

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 (300 SS Series Shell)	Hi-Temp 75 (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 (Water Soluble/Non-Toxic)	FES92	FES92
Top End Bell & Thrust Housing	Epoxy Coated Gray Iron	316 SS
SubTrol™ heat sensor (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 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 Compression Plate	316 SS Plate (150-200 hp)	316 SS Plate (150-200 hp)
Thrust Bearing Rating (86 °F / 30 °C)	12,500 lbs (86 °F / 30 °C) 10,000 lbs (167 °F / 75 °C)	12,500 lbs (86 °F / 30 °C) 10,000 lbs (167 °F / 75 °C)
Method Of Connecting System Ground To Motor	Ground Lug On Top End Bell	Ground Lug On Top End Bell

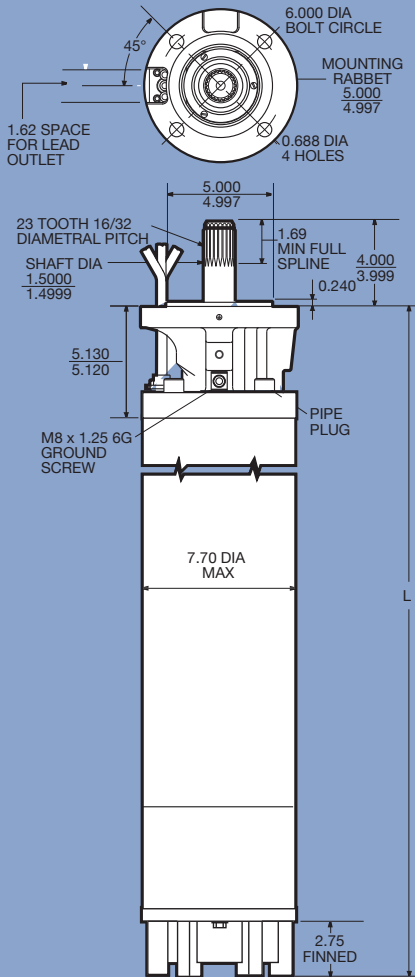
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Viton® is a registered trademark of DuPont Dow Elastomers.

8" Submersible Motors Hi-Temp 75

8-Inch Hi-Temp 75 Dimensions and Weights

40 hp to 150 hp Type 1.0



Three-Phase Motors

HP	KW	"L" (inches)	SHIPPING WEIGHT		MOTOR CARTON 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 HEAT SENSOR	S.F.	# LEADS	WIRE SIZE		
40 hp 30 kW	WATER WELL WITH SAND 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 37 kW	WATER WELL WITH SAND 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 45 kW	WATER WELL WITH SAND 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 HEAT SENSOR	S.F.	# LEADS	WIRE SIZE		
75 hp 55 kW	WATER WELL WITH SAND 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 75 kW	WATER WELL WITH SAND 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 93 kW	WATER WELL WITH SAND 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	

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8-Inch Hi-Temp 75 Models

HP (KW)	CONSTRUCTION	DESCRIPTION							MODEL	STOCK STATUS
		PH	VOLTS	HZ	SUBTROL HEAT SENSOR	S.F.	# LEADS	WIRE SIZE		
150 hp 110 kW	WATER WELL WITH SAND 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

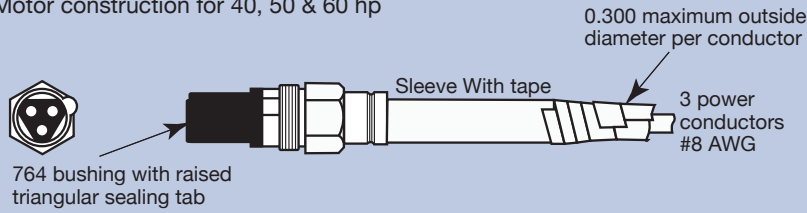


FIGURE 2: Standard Hypalon 75 °C Lead

Motor construction for 75, 100 & 125 hp

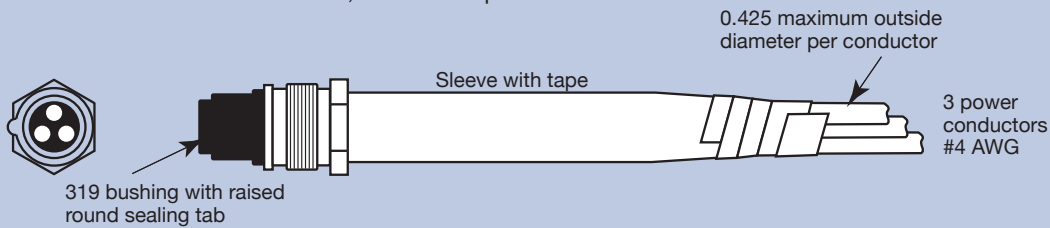


FIGURE 3: Standard Hypalon 75 °C Lead

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

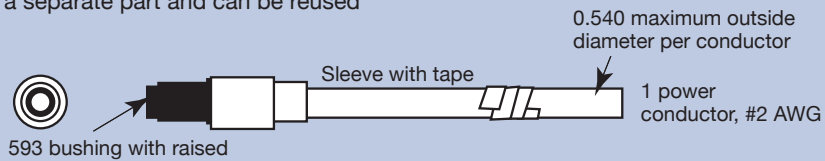


FIGURE	FITS FE MOTOR RATING (460 V or 575 V 60 Hz)	JAM NUT MATERIAL	LEAD LENGTH		WIRE SIZE (AWG)	POWER CONDUCTOR PER CONNECTOR	FE PART NUMBER	REPLACEMENT KIT NUMBER
			FT	M				
1	40-60 hp 30-45 kW	Brass	13	4	#8	3 (1 Shipped) No Ground	152 698 901	305 516 901
		Brass	26	8	#8	3 (1 Shipped) No Ground	152 698 902	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 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 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 (460 V or 575 V 60 Hz)	JAM NUT MATERIAL	LEAD LENGTH		WIRE SIZE (AWG)	POWER WIRES	FE PART NUMBER	REPLACEMENT KIT NUMBER
		FT	M				
All Ratings	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-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

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