



NPM4 Series 4" Rewindable Oil-Filled Motors

NPM4 Series 4" Motors

DESCRIPTION

COVERCO is a long recognized Italian manufacturer of high quality submersible motors with more than 50 years of experience in the industry. FRANKLIN ELECTRIC acquired COVERCO in year 2002, further strengthening COVERCO R&D capability, production capacity, sales and service networks, delivering expanded product portfolio around the globe.

The 4" submersible motors NPM4 Series is the optimized version of our field proven Coverco oil-filled motor.

FEATURES

- Coverco 4" electric motors ensure reliable operation in wells with diameters equal to or greater than 4"
- The axial and radial oil lubricated bearings allow for maintenance-free operation
- The pressure compensation inside the motor is ensured by a special membrane

ADVANTAGES

- Stator submerged in oil
- Sand protection and mechanical seal to allow for optimal operation even in the presence of sand in the well
- Excellent efficiency and low operating costs
- All motors are pre-filled with liquid and 100% tested

TECHNICAL DATA

- Ratings: 0.37 - 7.5 kW
- 4" NEMA flange
- Protection rating: IP68
- Number of starts per hour: max. 30
- Vertical and horizontal operation (prior authorization from our technical department)
- Standard rated voltage:
 - Single Phase: 220V-230V 50Hz
 - Three Phase: 380V-400V-415V 50Hz
- Voltage tolerance: $\pm 10\%$
- Insulation class: F
- Ambience temperature: 30°C
- Cable dimensions: 4x1.5mm²
- Cooling flow rate: min. 0.08 m/sec
- Water pH: 6.5-8
- Thrust Load: 1500 N, 2500 N, 4500 N

PERFORMANCE DATA SINGLE-PHASE 3-WIRE

220-230V AT 50HZ

Phase	Power		Voltage (V)	In (A)	RPM	Efficiency (n%)			Power factor (cos)			Capacitor (uF)
	HP	kW				50	75	100	50	75	100	
1	0.37	0.50	220	3.3	2835	37	48	55	0.88	0.94	0.97	20
			230	3.4	2850	34	45	53	0.82	0.89	0.94	
	0.55	0.75	220	4.6	2810	41	52	59	0.87	0.94	0.97	25
			230	4.8	2820	37	48	56	0.81	0.89	0.95	
	0.75	1.0	220	5.8	2810	46	57	62	0.81	0.90	0.96	30
			230	6.1	2825	41	53	60	0.74	0.84	0.91	
	1.1	1.5	220	8.5	2805	48	59	65	0.77	0.88	0.95	35
			230	9.0	2815	42	54	61	0.70	0.81	0.91	
	1.5	2.0	220	10.9	2800	54	63	66	0.81	0.91	0.96	40
			230	11.0	2820	49	60	66	0.71	0.83	0.92	
	2.2	3.0	220	15.5	2810	54	65	69	0.82	0.92	0.97	70
			230	16.2	2815	48	60	66	0.75	0.86	0.94	

PERFORMANCE DATA THREE-PHASE

380V-400-415V AT 50 HZ

Phase	Power		Voltage (V)	In (A)	RPM	Efficiency (n%)			Power factor (cos)		
	HP	kW				50	75	100	50	75	100
3	1.5	2.0	380	3.8	2825	70	74	74	0.63	0.76	0.83
			400	3.9	2845	67	72	74	0.55	0.68	0.77
			415	4.1	2860	64	71	73	0.48	0.62	0.72
	2.2	3.0	380	5.7	2810	73	76	76	0.55	0.70	0.80
			400	6.1	2830	69	74	75	0.48	0.62	0.73
			415	6.4	2845	66	72	75	0.43	0.56	0.67
	3.0	4.0	380	7.5	2815	74	77	77	0.58	0.72	0.81
			400	7.9	2835	70	75	76	0.50	0.64	0.74
			415	8.2	2850	67	73	75	0.44	0.58	0.69
	4.0	5.5	380	10.2	2820	75	78	78	0.57	0.72	0.81
			400	10.8	2840	71	75	77	0.49	0.63	0.74
			415	11.3	2855	68	74	76	0.44	0.57	0.68
	5.5	7.5	380	13.2	2830	78	80	79	0.62	0.76	0.84
			400	13.5	2850	76	79	79	0.54	0.68	0.78
			415	13.8	2865	74	78	79	0.48	0.62	0.74
	7.5	10	380	18.3	2850	76	80	79	0.56	0.71	0.81
			400	19.4	2865	72	77	78	0.48	0.63	0.73
			415	20.3	2875	69	75	77	0.43	0.57	0.68

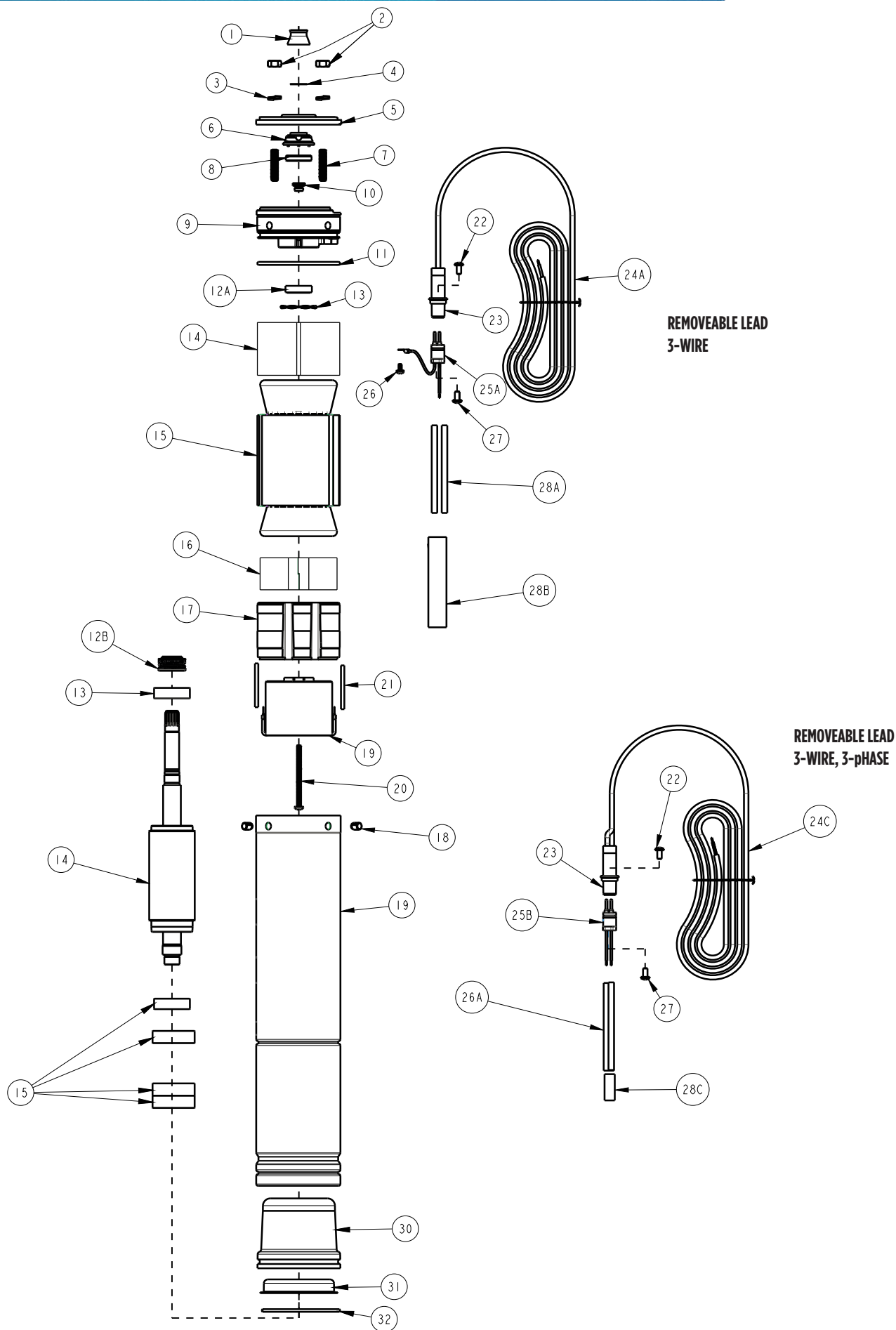
Ordering Information

3-WIRE SINGLE PHASE MODELS

HP	kW	Model No.	Voltage	Hz	S.F.	Lead Type	Thrust Rating (N)	Length A (mm)	Length C (mm)	Weight (kg)
0.5	0.37	2752030252GS	220V - 230V	50	1.0	Removable	1500	327	365	7.4
0.75	0.55	2752130252GS	220V - 230V	50	1.0	Removable	1500	336	374	8
1	0.75	2752230252GS	220V - 230V	50	1.0	Removable	1500	357	395	8.5
1.5	1.1	2752330252GS	220V - 230V	50	1.0	Removable	1500	380	419	8.8
2	1.5	2752430352GS	220V - 230V	50	1.0	Removable	2500	426	464	10.8
3	2.2	2752530352GS	220V - 230V	50	1.0	Removable	2500	475	513	12.5

THREE-PHASE MODELS

HP	kW	Model No.	Voltage	Hz	S.F.	Lead Type	Thrust Rating (N)	Length A (mm)	Length C (mm)	Weight (kg)
2	1.5	2742460352GS	380V-400V-415V	50	1.0	Removable	2500	388	426	8.8
3	2.2	2742560352GS	380V-400V-415V	50	1.0	Removable	2500	426	464	10.8
4	3	2742660452GS	380V-400V-415V	50	1.0	Removable	4500	475	513	12.8
5.5	4	2742860452GS	380V-400V-415V	50	1.0	Removable	4500	540	579	15.5
7.5	5.5	2742960452GS	380V-400V-415V	50	1.0	Removable	4500	635	673	18.3
10	7.5	2743060452GS	380V-400V-415V	50	1.0	Removable	4500	744	782	24.3



MATERIAL OF CONSTRUCTION

#	Part Description	Qty	Material
1	Sand Slinger	1	NBR
2	Nut	4	304SS
3	Washer	4	304SS
4	Washer	1	304SS
5	Top End Bell Cover	1	304SS
6	Sand Slinger Base	1	Polyacetal (POM)
7	Stud	4	304SS
8	Lip Seal	1	NBR
9	Top End Bell	1	E-Coated Cast-Iron
10	Oil Fill Plug	1	Brass
11	O-Ring for Top End Bell	1	NBR
12	Mechanical Shaft Seal	1	NBR-Carbon and cermaic face seal
13	Wave Spring	1	Hi Carbon Steel
14	Top Insulation Roll-Up	1	Mylar A
15	Wound Stator	1	Copper wire/Steel
16	Bottom Insulation Roll-Up	1	Mylar A
17	Bottom End Bell	1	Aluminum
18	Lock Pins	4	304SS
19	Capacitor	1	PBT or PBO case, epoxy or urethane fill
20	Capacitor Screw	1	zinc plated steel
21	Shrink tube	2	polyolefin
22	Screw for Lead Clamp	1	304SS
24	Lead Material	1	VPE/EPR/Cu
25	Internal Connector	1	PA/Cu/NBR/
26	SEMS Grounding Screw	1	zinc plated steel
28	Lead Sleeveing		Glass/Silicone
29	Lead Seal Rubber	1	NBR
30	Pressure Equalization Diaphram	1	NBR
31	Diaphrabm Retainer/Cover	1	304SS
32	Retaining Ring	1	304SS
33	Parallel Connectors	3	CuZn/Sn
34	Lead Clamp Bushing	1	Nylon
35	Lead Clamp Plate	1	304SS
36	Upper Ball Bearing	1	SS
37	Lower Ball Bearing	1-2	SS
38	Shrink Tube	3	polyolefin
39	Rotor with Shaft	1	Steel/304SS/AL/CU
40	Motor Outer Shell	1	304SS
41	Lead Pressure Disk	2	Polyamid
	Filling Solution - Non-Toxic Oil		Food Contact Grade Mineral Oil

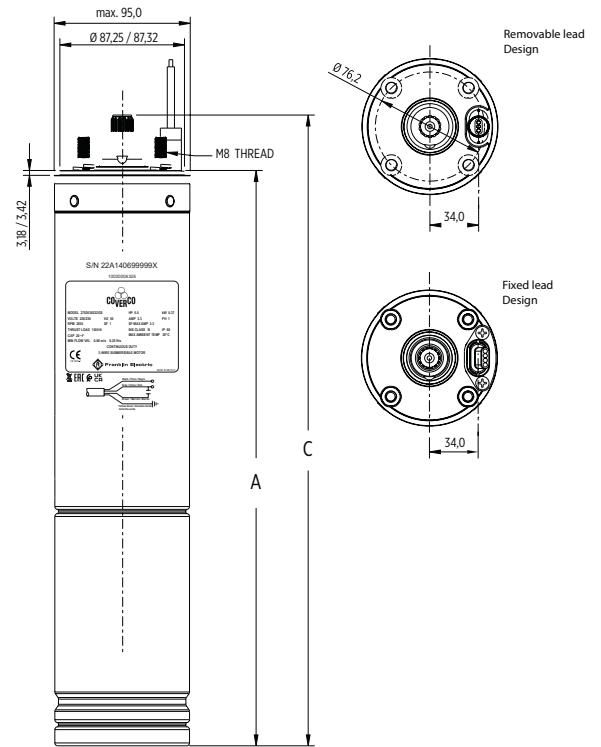
DIMENSIONAL DATA AND DRAWING

SINGLE-PHASE MOTORS 50 HZ

4" 1-3-wire Motors 50Hz					
P _N [HP]	P _N [kW]	A [mm]	C [mm]	Weight [kg]	Oil [kg]
0.5	0.37	327	365	7.4	0.7
0.75	0.55	336	374	8	0.71
1	0.75	35	395	8.5	0.72
1.5	1.1	380	419	8.8	0.73
2	1.5	426	464	10.8	0.74
3	2.2	475	513	12.5	0.78

THREE-PHASE MOTORS 50 HZ

4" 3- Motors 50Hz					
P _N [HP]	P _N [kW]	A [mm]	C [mm]	Weight [kg]	Oil [kg]
2	1.5	388	426	8.8	0.74
3	2.2	426	464	10.8	0.75
4	3	475	513	12.8	0.76
5.5	4	540	579	15.5	0.82
7.5	5.5	635	673	18.3	0.84
10	7.5	744	24.3	0.87	



4CB Control Box

Control Box that provides protection to Coverco single phase oil filled submersible motor

Technical Data

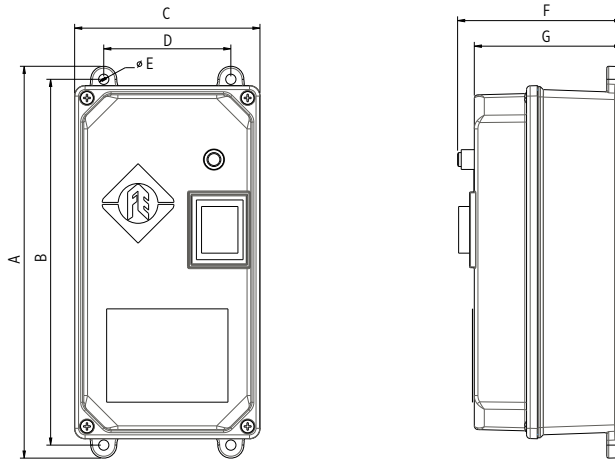
- Main internal components: Switch, Thermal Relay and Permanent Capacitor
- IP-53 thermoplastic external box
- Power: 0.5HP a 3HP
- Voltage: 220V single phase



Ordering Information

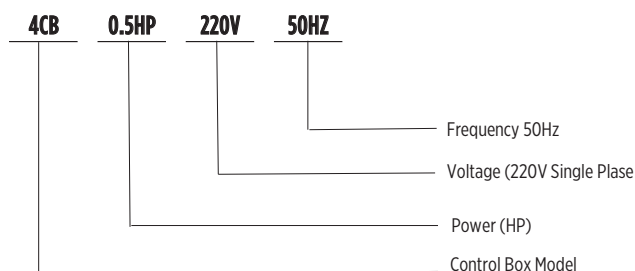
Model	Description	Power HP	Voltage V	Item No
4CB	CB25 0.5HP 220V 3W 50HZ	0.5	220	98304C5001
	CB25 0.75HP 220V 3W 50HZ	0.75		98304C5002
	CB25 1.0HP 220V 3W 50HZ	1		98304C5003
	CB25 1.5HP 220V 3W 50HZ	1.5		98304C5004
	CB25 2.0HP 220V 3W 50HZ	2		98304C5005
	CB25 3.0HP 220V 3W 50HZ	3		98304C5006

Dimension



Model	Dimensions (mm)							Weight kg
	A	B	C	D	E (φ)	F	G	
4CB	217	203	104	80	6.0	85	70	0.5

Product Identification







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00115.2 Ed 11/2024