TECHNICAL BROCHURE

BC2WIRE R10



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 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	Ероху
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

							Full	Load	Service Factor		Locked		
Туре	Motor	НР	LVM		SF		Watts		Matta	Rotor	Winding Resistance	KVA Code	
	CentriPro	Red Jacket	HP	KW	Volts	ЭГ	Amps	vvalls	Amps	Watts	Amps	1100101411100	
	M05421	50C201	0.5	0.37	115	1.6	7.9	910	9.8	1120	28	1.4-2.0	Н
2-	M05422	50C211	0.5	0.37	230	1.6	4.0	845	4.7	1050	16	6.1-7.2	J
Wire	M07422	75C211	0.75	0.55	230	1.5	5.0	1130	6.2	1400	18	5.9-6.9	F
(PSC)	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	Н

GENERATION II 2011 - EFFICIENCY AND POWER FACTOR DATA

				Efficir	necy %	Power	Factor %	Length		Weight				
Time	Motor (Order No.	НР	кw	Volts	F.L.	S.F.	F.L.	S.F.	Inches		lb.	kg.	Thrust Rating
Туре	CentriPro	Red Jacket	пг	KVV	VOILS	F.L.	э.г.	r.L.	Э.Г.	inches	mm	ID.	ĸg.	
	M05421	50C201	0.5	0.37	115	42%	54%	99%	99%	10.5	267	18	8.2	
2-	M05422	50C211	0.5	0.37	230	45%	59%	92%	97%	10.5	267	18	8.2	
Wire	M07422	75C211	0.75	0.55	230	51%	61%	98%	98%	11.9	302	22	9.7	700 #
(PSC)	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

				Fuse or Circuit Breaker Amps							
Tymo	Motor C	Order No.	НР	Standard Fuse	Dual Element	Circuit Breaker					
Туре	CentriPro	Red Jacket	ПР	Standard ruse	Time Delay	Circuit breaker					
	M05421	50C201	0.5	25	15	20					
0.14"	M05422	50C211	0.5	15	10	10					
2-Wire (PSC)	M07422	75C211	0.75	15	10	15					
(1 30)	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

			Ва							ors, 1Ø and 5%		tors e 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. CentriPro 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

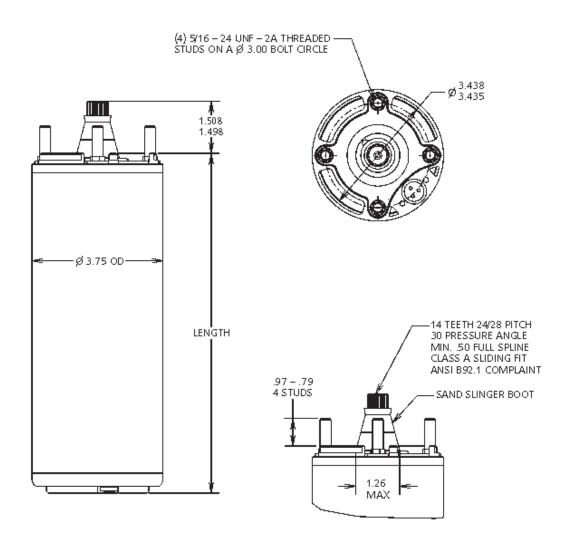
				Rat	ing		Full Load Service Factor				Locked	Winding Resistance		
Туре	Model	RJ Ref. #	НР	KW	Volts	SF	Amps (B or Y/B/R)		Amps (B or Y/B/R)		Rotor Amps	Main (B-Y or B-B)	Start (R-Y)	
	M05421	50C201	0.5	0.37	115	1.6	8.1	890	10.2	1110	28	1.4 - 2.0	-	
(PSC)	M05422	50C211	0.5	0.37	230	1.6	4.3	845	4.8	1035	16	6.1 - 7.2	-	
ire (M07422	75C211	0.75	0.55	230	1.5	5.0	1100	6.4	1375	18	5.9 - 6.9	-	
2-Wi	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

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

WEIGHTS AND DIMENSIONS

	Motor O	rder No.			Len	gth	Motor Weight			
Туре	CentriPro	Red Jacket	HP	Volts	Inches	mm	lb.	kg.		
	M05421	50C201	0.5	115	10.5	267	18	8.2		
	M05422	50C211	0.5		10.5	267	18	8.2		
2-Wire (PSC)	M07422	75C211	0.75	220	11.9	302	22	9.7		
(130)	M10422	100C211	1.0	230	12.5	318	24	10.5		
	M15422	150C211	1.5		14.2	361	28	12.4		





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