



# 4"/6" REWINDABLE OIL FILLED MOTORS

ENGLISH / ITALIANO / FRANÇAIS / ESPAÑOL / РУССКИЙ /

ةيبرعلا / POLSKI





## INDEX

<b>NBS4 series</b> .....	<b>3</b>
4" motors .....	4
Motori 4" .....	5
MOTEURS 4" .....	6
Motores 4" .....	7
ДВИГАТЕЛЕЙ 4" .....	8
ةصوب 4 تاكرحملا .....	9
Silników 4" .....	10
Performance data single-phase .....	11
Performance data three-phase.....	13
Resistance values .....	15
Dimensional data and drawing.....	16
Spare part list and sectional drawing .....	18
Motor leads .....	19
Disassembly .....	20
Assembly .....	23
<b>NBS6 SERIES</b> .....	<b>27</b>
6" Motors .....	28
Motori 6" .....	29
Moteurs 6" .....	30
Motores 6" .....	31
ДВИГАТЕЛЕЙ 6" .....	32
ةصوب 6 تاكرحملا .....	33
Silników 6" .....	34
Performance data three-phase.....	35
Resistance values .....	37
Dimensional data and drawing.....	38
Spare part list and sectional drawing .....	39
Motor leads .....	40
Disassembly .....	41
Assembly .....	45
<b>Control boxes</b> .....	<b>51</b>
Control boxes .....	52
Quadri di controllo .....	54
Coffrets de contrôle .....	56
Paneles de control.....	58
Щиты управления .....	60
مكحتل تاكرحملا .....	62
Skrzynki rozruchowe .....	64
Technical data and dimensions.....	66

Coverco S.r.l. reserves the right to amend specification without prior notice

For the most up-to-date product information, visit [franklinwater.eu](http://franklinwater.eu).



# NBS4 series

## Technical details



## 4" MOTORS

### DESCRIPTION

The 4" submersible motors of the NBS4 series are rewindable motors and operate in wells with water not over 30 °C and a pH ranging between 6.5 e 8.0.

The filling liquid is a dielectric fluid, known as white oil, approved by the FDA and other international pharmacological institutes. The coupling dimensions and flange comply with the NEMA standard, as these submersible motors are specifically designed to operate coupled with submersible deep well pumps with the same coupling dimensions.

The motors can be powered with single-phase and three-phase power supply. The single-phase line ranges between 0.37 kW (0.5 HP) and 4.0 kW (5.5 HP), whereas the three-phase line ranges between 0.37 kW (0.5 HP) and 7.5 kW (10 HP). The submersible motors are mainly used in vertical installations. However, these motors can be installed also horizontally prior confirmation from our technical department and global assessment of the required application. Coverco motors can be installed in 4" wells with a maximum depth of 250 metres. The rewindable feature is ensured by a design that allows the motors to be disassembled and reassembled.

### 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
- Cable material compliant with drinking water standards (KTW)
- 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 of our technical dept.)
- Standard rated voltage:
  - Single-phase: 210-220-230 V / 50 Hz
  - Three-phase: 380-415 V/50 Hz; 460 V/60 Hz
- Voltage tolerance:  $\pm 10\%$
- Motor protection: thermal relays in compliance with EN 60947-4-1, trip class 10 or 10 A, trip time  $< 10$  s. at  $5 \times I_N$
- Insulation class: F
- Ambience temperature: 30 °C
- Cable dimensions: 4x1.5 mm<sup>2</sup>
- Cooling flow rate: min. 8 cm/sec
- Water pH: 6.5-8
- Thrust load: 1500 N, 2500 N, 4500 N (K)

### OPTIONS

- Special voltages on request
- Silicon carbide mechanical seal

## PERFORMANCE DATA SINGLE-PHASE

### 210-220-230 V AT 50 HZ

Power		Hz	Voltage [V]	I <sub>N</sub>	LRC / I <sub>N</sub>	R.p.m. [Min <sup>-1</sup> ]	FLT [Nm]	LRT / FLT	BDT / FLT	Efficiency η%			Power factor cosφ			Capacitor [μF]
[kW]	[HP]									50	75	100	50	75	100	
0.37	0.50	50	210	3.4	3.3	2810	1.26	0.87	2.28	38	48	54	0.93	0.96	0.97	20
			220	3.4	3.4	2830	1.25	0.94	2.54	37	47	53	0.86	0.91	0.95	20
			230	3.5	3.4	2845	1.24	1.05	2.83	34	44	51	0.79	0.85	0.91	20
0.55	0.75	50	210	4.6	3.4	2810	1.87	0.71	2.11	48	58	60	0.92	0.96	0.98	25
			220	4.5	3.5	2830	1.85	0.79	2.37	46	56	59	0.80	0.87	0.95	25
			230	4.7	3.5	2845	1.85	0.88	2.63	43	53	57	0.71	0.81	0.91	25
0.75	1.0	50	210	5.7	3.2	2815	2.54	0.74	2.03	47	58	64	0.94	0.96	0.98	36
			220	5.7	3.6	2830	2.53	0.82	2.20	45	56	63	0.86	0.92	0.96	36
			230	5.8	3.5	2845	2.52	0.88	2.48	42	52	61	0.78	0.86	0.92	36
1.1	1.5	50	210	8.3	3.1	2790	3.79	0.63	1.81	52	61	65	0.90	0.95	0.97	40
			220	8.3	3.3	2810	3.74	0.68	2.00	51	61	64	0.79	0.88	0.95	40
			230	8.6	3.2	2830	3.70	0.75	2.22	47	58	62	0.70	0.81	0.90	40
1.5	2.0	50	210	10.7	3.1	2780	5.16	0.59	2.12	56	65	68	0.94	0.97	0.98	50
			220	10.5	3.3	2810	5.10	0.63	2.35	53	63	67	0.86	0.94	0.97	50
			230	10.7	3.4	2820	5.06	0.70	2.58	50	60	65	0.76	0.86	0.93	50
2.2	3.0	50	210	15.0	4.5	2790	7.52	0.60	2.09	60	68	72	0.96	0.98	0.99	76
			220	14.8	5.5	2810	7.49	0.67	2.20	57	67	71	0.91	0.96	0.98	76
			230	14.5	5.5	2830	7.42	0.73	2.33	54	64	70	0.82	0.91	0.96	76
3.0	4.0	50	210	19.5	4.9	2910	9.84	1.13	2.22	62	71	75	0.94	0.97	0.98	100+178
			220	19.2	5.1	2920	9.82	1.24	2.43	61	70	74	0.85	0.93	0.96	100+178
			230	19.7	5.1	2930	9.78	1.37	2.68	56	66	73	0.73	0.84	0.92	100+178
3.7	5.0	50	210	23.4	3.9	2900	12.2	0.85	1.97	63	72	77	0.93	0.97	0.98	130+178
			220	23.1	4.2	2910	12.1	0.91	2.35	60	70	76	0.83	0.91	0.97	130+178
			230	23.9	4.3	2920	12.1	1.01	2.47	53	65	73	0.72	0.84	0.93	130+178
4.0	5.5	50	210	25.1	4.1	2890	13.2	0.83	1.83	66	74	77	0.93	0.97	0.98	130+178
			220	24.6	4.2	2900	13.1	0.92	2.17	62	72	76	0.85	0.93	0.97	130+178
			230	25.1	4.3	2910	13.1	0.99	2.28	55	67	74	0.75	0.87	0.94	130+178

### 230-240 V AT 50 HZ

Power		Hz	Voltage [V]	I <sub>N</sub>	LRC / I <sub>N</sub>	R.p.m. [Min <sup>-1</sup> ]	FLT [Nm]	LRT / FLT	BDT / FLT	Efficiency η%			Power factor cosφ			Capacitor [μF]
[kW]	[HP]									50	75	100	50	75	100	
0.37	0.50	50	230	3.0	2.9	2800	1.26	0.90	2.3	40	49	56	0.91	0.95	0.97	20
			240	3.0	3.0	2820	1.26	0.97	2.4	37	47	55	0.86	0.91	0.95	
0.55	0.75	50	230	4.0	3.1	2815	1.87	0.67	2.1	45	55	60	0.92	0.95	0.97	25
			240	4.0	3.2	2835	1.86	0.75	2.3	43	52	59	0.86	0.91	0.95	
0.75	1.0	50	230	5.2	2.4	2815	2.54	0.71	2.1	48	58	64	0.92	0.96	0.97	36
			240	5.3	2.4	2830	2.53	0.78	2.3	46	57	63	0.85	0.91	0.95	
1.1	1.5	50	230	7.5	3.1	2800	3.75	0.63	2.0	58	68	72	0.75	0.85	0.95	40
			240	7.7	3.0	2820	3.72	0.69	2.1	53	64	70	0.69	0.80	0.91	
1.5	2.0	50	230	9.5	3.3	2790	5.13	0.60	2.8	59	68	71	0.89	0.95	0.97	50
			240	9.4	3.2	2810	5.10	0.65	2.9	55	65	70	0.81	0.90	0.95	
2.2	3.0	50	230	13.5	3.6	2790	7.55	0.60	2.2	62	70	73	0.95	0.98	0.98	76
			240	13.2	3.6	2810	7.48	0.65	2.5	59	68	72	0.90	0.96	0.97	
3.0	4.0	50	230	18.5	5.0	2910	9.80	1.10	2.4	60	69	72	0.84	0.92	0.97	100+(156-200)
			240	18.8	5.1	2920	9.75	1.20	2.6	55	64	70	0.72	0.84	0.95	
3.7	5.0	50	230	21.5	4.2	2900	12.2	0.84	2.2	64	73	79	0.91	0.96	0.97	130+(156-200)
			240	21.0	4.3	2910	12.1	0.91	2.4	62	72	77	0.82	0.91	0.96	
4.0	5.5	50	230	22.6	4.2	2890	13.2	0.84	1.9	66	75	79	0.93	0.97	0.99	130+(156-200)
			240	22.2	4.3	2900	13.2	0.91	2.2	52	63	71	0.86	0.92	0.96	

## PERFORMANCE DATA THREE-PHASE

### 380-400-415 V AT 50 HZ

Power		Hz	Voltage [V]	I <sub>N</sub> *	LRC / I <sub>N</sub>	R.p.m. [Min <sup>-1</sup> ]	FLT [Nm]	LRT / FLT	BDT / FLT	Efficiency η%			Power factor cosφ		
[kW]	[HP]									50	75	100	50	75	100
0.37	0.50	50	380	1.35	3.5	2790	1.26	1.7	2.5	40	47	51	0.69	0.77	0.83
			400	1.35	3.7	2820	1.25	1.9	2.7	39	47	51	0.64	0.73	0.79
			415	1.35	3.9	2835	1.25	2.0	3.1	38	46	50	0.61	0.70	0.76
0.55	0.75	50	380	1.85	3.6	2800	1.87	1.8	2.3	47	53	56	0.65	0.75	0.83
			400	1.85	3.8	2830	1.85	2.1	2.5	46	53	56	0.60	0.70	0.78
			415	1.90	3.9	2850	1.84	2.3	2.8	43	52	56	0.55	0.66	0.75
0.75	1.0	50	380	2.20	4.1	2810	2.55	2.3	2.3	54	61	63	0.64	0.75	0.82
			400	2.20	4.2	2835	2.52	2.5	2.5	54	61	63	0.58	0.70	0.78
			415	2.25	4.3	2850	2.51	2.9	2.8	52	60	63	0.54	0.65	0.74
1.1	1.5	50	380	3.00	4.6	2800	3.76	2.6	3.5	63	68	69	0.64	0.76	0.83
			400	3.00	4.7	2830	3.73	2.8	3.8	60	66	68	0.60	0.71	0.79
			415	3.00	4.7	2845	3.71	3.0	3.9	59	65	68	0.55	0.67	0.75
1.5	2.0	50	380	4.00	4.4	2800	5.10	2.6	3.2	63	69	70	0.60	0.73	0.82
			400	4.10	4.5	2825	5.07	2.9	3.5	61	67	69	0.53	0.66	0.76
			415	4.30	4.5	2840	5.05	3.1	3.8	59	66	69	0.48	0.61	0.71
2.2	3.0	50	380	5.50	4.9	2800	7.51	2.4	2.9	70	73	74	0.63	0.76	0.83
			400	5.60	5.0	2825	7.44	2.8	3.1	68	73	74	0.56	0.69	0.78
			415	5.70	5.1	2840	7.39	3.0	3.3	66	72	73	0.50	0.64	0.73
3.0	4.0	50	380	7.40	4.5	2780	10.30	2.5	2.8	73	74	75	0.59	0.73	0.83
			400	7.50	4.6	2810	10.18	2.7	3.2	69	73	74	0.51	0.66	0.78
			415	7.90	4.8	2825	10.16	3.0	3.4	66	72	73	0.47	0.60	0.72
4.0	5.5	50	380	9.60	5.1	2800	13.62	2.8	2.9	77	79	79	0.57	0.72	0.82
			400	9.80	5.1	2820	13.53	3.1	3.1	74	78	78	0.50	0.64	0.77
			415	10.3	5.1	2835	13.48	3.4	3.2	70	76	77	0.45	0.59	0.71
5.5	7.5	50	380	12.6	5.2	2825	18.60	2.5	2.7	79	80	80	0.63	0.77	0.86
			400	12.5	5.4	2845	18.44	2.7	2.8	77	80	80	0.55	0.71	0.82
			415	12.8	5.4	2860	18.37	2.9	3.0	74	79	79	0.50	0.65	0.78
7.5	10.0	50	380	16.9	5.1	2810	25.50	2.4	2.5	80	80	80	0.65	0.79	0.87
			400	16.9	5.3	2835	25.26	2.6	2.6	78	80	80	0.57	0.72	0.83
			415	17.3	5.3	2850	25.05	2.7	2.7	75	79	79	0.51	0.66	0.77

\* 220-240 V Version: I<sub>N</sub> x 1.73

### 380 V 60 HZ

Power		Hz	Voltage [V]	I <sub>N</sub>	LRC / I <sub>N</sub>	R.p.m. [Min <sup>-1</sup> ]	FLT [Nm]	LRT / FLT	BDT / FLT	Efficiency η%			Power factor cosφ			S.F. Amp
[kW]	[HP]									50	75	100	50	75	100	
0.37	0.50	60	380	1.6	5.6	3500	1.01	4.3	4.7	36	45	50	0.57	0.64	0.70	2.0
0.55	0.75	60	380	2.1	6.0	3500	1.52	4.1	4.6	44	53	59	0.57	0.65	0.72	2.5
0.75	1.0	60	380	2.5	5.1	3480	2.06	3.2	3.6	51	59	63	0.57	0.67	0.75	3.0
1.1	1.5	60	380	3.2	5.8	3470	3.03	3.3	3.2	59	66	69	0.58	0.69	0.76	3.8
1.5	2.0	60	380	4.4	5.3	3470	4.10	3.1	5.0	63	70	71	0.52	0.64	0.71	5.0
2.2	3.0	60	380	5.9	6.0	3470	6.06	3.4	4.1	71	76	77	0.61	0.64	0.74	6.4
3.0	4.0	60	380	8.2	6.0	3470	8.24	3.5	4.3	70	75	77	0.50	0.63	0.73	8.7
4.0	5.5	60	380	10.2	6.3	3450	11.0	3.5	4.0	74	78	80	0.54	0.67	0.76	11.4
5.5	7.5	60	380	13.0	6.5	3490	15.0	3.1	3.8	78	81	83	0.55	0.69	0.78	14.5
7.5	10	60	380	17.8	6.5	3480	20.6	2.9	3.3	77	80	81	0.57	0.71	0.80	19.4

## RESISTANCE VALUES

### SINGLE-PHASE $\pm 5\%$ (25 °C) / 210-220-230 V 50 HZ

Type	[kW]	$\Omega$ (Main)	$\Omega$ (Start)	Watt 220 V	Amps 220 V
NBS4 050 M	0.37	6.50	14.8	400	2.5
NBS4 075 M	0.55	4.50	9.20	480	3.0
NBS4 100 M	0.75	3.55	7.60	550	3.8
NBS4 150 M	1.10	2.55	6.90	770	5.8
NBS4 200 M	1.50	2.00	4.90	990	6.6
NBS4 300 M	2.20	1.25	3.00	1100	7.8
NBS4K 400 M	3.00	0.90	2.00	1500	10.6
NBS4K 500 M	3.70	0.76	1.85	1800	14.5
NBS4K 550 M	4.00	0.76	1.85	1800	14.5

### SINGLE-PHASE $\pm 5\%$ (25 °C) / 230-240 V 50 HZ

Type	[kW]	$\Omega$ (Main)	$\Omega$ (Start)	Watt 240 V	Amps 240 V
NBS4 050 M	0.37	7.90	12.5	370	2.1
NBS4 075 M	0.55	4.10	6.30	400	2.7
NBS4 100 M	0.75	5.50	7.30	550	3.6
NBS4 150 M	1.10	3.00	5.50	720	6.2
NBS4 200 M	1.50	2.30	4.00	850	6.5
NBS4 300 M	2.20	1.50	2.45	1000	7.0
NBS4K 400 M	3.00	1.00	1.80	1200	10.0
NBS4K 500 M	3.70	0.90	1.45	1450	13.5
NBS4K 550 M	4.00	0.90	1.45	1450	13.5

### THREE-PHASE $\pm 5\%$ (25 °C) 380-415 V 50 HZ

Type	[kW]	$\Omega$	Input Power Watt 400 V	No Load Amps 400 V
NBS4 050 T	0.37	54	320	1.05
NBS4 075 T	0.55	40	360	1.40
NBS4 100 T	0.75	26.4	320	1.65
NBS4 150 T	1.10	16.1	340	2.05
NBS4 200 T	1.50	12.3	480	3.25
NBS4 300 T	2.20	7.7	590	3.90
NBS4 400 T	3.00	5.5	780	5.90
NBS4 550 T	4.00	3.8	990	7.70
NBS4 750 T	5.50	3.0	1000	8.55
NBS4K 1000 T	7.50	2.2	1300	11.3



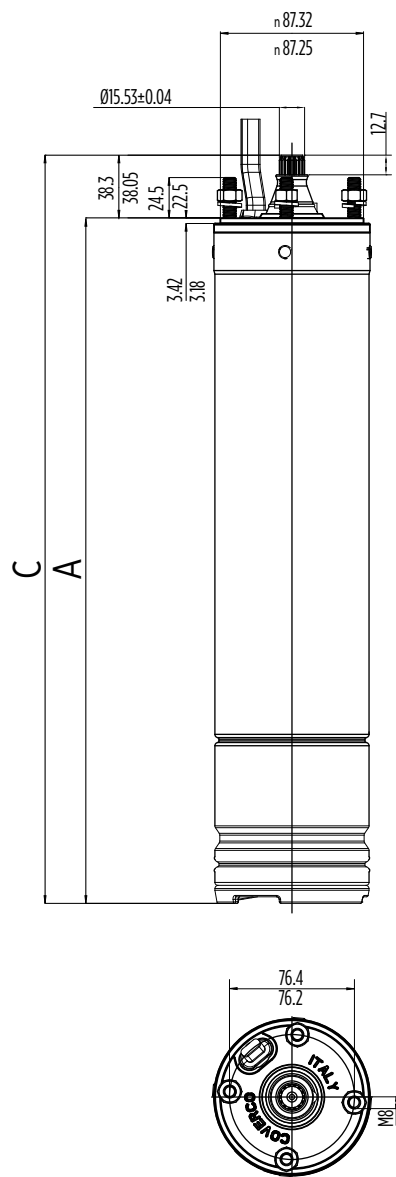
# DIMENSIONAL DATA AND DRAWING

## SINGLE-PHASE MOTORS 50 HZ

Type	Axial trust	kW	Tot. A [mm]	Tot. C [mm]	Weight [Kg]	Oil [Kg]
NBS4 050 M	1500N/150 Kg.	0.37	364	402	8.1	0.71
NBS4 075 M	1500N/150 Kg.	0.55	389	427	9.2	0.72
NBS4 100 M	1500N/150 Kg.	0.75	411	449	10.3	0.76
NBS4 150 M	2500N/250 Kg.	1.10	434	472	11.4	0.79
NBS4 200 M	2500N/250 Kg.	1.50	467	505	12.8	0.76
NBS4 300 M	2500N/250 Kg.	2.20	565	603	17.4	0.86
NBS4K 300 M	4500N/450 Kg.	2.20	565	603	17.4	0,84
NBS4K 400 M	4500N/450 Kg.	3.00	680	718	24.1	0.90
NBS4K 500 M	4500N/450 Kg.	3.70	680	718	24.1	0.86
NBS4K 550 M	4500N/450 Kg.	4.00	680	718	24.1	0.93

## THREE-PHASE MOTORS 50 HZ

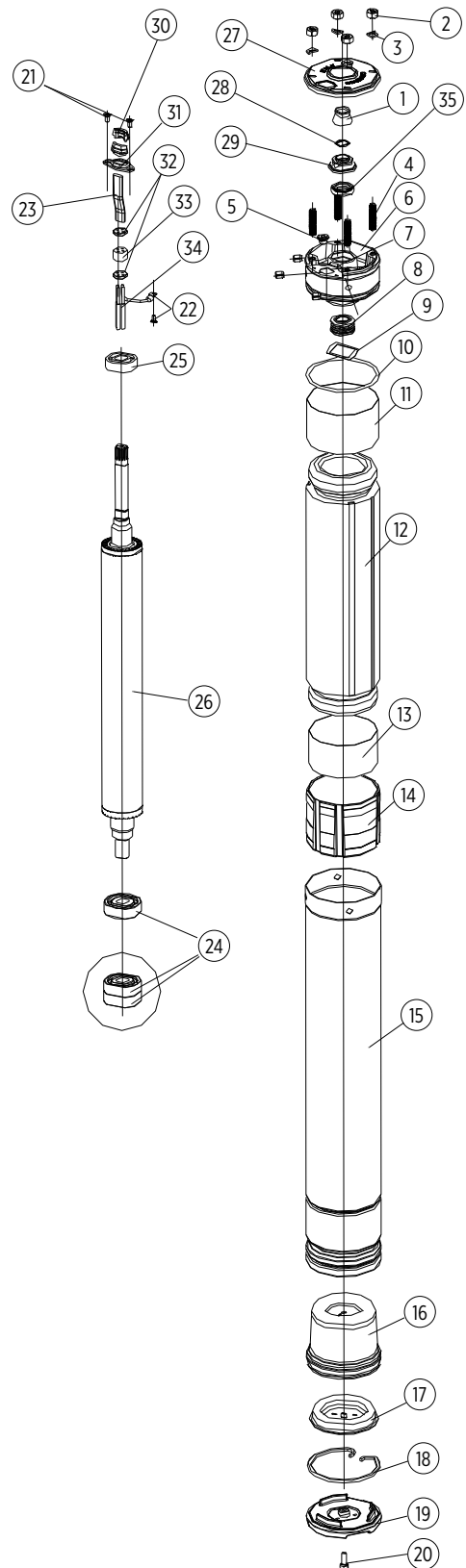
Type	Axial trust	kW	Tot. A [mm]	Tot. C [mm]	Weigh [Kg]	Oil [Kg]
NBS4 050 T	1500N/150 Kg.	0.37	350	388	7.4	0.70
NBS4 075 T	1500N/150 Kg.	0.55	364	402	8.0	0.71
NBS4 100 T	1500N/150 Kg.	0.75	384	422	8.8	0.72
NBS4 150 T	2500N/250 Kg.	1.10	411	449	10.6	0.70
NBS4 200 T	2500N/250 Kg.	1.50	428	466	10.8	0.74
NBS4 300 T	2500N/250 Kg.	2.20	467	505	12.5	0.78
NBS4 400 T	2500N/250 Kg.	3.0	522	560	15.0	0.80
NBS4 550 T	2500N/250 Kg.	4.0	587	625	18.3	0.82
NBS4 750 T	2500N/250 Kg.	5.5	687	725	24.3	0.86
NBS4K 300 T	4500N/450 Kg.	2.2	467	505	12.5	0.78
NBS4K 400 T	4500N/450 Kg.	3.0	522	560	15.0	0.80
NBS4K 550 T	4500N/450 Kg.	4.0	587	625	18.3	0.82
NBS4K 750 T	4500N/450 Kg.	5.5	687	725	24.3	0.86
NBS4K 1000 T	4500N/450 Kg.	7.5	768	806	28.3	1.09



0013001 03/2018

# SPARE PART LIST AND SECTIONAL DRAWING

#	Part description	Q.ty	Material
1	Sand slinger	1	NBR
2	Nut	4	304 SS
3	Washer	4	304 SS
4	Stud	4	304 SS
5	Oil fill plug	1	Brass
6	Top end bracket	1	Powder coated cast-iron
7	Lock pins	4	304 SS
8	Mechanical shaft seal	1	Nitrile-Carbon and ceramic face seal
9	Wavy spring	1	High carbon steel (C70)
10	O-ring gasket for top end bell	1	NBR
11	Insulation Roll up	1	Mylar A
13			Mylar A
12	Wound stator	1	Copper wire
14	Bottom end bell	1	Aluminium
15	Motor outer shell	1	304 SS
16	Pressure equalization Diaphragm	1	Buna N
17	Cover Diaphragm	1	304 SS
18	Snap ring	1	304 SS
19	Shell protector	1	Polyphenylene ether + PS (PPE+PS)
20	Lock screw for shell protector	1	304 SS
21	Screw for lead clamp	2	304 SS
22	Grounding screw	1	Steel+zinc
	Lock washer	1	
23	Lead	1	VPE+EPR
24	Lower ball bearing	1/2	Stainless steel
25	Upper ball bearing	1	Stainless steel
26	Rotor with shaft	1	Steel/304 SS/AL/Cu
27	Top end bell cover	1	304 SS
28	Washer	1	304 SS
29	Sand slinger base	1	Polyacetal (POM)
30	Lead seal bushing	2	Nylon
32	Lead pressure disk	2	Polyamid
33	Lead fix rubber	1	NBR
31	Lead Clamp	1	304 SS
34	Parallel connectors	3	CuZn+Sn
35	Lip seal	1	NBR
	Filling non-toxic oil	Kg.	Marcol 152
	Instruction sticker	1	-
	Lead jacket g6	4	-



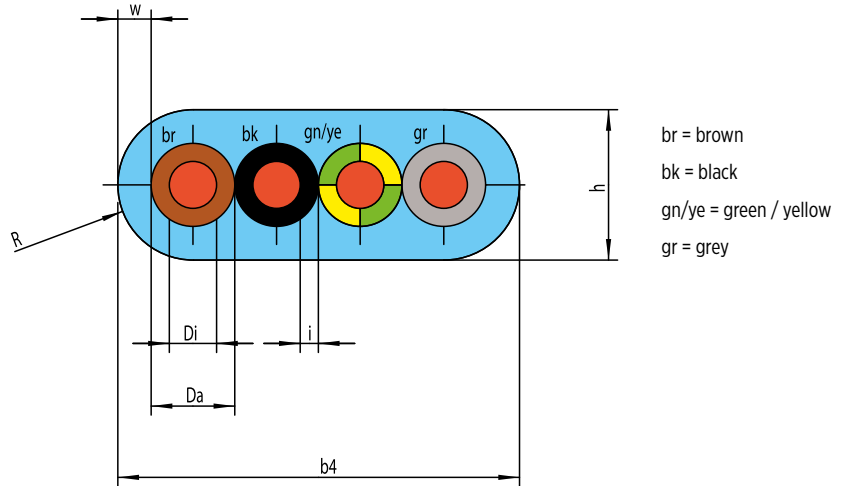
00'30'24 03/2018

# MOTOR LEADS

Type	Di	i	Da	w	R	b4	h
4x1.5	1.5	0.6	2.7	1.9	2.5	14.6	5.1

## DIMENSIONS

Standard cable	Lengths [mt]
0,37 kW - 2,2 kW	1,5
3,0 kW - 5,5 kW	2,5
7,5 kW	3,5



# NBS6 Series

## Technical details



## 6" MOTORS

### DESCRIPTION

The 6" submersible motors of the NBS6 series are rewindable motors and they can operate in wells with water not over 30 °C and a pH ranging between 6.5 e 8.0. The filling liquid is a dielectric fluid, known as white oil, approved by the FDA and other international pharmacological institutes. The coupling dimensions and flange comply with the NEMA standard, as these submersible motors are specifically designed to operate coupled with submersible deep well pumps with the same coupling dimensions. Three- phase power supply ranges between 4.0 kW (5.5 HP) and 30 kW (40 HP). The submersible motors are mainly used in vertical installations. However, these motors can be installed also horizontally prior confirmation from our technical department and global assessment of the required application. Coverco motors can be installed in 6" wells with a maximum depth of 350 metres.

The rewindable feature is ensured by a design that allows the motors to be disassembled and reassembled.

### FEATURES

- Coverco 6" electric motors ensure reliable operation in wells with diameters equal to or greater than 6"
- 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
- Cable material compliant with drinking water standards (KTW)
- Sand protection and mechanical seal to allow for optimal operation even in the presence of sand in the well
- Designed to ensure excellent efficiency and low operating costs
- All motors are pre-filled with liquid and 100% tested

### TECHNICAL DATA

- Ratings: 4.0 to 30 kW
- 6" NEMA flange
- Protection rating: IP68
- Number of starts per hour: max. 20
- Vertical installation (all ratings) and horizontal installation (up to 11kW prior to application assessment and approval by Coverco)
- Standard rated voltage:
  - Three-phase: 380-415 V/50 Hz; 460 V/60 Hz
- Voltage tolerance:  $\pm 10\%$
- Cable dimensions: 4 mm<sup>2</sup> and 8.3 mm<sup>2</sup>
- Motor protection: thermal relays in compliance with EN 60947-4-1, trip class 10 or 10A, trip time < 10 s. at  $5 \times I_N$
- Insulation class: F
- Cooling flow rate: min. 16 cm/sec. (30 kW min. 0.5 m/sec.)
- 4-metre removable cable with plug
- Thrust load: 10000 and 20000 N

### OPTIONS

- Special voltage upon request
- Y $\Delta$  start (position of cables 90°)
- Cable length ranging between 4 m and 50 m for Y/ $\Delta$  starter versions
- Silicon carbide mechanical seal

## PERFORMANCE DATA THREE-PHASE

380-400-415 V AT 50 HZ

Power		Hz	Voltage [V]	I <sub>N</sub>	LRC / I <sub>N</sub>	Amps Start	R.p.m. [Min <sup>-1</sup> ]	FLT [Nm]	LRT / FLT	BDT / FLT	Efficiency η%			Power factor cosφ		
[kW]	[HP]										50	75	100	50	75	100
4.0	5.5	50	380	9.6	3.9	37.5	2815	13.6	1.44	2.54	70	74	76	0.65	0.77	0.85
			400	9.5	4.0	38.0	2840	13.5	1.62	2.82	68	73	76	0.57	0.70	0.81
			415	9.6	4.0	38.5	2855	13.4	1.78	3.18	67	72	76	0.52	0.65	0.77
5.5	7.5	50	380	12.9	3.9	50.3	2830	18.7	1.43	2.45	75	78	79	0.65	0.77	0.84
			400	13.0	4.0	52.0	2850	18.5	1.58	2.68	74	77	79	0.57	0.70	0.79
			415	13.2	4.1	54.1	2865	18.4	1.75	2.87	72	76	79	0.51	0.64	0.75
7.5	10	50	380	17.1	3.7	63.3	2810	25.6	1.29	2.132	77	79	79	0.70	0.81	0.86
			400	16.8	4.0	67.2	2835	25.3	1.46	2.29	76	78	79	0.62	0.75	0.82
			415	17.1	4.3	73.5	2850	25.2	1.54	2.50	75	78	79	0.56	0.69	0.78
9.2	12.5	50	380	20.8	3.9	81.1	2830	31.3	1.41	2.16	79	81	81	0.70	0.80	0.84
			400	20.9	4.1	85.7	2850	31.0	1.59	2.40	78	80	81	0.61	0.74	0.80
			415	21.5	4.1	88.1	2865	30.9	1.73	2.55	77	80	81	0.55	0.69	0.75
11	15	50	380	24.5	5.3	129.9	2880	36.6	1.97	2.94	80	84	85	0.65	0.76	0.81
			400	25.3	5.4	136.6	2895	36.4	2.22	3.21	78	83	85	0.55	0.68	0.75
			415	26.6	5.4	143.6	2905	36.3	2.41	3.31	77	82	84	0.48	0.62	0.70
15	20	50	380	33.0	5.1	168.3	2850	50.2	2.50	2.04	83	84	84	0.67	0.79	0.84
			400	33.4	5.5	183.7	2875	49.9	2.74	2.29	82	84	84	0.58	0.73	0.79
			415	34.7	5.5	190.8	2880	49.7	2.97	2.46	81	83	84	0.52	0.67	0.73
18.5	25	50	380	40.1	4.5	180.4	2850	62.3	2.10	2.22	83	84	85	0.65	0.77	0.84
			400	40.7	4.6	187.2	2870	61.9	2.35	2.48	82	84	85	0.56	0.70	0.79
			415	42.1	4.6	193.7	2880	61.5	2.57	2.65	80	83	85	0.50	0.64	0.73
22	30	50	380	50.3	5.7	286.7	2875	73.1	2.25	2.55	82	84	86	0.54	0.69	0.79
			400	53.3	5.5	293.1	2890	72.7	2.52	2.60	80	83	85	0.45	0.60	0.71
			415	57.6	5.4	311.0	2900	72.5	2.73	2.65	77	81	84	0.40	0.52	0.64
30	40	50	380	63.2	4.7	297.0	2830	101.5	1.58	2.37	83	83	83	0.75	0.84	0.88
			400	61.9	5.0	309.5	2850	100.9	1.76	2.63	84	84	84	0.66	0.78	0.85
			415	62.2	5.1	317.2	2865	100.3	1.91	2.83	84	84	84	0.60	0.73	0.81

## RESISTANCE VALUES

THREE-PHASE  $\pm 5\%$  (25 °C) / 380-415 V 50 HZ D.O.L.

Type	[kW]	$\Omega$	Input Power Watt 400V	No Load Amps 400V
NBS6 550 T	4.0	3.56	1450	5.6
NBS6 750 T	5.5	2.32	1700	8.1
NBS6 1000 T	7.5	1.90	1710	9.5
NBS6 1250 T	9.2	1.30	2050	13.0
NBS6 1500 T	11.0	0.81	2100	16.6
NBS6 2000 T	15.0	0.68	2750	21.5
NBS6 2500 T	18.5	0.52	3050	24.5
NBS6K 3000 T	22.0	0.34	3000	37.5
NBS6K 4000 T	30.0	0.35	3950	30.0

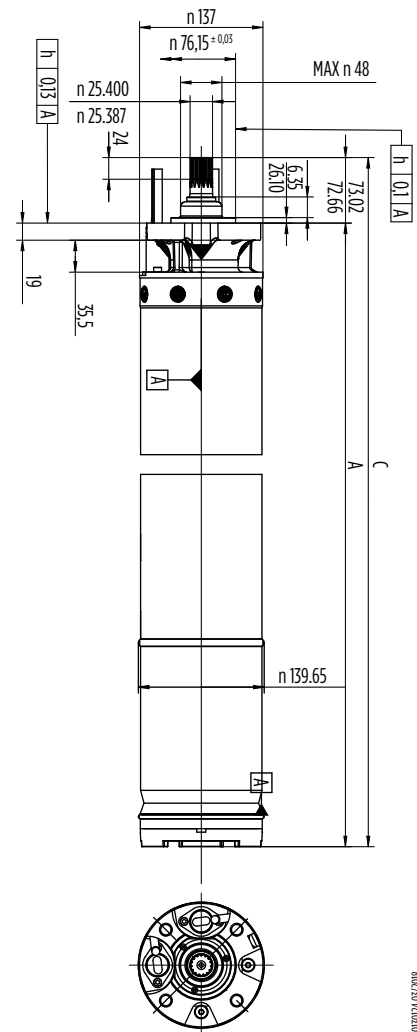
THREE-PHASE  $\pm 5\%$  (25 °C) 380-415 V 50 HZ STAR/DELTA

Type	[kW]	$\Omega$	Input Power Watt 400V	No Load Amps 400V
NBS6 550 T	4.0	5.40	1450	5.6
NBS6 750 T	5.5	3.81	1700	8.1
NBS6 1000 T	7.5	2.44	1710	9.5
NBS6 1250 T	9.2	2.22	2050	13.0
NBS6 1500 T	11.0	1.33	2100	16.6
NBS6 2000 T	15.0	0.96	2750	21.5
NBS6 2500 T	18.5	0.80	3050	24.5
NBS6K 3000 T	22.0	0.52	3000	37.5
NBS6K 4000 T	30.0	0.53	3950	30.0

# DIMENSIONAL DATA AND DRAWING

## THREE-PHASE MOTORS

Type	kW	HP	A [mm]	Weight [Kg]	Oil [Kg]
NBS6 550 T	4.0	5.5	633	34	2.50
NBS6 750 T	5.5	7.5	667	36	2.95
NBS6 1000 T	7.5	10.0	698	39	3.15
NBS6 1250 T	9.2	12.5	731	42	3.25
NBS6 1500 T	11.0	15.0	826	50	3.30
NBS6 2000 T	15.0	20.0	894	57	3.50
NBS6 2500 T	18.5	25.0	959	65	3.60
NBS6K 3000 T	22.0	30.0	1116	78	3.80
NBS6K 4000 T	30.0	40.0	1243	91	4.10

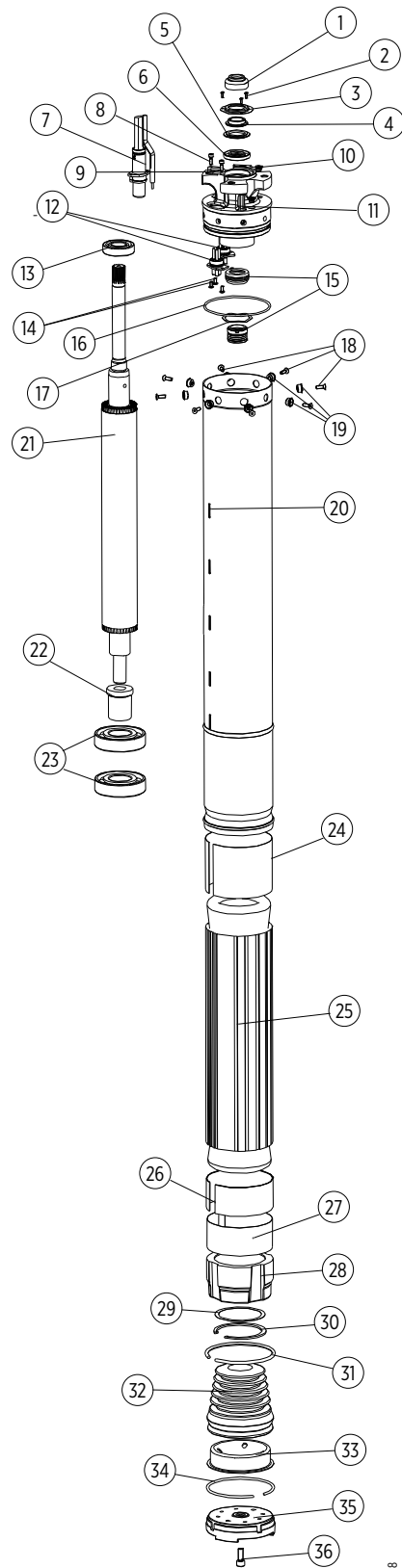


882720 01/2016/00



## SPARE PART LIST AND SECTIONAL DRAWING

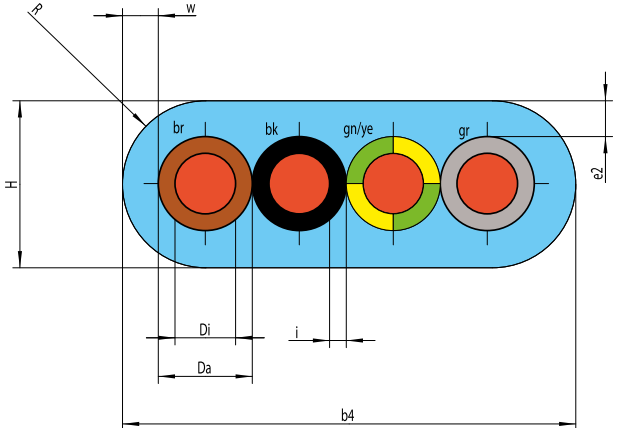
#	Part description	Q.ty	Material
1	Slinger	1	NBR
2	Screw (cover seal)	1	410 SS
3	Cover seal	"1 (10000 N) 2 (20000 N)"	201 SS
4	Bushing	1	Bronze
5	Distance ring	1	Polyacetal (POM)
6	Lip seal	1	NBR
7	Removable lead (4X4 or 4x8)	1DOL 2SD	EPR (blue)
8	Screw (lead)	4	304 SS
9	Cable clamping	1DOL 2SD	304 SS
10	Plug	1DOL 2SD	Brass
11	Top end Bell	1	Powder coated cast-iron
12	Prong	1	Polyetherimide (PEI)
13	Bearing (top)	1	Stainless steel
14	Screw (prong)	1	304 SS
15	Mechanical seal	1	Carbon/graphite + Alumina oxide + Nitrlye
16	O-ring	1	NBR
17	Compensation ring	1	Stainless steel
18	Flat head screw	1	304 SS
19	Lock washer	1	303 SS
20	Shell	1	304 SS
21	Rotor	1	Steel/304 SS/Cu
22	Bushing bearing	2	C40(1.0765)
23	Bearing (bottom)	1	Stainless steel
24	Insulation (top)	1	Mylar A
25	Wound stator	1	Copper wire
26	Insulation (bottom)	1	Mylar A
27	Spacer ring (bottom)	1	Stainless steel
28	Bottom end bell	1	Cast iron
29	Shim ring	1	Stainless steel
30	Retainer ring	1	1075 SS
31	Stator lock ring	1	Stainless steel
32	Diaphragm	1	NBR
33	Diaphragm cover	1	304 SS
34	Diaphragm lock ring	1	304 SS
35	Protection cover	1	Polypropylene (PP)
36	Hexagonal head screw	1	304 SS
	Safety instruction card	1	-
	Filling non-toxic oil	Kg.	Tigrol 352



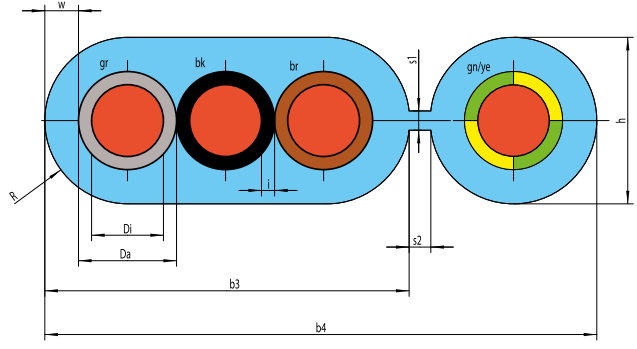
00150126 03/2010

# MOTOR LEADS

Type	Di [mm]	i [mm]	Da [mm]	w [mm]	R [mm]	s1 [mm]	s2 [mm]	b3 [mm]	b4 [mm]	h [mm]	Motor			
											380V 415V 50Hz	220V 230V 60Hz	380V 60Hz	440V 60Hz
4G4	2.54	0.7	3.94	1.5	3.5	-	-	-	19.0	7.0	4-18,5kW DOL 4-30kW SD	4-11kW DOL 4-22kW SD	4-18,5kW DOL 4-30kW SD	4-18,5kW DOL 4-30kW SD
3x8.3+1G8	3.84	0.7	5.24	1.8	4.5	1.0	1.1	19.5	29.5	8.9	22-30kW DOL	15-18,5kW DOL 30kW SD	22-30kW DOL	22-30kW DOL



br = brown  
 bk = black  
 gn/ye = green / yellow  
 gr = grey



br = brown  
 bk = black  
 gn/ye = green / yellow  
 gr = grey