

EBARA

	Page
- CONTENTS	100
- SPECIFICATIONS	200
SELECTION CHART (6BHE)	202
SELECTION CHART (8BHE)	203
SELECTION CHART (6BHE)	204
SELECTION CHART (8BHE)	205
TYPE KEY (6BHE)	206
TYPE KEY (8BHE)	207
PERFORMANCE CHART 6BHE 14	208
PERFORMANCE CHART 6BHE 19	209
PERFORMANCE CHART 6BHE 30	210
PERFORMANCE CHART 6BHE 44	211
PERFORMANCE CHART 6BHE 58	212
PERFORMANCE CHART 8BHE 77	213
PERFORMANCE CHART 8BHE 95	214
- CONSTRUCTIONS	300
SECTIONAL VIEW (6BHE)	300
SECTIONAL VIEW TABLE (6BHE)	301
SECTIONAL VIEW (8BHE)	302
SECTIONAL VIEW TABLE (8BHE)	303
- DIMENSIONS	400
DIMENSIONS - DRAWING	400
DIMENSIONS - TABLE	402
- TECHNICAL DATA	500
OIL – WATER MOTOR FILLED	500
CABLE SELECTION	501

PUMP			
		Standard version	L version
Liquid Handled	Type of liquid	Clean water	
	Temperature [°C]	Maximum 50	
	Sand content	Maximum : 50 parts per million	
	Chlorine ion density	Maximum : 200 parts per million	Maximum : 800 parts per million
Construction	Impeller	Closed centrifugal type	
	Bearing Bush	Sleeve type	
Pipe connection	Suction	See dimensions page	
	Discharge	Rp 2 1/2 (6BHE 14 and 19) - Rp 3 (6BHE 30 to 58) UNI-ISO 7/1	
Material	Impeller	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)
	Intermediate casing	EN 1.4401 (AISI 316)	
	Suction casing	EN 1.4401 (AISI 316)	
	Discharge casing	EN 1.4401 (AISI 316)	
	Bearing Bush	NBR	
	Shaft	EN 1.4401 (AISI 316)	
	Upper shaft sleeve	EN 1.4460 (AISI 329) with ceramic coating	
	Interm. shaft sleeve	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)
	Liner ring	PTFE	
	Valve	EN 1.4401 (AISI 316)	
Strainer	EN 1.4401 (AISI 316)		
Applicable standard of test		ISO 9906 Annex A	

MOTOR				
Type	Submersible oil filled (type O)		Submersible water filled (type W)	
Manufacturer	Sumoto		Franklin	
Size	4"	6"	4"	6"
Power rating [kW]	2.2÷5.5	4÷30	2.2÷5.5	4÷37
	Three phase			
No. of Poles	2			
Rated speed	Refer to each characteristic performance rotation speed as rated speed			
Insulation class	F		B	F
Protection degree	IP 58		IP 68	
Maximum immersion [m]	150		150	350
Starts / hours	30		20	
Start type	Direct on line			
Frequency [Hz]	50 Hz			
Voltage [V]	380 -10% - 400 +6%		380 -10% - 415 +6%	
Over load protection	User to provide			
Motor bracket	Cast iron with nickel plate		EN 1.4301 (AISI 304)	Cast iron epoxy painted
Casing material	EN 1.4301 (AISI 304)			
Flange mount	NEMA			

SPECIFICATIONS (8BHE)

50Hz

Rev. A

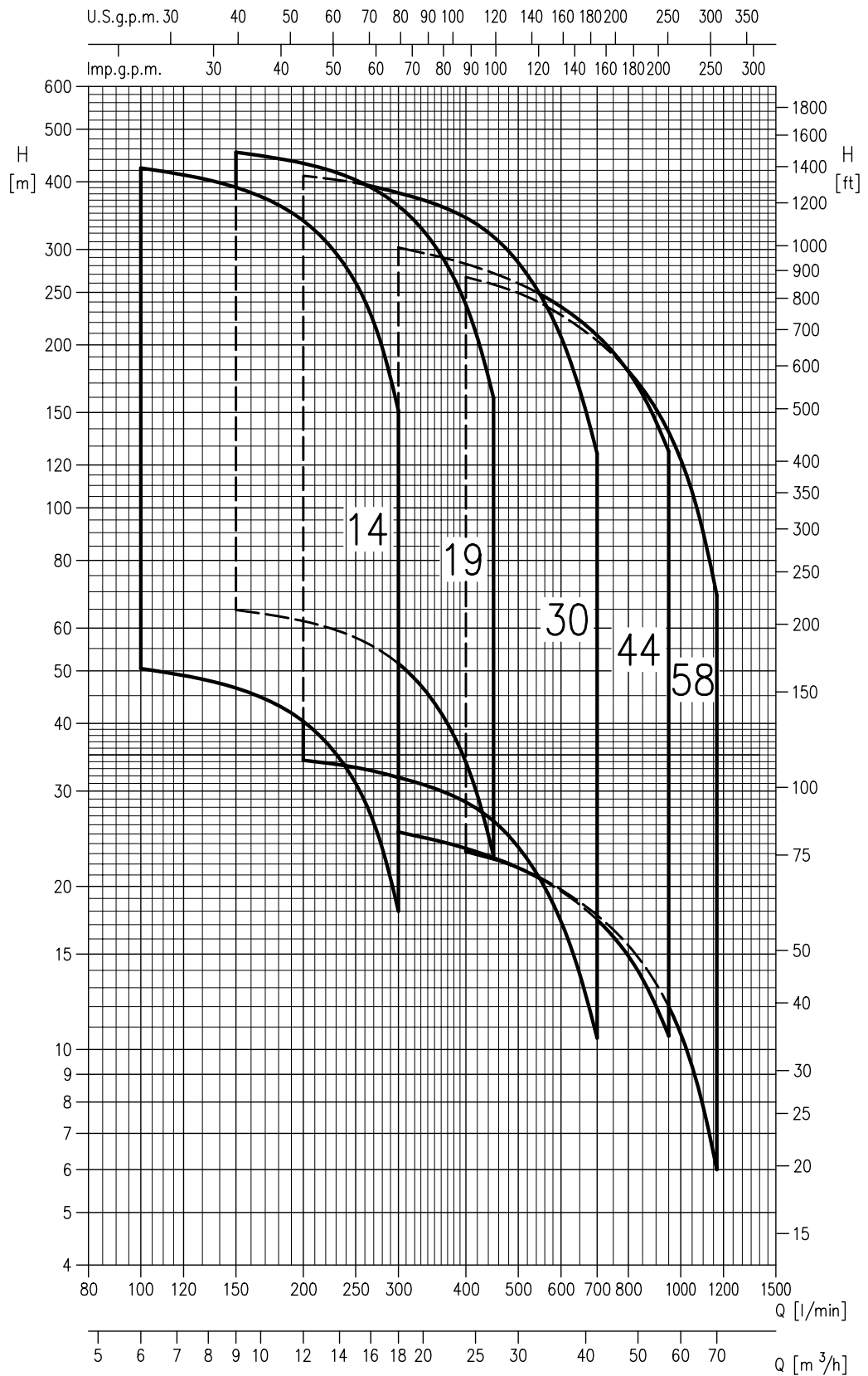
PUMP		
		All versions
Liquid Handled	Type of liquid	Clean water
	Temperature [°C]	Maximum 50
	Sand content	Maximum : 50 parts per million
	Chlorine ion density	Maximum : 800 parts per million
Construction	Impeller	Closed centrifugal type
	Bearing bush	Sleeve type
Pipe connection	Suction	See dimensions page
	Discharge	RP 5"
Material	Impeller	EN 1.4401 (AISI 316)
	Intermediate casing	EN 1.4401 (AISI 316)
	Suction casing	EN 1.4401 (AISI 316)
	Discharge casing	EN 1.4401 (AISI 316)
	Bearing bush	NBR
	Shaft	EN 1.4460 (AISI 329)
	Upper shaft sleeve	SiC
	Liner ring	PTFE
	Valve	EN 1.4401 (AISI 316)
	Strainer	EN 1.4401 (AISI 316)
Applicable standard of test		ISO 9906 Annex A

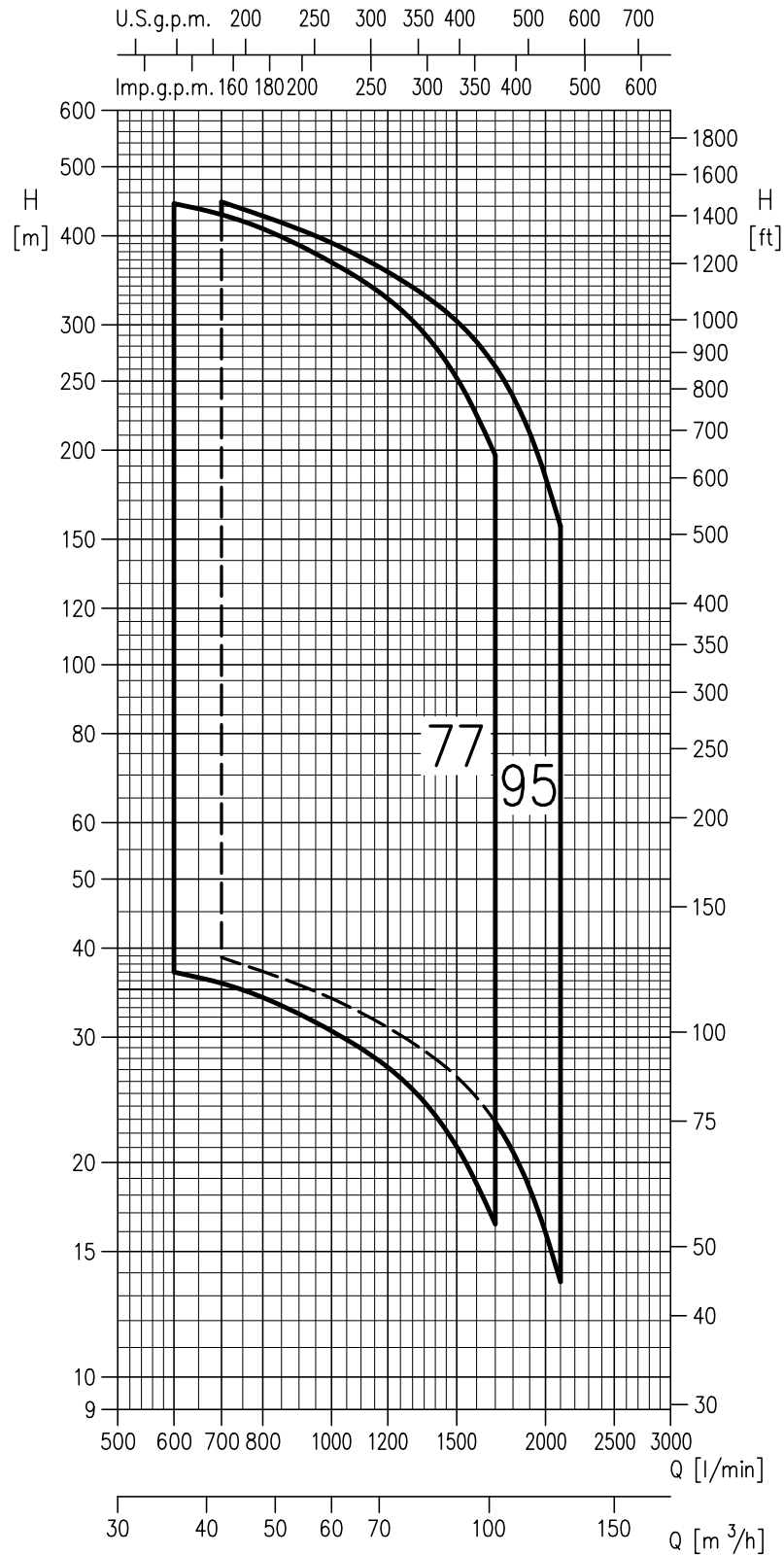
MOTOR			
Type	Submersible oil filled (type O)		Submersible water filled (type W)
Manufacturer	Sumoto		Franklin
Size	6"	6"	8"
Power rating [kW]	7.5÷30		7.5÷37
	45÷110		
Three phase			
No. of Poles	2		
Rated speed	Refer to each characteristic performance rotation speed as rated speed		
Insulation class	F	B	F
Protection degree	IP 58		IP 68
Maximum immersion [m]	150		350
Starts / hours	30		20
Start type	Direct on line		
Frequency [Hz]	50 Hz		
Voltage [V]	380 -10% - 400 +6%		380 -10% - 415+6%
Over load protection	User to provide		
Motor bracket	Cast iron with nickel plate		Cast iron epoxy painted
Casing material	EN 1.4301 (AISI 304)		
Flange mount	NEMA		

SELECTION CHART (6BHE)

50Hz

Rev. A





SELECTION CHART (6BHE)

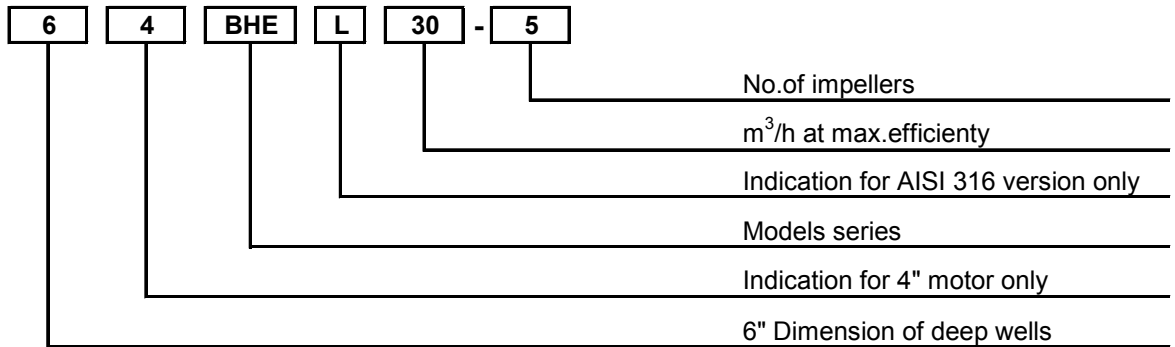
50Hz

Rev. A

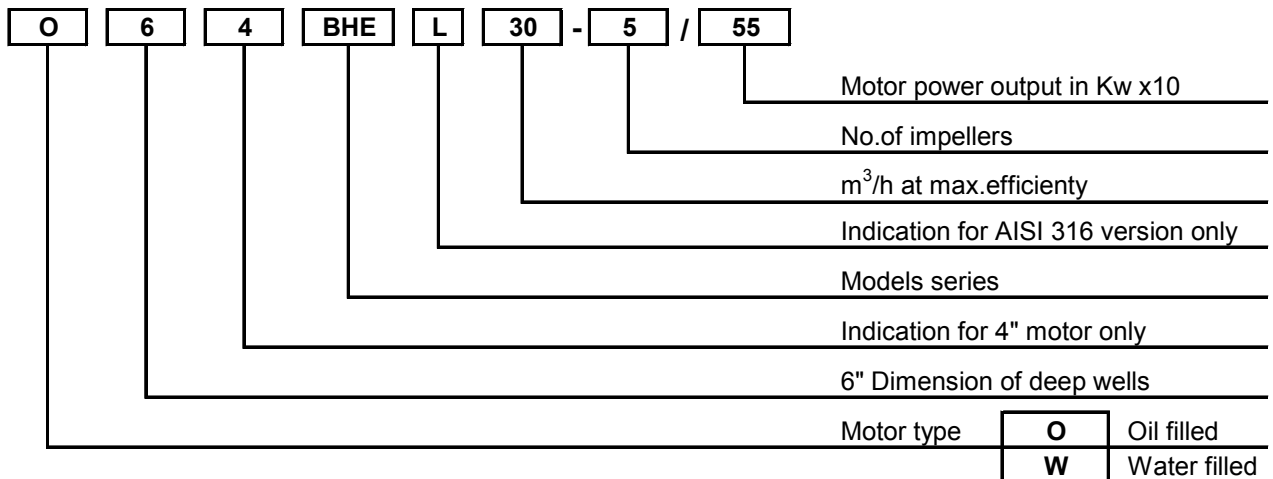
Pump type	Motor			Capacity														
	size	Power		l/min														
		kW	HP	0	100	150	200	250	300	400	450	525	600	700	825	950	1050	1167
				m ³ /h														
				H=Total manometric head in meters														
64 BHE 14 - 5	4"	2.2	3	58	50.5	46.5	40.5	31.0	18.0	-	-	-	-	-	-	-	-	-
64 BHE 14 - 8		4	5.5	93	81.0	74.5	64.5	49.5	28.8	-	-	-	-	-	-	-	-	-
6 BHE 14 - 8	6"	4	5.5	151.0	131.0	121.0	105.0	80.5	47.0	-	-	-	-	-	-	-	-	-
64 BHE 14 - 13		5.5	7.5															
6 BHE 14 - 13	6"	5.5	7.5	151.0	131.0	121.0	105.0	80.5	47.0	-	-	-	-	-	-	-	-	-
6 BHE 14 - 17	6"	7.5	10	197.0	172.0	158.0	137.0	105.0	61.0	-	-	-	-	-	-	-	-	-
6 BHE 14 - 22		9.2	12.5	255.0	222.0	205.0	178.0	136.0	79.0	-	-	-	-	-	-	-	-	-
6 BHE 14 - 26		11	15	302.0	263.0	242.0	210.0	161.0	93.5	-	-	-	-	-	-	-	-	-
6 BHE 14 - 32		15	20	371.0	323.0	298.0	258.0	198.0	115.0	-	-	-	-	-	-	-	-	-
6 BHE 14 - 36		15	20	418.0	364.0	335.0	291.0	223.0	130.0	-	-	-	-	-	-	-	-	-
6 BHE 14 - 42		18.5	25	487.0	424.0	391.0	339.0	260.0	151.0	-	-	-	-	-	-	-	-	-
64 BHE 19 - 6		4"	4	5.5	71.5	-	65.0	62.0	57.5	51.5	33.9	22.8	-	-	-	-	-	-
6 BHE 19 - 6		6"	4	5.5	71.5	-	65.0	62.0	57.5	51.5	33.9	22.8	-	-	-	-	-	-
64 BHE 19 - 9	4"	5.5	7.5	107.0	-	97.0	92.5	86.5	77.5	51.0	34.2	-	-	-	-	-	-	
6 BHE 19 - 9	6"	5.5	7.5	107.0	-	97.0	92.5	86.5	77.5	51.0	34.2	-	-	-	-	-	-	
6 BHE 19 - 12	6"	7.5	10	143.0	-	130.0	124.0	115.0	103.0	68.0	45.5	-	-	-	-	-	-	
6 BHE 19 - 15		9.2	12.5	179.0	-	162.0	155.0	144.0	129.0	85.0	57.0	-	-	-	-	-	-	
6 BHE 19 - 18		11	15	214.0	-	194.0	185.0	173.0	155.0	102.0	68.5	-	-	-	-	-	-	
6 BHE 19 - 21		15	20	250.0	-	227.0	216.0	202.0	181.0	119.0	80.0	-	-	-	-	-	-	
6 BHE 19 - 24		15	20	286.0	-	259.0	247.0	230.0	206.0	136.0	91.0	-	-	-	-	-	-	
6 BHE 19 - 28		18.5	25	333.0	-	302.0	288.0	269.0	241.0	158.0	106.0	-	-	-	-	-	-	
6 BHE 19 - 30		18.5	25	357.0	-	324.0	309.0	288.0	258.0	170.0	114.0	-	-	-	-	-	-	
6 BHE 19 - 33		22	30	393.0	-	356.0	340.0	317.0	284.0	186.0	125.0	-	-	-	-	-	-	
6 BHE 19 - 36		22	30	428.0	-	389.0	371.0	346.0	310.0	203.0	137.0	-	-	-	-	-	-	
6 BHE 19 - 39		30	40	464.0	-	421.0	402.0	374.0	335.0	220.0	148.0	-	-	-	-	-	-	
6 BHE 19 - 42		30	40	500.0	-	454.0	433.0	403.0	361.0	237.0	160.0	-	-	-	-	-	-	
64 BHE 30 - 3		4"	3	4	37.8	-	-	34.2	33.2	31.8	28.6	26.4	22.1	17.3	10.5	-	-	-
64 BHE 30 - 4		4"	4	5.5	50.5	-	-	45.5	44.0	42.5	38.2	35.2	29.5	23.0	14.0	-	-	-
6 BHE 30 - 4		6"	4	5.5	50.5	-	-	45.5	44.0	42.5	38.2	35.2	29.5	23.0	14.0	-	-	-
64 BHE 30 - 5	4"	5.5	7.5	63.0	-	-	57.0	55.5	53.0	47.5	44.0	36.9	28.8	17.5	-	-	-	
6 BHE 30 - 5	6"	5.5	7.5	63.0	-	-	57.0	55.5	53.0	47.5	44.0	36.9	28.8	17.5	-	-	-	
6 BHE 30 - 7	6"	7.5	10	88.0	-	-	80.0	77.5	74.0	67.0	61.5	51.5	40.5	24.5	-	-	-	
6 BHE 30 - 11		11	15	139.0	-	-	125.0	122.0	117.0	105.0	97.0	81.0	63.5	38.5	-	-	-	
6 BHE 30 - 15		15	20	189.0	-	-	171.0	166.0	159.0	143.0	132.0	111.0	86.5	52.5	-	-	-	
6 BHE 30 - 19		18.5	25	239.0	-	-	217.0	210.0	201.0	181.0	167.0	140.0	109.0	66.5	-	-	-	
6 BHE 30 - 23		22	30	290.0	-	-	262.0	254.0	244.0	219.0	202.0	170.0	132.0	80.5	-	-	-	
6 BHE 30 - 27		30	40	340.0	-	-	308.0	299.0	286.0	258.0	238.0	199.0	155.0	94.5	-	-	-	
6 BHE 30 - 31		30	40	391.0	-	-	353.0	343.0	329.0	296.0	273.0	229.0	178.0	109.0	-	-	-	
6 BHE 30 - 33		37	50	416.0	-	-	376.0	365.0	350.0	315.0	290.0	244.0	190.0	116.0	-	-	-	
6 BHE 30 - 36		37	50	454.0	-	-	410.0	398.0	382.0	343.0	317.0	266.0	207.0	126.0	-	-	-	
64 BHE 44 - 2		4"	3	4	29.0	-	-	-	-	25.2	23.5	22.6	21.2	19.6	17.4	14.2	10.6	-
64 BHE 44 - 3		4"	5.5	7.5	43.5	-	-	-	-	37.8	35.3	33.9	31.7	29.4	26.0	21.3	15.9	-
6 BHE 44 - 3		6"	5.5	7.5	43.5	-	-	-	-	37.8	35.3	33.9	31.7	29.4	26.0	21.3	15.9	-
6 BHE 44 - 5		6"	7.5	10	72.5	-	-	-	-	63.0	59.0	56.5	53.0	49.0	43.5	35.5	26.5	-
6 BHE 44 - 7			11	15	102.0	-	-	-	-	88.0	82.5	79.0	74.0	68.5	61.0	49.5	37.1	-
6 BHE 44 - 9	15		20	131.0	-	-	-	-	113.0	106.0	102.0	95.0	88.0	78.0	64.0	47.5	-	
6 BHE 44 - 10	15		20	145.0	-	-	-	-	126.0	118.0	113.0	106.0	98.0	87.0	71.0	53.0	-	
6 BHE 44 - 12	18.5		25	174.0	-	-	-	-	151.0	141.0	136.0	127.0	118.0	104.0	85.0	63.5	-	
6 BHE 44 - 15	22		30	218.0	-	-	-	-	189.0	176.0	170.0	159.0	147.0	130.0	107.0	79.5	-	
6 BHE 44 - 18	30		40	261.0	-	-	-	-	227.0	212.0	203.0	190.0	176.0	156.0	128.0	95.5	-	
6 BHE 44 - 20	30		40	290.0	-	-	-	-	252.0	235.0	226.0	212.0	196.0	174.0	142.0	106.0	-	
6 BHE 44 - 22	37		50	319.0	-	-	-	-	277.0	259.0	249.0	233.0	216.0	191.0	156.0	117.0	-	
6 BHE 44 - 24	37		50	348.0	-	-	-	-	302.0	282.0	271.0	254.0	235.0	208.0	170.0	127.0	-	
64 BHE 58 - 2	4"		3	4	27.2	-	-	-	-	23.2	22.5	21.2	19.7	17.7	15.0	12.0	9.3	6.0
64 BHE 58 - 3	4"		5.5	7.5	41.0	-	-	-	-	34.8	33.7	31.9	29.6	26.6	22.5	18.0	14.0	9.0
6 BHE 58 - 3	6"		5.5	7.5	41.0	-	-	-	-	34.8	33.7	31.9	29.6	26.6	22.5	18.0	14.0	9.0
6 BHE 58 - 5	6"		7.5	10	68.0	-	-	-	-	58.0	56.0	53.0	49.5	44.5	37.5	30.0	23.3	15.0
6 BHE 58 - 7		11	15	95.0	-	-	-	-	81.0	78.5	74.5	69.0	62.0	52.5	42.0	32.6	21.0	
6 BHE 58 - 9		15	20	122.0	-	-	-	-	104.0	101.0	95.5	89.0	79.5	67.5	54.0	42.0	27.0	
6 BHE 58 - 10		15	20	136.0	-	-	-	-	116.0	112.0	106.0	98.5	88.5	75.0	60.0	46.5	30.0	
6 BHE 58 - 12		18.5	25	163.0	-	-	-	-	139.0	135.0	127.0	118.0	106.0	90.0	72.0	56.0	36.0	
6 BHE 58 - 14		22	30	190.0	-	-	-	-	162.0	157.0	149.0	138.0	124.0	105.0	84.0	65.0	42.0	
6 BHE 58 - 16		30	40	218.0	-	-	-	-	186.0	180.0	170.0	158.0	142.0	120.0	96.0	74.5	48.0	
6 BHE 58 - 18		30	40	245.0	-	-	-	-	209.0	202.0	191.0	178.0	159.0	135.0	108.0	83.5	54.0	
6 BHE 58 - 20		37	50	272.0	-	-	-	-	232.0	225.0	212.0	197.0	177.0	150.0	120.0	93.0	60.0	
6 BHE 58 - 23		37	50	313.0	-	-	-	-	267.0	259.0	244.0	227.0	204.0	173.0	138.0	107.0	69.0	

Pump type	Motor		Capacity										
	size	Power		l/min	0	600	700	1000	1250	1500	1700	1900	2100
		kW	HP	m ³ /h	0	36	42	60	75	90	102	114	126
H=Total manometric head in meters													
86 BHE 77 - 2	6"	7.5	10	41.0	37.0	35.7	30.6	26.3	21.1	16.4	-	-	
86 BHE 77 - 3		11	15	62.0	55.5	53.5	46.0	39.5	31.6	24.6	-	-	
86 BHE 77 - 4		15	20	82.5	74.0	71.5	61.0	52.5	42.0	32.8	-	-	
86 BHE 77 - 5		18.5	25	103.0	92.5	89.5	76.5	66.0	52.5	41.0	-	-	
86 BHE 77 - 6		22	30	124.0	111.0	107.0	92.0	79.0	63.0	49.0	-	-	
86 BHE 77 - 7		30	40	144.0	130.0	125.0	107.0	92.0	73.5	57.5	-	-	
86 BHE 77 - 8		30	40	165.0	148.0	143.0	122.0	105.0	84.0	65.5	-	-	
86 BHE 77 - 9		30	40	185.0	167.0	161.0	138.0	118.0	95.0	74.0	-	-	
86 BHE 77 - 10		37	50	206.0	185.0	179.0	153.0	132.0	105.0	82.0	-	-	
86 BHE 77 - 11		37	50	227.0	204.0	196.0	168.0	145.0	116.0	90.0	-	-	
8 BHE 77 - 12	8"	45	60	247.0	222.0	214.0	184.0	158.0	126.0	98.5	-	-	
8 BHE 77 - 13		55	75	268.0	241.0	232.0	199.0	171.0	137.0	107.0	-	-	
8 BHE 77 - 14		55	75	288.0	259.0	250.0	214.0	184.0	147.0	115.0	-	-	
8 BHE 77 - 15		55	75	309.0	278.0	268.0	230.0	197.0	158.0	123.0	-	-	
8 BHE 77 - 16		75	100	330.0	296.0	286.0	245.0	210.0	168.0	131.0	-	-	
8 BHE 77 - 17		75	100	350.0	315.0	303.0	260.0	224.0	179.0	139.0	-	-	
8 BHE 77 - 18		75	100	371.0	333.0	321.0	275.0	237.0	190.0	148.0	-	-	
8 BHE 77 - 19		75	100	391.0	352.0	339.0	291.0	250.0	200.0	156.0	-	-	
8 BHE 77 - 20		75	100	412.0	370.0	357.0	306.0	263.0	211.0	164.0	-	-	
8 BHE 77 - 21		75	100	433.0	389.0	375.0	321.0	276.0	221.0	172.0	-	-	
8 BHE 77 - 22		93	125	453.0	407.0	393.0	337.0	289.0	232.0	180.0	-	-	
8 BHE 77 - 23		93	125	474.0	426.0	411.0	352.0	302.0	242.0	189.0	-	-	
8 BHE 77 - 24		93	125	494.0	444.0	428.0	367.0	316.0	253.0	197.0	-	-	
86 BHE 95 - 2	6"	9.2	12.5	43.0	-	38.8	34.0	30.2	26.4	22.8	18.4	13.6	
86 BHE 95 - 3		15	20	65.0	-	58.0	51.0	45.5	39.6	34.2	27.6	20.4	
86 BHE 95 - 4		18.5	25	86.5	-	77.5	68.0	60.5	53.0	45.5	36.8	27.2	
86 BHE 95 - 5		22	30	108.0	-	97.0	85.0	75.5	66.0	57.0	46.0	34.0	
86 BHE 95 - 6		30	40	130.0	-	116.0	102.0	90.5	79.0	68.5	55.0	41.0	
86 BHE 95 - 7		30	40	151.0	-	136.0	119.0	106.0	92.5	80.0	64.5	47.5	
86 BHE 95 - 8		37	50	173.0	-	155.0	136.0	121.0	106.0	91.0	73.5	54.5	
86 BHE 95 - 9		37	50	194.0	-	175.0	153.0	136.0	119.0	103.0	83.0	61.0	
8 BHE 95 - 10		45	60	216.0	-	194.0	170.0	151.0	132.0	114.0	92.0	68.0	
8 BHE 95 - 11	55	75	238.0	-	213.0	187.0	166.0	145.0	125.0	101.0	75.0		
8 BHE 95 - 12	55	75	259.0	-	233.0	204.0	181.0	158.0	137.0	110.0	81.5		
8 BHE 95 - 13	55	75	281.0	-	252.0	221.0	196.0	172.0	148.0	120.0	88.5		
8 BHE 95 - 14	75	100	302.0	-	272.0	238.0	211.0	185.0	160.0	129.0	95.0		
8 BHE 95 - 15	75	100	324.0	-	291.0	255.0	227.0	198.0	171.0	138.0	102.0		
8 BHE 95 - 16	75	100	346.0	-	310.4	272.0	242.0	211.0	182.0	147.0	109.0		
8 BHE 95 - 17	75	100	367.0	-	330.0	289.0	257.0	224.0	194.0	156.0	116.0		
8 BHE 95 - 18	93	125	389.0	-	349.0	306.0	272.0	238.0	205.0	166.0	122.0		
8 BHE 95 - 19	93	125	410.0	-	369.0	323.0	287.0	251.0	217.0	175.0	129.0		
8 BHE 95 - 20	93	125	432.0	-	388.0	340.0	302.0	264.0	228.0	184.0	136.0		
8 BHE 95 - 21	93	125	454.0	-	407.0	357.0	317.0	277.0	239.0	193.0	143.0		
8 BHE 95 - 22	110	150	475.0	-	427.0	374.0	332.0	290.0	251.0	202.0	150.0		
8 BHE 95 - 23	110	150	497.0	-	446.0	391.0	347.0	304.0	262.0	212.0	156.0		

EXAMPLE (pump without motor) :



EXAMPLE (pump with motor) :

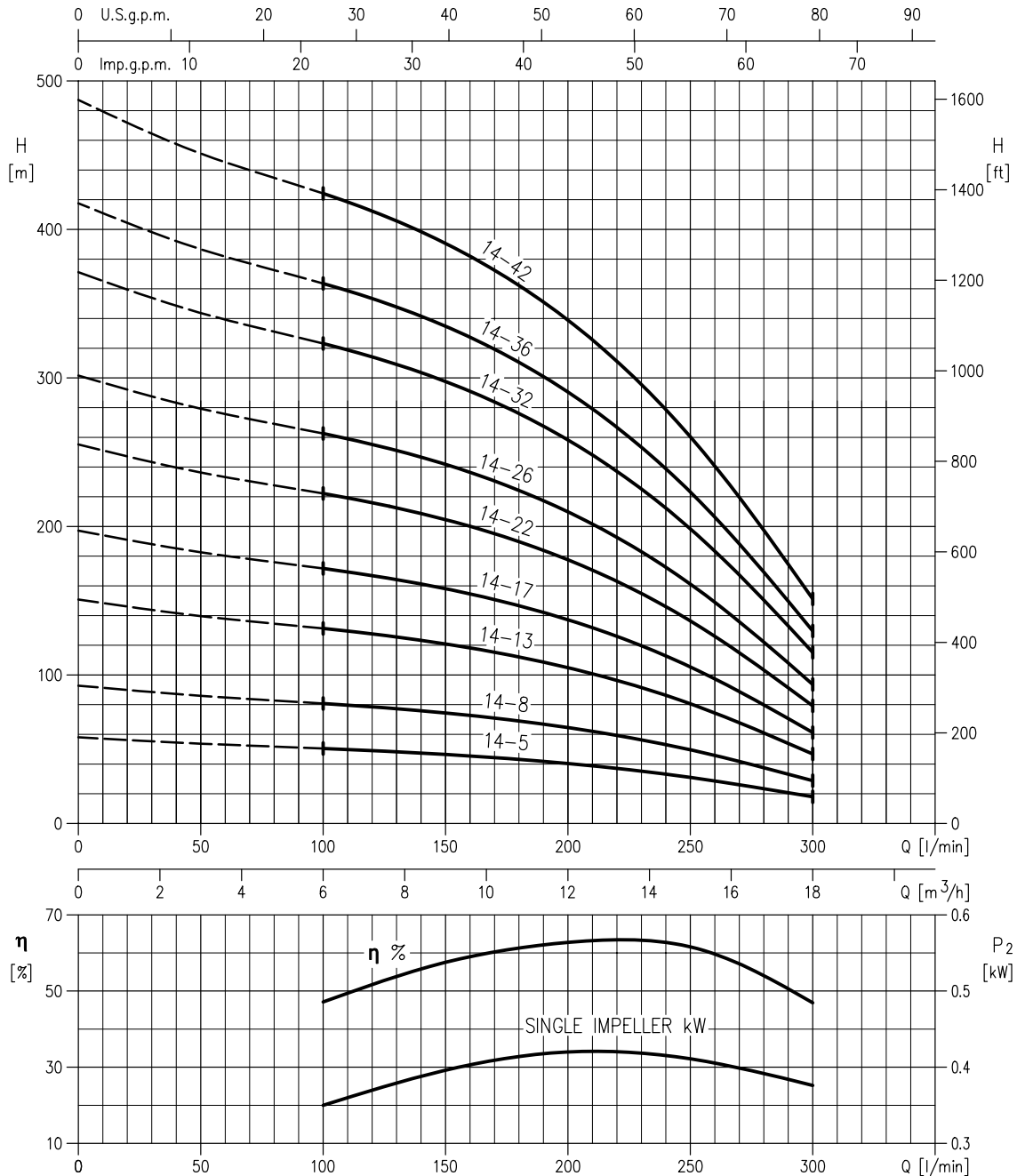


PERFORMANCE CURVES

The specifications below qualify the curves shown on the following pages.

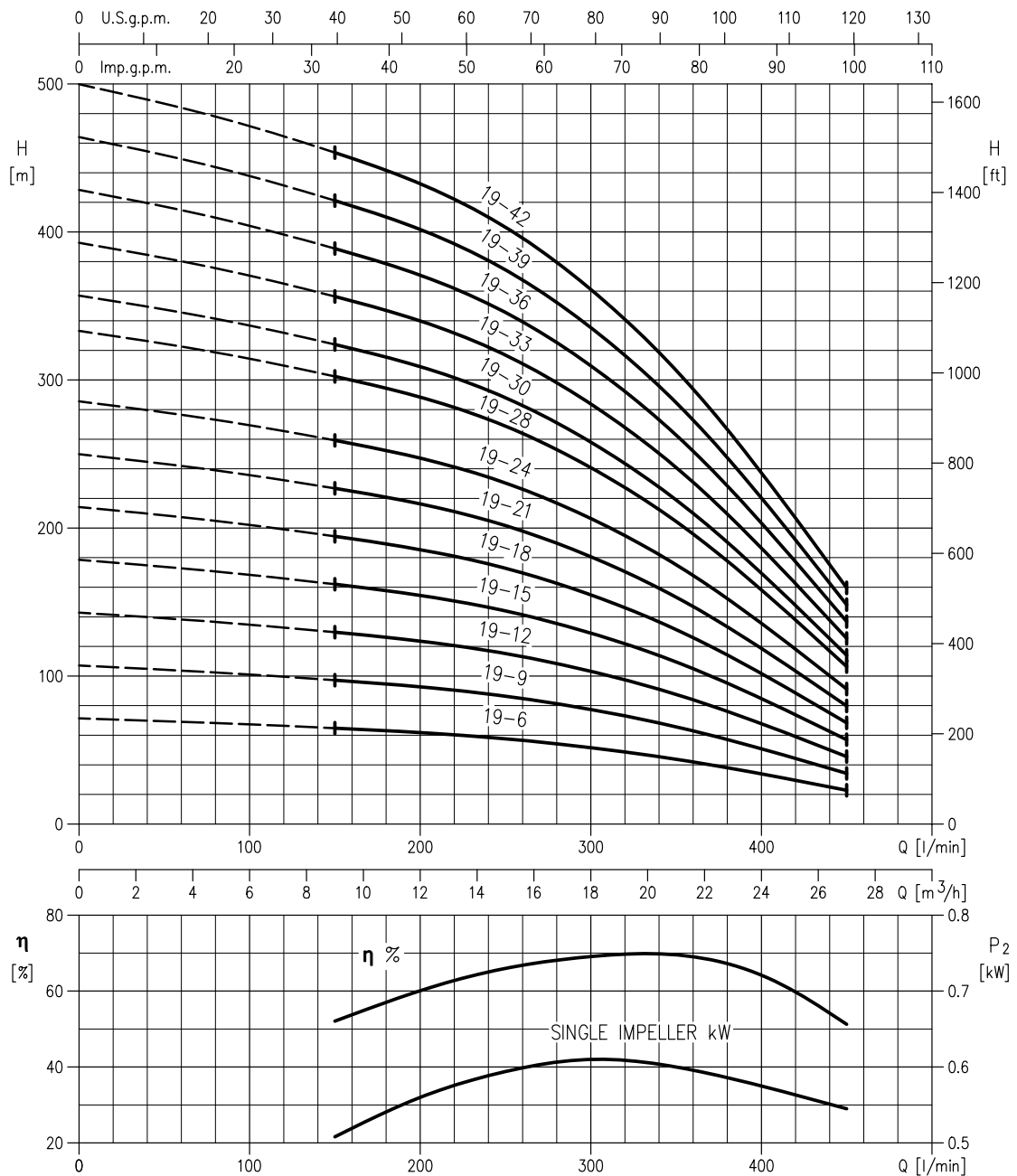
- ◆ The curves refer to effective speed of asynchronous motors at 50 Hz
- ◆ Measurements were carried out with clean water at 20°C of temperature and with a kinematic viscosity of $\nu = 1 \text{ mm}^2/\text{s}$ (1 cSt)
- ◆ The continuous curves indicate the recommended working range. The dotted curve is only a guide.
- ◆ In order to avoid the risk of over-heating, the pumps should not be used at a flow rate below 10% of best efficiency point.
- ◆ Symbols explanation:
 - Q = volume flow rate
 - H = total head
 - P_2 = pump power input (shaft power)
 - η = pump efficiency
- ◆ Tolerances according to ISO 9906 Annex A

6(4)BHE 14



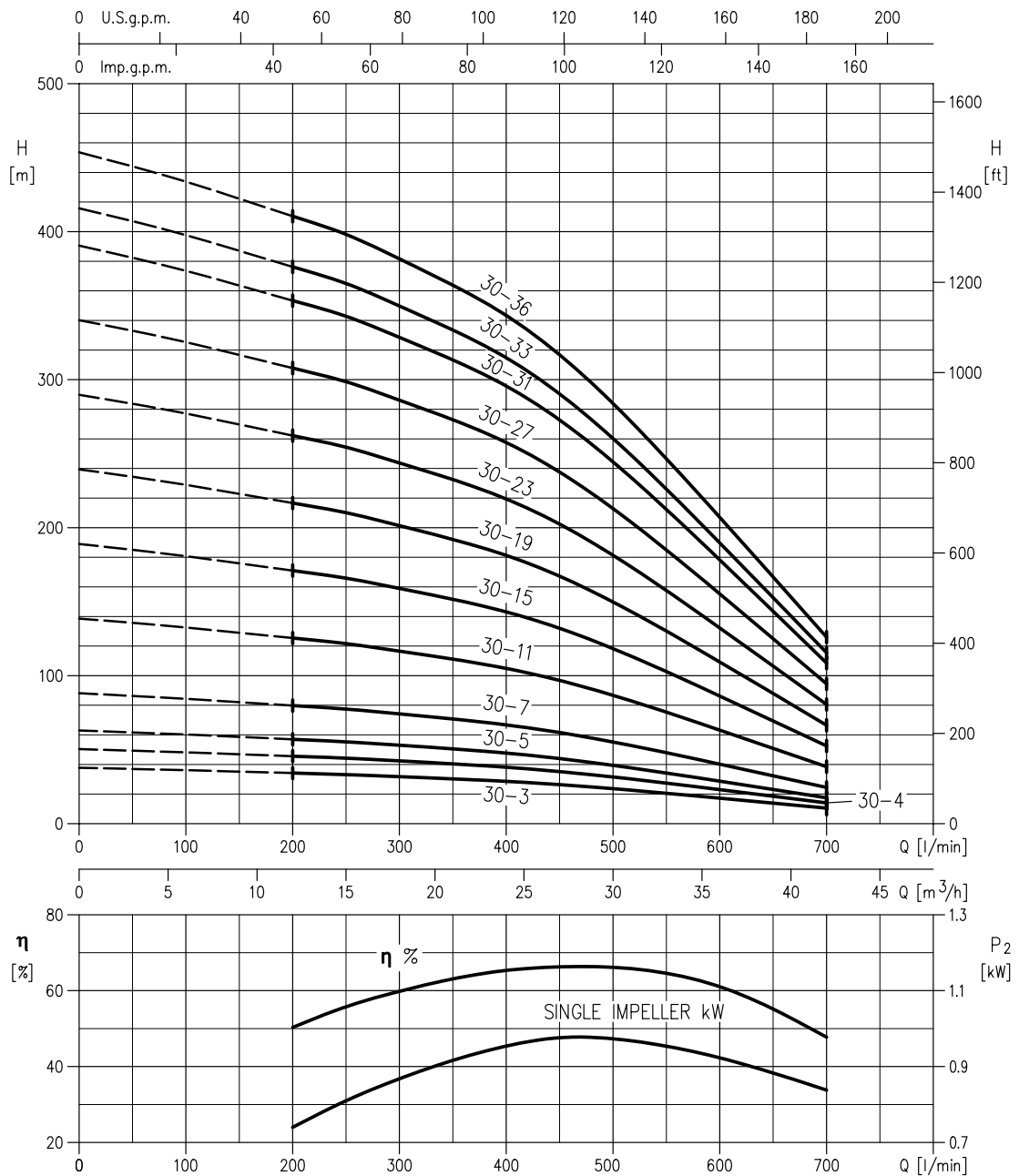
Rotation speed $\approx 2850 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

6(4)BHE 19



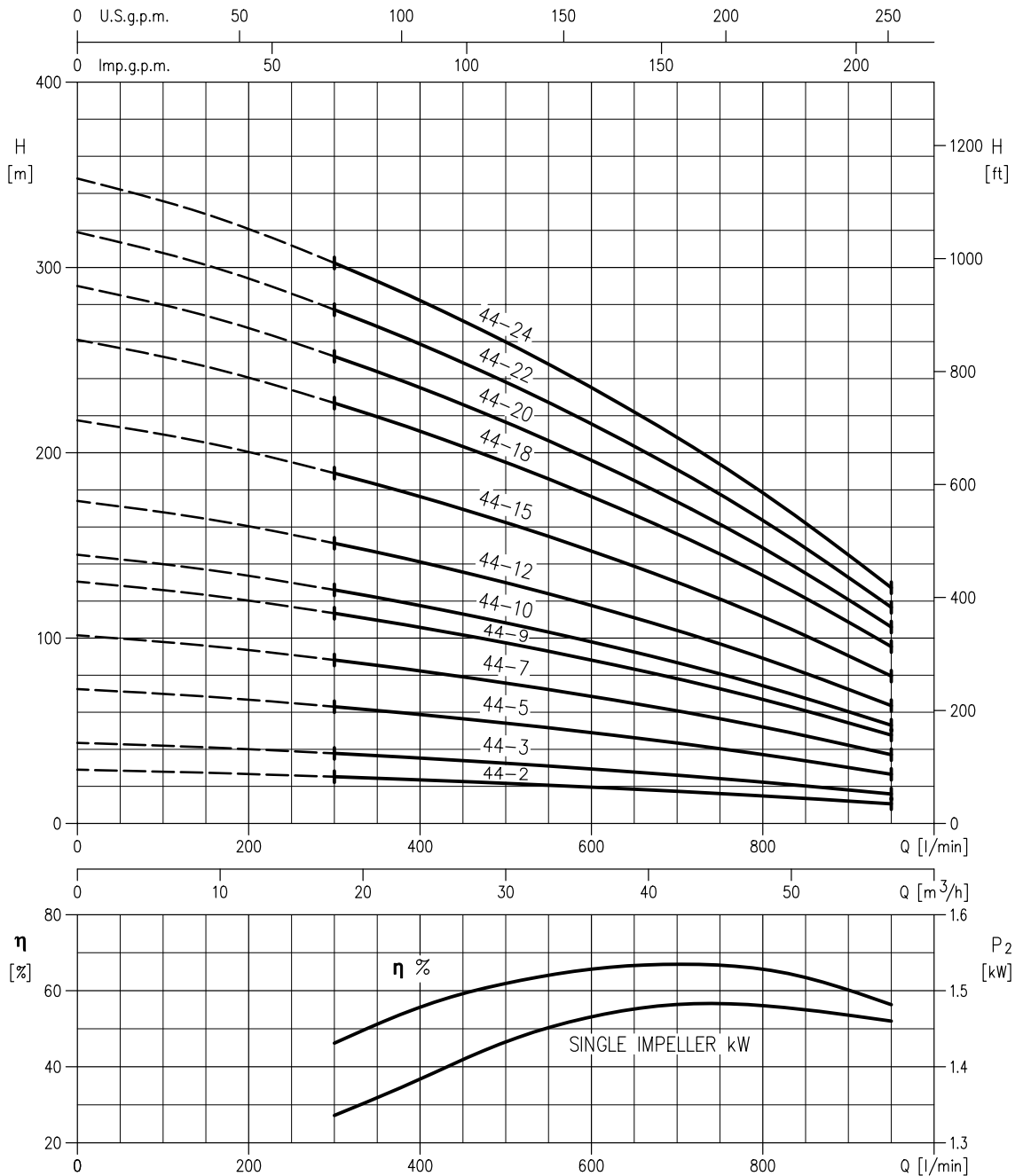
Rotation speed $\approx 2850 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

6(4)BHE 30



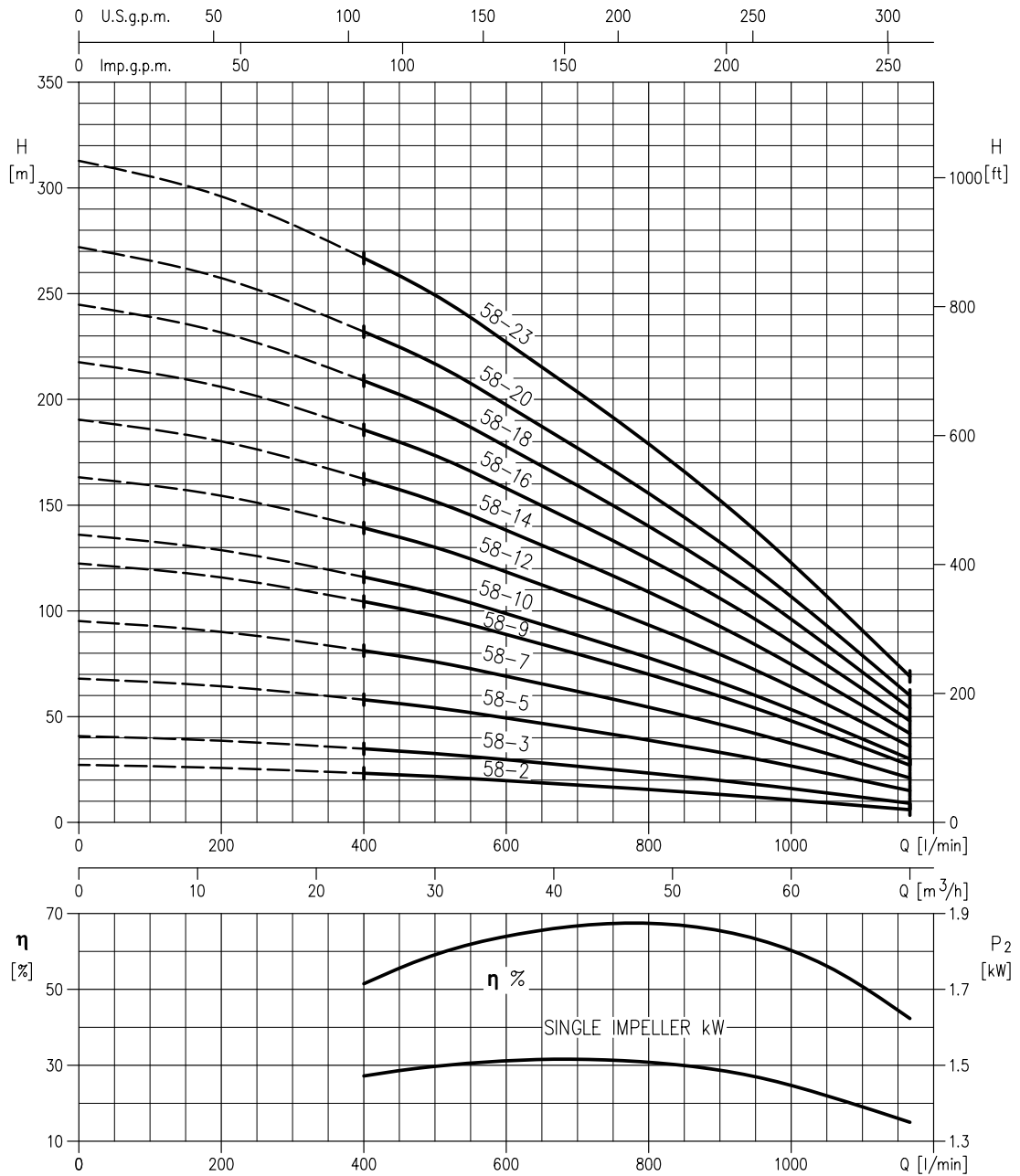
Rotation speed $\approx 2850 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

6(4)BHE 44



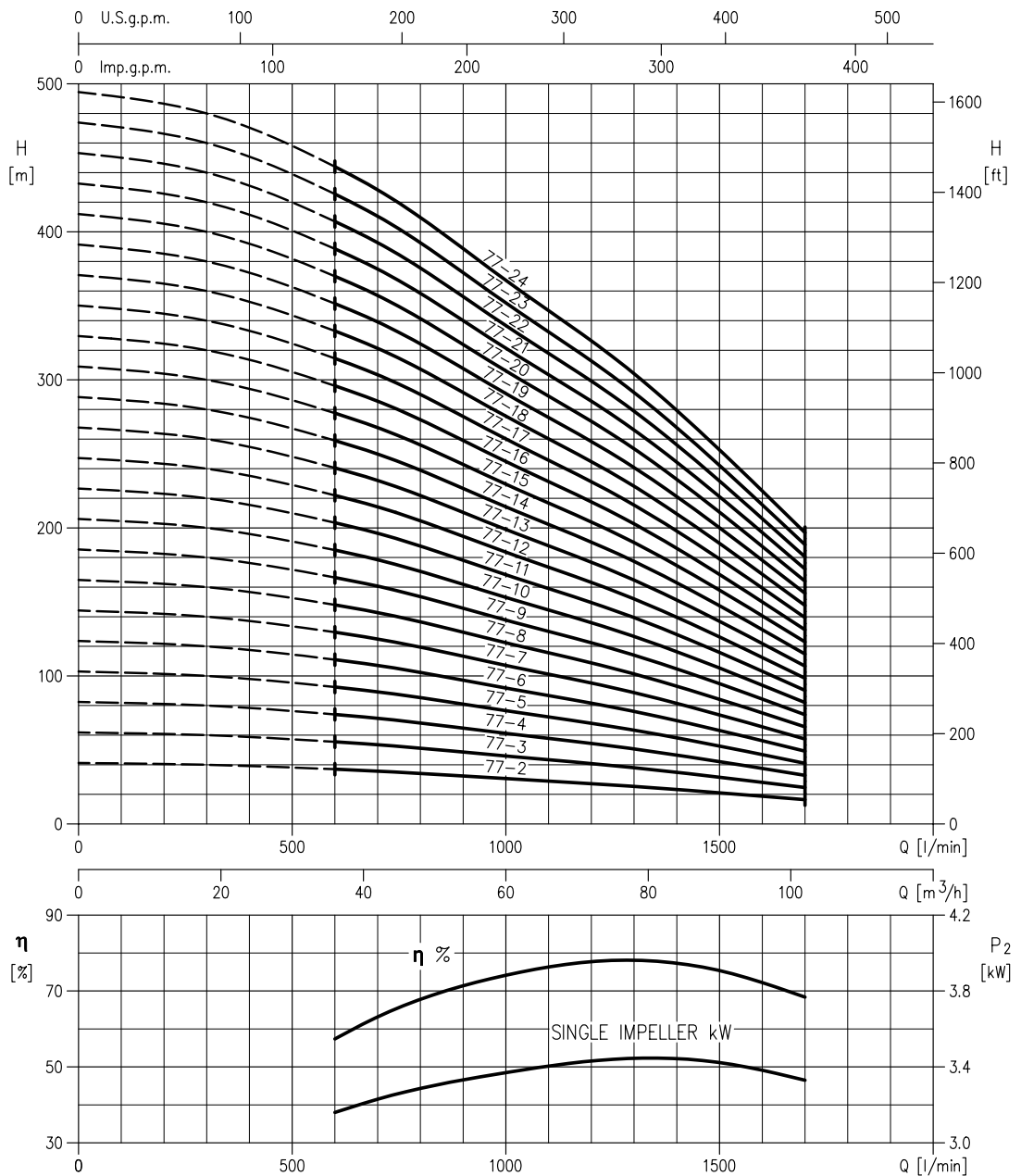
Rotation speed $\approx 2850 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

6(4)BHE 58



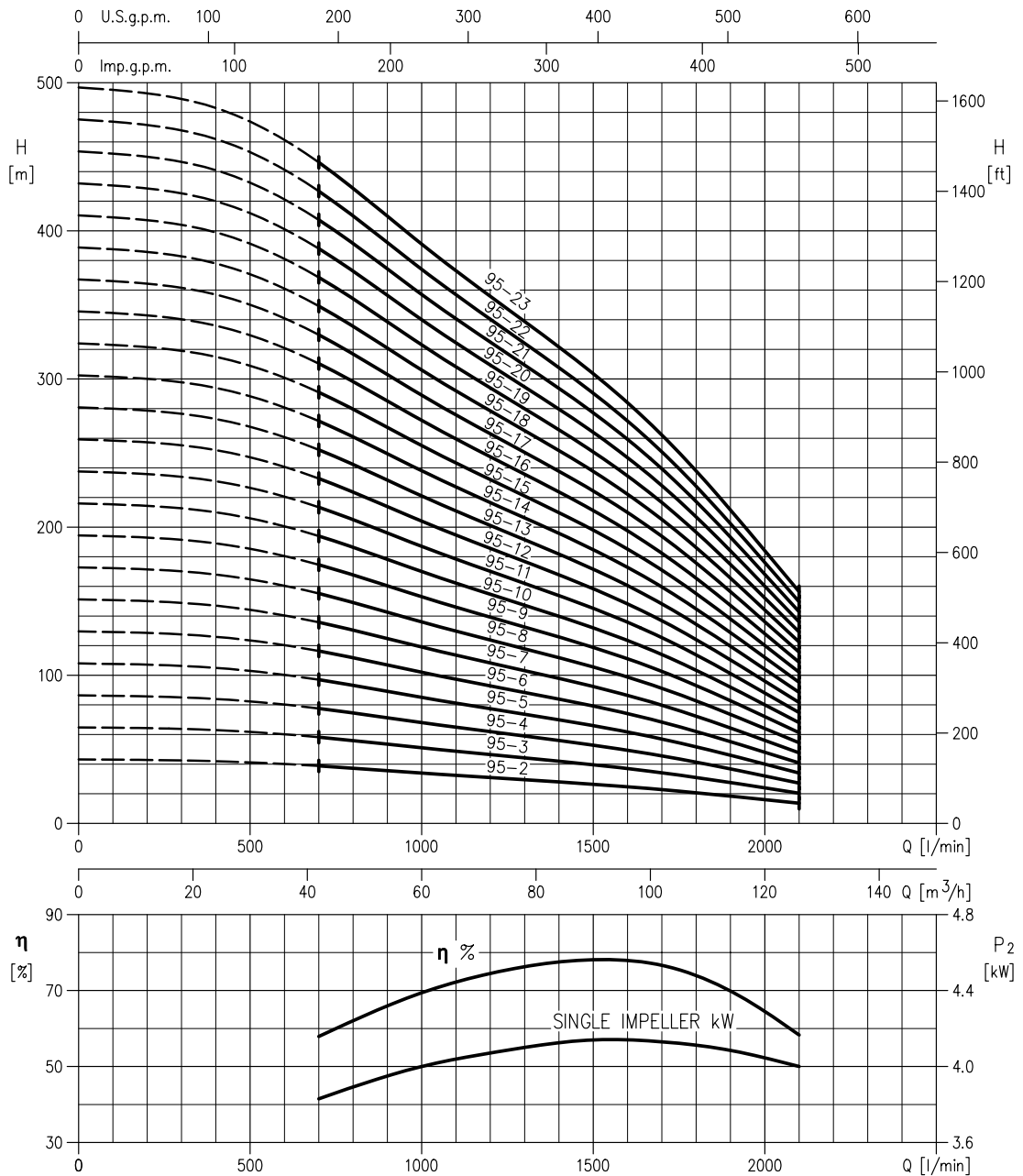
Rotation speed $\approx 2850 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

8(6)BHE 77

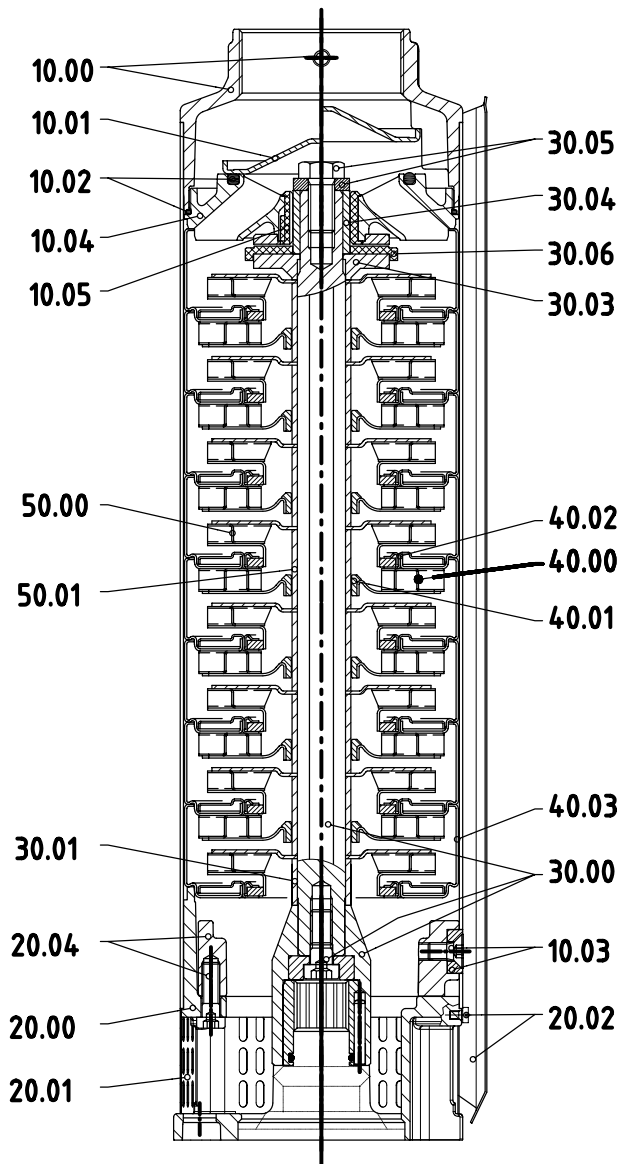


Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

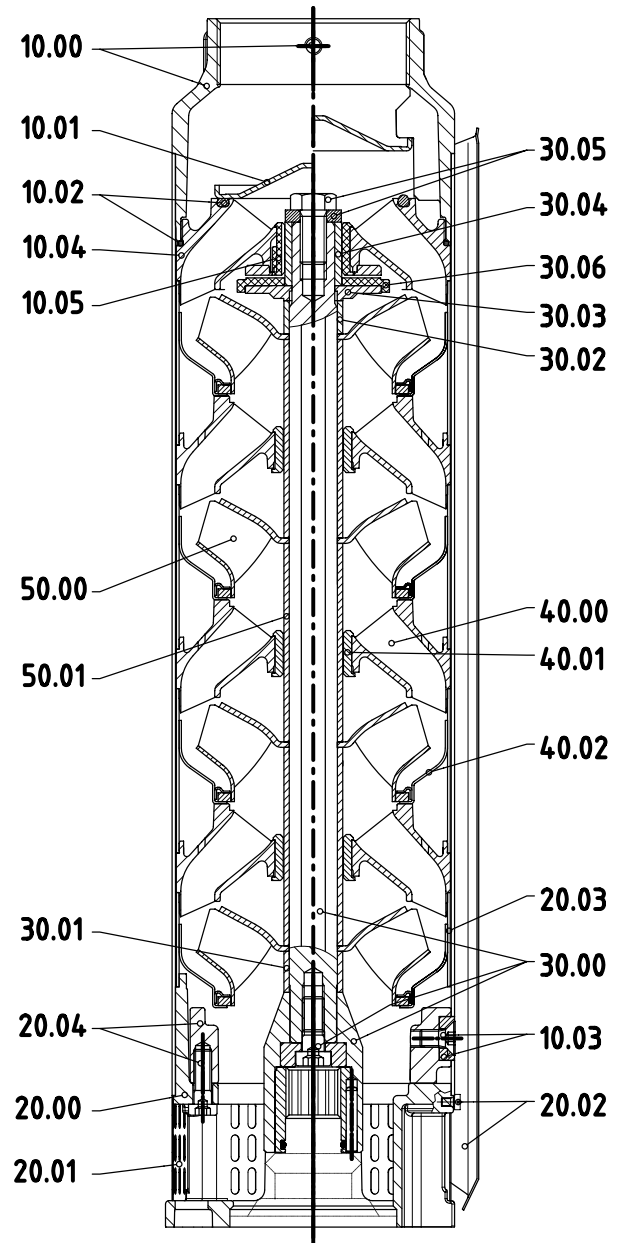
8(6)BHE 95



Rotation speed $\approx 2900 \text{ min}^{-1}$
 Test standard: ISO 9906-Annex A

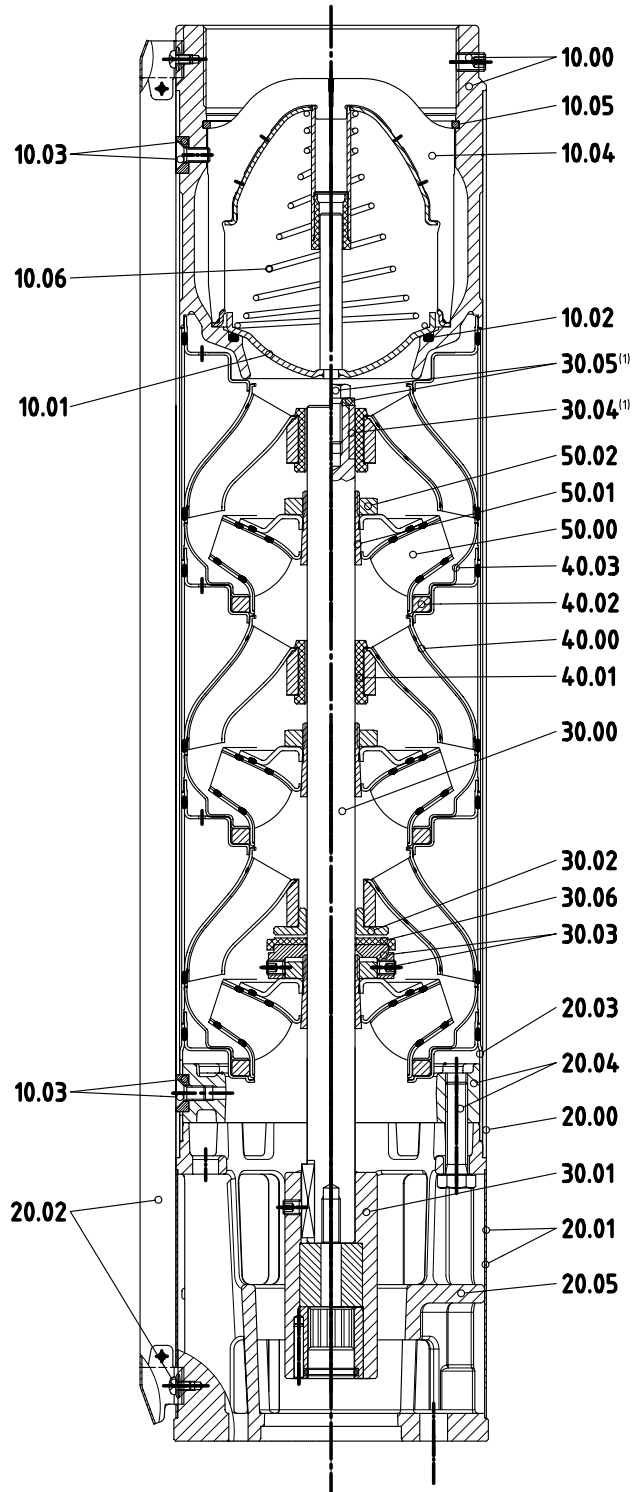


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44/58

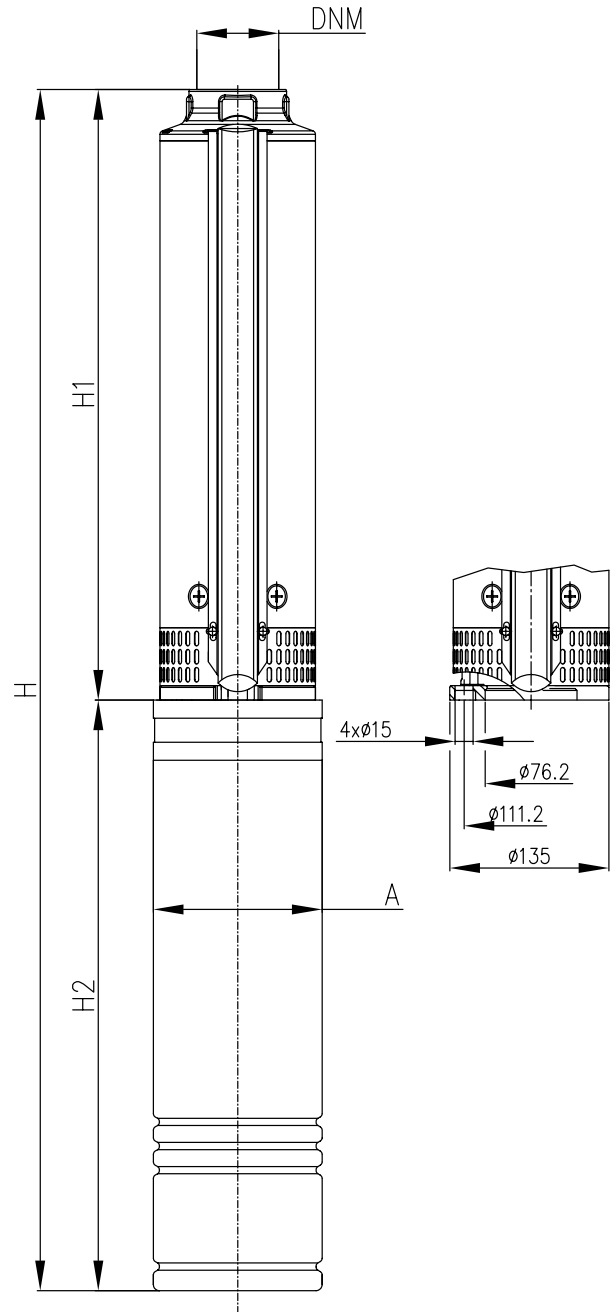
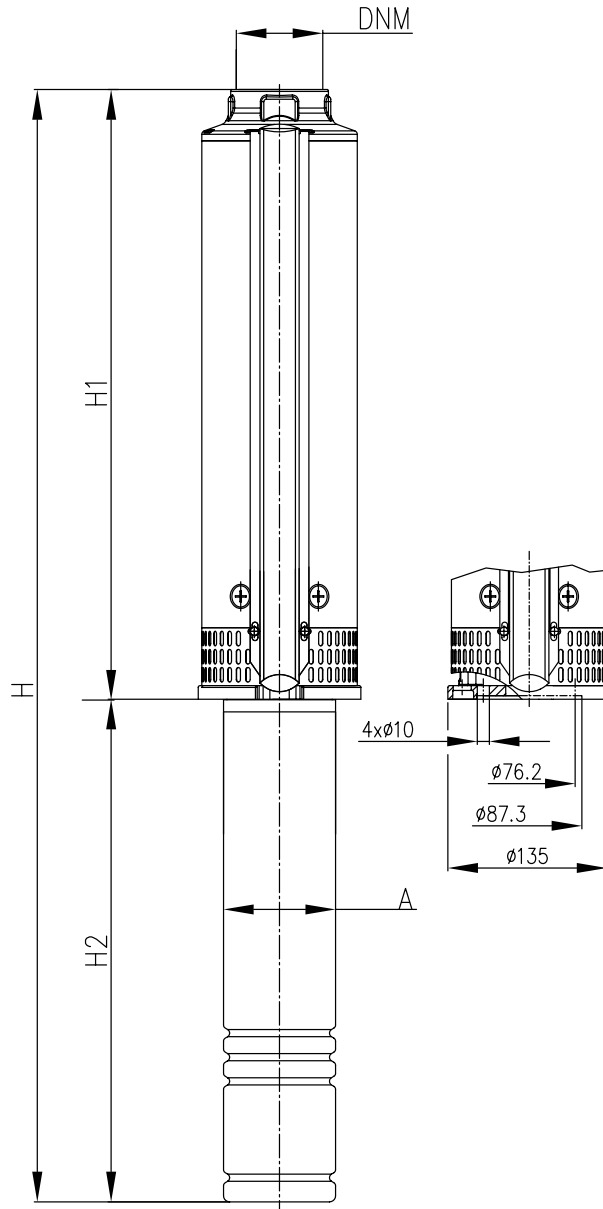
POS.	Part name	Material
10 00	Outer casing with discharge head 2" 1/2 (6BHE 14 6BHE 19) - 3" (6BHE 30 to 6BHE 58)	EN 1.4401 (AISI 316)
10 01	Valve	EN 1.4401 (AISI 316)
10 02	O-Ring kit	NBR
10 03	Screw and inserts locking outer case	EN 1.4401 (AISI 316)
10 04	Discharge casing	EN 1.4401 (AISI 316)
10 05	Upper bearing bush	NBR
20 00	Motor adapter	EN 1.4401 (AISI 316)
20 01	Strainer	EN 1.4401 (AISI 316)
20 02	Cable cover	EN 1.4401 (AISI 316)
20 03	Spacer	EN 1.4401 (AISI 316)
20 04	Flange and bolt	EN 1.4401 (AISI 316)
30 00	Shaft with coupling	EN 1.4401 (AISI 316)
30 01	Lower spacer	EN 1.4401 (AISI 316)
30 02	Upper Spacer	EN 1.4401 (AISI 316)
30 03	Up-thrust washer	EN 1.4401 (AISI 316)
30 04	Upper shaft sleeve	EN 1.4460 (AISI 329) + Ceramic coating
30 05	Screw and washer	EN 1.4401 (AISI 316)
30 06	Up-thrust disc	PTFE
40 00	Intermediate casing	EN 1.4301 (AISI 304) (std version)
		EN 1.4401 (AISI 316) (L version)
40 01	Intermediate bearing bush	NBR
40 02	Intermediate casing + liner ring	EN 1.4401 (AISI 316) / PTFE
	Liner ring	PTFE
40 03	Intermediate casing (suction)	EN 1.4401 (AISI 316)
50 00	Impeller	EN 1.4301 (AISI 304) (std version)
		EN 1.4401 (AISI 316) (L version)
50 01	Intermediate shaft sleeve	EN 1.4301 (AISI 304) (std version)
		EN 1.4401 (AISI 316) (L version)



POS.	Part name	Material
10 00	Discharge head 5"	EN 1.4401 (AISI 316)
10 01	Valve	EN 1.4401 (AISI 316)
10 02	O-Ring	NBR
10 03	Screw and inserts locking outer case	EN 1.4401 (AISI 316)
10 04	Valve seat	EN 1.4401 (AISI 316)
10 05	Seeger Ring	EN 1.4401 (AISI 316)
10 06	Spring	EN 1.4401 (AISI 316)
20 00	Outer casing	EN 1.4401 (AISI 316)
20 01	Strainer	EN 1.4401 (AISI 316)
20 02	Cable cover	EN 1.4401 (AISI 316)
20 03	Spacer	EN 1.4401 (AISI 316)
20 04	Flange and bolt	EN 1.4401 (AISI 316)
20 05	Motor bracket	EN 1.4401 (AISI 316)
30 00	Shaft	EN 1.4460 (AISI 329)
30 01	Motor coupling	EN 1.4401 (AISI 316) + EN 1.4460 (AISI 329)
30 02	Upper Up-thrust washer	EN 1.4460 (AISI 329)
30 03	Lower Up-thrust washer	EN 1.4460 (AISI 329)
30 04	Upper shaft sleeve (1) 9-stages or bigger models	SiC
30 05	Screw and washer (1) 17-stages or bigger models	EN 1.4401 (AISI 316)
30 06	Up-thrust disc	PTFE
40 00	Stage	EN 1.4401 (AISI 316)
40 01	Intermediate bearing bush	NBR
40 02	Liner ring	PTFE
40 03	Flange	EN 1.4401 (AISI 316)
50 00	Impeller	EN 1.4401 (AISI 316)
50 01	Split cone	EN 1.4401 (AISI 316)
50 02	Split cone nut	EN 1.4401 (AISI 316)

Pump with 4" motor adapter (64BHE)

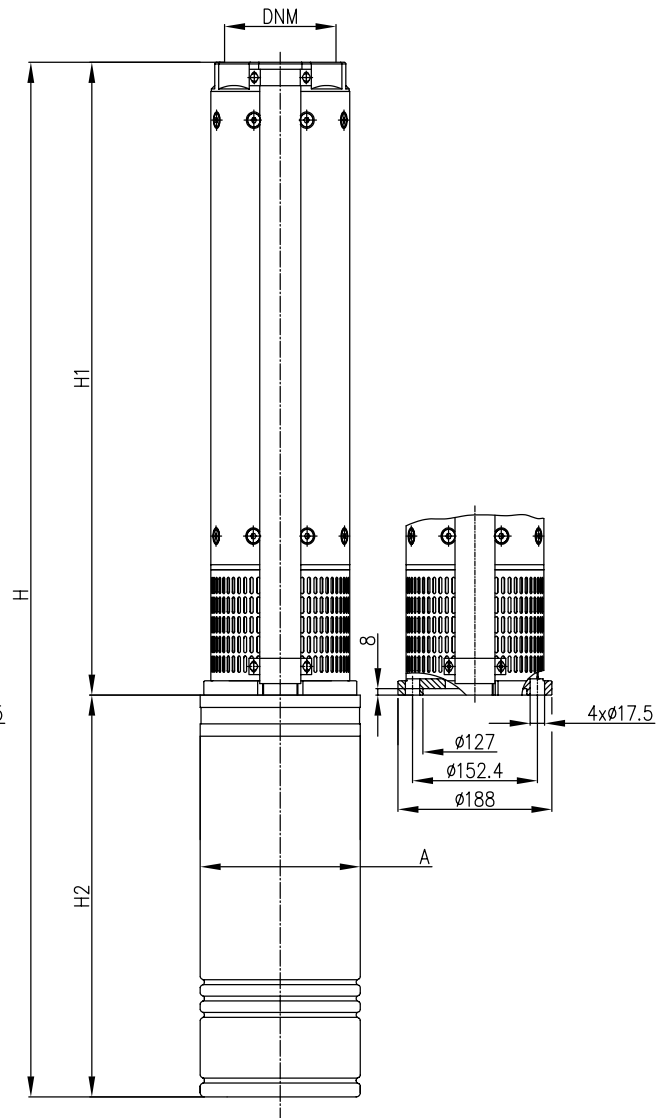
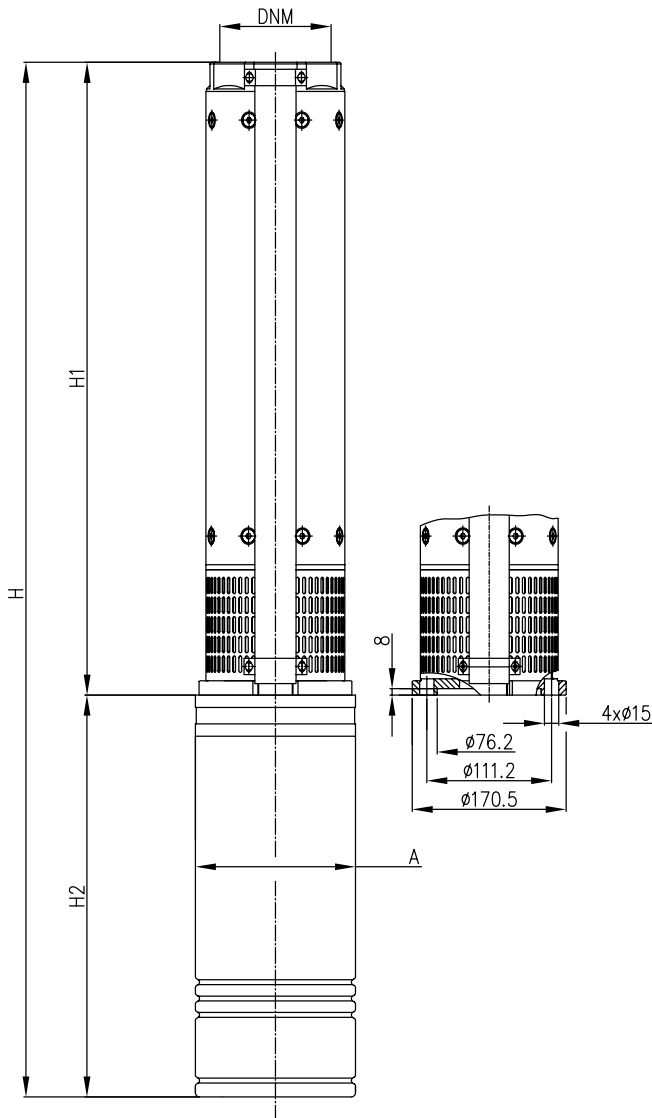
Pump with 6" motor adapter (6BHE)



	6 BHE without motor	64 BHE with motor 4"	6 BHE with motor 6"
Diameter with 1 cable cover	141	141	144
Diameter with 2 cable covers	145	/	146.5

Pump with 6" motor adapter

Pump with 8" motor adapter



	8 BHE without motor	86 BHE with motor 6"	8 BHE with motor 8"
Diameter with 1 cable cover	186.5	186.5	195
Diameter with 2 cable covers	192	192	197.5

Pump type	Motor			Pump without motor			Pump with oil filled motor				Pump with water filled motor				
	size	Power		H1 (mm)	DNM	Weight [Kgf]	A [mm]	H2 [mm]	H [mm]	Weight [Kgf]	A [mm]	H2 [mm]	H [mm]	Weight [Kgf]	
64 BHE 14 - 5	4"	2.2	3	356	Rp 2"1/2	10.5	97	466	820	25	95	440	794	27	
64 BHE 14 - 8		4	5.5	446	Rp 2"1/2	13	97	574	1018	33	95	583	1027	37	
6 BHE 14 - 8	6"	4	5.5	446	Rp 2"1/2	13	139	540	986	51	137	581	1027	51	
64 BHE 14 - 13	4"	5.5	7.5	596	Rp 2"1/2	16.5	97	644	1238	39	95	698	1291	46	
6 BHE 14 - 13	6"	5.5	7.5	596	Rp 2"1/2	16.5	139	570	1166	57	137	614	1210	58	
6 BHE 14 - 17	6"	7.5	10	716	Rp 2"1/2	19.5	139	600	1316	62	137	646	1362	65	
6 BHE 14 - 22		9.2	12.5	866	Rp 2"1/2	23	139	600	1466	68	137	679	1545	71	
6 BHE 14 - 26		11	15	986	Rp 2"1/2	26	139	700	1686	74	137	711	1697	77	
6 BHE 14 - 32		15	20	1166	Rp 2"1/2	30.5	139	760	1926	85	137	776	1942	87	
6 BHE 14 - 36		15	20	1286	Rp 2"1/2	33.5	139	760	2046	88	137	776	2062	90	
6 BHE 14 - 42		18.5	25	1466	Rp 2"1/2	38	139	830	2296	103	137	842	2308	101	
64 BHE 19 - 6		4"	4	5.5	431	Rp 2"1/2	12.0	97	574	1003	32	95	583	1012	36
6 BHE 19 - 6		6"	4	5.5	431	Rp 2"1/2	12.0	139	540	971	50	137	581	1012	50
64 BHE 19 - 9	4"	5.5	7.5	543.5	Rp 2"1/2	14.5	97	644	1185	37	95	698	1239	44	
6 BHE 19 - 9	6"	5.5	7.5	543.5	Rp 2"1/2	14.5	139	570	1114	55	137	614	1158	56	
6 BHE 19 - 12	6"	7.5	10	656	Rp 2"1/2	16.5	139	600	1256	59	137	646	1302	62	
6 BHE 19 - 15		9.2	12.5	768.5	Rp 2"1/2	19.0	139	600	1369	64	137	679	1447	67	
6 BHE 19 - 18		11	15	881	Rp 2"1/2	21.5	139	700	1581	70	137	711	1592	72	
6 BHE 19 - 21		15	20	993.5	Rp 2"1/2	24.0	139	760	1754	78	137	776	1770	81	
6 BHE 19 - 24		15	20	1106	Rp 2"1/2	26.5	139	760	1866	81	137	776	1882	83	
6 BHE 19 - 28		18.5	25	1256	Rp 2"1/2	30.0	139	830	2086	95	137	842	2098	93	
6 BHE 19 - 30		18.5	25	1331	Rp 2"1/2	31.5	139	830	2161	97	137	842	2173	95	
6 BHE 19 - 33		22	30	1443.5	Rp 2"1/2	34.0	139	890	2334	104	137	907	2350	103	
6 BHE 19 - 36		22	30	1556	Rp 2"1/2	36.5	139	890	2446	107	137	907	2463	106	
6 BHE 19 - 39		30	40	1668	Rp 2"1/2	39.0	139	1030	2698	129	137	1037	2705	123	
6 BHE 19 - 42		30	40	1853	Rp 2"1/2	42.0	139	1030	2883	132	137	1037	2890	126	
64 BHE 30 - 3		4"	3	4	365.5	Rp 3"	10.5	97	544	907	30	95	507	870	30
64 BHE 30 - 4	4"	4	5.5	412	Rp 3"	11.5	97	574	984	32	95	583	993	36	
6 BHE 30 - 4	6"	4	5.5	412	Rp 3"	11.5	139	540	952	50	137	581	993	49	
64 BHE 30 - 5	4"	5.5	7.5	458.5	Rp 3"	12.5	97	644	1100	35	95	698	1154	42	
6 BHE 30 - 5	6"	5.5	7.5	458.5	Rp 3"	12.5	139	570	1029	53	137	614	1073	54	
6 BHE 30 - 7	6"	7.5	10	551.5	Rp 3"	14.5	139	600	1152	57	137	646	1198	60	
6 BHE 30 - 11		11	15	737.5	Rp 3"	18.5	139	700	1438	67	137	711	1449	69	
6 BHE 30 - 15		15	20	923.5	Rp 3"	22.5	139	700	1624	77	137	776	1700	79	
6 BHE 30 - 19		18.5	25	1109.5	Rp 3"	26.0	139	830	1940	91	137	842	1951	89	
6 BHE 30 - 23		22	30	1295.5	Rp 3"	30.0	139	890	2186	100	137	907	2202	99	
6 BHE 30 - 27		30	40	1481.5	Rp 3"	34.0	139	1030	2512	124	137	1037	2518	118	
6 BHE 30 - 31		30	40	1667.5	Rp 3"	38.0	139	1030	2698	128	137	1037	2704	122	
6 BHE 30 - 33		37	50	1760	Rp 3"	40.0	-	-	-	-	137	1405	3165	175	
6 BHE 30 - 36		37	50	1899.5	Rp 3"	43.0	-	-	-	-	137	1405	3304	178	

Pump type	Motor			Pump without motor			Pump with oil filled motor				Pump with water filled motor			
	size	Power		H1 (mm)	DNM	Weight [Kg]	A [mm]	H2 [mm]	H [mm]	Weight [Kg]	A [mm]	H2 [mm]	H [mm]	Weight [Kg]
64 BHE 44 - 2	4"	3	4	365.5	Rp 3"	11.0	97	544	907	30	95	507	870	30
64 BHE 44 - 3	4"	5.5	7.5	458.5	Rp 3"	13.5	97	644	1100	36	95	698	1154	43
6 BHE 44 - 3	6"	5.5	7.5	458.5	Rp 3"	13.5	139	570	1029	54	137	614	1073	55
6 BHE 44 - 5	6"	7.5	10	644.5	Rp 3"	18.0	139	600	1245	60	137	646	1291	63
6 BHE 44 - 7	6"	11	15	830.5	Rp 3"	22.5	139	700	1531	71	137	711	1542	73
6 BHE 44 - 9		15	20	1016.5	Rp 3"	27.0	139	760	1777	81	137	776	1793	84
6 BHE 44 - 10		15	20	1109.5	Rp 3"	29.5	139	760	1870	84	137	776	1886	86
6 BHE 44 - 12		18.5	25	1295.5	Rp 3"	34.0	139	830	2126	99	137	842	2137	97
6 BHE 44 - 15		22	30	1574.5	Rp 3"	40.5	139	890	2465	111	137	907	2481	110
6 BHE 44 - 18		30	40	1853.5	Rp 3"	47.5	139	1030	2884	138	137	1037	2890	131
6 BHE 44 - 20		30	40	2039.5	Rp 3"	52.0	139	1030	3070	142	137	1037	3076	136
6 BHE 44 - 22		37	50	2225.5	Rp 3"	56.5	-	-	-	-	137	1405	3630	192
6 BHE 44 - 24		37	50	2411	Rp 3"	61.0	-	-	-	-	137	1405	3816	196
64 BHE 58 - 2		4"	3	4	365.5	Rp 3"	11.5	97	544	907	31	95	507	870
64 BHE 58 - 3	4"	5.5	7.5	458.5	Rp 3"	13.5	97	644	1100	36	95	698	1154	43
6 BHE 58 - 3	6"	5.5	7.5	458.5	Rp 3"	13.5	139	570	1029	54	137	614	1073	55
6 BHE 58 - 5	6"	7.5	10	644.5	Rp 3"	18.0	139	600	1245	60	137	646	1291	63
6 BHE 58 - 7		11	15	830.5	Rp 3"	23.0	139	700	1531	71	137	711	1542	74
6 BHE 58 - 9		15	20	1016.5	Rp 3"	27.5	139	760	1777	82	137	776	1793	84
6 BHE 58 - 10		15	20	1109.5	Rp 3"	30.0	139	760	1870	84	137	776	1886	87
6 BHE 58 - 12		18.5	25	1295.5	Rp 3"	34.5	139	830	2126	100	137	842	2137	98
6 BHE 58 - 14		22	30	1481.5	Rp 3"	39.0	139	890	2372	109	137	907	2388	108
6 BHE 58 - 16		30	40	1667.5	Rp 3"	44.0	139	1030	2698	134	137	1037	2704	128
6 BHE 58 - 18		30	40	1853.5	Rp 3"	48.5	139	1030	2884	139	137	1037	2890	132
6 BHE 58 - 20		37	50	2040	Rp 3"	52.0	-	-	-	-	137	1405	3445	187
6 BHE 58 - 23		37	50	2318	Rp 3"	60.0	-	-	-	-	137	1405	3723	195

DIMENSIONS (8BHE77 - 8BHE95)

50Hz

Rev. A

Pump type	Motor		Pump without motor			Pump with oil filled motor				Pump with water filled motor			
	size	Power kW HP	H1 (mm)	DN	Weight [Kgf]	A [mm]	H2 [mm]	H [mm]	Weight [Kgf]	A [mm]	H2 [mm]	H [mm]	Weight [Kgf]
86 BHE 77 - 2	6"	7.5 10	644	Rp 5"	31.5	139	600	1244	74	137	646	1290	-
86 BHE 77 - 3		11 15	770	Rp 5"	36.5	139	700	1470	85	137	711	1481	-
86 BHE 77 - 4		15 20	896	Rp 5"	41.5	139	760	1656	96	137	776	1672	98
86 BHE 77 - 5		18.5 25	1022	Rp 5"	46.5	139	830	1852	112	137	842	1864	110
86 BHE 77 - 6		22 30	1148	Rp 5"	51.0	139	890	2038	121	137	907	2055	120
86 BHE 77 - 7		30 40	1274	Rp 5"	56.0	139	1030	2304	146	137	1037	2311	140
86 BHE 77 - 8		30 40	1400	Rp 5"	61.0	139	1030	2430	151	137	1037	2437	145
86 BHE 77 - 9		30 40	1526	Rp 5"	66.0	139	1030	2556	156	137	1037	2563	150
86 BHE 77 - 10		37 50	1652	Rp 5"	71.0	-	-	-	-	137	1405	3057	206
86 BHE 77 - 11		37 50	1778	Rp 5"	76.0	-	-	-	-	137	1405	3183	211
8 BHE 77 - 12		8"	45 60	1909	Rp 5"	82.0	-	-	-	-	191	1077	2986
8 BHE 77 - 13	55 75		2035	Rp 5"	87.0	-	-	-	-	191	1204	3239	262
8 BHE 77 - 14	55 75		2161	Rp 5"	92.0	-	-	-	-	191	1204	3365	267
8 BHE 77 - 15	55 75		2287	Rp 5"	97.0	-	-	-	-	191	1204	3491	272
8 BHE 77 - 16	75 100		2413	Rp 5"	101.5	-	-	-	-	191	1395	3808	315
8 BHE 77 - 17	75 100		2539	Rp 5"	106.5	-	-	-	-	191	1395	3934	320
8 BHE 77 - 18	75 100		2665	Rp 5"	111.5	-	-	-	-	191	1395	4060	325
8 BHE 77 - 19	75 100		2791	Rp 5"	116.5	-	-	-	-	191	1395	4186	330
8 BHE 77 - 20	75 100		2917	Rp 5"	121.0	-	-	-	-	191	1395	4312	334
8 BHE 77 - 21	75 100		3043	Rp 5"	126.0	-	-	-	-	191	1395	4438	339
8 BHE 77 - 22	93 125		3169	Rp 5"	131.0	-	-	-	-	191	1747	4916	422
8 BHE 77 - 23	93 125		3295	Rp 5"	136.0	-	-	-	-	191	1747	5042	427
8 BHE 77 - 24	93 125		3421	Rp 5"	141.0	-	-	-	-	191	1747	5168	432
86 BHE 95 - 2	6"	9.2 12.5	644	Rp 5"	31.5	139	600	1244	77	137	678.7	1323	79
86 BHE 95 - 3		15 20	770	Rp 5"	36.5	139	760	1530	91	137	776	1546	93
86 BHE 95 - 4		18.5 25	896	Rp 5"	41.5	139	830	1726	107	137	842	1738	105
86 BHE 95 - 5		22 30	1022	Rp 5"	46.0	139	890	1912	116	137	907	1929	115
86 BHE 95 - 6		30 40	1148	Rp 5"	51.0	139	1030	2178	141	137	1037	2185	135
86 BHE 95 - 7		30 40	1274	Rp 5"	56.0	139	1030	2304	146	137	1037	2311	140
86 BHE 95 - 8		37 50	1400	Rp 5"	61.0	-	-	-	-	137	1405	2805	196
86 BHE 95 - 9		37 50	1526	Rp 5"	66.0	-	-	-	-	137	1405	2931	201
8 BHE 95 - 10		8"	45 60	1657	Rp 5"	72.0	-	-	-	-	191	1077	2734
8 BHE 95 - 11	55 75		1783	Rp 5"	77.0	-	-	-	-	191	1204	2987	252
8 BHE 95 - 12	55 75		1909	Rp 5"	82.0	-	-	-	-	191	1204	3113	257
8 BHE 95 - 13	55 75		2035	Rp 5"	87.0	-	-	-	-	191	1204	3239	262
8 BHE 95 - 14	75 100		2161	Rp 5"	92.0	-	-	-	-	191	1395	3556	305
8 BHE 95 - 15	75 100		2287	Rp 5"	97.0	-	-	-	-	191	1395	3682	310
8 BHE 95 - 16	75 100		2413	Rp 5"	102.0	-	-	-	-	191	1395	3808	315
8 BHE 95 - 17	75 100		2539	Rp 5"	106.5	-	-	-	-	191	1395	3934	320
8 BHE 95 - 18	93 125		2665	Rp 5"	111.5	-	-	-	-	191	1747	4412	403
8 BHE 95 - 19	93 125		2791	Rp 5"	116.5	-	-	-	-	191	1747	4538	408
8 BHE 95 - 20	93 125		2917	Rp 5"	121.0	-	-	-	-	191	1747	4664	412
8 BHE 95 - 21	93 125		3043	Rp 5"	126.0	-	-	-	-	191	1747	4790	417
8 BHE 95 - 22	110 150		3169	Rp 5"	131.0	-	-	-	-	191	1975	5144	465
8 BHE 95 - 23	110 150		3295	Rp 5"	136.0	-	-	-	-	191	1975	5270	470

OIL FILLED MOTOR

	Output power		Three phase 380V				Three phase 400V			
	[kW]	[HP]	Input	IN	IA	Power	Input	IN	IA	Power
			[kW]	[A]	[A]	Factor	[kW]	[A]	[A]	Factor
4"	2.2	3	3	6	24	0.76	3.26	6.2	24	0.76
	3	4	4.06	7.9	34	0.78	4.32	8	34	0.78
	4	5.5	5.13	10	47	0.78	5.51	10.2	47	0.78
	5.5	7.5	7.28	14	58	0.79	7.88	14.4	58	0.79
6"	4	5.5	4.81	8.7	45	0.84	5.19	8.8	45	0.82
	5.5	7.5	6.97	12.6	64	0.84	7.37	12.5	64	0.82
	7.5	10	9.62	17.2	78	0.85	9.96	16.9	78	0.82
	11	15	13.32	24.1	121	0.84	14.14	23.7	121	0.83
	15	20	17.77	31.4	160	0.86	18.57	30.4	160	0.85
	18.5	25	23.49	41.5	225	0.86	23.40	38.3	225	0.85
	22	30	26.32	46.5	50	0.86	27.20	44	50	0.86
	30	40	34.83	63	330	0.84	38.33	62	330	0.86

WATER FILLED MOTOR

	Power		Three phase 380V				Three phase 415V			
	[kW]	[HP]	Input	IN	IA	Power	Input	IN	IA	Power
			[kW]	[A]	[A]	Factor	[kW]	[A]	[A]	Factor
4"	2.2	3	2.91	5.4	28.3	0.82	3	5.8	30.9	0.72
	3	4	3.99	7.4	39.9	0.82	4.09	7.9	43.6	0.72
	4	5.5	5.24	9.7	54.1	0.82	5.38	10.4	59.1	0.72
	5.5	7.5	7.05	12.6	73.3	0.85	7.08	12.8	80.1	0.77
6"	4	5.5	5.31	9.5	42	0.85	5.21	9.3	46	0.78
	5.5	7.5	7.16	12.8	60	0.85	7.18	12.8	66	0.78
	7.5	10	9.33	16.3	83	0.87	9.43	16.2	91	0.81
	11	15	13.74	24	126	0.87	14.03	24.1	136	0.81
	15	20	18.11	32	164	0.86	18.49	31	179	0.83
	18.5	25	22.9	40	220	0.87	23	38.5	240	0.83
	22	30	27.22	47	255	0.88	27.17	45	278	0.84
	30	40	35.86	64.1	373	0.85	37.55	64.5	407	0.81
8"	37	50	45.87	80.1	387	0.87	45.92	77.9	423	0.82
	45	60	52.13	89	612	0.89	52.46	89	669	0.82
	55	75	65.02	111	819	0.89	65.21	108	895	0.84
	75	100	86.7	148	1099	0.89	87.55	145	1200	0.84
	93	125	109.81	194	1265	0.86	109.83	191	1382	0.8
	110	150	129.41	226	1517	0.87	129.84	223	1657	0.81

OIL FILLED MOTORS CABLE SELECTION

EXAMPLE : 4" MOTOR 4 kW 380-400 V CABLE LENGTH 77 m - 4x2,5 mm²

Three phase (380-400 V) Direct starting

POWER			Cable type and maximum length(*)											
Size	kW	HP	4x1	4x1.5	4x2	4x2.5	4x4	4x6	4x10	4x16	4x25	4x35		
4"	2.2	3	51	78	103	130	207	310	516	-	-	-		
	3	4	41	62	83	104	167	250	416	-	-	-		
	4	5.5	31	46	62	77	124	186	310	496	-	-		
	5.5	7.5	-	33	45	56	90	135	225	360	-	-		
6"	4	5.5	-	-	-	110	160	250	400	-	-	-		
	5.5	7.5	-	-	-	68	108	161	265	415	-	-		
	7.5	10	-	-	-	53	84	126	207	325	-	-		
	9.2	12.5	-	-	-	44	70	104	171	267	413	-		
	11	15	-	-	-	-	59	87	144	223	347	548		
	15	20	-	-	-	-	-	65	107	167	258	350		
	18.5	25	-	-	-	-	-	-	87	136	210	295		
22	30	-	-	-	-	-	-	75	117	181	246			
30	40	-	-	-	-	-	-	-	110	180	235			

(*) Maximum cable length with a voltage drop of 3% at 30°C ambient temperature.

If the operating voltage U_i in the installation is different from the nominal voltage U_n , it is possible to calculate the permissible maximum length L_{max} with the following formula:

$$L_{max} = L_{tab} (U_i / U_n)^2$$



WATER FILLED MOTORS CABLE SELECTION

Three phase (380-415V) Direct starting

POWER			Cable type and maximum length(*)																			
Size	KW	HP	4x1	4x1.5	4x2	4x2.5	4x4	4x6	4x10	4x16	4x25	4x35	4x50	4x70	4x95	4x120	4x150	4x185	4x240	4x300	4x400	
4"	2.2	3	61	91	122	152	243	365	609	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	4	45	67	89	112	179	268	446	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	5.5	34	51	68	85	135	203	338	541	-	-	-	-	-	-	-	-	-	-	-	-
	5.5	7.5	-	40	53	66	106	159	266	425	-	-	-	-	-	-	-	-	-	-	-	-
6"	4	5.5	40	60	-	171	161	242	404	646	-	-	-	-	-	-	-	-	-	-	-	-
	5.5	7.5	-	45	-	127	120	180	300	481	-	-	-	-	-	-	-	-	-	-	-	-
	7.5	10	-	-	-	60	96	138	228	354	-	-	-	-	-	-	-	-	-	-	-	-
	9.2	12.5	-	-	-	48	70	120	192	306	468	-	-	-	-	-	-	-	-	-	-	-
	11	15	-	-	-	-	66	102	162	258	396	525	-	-	-	-	-	-	-	-	-	-
	15	20	-	-	-	-	-	72	126	192	294	402	546	-	-	-	-	-	-	-	-	-
	18.5	25	-	-	-	-	-	60	102	156	240	330	438	576	-	-	-	-	-	-	-	-
	22	30	-	-	-	-	-	-	84	132	204	276	372	489	-	-	-	-	-	-	-	-
8"	30	40	-	-	-	-	-	-	-	102	156	210	288	380	490	580	-	-	-	-	-	-
	37	50	-	-	-	-	-	-	-	-	123	169	230	310	390	460	550	890	-	-	-	
	45	60	-	-	-	-	-	-	-	-	105	142	200	255	330	387	453	516	800	-	-	
	55	75	-	-	-	-	-	-	-	-	-	117	164	229	270	324	380	435	510	573	-	
8"	75	100	-	-	-	-	-	-	-	-	-	-	-	160	205	240	290	324	381	429	600	
	93	125	-	-	-	-	-	-	-	-	-	-	-	-	160	190	225	255	300	330	380	
	110	150	-	-	-	-	-	-	-	-	-	-	-	-	-	160	180	183	240	270	400	

(*) Maximum cable length with a voltage drop of 3% at 30°C ambient temperature.

If the operating voltage U_i in the installation is different from the nominal voltage U_n , it is possible to calculate the permissible maximum length L_{max} with the following formula:

$$L_{max} = L_{tab} (U_i / U_n)^2$$

