



Single Phase 3-Wire, 1/2-5 HP Motors

60 HZ, 3450 RPM – GENERATION II - 2011 AND 2015

FEATURES

- 304 SS casing and end bells for corrosion resistance
- Kingsbury type, 3 shoe, thrust bearing, see chart for ratings.
- Stainless steel, 17-4 PH splined shaft
- Removable, replaceable 48" motor lead on ½ - 2 HP, 100" on 3 and 5 HP
- Water lubricated with filter/check valve to maintain fluid fill
- Surge arrestors built-in
- Automatic reset, on-winding thermal overload protection on 3-wire up to 1 HP, 1½ - 5 HP have overloads in control box.
- CSA Certified
- NEMA Mounting Dimensions
- Tested to ANSI/NSF 61
- Quick disconnect control boxes with voltage relays for motors up to 1 HP.
- CSCR control boxes available for ½ - 5 HP motors.
- MC (magnetic contactor) control boxes available for 1Ø, 4" motors from 1½ - 5 HP.

AGENCY LISTINGS

Tested by CSA to CSA and UL Standards

APPLICATIONS

- These 4" motors are designed and sized for installation in 4" diameter or larger water wells.
- Three wire motors are a capacitor start induction run design and require a control box with a starting relay and capacitor.
- Use the CSCR capacitor start/capacitor run control boxes on ½ - 1 HP motors to increase efficiency and motor life and reduce energy consumption.
- The 1½ HP and larger control boxes are all CSCR type.

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.
- **Control Box:** Required on single phase 3 wire models, available in quick disconnect or more efficient CSCR designs.

MATERIALS OF CONSTRUCTION

Part	Material
Motor (Stator) Shell	304 SS
Shaft Extension	17-4 PH hardened SS
Motor End Bells	304 SS Castings
Upper and Lower Radial Bearings	Carbon Sleeve
Thrust Bearing	Kingsbury Type
Overload Protection	Built-in, Auto Reset
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 - April 2011

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

As part of Faradyne Motors' continual improvement process, 3-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 CentriPro part number on the Motor Nameplate will have a - 01 suffix, example M05412 will be M05412 - 01, only on the Motor Nameplate not in our catalog or price book.

GENERATION II 2011 - FUSE OR CIRCUIT BREAKER AMPS

Type	Motor Order Number		HP	Fuse or Circuit Breaker Amps		
	CentriPro	Red Jacket		Standard Fuse	Dual Element Time Delay	Circuit Breaker
	3-Wire CSIR (QD)	M05411				
	M05412	50C311	0.5	20	10	15
	M07412	75C311	0.75	20	15	20
	M10412	100C311	1.0	25	15	25
3-Wire CSCR	M05412	50C311	0.5	15	10	10
	M07412	75C311	0.75	15	10	15
	M10412	100C311	1.0	20	15	15
	M15412	150C311	1.5	30	20	25
	M20412	200C311	2.0	30	20	25
	M30412	300C311	3.0	45	25	40
	M50412	500C311	5.0	80	45	60

Generation II - April 2011

GENERATION II 2011 - 3-WIRE, SINGLE PHASE 4" MOTORS - ELECTRICAL DATA, 60 HERTZ, 3450 RPM

Type	Motor Order No.		HP	KW	Volts	SF	Full Load		Service Factor		Locked Rotor Amps	Winding Resistance		Required Control Box ¹
	Centri-Pro	Red Jacket					Amps	Watts	Amps	Watts		Main (B-Y)	Start (R-Y)	
3-Wire with Q.D. Cap. Start Box	M05411	50C301	0.5	0.37	230	1.6	Y-8.8 B-8.8 R-0	675	Y-10.9 B-10.9 R-0	980	44	1.0-1.4	2.5-3.1	CB05411
	M05412	50C311	0.5	0.37		1.6	Y-5.3 B-5.3 R-0	740	Y-6.1 B-6.1 R-0	1050	21	5.1-6.1	12.4-13.7	CB05412
	M07412	75C311	0.75	0.55		1.5	Y-6.6 B-6.6 R-0	970	Y-7.8 B-7.8 R-0	1350	32	2.6-3.3	10.4-11.7	CB07412
	M10412	100C311	1.0	0.75		1.4	Y-8.1 B-8.1 R-0	1215	Y-9.4 B-9.4 R-0	1620	41	2.0-2.6	9.3-10.4	CB10412
3-Wire with CSCR (CR) or Magnetic Contactor (MC) Control Box	M05412	50C311	0.5	0.37		1.6	Y-4.2 B-4.1 R-1.8	715	Y-4.8 B-4.3 R-1.8	960	21	5.1-6.1	12.4-13.7	CB05412CR
	M07412	75C311	0.75	0.55		1.5	Y-4.8 B-4.4 R-2.5	940	Y-6.0 B-4.9 R-2.3	1270	32	2.6-3.3	10.4-11.7	CB07412CR
	M10412	100C311	1.0	0.75		1.4	Y-6.1 B-5.2 R-2.7	1165	Y-7.3 B-5.8 R-2.6	1540	41	2.0-2.6	9.3-10.4	CB10412CR
	M15412	150C311	1.5	1.1		1.3	Y-9.1 B-8.2 R-1.2	1660	Y-10.9 B-9.4 R-1.1	2130	49	2.1-2.5	10.0-10.8	CB15412CR or CB15412MC
	M20412	200C311	2	1.5		1.25	Y-9.9 B-9.1 R-2.6	2170	Y-12.2 B-11.7 R-2.6	2660	49	1.6-2.2	10.8-12.0	CB20412CR or CB20412MC
	M30412	300C311	3	2.2		1.15	Y-14.3 B-12.0 R-5.7	3170	Y-16.5 B-13.9 R-5.6	3620	76	1.1-1.4	2.0-2.5	CB30412CR or CB30412MC
	M50412	500C311	5	3.7	1.15	Y-24.0 B-19.1 R-10.2	5300	Y-27.0 B-22.0 R-10.0	6030	101	.62-.76	1.36-1.66	CB50412CR or CB50412MC	

¹ A CSCR control box with a CR suffix can be replaced by a Magnetic Contactor model ending in MC.

GENERATION II 2011 - 3-WIRE, SINGLE PHASE 4" MOTORS - ENGINEERING DATA

Type	Motor Order Number		HP	Volts	Efficiency %		Power Factor %		Thrust Rating	KVA Code	
	CentriPro	Red Jacket			F.L.	S.F.	F.L.	S.F.			
3-Wire CSIR (QD)	M05411	50C211	0.5	230	57	62	65	78	700 #	M	
	M05412	75C211	0.5		52	58.5	61	75		L	
	M07412	100C211	0.75		60	64.5	64	76		L	
	M10412	150C211	1		63	66	66	76		L	
3-Wire CSCR	M05412	50C311	0.5		54.5	61.5	77	87		L	
	M07412	75C311	0.75		62	69	86	91		L	
	M10412	100C311	1.0		66	71	86	91		L	
	M15412	150C311	1.5		68	69	81	87		J	
	M20412	200C311	2		70	70	89	91		900 #	G
	M30412	300C311	3		72	72	96	97			G
	M50412	500C311	5	70.5	71	97	97.5	1500 #	E		

GENERATION II 2011 - 3-WIRE, 4" SINGLE PHASE RECOMMENDED WIRE LENGTHS

Generation II - CentriPro 3-Wire Motors - Recommended Motor Lead Lengths 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	0.5	0.37	8.8	10.9	101	160	255	404	629	1002	1591	2530	3192	4029	5076
230	0.5	0.37	5.3	6.1	359	571	912	1444	2246	3581	5685	9040	-	-	-
	0.75	0.55	6.6	7.8	281	447	713	1129	1757	2800	4446	7070	8920	-	-
	1.0	0.75	8.1	9.4	233	371	592	937	1458	2324	3689	5867	7402	-	-
	1.5	1.1	9.1	10.9	201	320	510	808	1257	2004	3182	5059	6383	-	-
	2.0	1.5	9.9	12.2	180	286	456	722	1123	1790	2843	4520	5703	-	-
	3.0	2.2	14.3	16.5	133	211	337	534	830	1324	2102	3342	4217	5323	-
	5.0	3.7	24	27	-	-	206	326	507	809	1284	2042	2577	3253	-

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 - 3-WIRE, SINGLE PHASE 4" MOTORS - ELECTRICAL DATA, 60 HZ, 3450 RPM

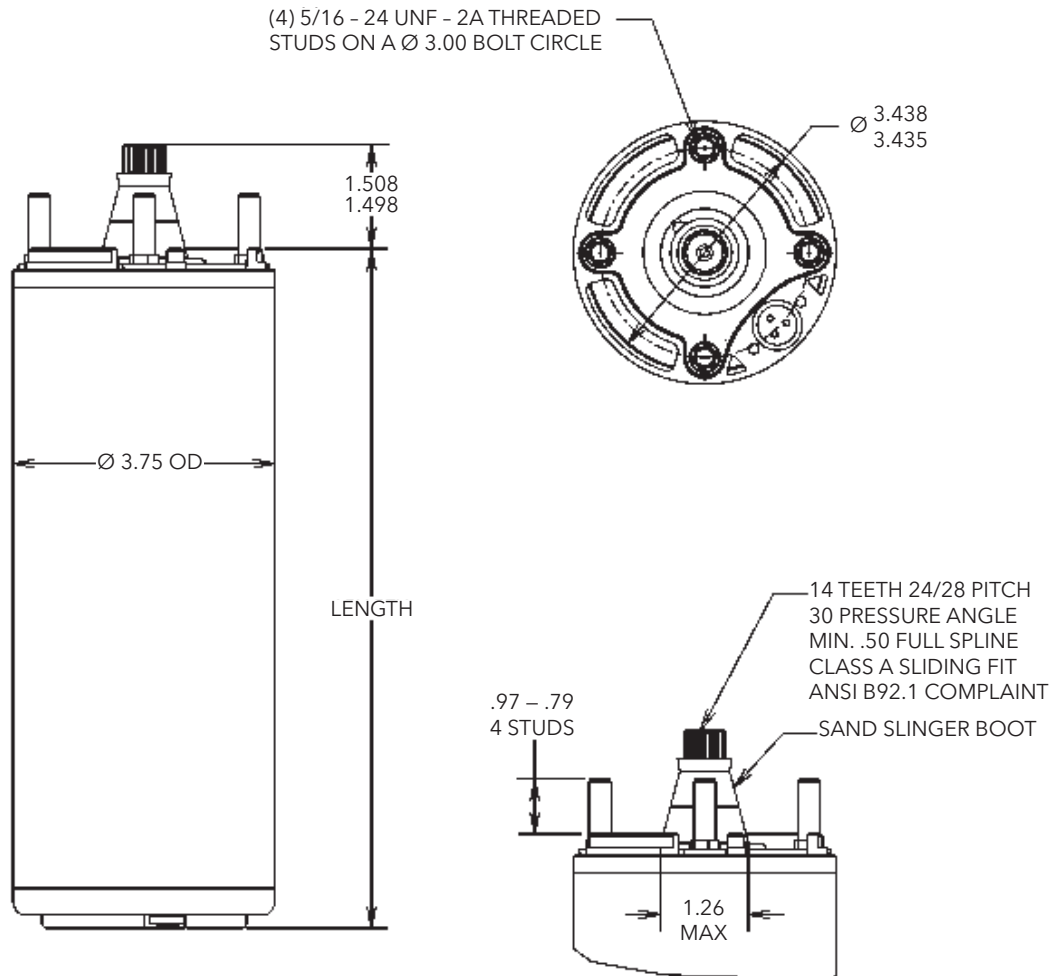
Type	Model	RJ Ref. #	Rating				Full Load		Service Factor		Locked Rotor Amps	Winding Resistance		Standard Control Box	Deluxe Control Box (Mag Contactor)
			HP	KW	Volts	SF	Amps (B or Y/B/R)	Watts	Amps (B or Y/B/R)	Watts		Main (B-Y or B-B)	Start (R-Y)		
3-Wire (CSIR) PREMIUM	M05411	50C301	0.5	0.37	115	1.6	9.8/9.8/0	670	11.6/11.6/0	980	44	1.0-1.4	2.5-3.1	CB05411	-
	M05412	50C311	0.5	0.37	230	1.6	5.7/5.7/0	735	6.3/6.3/0	1035	20.5	5.1-6.1	12.4-13.7	CB05412	-
	M07412	75C311	0.75	0.55	230	1.5	6.7/6.7/0	940	7.9/7.9/0	1335	32	2.6-3.3	10.4-11.7	CB07412	-
	M10412	100C311	1	0.75	230	1.4	8.5/8.5/0	1175	9.5/9.5/0	1590	41	2.0-2.6	9.3-10.4	CB10412	-
3-Wire (CSCR) PREMIUM	M05412	50C311	0.5	0.37	230	1.6	4.4/4.3/1.9	715	5.0/4.5/1.9	950	21	5.1-6.1	12.4-13.7	CB05412CR	-
	M07412	75C311	0.75	0.55	230	1.5	4.6/4.6/2.6	920	6.1/5.1/2.6	1235	32	2.6-3.3	10.4-11.7	CB07412CR	-
	M10412	100C311	1.0	0.75	230	1.4	6.2/6.0/3.6	1165	7.4/6.3/3.3	1490	41	2.0-2.6	9.3-10.4	CB10412CR	-
	M15412	150C311	1.5	1.1	230	1.3	9.2/8.7/1.2	1660	11.0/9.9/1.2	2110	49	2.1-2.5	10.0-10.8	CB15412CR	CB15412MC
	M20412	200C311	2.0	1.5	230	1.25	9.9/9.1/2.6	2170	12.2/11.7/2.6	2660	49	1.6-2.2	4.8-5.9	CB20412CR	CB20412MC
	M30412	300C311	3.0	2.2	230	1.15	14.3/12.0/5.7	3170	16.5/13.9/5.6	3620	76	1.0-1.4	2.0-2.5	CB30412CR	CB30412MC
M50412	500C311	5.0	3.7	230	1.15	24/19.1/10.2	5300	27.0/22.0/10.0	6030	101	.6-.8	1.3-1.7	CB50412CR	CB50412MC	

GENERATION II 2015 - 3-WIRE, SINGLE PHASE 4" MOTORS - ENGINEERING DATA

Type	Model	RJ REF #	HP	Volts	Efficiency %		Power Factor %		Thrust Rating	KVA Code
					F.L.	S.F.	F.L.	S.F.		
3-Wire (CSIR) PREMIUM	M05411	50C301	0.5	115	55.5	61	63	77	700 #	M
	M05412	50C311	0.5	230	51	58	60	75		L
	M07412	75C311	0.75	230	60	63	64	78		L
	M10412	100C311	1	230	63.5	66	63	76		L
3-Wire (CSCR) PREMIUM	M05412	50C311	0.5	230	52	63	75	86		L
	M07412	75C311	0.75	230	61	68	86	93		L
	M10412	100C311	1.0	230	64	70	85	91		L
	M15412	150C311	1.5	230	68	69	82	87	J	
	M20412	200C311	2.0	230	68	69	96	95	900 #	G
	M30412	300C311	3.0	230	72	72	96	97		G
	M50412	500C311	5.0	230	70.5	71	97	97.5	1500 #	E

WEIGHTS AND DIMENSIONS

Type	Motor Order No.		HP	Volts	Length		Motor Weight	
	CentriPro	Red Jacket			Inches	mm	lb.	kg.
3-wire	M05411	50C301	.5	115	9.6	244	17.9	8.1
	M05412	50C311	.5	230	9.2	234	16.7	7.6
	M07412	75C311	.75		10.3	262	19.8	9.0
	M10412	100C311	1		11.2	284	22.0	10.0
	M15412	150C311	1.5		12.8	325	26.0	11.8
	M20412	200C311	2		15.1	383	31.0	14.1
	M30412	300C311	3		18.3	466	40.0	18.1
	M50412	500C311	5		27.7	703	70.0	31.8



NOTES

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



Xylem Inc.
Phone: (866) 325-4210
Fax: (888) 322-5877
www.xylem.com/centripro

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