### **TECHNICAL BROCHURE**

**BCPFMSERIE R2** 

### FEATURES

- Encapsulated, water-filled design
- Engineered, assembled and tested in the USA
- Leading motor efficiencies yield lower cost of ownership
- NSF/ANSI 61 certified for potable water
- Variable frequency drive capable\*
- Horizontal and vertical installation\*
- Class F rated insulation
- Stainless steel bolting and fasteners
- \* See detail reported in the instruction manual



# **FM-Series Motors**

THREE PHASE, 6" MOTORS



# CentriPro

### 6" Encapsulated Submersible Motors



### **Industry Leading Designs**

### **Thrust Handling**

The FM-Series Kinsbury type bi-directional thrust bearing can handle down-thrust values greater than other 6" submersible motors.

Up to 30 HP - 3600 lbs

40 HP to 50 HP - 6750 lbs

#### Sealing System

Most robust sealing system available on the market provides protection against sediment intrusion in the most difficult of applications. Sealing system includes specially designed rubber slinger, upgraded mechanical seal as standard with Silicon Carbide / Silicon Carbide material, and a lip seal.

- 17-4 PH stainless steel shaft. Shaft extension and coupling dimensions per NEMA standards.
- 2. Fully replaceable XLPE Lead Wire 17 ft (5.18 m) lead length.
- 3. Dual-flange style upper bracket provides easier handling and faster assembly to the pump.
- 4. Up-thrust ring prevents up-thrust damage during start-up.
- 5. 300 Series Stainless steel casing.
- 6. Epoxy-coated upper and lower bracket, TNEMEC 140 standard, provides excellent resistance to water and corrosion.
- 7. Pressure equalizing diaphragm regulates internal pressure with static pressure and ensures motor is full of fluid.





#### **MATERIALS OF CONSTRUCTION**

Component	Material
Castings	Gray Iron
Shell and Liner	300 Series Stainless Steel
Shaft Extension	17-4 Ph Stainless Steel
Fasteners	300 Series Stainless Steel
Seal	300 Series Stainless Steel
Mechanical Seal	SiC/SiC Faces
Elastomers	Nitrile Rubber
Diaphragm Cover	300 Series Stainless Steel
Lead Wire	XLPE
Lead Potting	Ероху
Filter	Polyester
Paint	Ероху
Rotor	Copper Bar
Insulation	Class F

# CentriPro

### 6" Encapsulated Submersible Motors

### **MOTOR DATA**

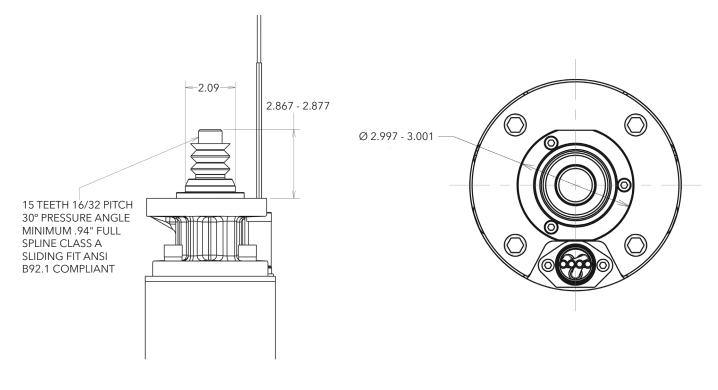
Part No. HP kW		1-347	Volts	Motor Dia. vs	Service	Rated Input		Service Factor		L. R.
Part No.	пр	KVV	VOITS	Flange Dia	Factor	Amps	Watts	Amps	Watts	Amps
6F058	5	3.7				16.1	4830	18.0	5490	96
6F078	7.5	5.5				23.3	7000	26.8	8070	140
6F108	10	7.5				31.5	9090	35.0	10400	187
6F158	15	11	200-208			44.9	13440	50.8	15460	268
6F208	20	15				59.0	17850	67.1	20630	354
6F258	25	19				76.8	22110	86.5	25520	445
6F308	30	22				91.7	26420	103.3	30450	530
6F052	5	3.7				14.4	4830	16.1	5490	87
6F072	7.5	5.5		6" x 6"	1.15	21.5	7000	24.1	8070	127
6F102	10	7.5				28.0	9090	31.5	10400	164
6F152	15	11	230			40.9	13440	46.3	15460	237
6F202	20	15				53.2	17850	60.8	20630	312
6F252	25	19				66.7	22110	76.0	25520	387
6F302	30	22				79.3	26420	90.2	30450	458
6F054	5	3.7	460			7.0	4830	8.0	5490	44
6F074	7.5	5.5				10.0	7000	11.3	8070	62
6F104	10	7.5				13.1	9090	14.8	10400	82
6F154	15	11				20.4	13440	23.0	15460	117
6F204	20	15				25.8	17850	29.4	20630	151
6F254	25	19				32.8	22110	36.8	25520	187
6F304	30	22				39.3	26420	44.6	30450	226
6F404	40	30				51.3	35030	58.6	40500	302
6F504	50	37				65.8	44350	75.1	51200	385
6F055	5	3.7				5.8	4830	6.5	5490	35
6F075	7.5	5.5	575			8.2	7000	9.3	8070	51
6F105	10	7.5				10.5	9090	11.8	10400	61
6F155	15	11				15.0	13440	17.1	15460	88
6F205	20	15				20.9	17850	23.7	20630	122
6F255	25	19				26.2	22110	29.7	25520	153
6F305	30	22				31.0	26420	35.0	30450	179
6F405	40	30				41.5	35030	47.3	40500	247

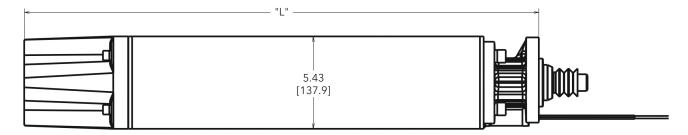
### 6" Encapsulated Submersible Motors

### **MOTOR DATA**

	Rat	ing		% Efficiency	10.0	Line - Line Resistance	Fuse Sizing Based on NEC			
Part No.	ΗР	kW	Volts	FL	KVA Code		Standard Fuse	Dual Element Time Delay Fuse	Circuit Breaker	
6F058	5	3.7		77.5		0.84	60	35	50	
6F078	7.5	5.5		80.0	Н	0.45	90	50	70	
6F108	10	7.5		82.5		0.39	110	70	100	
6F158	15	11	200-208	83.5		0.28	175	100	125	
6F208	20	15		83.0		0.22	225	125	175	
6F258	25	19		84.0		0.16	300	150	200	
6F308	30	22		84.5			350	200	250	
6F052	5	3.7		77.5			60	35	45	
6F072	7.5	5.5		80.0			80	45	70	
6F102	10	7.5		82.5			100	60	90	
6F152	15	11	230	83.5			150	90	125	
6F202	20	15	460	83.0	G H G		200	110	175	
6F252	25	19		84.0			225	150	200	
6F302	30	22		84.5			300	175	225	
6F054	5	3.7		77.5			30	15	25	
6F074	7.5	5.5		80.0		0.12	40	25	35	
6F104	10	7.5		82.5			50	30	40	
6F154	15	11		83.5			70	45	60	
6F204	20	15		83.0			90	50	80	
6F254	25	19		84.0			110	70	100	
6F304	30	22		84.5			150	80	110	
6F404	40	30		85.0			175	100	150	
6F504	50	37		84.0			225	150	175	
6F055	5	3.7		77.5			25	15	20	
6F075	7.5	5.5		80.0	Н		30	20	25	
6F105	10	7.5		82.5			40	25	30	
6F155	15	11	FZF	83.5			60	30	45	
6F205	20	15	575	83.0			80	45	60	
6F255	25	19		84.0	G		90	60	80	
6F305	30	22		84.5			110	70	90	
6F405	40	30		85.0			150	90	125	

#### MOTOR DIMENSIONS AND WEIGHTS





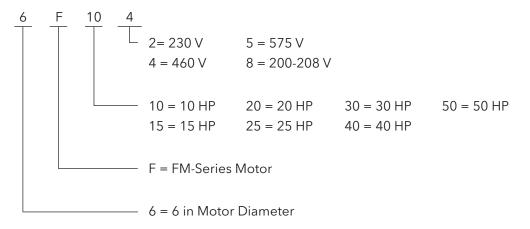
НР	Ler	ngth	Motor	Weight	Ship Weight	
пг	Inches	mm	Lb	Kg	Lb	Kg
5	23	584	87	39	115	52
7.5	24.3	617	97	44	127	58
10	25.6	650	104	47	134	61
15	28.1	714	117	53	151	68
20	30.3	770	132	60	166	75
25	32.8	833	144	65	180	82
30	35.6	904	165	75	207	94
40	39.3	998	187	85	229	104
50	54.1	1374	265	120	319	145

#### MINIMUM FLOW RATES FOR PROPER MOTOR COOLING

Well or Sleeve Diameter (inches)	FM = 5.43" Dia. 6" FM Motor 0.5'/sec.				
	GPM Required				
6	9				
7	24				
8	44				
10	88				
12	143				
14	199				
16	277				

Multiply gpm by .2271 for m³/Hr. Multiply gpm by 3.785 for l/min.

#### MOTOR NOMENCLATURE



### 6" Encapsulated Submersible Motors

# CentriPro

NOTES

# Xylem |'zīləm|

The tissue in plants that brings water upward from the roots;
a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services, and agricultural settings. With its October 2016 acquisition of Sensus, Xylem added smart metering, network technologies and advanced data analytics for water, gas and electric utilities to its portfolio of solutions. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

#### For more information on how Xylem can help you, go to www.xyleminc.com



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#### www.centripro.com

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