

FEATURES

- 304 SS casing and end bells for corrosion resistance
- Kingsbury type, 3 shoe, 700 lb. thrust bearing
- Stainless steel, 17-4 PH splined shaft
- PSC design for quiet, efficient operation
- Built-in, hermetically sealed, environmentally safe capacitor
- Automatic reset, on-winding thermal overload protection on 2-wire up to 1½ HP
- Removable, replaceable 48" motor lead on ½ - 1½ HP
- Water lubricated with filter/check valve to maintain fluid fill
- Surge arrestors built-in
- NEMA Mounting Dimensions
- Annex G, NSF / ANSI 61 -2008

AGENCY LISTINGS



Tested by CSA to CSA
and UL Standards

Single Phase 2-Wire, ½-1½ HP PSC Motors

60 HZ, 3450 RPM

APPLICATIONS

- These 4" motors are designed and sized for installation in 4" diameter or larger water wells.
- PSC, permanent split capacitor, 2 wire motors are efficient and quiet.
- Built-in, hermetically sealed, environmentally safe capacitor eliminates the noise causing pulsations common to many split-phase 2 wire motors.

SPECIFICATIONS

- **Temperature Rating:** Rated for continuous duty in water of 86° F (30° C) maximum.

- **Cooling:** Proper motor cooling requires a water velocity past the motor of .25'/sec which translates into 1.2 gpm in a 4" casing, 7 gpm in a 5" casing and 13 gpm in a 6" casing.
- **Power Lead (14 AWG):** Removable and replaceable motor leads are held in place by two (2) stainless steel screws for positive compression and sealing. Leads are furnished with motors and are also available as replacement parts.
- **Rotation:** CCW, counterclockwise as you face the top or shaft end of the motor.

Generation II - April 2011

2-WIRE MOTORS Identified by a - 01 Nameplate Order No. Suffix

As part of Faradyne Motors' continual improvement process, 2-Wire Generation II motors were introduced in April 2011. Pump model numbers and motor order numbers remained unchanged. The Motor Nameplate will have a new Faradyne part number and the Goulds Water Technology part number on the Motor Nameplate will have a - 01 suffix, example M05422 will be M05422 - 01, only on the Motor Nameplate not in our catalog or price book.

The self-stick, Mylar motor data stickers we pack with 2 wire motors and complete pumps will be updated with the new electrical data so that installers will know which motor is installed in the well should service work ever be necessary. Note that the motor data is only needed to troubleshoot a motor in the well, i.e. resistance and amperage ratings or when installing a variable speed drive system to set the overloads.

MATERIALS OF CONSTRUCTION

Part	Material
Motor (Stator) Shell	304L SS
Shaft - 1 piece	All 17-4 PH hardened SS
Motor End Bells	304 SS Castings
Upper and Lower Radial Bearings	Carbon Sleeve
½ - 1½ HP Thrust Bearing	700 lb. Kingsbury Type
Overload Protection	Built-in, Auto Reset

Part	Material
Lead Wire	XLPE (14 AWG)
Lead Potting	Epoxy
Lead Connector	18-8 SS
Fasteners	18-8 SS
Sand Slinger / Slinger Seat	NBR / Delrin

GENERATION II 2011 - 2-WIRE, 4" SINGLE PHASE ELECTRICAL DATA, 60 HERTZ, 3450 RPM

Type	Motor Order No.		HP	KW	Volts	SF	Full Load		Service Factor		Locked Rotor Amps	Winding Resistance	KVA Code
	GWT	Red Jacket					Amps	Watts	Amps	Watts			
2-Wire (PSC)	M05421	50C201	0.5	0.37	115	1.6	7.9	910	9.8	1120	28	1.4-2.0	H
	M05422	50C211	0.5	0.37	230	1.6	4.0	845	4.7	1050	16	6.1-7.2	J
	M07422	75C211	0.75	0.55	230	1.5	5.0	1130	6.2	1400	18	5.9-6.9	F
	M10422	100C211	1.0	0.75	230	1.4	6.7	1500	8.1	1800	24	4.2-5.2	F
	M15422	150C211	1.5	1.1	230	1.3	9.0	2000	10.4	2350	43	1.8-2.4	H

GENERATION II 2011 - EFFICIENCY AND POWER FACTOR DATA

Type	Motor Order No.		HP	KW	Volts	Efficiency %		Power Factor %		Length		Weight		Thrust Rating
	GWT	Red Jacket				F.L.	S.F.	F.L.	S.F.	Inches	mm	lb.	kg.	
2-Wire (PSC)	M05421	50C201	0.5	0.37	115	42%	54%	99%	99%	10.5	267	18	8.2	700 #
	M05422	50C211	0.5	0.37	230	45%	59%	92%	97%	10.5	267	18	8.2	
	M07422	75C211	0.75	0.55	230	51%	61%	98%	98%	11.9	302	22	9.7	
	M10422	100C211	1.0	0.75	230	50%	59%	98%	98%	12.5	318	24	10.5	
	M15422	150C211	1.5	1.1	230	57%	63%	98%	99%	14.2	361	28	12.4	

Generation II - April 2011

GENERATION II 2011 - FUSE OR CIRCUIT BREAKER AMPS

Type	Motor Order No.		HP	Fuse or Circuit Breaker Amps		
	GWT	Red Jacket		Standard Fuse	Dual Element Time Delay	Circuit Breaker
	2-Wire (PSC)	M05421				
M05422		50C211	0.5	15	10	10
M07422		75C211	0.75	15	10	15
M10422		100C211	1.0	20	15	20
M15422		150C211	1.5	30	15	25

GENERATION II 2011 - 2-WIRE MOTORS, RECOMMENDED LEAD LENGTHS

Released for Sale in November/December 2011

Goulds Water Technology Motor Lead Lengths - 2 Wire Motors, 1Ø, 4" Motors Based on Service Factor Amps, 30° C Ambient and 5% Voltage Drop															
Motor Rating					60° C and 75° C Insulation - AWG Copper Wire Size										
Volts	HP	kW	FLA	SFA	14	12	10	8	6	4	2	1/0	2/0	3/0	4/0
115	1/2	0.37	7.9	9.8	112	178	284	449	699	1114	1769	2814	3550	4481	5646
230	1/2	0.37	4.0	4.7	466	742	1183	1874	2915	4648	7379	11733			
230	3/4	0.55	5.0	6.2	353	562	897	1420	2210	3523	5594	8895	11222		
230	1	0.75	6.7	8.1	271	430	686	1087	1692	2697	4281	6808	8590	10843	
230	1 1/2	1.1	9.0	10.4	211	335	535	847	1318	2100	3335	5303	6690	8445	

Generation II Single Phase (November 2015)

As part of Faradyne Motors' continual improvement process, further improvements have been made to Generation II motors in November 2015. Our pump model numbers and motor order number will not change. The Motor Nameplate for the improved Generation II will have a - 01 suffix, example M05422 will be M05422 - 01, only on the Motor Nameplate not in our catalog or price book. To decipher the November 2015 Generation II motors from the April 2011 Generation II motors, please use the date code located on the motor. Goulds Water Technology motor date codes are 12 characters long, the first character represents the month and the fourth and fifth character represent the year. The self-stick, Mylar motor data stickers we pack with our motors and complete pumps will be updated with the new electrical data so that installers will know which motor is installed in the well should service work ever be necessary.

GENERATION II 2015 - 2 WIRE PSC, SINGLE PHASE 4" MOTORS - ELECTRICAL DATA, 60 HZ, 3450 RPM

Type	Model	RJ Ref. #	Rating				Full Load		Service Factor		Locked Rotor Amps	Winding Resistance	
			HP	KW	Volts	SF	Amps (B or Y/B/R)	Watts	Amps (B or Y/B/R)	Watts		Main (B-Y or B-B)	Start (R-Y)
2-Wire (PSC)	M05421	50C201	0.5	0.37	115	1.6	8.1	890	10.2	1110	28	1.4 - 2.0	-
	M05422	50C211	0.5	0.37	230	1.6	4.3	845	4.8	1035	16	6.1 - 7.2	-
	M07422	75C211	0.75	0.55	230	1.5	5.0	1100	6.4	1375	18	5.9 - 6.9	-
	M05422	100C211	1.0	0.75	230	1.4	6.7	1450	8.2	1770	23.5	4.2 - 5.2	-
	M15422	150C211	1.5	1.1	230	1.3	9.1	1950	10.5	2300	43	1.8 - 2.4	-

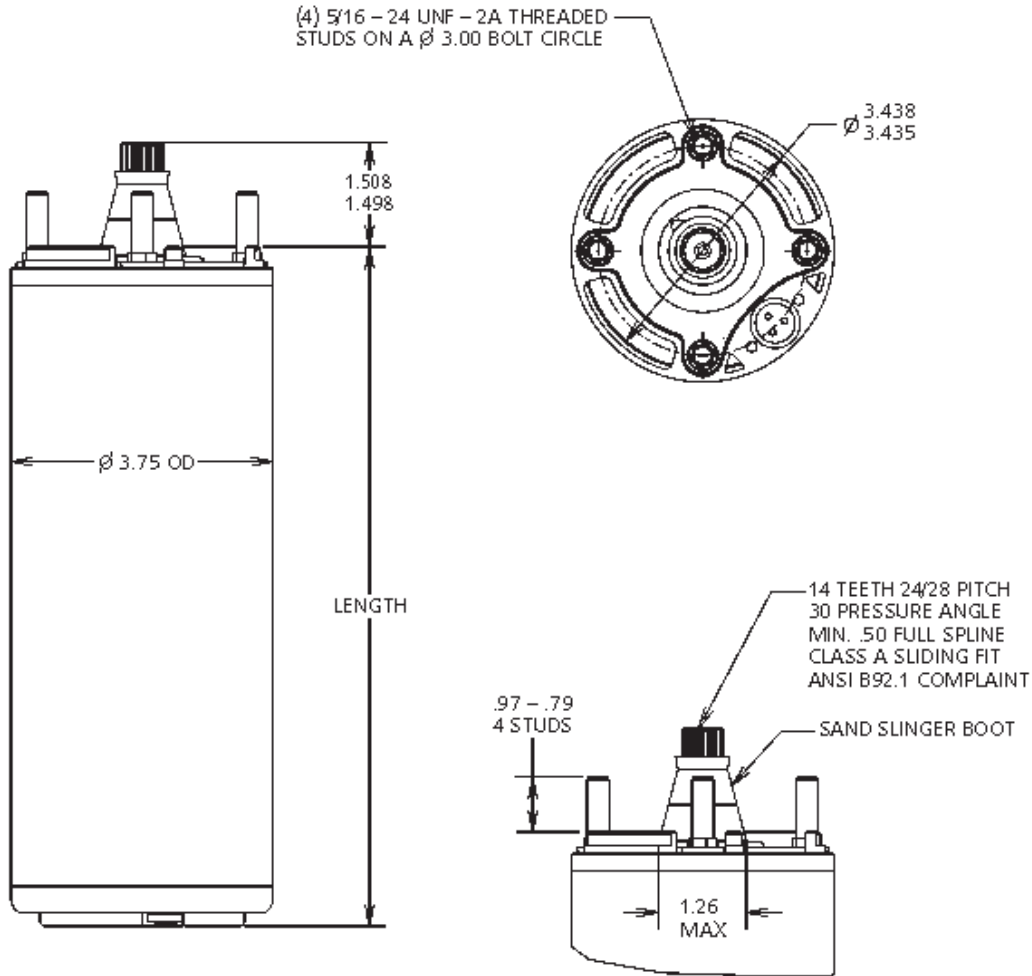
GENERATION II 2015 - 2-WIRE, SINGLE PHASE 4" MOTORS - ENGINEERING DATA

Type	Model	HP	Volts	Efficiency %		Power Factor %		Thrust Rating	KVA Code	Standard Fuse	Dual Element Time Delay Fuse	Circuit Breaker
				F.L.	S.F.	F.L.	S.F.					
2-Wire (PSC)	M05421	0.5	115	42	54	99	99	700 #	H	25	15	20
	M05422	0.5	230	44	58	90	97		J	15	10	10
	M07422	0.75	230	51	61	99	99		F	15	10	15
	M05422	1.0	230	52	59	99	99		F	20	15	20
	M15422	1.5	230	58	63	98	99		H	30	20	25

The MAID Manual has both Generation I and II data for reference.

WEIGHTS AND DIMENSIONS

Type	Motor Order No.		HP	Volts	Length		Motor Weight	
	GWT	Red Jacket			Inches	mm	lb.	kg.
2-Wire (PSC)	M05421	50C201	0.5	115	10.5	267	18	8.2
	M05422	50C211	0.5	230	10.5	267	18	8.2
	M07422	75C211	0.75		11.9	302	22	9.7
	M10422	100C211	1.0		12.5	318	24	10.5
	M15422	150C211	1.5		14.2	361	28	12.4



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