

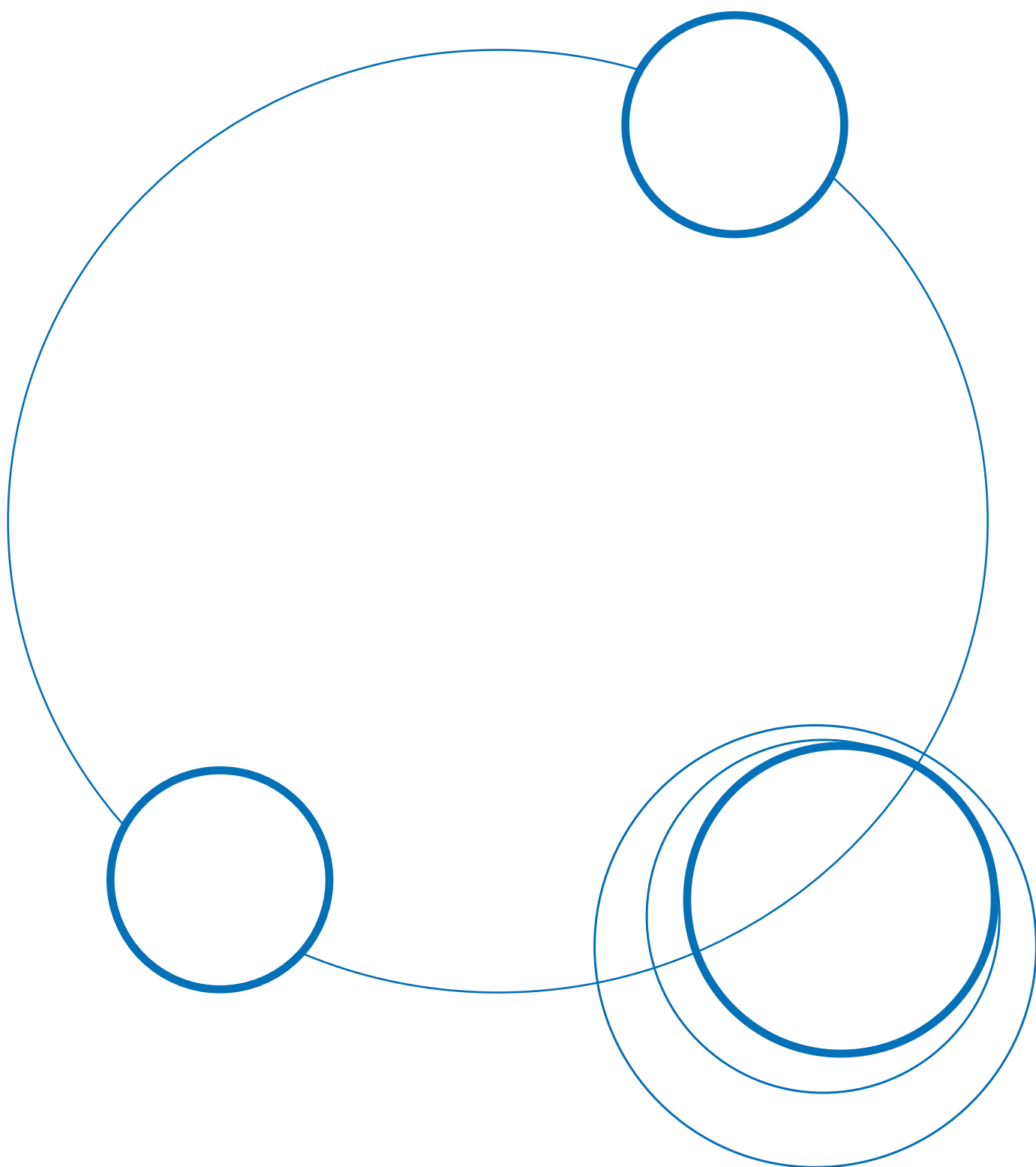
ENR



End Suction Centrifugal Pump

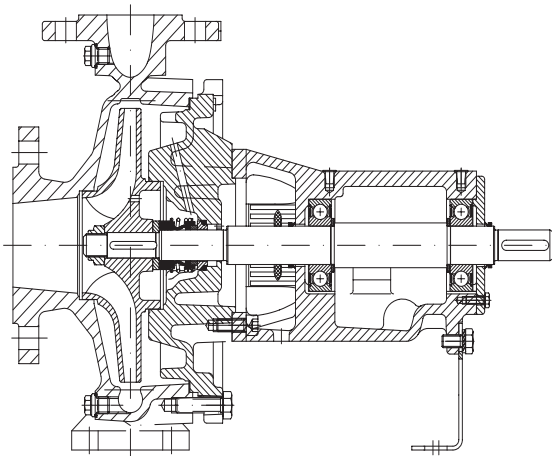
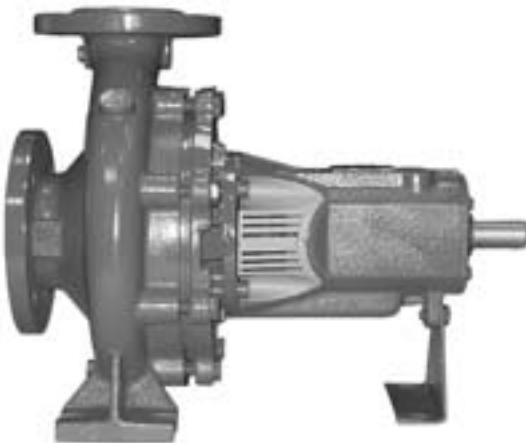


Temporary





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DESCRIPTION

Single-stage end suction centrifugal pump. Volute pump casing with cast pump feet. Bearing support with foot. Axial suction and radial discharge upwards. Totally enclosed radial impeller. Hydraulic balance by means of wearing ring and balancing holes. Lifetime lubricated ball bearings. Mechanical shaft seal according to DIN 24960 (Gland packing optional).

APPLICATIONS

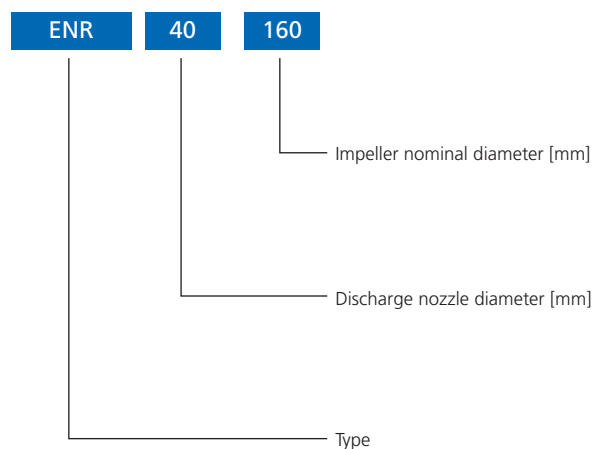
- Water supply duties for municipalities and industries.
- Irrigation.
- Drainage clean water.
- Heating and air conditioning.
- Hot and chilled water.
- Fresh and sea water.
- Fire protection.

TECHNICAL PECULIARITIES

The ENR pump is designed for pumping clean water according with EN 733 (DIN 24255), plus 19 additional sizes. The design of the pump allows the complete drive unit to be withdrawn from the casing without disturbing the attached pipe work. If a spacer type coupling is used, it is also unnecessary to disconnect the motor.

The range covers 50 sizes with only 5 different bearing brackets.

IDENTIFICATIONAL CODE



SPECIFICATIONS

PUMP AND MOTOR

Range	Maximum speed	3600 rpm	
	Maximum capacity	2.000 m ³ /h	
	Maximum pressure	150 m	
Fluids	Characteristics	Clean fluids	
	Maximum temperature	-20°C ~ +120°C	+120°C ~ +170°C
	Maximum working pressure	16 / 10 ⁽¹⁾ / 14 ⁽²⁾ bar	14 / 9 ⁽¹⁾ / 8 ⁽²⁾ bar
Materials	Casing	Cast iron GG-25	
	Impeller	Cast iron GG-25	Bronze G-CuSn10
	Shaft	AISI 420 Stainless Steel 1.4021	
	Shaft sleeve	AISI 420 Stainless Steel 1.4021	
	Mechanical seal	Silicon Carbide / Carcon - EPDM ⁽³⁾	
	Bearings	Lifetime lubricated ball bearings	
Drive	Motor	Electric, Engine, Steam turbine	

⁽¹⁾ From size 80-400 up to 300-500, except 150-500

⁽²⁾ Size 150-500

⁽³⁾ Check operating limits depending on pumped fluid

OPTIONS

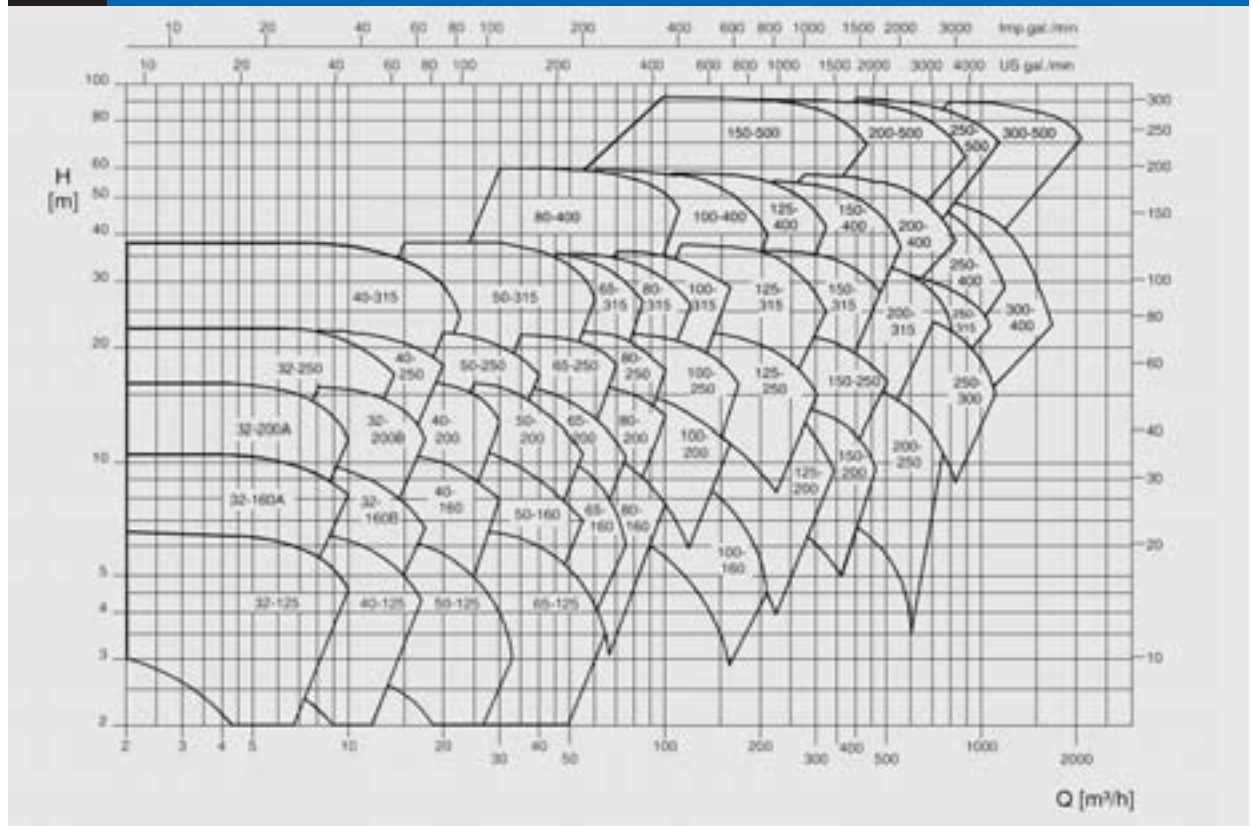
Packing
Oil lubrication
ANSI 150 flanges
Interchangeable wear rings
Special seal executions:

- External refrigeration
- Heating
- Flushing

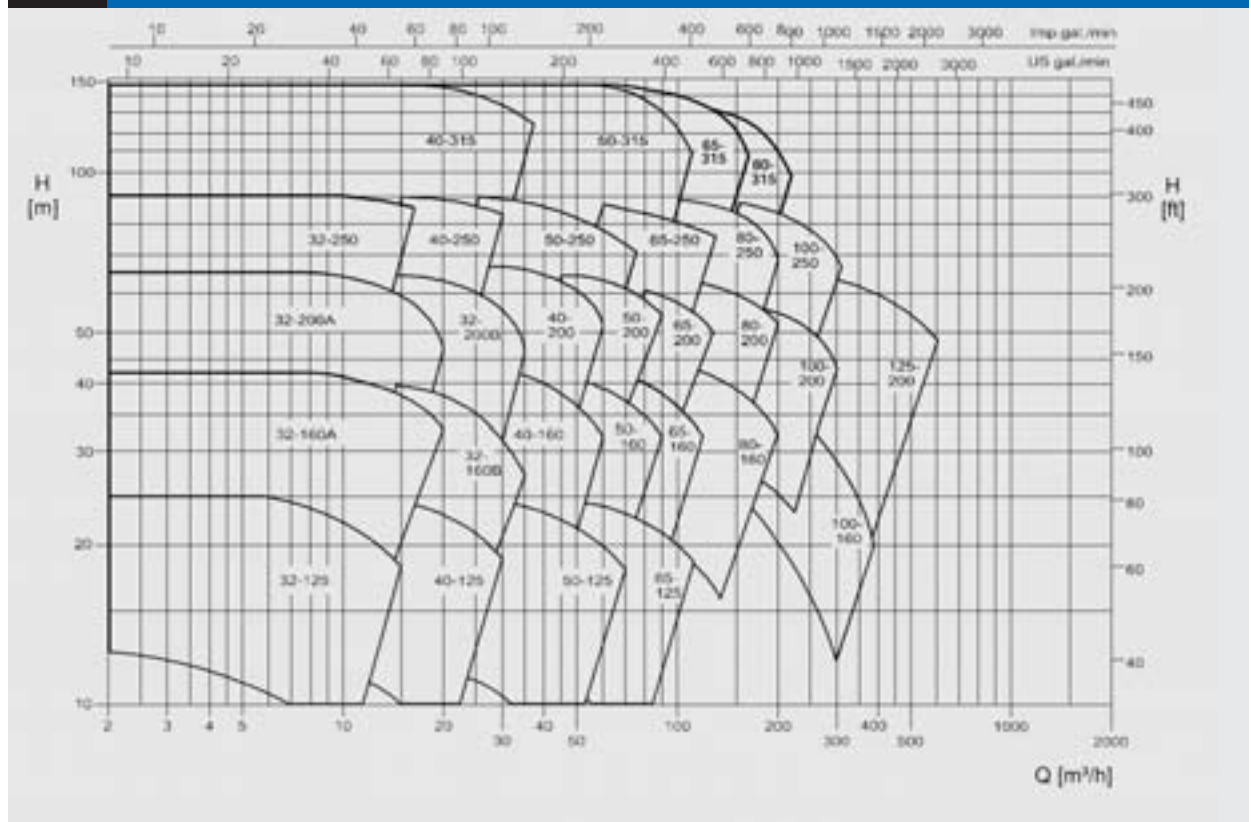
Special materials:

- Bronze
- Stainless steel

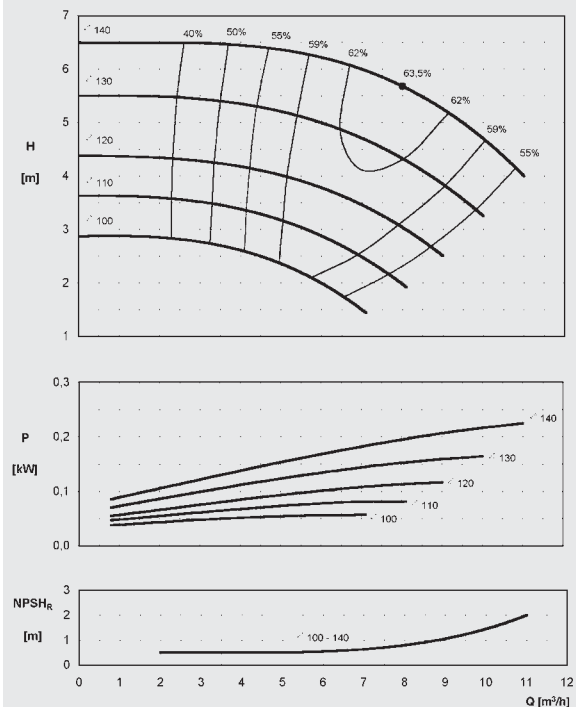
SELECTION CHART at 1.450 r.p.m.



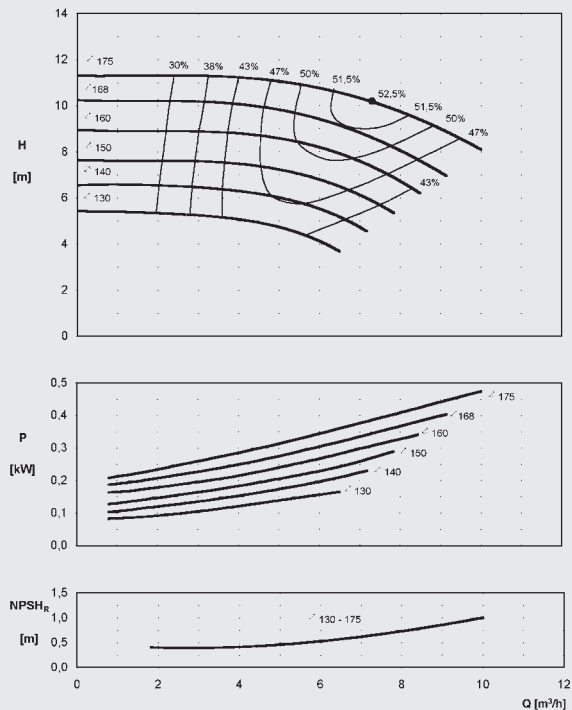
SELECTION CHART at 2.900 r.p.m.



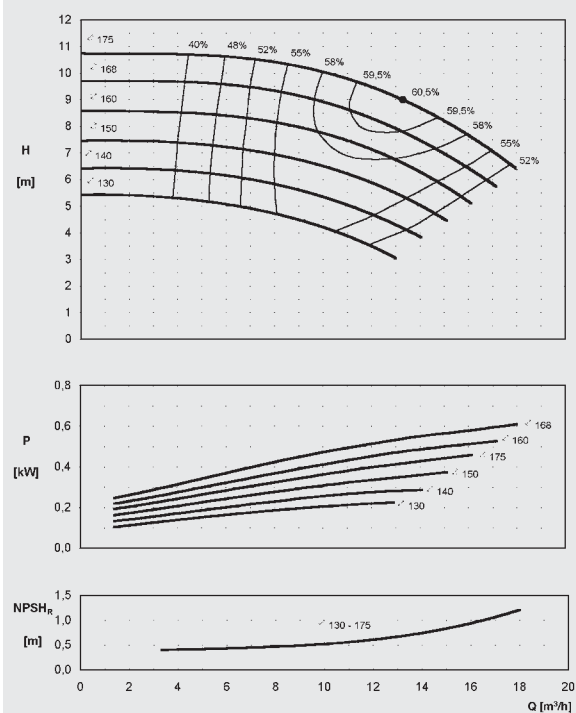
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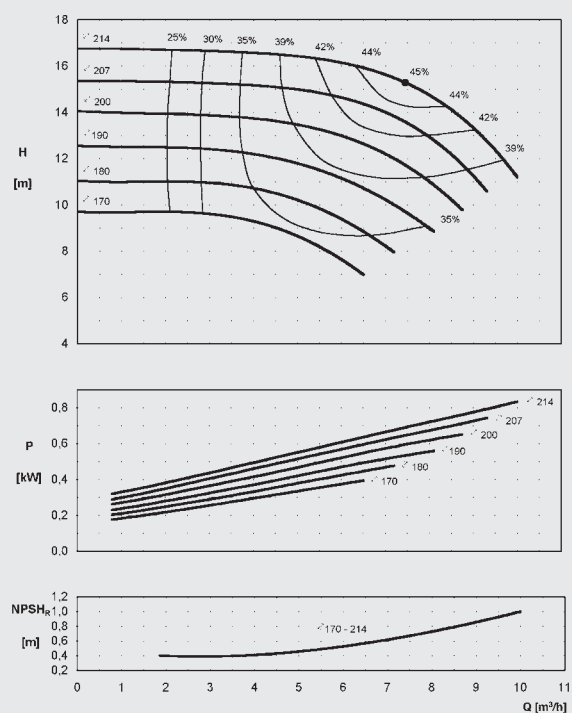
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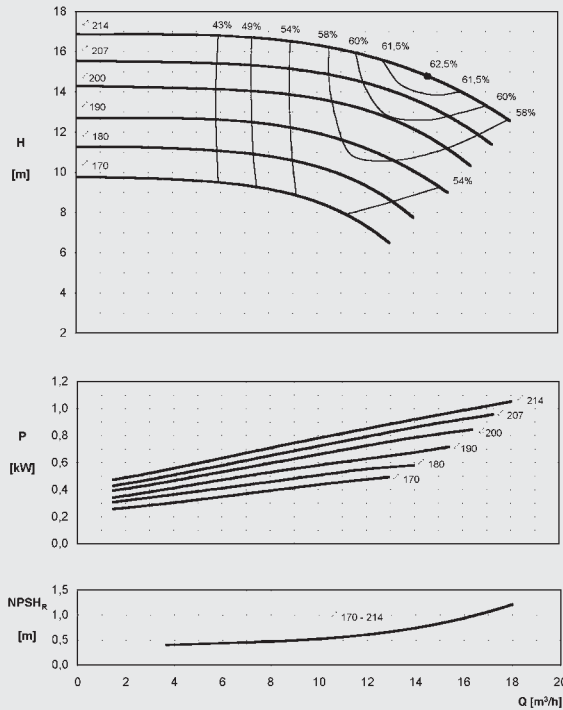
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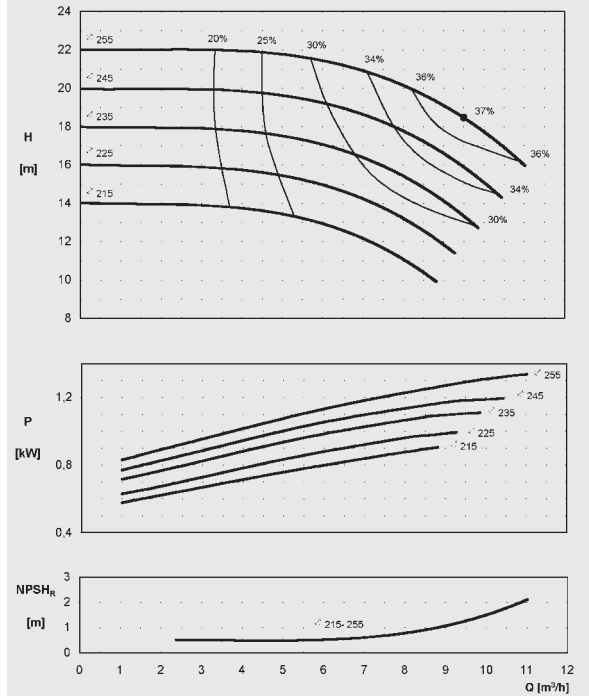
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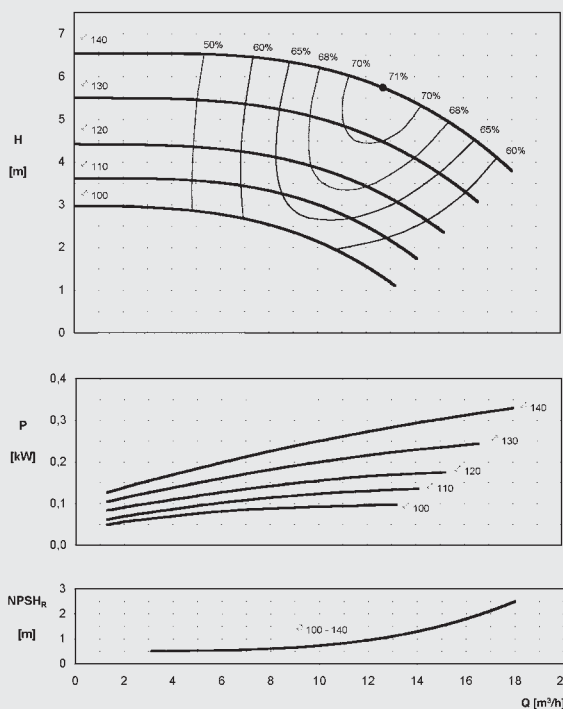
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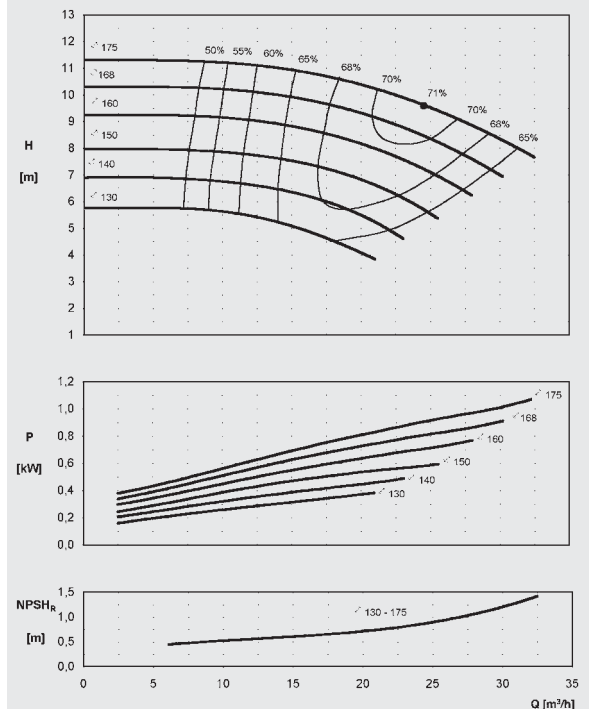
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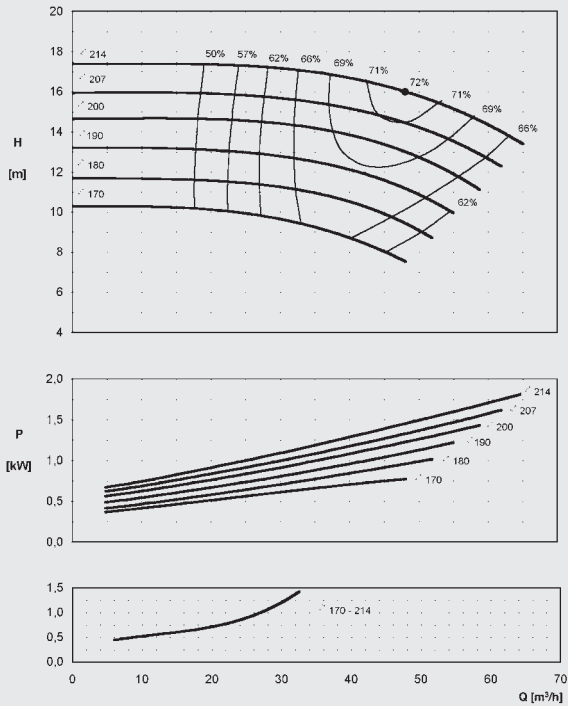
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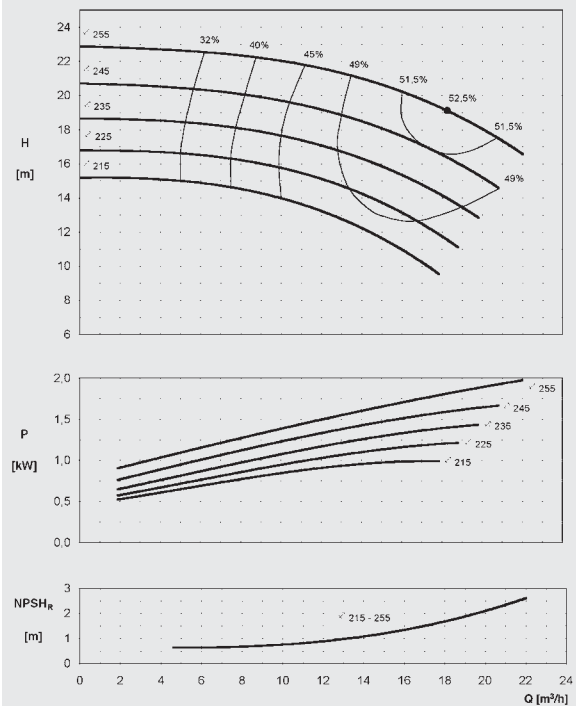
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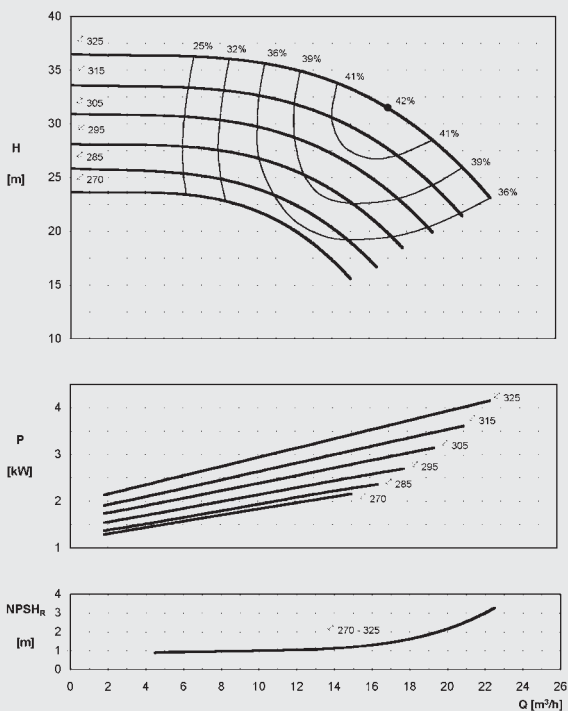
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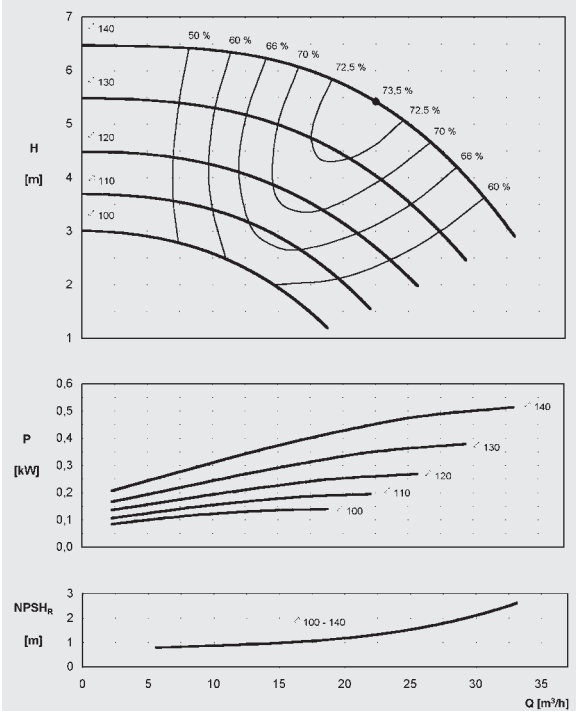
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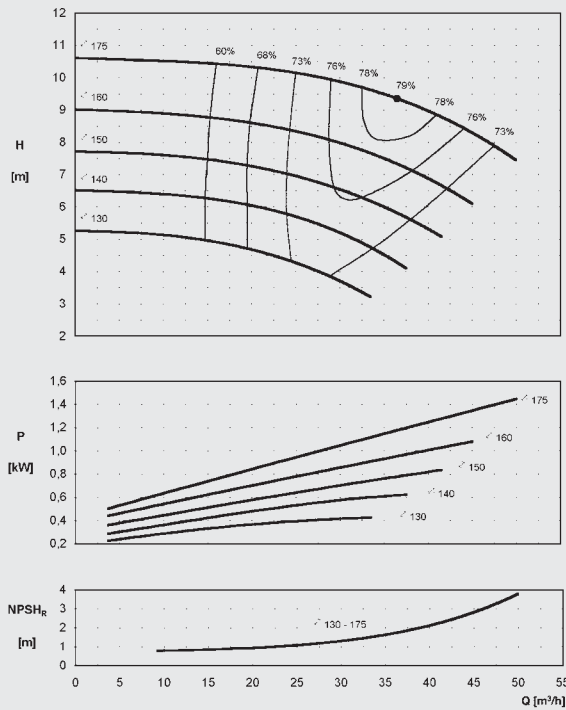
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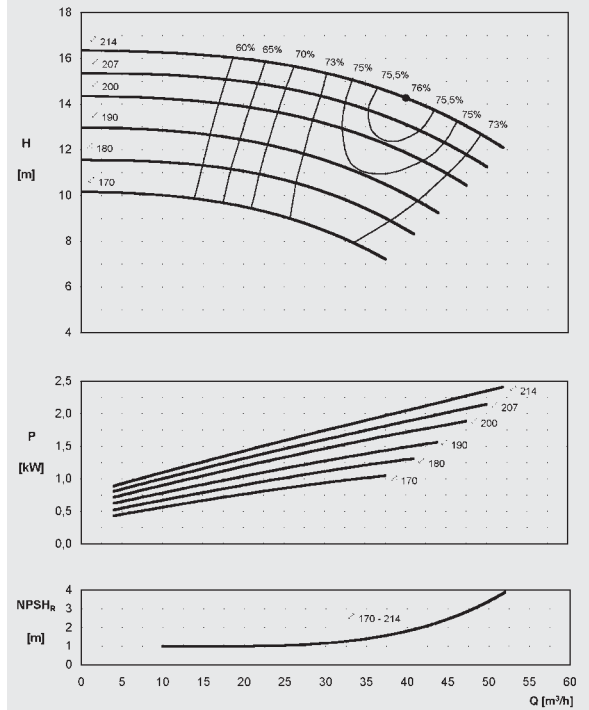
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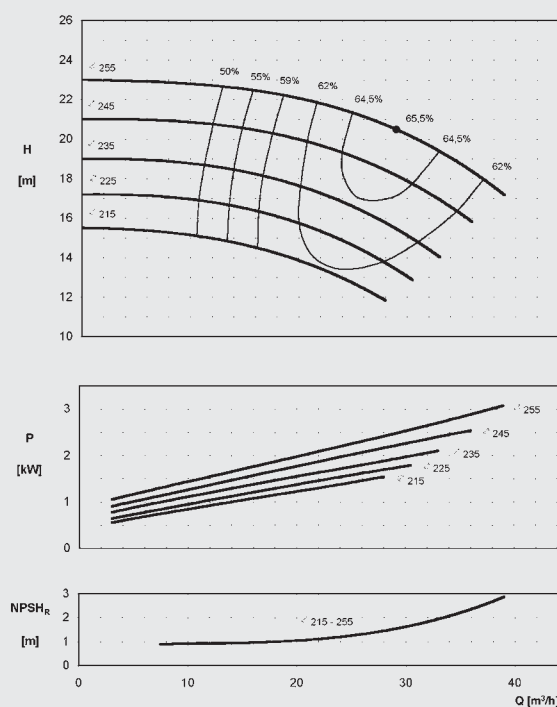
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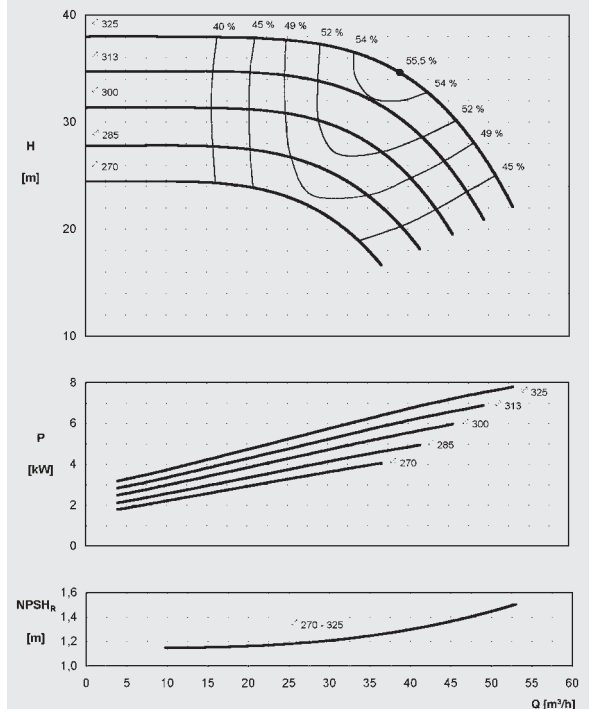
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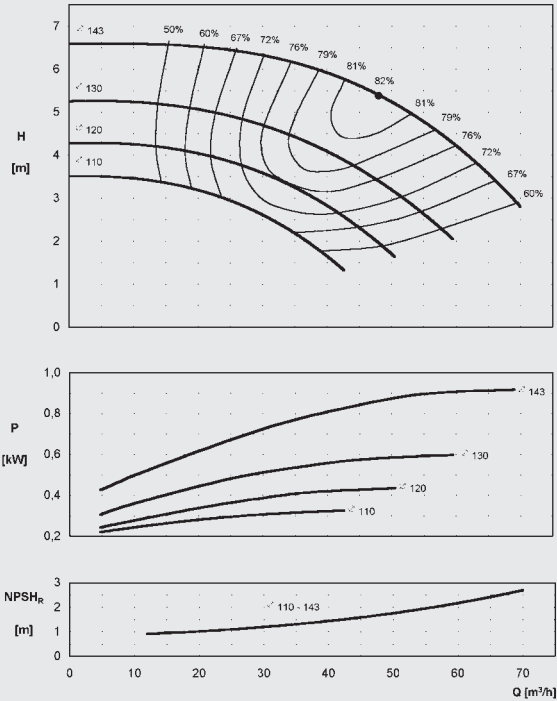
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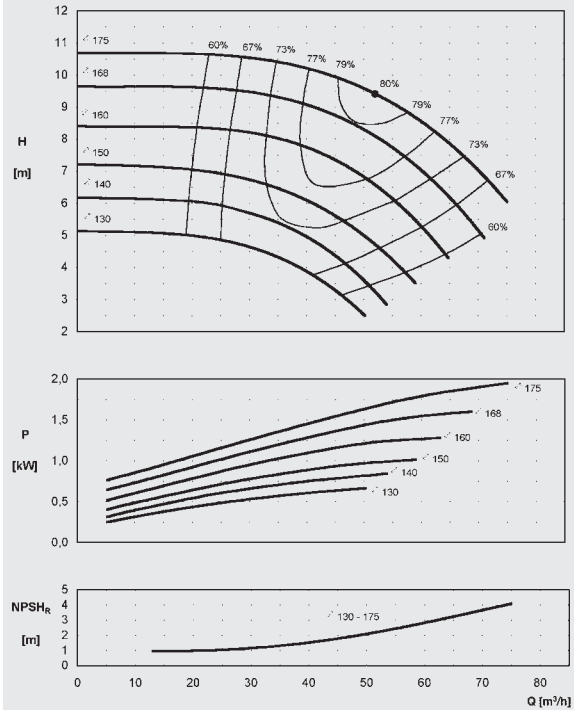
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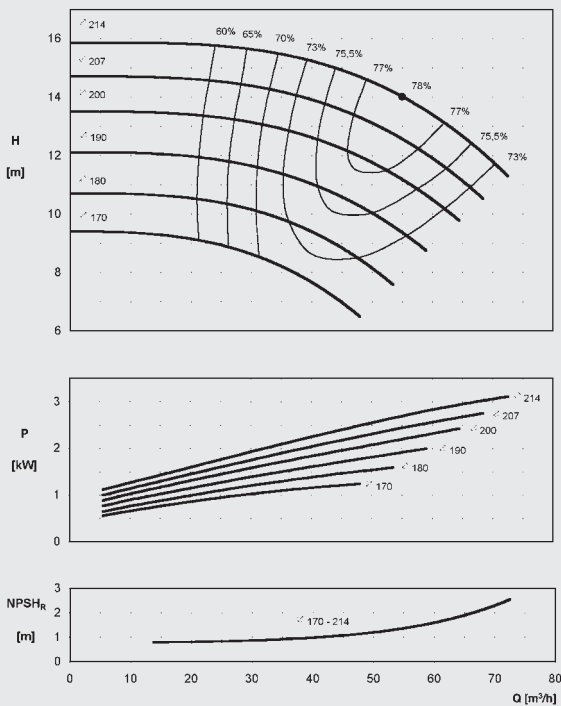
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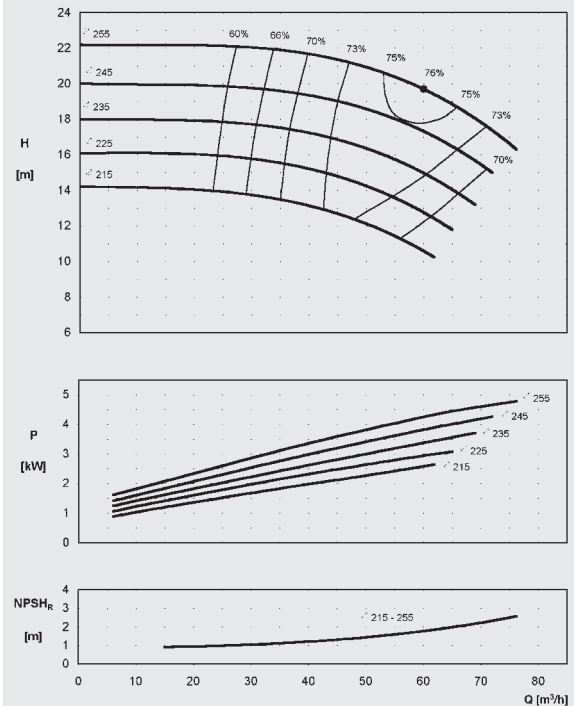
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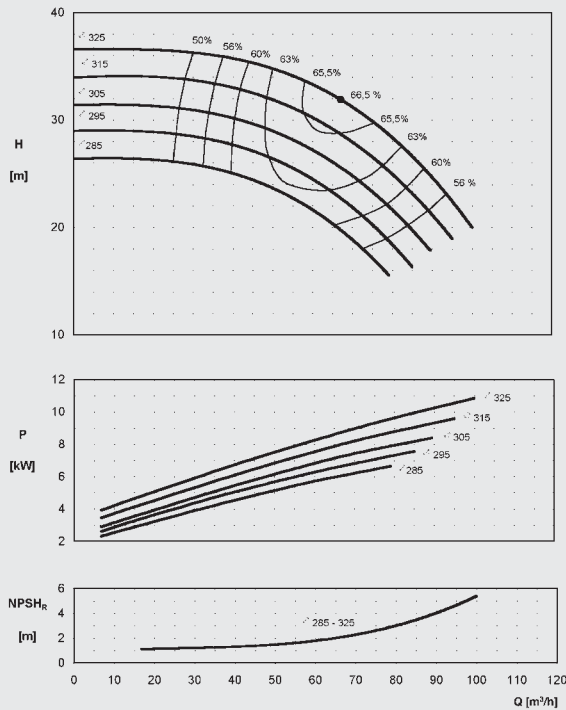
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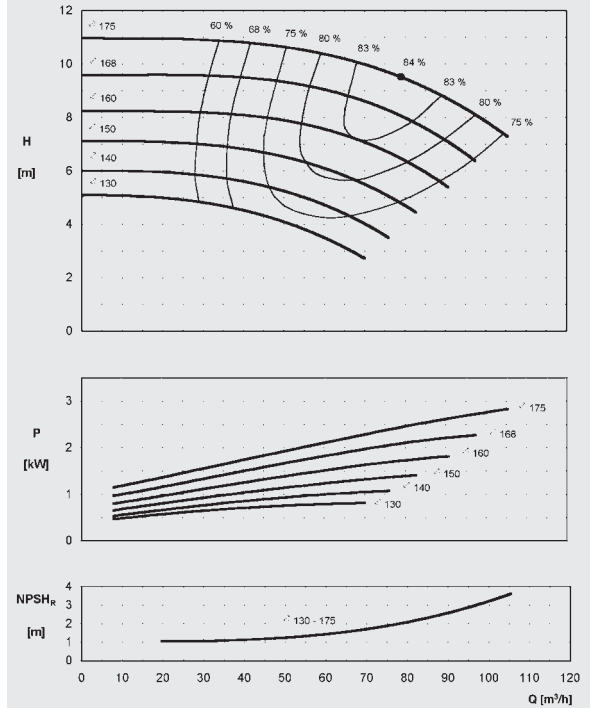
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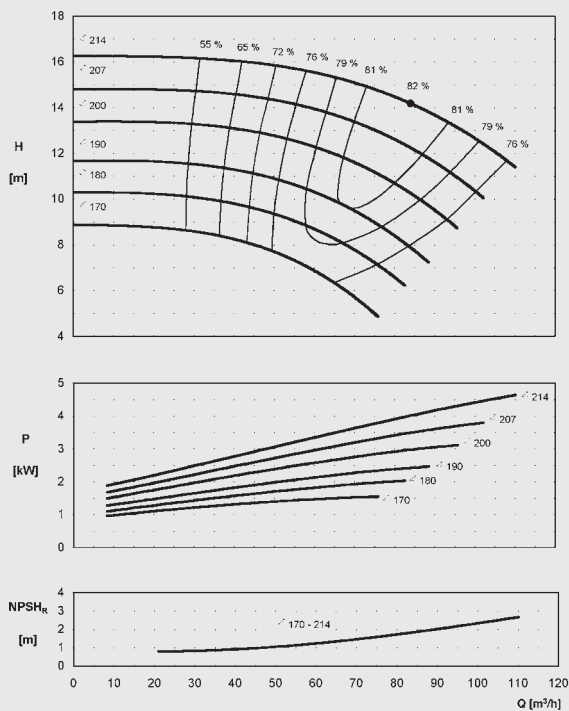
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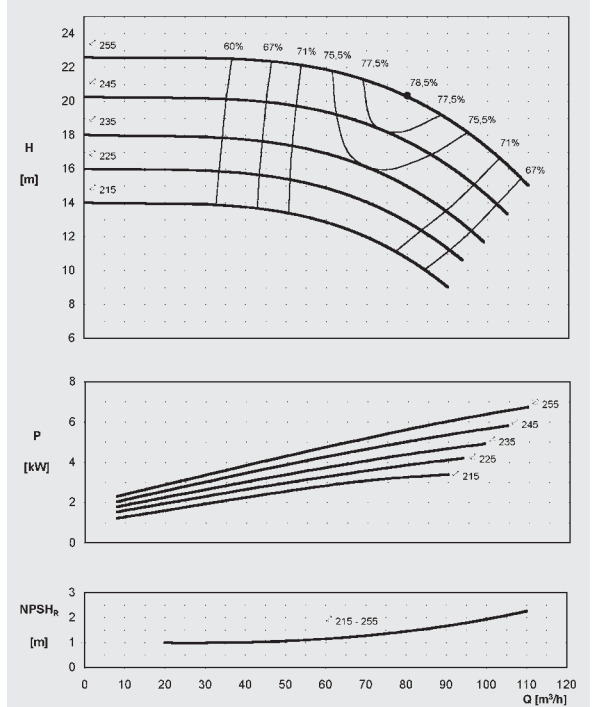
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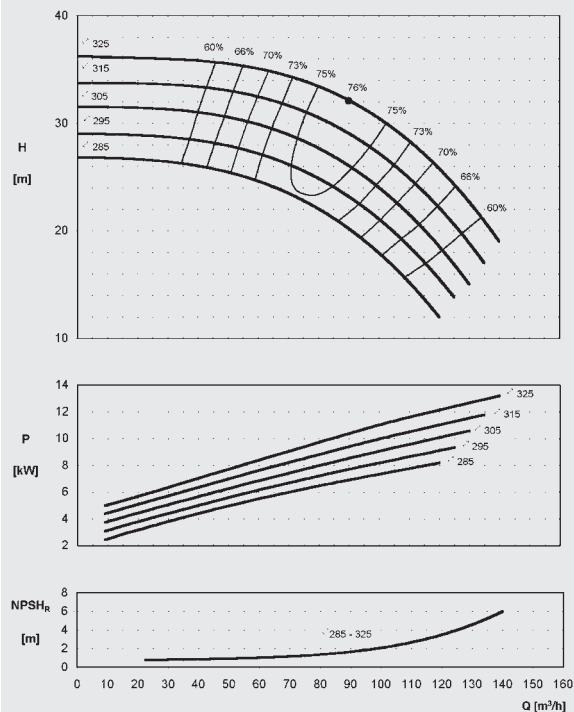
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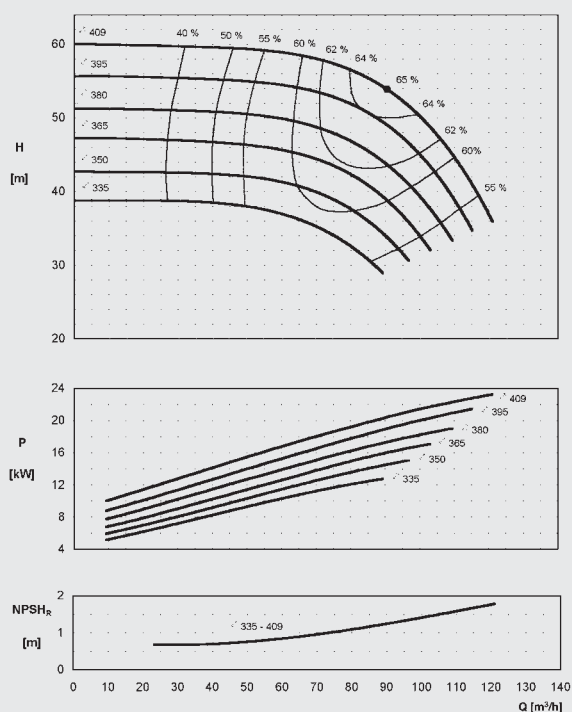
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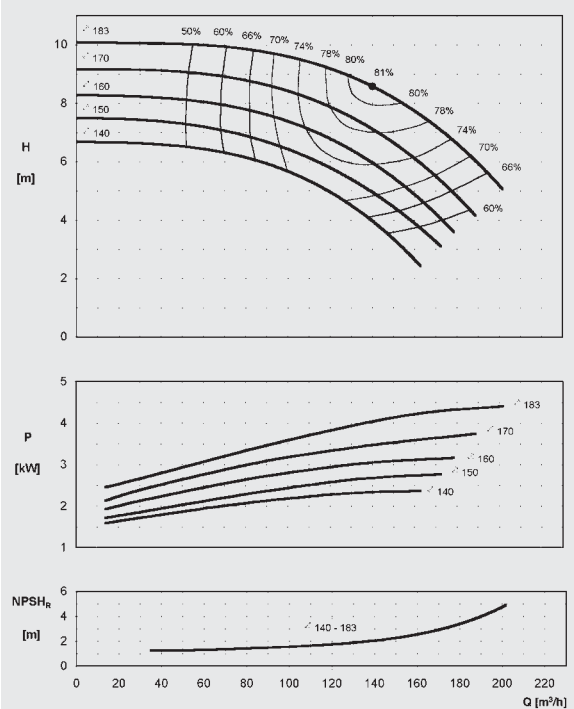
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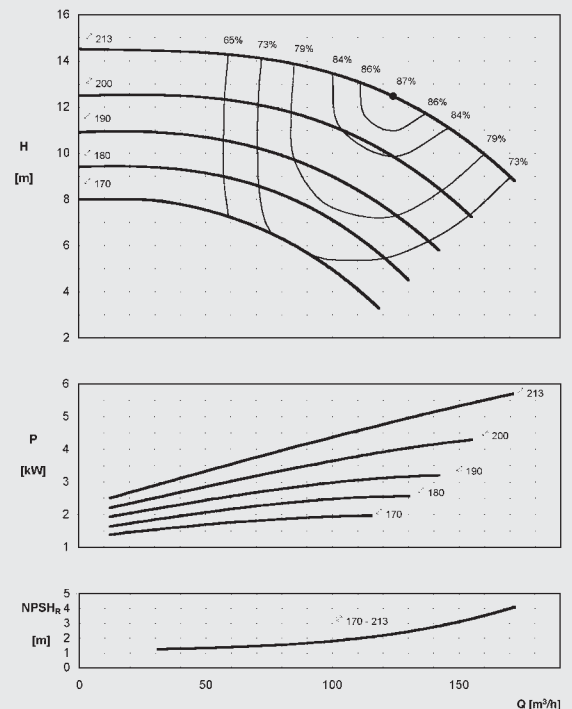
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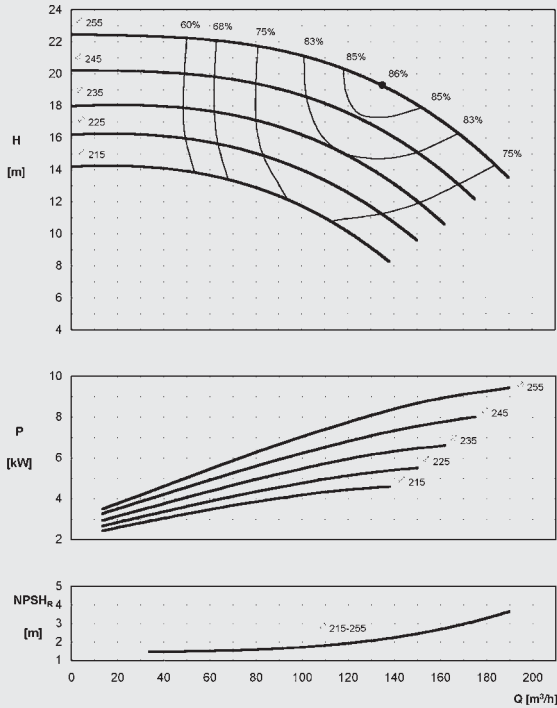
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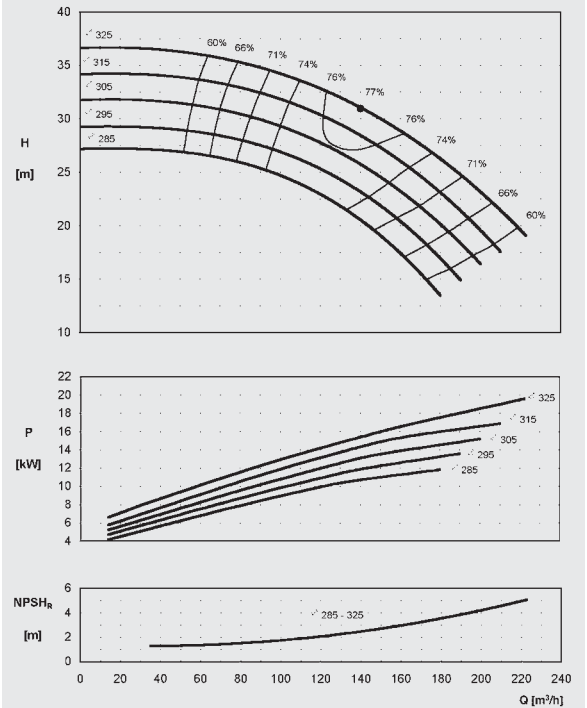
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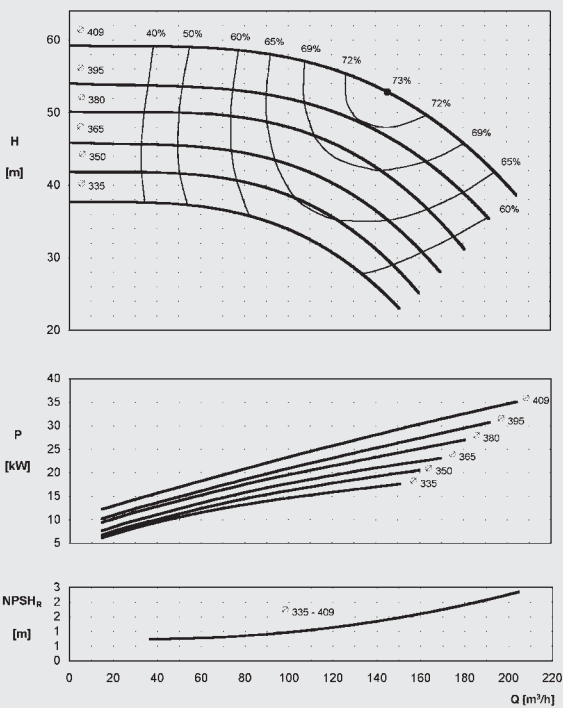
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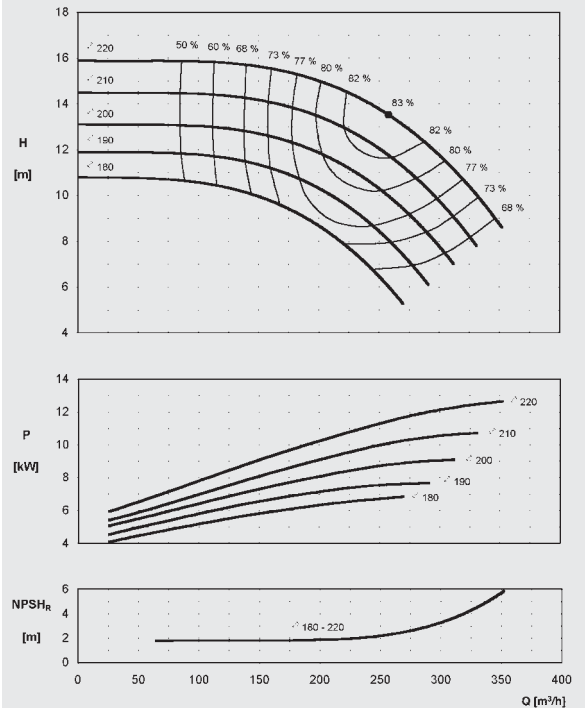
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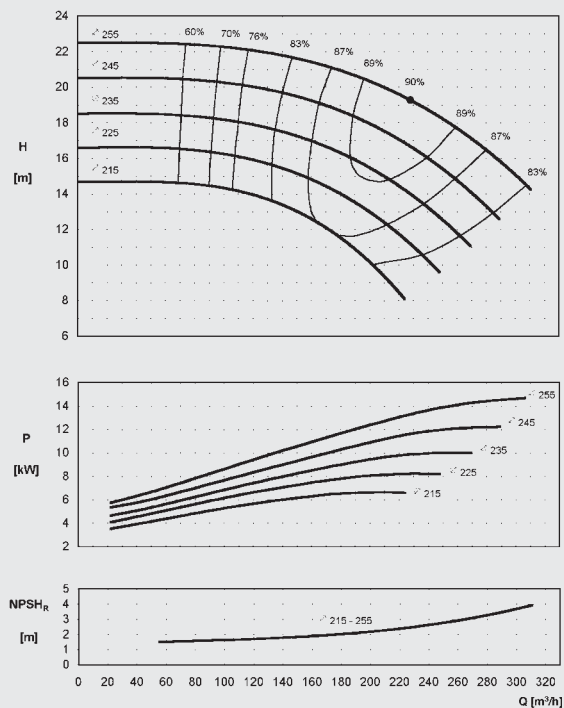
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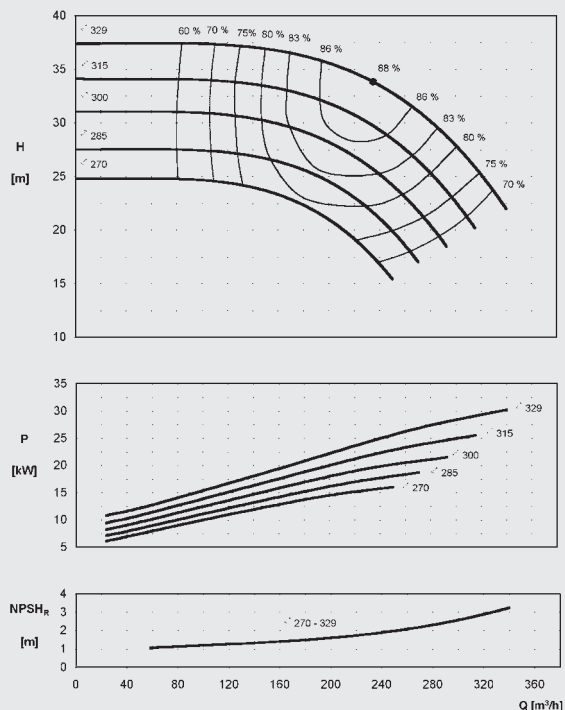
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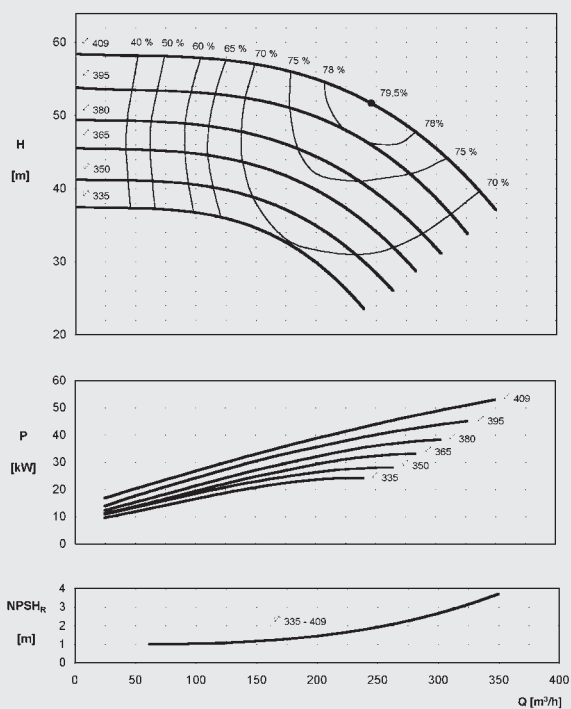
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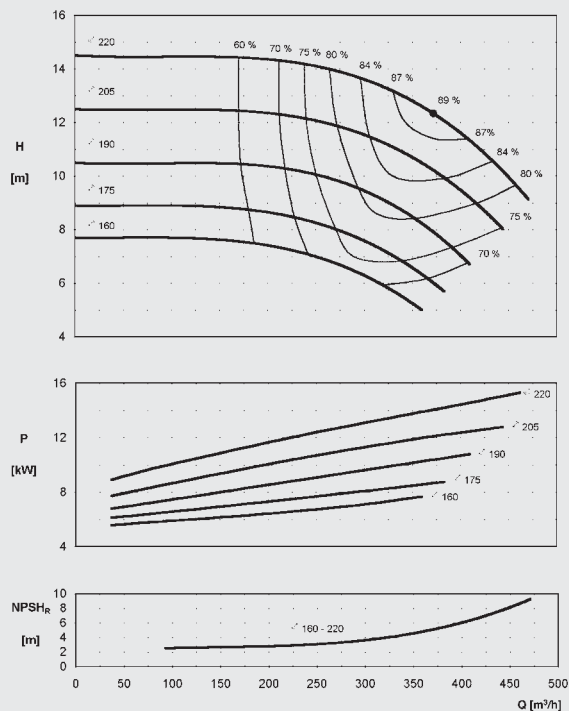
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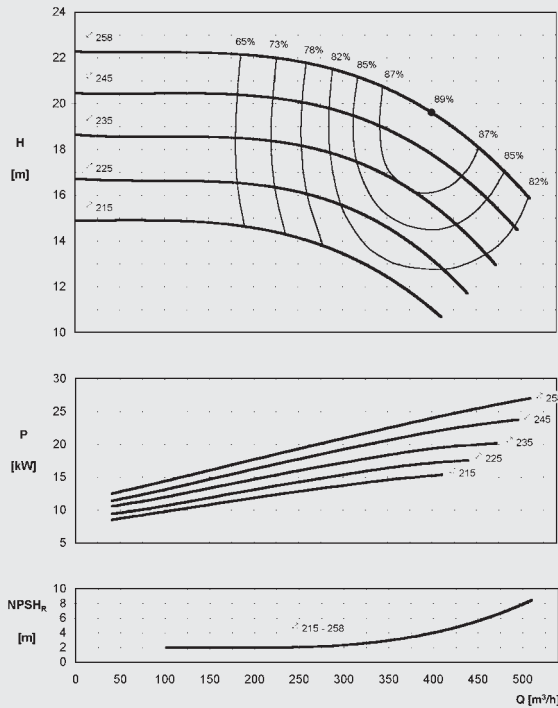
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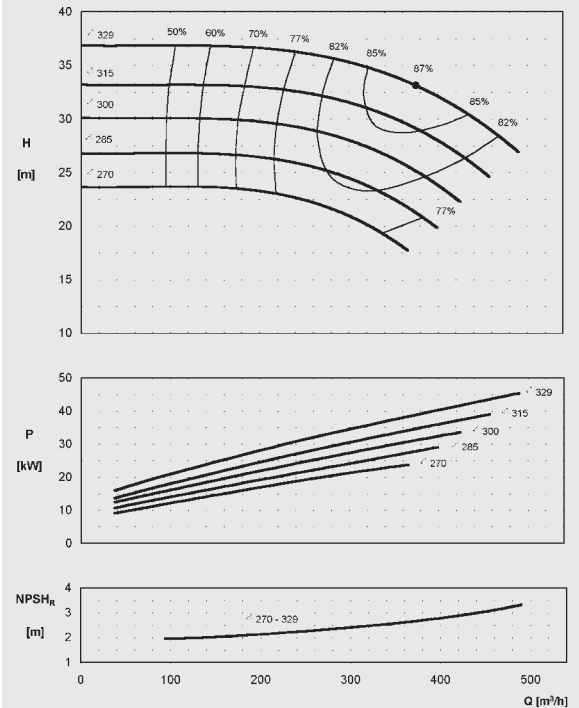
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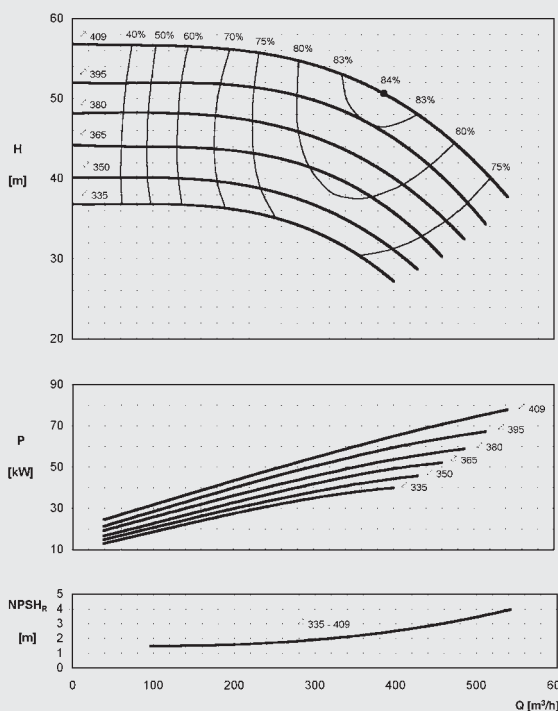
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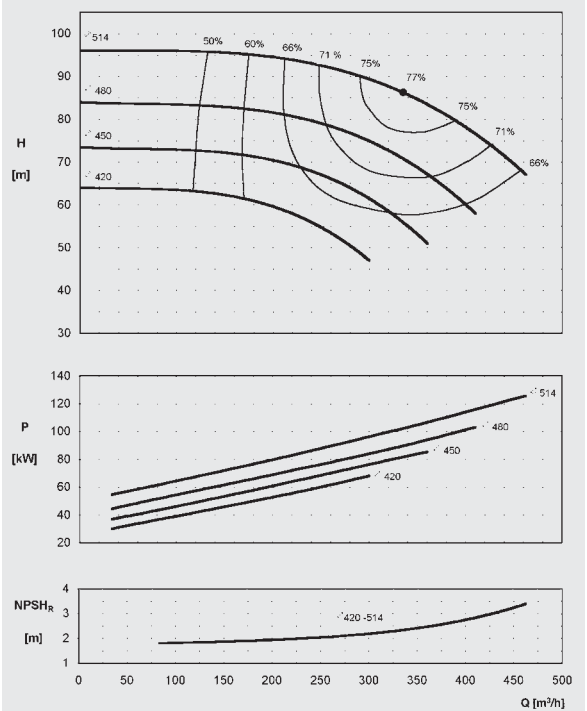
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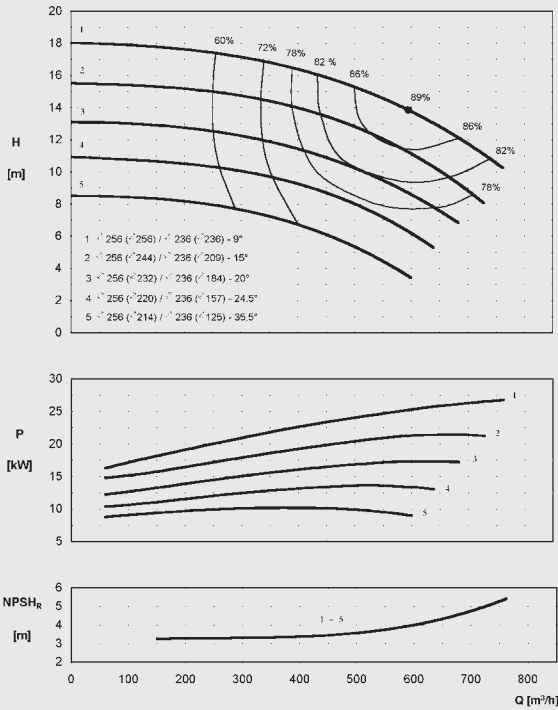
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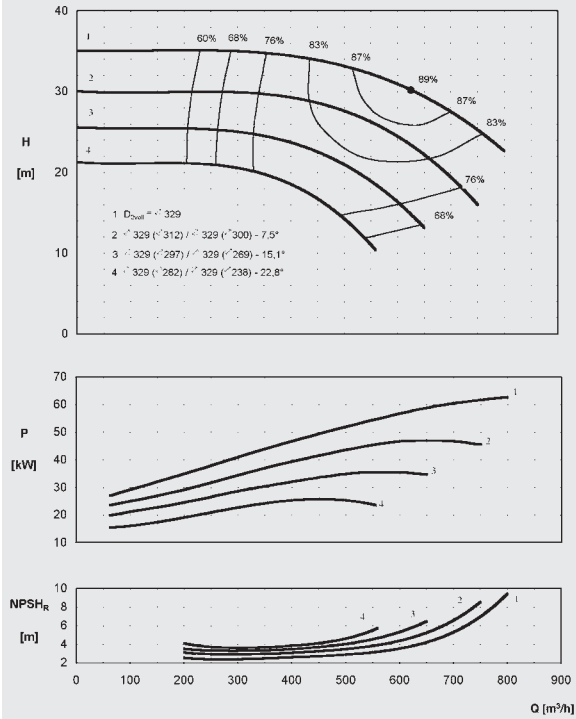
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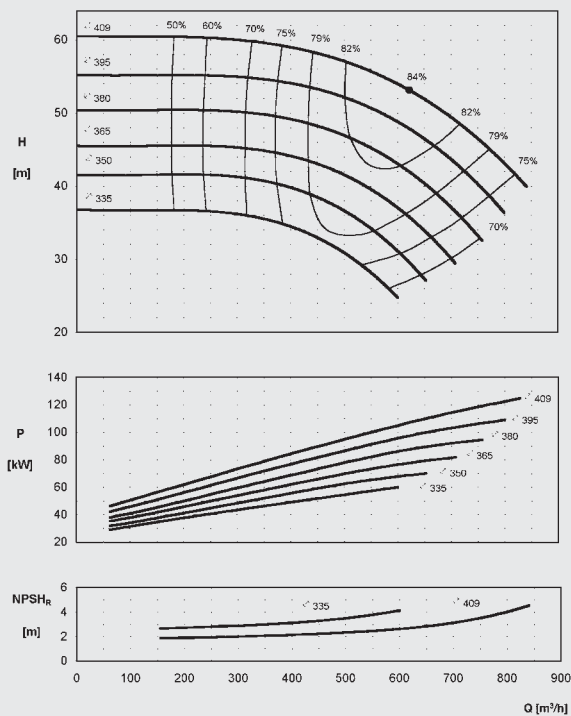
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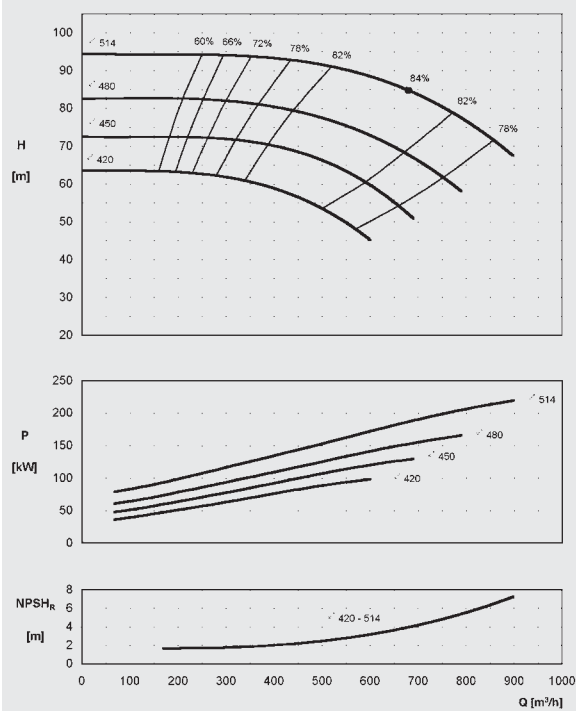
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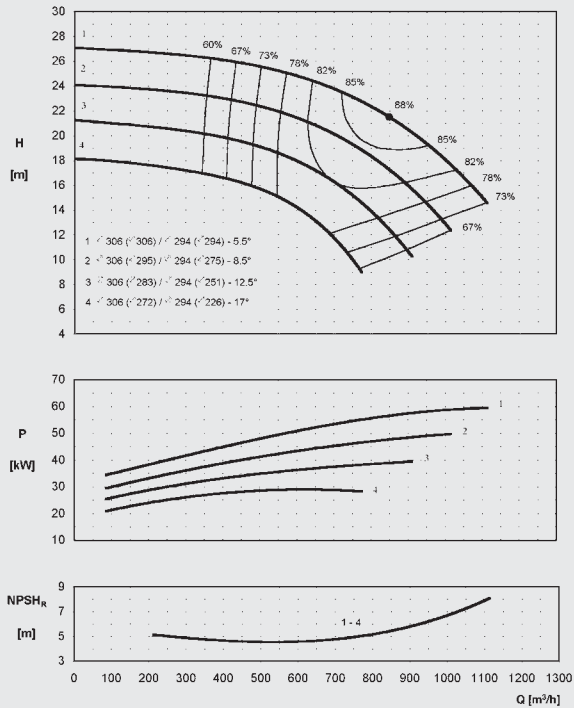
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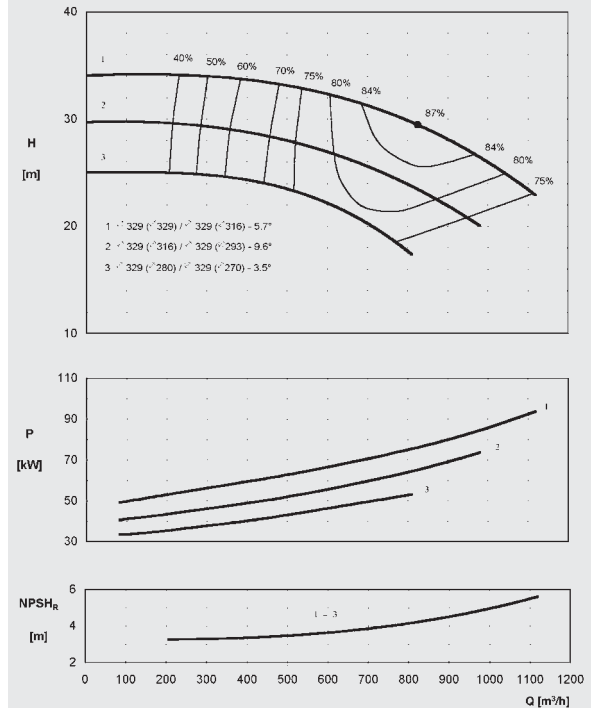
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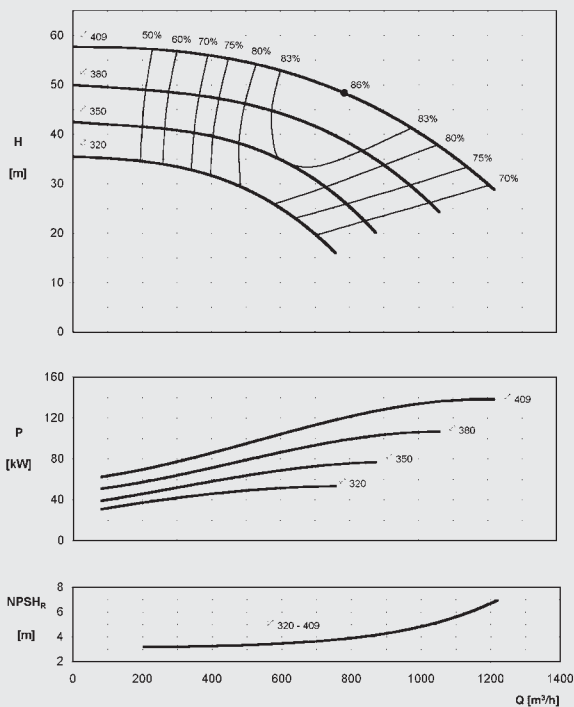
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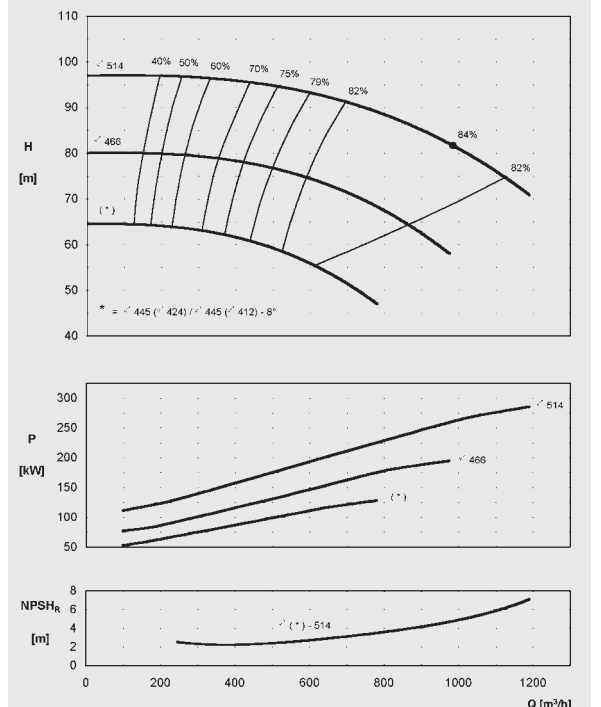
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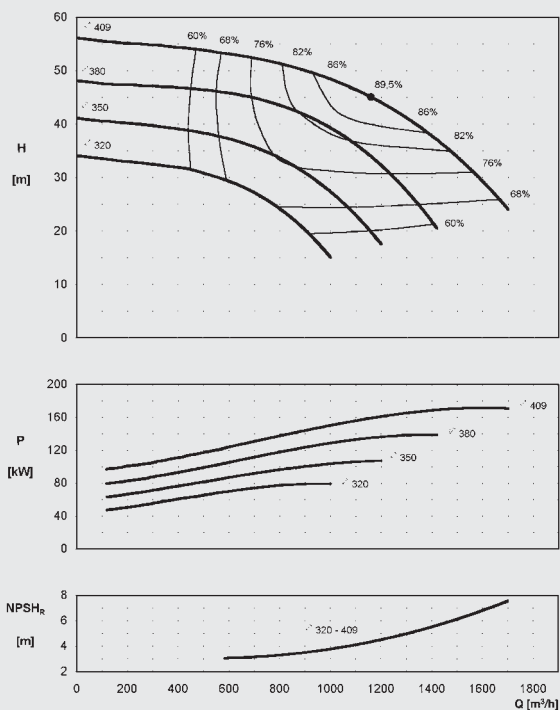
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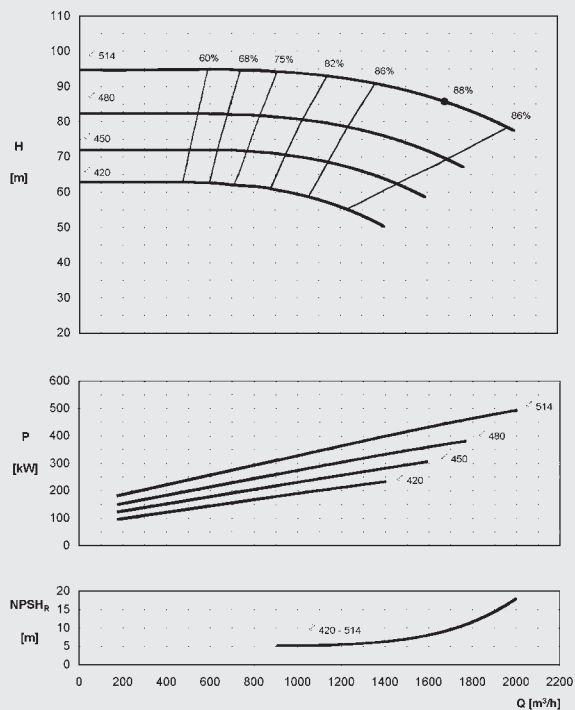
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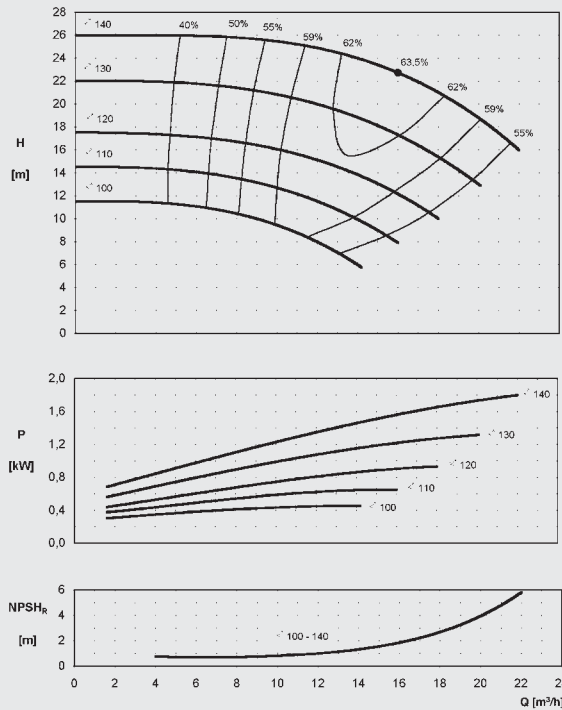
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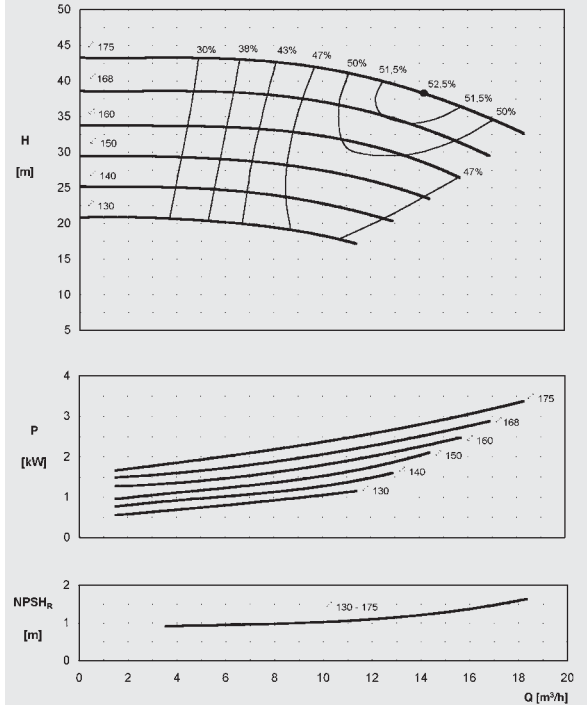
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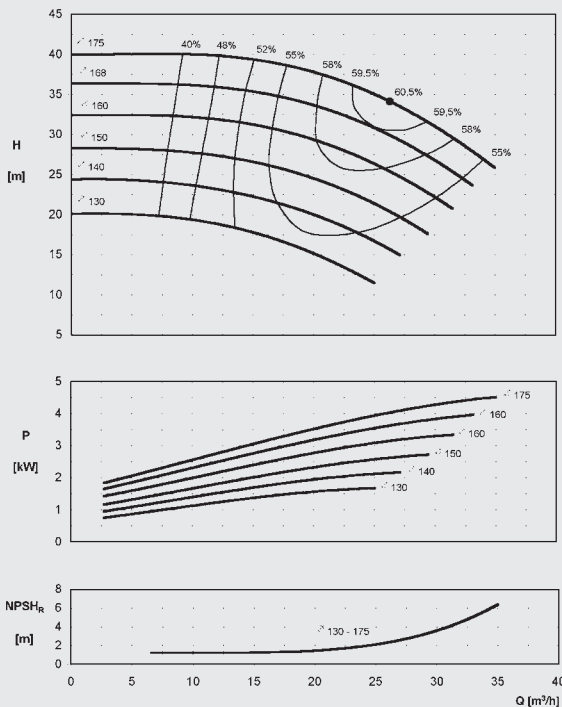
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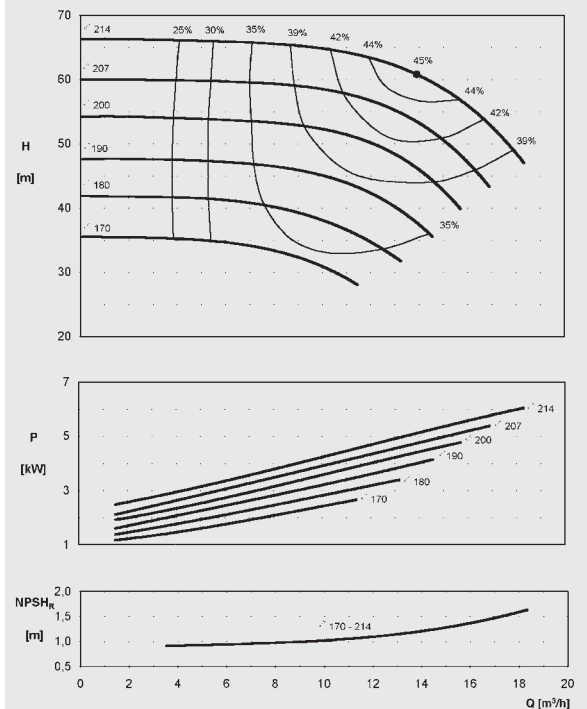
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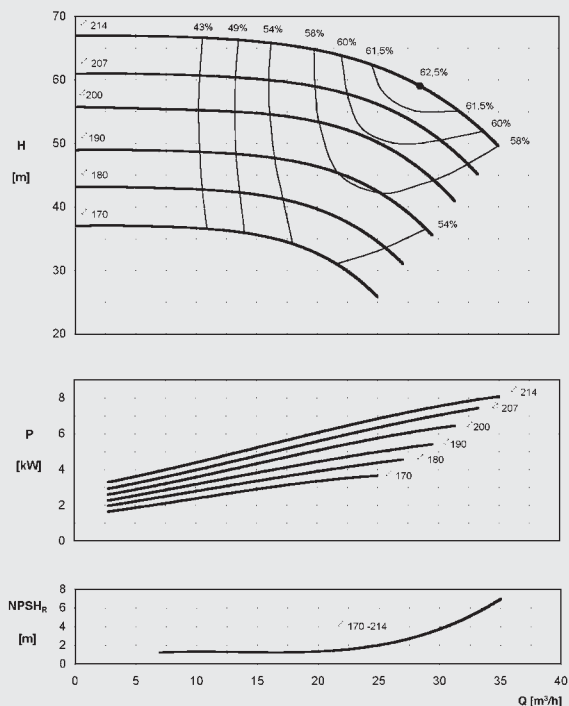
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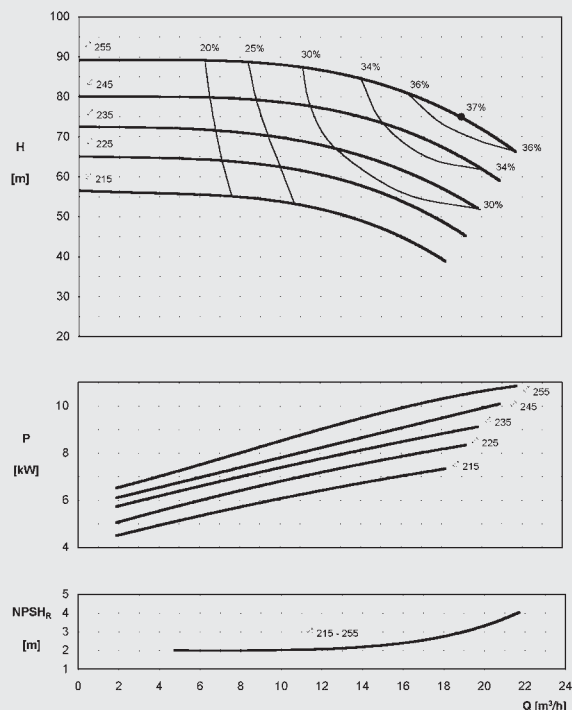
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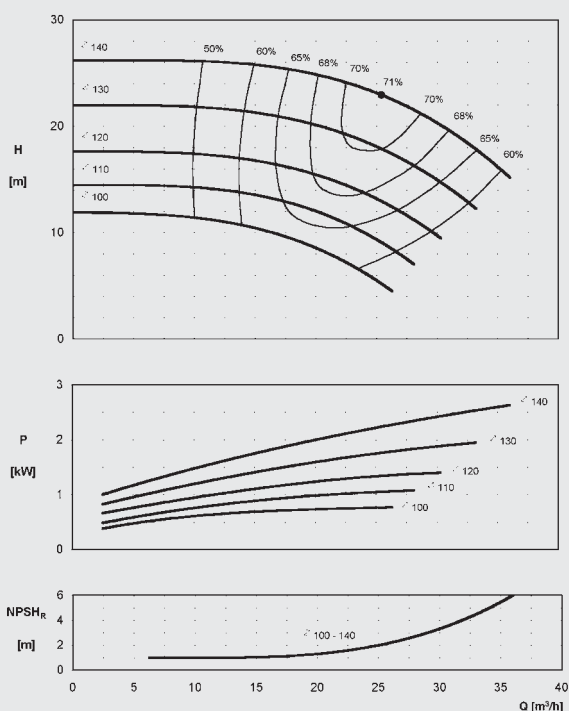
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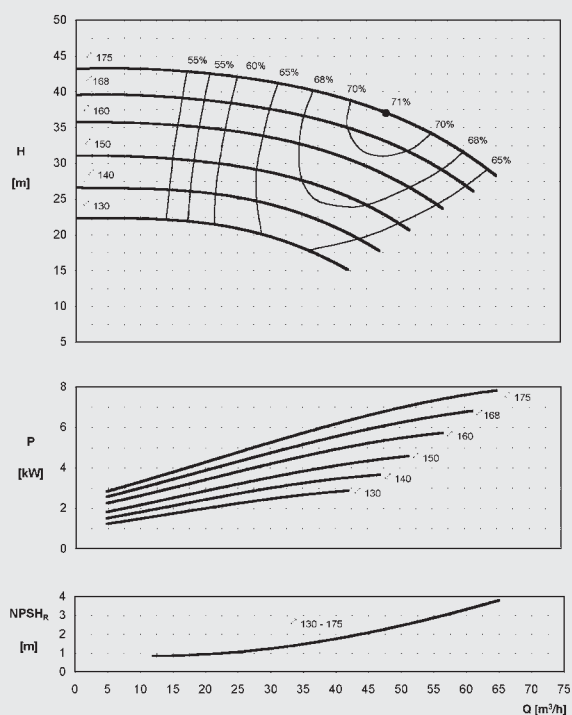
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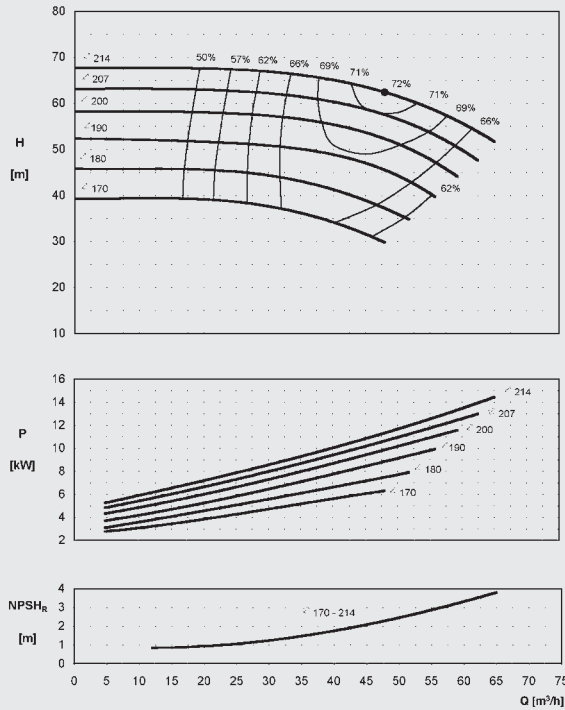
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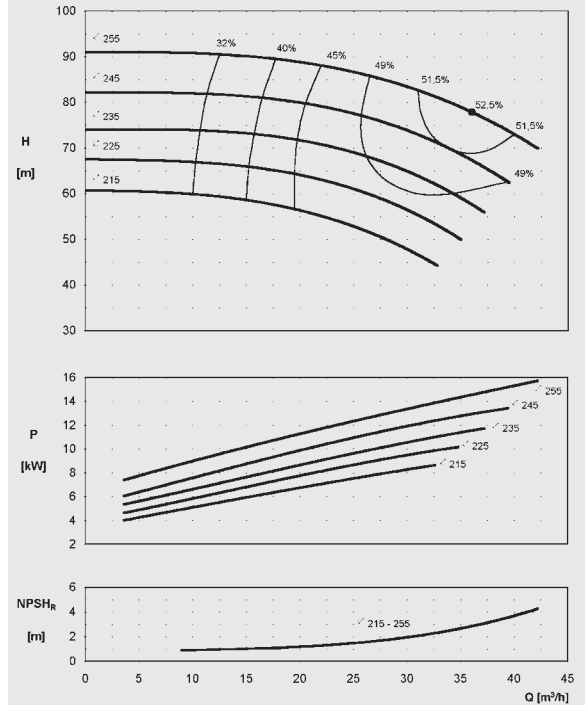
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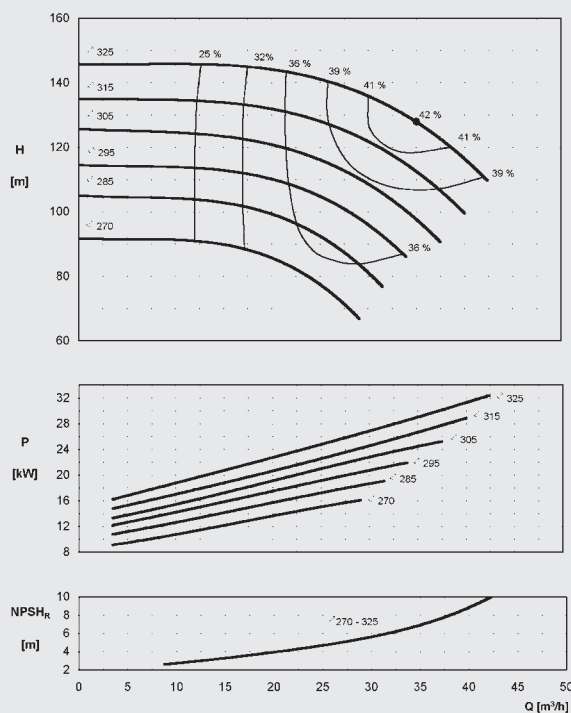
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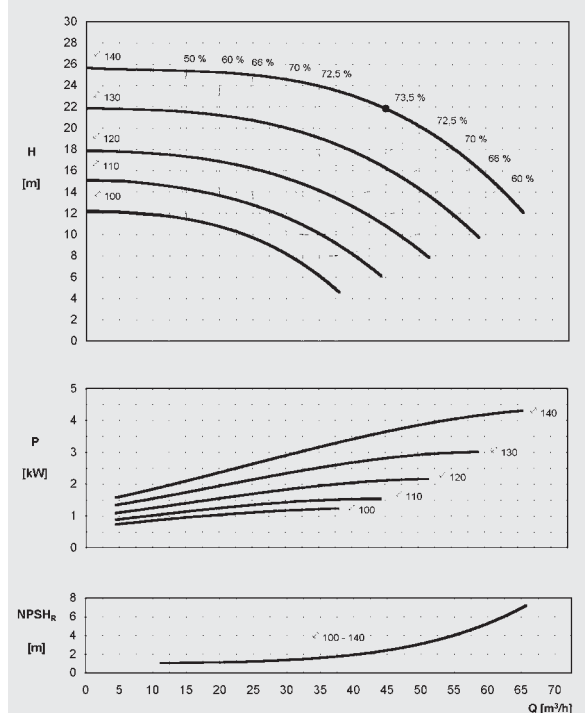
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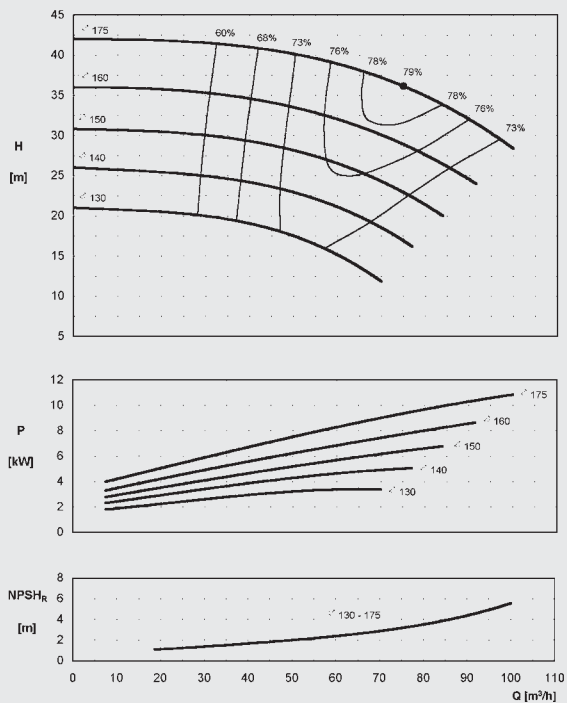
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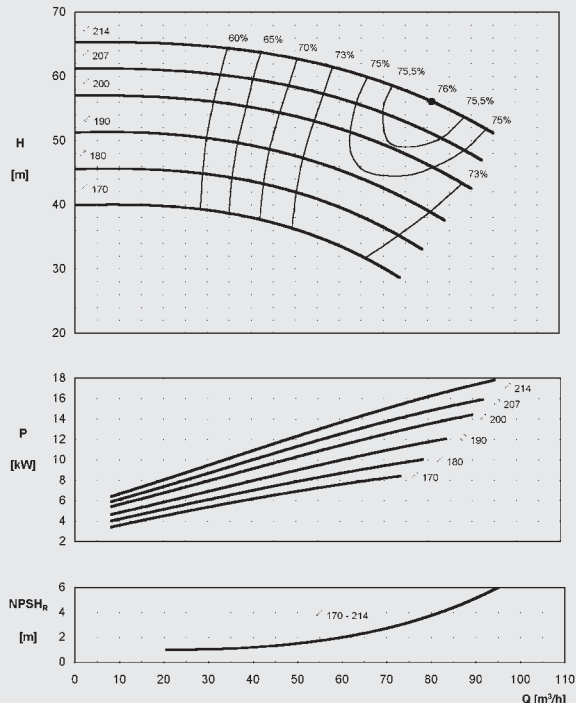
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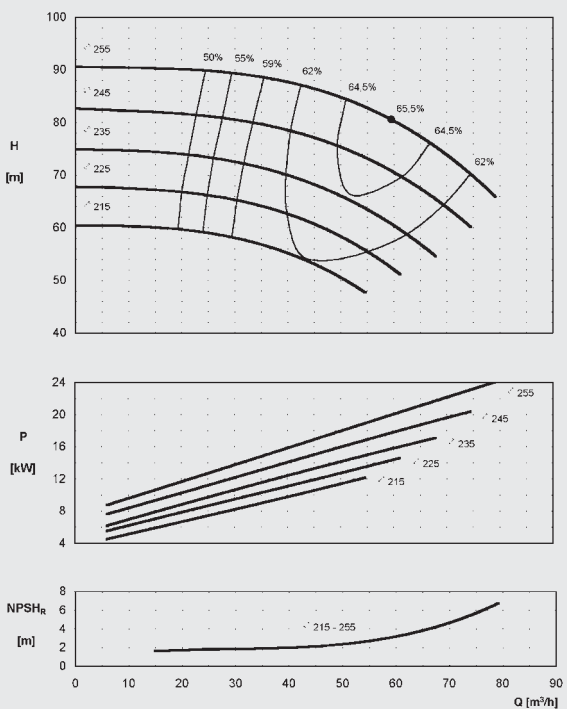
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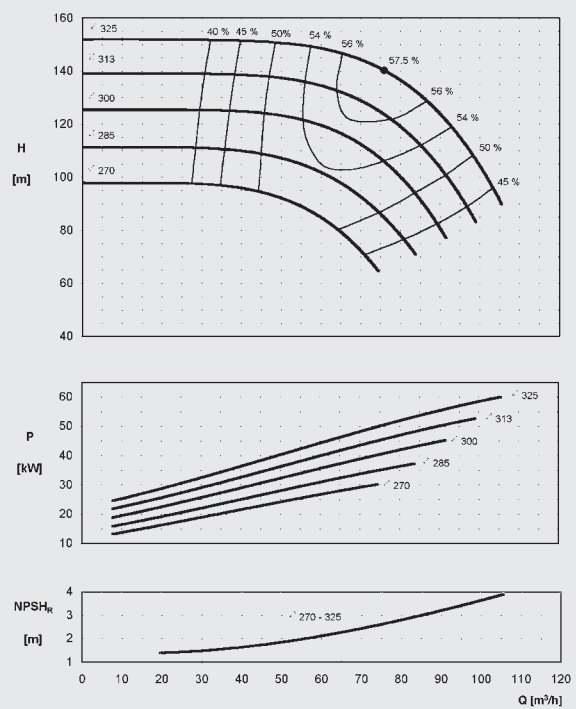
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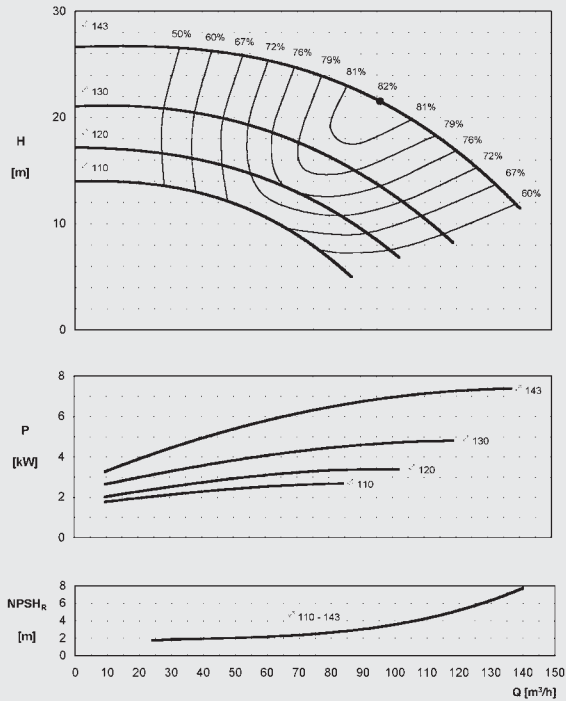
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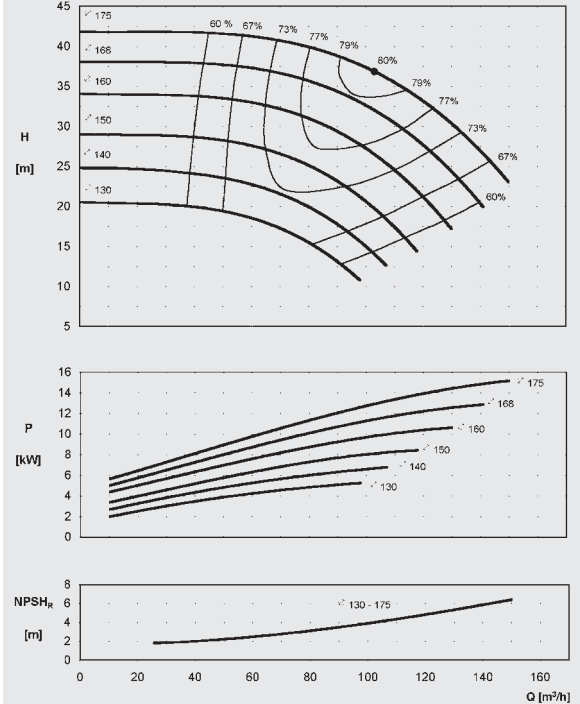
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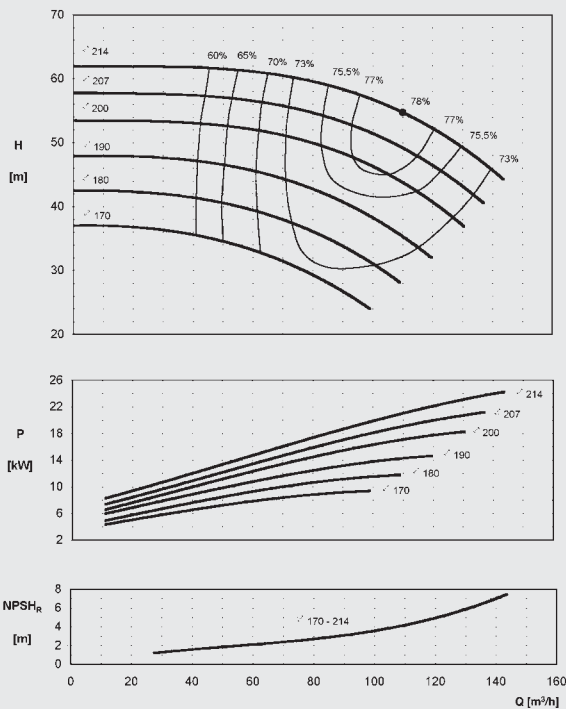
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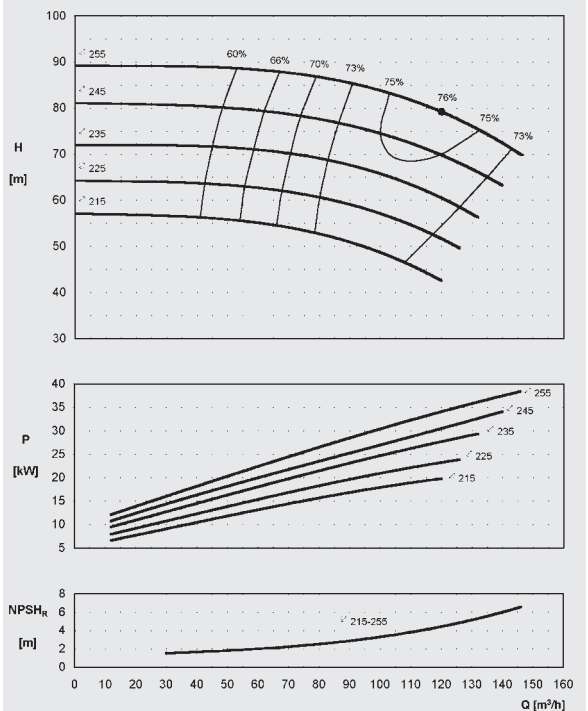
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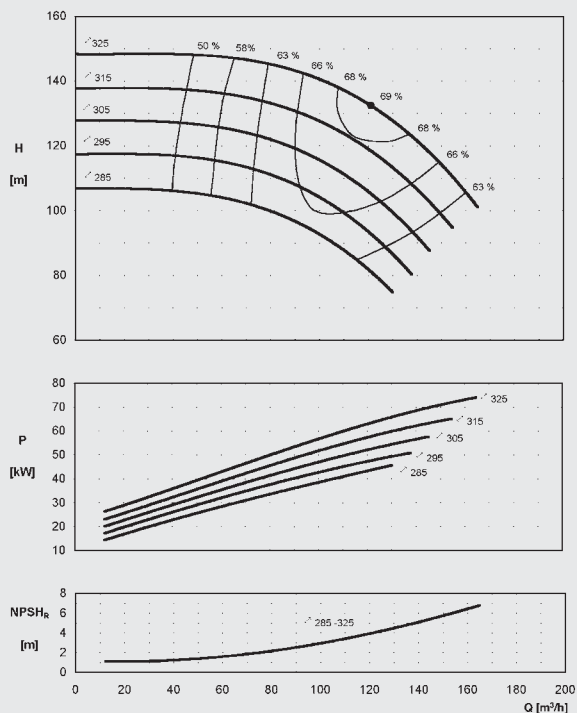
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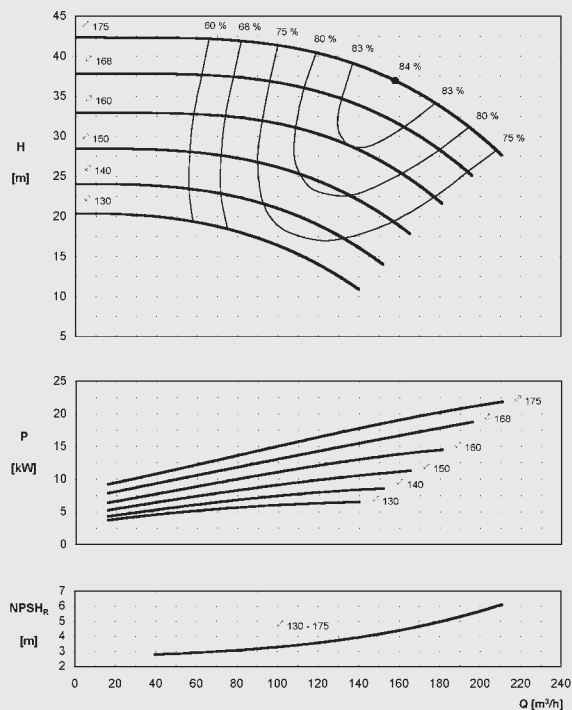
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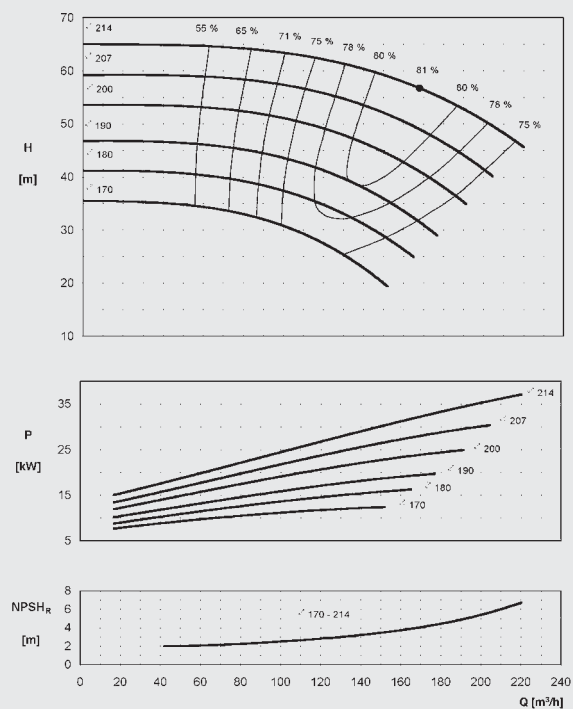
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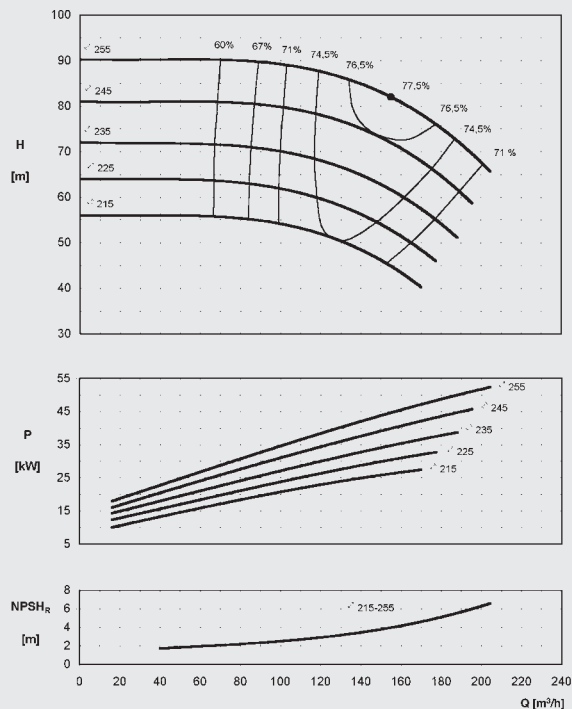
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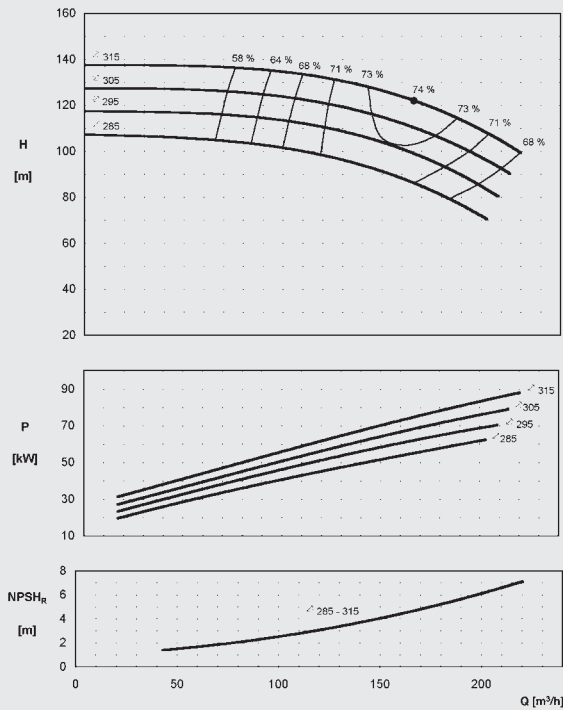
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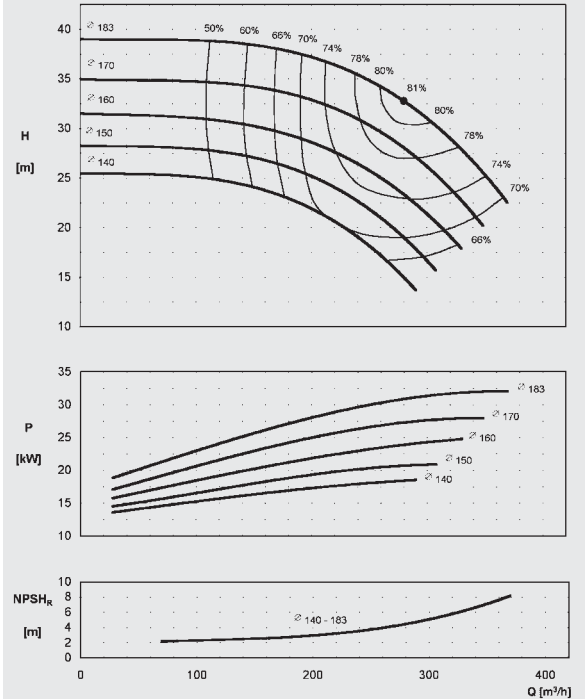
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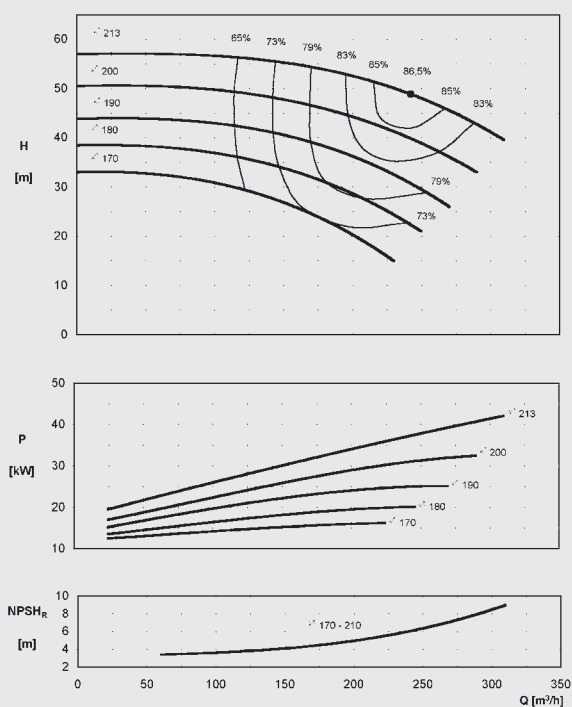
80-315



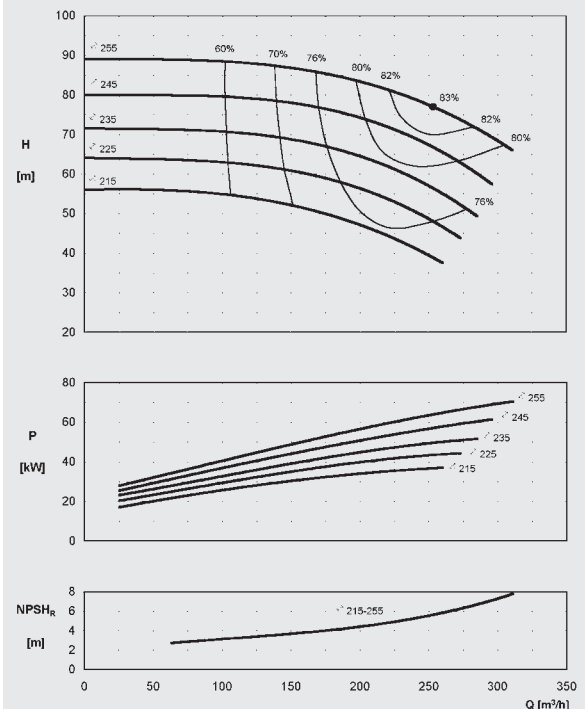
100-160



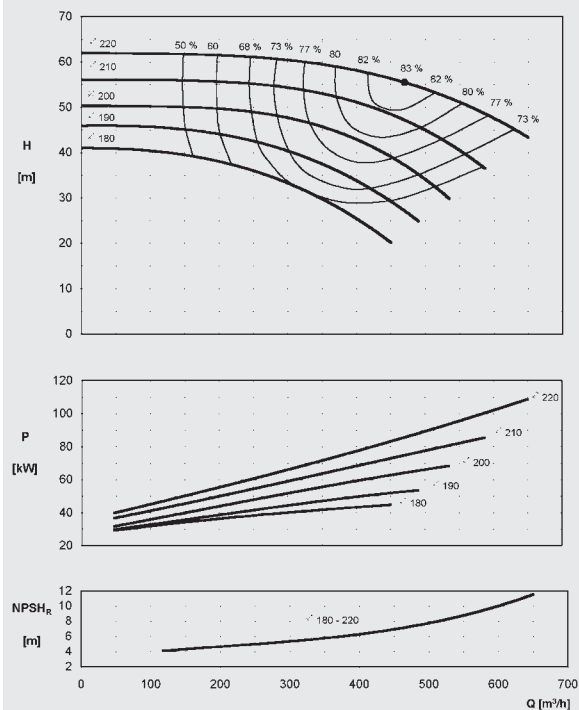
100-200



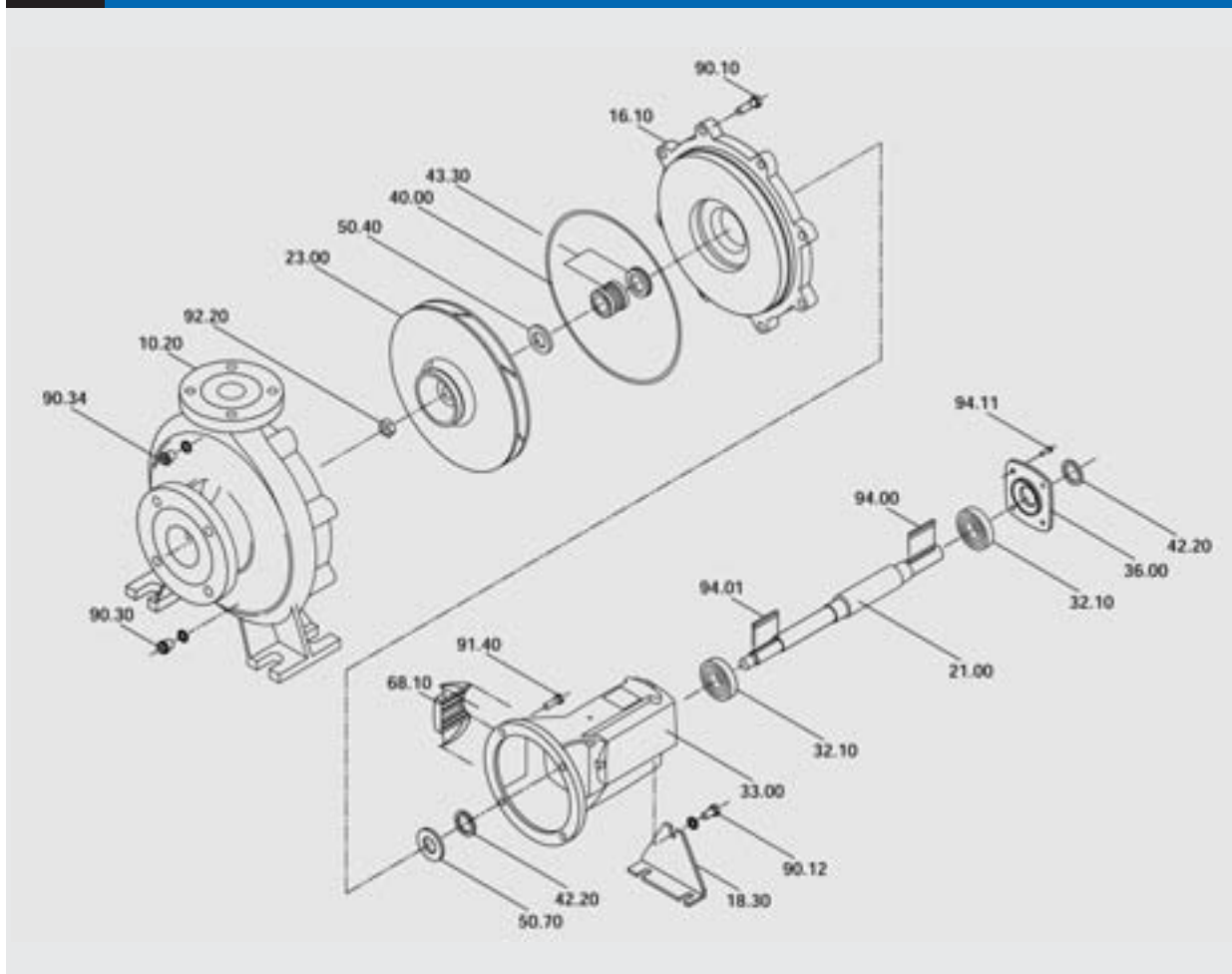
100-250



125-200



EXPLODED VIEW AND LIST OF COMPONENTS



PART	DESCRIPTION
10.20	Volute casing
16.10	Casing cover
18.30	Pump foot
21.00	Shaft
23.00	Impeller
32.10	Ball bearing
33.00	Bearing housing
36.00	Bearing cover
40.00	Casing gasket
42.20	V seal
43.30	Mechanical seal
50.40	Distance ring
50.70	Thrower
68.10	Protection screen
90.10	Casing screw
90.11	Bearing cover screw
90.12	Foot screw
90.30	Draining plug
90.34	Priming plug
91.40	Housing screw
92.20	Impeller nut
94.00	Shaft side key
94.01	Impeller key

PART	DESCRIPTION	N° of pumps		
		1÷3	4÷7	≥7
		Quantity		
21.00	Complete shaft	2	3	4
23.00	Impeller	1	2	3
32.10	Ball bearing (set)	2	3	4
43.30	Mechanical seal	2	3	4
-	Gasket kit	2	3	4

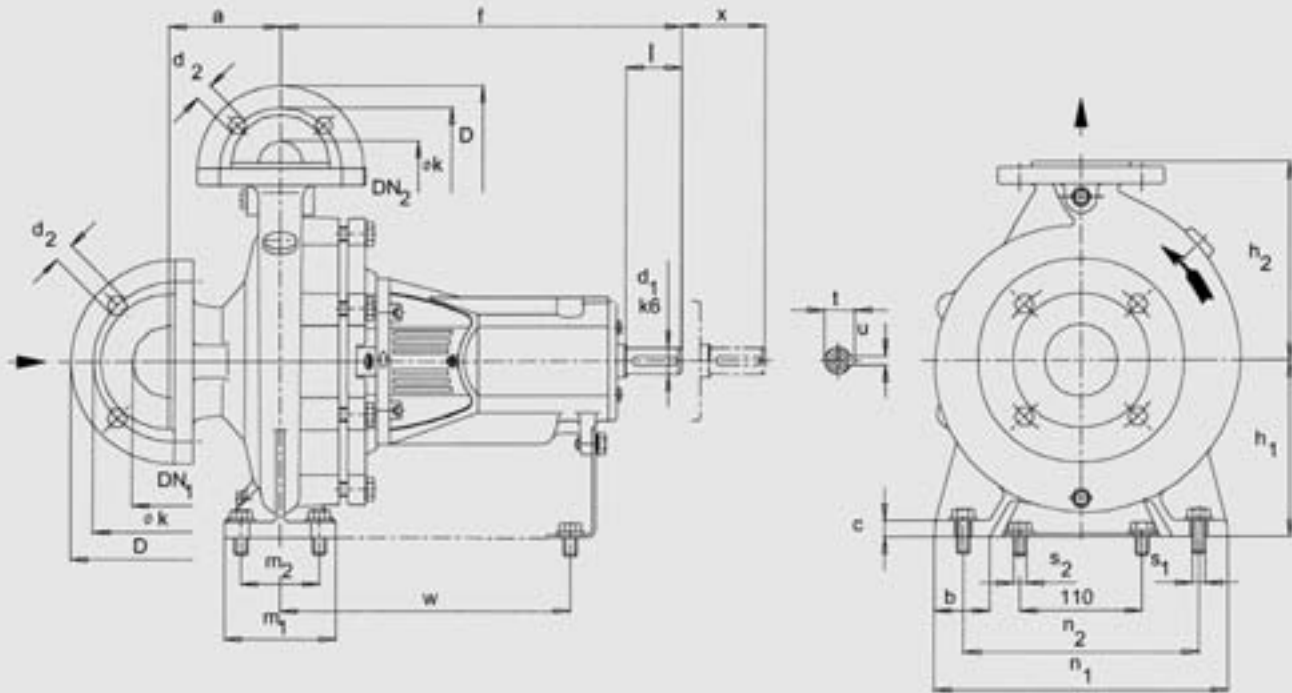
CHANGEABILITY CHART

PART NAME	CASING	CASING COVER	FOOT	SHAFT	IMPELLER	BALL BEARING	BEARING HOUSING	BEARING COVER	CASING GASKET	MECHANICAL SEAL	DISTANCE RING	PROTECTION SCREEN	IMPELLER NUT	KEY	IMPELLER KEY
PUMP	(10.20)	(16.10)	(18.30)	(21.00)	(23.00)	(32.10)	(33.00)	(36.00)	(40.00)	(43.30)	(50.40)	(68.10)	(92.20)	(94.00)	(94.01)
ENR 32-125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ENR 32-160 A	2a	2	2	1	2a	1	1	1	2	1	1	1	1	1	1
ENR 32-160 B	2b	2	2	1	2b	1	1	1	2	1	1	1	1	1	1
ENR 32-200 A	3a	4	3	1	3a	1	1	1	3	1	1	1	1	1	1
ENR 32-200 B	3b	4	3	1	3b	1	1	1	3	1	1	1	1	1	1
ENR 32-250	4	7	4	1	4	1	1	1	4	1	1	1	1	1	1
ENR 40-125	5	1	1	1	5	1	1	1	1	1	1	1	1	1	1
ENR 40-160	6	2	2	1	6	1	1	1	2	1	1	1	1	1	1
ENR 40-200	7	4	3	1	7	1	1	1	3	1	1	1	1	1	1
ENR 40-250	8	7	4	1	8	1	1	1	4	1	1	1	1	1	1
ENR 40-315	9	14	5	2	9	2	2	2	6	2	2	2	2	2	2
ENR 50-125	10	1	2	1	10	1	1	1	1	1	1	1	1	1	1
ENR 50-160	11	3	3	1	11	1	1	1	2	1	1	1	1	1	1
ENR 50-200	12	5	3	1	12	1	1	1	3	1	1	1	1	1	1
ENR 50-250	13	7	4	1	13	1	1	1	4	1	1	1	1	1	1
ENR 50-315	14	15	5	2	14	2	2	2	6	2	2	2	2	2	2
ENR 65-125	15	1	3	1	15	1	1	1	1	1	1	1	1	1	1
ENR 65-160	16	3	3	1	16	1	1	1	2	1	1	1	1	1	1
ENR 65-200	17	5	4	1	17	1	1	1	3	1	1	1	1	1	1
ENR 65-250	18	8	6	2	18	2	2	2	4	2	2	2	2	2	2
ENR 65-315	19	15	5	2	19	2	2	2	6	2	2	2	2	2	2
ENR 80-160	20	3	4	1	20	1	1	1	2	1	1	1	1	1	1
ENR 80-200	21	6	7	2	21	2	2	2	3	2	2	2	2	2	2
ENR 80-250	22	9	6	2	22	2	2	2	4	2	2	2	2	2	2
ENR 80-315	23	15	8	2	23	2	2	2	6	2	2	2	2	2	2
ENR 80-400	24	17	9	3	24	3	3	3	7	3	3	3	3	3	3
ENR 100-160	25	19	6	2	25	2	2	2	5	2	2	2	2	2	2
ENR 100-200	26	20	6	2	26	2	2	2	3	2	2	2	2	2	2
ENR 100-250	27	10	5	2	27	2	2	2	4	2	2	2	2	2	2
ENR 100-315	28	15	8	2	28	2	2	2	6	2	2	2	2	2	2
ENR 100-400	29	17	9	3	29	3	3	3	7	3	3	3	3	3	3
ENR 125-200	30	21	8	2	30	2	2	2	5	2	2	2	2	2	2
ENR 125-250	31	11	8	2	31	2	2	2	4	2	2	2	2	2	2
ENR 125-315	32	16	9	3	32	3	3	3	6	3	3	3	3	3	3
ENR 125-400	33	18	10	3	33	3	3	3	7	3	3	3	3	3	3
ENR 150-200	34	21	11	2	34	2	2	2	5	2	2	2	2	2	2
ENR 150-250	35	12	11	2	35	2	2	2	4	2	2	2	2	2	2
ENR 150-315	36	16	9	3	36	3	3	3	8	3	3	3	3	3	3
ENR 150-400	37	18	10	3	37	3	3	3	7	3	3	3	3	3	3
ENR 200-250	39	13	9	3	39	3	3	3	9	3	3	3	3	3	3

The chart shows the part list (main parts) of ENR pumps, and each part is designated by a number (1, 2, 3...).

Parts designated by the same number and placed in the same column means that these parts are changeable among these pump sizes.

DIMENSIONS BEARING BRACKET 25, 35 & 45

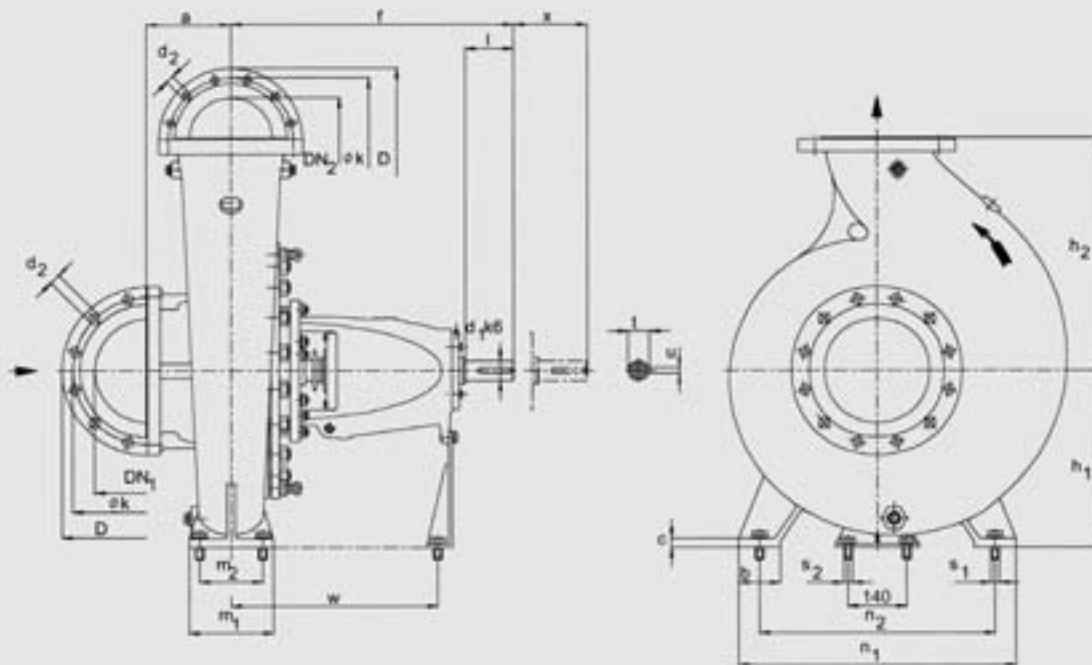


OUTLINE DIMENSIONS

Pump size	Sup.	Pump dimensions						Foot dimensions									Shaft end					Weight
		DN2	DN1	a	f	h1	h2	b	c	m1	m2	n1	n2	s1*	s2*	w	x	d1	l	t	u	
32-125	25	32	50	80	360	112	140	50	15	100	70	190	140	M12	M12	260	100	24	50	27	8	31
32-160						132	160					240	190									33
32-200						160	180					210	160									34
32-250 ¹⁾						180	225					320	250									46
40-125	25	40	65	80	360	112	140	50	15	100	70	210	160	M12	M12	260	100	24	50	27	8	28
40-160						132	160					240	190									30
40-200						160	180					265	212									36
40-250						180	225					320	250									46
40-315 ¹⁾	35			125	470	225	250	65	18	125	95	345	280			340		32	80	35	10	73
50-125	25	50	65	100	360	132	160	50	15	100	70	240	190	M12	M12	260	100	24	50	27	8	30
50-160						160	180					265	212									36
50-200						180	225					320	250									40
50-250						225	280					345	280									50
50-315 ¹⁾	35			125	470	225	280	65	17	125	95	345	280			340		32	80	35	10	88
65-125	25	65	80	100	360	160	180	65	15	125	95	280	212	M12	M12	260	100	24	50	27	8	33
65-160						200	225					320	250									39
65-200						225	280					360	280									45
65-250						250	315					400	315									70
65-315	35			125	470	225	280	80	18	160	120	400	315	M16		340		32	80	35	10	92
80-160	25				360	225	250	65	15	125	95	320	250	M12		260		24	50	27	8	43
80-200	35	80	100	125	470	180	250	80	18	160	120	345	280	M16	M12	340	140	32	80	35	10	60
80-250						200	280					400	315									75
80-315						250	315					400	315									95
80-400 ¹⁾						280	355					435	355									143
100-160 ¹⁾	35	100	125	125	470	200	280	80	18	160	120	360	280	M16	M12	340	140	32	80	35	10	78
100-200						225	315					400	315									70
100-250						250	315					400	315									85
100-315						280	355					500	400									104
100-400	45				530	280	355	100		200	150	500	400	M20		370		42	110	45	12	177
125-200 ¹⁾	35	125	150	140	470	250	315	80	18	160	120	400	315	M16	M12	340	140	32	80	35	10	100
125-250						280	355					400	315									102
125-315						315	400					500	400									151
125-400						350	450					550	450									188
150-200 ¹⁾	35	150	200	160	470	280	400	100	20	200	150	550	450	M20	M12	340	140	32	80	35	10	123
150-250 ¹⁾						315	450					500	400									128
150-315						350	450					550	450									170
150-400						350	450					550	450									205
200-250 ¹⁾	45	200	200	160	590	280	400	100	22	200	150	500	400	M20	M12	430	180	42	110	45	12	230

1) Transnorm pump sizes, not included in DIN 24255 / EN 733. Flanges drilled according to ANSI 150 on request.

* Slots suitable for bolts with dimensions indicated. Bolts are not included in the bare shaft pump standard scope of supply.

**DIMENSIONS BEARING BRACKET
55 & 65**

OUTLINE DIMENSIONS

Pump size	Sup.	Pump dimensions						Foot dimensions									Shaft end					Weight		
		DN2	DN1	a	f	h1	h2	b	c	m1	m2	n1	n2	s1*	s2*	w	x	d1	l	t	u		kg	
150-500 ¹⁾	55	150	200	180	670	400	500	100	22	200	150	640	540	M20	M16	489	180	50	115	53.5	14	335		
200-315 ¹⁾	55	200	250	200	670	355	450	100	22	200	150	550	450	M20	M16	489	180	50	115	53.5	14	310		
200-400 ¹⁾				180		500	660					560	340											
200-500 ¹⁾				200		425	560					700	600									395		
250-300 ¹⁾	55	250	300	305	655	425	550	120	28	240	190	700	600	M20	M16	474	180	50	115	53.5	14	416		
250-315 ¹⁾				670	375	560	620		520			489	424											
250-400 ¹⁾				250	400	600	700		600			508	464											
250-500 ¹⁾	65	300	350	720	450	670	720	120	32	250	190	750	650	M24	M16	503	180	60 ²⁾	145	64	18	589		
300-400 ¹⁾	65			425	480	670	720		30			760	660			508						620		
300-500 ¹⁾				480	670	720	32		840			720	508			800								

1) Transnorm pump sizes, not included in DIN 24255 / EN 733. Flanges drilled according to ANSI 150 on request.

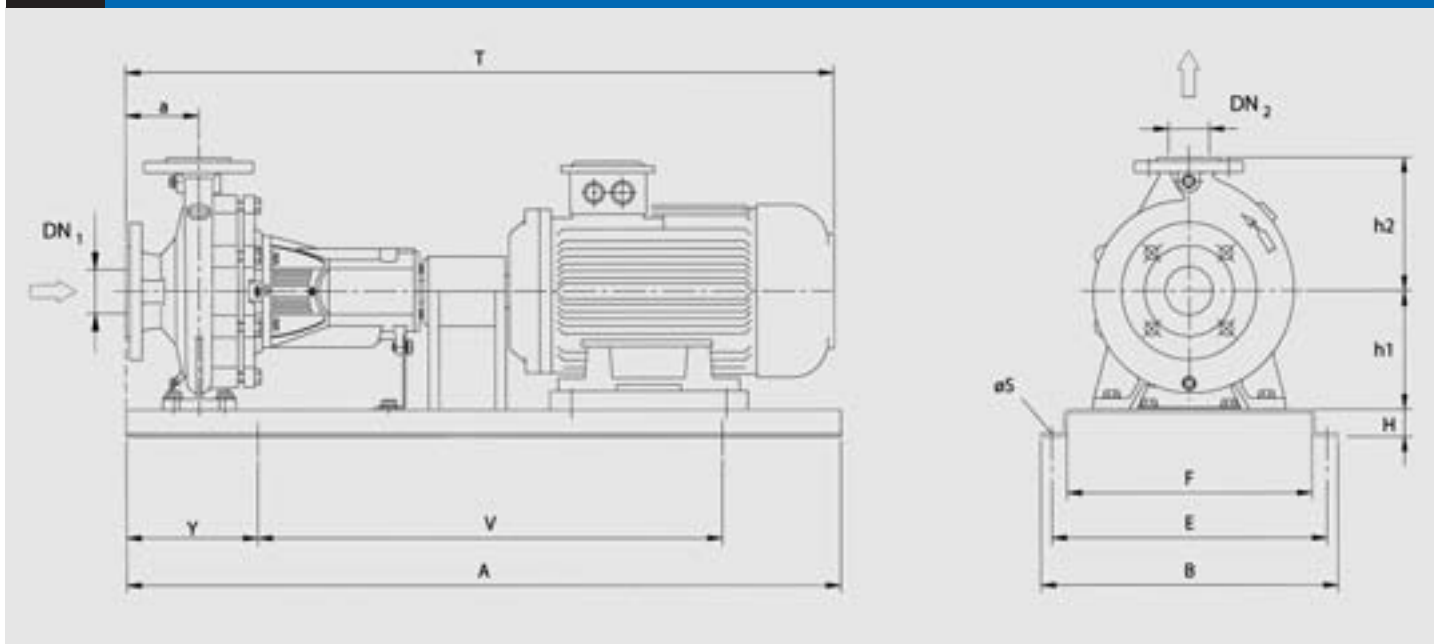
2) For these sizes the clearance corresponds to m6.

* Slots suitable for bolts with dimensions indicated. Bolts are not included in the bare shaft pump standard scope of supply.

FLANGES

Flange connections to DIN 2501 PN 16														DIN 2501 PN 10			
DN2/DN1	32	40	50	65	80	100	125	150	200	250	300	350	400	100	125	150	200
D	140	150	165	185	200	220	250	285	340	405	460	520	580	220	250	285	340
k	100	110	125	145	160	180	210	240	295	355	410	470	525	180	210	240	295
d: x number	18x4	18x4	18x4	18x4	18x8	18x8	18x8	22x8	22x12	26x12	26x12	26x16	30x16	18x8	18x8	22x8	22x8

FOUNDATION PLAN, BEARING BRACKETS 25, 35 & 45



OUTLINE DIMENSIONS

Components				Common					Standard coupling									Coupling with spacer										
Pump	Motor			DN2	DN1	a	h2	h1	A	B	F	Y	V	E	H	S	T	kg	A	B	F	Y	V	E	H	S	T	kg
	4 pol.	2 pol.	Frame size																									
32-125	0,37		71	32	50	80	140	112	900	390	300	150	600	350	50	18	714	70	900	390	300	150	600	350	50	18	810	71
	0,55		80															70										71
	0,75		80															70										71
		0,75	80															70										71
		1,1	80															70										71
		1,5	90S															73										74
		2,2	90L															76										76
		3	100L															84										86
32-160	0,37		71	32	50	80	160	132	900	390	300	150	600	350	50	18	714	71	900	390	300	150	600	350	50	18	810	72
	0,55		80															71										72
	0,75		80															71										72
		1,5	90S															74										74
		2,2	90L															77										77
		3	100L															87										88
		4	112						900	490	380	150	600	440	50	18	844	99									101	
		5,5	132S															110									116	
																		926									1022	
32-200	0,55		80	32	50	80	180	160	900	390	300	150	600	350	50	18	714	79	900	390	300	150	600	350	50	18	810	79
	0,75		80															79										79
	1,1		90S															82										83
	1,5		90L															84										85
		2,2	90L															84										85
		3	100L															91										92
		4	112						900	490	380	150	600	440	50	18	844	103									105	
		5,5	132S															121									139	
		7,5	132S															121									139	
32-250	0,75		80	32	50	100	225	180	900	490	380	150	600	440	50	18	784	95	900	490	380	150	600	440	50	18	880	96
	1,1		90S															98										99
	1,5		90L															100										101
	2,2		100L															111										113
	3		100L															111										113
		7,5	132S															132										150
		11	160M						1120	610	480	190	740	550	50	22	1112	187									189	
		15	160M															187									189	
		18,5	160L															201									204	
40-125	0,37		71	40	65	80	140	112	900	390	300	150	600	350	50	18	714	71	900	390	300	150	600	350	50	18	810	72
	0,55		80															71										72
	0,75		80															71										72
		1,1	80															71										72
		1,5	90S															74										75
		2,2	90L															77										77
		3	100L															87										88
		4	112															940										94
		5,5	132S																									

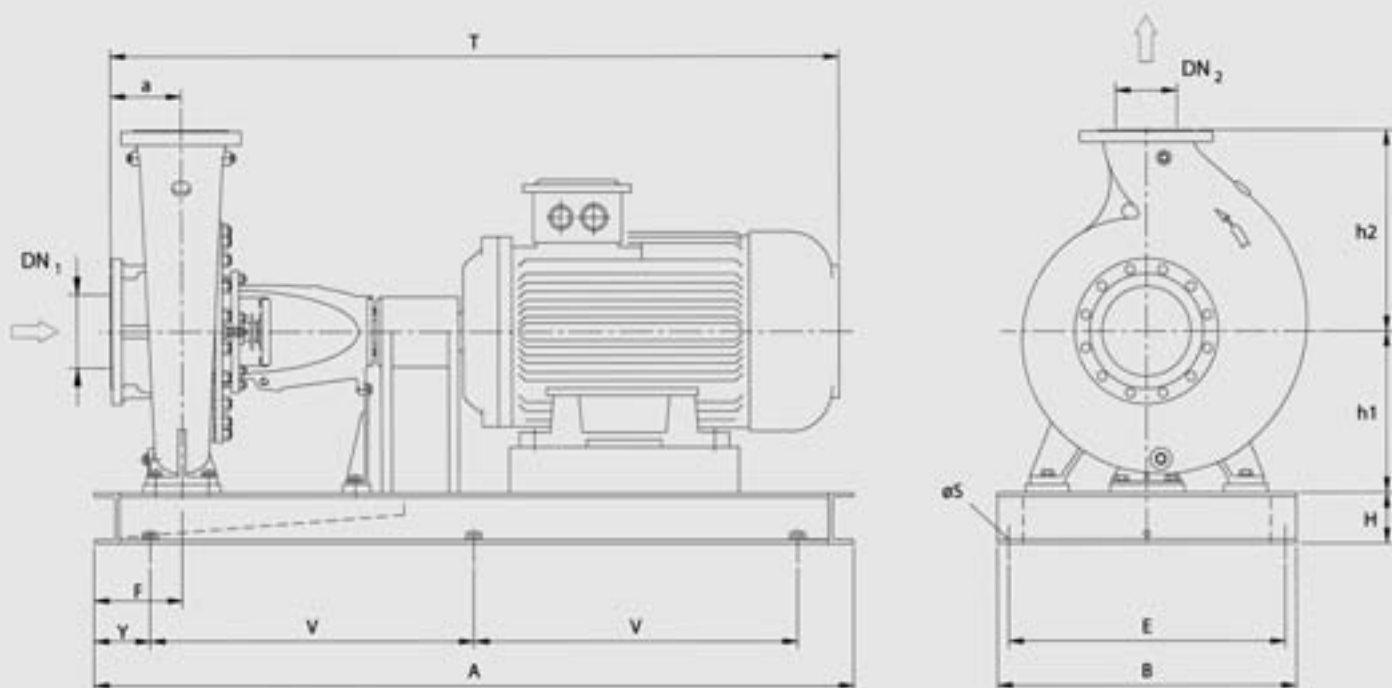
Components				Common					Standard coupling										Coupling with spacer																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Pump	Motor			DN2	DN1	a	h2	h1	A	B	F	Y	V	E	H	S	T	kg	A	B	F	Y	V	E	H	S	T	kg																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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		15	160M						1400	610	480	230	940	550	75	26	1247	242	1400	610	480	230	940	550	75	26	1343	244																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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50-125	0,37		71	50	65	100	160	132	900	390	300	150	600	350	50	18	734	77	900	390	300	150	600	350	50	18	830	77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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		3	100L						900	490	380	150	600	440	50	18	864	93	1000	450	340	170	660	400	50	22	960	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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	4 pol.	2 pol.	Frame size																																												
50-250	1,5		90L	50	65	100	225	180	900	490	380	150	600	440	50	18	784	107	900	490	380	150	600	440	50	18	880	108																			
	2,2		100L														117	960									119																				
	3		100L														864	117									960	119																			
	4		112														123	960									142																				
	5,5		132S														946	138									1120	490	380	190	740	440	50	22	1042	157											
		15	160M					200	1120	610	480	190	740	550	50	22	1112	194	1120	610	480	190	740	550	50	22	1208	195																			
	18,5		160L														207	1208											211																		
	22		180M														1150	232											1250	540	430	205	840	490	50	22	1246	235									
																	1187	296											1400	610	480	230	940	550	75	26	1283	321									
	30		200L														1171	1120											610	480	190	740	550	50	22	1095	173										
50-315	3		100L	50	65	125	280	225	1120	610	480	190	740	550	50	22	999	178	1250	540	430	205	840	490	50	22	1095	180																			
	4		112														1081	189									1177	195																			
	5,5		132S														1081	189									1177	195																			
	7,5		132M														1081	189									1177	195																			
		22	180M														1285	280									1400	610	480	230	940	550	75	26	1381	283											
		30	200L					250	1400	610	480	230	940	550	75	26	1322	345	1400	610	480	230	940	550	75	26	1418	348																			
	37		200L														345	1418											348																		
		45	225M														1400	730											600	230	940	670	75	26	1429	404	1600	660	530	270	1060	600	75	26	1525	411	
		55	250M														280	1600											660	530	270	1060	600	75	26	1429	438	1600	660	530	270	1060	600	75	26	1525	441
	75		280S														280	1800											730	600	300	1200	670	100	26	1559	572	1800	730	600	300	1200	670	100	26	1655	576
65-125	0,55		80	65	80	100	180	160	900	490	380	150	600	440	50	18	734	80	1000	450	340	170	660	400	50	22	830	81																			
	0,75		80														734	80									880	85																			
	1,1		90S														784	83									960	98																			
		3	100L														864	95									960	120																			
		4	112														946	102									1042	135																			
		5,5	132S														946	117									1042	135																			
		7,5	132S														946	117									1042	135																			
		11	160M														1112	163									1208	164																			
65-160	0,75		80	65	80	100	200	160	900	490	380	150	600	440	50	18	734	85	1000	450	340	170	660	400	50	22	830	86																			
	1,1		90S														784	88									880	90																			
	1,5		90L														864	90									960	103																			
	2,2		100L														946	100									1042	140																			
		5,5	132S														946	122									1042	140																			
		7,5	132S														946	122									1042	140																			
		11	160M														1112	168									1208	169																			
		15	160M														1112	168									1208	169																			
65-200		18,5	160L	65	80	100	225	180	900	490	380	150	600	440	50	18	1112	182	1120	490	380	190	740	440	50	22	1208	183																			
		22	180M														1112	186									1208	183																			
		30	200L														1112	186									1208	183																			
		37	200L														1112	186									1208	183																			
		45	225M														1112	186									1208	183																			
		11	160M					200	1120	610	480	190	740	550	50	22	946	131	1400	610	480	230	940	550	75	26	1042	149																			
		15	160M														1112	186									1208	219																			
		18,5	160L														1112	186									1208	219																			
		22	180M														1112	200									1208	234																			
		30	200L														1112	225									1246	257																			
65-250	2,2		100L	65	80	100	250	200	1120	610	480	190	740	550	50	22	1187	288	1250	610	480	190	740	550	50	22	1283	313																			
	3		100L														974	163									1070	164																			
	4		112														974	163									1070	172																			
	5,5		132S														1056	184									1152	187																			
	7,5		132M														1056	194									1152	194																			
		18,5	160L					225	1400	610	480	230	940	550	75	26	1222	249	1400	610	480	230	940	550	75	26	1318	251																			
		22	180M														1260	273									1356	276																			
		30	200L														1297	337									1393	340																			
		37	200L														1297	337									1393	340																			
		45	225M														1297	337									1393	340																			
65-315	5,5		132S	65	80	125	280	225	1120	610	480	190	740	550	50	22	1404	396	1600	660	530	270	1060	600	75	26	1500	403																			
	7,5		132M														203	227																													
	11		160M														1081	211									1217	235																			
	15		160L														1247	254									1383	256																			
		30	200L														1247	268									1383	270																			
		37	200L					250	1400	610	480	230	940	670	75	26	1322	370	1600	660	530	270	1060	600	75	26	1458	373																			
		45	225M														370	370									1458	373																			
		55	250M														419	449									1565	452																			
		75	280S														1429	449									1565	452																			
		90	280M														1559	583									1695	587																			
80-160	0,75		80	80	100	125	225	180	900	490	380	150	600	440	50	18	759	90	1120	490	380	190	740	440	50	22	855	108																			
	1,1		90S														809	93									905	111																			
	1,5		90L														809	95									905	113																			
	2,2		100L														889	105									985	123																			
	3		100L														889	105									985	123																			
	4		112														889	112									985	130																			
		7,5	132S														971	143									1067	145																			
		11	160M														1137	182									1206	206																			
		15	160M														1137	182									1206	206																			
		18,5	160L														1137	196									1233	220																			
		22	180M					1137	196	1233	220																																				
		30	200L					1175	220	1271	243																																				
								1212	284	1308	309																																				

Components				Common					Standard coupling										Coupling with spacer									
Pump	Motor		Frame size	DN2	DN1	a	h2	h1	A	B	F	Y	V	E	H	S	T	kg	A	B	F	Y	V	E	H	S	T	kg
	4 pol.	2 pol.																										
80-200	2,2	100L	80	100	125	250	180	1120	610	480	190	740	550	50	22	999	152	1120	610	480	190	740	550	50	22	1095	153	
	3	100L						152	153																			
	4	112						159	160																			
	5,5	132S						1081	170	1250	540	430	205	840	490	50	22	1217	176									
	15	160M						1247	224	1400	610	480	230	940	550	75	26	1343	226									
	18,5	160L						1285	238									1381	265									
	22	180M					1322	262	1418									329										
	30	200L					327	327	329																			
	37	200L					327	327	329																			
45	225M	1429	385	1600	660	530	270	1060	600	75	26	1525	392															
80-250	3	100L	80	100	125	280	200	1120	610	480	190	740	550	50	22	999	167	1120	610	480	190	740	550	50	22	1095	170	
	4	112						174	177																			
	5,5	132S						185	188																			
	7,5	132M						1081	193	1250	540	430	205	840	490	50	22	1217	198									
	11	160M						1247	236	1400	610	480	230	940	550	75	26	1343	238									
	22	180M						1285	275									1381	278									
	30	200L					1322	338	1418									341										
	37	200L					338	338	341																			
	45	225M					1429	397	1600	660	530	270	1060	600	75	26	1525	404										
	55	250M					1429	431	1600	660	530	270	1060	600	75	26	1525	434										
	75	280S					280	1800	730	600	300	1200	670	100	26	1559	565	1800	730	600	300	1200	670	100	26	1655	569	
	80-315	5,5					132S	80	100	125	315	250	1120	610	480	190	740	550	50	22	1081	196	1400	610	480	230	940	550
7,5		132M	204	228																								
11		160M	248	250																								
15		160L	262	264																								
18,5		180M	1285	286	1421	288																						
22		180L	1322	325	1458	327																						
30		200L	364	364	367	367																						
37		200L	1322	364	1400	730	600					230	940	670	75	26	1458	367										
45		225M	1429	413	1600	660	530					270	1060	600	75	26	1565	416										
55		250M	1429	443	1600	660	530					270	1060	600	75	26	1565	446										
75	280S	280	1800	730	600	300	1200	670	100	26	1559	576	1800	730	600	300	1200	670	100	26	1695	580						
90	280M	622	1800	730	600	300	1200	670	100	26	1559	622	1800	730	600	300	1200	670	100	26	1695	626						
80-400	11	160M	80	125	125	355	280	1400	610	480	230	940	550	75	26	1307	356	1400	610	480	230	940	550	75	26	1443	340	
	15	160L														369	354											
	18,5	180M														1345	392									1481	379	
	22	180L														1382	428									1518	417	
	30	200L						1400	730	600	230	940	670	75	26	1382	452	1800	730	600	300	1200	670	100	26	1518	491	
	37	225S														1489	494	1625	533									
100-160	2,2	100L	100	125	125	280	200	1120	610	480	190	740	550	50	22	999	155	1120	610	480	190	740	550	50	22	1135	157	
	3	100L														162	163											
	4	112														1081	173	1250	540	430	205	840	490	50	22	1217	179	
	5,5	132S														1247	242	1383	244									
	18,5	160L					1400	610	480	230	940	550	75	26	1285	266	1400	610	480	230	940	550	75	26	1421	268		
	22	180M													330	330	1458	332										
	30	200L													1322	330	1458	332										
	37	200L													330	330	1458	332										
100-200	2,2	100L	100	125	125	280	200	1120	610	480	190	740	550	50	22	999	159	1120	610	480	190	740	550	50	22	1135	160	
	3	100L														165	166											
	4	112														1081	176	1250	540	430	205	840	490	50	22	1217	182	
	5,5	132S														1247	245	1383	247									
	7,5	132M														1285	269	1421	271									
	18,5	160L														1322	333	1458	336									
	22	180M					200	1400	610	480	230	940	550	75	26	1322	333	1458	336									
	30	200L														333	333	1458	336									
	37	200L														333	333	1458	336									
	45	225M														1429	392	1600	660	530	270	1060	600	75	26	1565	399	
	55	250M														1429	426	1600	660	530	270	1060	600	75	26	1565	429	
	75	280S														280	1800	730	600	300	1200	670	100	26	1559	560	1800	730
100-250	4	112	100	125	140	280	225	1120	610	480	190	740	550	50	22	1014	190	1120	610	480	190	740	550	50	22	1150	192	
	5,5	132S														1096	201	1400	610	480	230	940	550	75	26	1232	225	
	7,5	132M														209	233											
	11	160M														252	254											
	15	160L														1262	266	1398	268									
	30	200L														1400	730	600	230	940	670	75	26	1337	368	1400	730	600
	37	200L					368	371																				
	45	225M					1444	417	1600	660	530	270	1060	600	75									26	1580	420		
	55	250M					447	447	1600	660	530	270	1060	600	75									26	1580	450		
	75	280S					250	1800	730	600	300	1200	670	100	26	1559	581	1800	730	600	300	1200	670	100	26	1710	585	
90	280M	280	1800	730	600	300	1200	670	100	26	1574	627	1800	730	600	300	1200	670	100	26	1710	631						
100-315	11	160M	100	125	140	315	250	1400	610	480	230	940	550	75	26	1262	270	1400	610	480	230	940	550	75	26	1398	272	
	15	160L														284	286											
	18,5	180M														1300	309									1436	311	
	22	180L														1337	347									1473	349	
30	200L	1400	730	600	230	940	670	75	26	1337	386	1800	730	600	300	1200	670	100	26	1473	425							

Components			Common					Standard coupling										Coupling with spacer																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Pump	Motor			DN2	DN1	a	h2	h1	A	B	F	Y	V	E	H	S	T	kg	A	B	F	Y	V	E	H	S	T	kg																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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100-400	15		160L	100	125	140	355	280	1400	730	600	230	940	670	75	26	1322	373	1400	730	600	230	940	670	75	26	1458	376																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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FOUNDATION PLAN, BEARING BRACKETS 55 & 65



OUTLINE DIMENSIONS

Components			Common					Standard coupling										Coupling with spacer									
Pump	Motor		DN2	DN1	a	h2	h1	A	B	F	Y	V	E	H	S	T	kg	A	B	F	Y	V	E	H	S	T	kg
	kW 4 pol.	Frame size																									
150-500	22	180L	150	200	180	500	430	1670	810	235	170	665	760	120	18	1566	674	1850	810	235	190	735	760	120	18	1742	677
	30	200L						1740				700				1624	754	1920				770				1800	757
	37	225S						1780			170	720				1661	817	1960			190	790				1837	820
	45	225M							820	240			770	140	18		845						770	140	18		1850
	55	250M						1900				760				1784	955	2080				830				1960	961
	75	280S									190	800					1136				210	865					2035
	90	280M						1980								1859	1186	2150									1193
	110	315S															1397										1406
	132	315M						2120			210	850				1994	1477	2300			230	920					2170
	160	315L							830	245			770	160	20		1635						770	160	20		1486
200-315	200	315L	200	250	200	450	385	2260			230	900				2134	1775	2440			250	970					2310
	250	315						2380	870	245	230	960	810	160	20	2254	1605	2560	870	245	250	1030	810	160	20	2430	1625
	22	180L						1690	720	255	170	675	670	120	18	1586	659	1870	720	255	190	745	670	120	20	1762	662
	30	200L						1760			170					1644	712	1940				780					1820
	37	225S															777										715
	45	225M						1800	730	260	190	710	680	140	18	1681	805	1980	730	260	190	800	680	140	20	1857	780
	55	250M															805										810
	75	280S						1920								1804	915	2100			210	840					1980
	90	280M							740	260	210	790	690	140	18	1879	1095	2170	740	260	210	875	690	140	20	2055	1102
	110	315S						2000									666										1742
	132	315M						1670	720	235	170	665	670	120	18	1566	666	1850	720	235	190	735	670	120	18	1742	669
200-400	30	200L	200	250	180	500	385	1740				700				1624	742	1920				770					1800
	37	225S							730	240	170	720	680	140	18	1661	807	1960			190	790					810
	45	225M						1780									835										840
	55	250M									190	760				1784	945	2080			210	830					1960
	75	280S						1900									1125										1132
	90	280M							740	240	190	800	690	140	18	1859	1175	2150	740	240	210	865	690	140	18	2035	1182
	110	315S						2120			210	850				1994	1400	2300			230	920					1409
	132	315M							820	245			760	160	20		1480						760	160	20		1489
	160	315L						2260			230	900				2134	1635	2440			250	970					1644
	200	315L															1775										1784
200-500	250	315	200	250	200	560	455	2380	870	245	230	960	810	160	18	2254	1610	2560	870	245	250	1030	810	160	20	2430	1630
	45	225M						1800			190	710				1681	915	1980			190	800					1857
	55	250M						1920				770				1804	1025	2100				840					1980
	75	280S							840	260			790	140	18		1205										1212
	90	280M						2000			210	790				1879	1255	2170			210	875					2055
	110	315S															1465										1474
	132	315M						2140			210	860				2014	1545	2320			230	930					2190
	160	315L							850	265			790	160	20		1700						790	160	20		1554
	200	315L						2280			230	910				2154	1840	2460			250	980					1709
	250	315															1665										1685
	315	315						2400	870	265	250	950	810	160	20	2274	1865	2580	870	265	250	1040	810	160	20	2450	1885
	355	355						2640	980	270	270	1050	920	180	20	2499	1965	2810	980	270	290	1115	920	180	20	2675	1985

[illegible]

SOUND LEVEL DB(A)

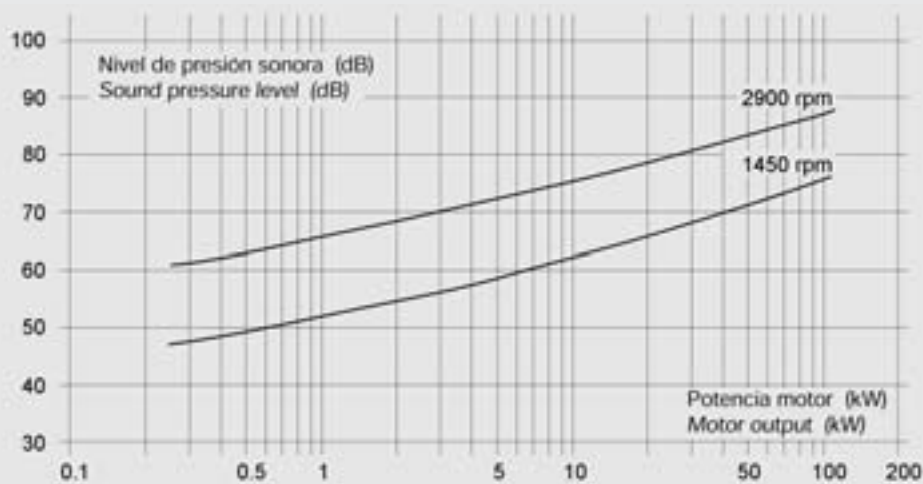
The graphic shows the values of sound levels corresponding to the equipment composed by pump + motor.

These values were measured according to UNE-EN ISO 3746 "Acoustics. Determination of sound levels of noise sources using sound pressure", using measuring points located on parallel planes of the ones delimitating the equipment in a distance of 1 meter, operating with water and the motors in full power.

The shown values should be used as reference since the real values measured in the installation may vary due to resonance effects of the building and the pipes. It is recomendable the use of dampeners to avoid noise transmission through the installation.

In the case of equipment operating at 60Hz electric supply, the values obtained from the graphic will be corrected as follows:

- 2 poles motors (3500 r.p.m.): + 3 dB
- 4 poles motors (1750 r.p.m.): + 1 dB



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