

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

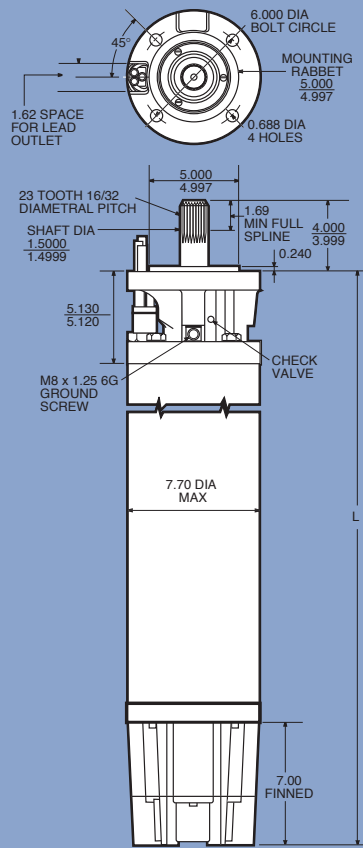
- Sand Fighter™ Models are equipped with:
 - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
- 316 Stainless Steel construction models come standard with:
 - Franklin's Exclusive Sand Fighter Sealing System for sand or other abrasives well water.
 - Franklin's 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.
 - 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.

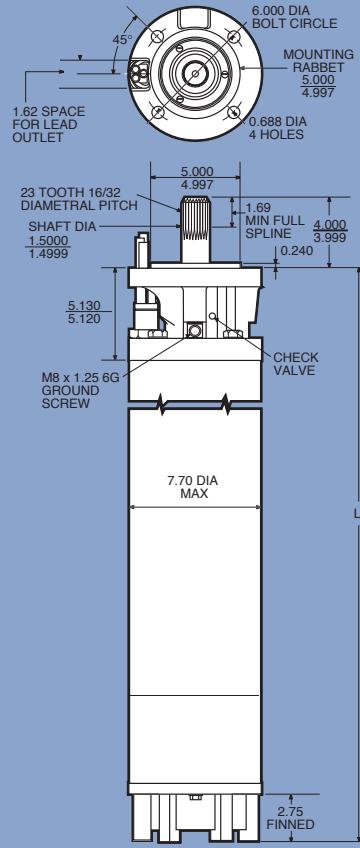
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8-Inch Dimensions and Weights

**40 hp to 100 hp
Type 2.1**



**125 hp to 200 hp
Type 1.0**



3-Lead Three-Phase Motors

HP	KW	"L" (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.)

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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 (300 SS Series Shell)	Sand Fighter™ Water Well (300 SS Shell)	Corrosion Resistant (316 SS Construction)
Stator Resin Type	FE Standard	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
SubTroI™ heat sensor (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) Sand Fighter Seal System (150-200 hp)	Sand Fighter Seal System	Sand Fighter Seal System
Mechanical Seal Rubber 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) 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 Plate	Brass Jam Nut (40-125 hp) 316 SS Plate (150-200 hp)	Per Standard Water Well	316 SS Jam Nut (40-125 hp) 316 SS Plate (150-200 hp)
Thrust Bearing Rating (86 °F / 30 °C)	10,000 lbs	Per Standard Water Well	Per Standard Water Well
Method Of Connecting System 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.

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8-Inch Models

HP (KW)	CONSTRUCTION	DESCRIPTION							MODEL	STOCK STATUS
		PH	VOLTS	HZ	SUBTROL HEAT SENSOR	S.F.	# LEADS	POWER WIRES		
40 hp 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 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	

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8-Inch Models

HP (KW)	CONSTRUCTION	DESCRIPTION							MODEL	STOCK STATUS
		PH	VOLTS	HZ	SUBTROL HEAT SENSOR	S.F.	# LEADS	POWER WIRES		
60 hp 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 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	

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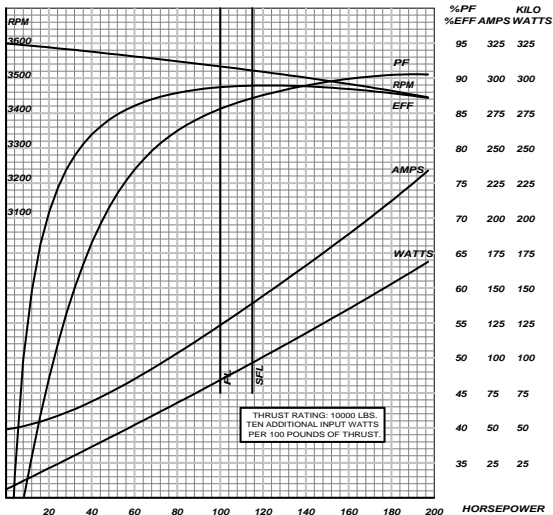
HP (KW)	CONSTRUCTION	DESCRIPTION							MODEL	STOCK STATUS
		PH	VOLTS	HZ	SUBTROL HEAT SENSOR	S.F.	# LEADS	POWER WIRES		
100 hp 75 kW	WATER WELL	3P	380	60	YES	1.15	3	#4 w/o GND	239 664 60	YES
		3P	380	60	YES	1.15	6-90°	#4 w/o GND	239 684 20	
		3P	415	50	YES	1.00	3	#4 w/o GND	239 744 60	
		3P	460/380-415	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 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	

MOTOR PERFORMANCE CHARACTERISTICS

T E S T	VOLTS	460	HERTZ	60
	ST.MFD		RUN MFD	
	TEST PR	8422	PAGE	12
	APPR BY		DATE	

R A T I N G	FRAME	8 INCH SUB	HP	100
	MODEL	239604	VOLTS	460
	RPM	3525	PHASE	3
	S.F.	1.15	HERTZ	60
	TYPE	3 PHASE		

REMARKS: TESTED IN WATER, SHAFT UP, WITH NO APPLIED THRUST.
TYPICAL PERFORMANCE. NOT GUARANTEED AS MINIMUM PERFORMANCE.



FULL LOAD TORQUE	149	LB-FT
BREAKDOWN TORQUE	690	LB-FT
LOCKED ROTOR TORQUE	423	LB-FT
LOCKED ROTOR AMPS	1211	

