

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*	XLPE*
Lead Potting	Epoxy	Epoxy
Lead Screws / Clamp	316 SS	316 SS
Filter	316 SS Plug	316 SS Plug

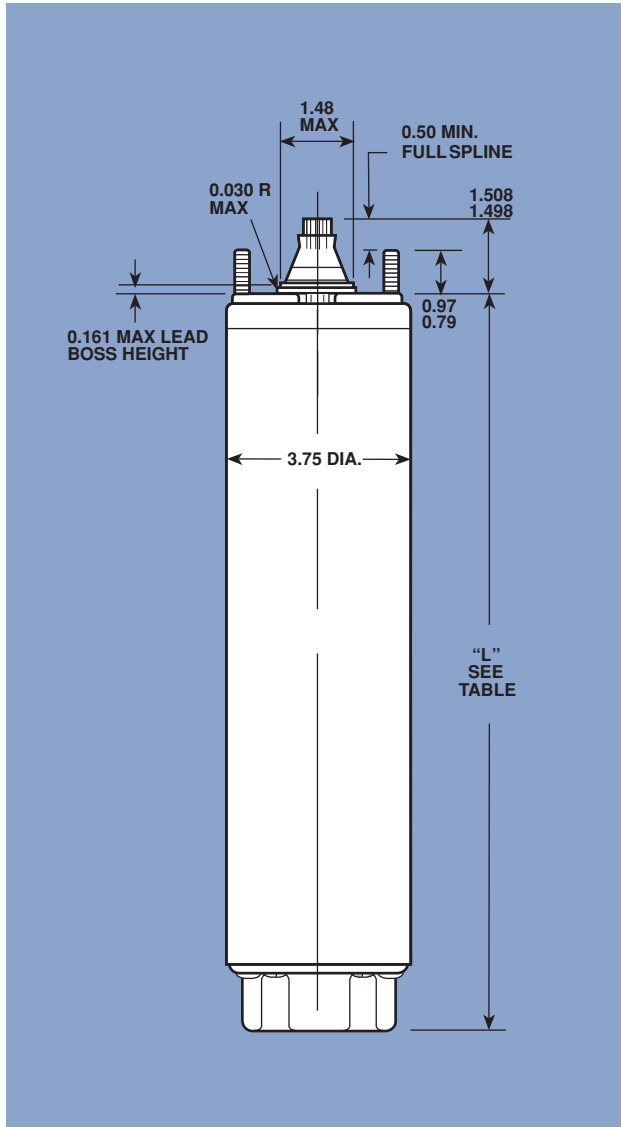
* Removable type, factory-installed in 60 Hz and dual frequency rated water well motors. Consult catalog for additional leads.

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" (inches)	SHIPPING WEIGHT		MOTOR CARTON 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" (inches)	SHIPPING WEIGHT		MOTOR CARTON 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" (inches)	SHIPPING WEIGHT		MOTOR CARTON 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" (inches)	SHIPPING WEIGHT		MOTOR CARTON 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 1.1 kW	WATER WELL	1P	230	60	1.30		224 300 8600		1500 LBS (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 1.5 kW	WATER WELL	1P	230	60	1.25	YES	224 301 8602		1500 LBS (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 2.2 kW	WATER WELL	1P	220	50	1.00		224 352 8600		1500 LBS (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 3 kW	WATER WELL	3P	460/415-380	60/50	1.15/1.00		234 395 8600		
		3P	460/415-380	60/50	1.15/1.00	YES	234 395 8602		

4" Submersible Motors High Thrust

4-Inch High Thrust Models

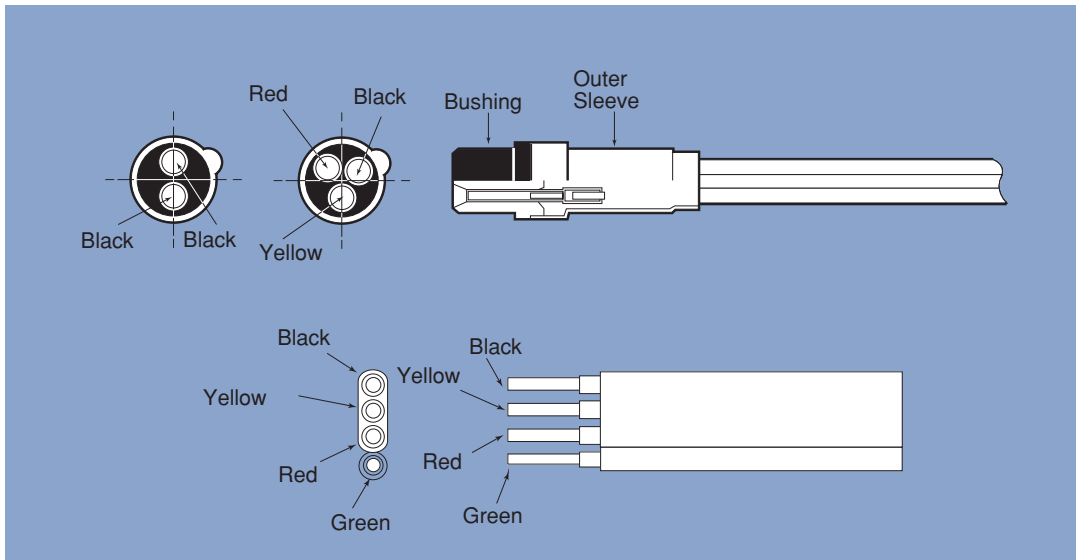
HP (KW)	DESCRIPTION						MODEL	STOCK STATUS	DOWNWARD THRUST RATING
	CONSTRUCTION	PH	VOLTS	HZ	S.F.	LEAD IN MTR			
5 hp 3.7 kW	WATER WELL	1P	220	50	1.00		224 353 8600	YES	1500 LBS (6500 N)
		1P	230	60	1.15		224 303 8600		
		1P	230	60	1.15	YES	224 303 8602	YES	
		3P	200	60	1.15		234 307 8600		
		3P	200	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 4 kW	WATER WELL	3P	460/380	60/50	1.15/1.00		234 397 8600		1500 LBS (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			
7.5 hp 5.5 kW	WATER WELL	3P	200	60	1.15		234 308 8600		1500 LBS (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			
10 hp 7.5 kW	WATER WELL	3P	380	60	1.15		234 549 8602		
		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				
2W	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
3W	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.