

8" SUBMERSED CENTRIFUGAL PUMPS

in AISI 316



Submersed electric pump with semi-axial discharge in AISI 316 stainless steel for wells with depth of 8" and over. This range of submersed pumps has been developed specifically for high flow rate pumping requirements.

APPLICATIONS

- Water provisioning from deep wells
- Water supply and pressure boosting
- Irrigation systems
- Treating waters, filtering and reverse osmosis
- Industrial cooling systems
- Fountains
- Fire-fighting systems

TECHNICAL DETAILS

- Corrosion-proof
- Strong
- Reliable
- Compact
- Also suitable for horizontal functioning

TECHNICAL DATA

- Maximum sand content: 50 ppm
- Maximum temperature of the liquid: 50°C
- 2 pole motor in bath of liquid refrigerant (OY) or in water bath (WY),
- Protection rating IP58 (OY), IP68 (WY)
- 380V -10% 50 Hz three phase voltage (OY)
- 400V +6% 50 Hz three phase voltage (OY)
- 380V -10% 50 Hz three phase voltage (WY)
- 415V +6% 50 Hz three phase voltage (WY)
- Class of insulation F (6" OY version)
- (8" WY version)
- B (6" WY version)
- Motor support for coupling to 6" motors
- Motor joint and coupling flange in compliance with NEMA Standards
- For cables dimensioning (see page 41)

MATERIALS

- Completely in AISI 316
- Impellers and semi-axial discharge nozzles in stainless steel
- Wear ring in Teflon, shaft guide support in ceramic

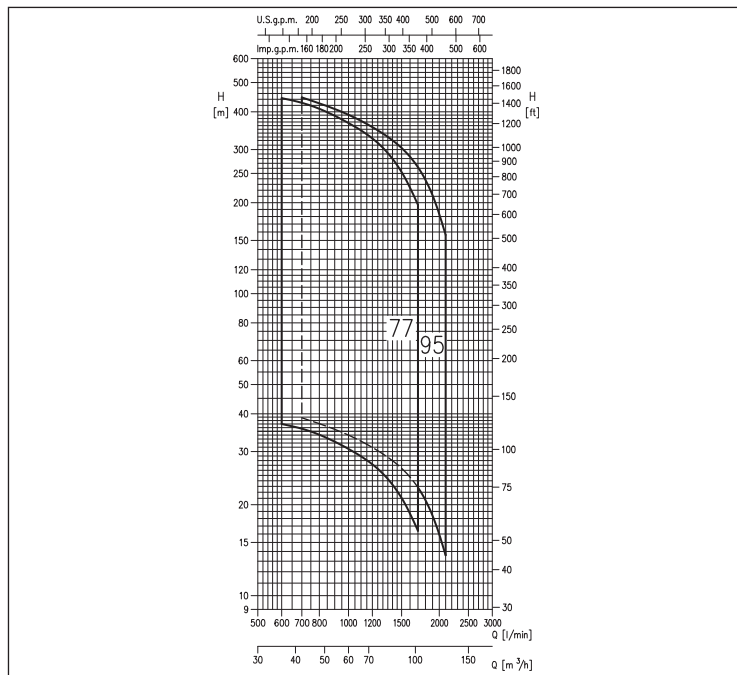
CONTROL PANELS

- 1EPBH (see page 43)

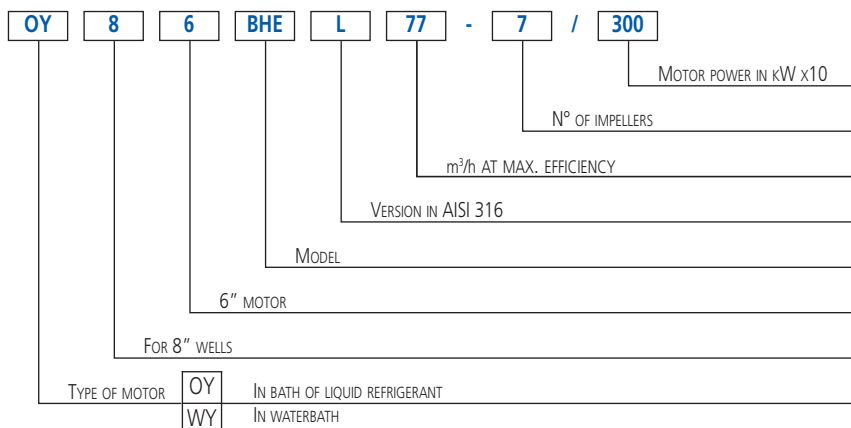
ACCESSORIES (on request)

- Junction for cable GPS-1 (for 4x1.5 and 4x2.5 cables)
- Junction for cable GPS-2 (for 4x4 and 4x6 cables)
- Casting resin cable junction 92A1 (section 1.5±10 mm²)
- Casting resin cable junction 92A2 (section 4±25 mm²)
- PVC 5m key float with counter-weight
- PVC 10 m key float with counter-weight
- PVC 20 m key float with counter-weight

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



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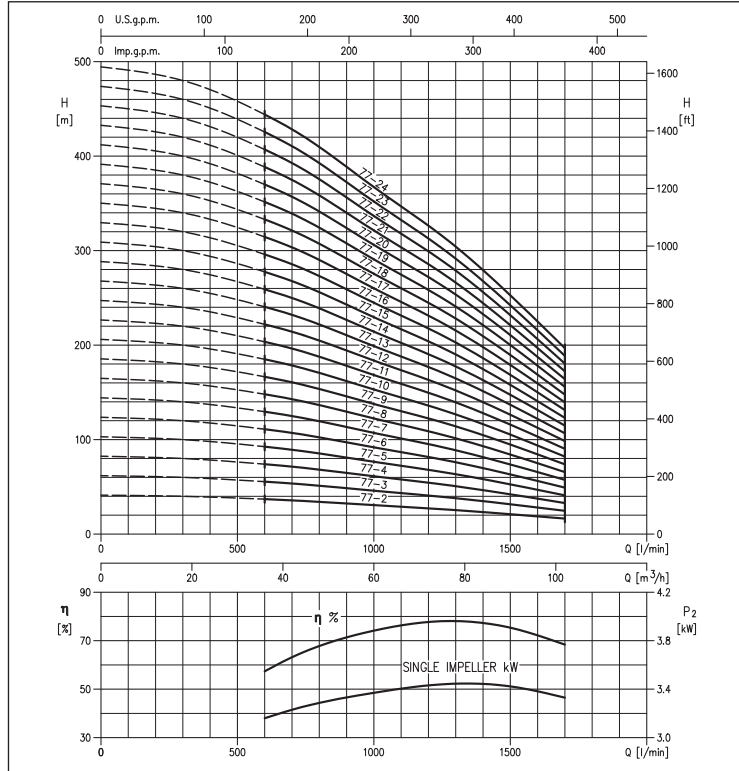
PERFORMANCE TABLE

Model	Motor size	P ₂		l/min m ³ /h	600 36	700 42	1000 60	Q=Flow rate				
		[HP]	[kW]					1250 75	1500 90	1700 102	1900 114	2100 126
H=Head [m]												
86 BHEL 77 - 2	6"	10	7,5	37,0		35,7	30,6	26,3	21,1	16,4	-	-
86 BHEL 77 - 3	6"	15	11	55,5		53,5	46,0	39,5	31,6	24,6	-	-
86 BHEL 77 - 4	6"	20	15	74,0		71,5	61,0	52,5	42,0	32,8	-	-
86 BHEL 77 - 5	6"	25	18,5	92,5		89,5	76,5	66,0	52,5	41,0	-	-
86 BHEL 77 - 6	6"	30	22	111,0		107,0	92,0	79,0	63,0	49,0	-	-
86 BHEL 77 - 7	6"	40	30	130,0		125,0	107,0	92,0	73,5	57,5	-	-
86 BHEL 77 - 8	6"	40	30	148,0		143,0	122,0	105,0	84,0	65,5	-	-
86 BHEL 77 - 9	6"	40	30	167,0		161,0	138,0	118,0	95,0	74,0	-	-
86 BHEL 77 - 10	6"	50	37	185,0		179,0	153,0	132,0	105,0	82,0	-	-
86 BHEL 77 - 11	6"	50	37	204,0		196,0	168,0	145,0	116,0	90,0	-	-
8 BHEL 77 - 12	8"	60	45	222,0		214,0	184,0	158,0	126,0	98,5	-	-
8 BHEL 77 - 13	8"	75	55	241,0		232,0	199,0	171,0	137,0	107,0	-	-
8 BHEL 77 - 14	8"	75	55	259,0		250,0	214,0	184,0	147,0	115,0	-	-
8 BHEL 77 - 15	8"	75	55	278,0		268,0	230,0	197,0	158,0	123,0	-	-
8 BHEL 77 - 16	8"	100	75	296,0		286,0	245,0	210,0	168,0	131,0	-	-
8 BHEL 77 - 17	8"	100	75	315,0		303,0	260,0	224,0	179,0	139,0	-	-
8 BHEL 77 - 18	8"	100	75	333,0		321,0	275,0	237,0	190,0	148,0	-	-
8 BHEL 77 - 19	8"	100	75	352,0		339,0	291,0	250,0	200,0	156,0	-	-
8 BHEL 77 - 20	8"	100	75	370,0		357,0	306,0	263,0	211,0	164,0	-	-
8 BHEL 77 - 21	8"	100	75	389,0		375,0	321,0	276,0	221,0	172,0	-	-
8 BHEL 77 - 22	8"	125	93	407,0		393,0	337,0	289,0	232,0	180,0	-	-
8 BHEL 77 - 23	8"	125	93	426,0		411,0	352,0	302,0	242,0	189,0	-	-
8 BHEL 77 - 24	8"	125	93	444,0		428,0	367,0	316,0	253,0	197,0	-	-
86 BHEL 95 - 2	6"	12,5	9,2	-		38,8	34,0	30,2	26,4	22,8	18,4	13,6
86 BHEL 95 - 3	6"	20	15	-		58,0	51,0	45,5	39,6	34,2	27,6	20,4
86 BHEL 95 - 4	6"	25	18,5	-		77,5	68,0	60,5	53,0	45,5	36,8	27,2
86 BHEL 95 - 5	6"	30	22	-		97,0	85,0	75,5	66,0	57,0	46,0	34,0
86 BHEL 95 - 6	6"	40	30	-		116,0	102,0	90,5	79,0	68,5	55,0	41,0
86 BHEL 95 - 7	6"	40	30	-		136,0	119,0	106,0	92,5	80,0	64,5	47,5
86 BHEL 95 - 8	6"	50	37	-		155,0	136,0	121,0	106,0	91,0	73,5	54,5
86 BHEL 95 - 9	6"	50	37	-		175,0	153,0	136,0	119,0	103,0	83,0	61,0
8 BHEL 95 - 10	8"	60	45	-		194,0	170,0	151,0	132,0	114,0	92,0	68,0
8 BHEL 95 - 11	8"	75	55	-		213,0	187,0	166,0	145,0	125,0	101,0	75,0
8 BHEL 95 - 12	8"	75	55	-		233,0	204,0	181,0	158,0	137,0	110,0	81,5
8 BHEL 95 - 13	8"	75	55	-		252,0	221,0	196,0	172,0	148,0	120,0	88,5
8 BHEL 95 - 14	8"	100	75	-		272,0	238,0	211,0	185,0	160,0	129,0	95,0
8 BHEL 95 - 15	8"	100	75	-		291,0	255,0	227,0	198,0	171,0	138,0	102,0
8 BHEL 95 - 16	8"	100	75	-		310,4	272,0	242,0	211,0	182,0	147,0	109,0
8 BHEL 95 - 17	8"	100	75	-		330,0	289,0	257,0	224,0	194,0	156,0	116,0
8 BHEL 95 - 18	8"	125	93	-		349,0	306,0	272,0	238,0	205,0	166,0	122,0
8 BHEL 95 - 19	8"	125	93	-		369,0	323,0	287,0	251,0	217,0	175,0	129,0
8 BHEL 95 - 20	8"	125	93	-		388,0	340,0	302,0	264,0	228,0	184,0	136,0
8 BHEL 95 - 21	8"	125	93	-		407,0	357,0	317,0	277,0	239,0	193,0	143,0
8 BHEL 95 - 22	8"	150	110	-		427,0	374,0	332,0	290,0	251,0	202,0	150,0
8 BHEL 95 - 23	8"	150	110	-		446,0	391,0	347,0	304,0	262,0	212,0	156,0

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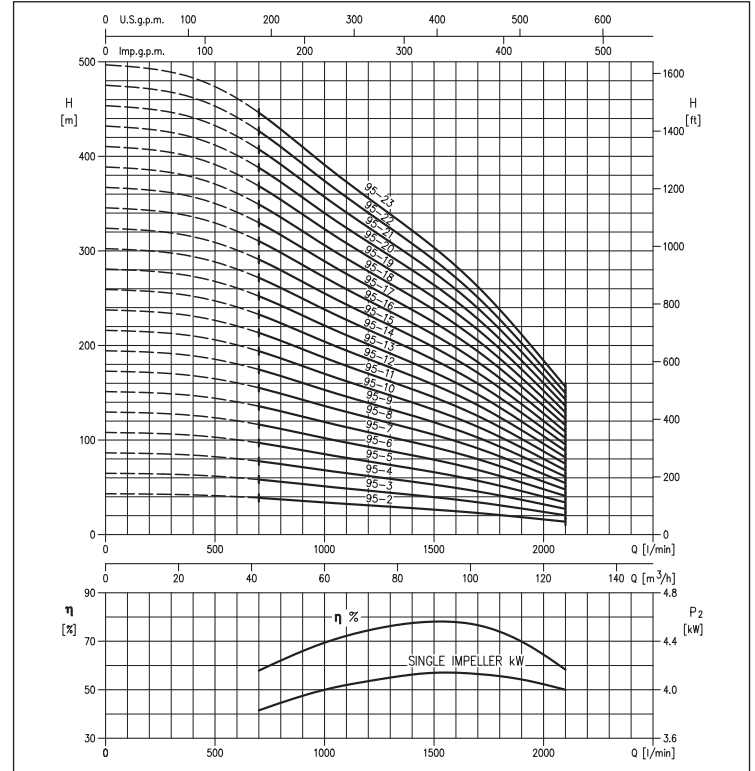
8(6)BHEL 77 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



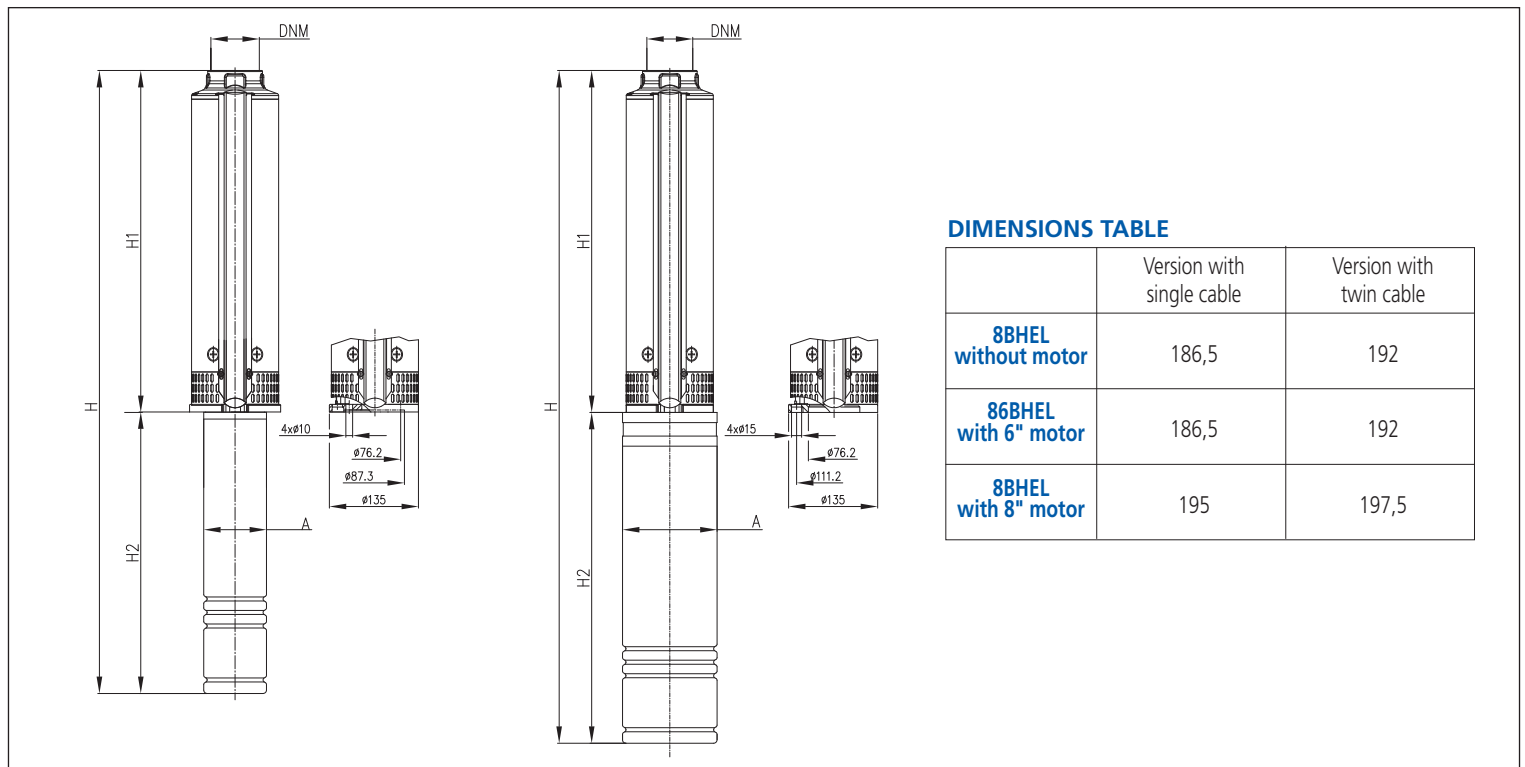
8(6)BHEL 95 range PERFORMANCE CURVES

(according to ISO 9906 Attachment A)



DIMENSIONS

Pump with 6" motor connection (86BHEL) Pump with 8" motor connection (8BHEL)



DIMENSIONS TABLE

	Version with single cable	Version with twin cable
8BHEL without motor	186,5	192
86BHEL with 6" motor	186,5	192
8BHEL with 8" motor	195	197,5

8" SUBMERSED CENTRIFUGAL PUMPS

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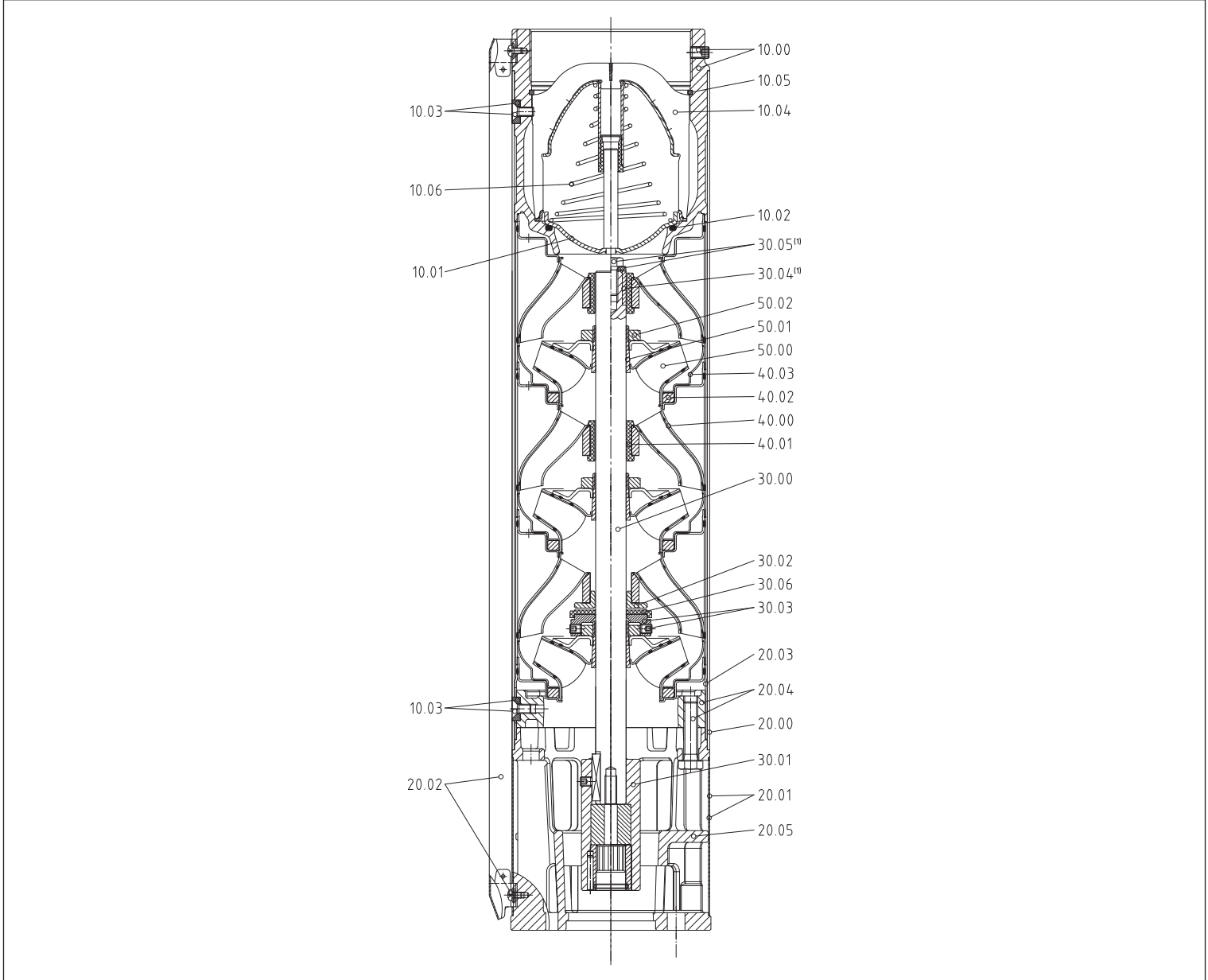
DIMENSIONS TABLE

Model	Motor size	P ₂		Pump without motor			Pump with motor in bath of liquid refrigerant				Pump with motor in water bath			
		[HP]	[kW]	H1 [mm]	DNM	Weight [kg]	A [mm]	H2 [mm]	H [mm]	Weight [kg]	A [mm]	H2 [mm]	H [mm]	Weight [kg]
86 BHEL 77 - 2	6"	10	7,5	644	G5	31,5	139	600	1244	74	137	646	1290	-
86 BHEL 77 - 3	6"	15	11	770	G5	36,5	139	700	1470	85	137	711	1481	-
86 BHEL 77 - 4	6"	20	15	896	G5	41,5	139	760	1656	96	137	776	1672	98
86 BHEL 77 - 5	6"	25	18,5	1022	G5	46,5	139	830	1852	112	137	842	1864	110
86 BHEL 77 - 6	6"	30	22	1148	G5	51,0	139	890	2038	121	137	907	2055	120
86 BHEL 77 - 7	6"	40	30	1274	G5	56,0	139	1030	2304	146	137	1037	2311	140
86 BHEL 77 - 8	6"	40	30	1400	G5	61,0	139	1030	2430	151	137	1037	2437	145
86 BHEL 77 - 9	6"	40	30	1526	G5	66,0	139	1030	2556	156	137	1037	2563	150
86 BHEL 77 - 10	6"	50	37	1652	G5	71,0	-	-	-	-	137	1405	3057	206
86 BHEL 77 - 11	6"	50	37	1778	G5	76,0	-	-	-	-	137	1405	3183	211
8 BHEL 77 - 12	8"	60	45	1909	G5	82,0	-	-	-	-	191	1077	2986	227
8 BHEL 77 - 13	8"	75	55	2035	G5	87,0	-	-	-	-	191	1204	3239	262
8 BHEL 77 - 14	8"	75	55	2161	G5	92,0	-	-	-	-	191	1204	3365	267
8 BHEL 77 - 15	8"	75	55	2287	G5	97,0	-	-	-	-	191	1204	3491	272
8 BHEL 77 - 16	8"	100	75	2413	G5	101,5	-	-	-	-	191	1395	3808	315
8 BHEL 77 - 17	8"	100	75	2539	G5	106,5	-	-	-	-	191	1395	3934	320
8 BHEL 77 - 18	8"	100	75	2665	G5	111,5	-	-	-	-	191	1395	4060	325
8 BHEL 77 - 19	8"	100	75	2791	G5	116,5	-	-	-	-	191	1395	4186	330
8 BHEL 77 - 20	8"	100	75	2917	G5	121,0	-	-	-	-	191	1395	4312	334
8 BHEL 77 - 21	8"	100	75	3043	G5	126,0	-	-	-	-	191	1395	4438	339
8 BHEL 77 - 22	8"	125	93	3169	G5	131,0	-	-	-	-	191	1747	4916	422
8 BHEL 77 - 23	8"	125	93	3295	G5	136,0	-	-	-	-	191	1747	5042	427
8 BHEL 77 - 24	8"	125	93	3421	G5	141,0	-	-	-	-	191	1747	5168	432
86 BHEL 95 - 2	6"	12,5	9,2	644	G5	31,5	139	600	1244	77	137	678,7	1323	79
86 BHEL 95 - 3	6"	20	15	770	G5	36,5	139	760	1530	91	137	776	1546	93
86 BHEL 95 - 4	6"	25	18,5	896	G5	41,5	139	830	1726	107	137	842	1738	105
86 BHEL 95 - 5	6"	30	22	1022	G5	46,0	139	890	1912	116	137	907	1929	115
86 BHEL 95 - 6	6"	40	30	1148	G5	51,0	139	1030	2178	141	137	1037	2185	135
86 BHEL 95 - 7	6"	40	30	1274	G5	56,0	139	1030	2304	146	137	1037	2311	140
86 BHEL 95 - 8	6"	50	37	1400	G5	61,0	-	-	-	-	137	1405	2805	196
86 BHEL 95 - 9	6"	50	37	1526	G5	66,0	-	-	-	-	137	1405	2931	201
8 BHEL 95 - 10	8"	60	45	1657	G5	72,0	-	-	-	-	191	1077	2734	217
8 BHEL 95 - 11	8"	75	55	1783	G5	77,0	-	-	-	-	191	1204	2987	252
8 BHEL 95 - 12	8"	75	55	1909	G5	82,0	-	-	-	-	191	1204	3113	257
8 BHEL 95 - 13	8"	75	55	2035	G5	87,0	-	-	-	-	191	1204	3239	262
8 BHEL 95 - 14	8"	100	75	2161	G5	92,0	-	-	-	-	191	1395	3556	305
8 BHEL 95 - 15	8"	100	75	2287	G5	97,0	-	-	-	-	191	1395	3682	310
8 BHEL 95 - 16	8"	100	75	2413	G5	102,0	-	-	-	-	191	1395	3808	315
8 BHEL 95 - 17	8"	100	75	2539	G5	106,5	-	-	-	-	191	1395	3934	320
8 BHEL 95 - 18	8"	125	93	2665	G5	111,5	-	-	-	-	191	1747	4412	403
8 BHEL 95 - 19	8"	125	93	2791	G5	116,5	-	-	-	-	191	1747	4538	408
8 BHEL 95 - 20	8"	125	93	2917	G5	121,0	-	-	-	-	191	1747	4664	412
8 BHEL 95 - 21	8"	125	93	3043	G5	126,0	-	-	-	-	191	1747	4790	417
8 BHEL 95 - 22	8"	150	110	3169	G5	131,0	-	-	-	-	191	1975	5144	465
8 BHEL 95 - 23	8"	150	110	3295	G5	136,0	-	-	-	-	191	1975	5270	470

8" SUBMERSED CENTRIFUGAL PUMPS

in AISI 316

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
10 00	5" discharge fitting	EN 1.4401 (AISI 316)	30 01	Motor joint	EN 1.4401 (AISI 316)+EN 1.4460 (AISI 329)
10 01	Valve	EN 1.4401 (AISI 316)	30 02	Upper thrust block washer	EN 1.4460 (AISI 329)
10 02	O-Ring	NBR	30 03	Lower thrust block washer	EN 1.4460 (AISI 329)
10 03	Support screw and blocking	EN 1.4401 (AISI 316)	30 04	Upper bearing (1) 9 stages or models	SiC
10 04	Valve seat	EN 1.4401 (AISI 316)	30 05	Screw and washer (1) 17 stages or upper models	EN 1.4401 (AISI 316)
10 05	Seeger ring	EN 1.4401 (AISI 316)	30 06	Thrust block	PTFE
10 06	Spring	EN 1.4401 (AISI 316)	40 00	Stage	EN 1.4401 (AISI 316)
20 00	External casing	EN 1.4401 (AISI 316)	40 01	Intermediate bush	NBR
20 01	Filter	EN 1.4401 (AISI 316)	40 02	Wear ring	PTFE
20 02	Isolating cover	EN 1.4401 (AISI 316)	40 03	Flange	EN 1.4401 (AISI 316)
20 03	Spacer	EN 1.4401 (AISI 316)	50 00	Impeller	EN 1.4401 (AISI 316)
20 04	Flange and bolt	EN 1.4401 (AISI 316)	50 01	Tapered ring	EN 1.4401 (AISI 316)
20 05	Motor support	EN 1.4401 (AISI 316)	50 02	Fixing ring	EN 1.4401 (AISI 316)
30 00	Shaft	EN 1.4460 (AISI 329)			

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ELECTRIC DATA TABLE 8(6)BHEL WITH MOTOR IN BATH OF LIQUID REFRIGERANT

Motor	P ₂		P ₁	Voltage	IN	IA	Efficiency	Power factor
	[HP]	[kW]	[kW]					
6"	5,5	4	5,26	380/400	8,8	45	76	0,82
	7,5	5,5	7,05	380/400	12,5	64	78	0,82
	10	7,5	9,74	380/400	16,9	78	77	0,82
	12,5	9,2	11,50	380/400	21,5	95	80	0,81
	15	11	13,25	380/400	23,7	121	83	0,83
	20	15	18,29	380/400	30,4	160	82	0,85
	25	18,5	22,56	380/400	38,3	225	82	0,85
	30	22	26,51	380/400	44	250	83	0,86
40	30	34,88	380/400	62	330	86	0,86	

ELECTRIC DATA TABLE 8(6)BHEL WITH MOTOR IN WATERBATH

Motor	P ₂		P ₁	Voltage	IN	IA	Efficiency	Power factor
	[HP]	[kW]	[kW]					
6"	5,5	4	5,13	400	9,3	43	78	0,82
	7,5	5,5	6,96	400	12,5	64	79	0,82
	10	7,5	9,49	400	16	83	79	0,86
	12,5	9,2	11,36	400	20,7	112	81	0,80
	15	11	13,58	400	23,3	129	81	0,85
	20	15	18,52	400	31,3	169	81	0,85
	25	18,5	22,56	400	38,5	231	82	0,85
	30	22	26,51	400	45,3	268	83	0,84
	40	30	36,14	400	63,5	393	83	0,84
	50	37	43,79	400	73	410	84,5	0,87
8"	60	45	51,72	400	89	645	87	0,85
	75	55	62,5	400	108	862	88	0,87
	100	75	86,21	400	145	1157	87	0,87
	125	93	106,9	400	190	1332	87	0,83
	150	110	125	400	222	1597	88	0,84