1.15	236 600 90	
			380	60	1.15	236 660 90	
			460/380	60/50	1.15/1.0	236 610 90	
			575	60	1.15	236 620 90	
7½	5.5	1500 LBS. 6500 N	200	60	1.15	236 651 90	10 W/GND
			230	60	1.15	236 601 90	
			380	60	1.15	236 661 90	
			460/380	60/50	1.15/1.0	236 611 90	
			575	60	1.15	236 621 90	
10	7.5	3500 LBS. 15500 N	200	60	1.15	236 652 90	10 W/GND
			230	60	1.15	236 602 90	
			380	60	1.15	236 662 90	
			460/380	60/50	1.15/1.0	236 612 90	
			575	60	1.15	236 622 90	
15	11	3500 LBS. 15500 N	200	60	1.15	236 653 90	10 W/GND
			230	60	1.15	236 603 90	
			380	60	1.15	236 663 90	
			460/380	60/50	1.15/1.0	236 613 90	
			575	60	1.15	236 623 90	
20	15	3500 LBS. 15500 N	200	60	1.15	236 654 90	8 W/GND
			230	60	1.15	236 604 90	
			380	60	1.15	236 664 90	10 W/GND
			460/380	60/50	1.15/1.0	236 614 90	
			575	60	1.15	236 624 90	
25	18.5	3500 LBS. 15500 N	200	60	1.15	236 655 90	8 W/GND
			230	60	1.15	236 605 90	
			380	60	1.15	236 665 90	10 W/GND
			460/380	60/50	1.15/1.0	236 615 90	
			575	60	1.15	236 625 90	
30	22	3500 LBS. 15500 N	200	60	1.15	236 656 90	8 W/GND
			230	60	1.15	236 606 90	
			380	60	1.15	236 666 90	10 W/GND
			460/380	60	1.15/1.0	236 616 90	
			575	60	1.15	236 626 90	
40	30	6000 LBS. 27500 N	380	60	1.15	236 667 60	8 W/GND
			460/380	60/50	1.15/1.0	236 617 60	
			575	60	1.15	236 627 60	
50	37	6000 LBS. 27500 N	380	60	1.15	236 668 60	8 W/GND
			460/380	60/50	1.15/1.0	236 618 60	
			575	60	1.15	236 628 60	
60	45	6000 LBS. 27500 N	380	60	1.15	236 669 60	8 W/GND
			460/380	60/50	1.15/1.0	236 619 60	
			575	60	1.15	236 629 60	

### MODIFICATIONS:

Voltage, Hertz and HP ratings not listed here are available with a price adder. Consult factory for price and delivery.

For Wye-Delta configuration, see "Six-Inch, Water Well, Six-Lead Wye Delta" page.

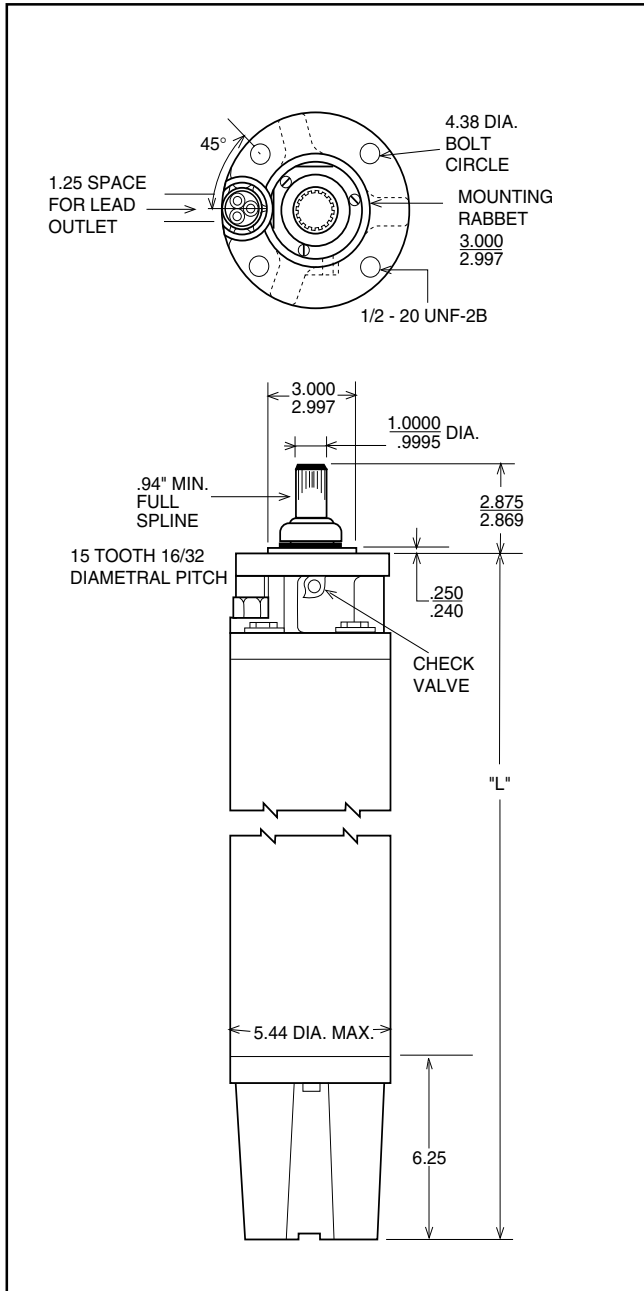
For corrosion-resistant construction, see "Six-Inch, Corrosion Resistant" page.

**WARNING: Serious or fatal electrical shock or fire hazard may result from failure to follow the instructions for proper installation and use which accompany this equipment.**

FOR MOUNTING DIMENSIONS SEE OPPOSITE SIDE.

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SINGLE-PHASE MOTORS					
HP	KW	"L"	SHIPPING WEIGHT		MOTOR CARTON SIZE
			LBS.	KGS.	
5	3.7	25.4"	110	50	7.5" x 10.75" x 34.5"
7½	5.5	28.0"	123	56	7.5" x 10.75" x 34.5"
10	7.5	30.6"	141	64	7.5" x 10.75" x 37"
15	11	33.1"	154	70	7.5" x 10.75" x 42.25"

THREE-PHASE MOTORS					
HP	KW	"L"	SHIPPING WEIGHT		MOTOR CARTON SIZE
			LBS.	KGS.	
5	3.7	22.9"	101	46	7.5" x 10.75" x 34.5"
7½	5.5	24.2"	108	49	7.5" x 10.75" x 34.5"
10	7.5	25.4"	116	53	7.5" x 10.75" x 34.5"
15	11	28.0"	129	59	7.5" x 10.75" x 34.5"
20	15	30.6"	145	66	7.5" x 10.75" x 37"
25	18.5	33.1"	156	71	7.5" x 10.75" x 42.25"
30	22	35.7"	174	79	7.5" x 10.75" x 42.25"
40	30	40.8"	202	92	7.5" x 10.75" x 47.25"
50	37	55.3"	300	136	8 3/4" x 10 1/2" x 71 3/4"
60	45	61.3"	330	150	8 3/4" x 10 1/2" x 71 3/4"

For "Accessories" section for control box weights and dimensions.

### CONSTRUCTION MATERIALS

Component	Standard Water Well
Castings	Gray Iron
Stator Shell	301 SS
Stator Ends	Low Carbon Steel
Shaft Extension	303 SS, except 17-4 SS on 40-60 Hp
Fasteners	300 & 400 Series SS
Seal Cover	304 SS & Sintered Bronze
Seal	Carbon/Ceramic Face Seal <sup>①</sup>
Diaphragm	Nitrile Rubber
Diaphragm Plate	304 SS
Diaphragm Spring	302 SS
Slinger	Nitrile Rubber
Lead Wire	Hypalon 75°C <sup>②</sup>
Lead Potting	Epoxy
Filter	Delrin & Polyester
Insulation	Class F

<sup>①</sup> Sand Fighter™ motors available for sandy well applications.

<sup>②</sup> Removable type, factory installed. See "Six-Inch Motor Leads" page for additional leads.

**NOTE:** All dimensions shown in inches.

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



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