

## 4BHS – POMPE CENTRIFUGE SUBMERSIBILE 4" din AISI 304 otel inoxidabil



Pompe centrifuge submersibile, 4", din AISI 304 in totalitate. Potrivite pentru cuplare la motoare 4", conform NEMA.

### APLICATII

- Sisteme de aprovizionare apa domestica, ape din agricultura si ape industriale;
- Sisteme de presurizare si de incendiu;
- Irigatii;
- Spalare;
- In general, manipularea apei curate.

### CARACTERISTICI TEHNICE

- Robuste, solide;
- Rezistente la coroziune;
- Eficienta exceptionala datorita rotoarelor de suprafata si difuzoarelor;

### DATE TEHNICE POMPA

- Imersie maxima: 350 m (cu motor in baie de apa), 150 m (cu motor in baie de ulei);
- Temperatura maxima a fluidului: 30 °C;
- Cantitate maxima de nisip: 50 ppm;
- Cantitate maxima de clor: 500 ppm;
- Conexiune de livrare G1<sup>1</sup>/<sub>4</sub> (4BHS 2), G1<sup>1</sup>/<sub>2</sub> (4BHS 4), G2 (4BHS 7 – 4BHS 15);
- Pompele pot fi aprovizionate cu: pompa 4BHS plus motor OY in baie de ulei, pompa 4BHS plus motor WY in baie de apa;
- MEI > 0.4 (4BHS 2 – 4BHS 4 – 4BHS 7). Pentru mai multe informatii, consultati Cartea Tehnica de pe [www.ebara.eu](http://www.ebara.eu);
- In prezent, 4BHS 15 nu este in conformitate cu Directivele EuP (valabila doar pentru tarile din afara UE sau pentru asamblari in kituri/unitati de incendii).

**Pompa si motorul sunt aprovizionate separat.**

### DATE TEHNICE MOTOR

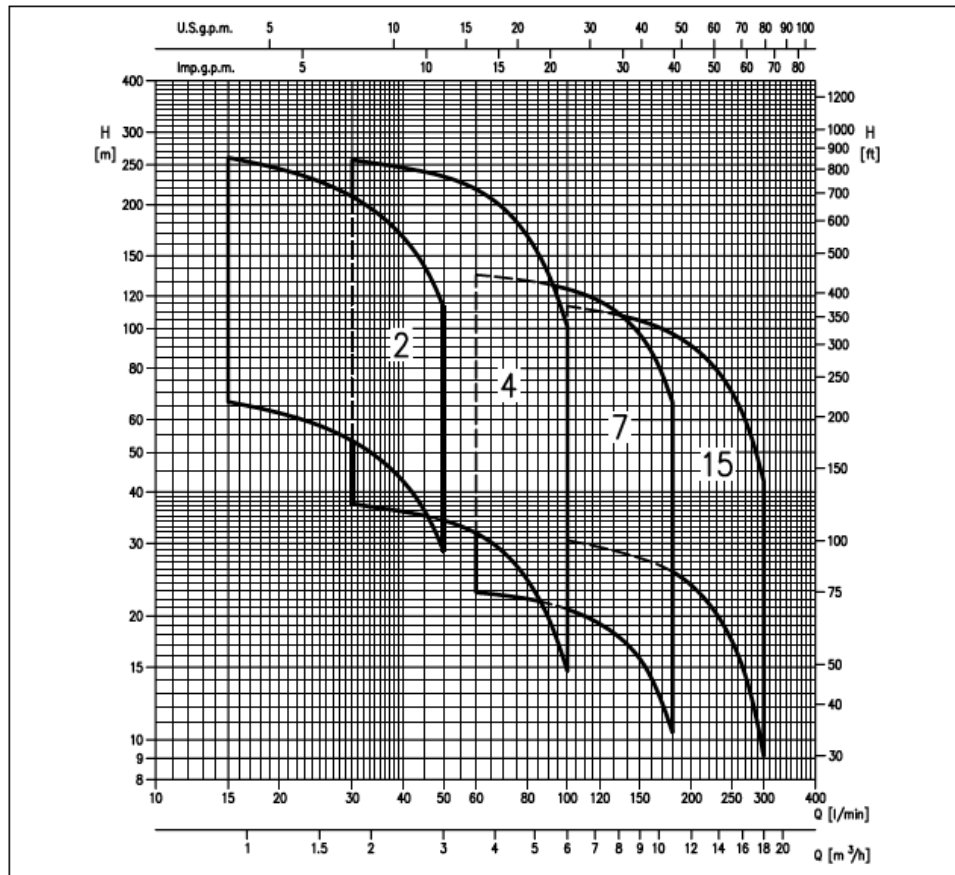
- Motor 2 poli in baie de ulei (OY) sau in baie de apa (WY);
- Porniri maxime pe ora: 30 (OY) – 20 (WY);
- Conectare prin cablu de alimentare;
- Clasa de izolatie F (OY) – B (WY);
- Grad de protectie IP58 (OY) – IP68 (WY);
- Curent monofazat 230V (±10%) 50 Hz (OYM), trifazat 380-415V (±10%) 50 Hz (OY);
- Curent monofazat 230V (-10%+6%) 50 Hz (WYM), trifazat 380-415V (-10%+6%) 50 Hz (WY);

- Pentru dimensionarea cablului, vezi pagina 54 sau consultati Cartea Tehnica de pe [www.ebaraurope.com](http://www.ebaraurope.com).

## MATERIALE

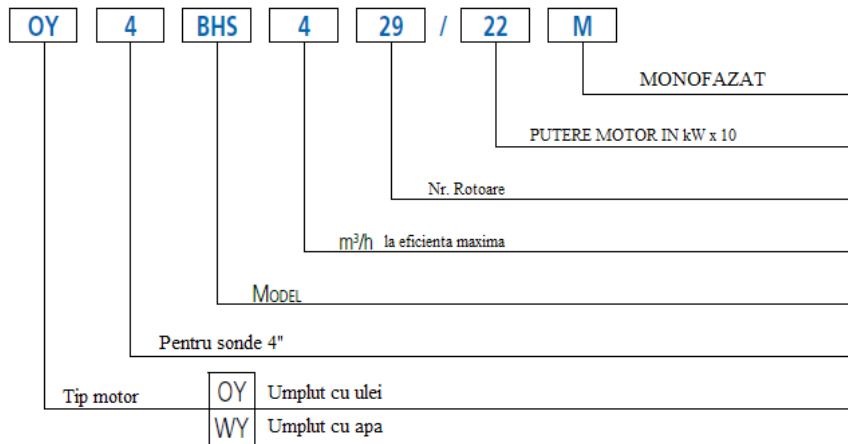
- Teava de livrare si motor montat in otel inoxidabil turnat;
- Suport, porturi, cuplaj, rotor, difuzor, valva, trepte, legaturi si capac cablu din EN 1.4301 (AISI 304);
- Inel de degajare din EN 1.4301 (AISI 304) + EPDM;
- Ax din EN 1.4401 (AISI 316);
- Rulmenti radiale, rulmenti axiali si lagar axial din carbura de wolfram.

## GAMA DE PERFORMANTA (per ISO 9906 Anexa A)

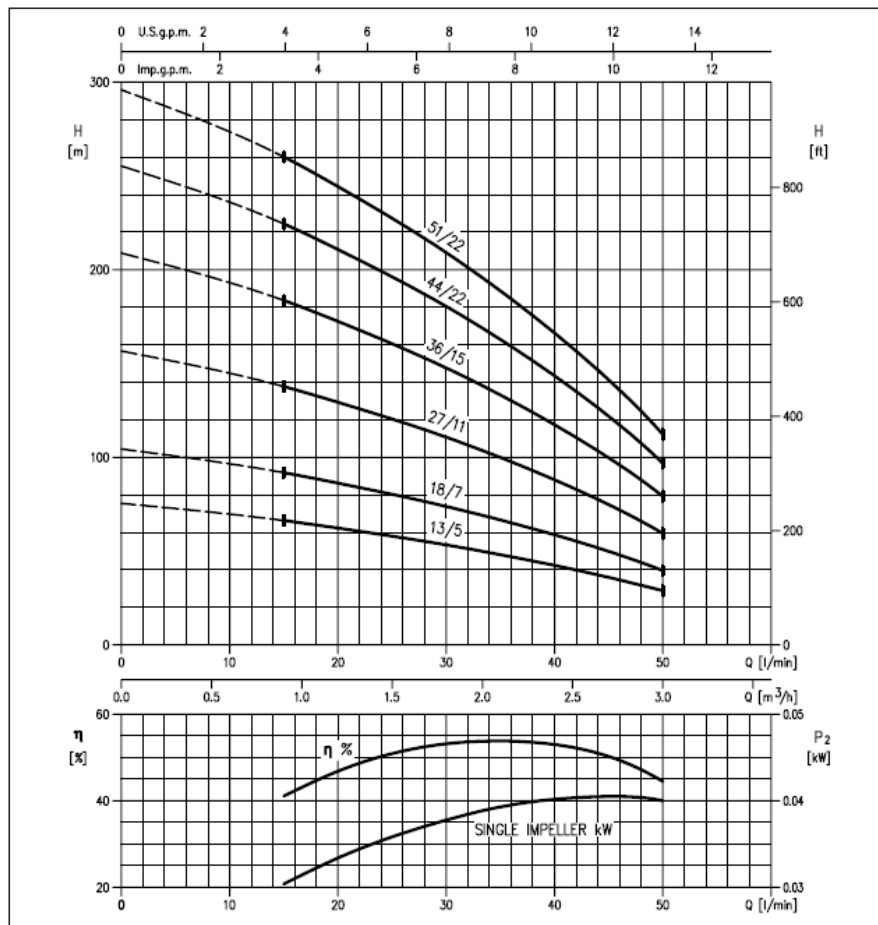


**N.B. Modelele 4BHS 15 nu sunt valabile pentru comenzi in UE**

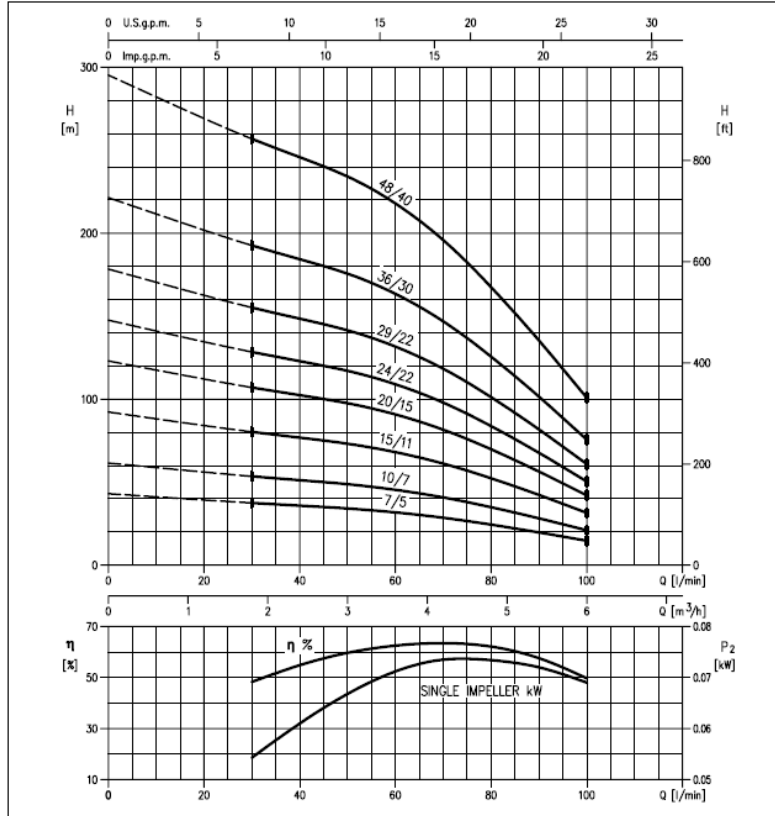
# COD DE IDENTIFICARE



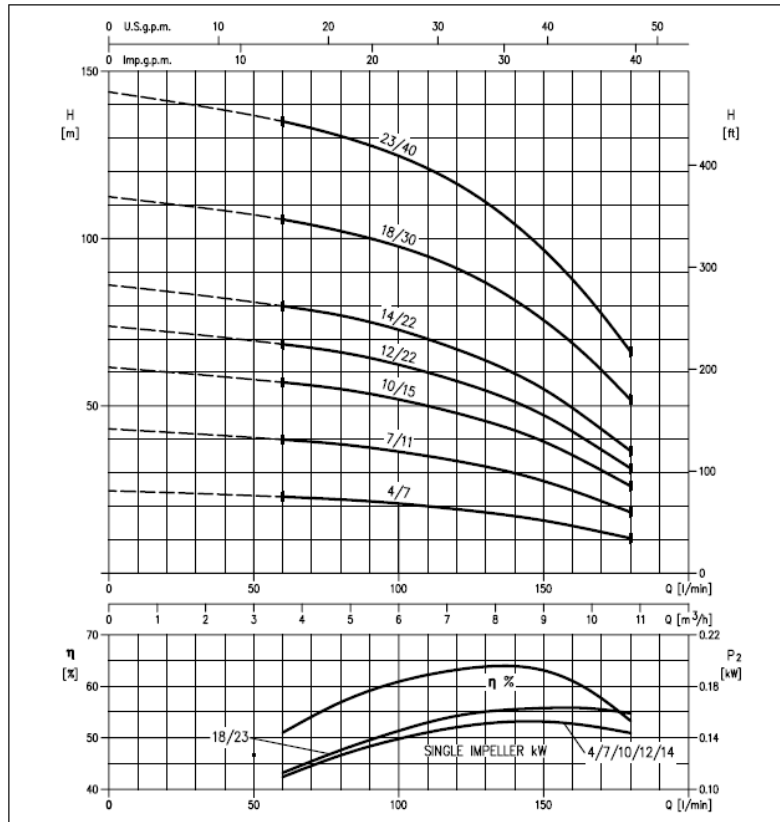
## CURBE DE PERFORMANTA seria 4BHS 2 (per ISO 9906 Anexa A) – dia. Rotor: 70.5 mm



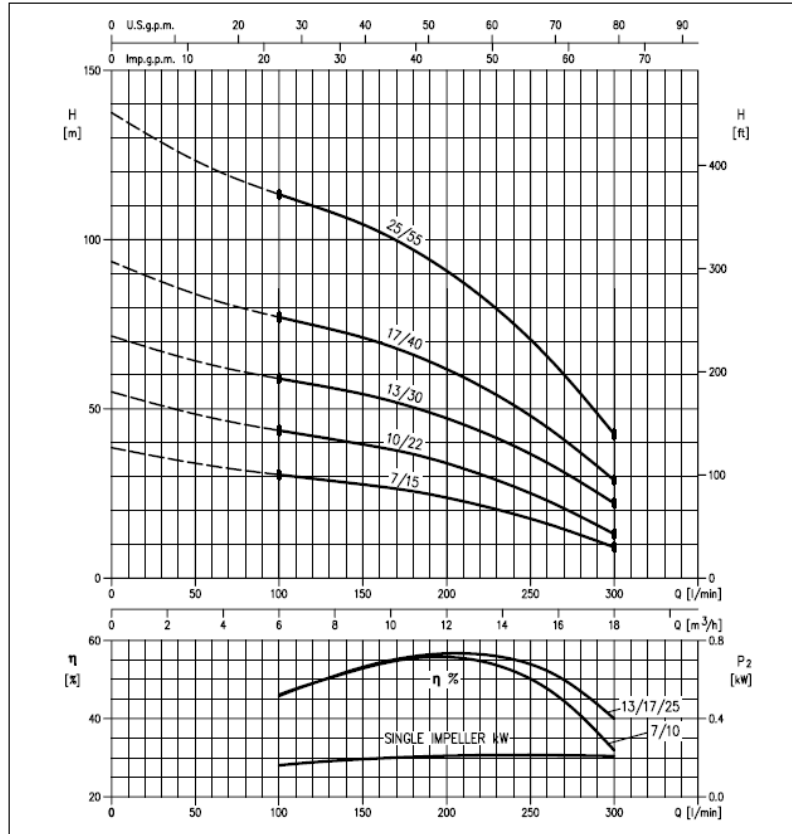
**CURBE DE PERFORMANTA seria 4BHS 4 (per ISO 9906 Anexa A) – dia. Rotor: 72 mm**



**CURBE DE PERFORMANTA seria 4BHS 7 (per ISO 9906 Anexa A) – dia. Rotor: 74 mm**



## CURBE DE PERFORMANTA seria 4BHS 15 (per ISO 9906 Anexa A) – dia. Rotor: 72 mm

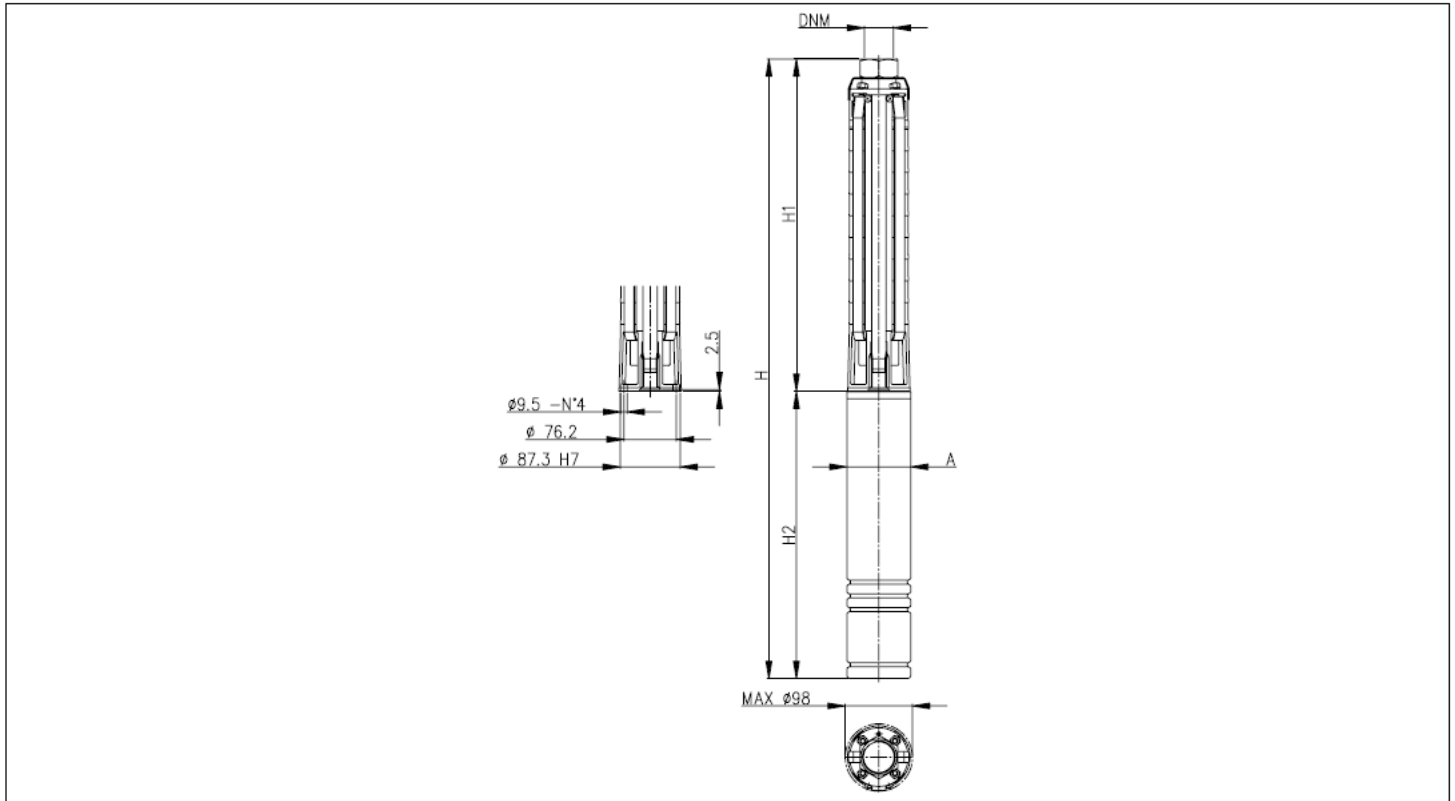


### TABEL PERFORMANTA

Model		P <sub>2</sub>		Q = Debit														
Monofazat	Trifazat	[HP]	[kW]	H = Inaltime [m]														
				l/min	15	20	30	40	50	60	80	100	120	150	180	220	260	300
				m <sup>3</sup> /h	0.9	1.2	1.8	2.4	3	3.6	4.8	6	7.2	9	10.8	13.2	15.6	18
4BHS 2-13/5M	4BHS 2-13/5	0.75	0.55	66.5	62.5	53.5	42.5	28.6	-	-	-	-	-	-	-	-	-	-
4BHS 2-18/7M	4BHS 2-18/7	1.0	0.75	92.0	86.0	74.0	58.5	39.6	-	-	-	-	-	-	-	-	-	-
4BHS 2-27/11M	4BHS 2-27/11	1.5	1.1	138.0	129.0	111.0	88.0	59.5	-	-	-	-	-	-	-	-	-	-
4BHS 2-36/15M	4BHS 2-36/15	2.0	1.5	184.0	172.0	148.0	117.0	79.0	-	-	-	-	-	-	-	-	-	-
4BHS 2-44/22M	4BHS 2-44/22	3.0	2.2	224.0	211.0	180.0	143.0	97.0	-	-	-	-	-	-	-	-	-	-
4BHS 2-51/22M	4BHS 2-51/22	3.0	2.2	260.0	244.0	209.0	166.0	112.0	-	-	-	-	-	-	-	-	-	-
4BHS 4-7/5M	4BHS 4-7/5	0.75	0.55	-	-	37.5	34.2	31.8	24.4	14.7	-	-	-	-	-	-	-	-
4BHS 4-10/7M	4BHS 4-10/7	1.0	0.75	-	-	53.5	51.0	49.0	45.5	34.9	21.0	-	-	-	-	-	-	-
4BHS 4-15/11M	4BHS 4-15/11	1.5	1.1	-	-	80.5	77.0	73.0	68.0	52.5	31.5	-	-	-	-	-	-	-
4BHS 4-20/15M	4BHS 4-20/15	2.0	1.5	-	-	107.0	102.0	97.5	91.0	70.0	42.0	-	-	-	-	-	-	-
4BHS 4-24/22M	4BHS 4-24/22	3.0	2.2	-	-	128.0	123.0	117.0	109.0	84.0	50.5	-	-	-	-	-	-	-
4BHS 4-29/22M	4BHS 4-29/22	3.0	2.2	-	-	155.0	148.0	142.0	132.0	101.0	61.0	-	-	-	-	-	-	-
	4BHS 4-36/30	4.0	3.0	-	-	193.0	184.0	176.0	163.0	126.0	75.5	-	-	-	-	-	-	-
	4BHS 4-48/40	5.5	4.0	-	-	257.0	246.0	234.0	218.0	168.0	101.0	-	-	-	-	-	-	-
4BHS 7-4/7M	4BHS 7-4/7	1.0	0.75	-	-	-	-	-	22.8	22.0	20.8	19.1	15.7	10.4	-	-	-	-
4BHS 7-7/11M	4BHS 7-7/11	1.5	1.1	-	-	-	-	-	39.9	38.5	36.3	33.5	27.5	18.2	-	-	-	-
4BHS 7-10/15M	4BHS 7-10/15	2.0	1.5	-	-	-	-	-	57.0	55.0	52.0	48.0	39.3	26.0	-	-	-	-
4BHS 7-12/22M	4BHS 7-12/22	3.0	2.2	-	-	-	-	-	68.5	66.0	62.5	57.5	47.0	31.3	-	-	-	-
4BHS 7-14/22M	4BHS 7-14/22	3.0	2.2	-	-	-	-	-	80.0	77.0	72.5	67.0	55.0	36.5	-	-	-	-
	4BHS 7-18/30	4.0	3.0	-	-	-	-	-	106.0	102.0	97.5	91.0	75.5	52.0	-	-	-	-
	4BHS 7-23/40	5.5	4.0	-	-	-	-	-	135.0	131.0	125.0	116.0	96.5	66.0	-	-	-	-
4BHS 15-7/15M *	4BHS 15-7/15 *	2.0	1.5	-	-	-	-	-	-	-	30.5	29.3	27.7	25.6	21.5	16.0	9.1	
4BHS 15-10/22M *	4BHS 15-10/22 *	3.0	2.2	-	-	-	-	-	-	-	43.5	42.0	39.5	36.6	30.7	22.9	13.0	
	4BHS 15-13/30 *	4.0	3.0	-	-	-	-	-	-	-	59.0	57.5	54.5	50.5	43.5	34.1	22.1	
	4BHS 15-17/40 *	5.5	4.0	-	-	-	-	-	-	-	77.0	75.0	71.0	66.0	57.0	44.5	28.9	
	4BHS 15-25/55 *	7.5	5.5	-	-	-	-	-	-	-	114.0	110.0	105.0	97.0	83.5	65.5	42.5	

\* Modelele 4BHS 15 nu sunt valabile pentru comenzi in EU

## DIMENSIUNI

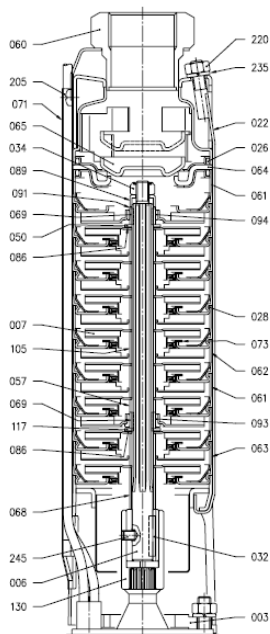


## TABEL DIMENSIUNI

Model	P <sub>2</sub>		Pompa fara motor				Pompa cu motor umplut cu ulei								Pompa cu motor umplut cu apa							
	[HP]	[kW]	H1 [mm]	DNM	Greutate [kg]	A [mm]	monofazat		Greutate [kg]	A [mm]	trifazat		Greutate [kg]	A [mm]	monofazat		Greutate [kg]	A [mm]	trifazat		Greutate [kg]	
							H2 [mm]	H [mm]			H2 [mm]	H [mm]			H2 [mm]	H [mm]			H2 [mm]	H [mm]		
4BHS 2-13/5	0.75	0.55	489	G1¼	6.6	97	325	814	14.2	97	325	814	13.6	91	248	737	15.1	91	228	717	14.4	
4BHS 2-18/7	1.0	0.75	594	G1¼	8.3	97	350	944	17.0	97	325	919	15.9	91	283	877	18.3	91	248	842	16.9	
4BHS 2-27/11	1.5	1.1	783	G1¼	11.0	97	385	1168	21.3	97	350	1133	19.7	91	339	1122	22.8	91	283	1066	20.5	
4BHS 2-36/15	2.0	1.5	972	G1¼	13.8	97	420	1392	25.8	97	385	1357	24.2	91	350	1322	27.5	91	307	1279	24.9	
4BHS 2-44/22	3.0	2.2	1140	G1¼	16.5	97	470	1610	32.0	97	420	1560	30.7	91	437	1577	32.9	91	339	1479	30.3	
4BHS 2-51/22	3.0	2.2	1287	G1¼	18.7	97	470	1757	34.2	97	420	1707	32.9	91	437	1724	35.1	91	339	1626	32.5	
4BHS 4-7/5	0.75	0.55	368	G1½	4.4	97	325	693	12.0	97	325	693	11.4	91	248	616	12.9	91	228	596	12.2	
4BHS 4-10/7	1.0	0.75	431	G1½	5.5	97	350	781	14.2	97	325	756	13.1	91	283	714	15.5	91	248	679	14.1	
4BHS 4-15/11	1.5	1.1	536	G1½	7.2	97	385	921	17.5	97	350	886	15.9	91	339	875	19.0	91	283	819	16.7	
4BHS 4-20/15	2.0	1.5	641	G1½	8.3	97	420	1061	20.3	97	385	1026	18.7	91	350	991	22.0	91	307	948	19.4	
4BHS 4-24/22	3.0	2.2	725	G1½	9.9	97	470	1195	25.4	97	420	1145	24.1	91	437	1162	26.3	91	339	1064	23.7	
4BHS 4-29/22	3.0	2.2	830	G1½	11.5	97	470	1300	27.0	97	420	1250	25.7	91	437	1267	27.9	91	339	1169	25.3	
4BHS 4-36/30	4.0	3.0	977	G1½	14.3	97	-	-	-	97	544	1521	33.3	91	-	-	-	91	394	1371	31.6	
4BHS 4-48/40	5.5	4.0	1229	G1½	17.6	97	-	-	-	97	574	1803	37.6	91	-	-	-	91	543	1772	38.8	
4BHS 7-4/7	1.0	0.75	373	G2	4.2	97	350	723	12.9	97	325	698	11.8	91	283	656	14.2	91	248	621	12.8	
4BHS 7-7/11	1.5	1.1	468	G2	5.0	97	385	853	15.3	97	350	818	13.7	91	339	807	16.8	91	283	751	14.5	
4BHS 7-10/15	2.0	1.5	562	G2	6.6	97	420	982	18.6	97	385	947	17.0	91	350	912	20.3	91	307	869	17.7	
4BHS 7-12/22	3.0	2.2	625	G2	7.7	97	470	1095	23.2	97	420	1045	21.9	91	437	1062	24.1	91	339	964	21.5	
4BHS 7-14/22	3.0	2.2	688	G2	8.3	97	470	1158	23.8	97	420	1108	22.5	91	437	1125	24.7	91	339	1027	22.1	
4BHS 7-18/30	4.0	3.0	814	G2	9.9	97	-	-	-	97	544	1358	28.9	91	-	-	-	91	394	1208	27.2	
4BHS 7-23/40	5.5	4.0	972	G2	11.5	97	-	-	-	97	574	1546	31.5	91	-	-	-	91	543	1515	32.7	
4BHS 15-7/15 *	2.0	1.5	552	G2	5.8	97	420	972	17.8	97	385	937	16.2	91	350	902	19.5	91	307	859	16.9	
4BHS 15-10/22 *	3.0	2.2	678	G2	7.3	97	470	1148	22.8	97	420	1098	21.5	91	437	1115	23.7	91	339	1017	21.1	
4BHS 15-13/30 *	4.0	3.0	804	G2	8.7	97	-	-	-	97	544	1348	27.7	91	-	-	-	91	394	1198	26.0	
4BHS 15-17/40 *	5.5	4.0	972	G2	10.7	97	-	-	-	97	574	1546	30.7	91	-	-	-	91	543	1515	31.9	
4BHS 15-25/55 *	7.5	5.5	1308	G2	14.4	97	-	-	-	97	644	1952	36.8	91	-	-	-	91	653	1961	40.6	

\* Modelele 4BHS 15 nu sunt valabile pentru comenzi in EU

## VEDERE IN SECTIUNE



### TABEL MATERIALE

Ref.	Nume	Material	Ref.	Nume	Material
003	Suport	EN 1.4301 (AISI 304)	068	Distantier	EN 1.4301 (AISI 304)
006	Ax	EN 1.4401 (AISI 316)	069	Carcasa ax	Carbuna de wolfram
007	Rotor	EN 1.4301 (AISI 304)	071	Capac cablu	EN 1.4301 (AISI 304)
022	Legaturi	EN 1.4301 (AISI 304)	073	Inel de degajare	EN 1.4301 (AISI 304) + EPDM
026	O-ring	NBR	086	Distantier	EN 1.4301 (AISI 304)
028	O-ring	NBR	089	Saiba ax	EN 1.4301 (AISI 304)
032	Element de conectare	EN 1.4401 (AISI 316)	091	Distantier	EN 1.4301 (AISI 304)
034	Piulita rotor	EN 1.4301 (AISI 304)	093	Rulment axial	Carbuna de wolfram
050	Rulment saiba	EN 1.4301 (AISI 304)	094	Rulment radial	Carbuna de wolfram
057	Distantier	EN 1.4301 (AISI 304)	105	Distantier	EN 1.4301 (AISI 304)
060	Port livrare	EN 1.4301 (AISI 304)	117	Saiba anti-frictiune	Carbuna de wolfram
061	Suport trepte	EN 1.4301 (AISI 304)	130	Cuplaj	EN 1.4301 (AISI 304)
062	Treapa intermediara	EN 1.4301 (AISI 304)	205	Surub	EN 1.4301 (AISI 304)
063	Treapa de aspiratie	EN 1.4301 (AISI 304)	220	Piulita	EN 1.4301 (AISI 304)
064	Scaunul supapei	EN 1.4301 (AISI 304) + NBR	235	Saiba Grower	EN 1.4301 (AISI 304)

065	Supapa	EN 1.4301 (AISI 304)	245	Set suruburi	EN 1.4301 (AISI 304)
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### TABEL DATE ELECTRICE 4BHS CU MOTOR IN BAIE DE ULEI (MOTOARE EBARA)

P <sub>2</sub>		Tractiune [N]	P <sub>1</sub> [kW]	Monofazat 230V		Factor putere	P <sub>1</sub> [kW]	Trifazat 380V		Factor putere	P <sub>1</sub> [kW]	Trifazat 415V		Factor putere
[HP]	[kW]			I <sub>n</sub> [A]	I <sub>a</sub> [A]			I <sub>n</sub> [A]	I <sub>a</sub> [A]			I <sub>n</sub> [A]	I <sub>a</sub> [A]	
0.75	0.55	1500	0.97	4.5	13.6	0.94	0.94	1.9	7.0	0.75	1.08	2.0	7.0	0.75
1	0.75	1500	1.32	6.0	18.5	0.96	1.17	2.4	10.0	0.74	1.38	2.6	10.0	0.74
1.5	1.1	1500	1.83	8.2	26.0	0.97	1.56	3.2	14.0	0.74	1.81	3.4	14.0	0.74
2	1.5	1500	2.48	11.0	34.0	0.98	2.09	4.4	17.0	0.72	2.38	4.6	17.0	0.72
3	2.2	4400	3.27	14.8	48.0	0.96	-	-	-	-	-	-	-	-
3	2.2	1500	-	-	-	-	3.00	6.0	24.0	0.76	3.39	6.2	24.0	0.76
3	2.2	5000	-	-	-	-	3.02	5.6	23.0	0.82	3.42	5.8	23.0	0.82
4	3	5000	-	-	-	-	4.05	7.7	30.0	0.80	4.49	7.8	30.0	0.80
5.5	4	5000	-	-	-	-	5.24	9.7	45.0	0.82	5.78	9.8	45.0	0.82
7.5	5.5	5000	-	-	-	-	7.37	13.5	55.0	0.83	8.23	13.8	55.0	0.83

### TABEL DATE ELECTRICE 4BHS CU MOTOR IN BAIE DE APA (MOTOARE FRANKLIN)

P <sub>2</sub>		Tractiune [N]	P <sub>1</sub> [kW]	Monofazat 230V		Factor putere	P <sub>1</sub> [kW]	Trifazat 380V		Factor putere	P <sub>1</sub> [kW]	Trifazat 415V		Factor putere
[HP]	[kW]			I <sub>n</sub> [A]	I <sub>a</sub> [A]			I <sub>n</sub> [A]	I <sub>a</sub> [A]			I <sub>n</sub> [A]	I <sub>a</sub> [A]	
0.75	0.55	3000	0.93	4.3	17.7	0.94	0.83	1.6	7.0	0.79	0.86	1.7	7.7	0.7
1	0.75	3000	1.28	5.7	22.7	0.98	1.07	2.0	10.1	0.81	1.10	2.1	10.9	0.73
1.5	1.1	3000	1.78	8.4	33.9	0.92	1.51	2.8	15.3	0.82	1.54	2.9	16.7	0.74
2	1.5	3000	2.34	10.7	41.7	0.95	2.13	3.9	19.7	0.83	2.10	4.0	21.5	0.73
3	2.2	4000	3.28	14.7	61.8	0.97	2.91	5.4	28.3	0.82	3.00	5.8	30.9	0.72
4	3	4000	-	-	-	-	3.99	7.4	39.9	0.82	4.09	7.9	43.6	0.72
5.5	4	6500	-	-	-	-	5.24	9.7	54.1	0.82	5.38	10.4	59.1	0.72
7.5	5.5	6500	-	-	-	-	7.05	12.6	73.3	0.85	7.08	12.8	80.1	0.77