COVERCO®



NPM4 Series

4” Rewindable Oil-Filled Motors

Franklin Electric

franklinwatersea.com

NPS4 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 NPS4 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 50Hz
    - Three Phase: 380V 50Hz
- Voltage tolerance: ± 10%
- Insulation class: F
- Ambience temperature: 30^{0}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

210-220-230 V AT 50 HZ

Phase	Power		Voltage (V)	In (A)	RPM	Efficiency (n%)			Power factor (cos)			Capacitor (uF)
	HP	kW				50	75	100	50	75	100	
1	0.5	0.37	220	3.3	2835	37.2	47.9	54.8	0.882	0.940	0.972	20
	0.75	0.55	220	4.6	2810	41.1	52.5	58.8	0.869	0.937	0.971	25
	1	0.75	220	5.8	2810	45.9	56.7	62.4	0.811	0.903	0.957	30
	1.5	1.1	220	8.5	2805	48.0	59.1	64.7	0.768	0.879	0.948	35
	2	1.5	220	10.9	2800	53.6	62.9	66.4	0.807	0.910	0.964	40
	3	2.2	220	15.5	2810	51.4	64.8	69.5	0.824	0.923	0.974	70

PERFORMANCE DATA THREE-PHASE

380-400-415 V AT 50 HZ

Phase	Power		Voltage (V)	In (A)	RPM	Efficiency (n%)			Power factor (cos)		
	HP	kW				50	75	100	50	75	100
3	2	1.5	380	3.8	2825	69.9	73.8	73.9	0.628	0.757	0.833
	3	2.2	380	5.7	2810	72.2	75.8	75.6	0.554	0.703	0.801
	4	3	380	7.5	2815	73.9	77.0	76.6	0.579	0.721	0.808
	5.5	4	380	10.2	2820	74.6	77.7	77.5	0.572	0.719	0.811
	7.5	5.5	380	13.2	2830	78.3	80.1	79.1	0.617	0.757	0.84
	10	7.5	380	18.3	2850	76.4	79.5	79.3	0.558	0.709	0.806

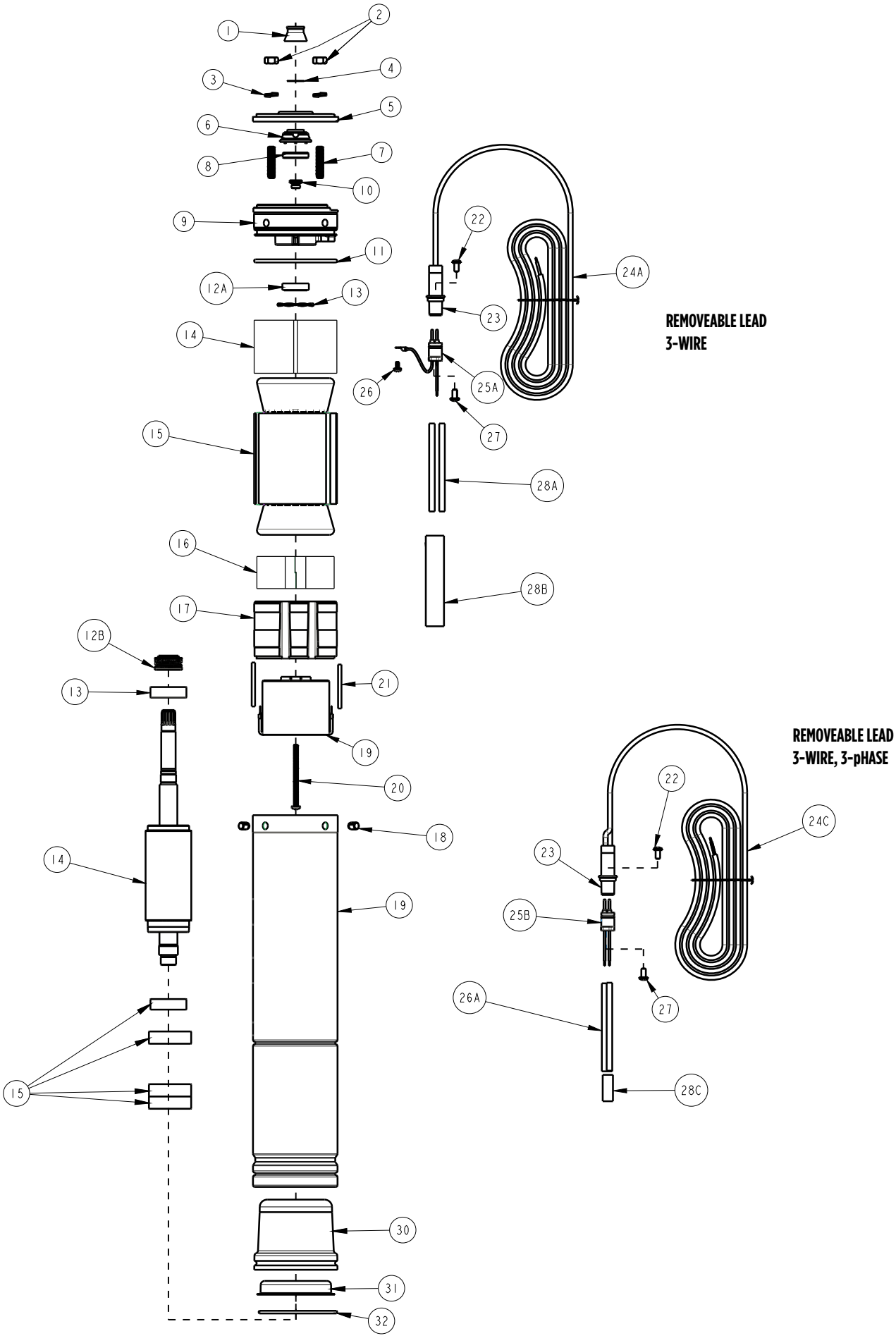
Ordering Information

3-WIRE SINGLE PHASE MODELS

HP	kW	Model No.	Volts	Hz	S.F.	Lead Type	Thrust Rating (N)
0.5	0.37	2752030252GS	230	50	1.0	Removable	1500
0.75	0.55	2752130252GS	230	50	1.0	Removable	1500
1	0.75	2752230252GS	230	50	1.0	Removable	1500
1.5	1.1	2752330252GS	230	50	1.0	Removable	1500
2	1.5	2752430352GS	230	50	1.0	Removable	2500
3	2.2	2752530352GS	230	50	1.0	Removable	2500

THREE-PHASE MODELS

HP	kW	Model No.	Volts	Hz	S.F.	Lead Type	Thrust Rating (N)
2	1.5	2742460352GS	380	50	1.0	Removable	2500
3	2.2	2742560352GS	380	50	1.0	Removable	2500
4	3	2742660452GS	380	50	1.0	Removable	4500
5.5	4	2742860452GS	380	50	1.0	Removable	4500
7.5	5.5	2742960452GS	380	50	1.0	Removable	4500
10	7.5	2743060452GS	380	50	1.0	Removable	4500


REMOVEABLE LEAD
3-WIRE
REMOVEABLE LEAD
3-WIRE, 3-pHASE

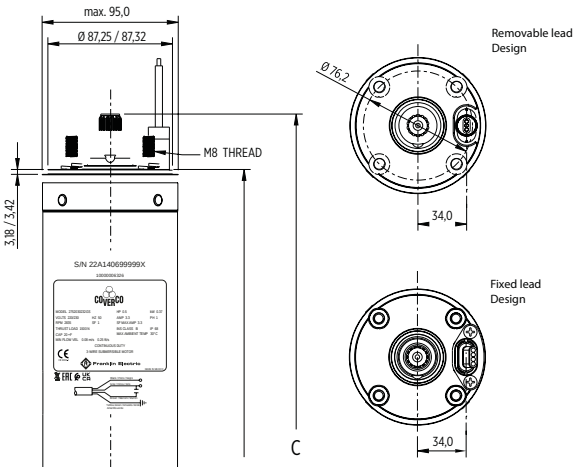
MATERIAL OF CONSTRUCTION

#	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 Sleeving		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	782	24.3	0.87

CB25 Control Box

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



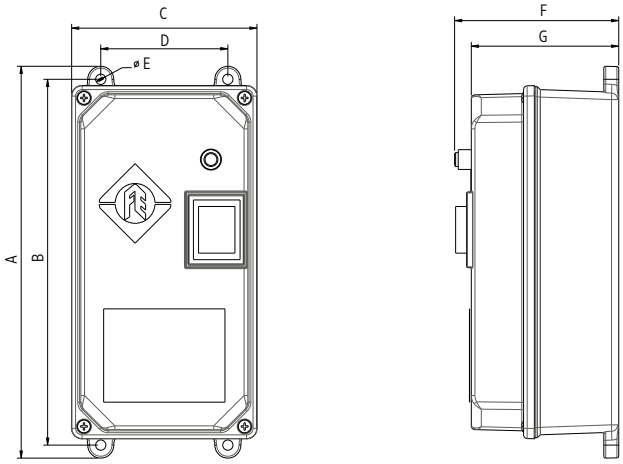
Technical Data

- 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

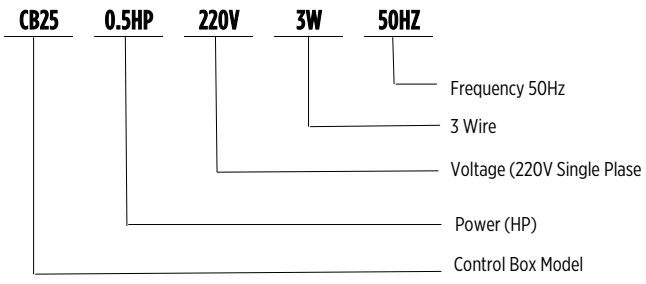
Model	Description	Power HP	Voltage V	Item No
CB25	CB25 0.5HP 220V 3W 50HZ	0.5	220	87511190-00
	CB25 0.75HP 220V 3W 50HZ	0.75		87511191-00
	CB25 1.0HP 220V 3W 50HZ	1		87511192-00
	CB25 1.5HP 220V 3W 50HZ	1.5		87511193-00
	CB25 2.0HP 220V 3W 50HZ	2		87511194-00
	CB25 3.0HP 220V 3W 50HZ	3		87511195-00

Dimension



Dimensions (mm)								Weight
Model	A	B	C	D	E (ϕ)	F	F	kg
CB25	210	196	99	68.1	5.5	100	79	0.61

Product Identification



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