**FEATURES**

- 304 SS casing and end bells for corrosion resistance
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- 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
- Lightning and surge protection 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

# Single Phase 3-Wire, 1½-5 HP Motors

60 HZ, 3450 RPM – GENERATION II



**CentriPro**  
a xylem brand

## Residential Water Systems

### 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.

### 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

### 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.

## Generation II - Scheduled release date: February/March 2012

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

As part of Faradyne Motors' continual improvement process we are pleased to introduce the 3-Wire Generation II motors. Our pump model numbers and motor order number will not change. 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 - 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	50C301	0.5	30	20	30
	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 - Scheduled release date February/March 2012

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

Type	Motor Order No.				Volts	SF	Full Load		Service Factor		Locked Rotor Amps	Winding Resistance		Required Control Box <sup>1</sup>
	Centri-Pro	Red Jacket	HP	KW			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	

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

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

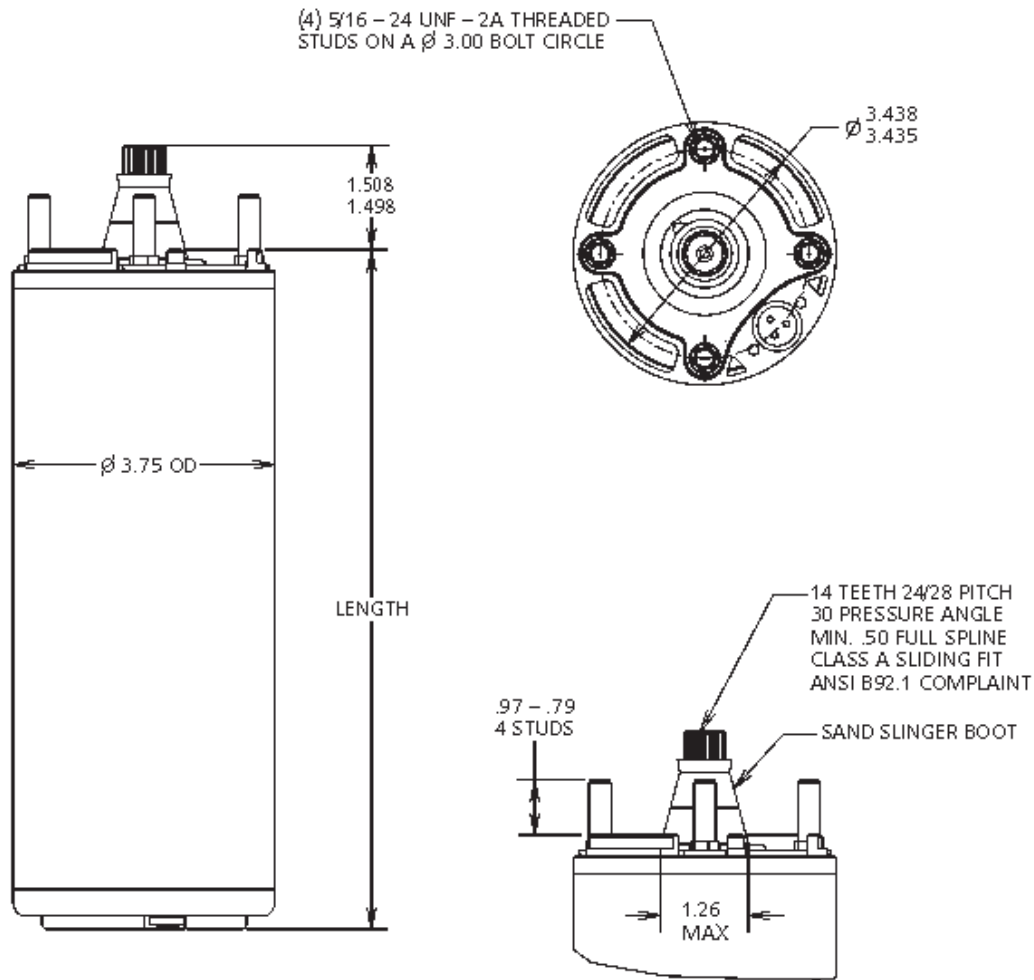
Type	Motor Order Number		HP	Volts	Efficiency %		Power Factor %		Thrust Rating	KVA Code
	CentriPro	Red Jacket			F.L.	S.F.	F.L.	S.F.		
3-Wire CSIR (QD)	M05411	50C211	0.5	230	57	62	65	78	700 #	M
	M05412	75C211	0.5		52	58.5	61	75		L
	M07412	100C211	0.75		60	64.5	64	76		L
	M10412	150C211	1		63	66	66	76		L
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 - 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	-

## 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



**xylem**  
Let's Solve Water

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