



FEATURES

SINGLE PHASE:

Single Phase, 6" motors available in 5 - 15 HP, 230 volt models.

Require Goulds Water Technology Control Boxes as shown on Order Number chart.

THREE PHASE:

Three Phase, 6", 5 - 30 HP, 230 and 460 volt models have an exclusive voltage change plug feature. Stock one model and a different voltage plug to reduce inventory cost.

Change Plug Order Numbers are:

- PLUG-230V • PLUG-460V

6 - 10" Three Phase available from 5 - 200 HP, see charts for available voltages.



NSF/ANSI STANDARD 61

Drinking Water System Components - Health Effects

6" Single Phase Motors 6-10" Three Phase Motors



GOULDS
WATER TECHNOLOGY

a xylem brand

6" SINGLE PHASE MOTORS AND REQUIRED CONTROL BOXES

Motor Order No.	HP	kW	Volts	Phase	Motor Dia. vs Flange Dia.	S.F.	Rated Input		Service Factor		L.R. Amps	Control Box Order No. ^①
							Amps	Watts	Amps	Watts		
6M051	5	3.7	230	1	6" x 6"	1.15	24	4987	27.5	5735	124	CB05MC3R
6M071	7.5	5.5					36	7675	41	8950	167	CB07MC3R
6M101	10	7.5					50	10135	58	11830	202	CB10MC3R
6M151	15	11					72	15180	85	18050	275	CB15MC3R

① NEMA 3R control boxes will be replacing the current models.

6-10" THREE PHASE MOTORS

Motor Order No.	HP	kW	Volts	Phase	Motor Dia. vs Flange Dia.	S.F.	Rated Input		Service Factor		L.R. Amps
							Amps	Watts	Amps	Watts	
6M058	5	3.7	200	3	6" x 6"	1.15	17.5	4910	19.5	5610	124
6M052	5	3.7	230				15.0	4857	17.0	5520	110
6M054	5	3.7	460				7.5	4857	8.5	5520	55
6M078	7.5	5.5	200				25.4	7180	28.5	8230	158
6M072	7.5	5.5	230				22.0	7127	26.0	8140	144
6M074	7.5	5.5	460				11.0	7127	13.0	8140	72
6M108	10	7.5	200				33.3	9360	37.2	10700	236
6M102	10	7.5	230				29.0	9407	33.0	10730	208
6M104	10	7.5	460				14.5	9407	16.5	10730	104
6M158	15	11	200				47.4	13700	53.5	15710	347
6M152	15	11	230				42.0	13700	46.0	15800	320
6M154	15	11	460				21.0	13700	23.0	15800	160
6M208	20	15	200				61.2	18040	69.5	20820	431
6M202	20	15	230				54.0	17930	60.0	20650	392
6M204	20	15	460				27.0	17930	30.0	20650	196
6M258	25	18.5	200				77.3	22740	87.5	26190	578
6M252	25	18.5	230				68.0	22470	76.0	25800	530
6M254	25	18.5	460				34.0	22470	37.0	25800	265
6M308	30	22	200				91.8	27000	104.0	31120	674
6M302	30	22	230				82.0	27130	94.0	31160	610
6M304	30	22	460	41.0	27130	47.0	31160	305			
6M404	40	30	460	3	6" x 6"	1.15	53.0	35530	60.0	41100	340
66M504	50	37	460		8" x 6"		70.0	45210	79.0	52380	465
86M504	50	37	460				66.1	44501	74.1	50891	518
86M604	60	45	460		8" x 8"		76.8	51866	86.8	59576	562
8M754	75	55	460				96.0	65900	109.0	76100	650
8M1004	100	75	460				127.0	87600	145.0	101300	795
8M1254	125	90	460				160.0	110800	180.0	126000	980
8M1504	150	110	460				195.0	130700	220.0	152000	1060
10M2004	200	150	460		10 "x 10"		235.0	171100	270.0	198600	1260

5-30 HP, 3 Phase 230 and 460 Motors have adjustable voltage feature, change voltage plugs to convert from 230V to 460V operation. Spare Change Plug Order No's are: PLUG-230V or PLUG-460V.

6" SINGLE PHASE MOTORS

Motor Order No.	HP	kW	Volts	Phase	F.L. Efficiency %	KVA Code	Resistance - Ohms		
							R - Y	B - Y	R - B
6M051	5	3.7	230	1	74.8	G	2.172	0.512	2.627
6M071	7.5	5.5			72.9	F	1.401	0.400	1.774
6M101	10	7.5			73.6	E	1.052	0.316	1.310
6M151	15	11			73.7	D	0.678	0.230	0.850

6-10" THREE PHASE MOTORS

Motor Order No.	HP	kW	Volts	Phase	F.L. Efficiency %	KVA Code	Line - Line Resistance	Time Delay Fuse	
								Standard	Dual Element
6M058	5	3.7	200	3	75.9	K	0.618	50	25
6M052	5	3.7	230		76.8	K	0.806	45	20
6M054	5	3.7	460		76.8	K	3.050	25	10
6M078	7.5	5.5	200		77.9	J	0.504	80	40
6M072	7.5	5.5	230		78.5	J	0.651	70	30
6M074	7.5	5.5	460		78.5	J	2.430	35	15
6M108	10	7.5	200		79.7	K	0.315	100	50
6M102	10	7.5	230		79.3	K	0.448	90	40
6M104	10	7.5	460		79.3	K	1.619	45	20
6M158	15	11	200		81.7	K	0.213	175	70
6M152	15	11	230		81.7	K	0.312	150	60
6M154	15	11	460		81.7	K	1.074	70	30
6M208	20	15	200		82.7	J	0.189	200	90
6M202	20	15	230		83.2	J	0.258	175	70
6M204	20	15	460		83.2	J	0.861	90	35
6M258	25	18.5	200		82.0	K	0.146	250	110
6M252	25	18.5	230		83.0	K	0.210	225	90
6M254	25	18.5	460		83.0	K	0.666	110	45
6M308	30	22	200		82.9	J	0.119	300	125
6M302	30	22	230		82.5	K	0.166	250	100
6M304	30	22	460		82.5	K	0.554	125	50
6M404	40	30	460		84.0	H	0.446	175	70
66M504	50	37	460		82.5	J	0.388	225	90
86M504	50	37	460		83.8	K	0.331	225	125
86M604	60	45	460		86.3	J	0.278	250	150
8M754	75	55	460		84.9	H	0.218	300	125
8M1004	100	75	460		85.2	H	0.164	400	175
8M1254	125	90	460		84.2	G	0.132	500	225
8M1504	150	110	460		85.6	G	0.115	600	250
10M2004	200	150	460		87.2	F	0.0929	800	350

GENERAL FEATURES OF CANNED AND REWINDABLE WATER-TIGHT MOTORS

6" AND 8"x6" CANNED DESIGN MOTOR FEATURES

- **Replaceable Plug-in Motor Lead** – All 6" motor leads are stranded copper for flexibility and strength. Leads are 150" long and field replaceable.
- **Insulation** – The canned motor's stator coil is mounted in a stainless steel frame and is completely sealed in a stainless steel cylinder. The coil wire features moisture resistant insulation which is completely water-proofed for long life.
- **Heat Resistant** – The space between the stator's stainless steel protective can and its frame is filled with a specially formulated patented resin that protects the motor against thermal fluctuation and internal stress.

8-10" REWINDABLE WATER-TIGHT MOTOR FEATURES

- **Insulation Wire** – The coil conductor insulation material is a specially developed denatured polypropylene, which offers excellent leak-resistant characteristics. Three barriers are applied to the copper conductors to provide complete insulation against the motor's cooling fluid. This design is the result of extensive research and is of superior quality. It insures that Goulds Water Technology motors will have an extremely long service life.

MOTOR FEATURES - BOTH DESIGNS

Maximum Water Temperature 6, 8 & 10" Motors

Size	HP	Temperature Range	Minimum Flow Rate	Ph Range
6"	5 - 40	95° F (35° C)	.5 Ft/sec.	6.5 - 8.0
8x6"	50 - 60	77° F (25° C)	.5 Ft/sec.	6.5 - 8.0
8"	75 - 150	77° F (25° C)	.5 Ft/sec.	6.5 - 8.0
10"	200	77° F (25° C)	.5 Ft/sec.	6.5 - 8.0

- **Sand Resistant Slinger and Lip Seals** – Goulds Water Technology submersible motors feature double-row, grease packed, lip seals to prevent sand from entering the motor. A carbon steel slinger with a baked on epoxy coating prevents sand from entering the lip seal area.

Additional protection against sand intrusion is provided by the close tolerance slinger guide with a .02" fit. This design is field-proven in West Texas wells which are considered to be some of the worst sandy well applications. Best of all, these features are standard for a Goulds Water Technology motor, so there is no need to stock one motor for clean wells and another more expensive motor for the more abrasive, sandy jobs.

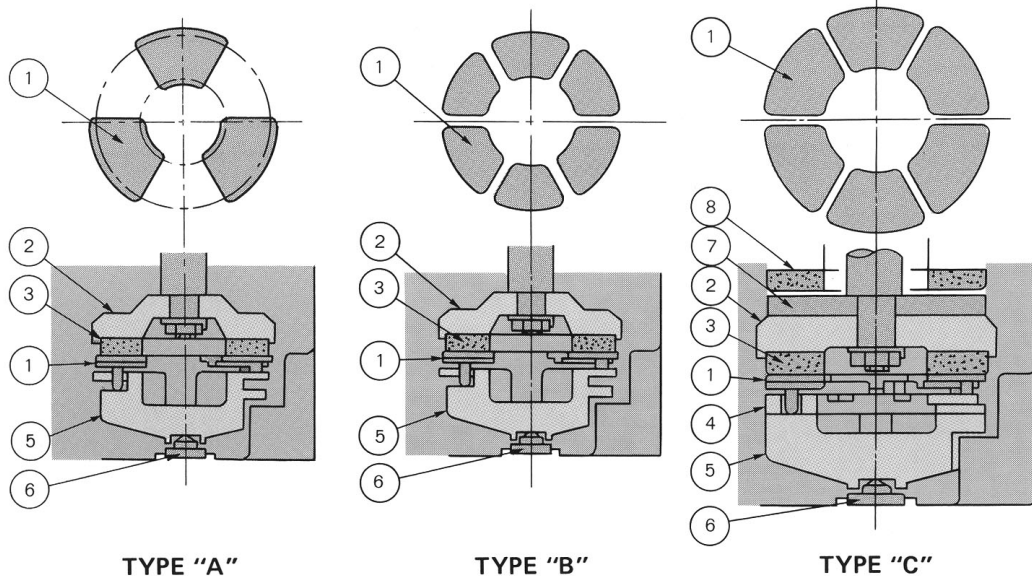
- **High Torque Characteristics** – The stator laminations are constructed of high quality, electrical grade, silicon steel which provide high torque even when the motor is subjected to nominal voltage variations.
- **Balancing** – The rotor balance rings (one on each end of the rotor) allow for excellent dynamic balance for the rotating element of the motor.
- **Carbon Sleeve Bearings** – Two carbon, water-lubricated, guide bearings are used to properly align the shaft. The bearings have a large surface area to better support the shaft, reducing whipping, while acting as a steady bushing.
- **Water-Filled Design** – The internal cooling water is mixed with antifreeze and antirust liquid to allow the motor to be stored at -22° F (-30° C). Two water plugs are provided for filling or draining the anti-freeze fluid during maintenance. These plugs are also used to top off and to check the water level.
- **Complete Corrosion and Water-Tight Protection** – All main motor components are made of stainless steel: including the can housing (water tight type motors have baked epoxy coated carbon steel housings), shaft and bolts. All other motor parts are finished with the baked epoxy coating.
- **Baked Epoxy Coating** – All external and internal cast iron parts are coated with a baked epoxy resin that provides excellent resistance to water and corrosion.
- **Quality Control** – All Goulds Water Technology submersible motors are manufactured and tested under the most stringent quality control procedures, providing long service life and trouble-free operation.

CONSTRUCTION AND INSULATION DETAILS

TYPE	6" and 8"x6" CANNED DESIGN	8-10" REWINDABLE WATER-TIGHT DESIGN
Construction	<p>Stainless steel frame</p> <p>Coil</p> <p>Epoxy resin mold</p> <p>Stainless steel cylinder</p>	<p>Baked epoxy coated carbon steel frame</p> <p>Water tight insulated wire</p>
Slot Insulation	<p>Coil heat-resistant enamel wire</p> <p>Slot insulation</p> <p>Wedge</p> <p>CLASS E,B,F</p> <p>Stainless steel cylinder</p>	<p>Water tight insulated wire</p> <p>Slot insulation</p> <p>Wedge</p> <p>CLASS Y</p>

SPECIAL TECHNOLOGY

HIGH PERFORMANCE THRUST BEARING



APPLICATION

Motor Size	Output		Bearing Type	Number of Shoes
	HP	kW		
6"	5 - 30	3.7 - 22	A	3
6"	40 - 50	30 - 45	B	6
8 - 10"	40 - 150	30 - 110	C	6
10"	200	150	C	8

Number	Part Name
1	Pivot Shoe
2	Bearing Frame
3	Carbon Disc
4	Metal Support
5	Metal Frame
6	Thrust Plate
7	Slide Plate
8	Up Thrust Bearing

The field proven KINGSBURY design thrust bearing creates a wedge of water between the pivot shoe and carbon disc. Our innovative design permits high thrust loads to be placed on the bearings while showing no measurable wear after several years of severe duty operation. This allows for long pumping life, virtual trouble free operation and low maintenance. For all 6" motors, the 300 lbs. maximum continuous up thrust is absorbed between the upper carbon sleeve bearing and the rotor balance ring. For all 8" - 10" motors, the 1000 lbs. maximum continuous up thrust is carried between the upper slide plate and the separate up thrust carbon bearing.

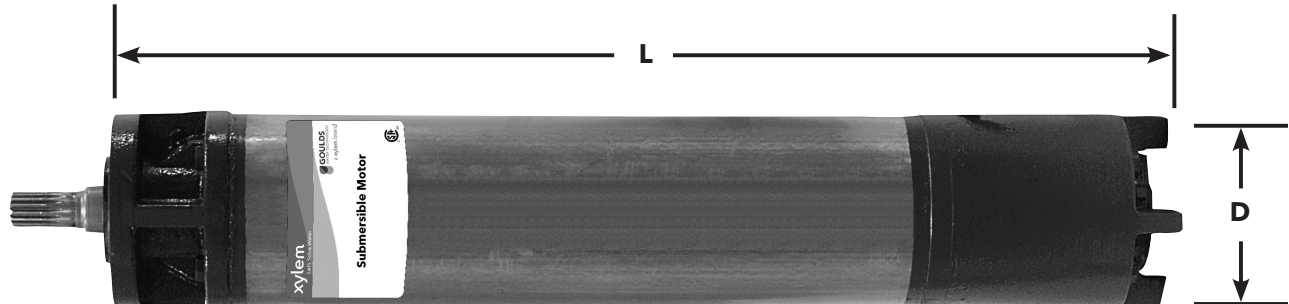
Motor Size	2P			
	Down Thrust		Up Thrust	
	lbs.	kg	lbs.	kg
6" 5-30 HP	3,500	1,590	300 *(450)	136 *(200)
6" 40-50 HP	5,000	2,270	300 *(450)	136 *(200)
8x6" 50-60 HP	6,000	2,721	300 *(450)	136 *(200)
8"	10,000 ** (5,000)	4,540 ** (2,270)	1,000 ** (1,500)	450 ** (680)
10"	10,000	4,540	1,000	450

Note:

1. Thrust ratings showed are continuous except for values marked *.
2. * Momentary rating (3 minutes maximum).
3. ** 8" motor - 6" Flange when using standard stainless steel bolts (B&M), has a thrust value of 5,000 lbs. A thrust value of 10,000 lbs. can be obtained by using high tensile stainless steel bolts (ASTM F593G).

6" and 8"x6" CANNED DESIGN MOTORS

SIZE AND WEIGHT - 2 POLE 3600 RPM 60 Hz – 3000 RPM 50 Hz



Motor Size	Phase	Output		D inch (mm)	L		Net Weight	
		HP	kW		inch	mm	lbs.	kg
6"	1Ø	5	3.7	5.5 (140)	26.97	685	110	50
		7.5	5.5		29.92	760	128	58
		10	7.5		29.92	760	128	58
		15	11		33.46	850	148	67
	3Ø	5	3.7		22.95	583	95	43
		7.5	5.5		24.80	630	99	45
		10	7.5		26.97	685	110	50
		15	11		29.92	760	128	58
		20	15		31.50	800	137	62
		25	18.5		36.22	920	161	73
		30	22		38.19	970	176	80
		40	30		40.55	1030	187	85
		50	37		41.73	1060	198	90
		50	37		41.61	1057	353	160
		60	45				364	165
8"x6"				6.89 (175)	41.61	1057		

*Gross Weight: See page 12.

Motor Size	Phase	Output		460V, 415V, 400V, 380V			230V, 208V				
		HP	kW	Lead Wire Size		A x B inch (mm)	Lead Wire Size		A x B inch (mm)		
				mm ²	AWG		mm ²	AWG			
6"	1Ø	5-15	3.7-11	–	–	–	3.5	#12	0.82x0.33 (20.8x8.2)		
	3Ø	5-25	3.7-18.5	3.5	#12	0.82x0.33 (20.8x8.2)	3.5	#12	0.82x0.33 (20.8x8.2)		
		30	22	5.5	#10	0.99x0.38 (25.1x9.6)	5.5	#10	0.99x0.38 (25.1x9.6)		
		40	30	3.5	#12	0.82x0.33 (20.8x8.2)	–	–	–		
		8"x6"	50	37	8.0	#8				1.09x0.41 (27.7x10.4)	
			60	45							

6" CANNED DESIGN MOTORS *(continued)*

TYPE OF LEAD WIRE - 600V CLASS

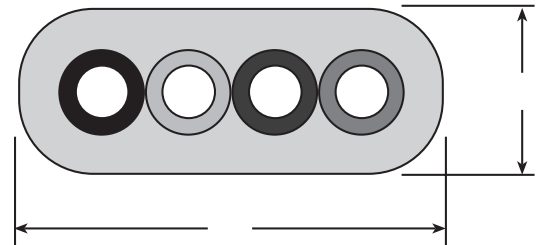
Ethylene-Propylene Rubber Insulated Chloroprene

Cabtyre Cable

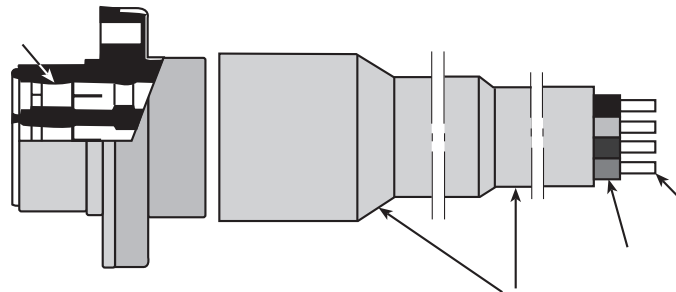
Plug-In (Field replaceable.)

Color Coded

USA Standard
(Black, Yellow, Red, Green)



CHLOROPRENE CABTYRE CABLE

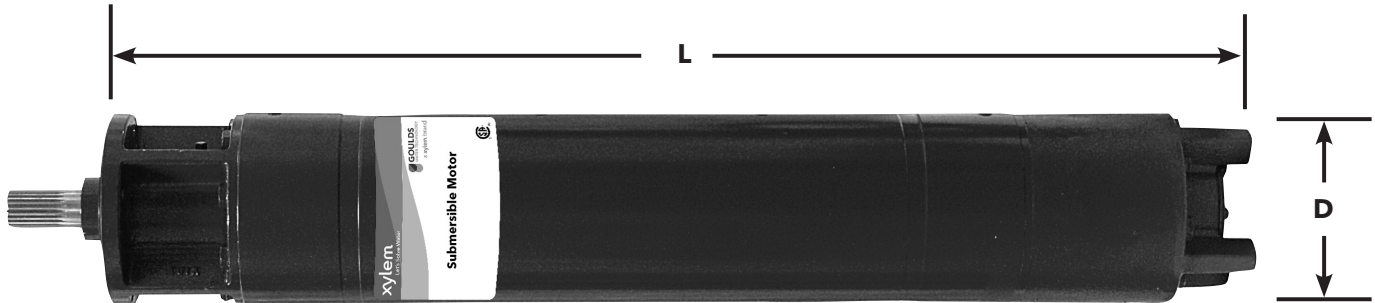


6" GOULDS WATER TECHNOLOGY REPLACEMENT MOTOR LEADS

Order No.	Description	Used On
CPML-12	150", 12 / 4	5-15 HP 1Ø; 5 - 25 and 40 HP, 460V, 3Ø
CPML-10	150", 10 / 4	30 HP, 230/460V and 50 HP, 3Ø
CPML-8	150", 8 / 4	Optional for 30-50 HP, 3Ø, any voltage

REWINDABLE WATER-TIGHT DESIGN MOTORS

SIZE AND WEIGHT - 2 POLE 3600 RPM 60 Hz – 3000 RPM 50 Hz



Motor Size	Output		D inch (mm)	L		Net Weight	
	HP	kW		inch	mm	lbs.	kg
8"	75	55	7.52 (191)	53.15	1350	463	210
	100	75		58.27	1480	518	235
	125	90		66.14	1680	595	270
	150	110		70.08	1780	661	300
10"	200	150	8.52 (216.5)	69.68	1770	816	370

(*) 6 inch flange. **Gross Weight: See page 12.

CABLE SIZE AND TYPE - 2 POLE 3600 RPM 60 Hz – 3000 RPM 50 Hz

200 inch (5 m) - Lead Wire Standard Length (Round 1 Stranded Conductor)

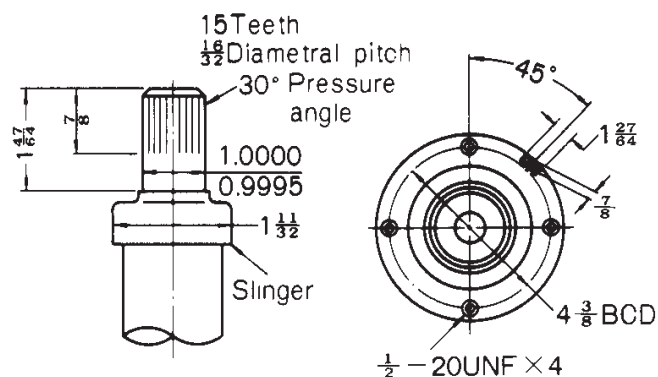
Motor Size	Output		460V, 415V, 400V, 380V			
	HP	kW	Lead Wire Size		Cable Diameter	
			mm ²	AWG	inch	mm
8"	75	30-55	8	#8	0.362	9.2
	100-125	75-90	14	#6	0.433	11.0
	150	110	22	#4	0.531	13.5
10"	200	150	30	#2	0.591	15.0

Type of Lead Wire - 600V Class

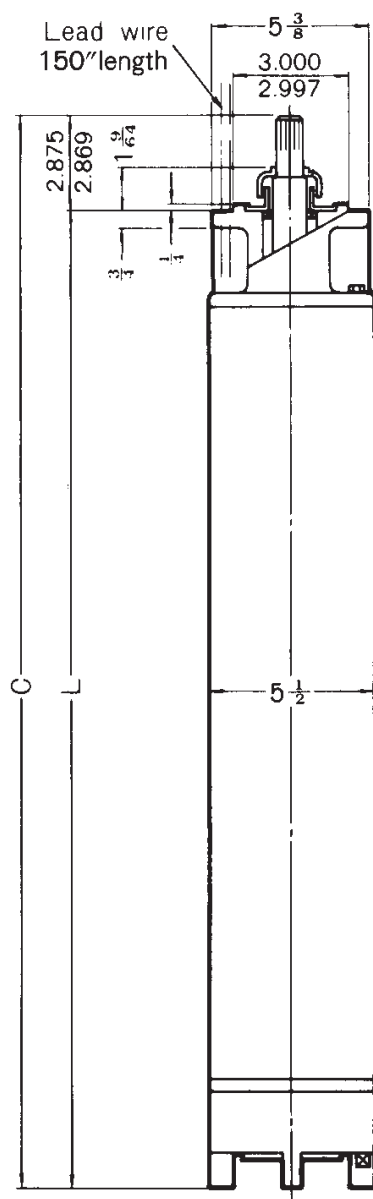
Ethylene Propylene rubber insulated chloroprene cabtyre cable.

DIMENSIONAL DATA

6", 3600 RPM, 2 POLE

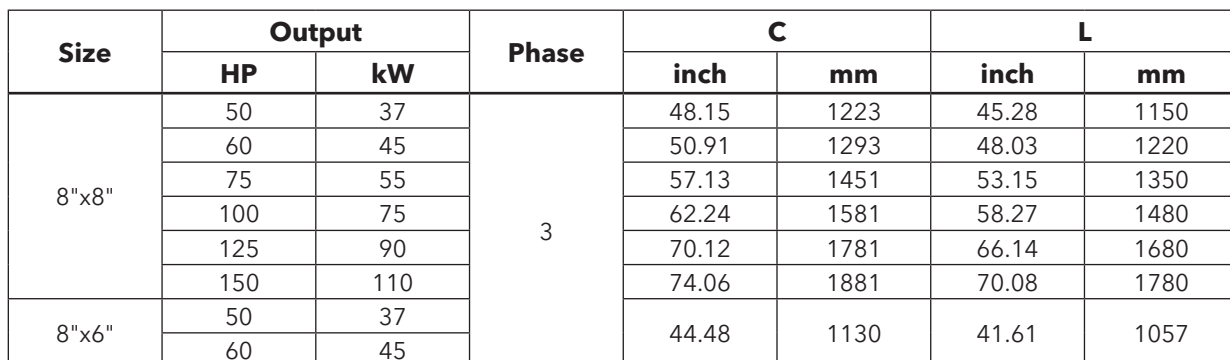


Shaft End



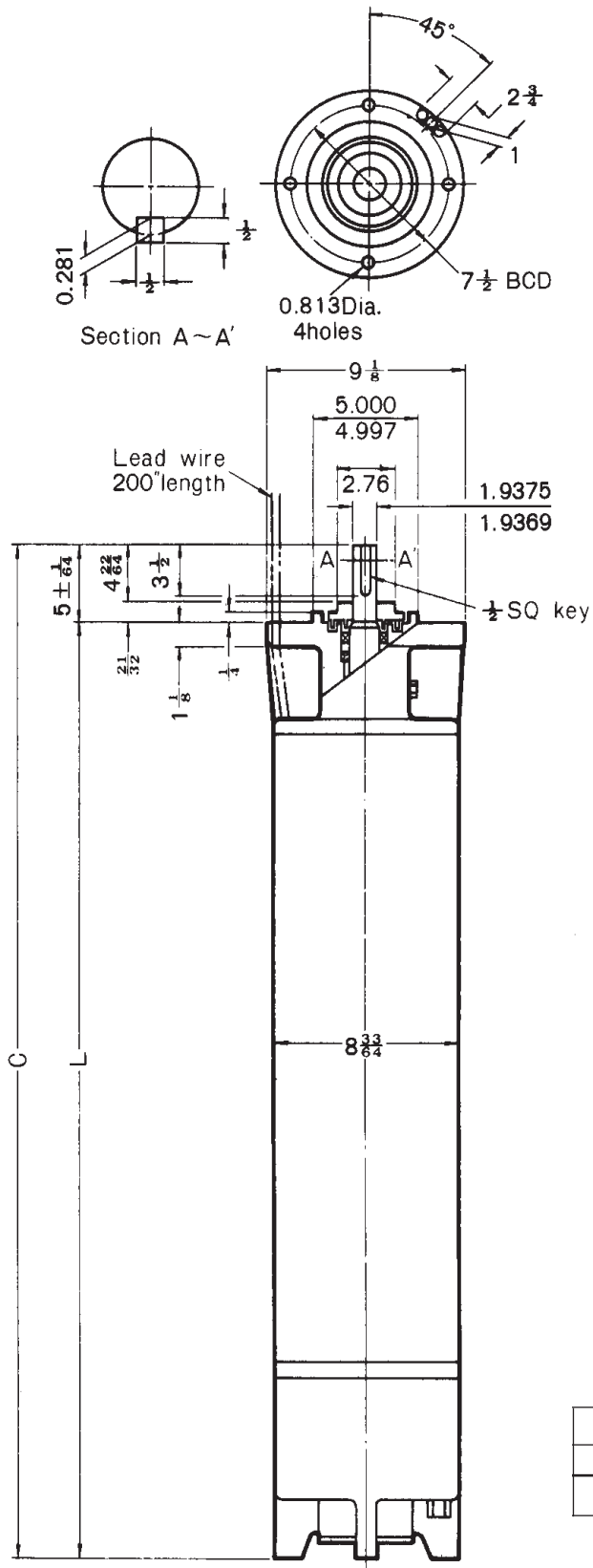
Output		Phase	C		L	
HP	kW		inch	mm	inch	mm
5	3.7	1	29.84	758	26.97	685
7.5	5.5		32.79	833	29.92	760
10	7.5		32.79	833	29.92	760
15	11		36.33	923	33.46	850
5	3.7	3	25.82	656	22.95	583
7.5	5.5		27.67	703	24.80	630
10	7.5		29.84	758	26.97	685
15	11		32.79	833	29.92	760
20	15		34.37	873	31.50	800
25	18.5		39.09	993	36.22	920
30	22		41.06	1043	38.19	970
40	30		43.42	1103	40.55	1030
50	37		44.60	1133	41.73	1060

8", 3600 RPM, 2 POLE (6" FLANGE)



DIMENSIONAL DATA

10", 3600 RPM, 2 POLE (10"-B FLANGE)



Output		Phase	C		L	
HP	kW		inch	mm	inch	mm
200	150	3	74.70	1897	69.68	1770

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) 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 settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. 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.xylem.com



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