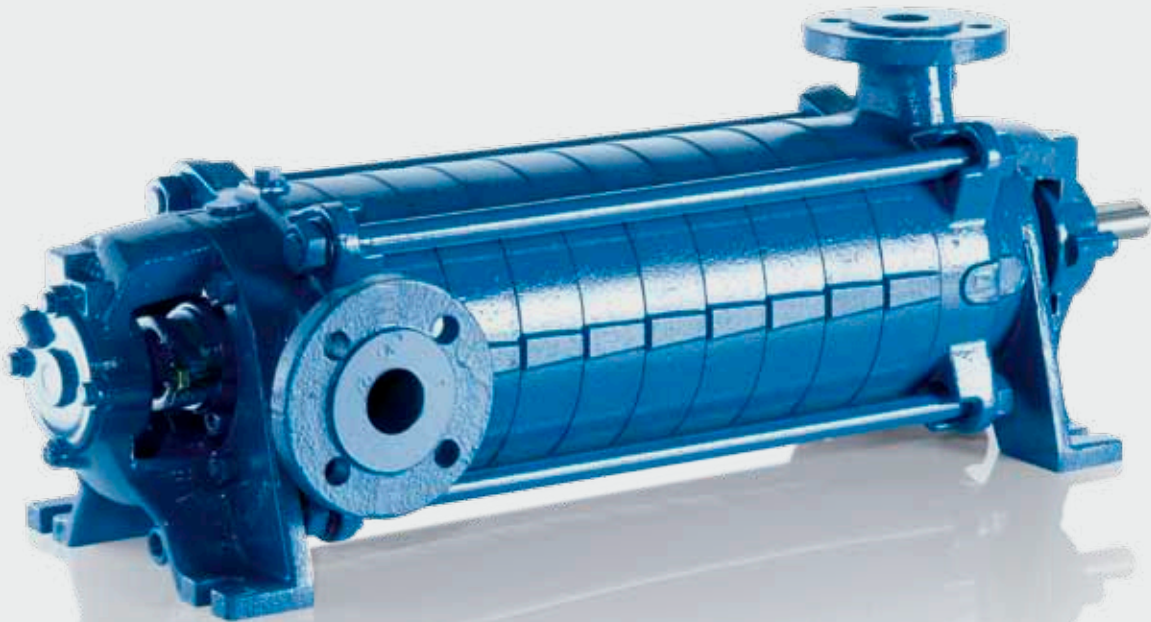


High-pressure pumps

Series HP45



General

Description / Application

Multi-stage high pressure pumps for water supply, irrigation and industrial applications, for hot and cold water circulation, fire fighting, boiler feed and pressure boosting installations. Suitable for all clean or slightly dirty non-corrosive liquids (e.g. water, oil, etc.) up to a viscosity of 150 mm²/s (cSt).

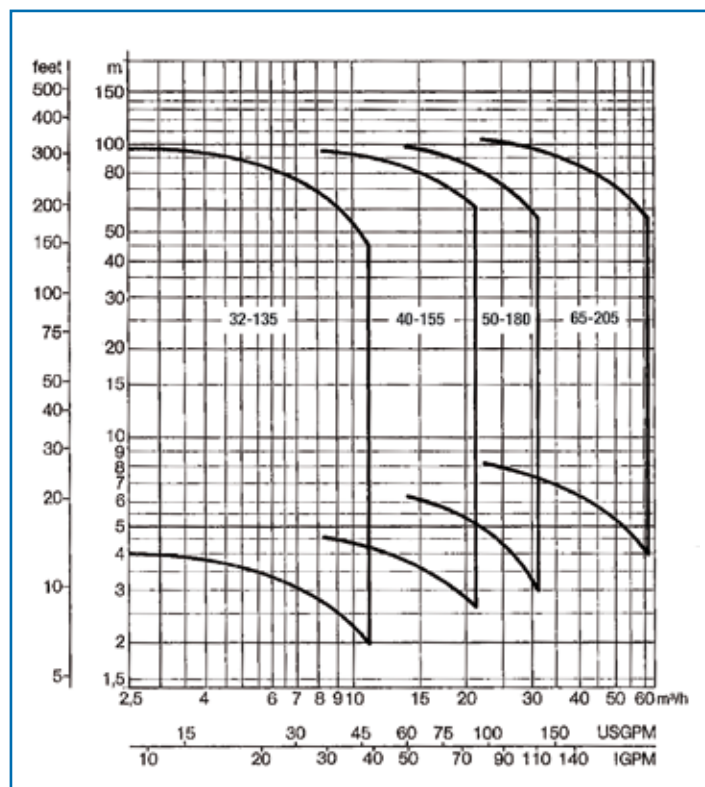
Arrangement A



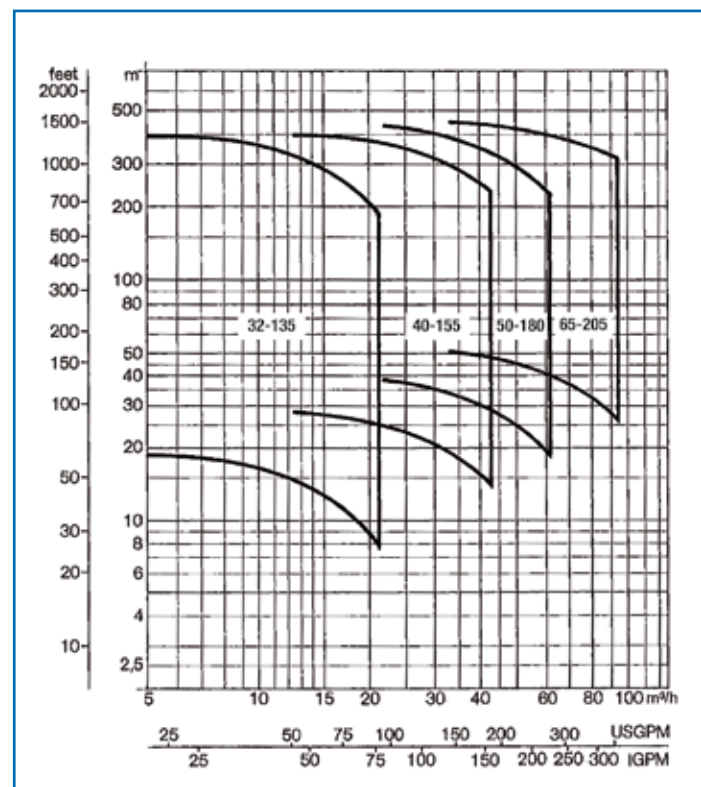
Arrangement S



Speed 1450 rpm



Speed 2900 rpm



Range of application

Maximum number of stages and nominal motor power

Pump type	Stages at speed				Nominal motor power [kW] at speed			
	1450	1750	2900	3500	1450	1750	2900	3500
32-135	14	14	14	10	4	6,3	30	30
40-155, horizontal	14	14	12	7	11	15	55	55
40-155, vertical	14	14	12	7	11	15	45	45
50-180	13	13	8	6	18,5	30	75	75
65-205	11	11	7	4	30	45	110	110

Maximum permissible pump end pressure

Casing material	Max. permissible pump end pressure at pump type			
	32-135	40-155	50-180	65-205
EN-GJL-250	40 bar	40 bar	40 bar	40 bar
CuSn10-C	40 bar	35 bar	30 bar	35 bar
1.4408	50 bar	50 bar	40 bar	50 bar

Pump end pressure = suction pressure + pump delivery head at zero capacity.

Shaft seal	Max. operating temperature	Max. permissible pump end pressure
Gland packing	-20°C up to +110°C	40 bar
Mechanical seal, unbalanced (cast chrome/carbon)	-20°C up to +110°C	12 bar
Mechanical seal, unbalanced (hard metal/carbon)	-20°C up to +140°C	12 bar
Mechanical seal, unbalanced (hard metal/hard metal)	-20°C up to +80°C	12 bar
Mechanical seal, balanced (hard metal/carbon)	-20°C up to +140°C	40 bar
Mechanical seal, balanced (hard metal/hard metal)	-20°C up to +80°C	40 bar

Velocities in pipes and fittings

In order to reduce noise levels and friction in suction and discharge pipes caused by excessive flow we recommend the following values:

- 2 m/s max. in suction piping
- 3 m/s approx. in discharge piping

Technical details

Shaft

Arrangement A, horizontal

The shaft rotates in two external grease packed ball bearings and is protected throughout its length by extended impeller hubs and sleeves in the sealing areas.

Arrangement S, vertical

The shaft rotates in a sleeve bearing contained in the suction casing / pump base. Axial location is provided by the motor bearing which also absorbs the residual thrust of the pump rotor attached to the motor shaft by a rigid coupling.

Shaft seal

Arrangement A, horizontal

Gland packings or mechanical seals at the suction and delivery side. An interconnecting by-pass pipe re-circulates liquid from the delivery side sealing to the suction sealing, thus reducing the sealing pressure of the delivery sealing whilst providing lubrication and water sealing for the suction sealing.

Arrangement S, vertical

No shaft sealing required at suction side. Delivery side see arrangement A.

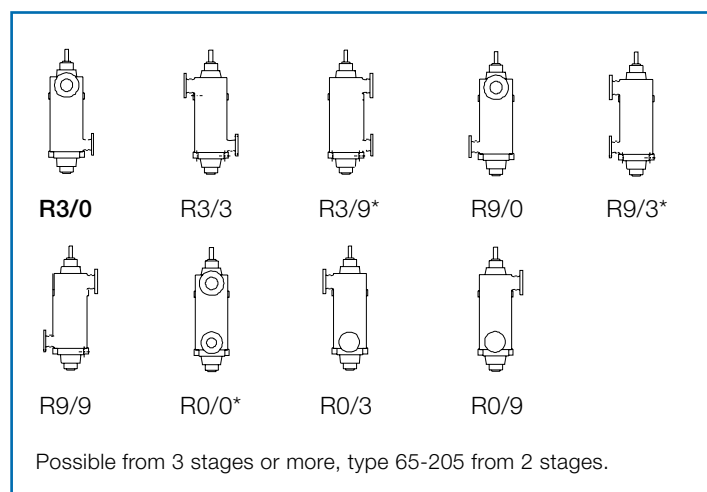
Branch position

Arrangement A, horizontal

Standard arrangement R3/0. Suction and delivery branch to same direction is possible from 3 stages or more. With type 65-205 from 2 stages or more.

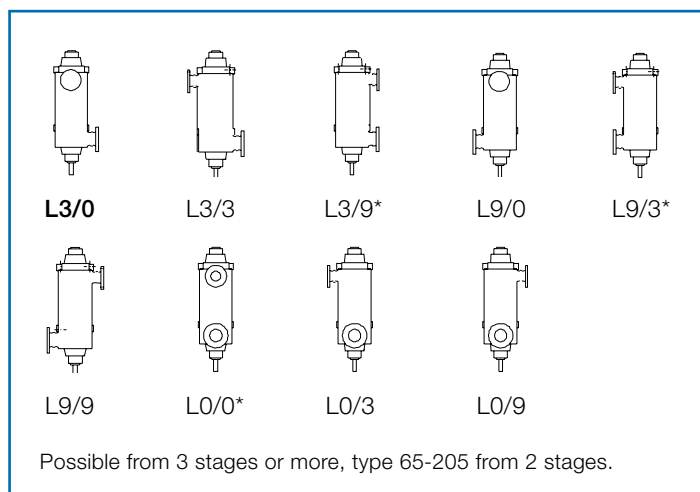
Drive at delivery side (standard)

(Pump for clockwise rotation) Rotation direction of pump shaft is clockwise, seen from drive end.



Drive at suction side (optional)

(Pump for anti-clockwise rotation) Rotation direction of pump shaft is anti-clockwise, seen from drive end.

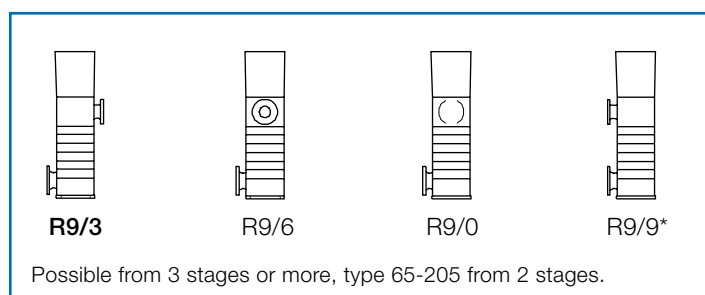


Technical details

Branch position

Arrangement S, vertical

Standard arrangement R9/3. Suction and delivery branch to same direction is possible from 3 stages or more. With type 65-205 from 2 stages or more.



Auxiliary connections

Draining of suction and discharge casing R3/8", gland leakage on motor stool R3/8", vent and manometer connections on suction and delivery side R1/4".

Base frames

Pump and motor assembled on steel base frame, to be fixed to the concrete foundations by screws and to be filled with concrete afterwards, if required.

Coupling

Arrangement A, E

Connection between pump and IEC standard motor by flexible coupling N-Eupex, type B. Protection of flexible coupling against touching by simple coupling guard.

Arrangement S

Connection between pump and IEC standard motor by disc coupling. The coupling is positioned within the motor stool and thus protected against touching.

Speed

Maximum speed is 3500 rpm (60 Hz). Pay attention to the maximum permissible head and operating pressure.

Rotation

Rotation direction in standard arrangement to the right (i.e. clockwise rotation), seen to the free shaft end. In special cases direction to the left with suction side drive is possible.

Drive

Arrangement A, horizontal

In general by IEC standard motor in form B3, horizontal with supporting feet.

Arrangement S, vertical

In general by IEC standard motor in form V1, with flange connection according to DIN 42948.

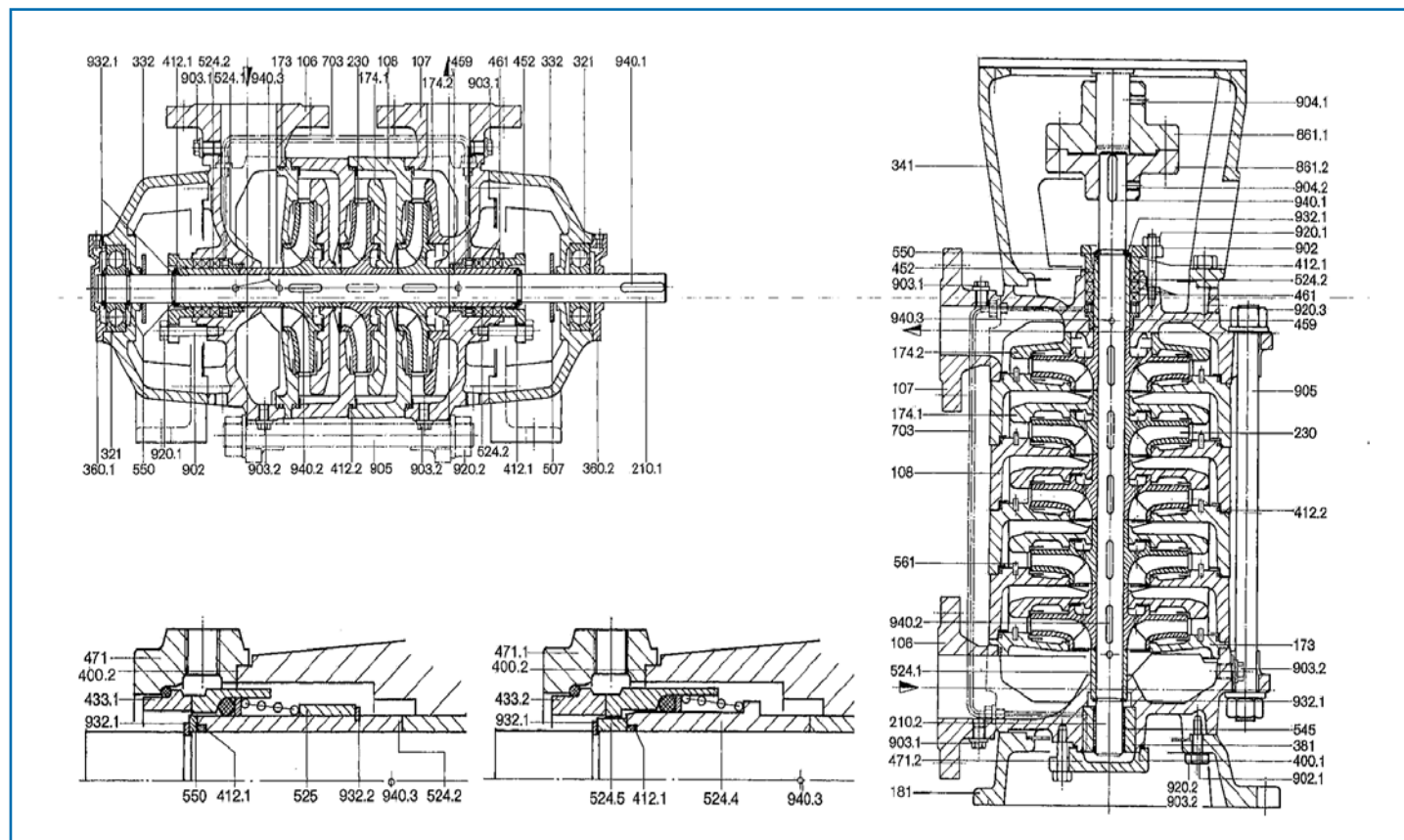
Materials

The standard materials of construction for the main pump components are shown below together with details of alternative materials available. The foreign material designations stated (BS, ASTM, NF) are approximate equivalents to the DIN materials used. Special materials (e.g. stainless steel) upon request.

VDMA	Description	Standard materials according to				Alternative materials according to			
		DIN	BS	ASTM	NF	DIN	BS	ASTM	NF
106	Suction casing	EN-GJL-250 EN-JL 1040	Grade 250	Class 40B	FGL 250	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
107	Delivery casing	EN-GJL-250 EN-JL 1040	Grade 250	Class 40B	FGL 250	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
108	Interstage casing	EN-GJL-250 EN-JL 1040	Grade 250	Class 40B	FGL 250	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
174	Diffuser insert	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
181	Pump base	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				
210	Shaft	1.4021	970 Gr 420 S 29	AISI TP 420	Z 20 C 13	1.4401/ 1.4404	970/4 316 S 16	Typ 316 A276	Z6 CND 17-11 A 35-574
230	Impeller	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
332	Bearing housing	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				
341	Motor stool	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				
360	Bearing cover	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				
381	Bearing cartridge	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				
412.2	O-ring	NBR Perbunan	NBR	NBR	NBR	EPDM	EPDM	EPDM	EPDM
433.1	Mechanical seal, unbalanced	cast chrome / carbon viton				hard metal / carbon viton hard metal / hard metal viton			
433.2	Mechanical seal, balanced	hard metal / carbon viton				hard metal / hard metal viton			
452	Gland	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
459	Lantern ring	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200	CuSn 10-C CC480K	1400 PB 1-c		UE 10 A 53-707
461	Gland packing	Buraflon							
502	Casing wear ring (only metal execution)					CuSn 12-C CC483K	1400 PB 1-c		UE 14
524.2	Shaft sleeves	Packing	CuZn 40 Al 2						
		Mec. Seal	1.4021	970 Gr 420 S 29	AISI TP 420	Z 20 C 13	1.4401/ 1.4404	970/4 316 S 16	Typ 316 A276
525	Distance sleeve	Mec. Seal	CuZn 40 Al 2			CuAl 10 Fe			
542	Neck bush (only metal execution)					G-CuPB 15 Sn 2.1182	LB1 1400	Alloy 3 D	U-Pb 15 E8 A 53 751
545	Bearing bush	G-CuPb 15 Sn 2.1182	LB 1 1400	Alloy 3 D	U-Pb 15 E8 A53 751	G-CuPB 15 Sn 2.1182	LB1 1400	Alloy 3 D	U-Pb 15 E8 A 53 751
861	Disc coupling	EN-GJL-200 EN-JL 1030	Grade 220	Class 30B	FGL 200				

Cross section and parts list

Cross section



Parts list

Part	Description
106	Suction casing
107	Delivery casing
108	Interstage casing
173	Diffuser plate
174.1	Diffuser insert
174.2	Diffuser insert
181	Pump base
210.1	Shaft
210.2	Shaft
230	Impeller
321	Groove ball bearing
332	Bearing housing
341	Motor stool
360.1	Bearing cover
360.2	Bearing cover
381	Bearing cartridge
400.1	Gasket
400.2	Gasket

Part	Description
412.1	O-ring
412.2	O-ring
433.1	Mechanical seal, unbalanced
433.2	Mechanical seal, balanced
452	Gland
459	Lantern ring
461	Gland packing
471.1	Seal cover
471.2	Seal cover
507	Thrower ring
524.1	Shaft sleeve
524.2	Shaft sleeve
524.4	Shaft sleeve
524.5	Shaft sleeve
525	Distance sleeve
545	Bearing bush
550	Distance ring
561	Dowel pin

Part	Description
703	Bypass pipe
861.1	Coupling half
861.2	Coupling half
902	Stud
902.1	Stud
902.2	Stud
903.1	Plug
903.2	Drain plug
904.1	Grup screw
904.2	Grup screw
905	Tie bolt
920.1	Hexagon nut
920.2	Hexagon nut
932.1	Circlip
932.2	Circlip
940.1	Key
940.2	Key
940.3	Key

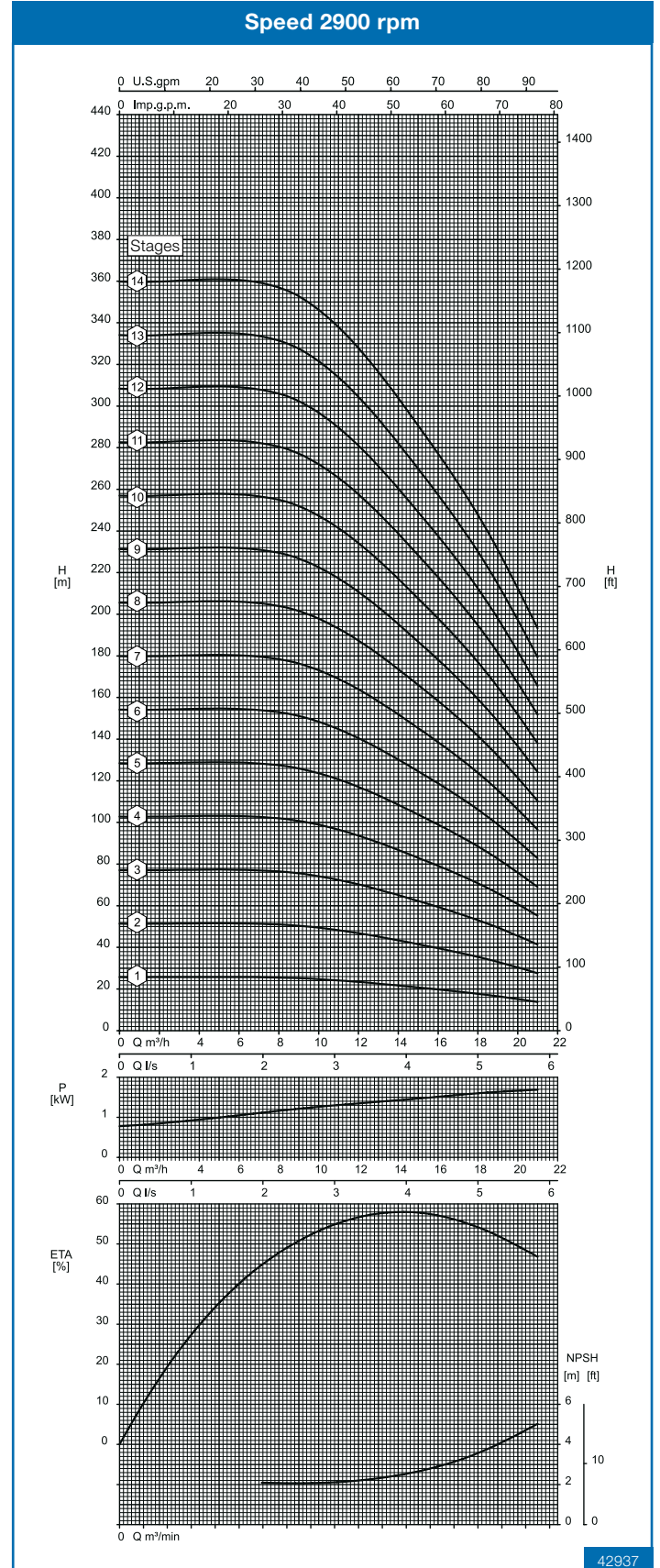
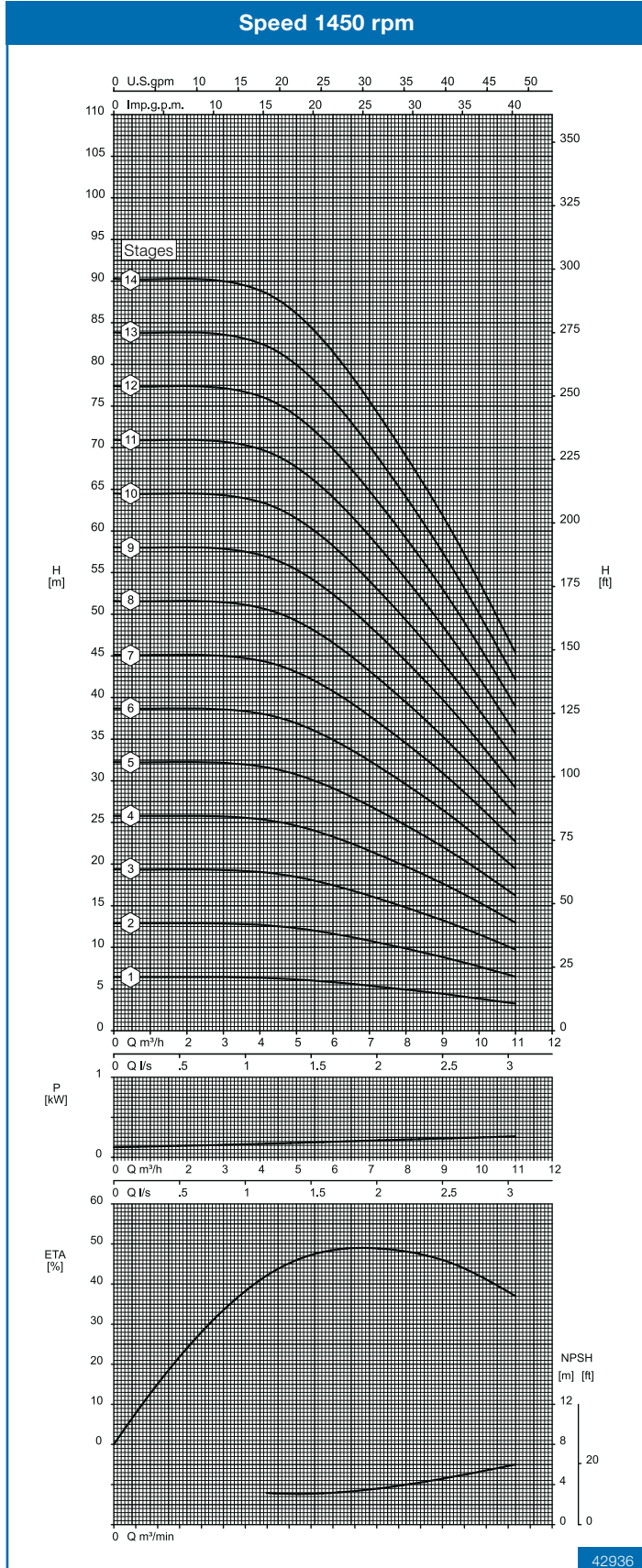
Performance curve

Frequency 50 Hz

Pump type 32-135.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



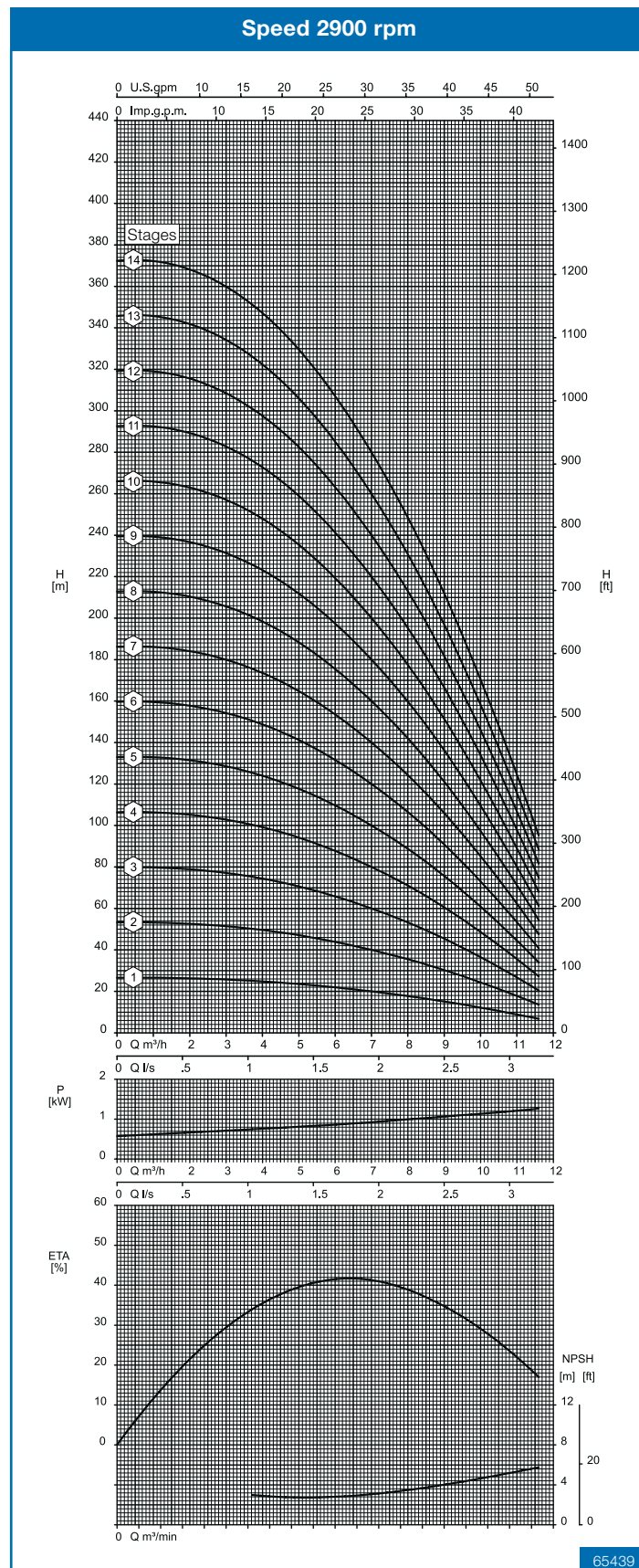
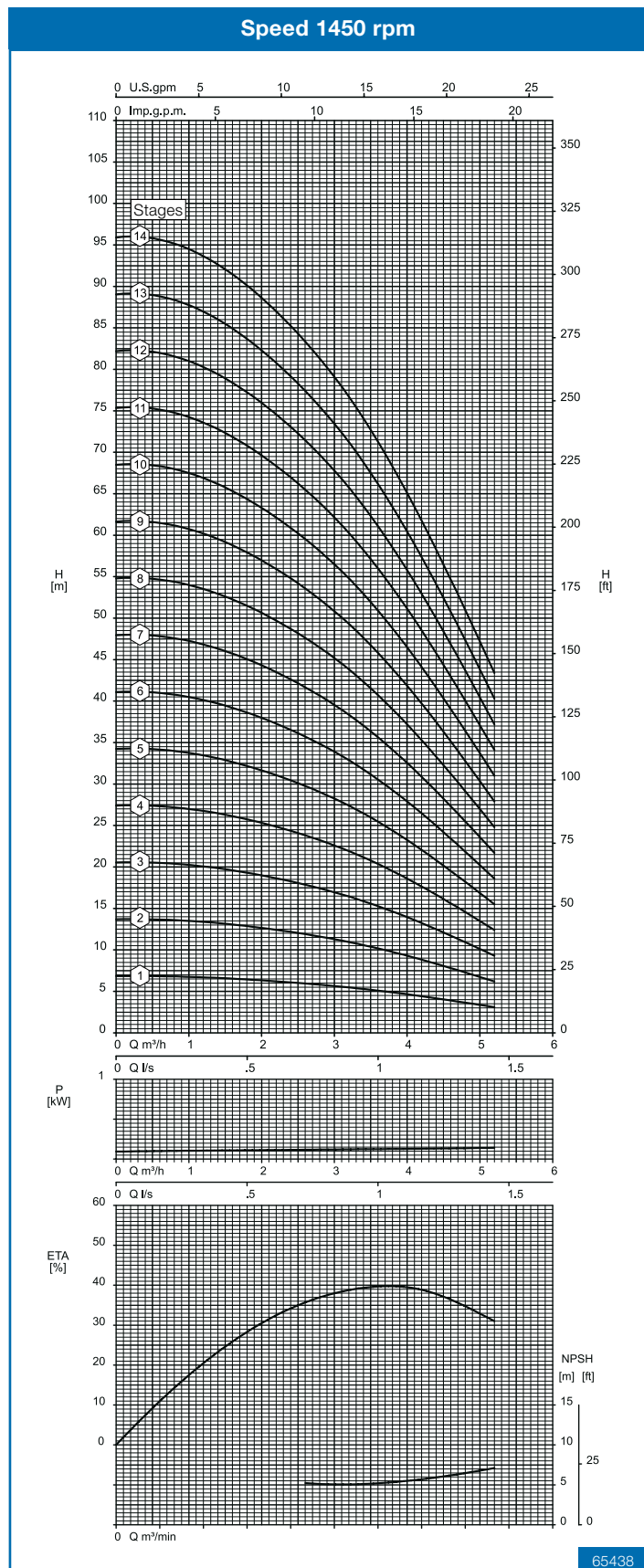
Performance curve

Frequency 50 Hz

Pump type 32-135.2

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



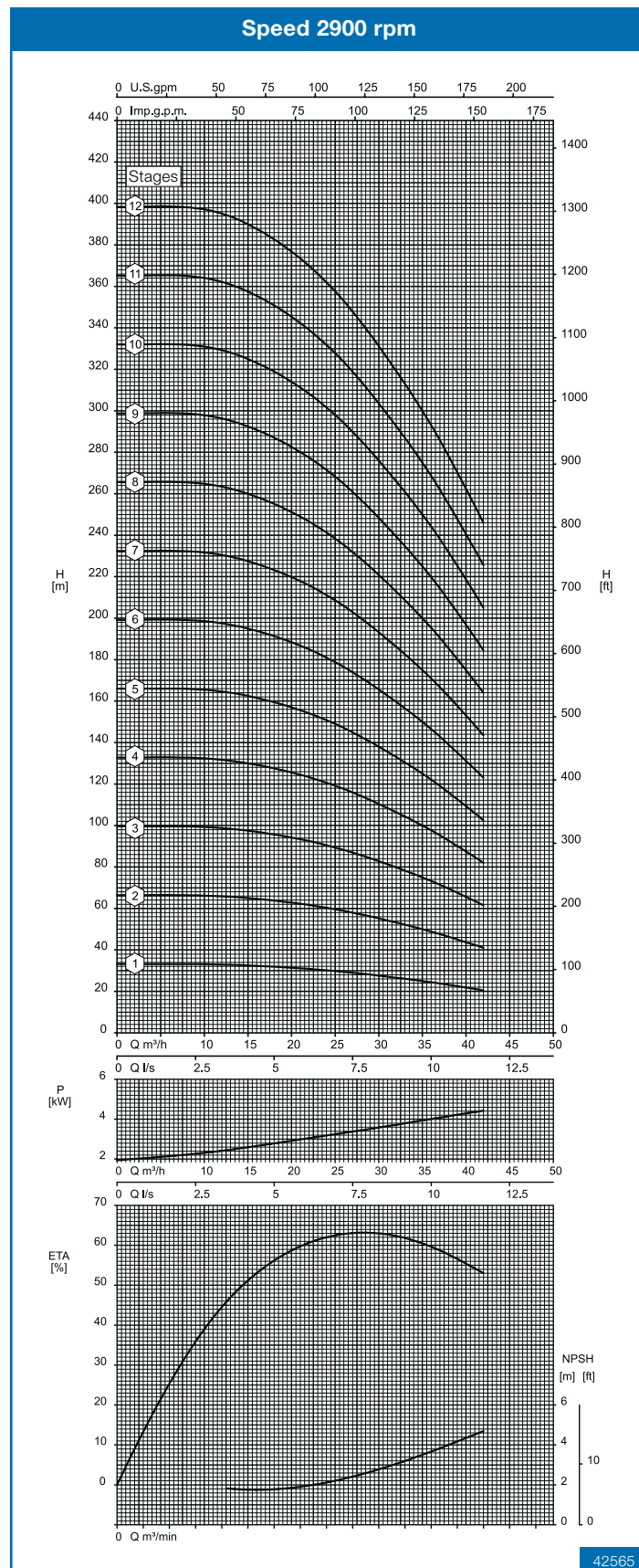
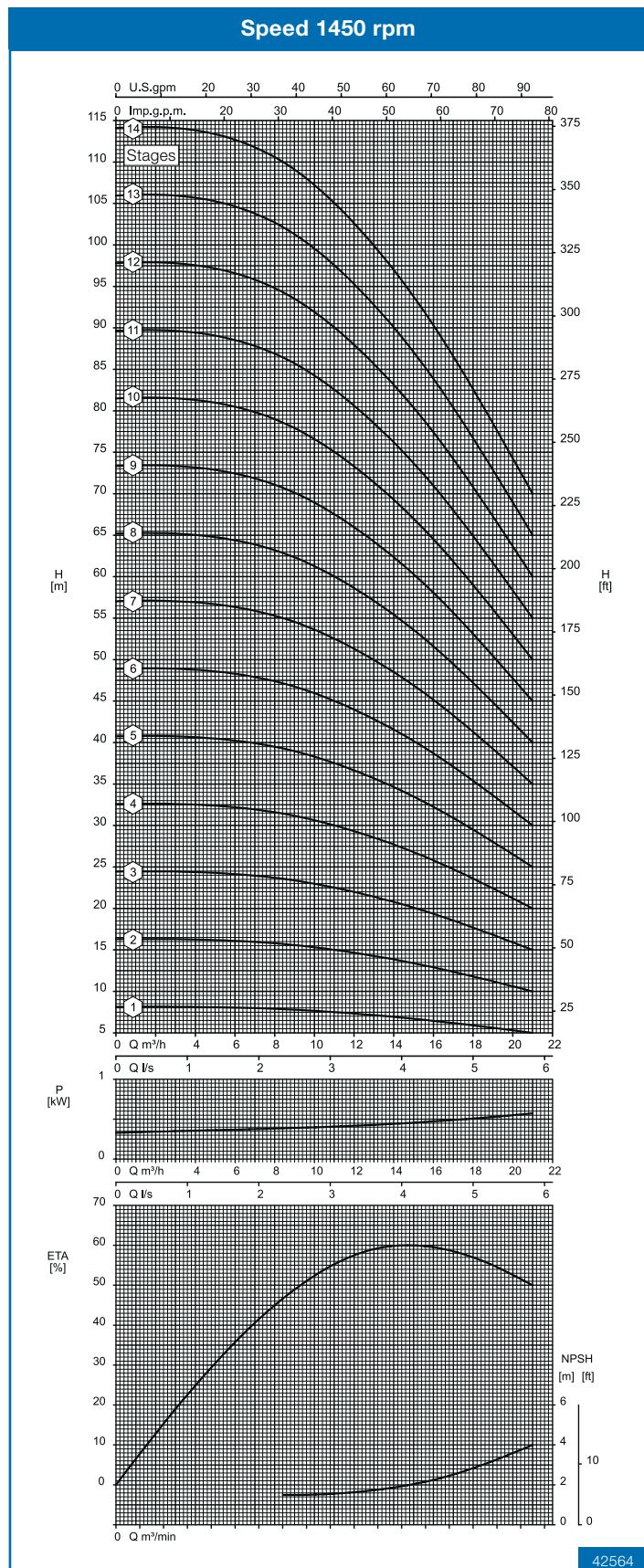
Performance curve

Frequency 50 Hz

Pump type 40-155.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



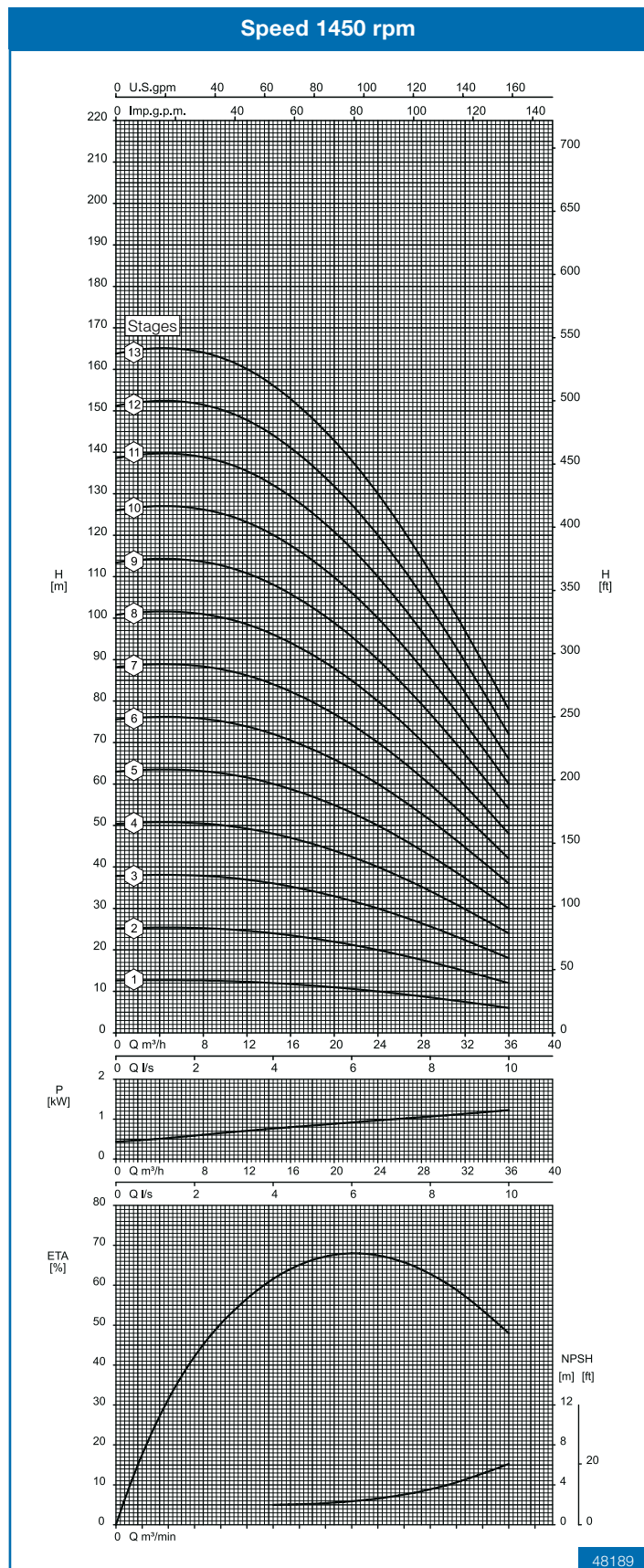
Performance curve

Frequency 50 Hz

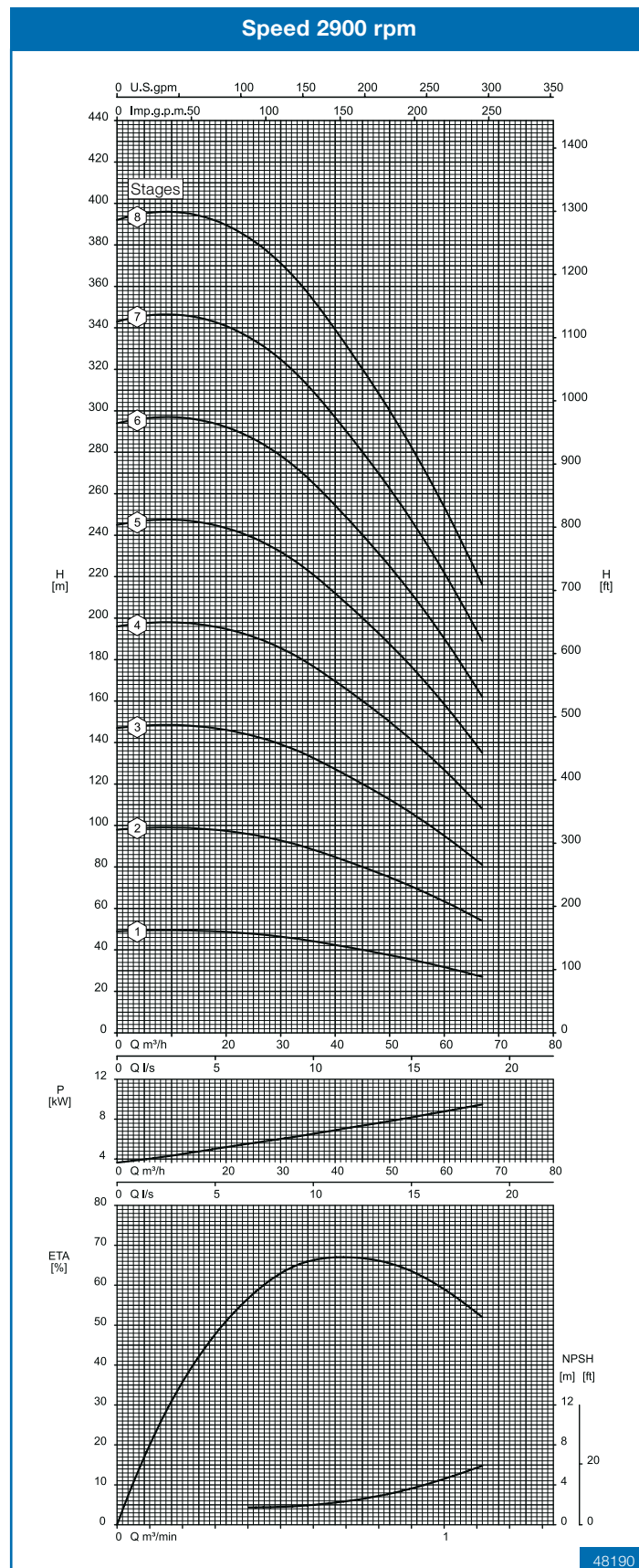
Pump type 50-180.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



48189



48190

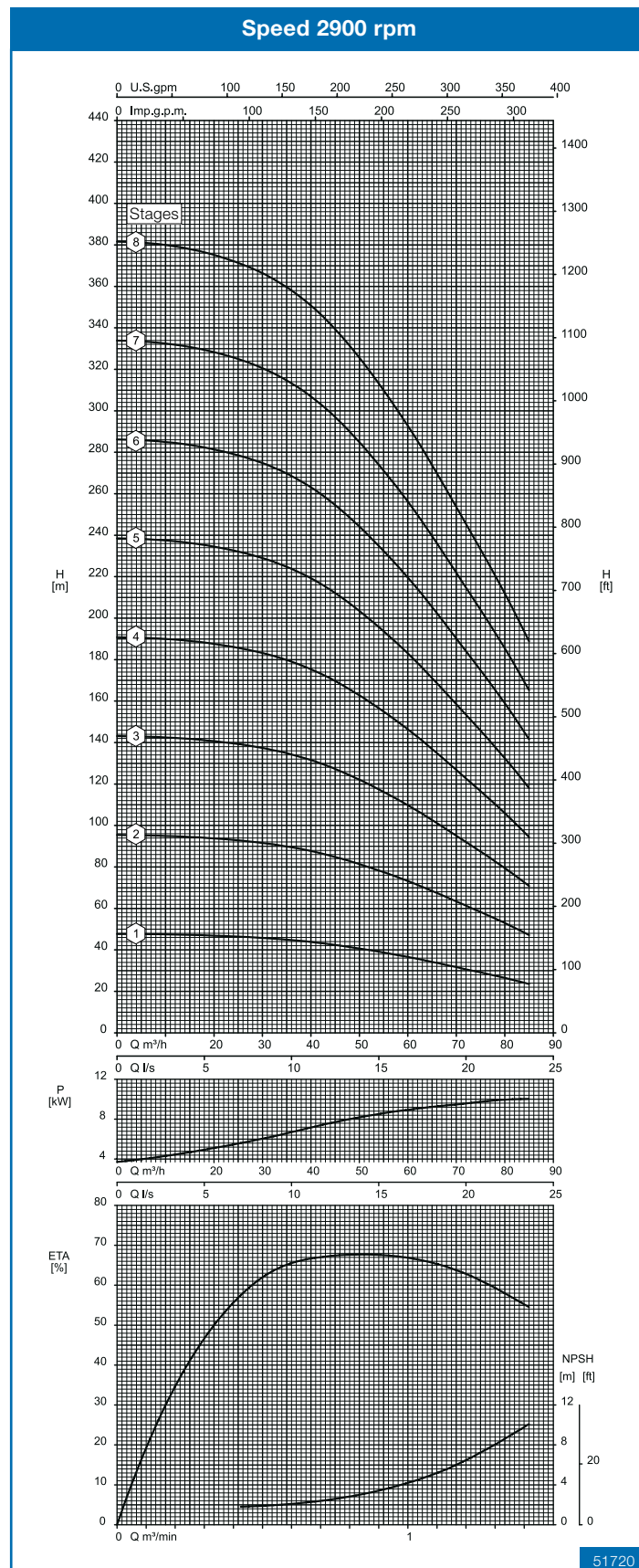
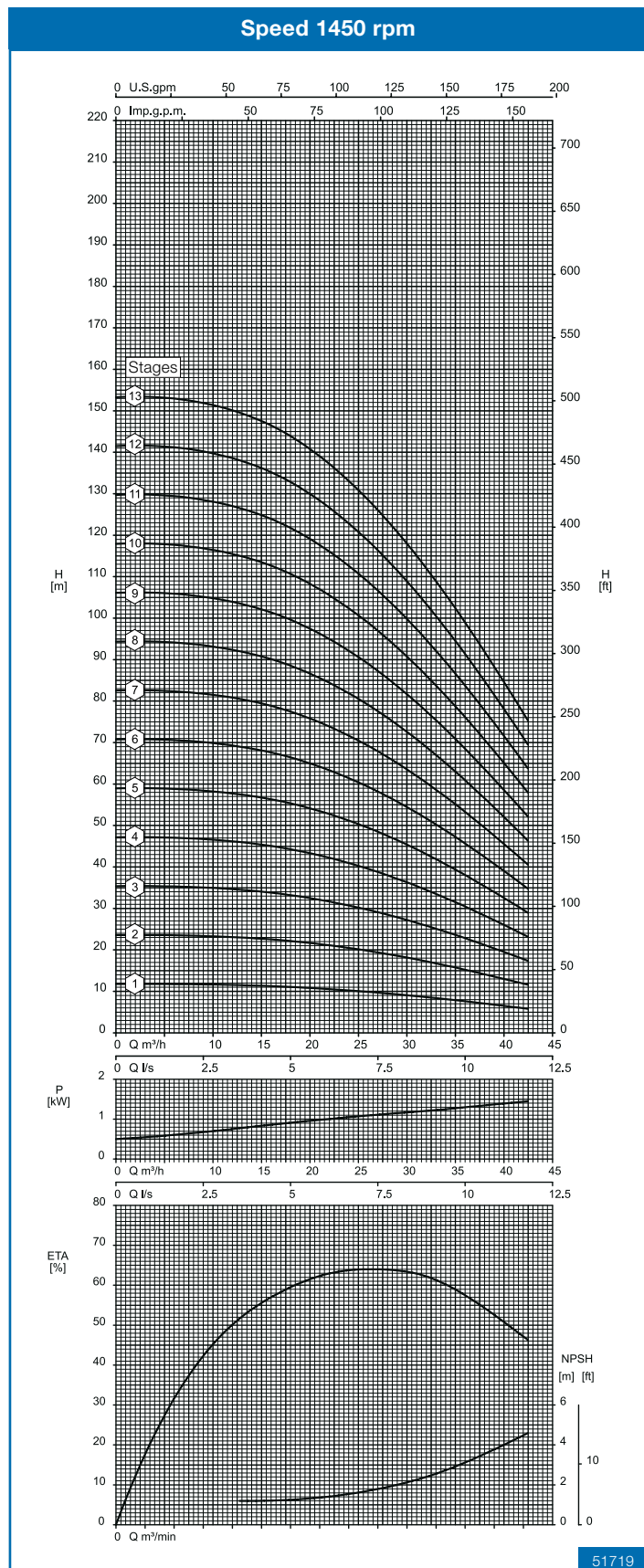
Performance curve

Frequency 50 Hz

Pump type 50-180.2

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



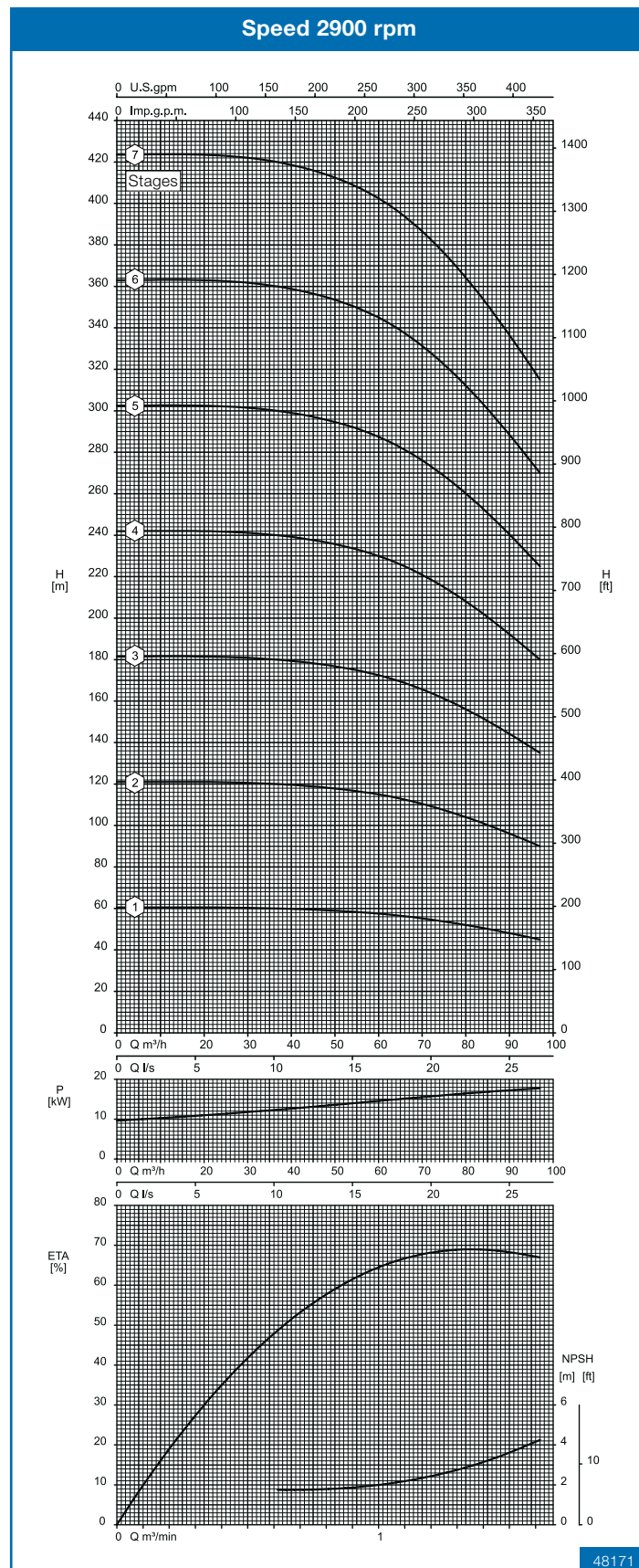
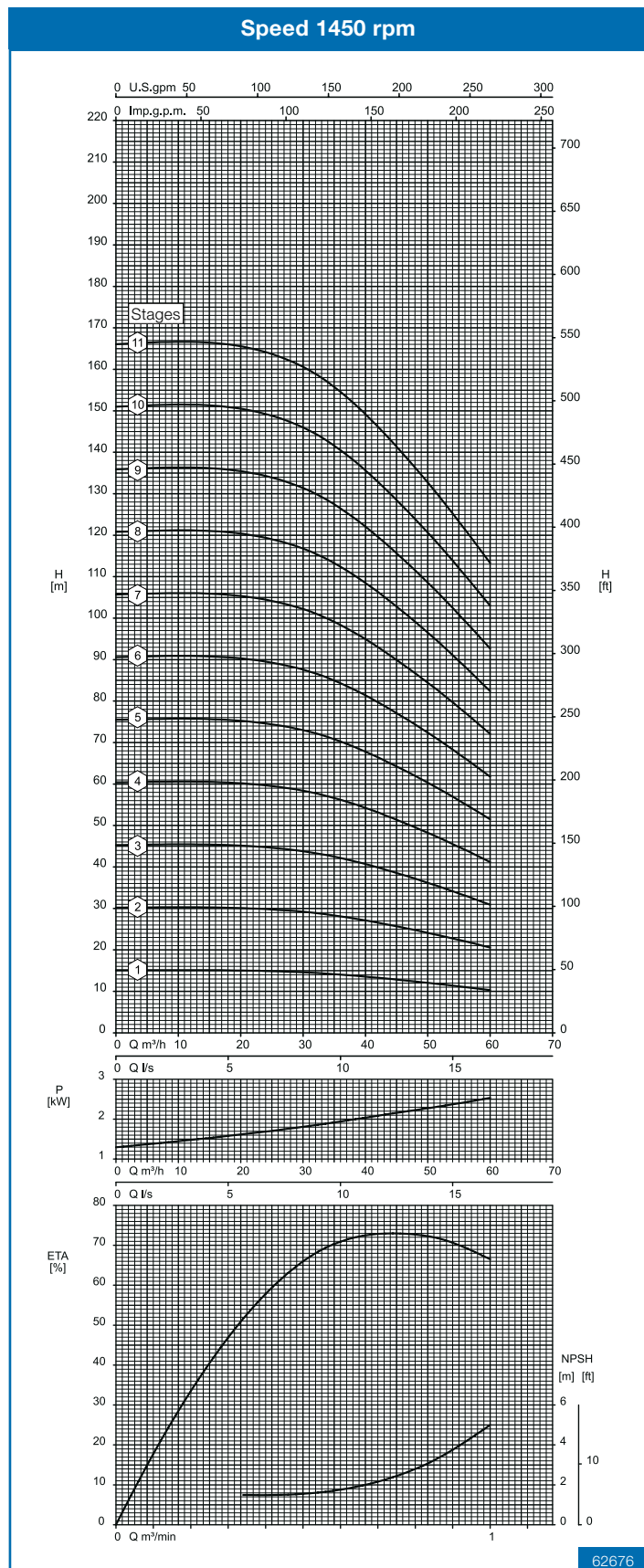
Performance curve

Frequency 50 Hz

Pump type 65-205.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



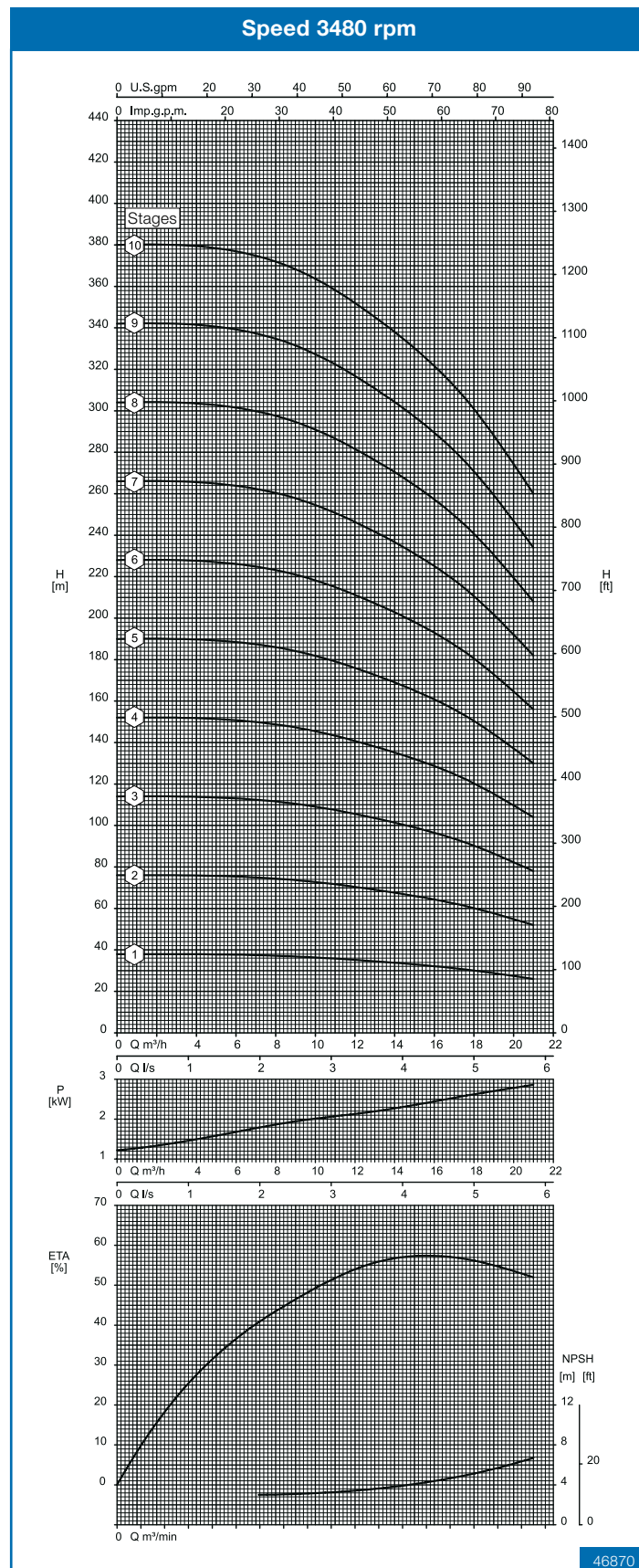
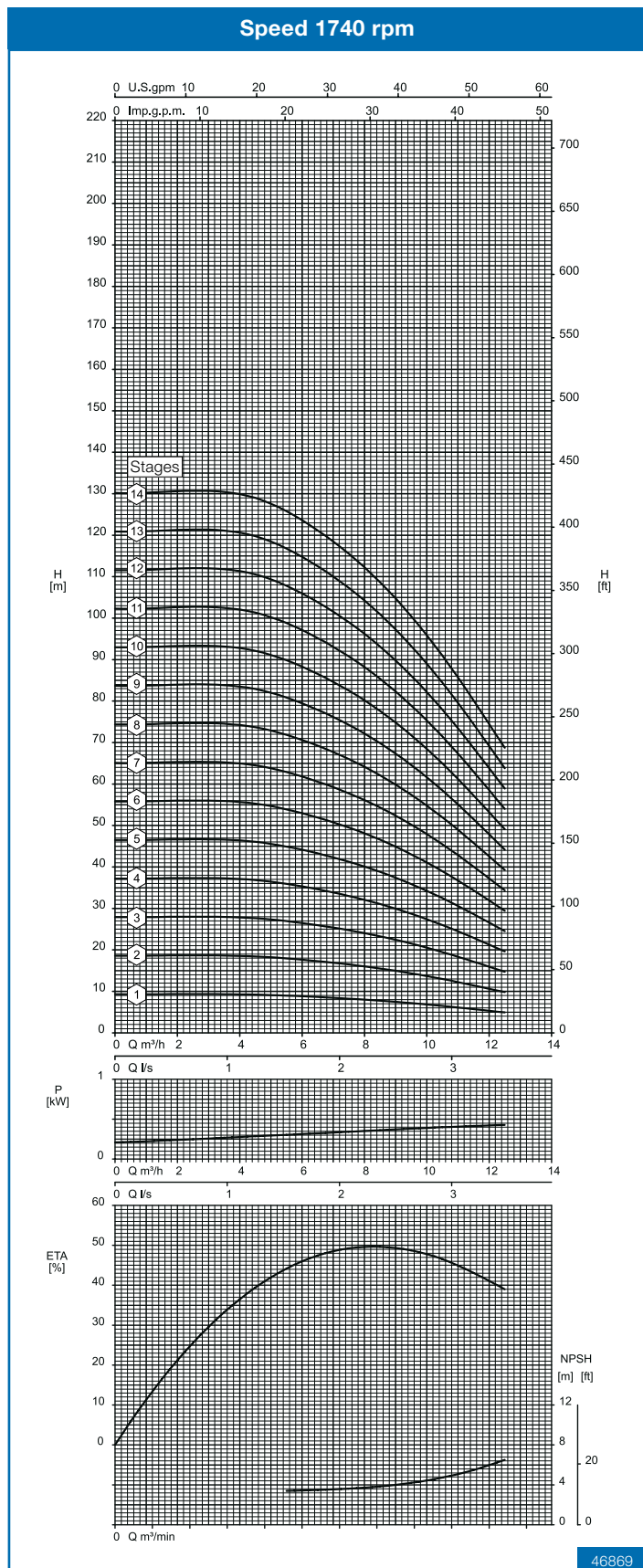
Performance curve

Frequency 60 Hz

Pump type 32-135.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



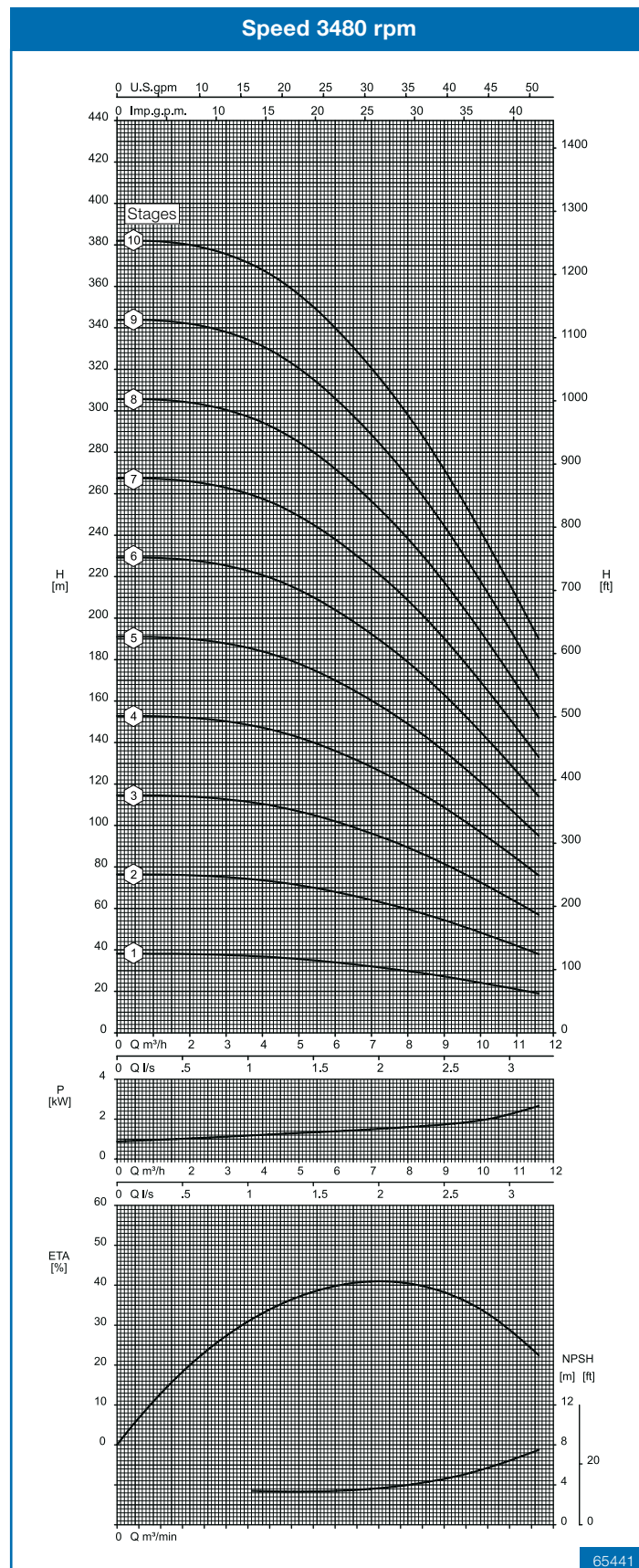
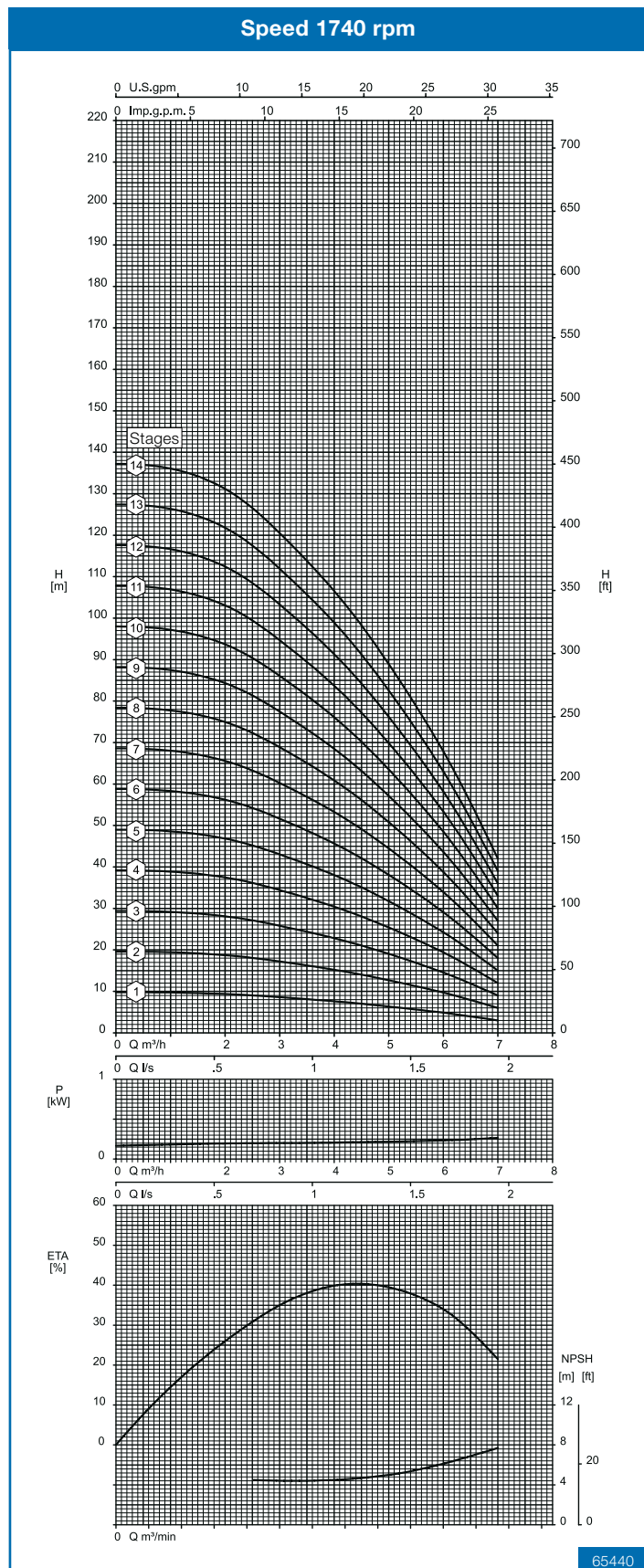
Performance curve

Frequency 60 Hz

Pump type 32-135.2

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



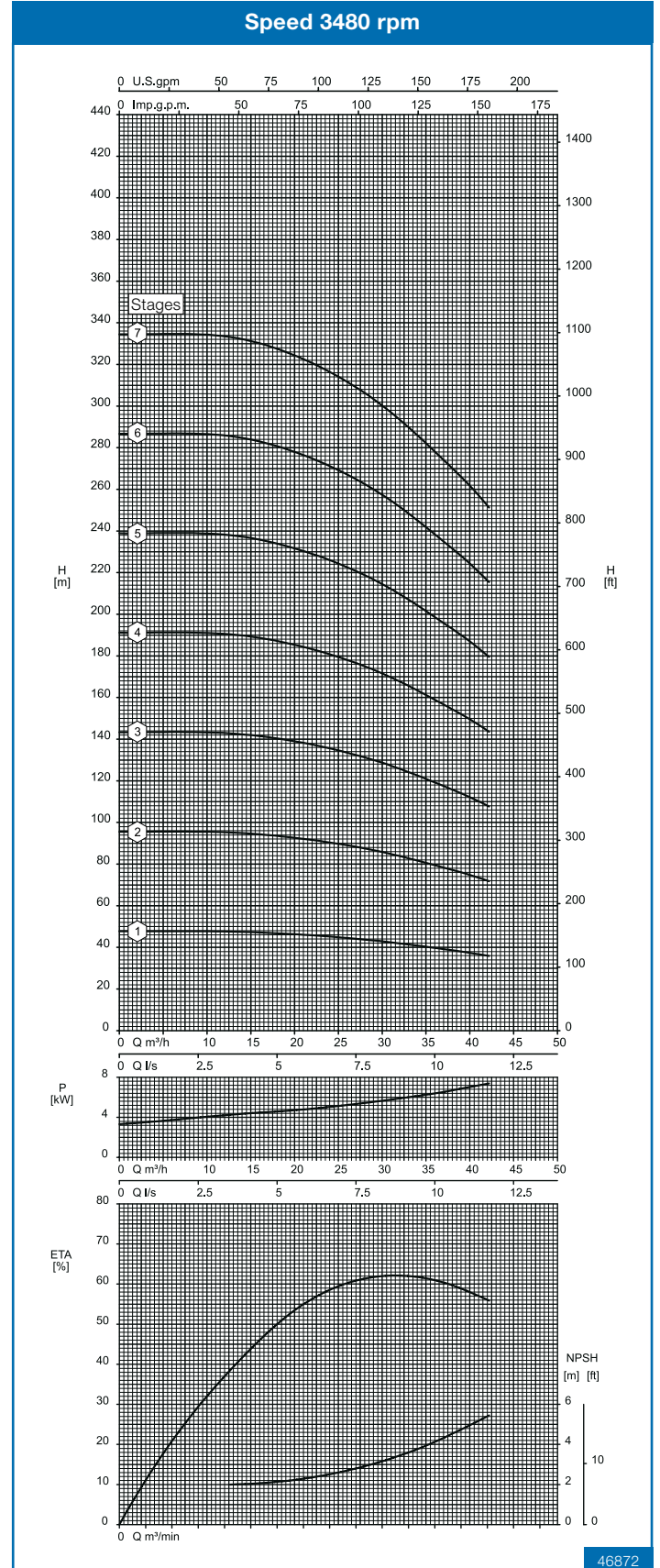
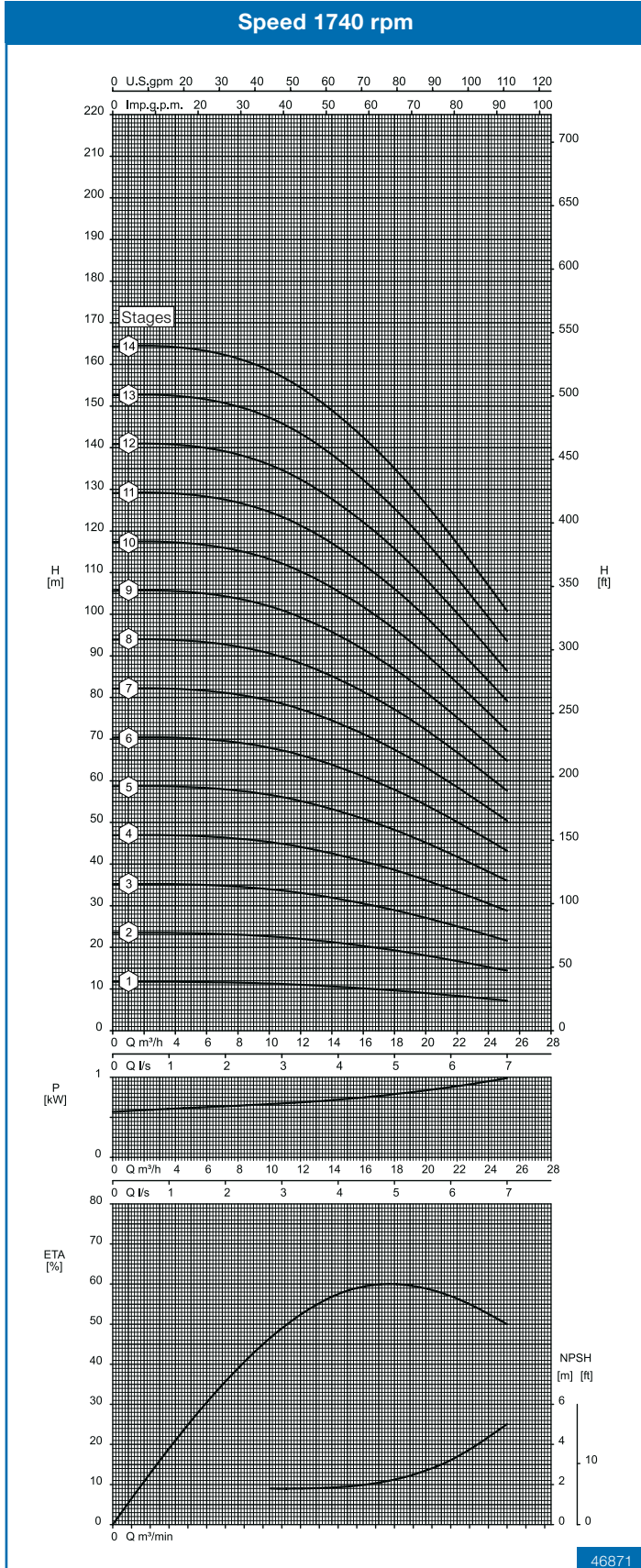
Performance curve

Frequency 60 Hz

Pump type 40-155.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



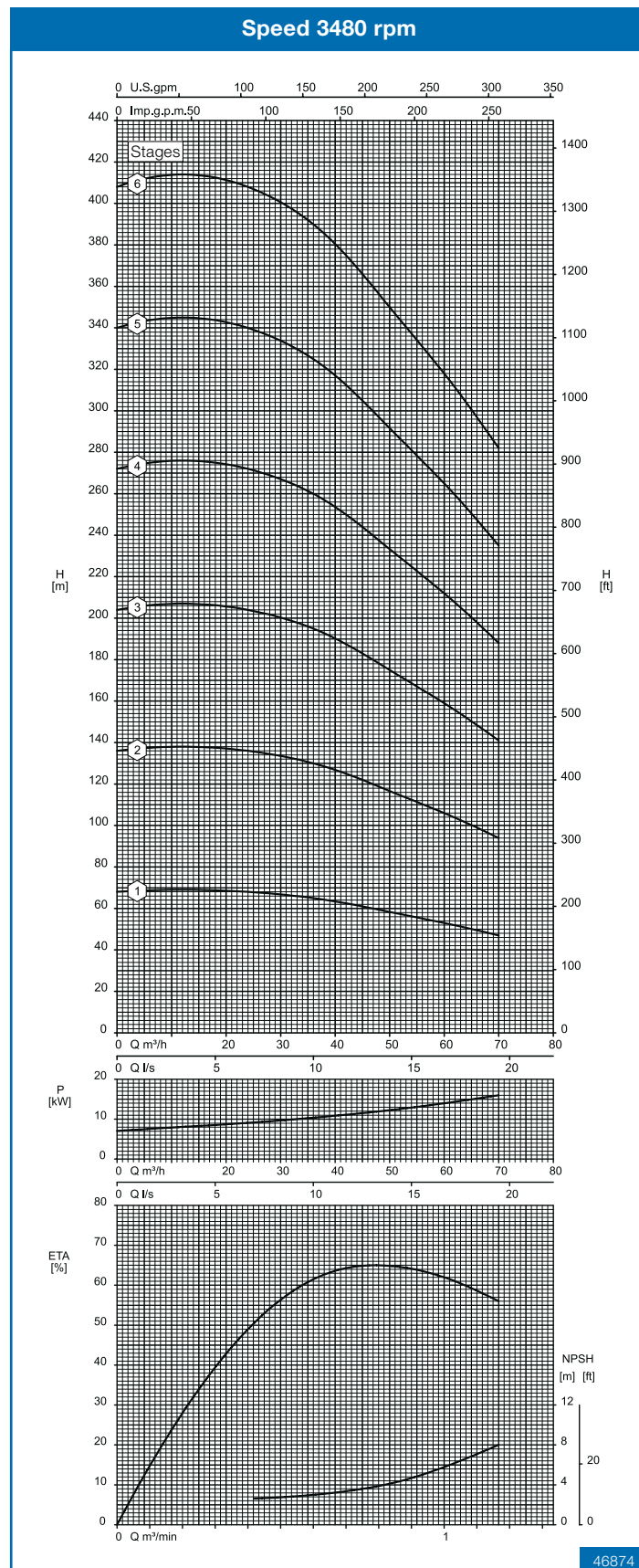
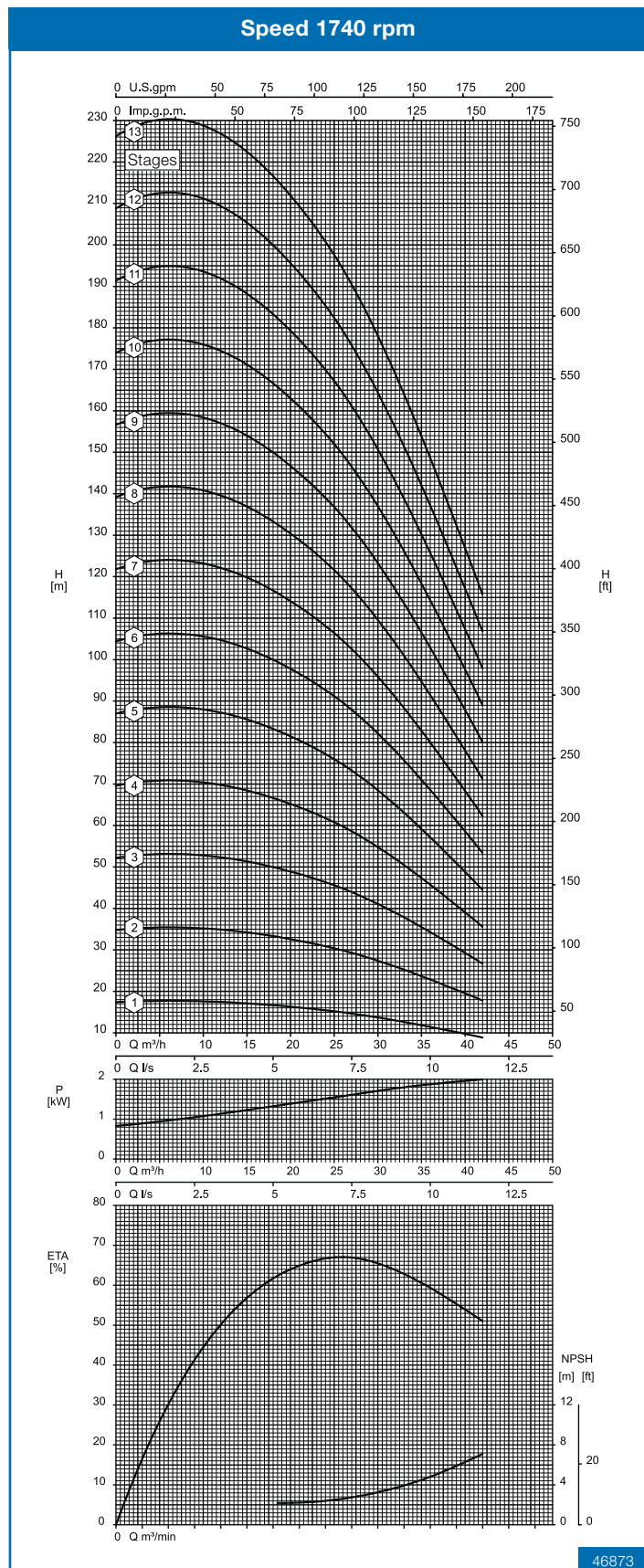
Performance curve

Frequency 60 Hz

Pump type 50-180.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



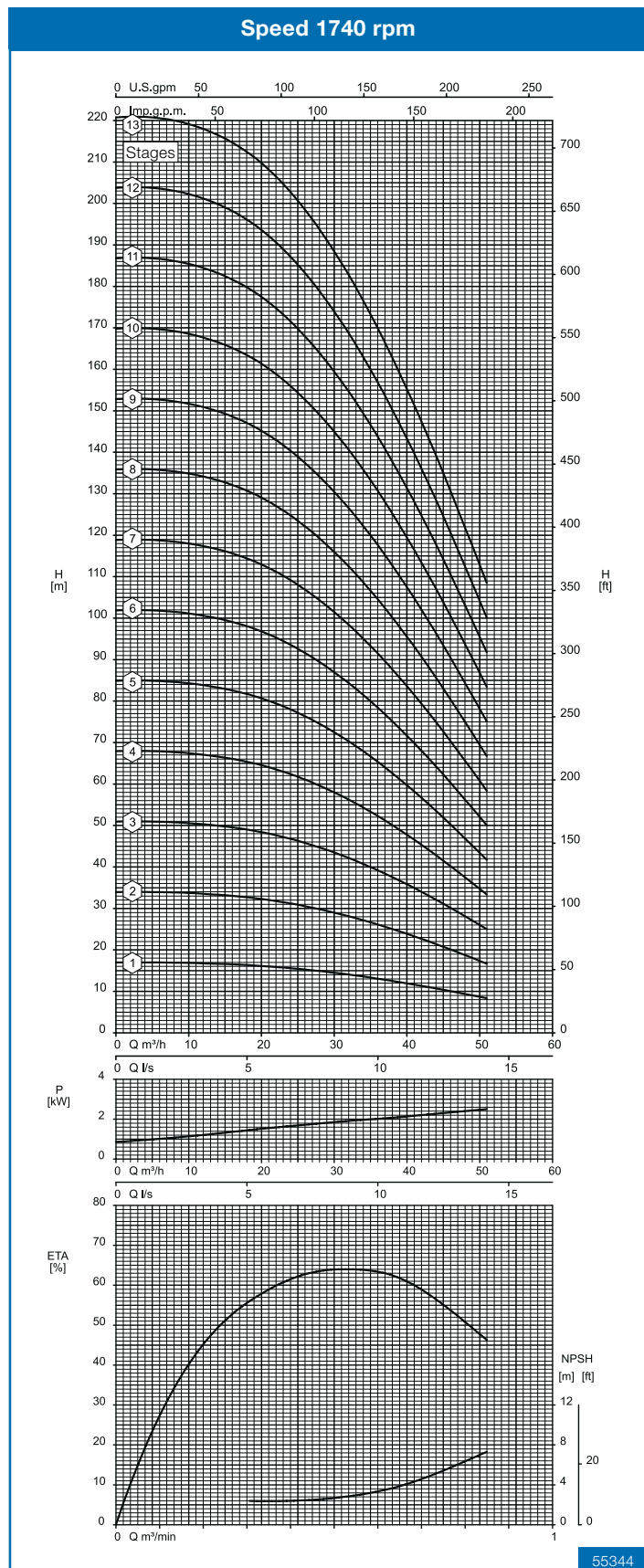
Performance curve

Frequency 60 Hz

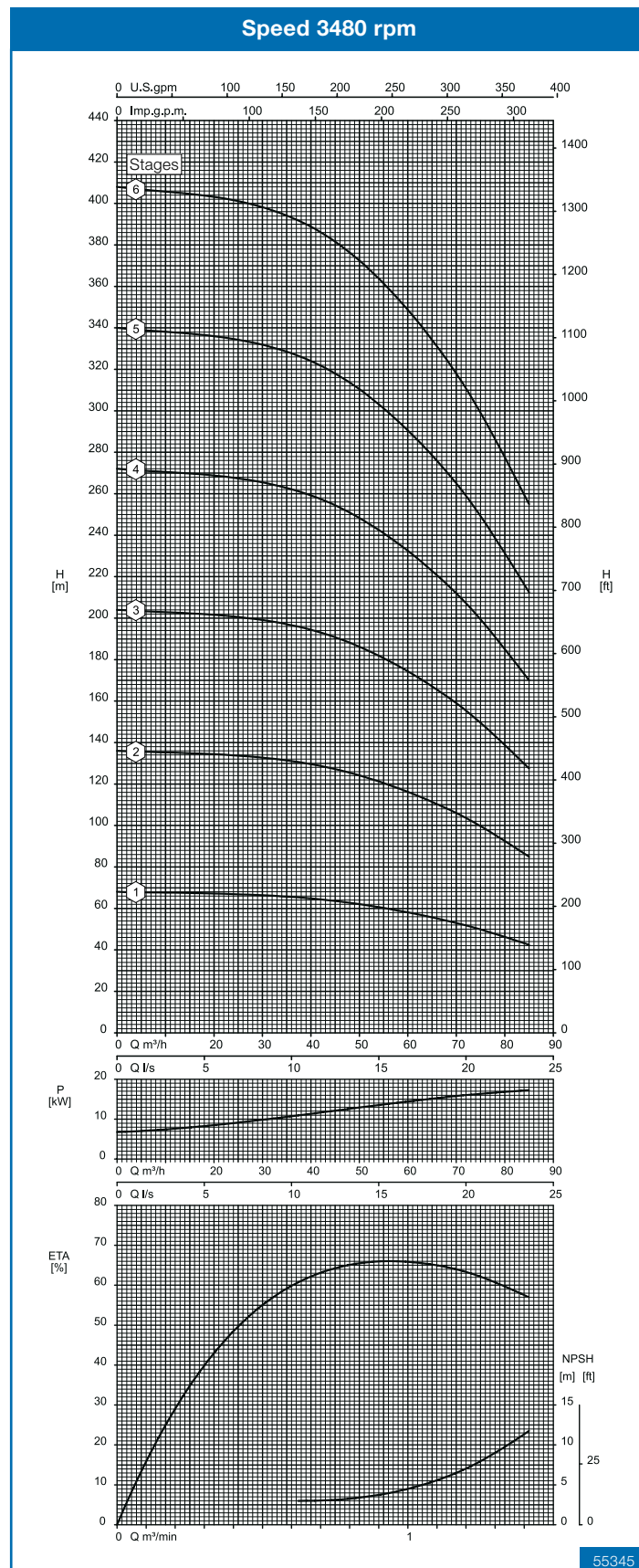
Pump type 50-180.2

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



55344



55345

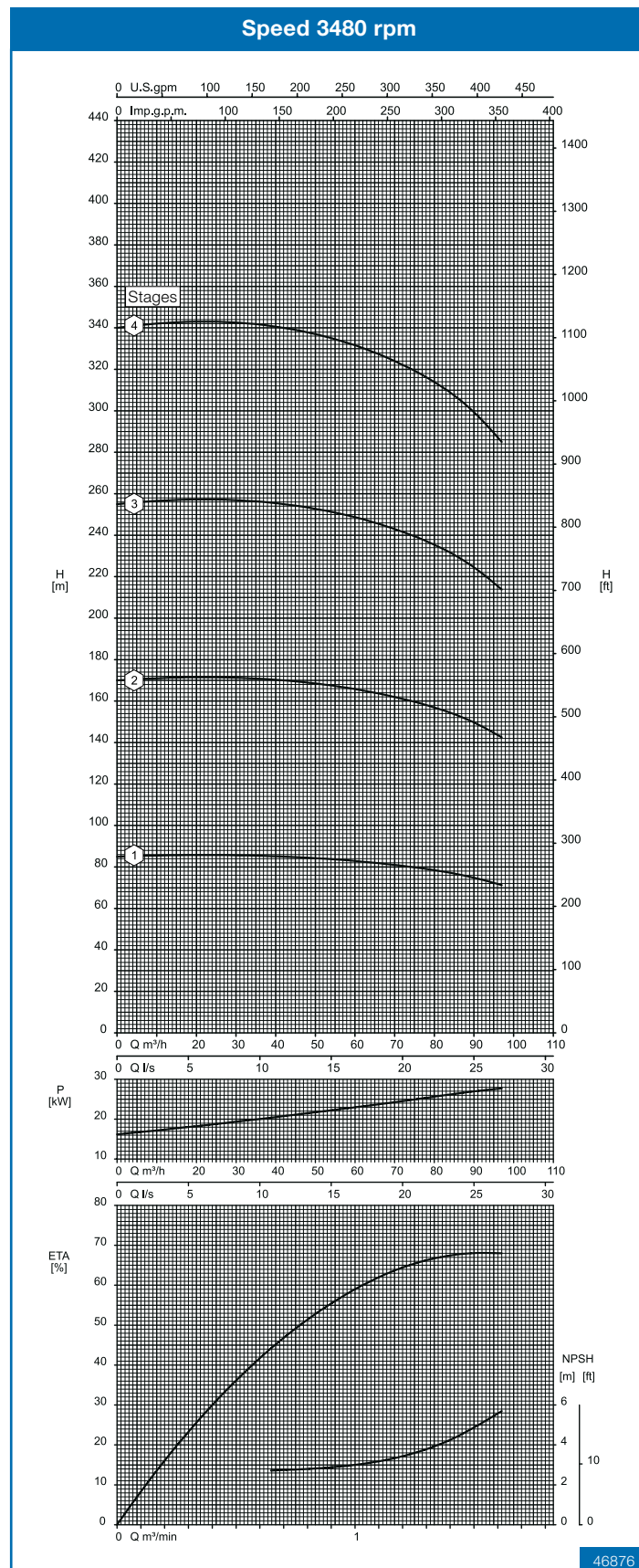
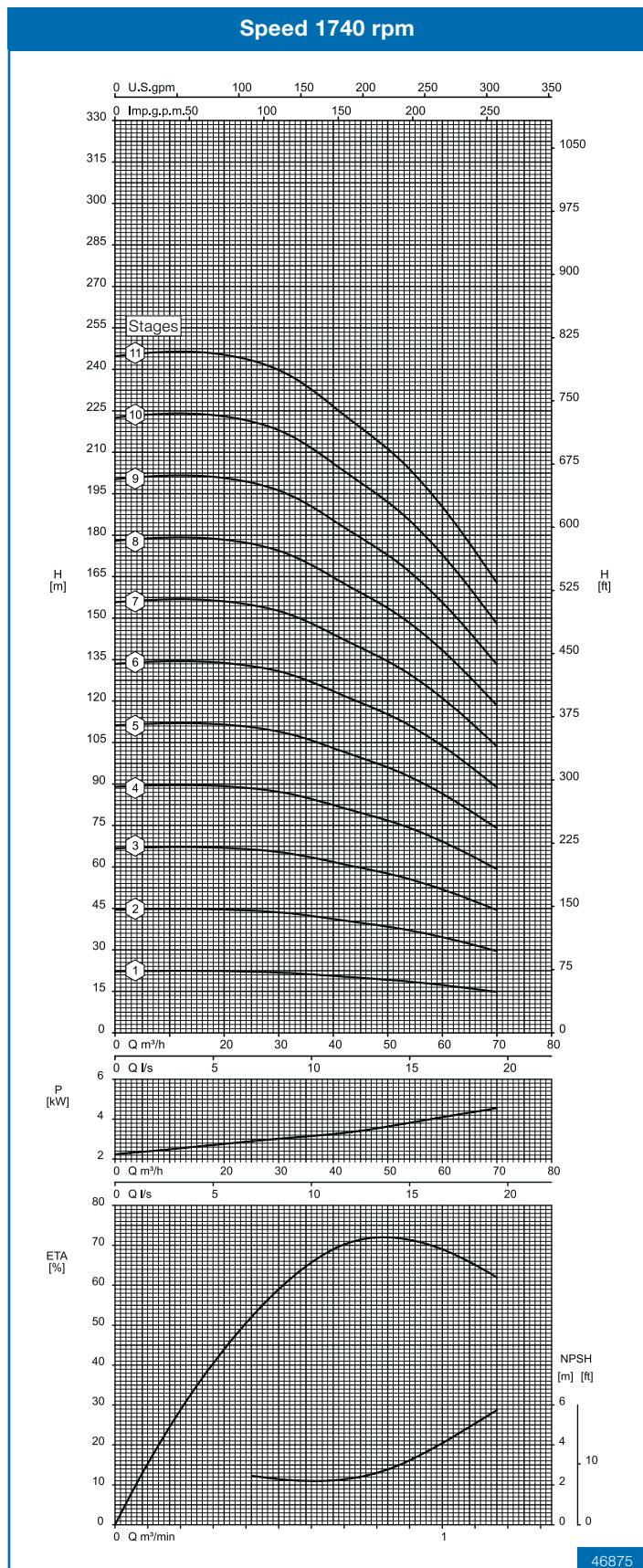
Performance curve

Frequency 60 Hz

Pump type 65-205.1

Notes to performance curves

- Curves valid according to DIN EN ISO 9906/2B.
- Power data refers to clean water, density 1 kg/dm³, viscosity 1 mm²/s.
- All duty points between the individual stage characteristics can be achieved by adapting the impeller diameters.



Dimensions

Arrangement A

Shaft end according to DIN 748/1
Key DIN 6885/1

Manometer connection R1/4"
Gland leakage R3/8"
Drain R3/8"

Suction and discharge connection
Flange connections according to EN 1092-2, PN10-40.

DN	PN	D	k	d2	y
32	10-40	140	100	18	4
40	10-40	150	110	18	4
50	10-40	165	125	18	4
65	10-16	185	145	18	4
65	25-40	185	145	18	8
80	10-40	200	160	18	8

y = Number of bores

Dimension »a1« for number of stages

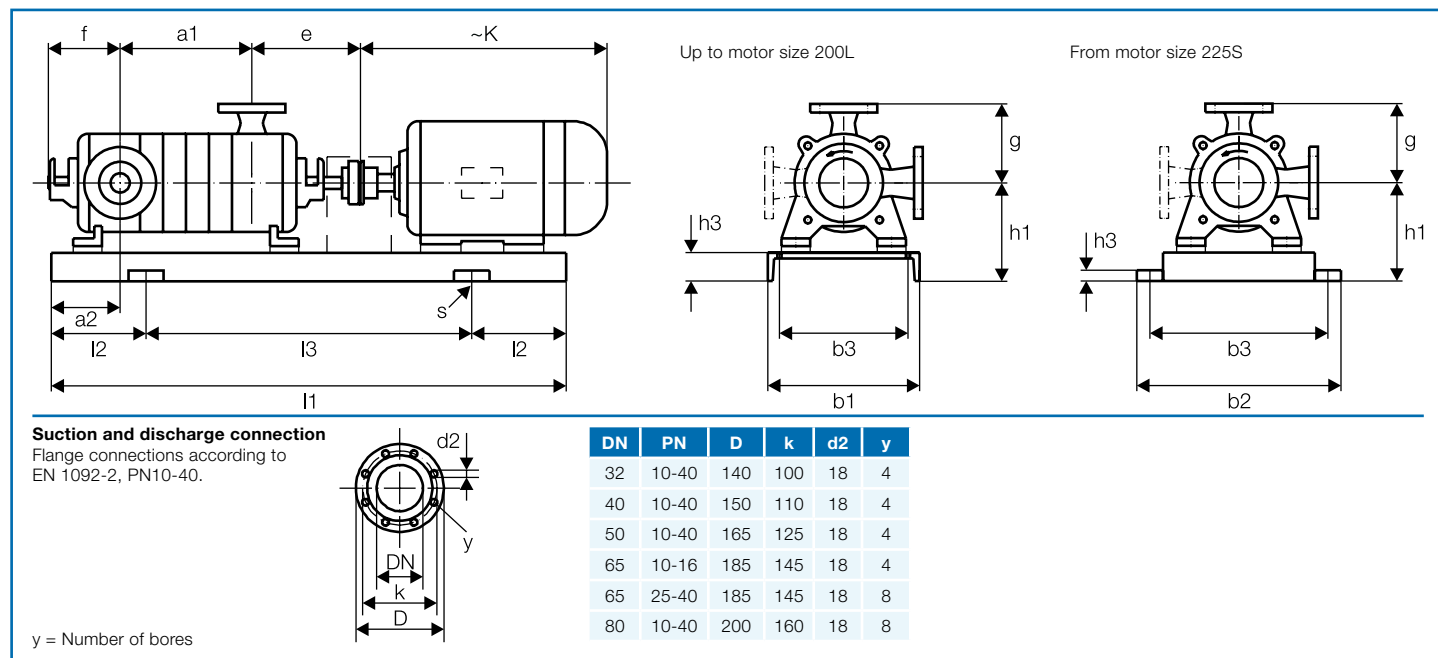
Type	DNS	DND	1	2	3	4	5	6	7	8	9	10	11	12	13	14
32-135	40	32	83	131	179	227	275	323	371	419	467	515	563	611	659	707
40-155	50	40	90	145	200	255	310	365	420	475	530	585	640	695	750	805
50-180	65	50	102	169	236	303	370	437	504	571	638	705	772	839	906	
65-205	80	65	125	200	275	350	425	500	575	650	725	800	875			

Shaft end

Type	b	e	f	g	h	i	h2	m	q	o	p	r	l	d	t	s
32-135	20	215	150	165	132	78	16	260	200	60	60	14	65	25	28	8
40-155	20	215	150	170	132	78	16	260	200	60	60	14	65	25	28	8
50-180	30	250	180	190	160	98	16	280	220	80	60	18	70	30	33	8
65-205	30	275	195	210	180	108	16	330	270	80	60	18	80	35	38	10

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
32-135	1	80		H501N	40	32	800	20	760	138	150	83	215	280
							300	-	230	100	232	165	18	
32-135	1	90S		H502N	40	32	800	20	760	138	150	83	215	330
							300	-	230	100	232	165	18	
32-135	1	90L		H573N	40	32	800	20	760	138	150	83	215	340
							300	-	230	100	232	165	18	
32-135	1	100L		H503	40	32	800	20	760	138	150	83	215	400
							300	-	230	100	232	165	18	
32-135	2	80		H504N	40	32	800	20	760	138	150	131	215	280
							300	-	230	100	232	165	18	
32-135	2	90S		H505N	40	32	900	20	860	138	150	131	215	330
							300	-	230	100	232	165	18	
32-135	2	90L		H574N	40	32	900	20	860	138	150	131	215	340
							300	-	230	100	232	165	18	
32-135	2	100L		H506	40	32	900	20	860	138	150	131	215	400
							300	-	230	100	232	165	18	
32-135	2	112M		H579	40	32	900	20	860	138	150	131	215	400
							300	-	230	100	232	165	18	
32-135	2	132S		H583	40	32	900	20	860	138	150	131	215	470
							300	-	230	100	232	165	18	
32-135	3	80		H507N	40	32	900	20	860	138	150	179	215	280
							300	-	230	100	232	165	18	
32-135	3	90S		H508N	40	32	900	20	860	138	150	179	215	330
							300	-	230	100	232	165	18	
32-135	3	90L		H575N	40	32	900	20	860	138	150	179	215	340
							300	-	230	100	232	165	18	
32-135	3	100L		H509	40	32	900	20	860	138	150	179	215	400
							300	-	230	100	232	165	18	
32-135	3	112M		H510	40	32	900	20	860	138	150	179	215	400
							300	-	230	100	232	165	18	

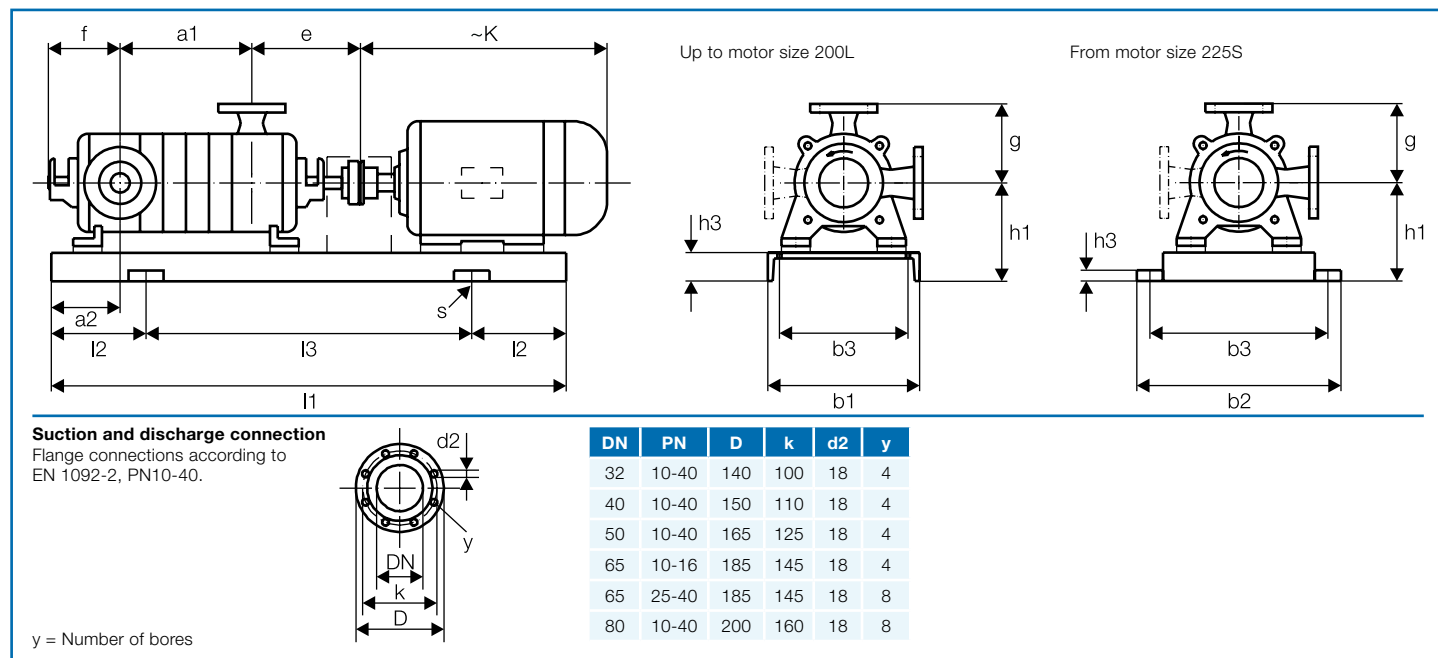
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
32-135	3	132S		H511	40	32	1000	20	960	138	150	179	215	470
							300	-	230	100	232	165	18	
32-135	4	80		H512N	40	32	900	20	860	138	150	227	215	280
							300	-	230	100	232	165	18	
32-135	4	90S		H513N	40	32	1000	20	960	138	150	227	215	330
							300	-	230	100	232	165	18	
32-135	4	90L		H576N	40	32	1000	20	960	138	150	227	215	340
							300	-	230	100	232	165	18	
32-135	4	100L		H514	40	32	1000	20	960	138	150	227	215	400
							300	-	230	100	232	165	18	
32-135	4	112M		H515	40	32	1000	20	960	138	150	227	215	400
							300	-	230	100	232	165	18	
32-135	4	132S		H516	40	32	1000	20	960	138	150	227	215	470
							300	-	230	100	232	165	18	
32-135	4	160M		H582	40	32	1200	20	1160	138	150	227	215	645
							350	-	280	100	260	165	18	
32-135	5	80		H517N	40	32	1000	20	960	138	150	275	215	280
							300	-	230	100	232	165	18	
32-135	5	90S		H518N	40	32	1000	20	960	138	150	275	215	330
							300	-	230	100	232	165	18	
32-135	5	90L		H577N	40	32	1000	20	960	138	150	275	215	340
							300	-	230	100	232	165	18	
32-135	5	100L		H519	40	32	1000	20	960	138	150	275	215	400
							300	-	230	100	232	165	18	
32-135	5	112M		H520	40	32	1000	20	960	138	150	275	215	400
							300	-	230	100	232	165	18	
32-135	5	132S		H521	40	32	1100	20	1060	138	150	275	215	470
							300	-	230	100	232	165	18	
32-135	5	160M		H580	40	32	1200	20	1160	138	150	275	215	645
							350	-	280	100	260	165	18	
32-135	6	80		H522N	40	32	1000	20	960	138	150	323	215	280
							300	-	230	100	232	165	18	
32-135	6	90S		H523N	40	32	1100	20	1060	138	150	323	215	330
							300	-	230	100	232	165	18	
32-135	6	90L		H578N	40	32	1100	20	1060	138	150	323	215	340
							300	-	230	100	232	165	18	
32-135	6	100L		H581	40	32	1100	20	1060	138	150	323	215	400
							300	-	230	100	232	165	18	
32-135	6	132S		H524	40	32	1100	20	1060	138	150	323	215	470
							300	-	230	100	232	165	18	
32-135	6	160M		H525	40	32	1200	20	1160	138	150	323	215	645
							350	-	280	100	260	165	18	
32-135	7	90S		H585N	40	32	1100	20	1060	138	150	371	215	330
							300	-	230	100	232	165	18	
32-135	7	90L		H526N	40	32	1100	20	1060	138	150	371	215	340
							300	-	230	100	232	165	18	
32-135	7	100L		H527	40	32	1100	20	1060	138	150	371	215	400
							300	-	230	100	232	165	18	
32-135	7	132S		H528	40	32	1200	20	1160	138	150	371	215	470
							300	-	230	100	232	165	18	

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
32-135	7	160M		H529	40	32	1300	20	1260	138	150	371	215	645
							350	-	280	100	260	165	18	
32-135	7	160L		H584	40	32	1300	20	1260	138	150	371	215	675
							350	-	280	100	260	165	18	
32-135	7	180M		H587	40	32	1300	20	1260	138	150	371	215	710
							350	-	280	100	280	165	18	
32-135	8	90L		H530N	40	32	1100	20	1060	138	150	419	215	340
							300	-	230	100	232	165	18	
32-135	8	100L		H531	40	32	1200	20	1160	138	150	419	215	400
							300	-	230	100	232	165	18	
32-135	8	132S		H532	40	32	1200	20	1160	138	150	419	215	470
							300	-	230	100	232	165	18	
32-135	8	160M		H533	40	32	1300	20	1260	138	150	419	215	645
							350	-	280	100	260	165	18	
32-135	8	160L		H534	40	32	1400	20	1360	138	150	419	215	675
							350	-	280	100	260	165	18	
32-135	8	180M		H588	40	32	1400	20	1360	138	150	419	215	710
							350	-	280	100	280	165	18	
32-135	9	90L		H535N	40	32	1200	20	1160	138	150	467	215	340
							300	-	230	100	232	165	18	
32-135	9	100L		H536	40	32	1200	20	1160	138	150	467	215	400
							300	-	230	100	232	165	18	
32-135	9	112M		H537	40	32	1200	20	1160	138	150	467	215	400
							300	-	230	100	232	165	18	
32-135	9	132S		H538	40	32	1300	20	1260	138	150	467	215	470
							300	-	230	100	232	165	18	
32-135	9	160M		H539	40	32	1400	20	1360	138	150	467	215	645
							350	-	280	100	260	165	18	
32-135	9	160L		H540	40	32	1400	20	1360	138	150	467	215	675
							350	-	280	100	260	165	18	

Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
32-135	10	90L		H541N	40	32	1200	20	1160	138	150	515	215	340
							300	-	230	100	232	165	18	
32-135	10	100L		H542	40	32	1200	20	1160	138	150	515	215	400
							300	-	230	100	232	165	18	
32-135	10	112M		H543	40	32	1300	20	1260	138	150	515	215	400
							300	-	230	100	232	165	18	
32-135	10	132S		H586	40	32	1300	20	1260	138	150	515	215	470
							300	-	230	100	232	165	18	
32-135	10	160M		H544	40	32	1400	20	1360	138	150	515	215	645
							350	-	280	100	260	165	18	
32-135	10	160L		H545	40	32	1500	20	1460	138	150	515	215	675
							350	-	280	100	260	165	18	
32-135	10	180M		H546	40	32	1500	20	1460	138	150	515	215	710
							350	-	280	100	280	165	18	
32-135	10	200L		H589	40	32	1600	20	1560	138	150	515	215	800
							400	-	320	110	310	165	18	
32-135	11	90L		H547N	40	32	1300	20	1260	138	150	563	215	340
							300	-	230	100	232	165	18	
32-135	11	100L		H548	40	32	1300	20	1260	138	150	563	215	400
							300	-	230	100	232	165	18	
32-135	11	112M		H549	40	32	1300	20	1260	138	150	563	215	400
							300	-	230	100	232	165	18	
32-135	11	160M		H550	40	32	1500	20	1460	138	150	563	215	645
							350	-	280	100	260	165	18	
32-135	11	160L		H551	40	32	1500	20	1460	138	150	563	215	675
							350	-	280	100	260	165	18	
32-135	11	180M		H552	40	32	1500	20	1460	138	150	563	215	710
							350	-	280	100	280	165	18	
32-135	12	90L		H553N	40	32	1300	20	1260	138	150	611	215	340
							300	-	230	100	232	165	18	
32-135	12	100L		H554	40	32	1300	20	1260	138	150	611	215	400
							300	-	230	100	232	165	18	
32-135	12	112M		H555	40	32	1400	20	1360	138	150	611	215	400
							300	-	230	100	232	165	18	
32-135	12	160M		H556	40	32	1500	20	1460	138	150	611	215	645
							350	-	280	100	260	165	18	
32-135	12	160L		H557	40	32	1600	20	1560	138	150	611	215	675
							350	-	280	100	260	165	18	
32-135	12	180M		H558	40	32	1600	20	1560	138	150	611	215	710
							350	-	280	100	280	165	18	
32-135	12	200L		H559	40	32	1700	20	1660	138	150	611	215	800
							400	-	320	110	310	165	18	
32-135	13	90L		H560N	40	32	1400	20	1360	138	150	659	215	340
							300	-	230	100	232	165	18	
32-135	13	100L		H561	40	32	1400	20	1360	138	150	659	215	400
							300	-	230	100	232	165	18	
32-135	13	112M		H562	40	32	1400	20	1360	138	150	659	215	400
							300	-	230	100	232	165	18	
32-135	13	160M		H563	40	32	1600	20	1560	138	150	659	215	645
							350	-	280	100	260	165	18	

Dimensions

Arrangement E

Up to motor size 200L

From motor size 225S

Suction and discharge connection
Flange connections according to EN 1092-2, PN10-40.

DN	PN	D	k	d2	y
32	10-40	140	100	18	4
40	10-40	150	110	18	4
50	10-40	165	125	18	4
65	10-16	185	145	18	4
65	25-40	185	145	18	8
80	10-40	200	160	18	8

y = Number of bores

Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
32-135	13	160L		H564	40	32	1600	20	1560	138	150	659	215	675
							350	-	280	100	260	165	18	
32-135	13	180M		H565	40	32	1600	20	1560	138	150	659	215	710
							350	-	280	100	280	165	18	
32-135	13	200L		H566	40	32	1700	20	1660	138	150	659	215	800
							400	-	320	110	310	165	18	
32-135	14	100L		H567	40	32	1400	20	1360	138	150	707	215	400
							300	-	230	100	232	165	18	
32-135	14	112M		H568	40	32	1500	20	1460	138	150	707	215	400
							300	-	230	100	232	165	18	
32-135	14	160M		H569	40	32	1600	20	1560	138	150	707	215	645
							350	-	280	100	260	165	18	
32-135	14	160L		H570	40	32	1700	20	1660	138	150	707	215	675
							350	-	280	100	260	165	18	
32-135	14	180M		H571	40	32	1700	20	1660	138	150	707	215	710
							350	-	280	100	280	165	18	
32-135	14	200L		H572	40	32	1700	20	1660	138	150	707	215	800
							400	-	320	110	310	165	18	
40-155	1	80		H601N	50	40	800	20	760	138	150	90	215	280
							300	-	230	100	232	170	18	
40-155	1	90S		H602N	50	40	800	20	760	138	150	90	215	330
							300	-	230	100	232	170	18	
40-155	1	90L		H612N	50	40	800	20	760	138	150	90	215	340
							300	-	230	100	232	170	18	
40-155	1	100L		H603	50	40	800	20	760	138	150	90	215	400
							300	-	230	100	232	170	18	
40-155	1	112M		H604	50	40	800	20	760	138	150	90	215	400
							300	-	230	100	232	170	18	
40-155	1	132S		H605	50	40	900	20	860	138	150	90	215	470
							300	-	230	100	232	170	18	

Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
40-155	2	90S		H607N	50	40	900	20	860	138	150	145	215	330
							300	-	230	100	232	170	18	
40-155	2	90L		H619N	50	40	900	20	860	138	150	145	215	340
							300	-	230	100	232	170	18	
40-155	2	100L		H608	50	40	900	20	860	138	150	145	215	400
							300	-	230	100	232	170	18	
40-155	2	112M		H609	50	40	900	20	860	138	150	145	215	400
							300	-	230	100	232	170	18	
40-155	2	132S		H610	50	40	900	20	860	138	150	145	215	470
							300	-	230	100	232	170	18	
40-155	2	160M		H611	50	40	1100	20	1060	138	150	145	215	645
							350	-	280	100	260	170	18	
40-155	3	90S		H614N	50	40	900	20	860	138	150	200	215	330
							300	-	230	100	232	170	18	
40-155	3	90L		H689N	50	40	900	20	860	138	150	200	215	340
							300	-	230	100	232	170	18	
40-155	3	100L		H615	50	40	900	20	860	138	150	200	215	400
							300	-	230	100	232	170	18	
40-155	3	112M		H616	50	40	900	20	860	138	150	200	215	400
							300	-	230	100	232	170	18	
40-155	3	132S		H617	50	40	1000	20	960	138	150	200	215	470
							300	-	230	100	232	170	18	
40-155	3	160M		H618	50	40	1100	20	1060	138	150	200	215	645
							350	-	280	100	260	170	18	
40-155	3	160L		H691	50	40	1200	20	1160	138	150	200	215	675
							350	-	280	100	260	170	18	
40-155	3	180M		H698	50	40	1200	20	1160	138	150	200	215	710
							350	-	280	100	280	170	18	
40-155	4	90L		H620N	50	40	1000	20	960	138	150	255	215	340
							300	-	230	100	232	170	18	
40-155	4	100L		H621	50	40	1000	20	960	138	150	255	215	400
							300	-	230	100	232	170	18	
40-155	4	112M		H621.1	50	40	1000	20	960	138	150	255	215	400
							300	-	230	100	232	170	18	
40-155	4	132S		H623	50	40	1100	20	1060	138	150	255	215	470
							300	-	230	100	232	170	18	
40-155	4	160M		H624	50	40	1200	20	1160	138	150	255	215	645
							350	-	280	100	260	170	18	
40-155	4	160L		H625	50	40	1200	20	1160	138	150	255	215	675
							350	-	280	100	260	170	18	
40-155	4	180M		H628	50	40	1200	20	1160	138	150	255	215	710
							350	-	280	100	280	170	18	
40-155	5	90L		H626N	50	40	1000	20	960	138	150	310	215	340
							300	-	230	100	232	170	18	
40-155	5	100L		H627	50	40	1000	20	960	138	150	310	215	400
							300	-	230	100	232	170	18	
40-155	5	112M		H622	50	40	1100	20	1060	138	150	310	215	400
							300	-	230	100	232	170	18	
40-155	5	132S		H629	50	40	1100	20	1060	138	150	310	215	470
							300	-	230	100	232	170	18	

Dimensions

Arrangement E

Suction and discharge connection
Flange connections according to EN 1092-2, PN10-40.

DN	PN	D	k	d2	y
32	10-40	140	100	18	4
40	10-40	150	110	18	4
50	10-40	165	125	18	4
65	10-16	185	145	18	4
65	25-40	185	145	18	8
80	10-40	200	160	18	8

y = Number of bores

Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
40-155	5	160M		H630	50	40	1200	20	1160	138	150	310	215	645
							350	-	280	100	260	170	18	
40-155	5	160L		H631	50	40	1300	20	1260	138	150	310	215	675
							350	-	280	100	260	170	18	
40-155	5	180M		H632	50	40	1300	20	1260	138	150	310	215	710
							350	-	280	100	280	170	18	
40-155	5	200L		H635	50	40	1400	20	1360	138	150	310	215	800
							400	-	320	110	310	170	18	
40-155	6	100L		H634	50	40	1100	20	1060	138	150	365	215	400
							300	-	230	100	232	170	18	
40-155	6	112M		H677	50	40	1100	20	1060	138	150	365	215	400
							300	-	230	100	232	170	18	
40-155	6	132S		H690	50	40	1200	20	1160	138	150	365	215	470
							300	-	230	100	232	170	18	
40-155	6	160M		H637	50	40	1300	20	1260	138	150	365	215	645
							350	-	280	100	260	170	18	
40-155	6	160L		H638	50	40	1300	20	1260	138	150	365	215	675
							350	-	280	100	260	170	18	
40-155	6	180M		H639	50	40	1300	20	1260	138	150	365	215	710
							350	-	280	100	280	170	18	
40-155	6	200L		H640	50	40	1400	20	1360	138	150	365	215	800
							400	-	320	110	310	170	18	
40-155	6	225M	2	H640.1	50	40	1420	240	940	123	150	365	215	870
							-	580	540	25	300	170	18	
40-155	6	280S		H638.1	50	40	1620	280	1060	123	150	365	215	1075
							-	700	660	25	365	170	18	
40-155	7	100L		H641	50	40	1200	20	1160	138	150	420	215	400
							300	-	230	100	232	170	18	
40-155	7	112M		H642	50	40	1200	20	1160	138	150	420	215	400
							300	-	230	100	232	170	18	

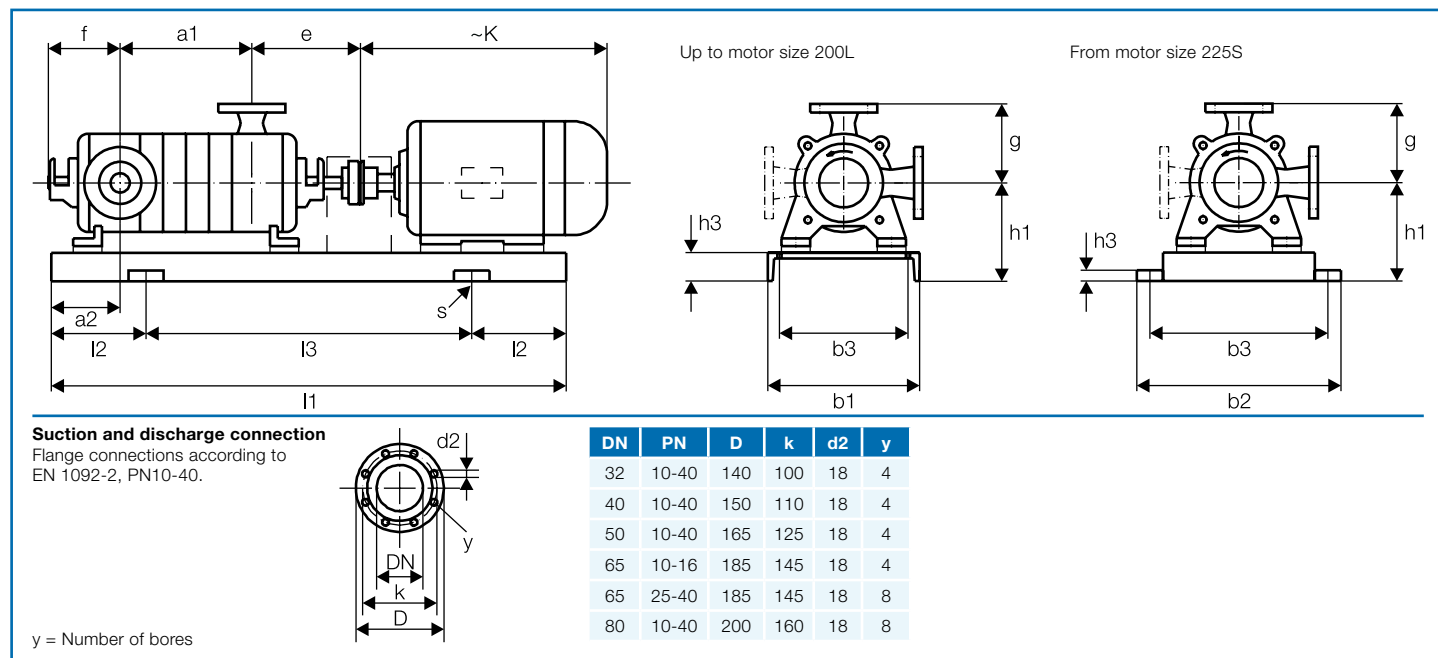
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
40-155	7	132S		H606	50	40	1200	20	1160	138	150	420	215	470
							300	-	230	100	232	170	18	
40-155	7	160M		H644	50	40	1300	20	1260	138	150	420	215	645
							350	-	280	100	260	170	18	
40-155	7	160L		H645	50	40	1400	20	1360	138	150	420	215	675
							350	-	280	100	260	170	18	
40-155	7	180M		H646	50	40	1400	20	1360	138	150	420	215	710
							350	-	280	100	280	170	18	
40-155	7	200L		H647	50	40	1500	20	1460	138	150	420	215	800
							400	-	320	110	310	170	18	
40-155	8	100L		H648	50	40	1200	20	1160	138	150	475	215	400
							300	-	230	100	232	170	18	
40-155	8	112M		H649	50	40	1200	20	1160	138	150	475	215	400
							300	-	230	100	232	170	18	
40-155	8	132S		H613	50	40	1300	20	1260	138	150	475	215	470
							300	-	230	100	232	170	18	
40-155	8	160M		H651	50	40	1400	20	1360	138	150	475	215	645
							350	-	280	100	260	170	18	
40-155	8	160L		H652	50	40	1400	20	1360	138	150	475	215	675
							350	-	280	100	260	170	18	
40-155	8	180M		H653	50	40	1400	20	1360	138	150	475	215	710
							350	-	280	100	280	170	18	
40-155	8	200L		H654	50	40	1500	20	1460	138	150	475	215	800
							400	-	320	110	310	170	18	
40-155	8	225M	2	H650	50	40	1620	280	1060	123	150	475	215	870
							-	580	540	25	300	170	18	
40-155	9	100L		H655	50	40	1300	20	1260	138	150	530	215	400
							300	-	230	100	232	170	18	
40-155	9	112M		H656	50	40	1300	20	1260	138	150	530	215	400
							300	-	230	100	232	170	18	
40-155	9	132S		H657	50	40	1300	20	1260	138	150	530	215	470
							300	-	230	100	232	170	18	
40-155	9	132M		H633	50	40	1400	20	1360	138	150	530	215	525
							300	-	230	100	232	170	18	
40-155	9	160M		H658	50	40	1500	20	1460	138	150	530	215	645
							350	-	280	100	260	170	18	
40-155	9	160L		H659	50	40	1500	20	1460	138	150	530	215	675
							350	-	280	100	260	170	18	
40-155	9	180M		H660	50	40	1500	20	1460	138	150	530	215	710
							350	-	280	100	280	170	18	
40-155	9	200L		H661	50	40	1600	20	1560	138	150	530	215	800
							400	-	320	110	310	170	18	
40-155	9	225M	2	H662	50	40	1620	280	1060	123	150	530	215	870
							-	580	540	25	300	170	18	
40-155	10	100L		H663	50	40	1300	20	1260	138	150	585	215	400
							300	-	230	100	232	170	18	
40-155	10	112M		H664	50	40	1300	20	1260	138	150	585	215	400
							300	-	230	100	232	170	18	
40-155	10	132S		H665	50	40	1400	20	1360	138	150	585	215	470
							300	-	230	100	232	170	18	

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
40-155	10	132M		H636	50	40	1400	20	1360	138	150	585	215	525
							300	-	230	100	232	170	18	
40-155	10	160L		H666	50	40	1500	20	1460	138	150	585	215	675
							350	-	280	100	260	170	18	
40-155	10	180M		H667	50	40	1600	20	1560	138	150	585	215	710
							350	-	280	100	280	170	18	
40-155	10	200L		H668	50	40	1600	20	1560	138	150	585	215	800
							400	-	320	110	310	170	18	
40-155	10	225M	2	H669	50	40	1620	280	1060	123	150	585	215	870
							-	580	540	25	300	170	18	
40-155	10	250M		H685	50	40	1820	310	1200	123	150	585	215	990
							-	630	590	25	335	170	18	
40-155	11	100L		H670	50	40	1400	20	1360	138	150	640	215	400
							300	-	230	100	232	170	18	
40-155	11	112M		H671	50	40	1400	20	1360	138	150	640	215	400
							300	-	230	100	232	170	18	
40-155	11	132S		H672	50	40	1400	20	1360	138	150	640	215	470
							300	-	230	100	232	170	18	
40-155	11	132M		H643	50	40	1500	20	1460	138	150	640	215	525
							300	-	230	100	232	170	18	
40-155	11	160L		H673	50	40	1600	20	1560	138	150	640	215	675
							350	-	280	100	260	170	18	
40-155	11	180M		H674	50	40	1600	20	1560	138	150	640	215	710
							350	-	280	100	280	170	18	
40-155	11	200L		H675	50	40	1700	20	1660	138	150	640	215	800
							400	-	320	110	310	170	18	
40-155	11	225M	2	H676	50	40	1620	280	1060	123	150	640	215	870
							-	580	540	25	300	170	18	
40-155	11	250M		H686	50	40	1820	310	1200	123	150	640	215	990
							-	630	590	25	335	170	18	

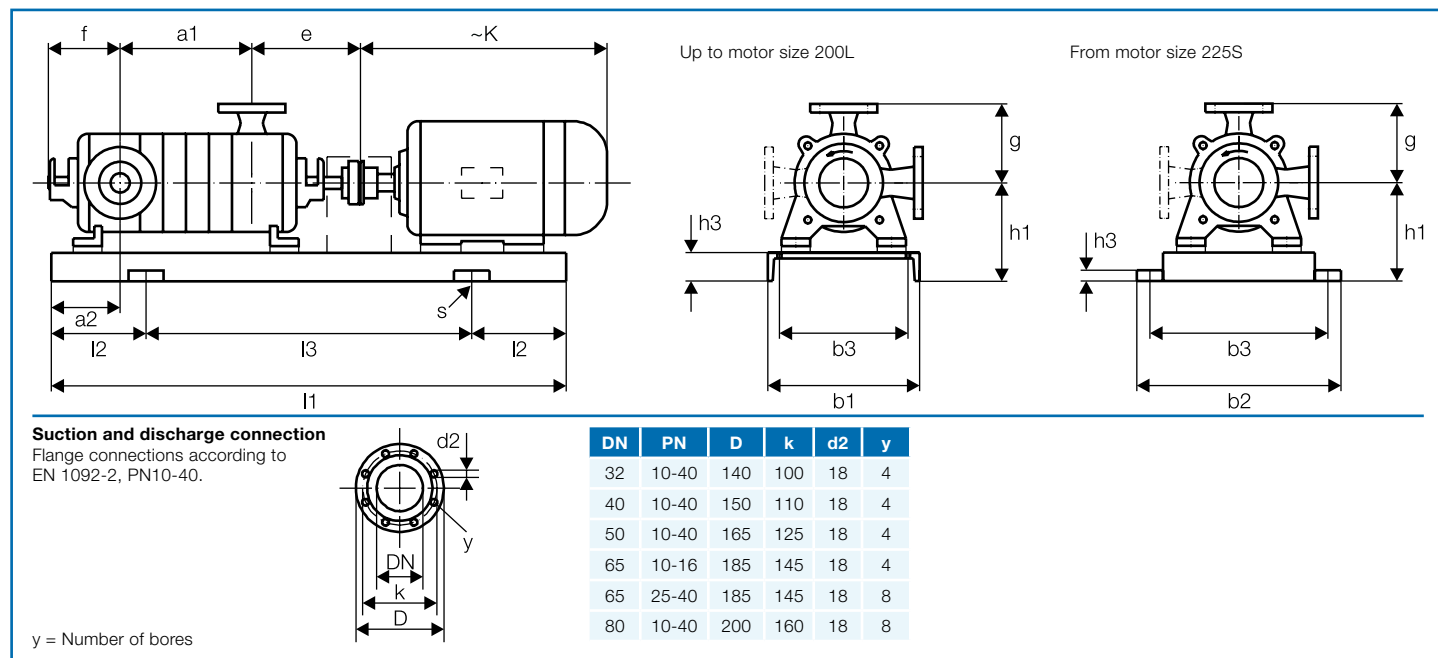
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
40-155	12	100L		H699	50	40	1400	20	1360	138	150	695	215	400
							300	-	230	100	232	170	18	
40-155	12	112M		H678	50	40	1400	20	1360	138	150	695	215	400
							300	-	230	100	232	170	18	
40-155	12	132S		H679	50	40	1500	20	1460	138	150	695	215	470
							300	-	230	100	232	170	18	
40-155	12	132M		H680	50	40	1500	20	1460	138	150	695	215	525
							300	-	230	100	232	170	18	
40-155	12	160L		H681	50	40	1700	20	1660	138	150	695	215	675
							350	-	280	100	260	170	18	
40-155	12	180M		H682	50	40	1700	20	1660	138	150	695	215	710
							350	-	280	100	280	170	18	
40-155	12	200L		H683	50	40	1700	20	1660	138	150	695	215	800
							400	-	320	110	310	170	18	
40-155	12	225M	2	H684	50	40	1820	310	1200	123	150	695	215	870
							-	580	540	25	300	170	18	
40-155	12	250M		H687	50	40	1820	310	1200	123	150	695	215	990
							-	630	590	25	335	170	18	
40-155	12	280S		H688	50	40	1820	310	1200	123	150	695	215	1075
							-	700	660	25	365	170	18	
40-155	13	132S		H692	50	40	1500	20	1460	138	150	750	215	470
							300	-	230	100	232	170	18	
40-155	13	132M		H693	50	40	1600	20	1560	138	150	750	215	525
							300	-	230	100	232	170	18	
40-155	13	160M		H694	50	40	1700	20	1660	138	150	750	215	645
							350	-	280	100	260	170	18	
40-155	14	132S		H695	50	40	1600	20	1560	138	150	805	215	470
							300	-	230	100	232	170	18	
40-155	14	132M		H696	50	40	1600	20	1560	138	150	805	215	525
							300	-	230	100	232	170	18	
40-155	14	160M		H697	50	40	1700	20	1660	138	150	805	215	645
							350	-	280	100	260	170	18	
50-180	1	90L		H701N	65	50	900	20	860	168	180	102	250	340
							300	-	230	100	260	190	18	
50-180	1	100L		H702N	65	50	1000	20	960	168	180	102	250	400
							300	-	230	100	260	190	18	
50-180	1	112M		H703N	65	50	1000	20	960	168	180	102	250	400
							300	-	230	100	260	190	18	
50-180	1	132S		H704	65	50	1000	20	960	168	180	102	250	470
							300	-	230	100	260	190	18	
50-180	1	160M		H705	65	50	1100	20	1060	168	180	102	250	645
							350	-	280	100	260	190	18	
50-180	2	90L		H706N	65	50	1000	20	960	168	180	169	250	340
							300	-	230	100	260	190	18	
50-180	2	100L		H707N	65	50	1100	20	1060	168	180	169	250	400
							300	-	230	100	260	190	18	
50-180	2	112M		H708N	65	50	1100	20	1060	168	180	169	250	400
							300	-	230	100	260	190	18	
50-180	2	132S		H709	65	50	1000	20	960	168	180	169	250	470
							300	-	230	100	260	190	18	

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
50-180	2	160M		H710	65	50	1200	20	1160	168	180	169	250	645
							350	-	280	100	260	190	18	
50-180	2	160L		H711	65	50	1200	20	1160	168	180	169	250	675
							350	-	280	100	260	190	18	
50-180	2	180M		H761	65	50	1200	20	1160	168	180	169	250	710
							350	-	280	100	280	190	18	
50-180	3	100L		H712N	65	50	1100	20	1060	168	180	236	250	400
							300	-	230	100	260	190	18	
50-180	3	112M		H713N	65	50	1100	20	1060	168	180	236	250	400
							300	-	230	100	260	190	18	
50-180	3	132S		H714	65	50	1100	20	1060	168	180	236	250	470
							300	-	230	100	260	190	18	
50-180	3	160M		H715	65	50	1200	20	1160	168	180	236	250	645
							350	-	280	100	260	190	18	
50-180	3	160L		H716	65	50	1300	20	1260	168	180	236	250	675
							350	-	280	100	260	190	18	
50-180	3	180M		H717	65	50	1300	20	1260	168	180	236	250	710
							350	-	280	100	280	190	18	
50-180	3	200L		H718	65	50	1300	20	1260	168	180	236	250	800
							400	-	320	110	310	190	18	
50-180	4	100L		H719N	65	50	1200	20	1160	168	180	303	250	400
							300	-	230	100	260	190	18	
50-180	4	112M		H720N	65	50	1200	20	1160	168	180	303	250	400
							300	-	230	100	260	190	18	
50-180	4	132S		H721N	65	50	1200	20	1160	168	180	303	250	470
							300	-	230	100	260	190	18	
50-180	4	132M		H783	65	50	1200	20	1160	168	180	303	250	525
							300	-	230	100	260	190	18	
50-180	4	160M		H722	65	50	1300	20	1260	168	180	303	250	645
							350	-	280	100	260	190	18	

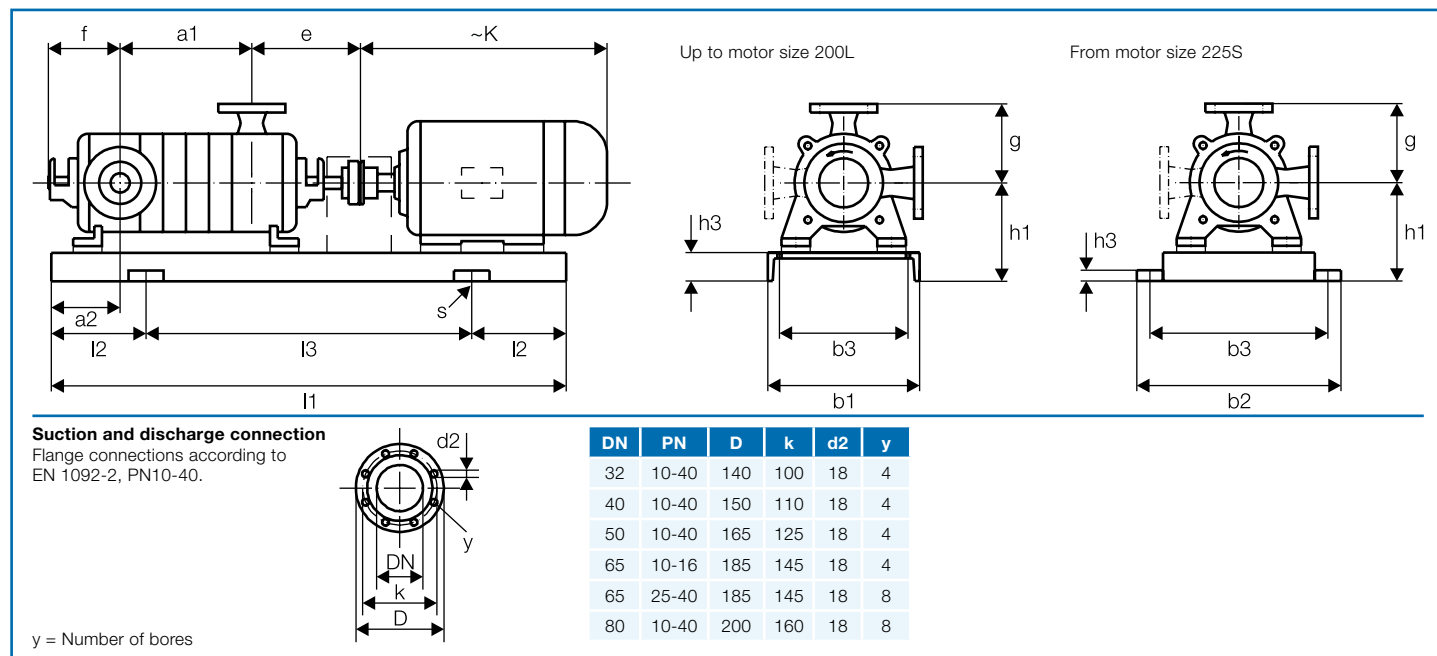
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
50-180	4	160L		H723	65	50	1300	20	1260	168	180	303	250	675
							350	-	280	100	260	190	18	
50-180	4	180M		H724	65	50	1300	20	1260	168	180	303	250	710
							350	-	280	100	280	190	18	
50-180	4	200L		H725	65	50	1400	20	1360	168	180	303	250	800
							400	-	320	110	310	190	18	
50-180	4	225M	2	H779	65	50	1420	240	940	153	180	303	250	870
							-	580	540	25	300	190	18	
50-180	4	250M		H788	65	50	1620	280	1060	153	180	303	250	990
							-	580	540	25	335	190	18	
50-180	5	100L		H726N	65	50	1300	20	1260	168	180	370	250	400
							300	-	230	100	260	190	18	
50-180	5	112M		H727N	65	50	1300	20	1260	168	180	370	250	400
							300	-	230	100	260	190	18	
50-180	5	132S		H728	65	50	1200	20	1160	168	180	370	250	470
							300	-	230	100	260	190	18	
50-180	5	132M		H729	65	50	1300	20	1260	168	180	370	250	525
							300	-	230	100	260	190	18	
50-180	5	160M		H778	65	50	1400	20	1360	168	180	370	250	645
							350	-	280	100	260	190	18	
50-180	5	160L		H730	65	50	1400	20	1360	168	180	370	250	675
							350	-	280	100	260	190	18	
50-180	5	180M		H731	65	50	1400	20	1360	168	180	370	250	710
							350	-	280	100	280	190	18	
50-180	5	200L		H732	65	50	1500	20	1460	168	180	370	250	800
							400	-	320	110	310	190	18	
50-180	5	225M	2	H733	65	50	1420	240	940	153	180	370	250	870
							-	580	540	25	300	190	18	
50-180	5	250M		H762	65	50	1620	280	1060	153	180	370	250	990
							-	630	590	25	335	190	18	
50-180	6	112M		H734N	65	50	1300	20	1260	168	180	437	250	400
							300	-	230	100	260	190	18	
50-180	6	132S		H735	65	50	1300	20	1260	168	180	437	250	470
							300	-	230	100	260	190	18	
50-180	6	132M		H736	65	50	1300	20	1260	168	180	437	250	525
							300	-	230	100	260	190	18	
50-180	6	160M		H777	65	50	1400	20	1360	168	180	437	250	645
							350	-	280	100	260	190	18	
50-180	6	180M		H737	65	50	1500	20	1460	168	180	437	250	710
							350	-	280	100	280	190	18	
50-180	6	200L		H738	65	50	1500	20	1460	168	180	437	250	800
							400	-	320	110	310	190	18	
50-180	6	225M	2	H739	65	50	1620	280	1060	153	180	437	250	870
							-	580	540	25	300	190	18	
50-180	6	250M		H740	65	50	1620	280	1060	153	180	437	250	990
							-	630	590	25	335	190	18	
50-180	6	280S		H763	65	50	1620	280	1060	153	180	437	250	1075
							-	700	660	25	365	190	18	
50-180	6	280M		H786	65	50	1820	310	1200	153	180	437	250	1125
							-	700	660	25	365	190	18	

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
50-180	7	112M		H741N	65	50	1400	20	1360	168	180	504	250	400
							300	-	230	100	260	190	18	
50-180	7	132S		H742	65	50	1400	20	1360	168	180	504	250	470
							300	-	230	100	260	190	18	
50-180	7	132M		H743	65	50	1400	20	1360	168	180	504	250	525
							300	-	230	100	260	190	18	
50-180	7	160M		H744	65	50	1500	20	1460	168	180	504	250	645
							350	-	280	100	260	190	18	
50-180	7	200L		H745	65	50	1600	20	1560	168	180	504	250	800
							400	-	320	110	310	190	18	
50-180	7	225M	2	H746	65	50	1620	280	1060	153	180	504	250	870
							-	580	540	25	300	190	18	
50-180	7	250M		H747	65	50	1820	310	1200	153	180	504	250	990
							-	630	590	25	335	190	18	
50-180	7	280S		H748	65	50	1820	310	1200	153	180	504	250	1075
							-	700	660	25	365	190	18	
50-180	8	132S		H749	65	50	1400	20	1360	168	180	571	250	470
							300	-	230	100	260	190	18	
50-180	8	132M		H750	65	50	1500	20	1460	168	180	571	250	525
							300	-	230	100	260	190	18	
50-180	8	160M		H751	65	50	1600	20	1560	168	180	571	250	645
							350	-	280	100	260	190	18	
50-180	8	160L		H752	65	50	1600	20	1560	168	180	571	250	675
							350	-	280	100	260	190	18	
50-180	8	180M		H787	65	50	1600	20	1560	168	180	571	250	710
							350	-	280	100	280	190	18	
50-180	8	200L		H753	65	50	1700	20	1660	168	180	571	250	800
							400	-	320	110	310	190	18	
50-180	8	225M	2	H754	65	50	1620	280	1060	153	180	571	250	870
							-	580	540	25	300	190	18	

Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
50-180	8	250M		H755	65	50	1820	310	1200	153	180	571	250	990
							-	630	590	25	335	190	18	
50-180	8	280S		H756	65	50	1820	310	1200	153	180	571	250	1075
							-	700	660	25	365	190	18	
50-180	8	280M		H782	65	50	1820	310	1200	153	180	571	250	1125
							-	700	660	25	365	190	18	
50-180	9	132S		H757	65	50	1500	20	1460	168	180	638	250	470
							300	-	230	100	260	190	18	
50-180	9	132M		H758	65	50	1500	20	1460	168	180	638	250	525
							300	-	230	100	260	190	18	
50-180	9	160M		H759	65	50	1600	20	1560	168	180	638	250	645
							350	-	280	100	260	190	18	
50-180	9	160L		H760	65	50	1700	20	1660	168	180	638	250	675
							350	-	280	100	260	190	18	
50-180	9	280S		H784	65	50	1820	310	1200	153	180	638	250	1075
							-	700	660	25	365	190	18	
50-180	9	280M		H785	65	50	2020	330	1360	153	180	638	250	1125
							-	700	660	25	380	190	18	
50-180	10	132M		H764	65	50	1600	20	1560	168	180	705	250	525
							300	-	230	100	260	190	18	
50-180	10	160M		H765	65	50	1700	20	1660	168	180	705	250	645
							350	-	280	100	260	190	18	
50-180	10	160L		H766	65	50	1700	20	1660	168	180	705	250	675
							350	-	280	100	260	190	18	
50-180	11	132M		H767	65	50	1700	20	1660	168	180	772	250	525
							300	-	230	100	260	190	18	
50-180	11	160M		H768	65	50	1800	20	1760	168	180	772	250	645
							350	-	280	100	260	190	18	
50-180	11	160L		H769	65	50	1800	20	1760	168	180	772	250	675
							350	-	280	100	260	190	18	
50-180	11	180M		H770	65	50	1800	20	1760	168	180	772	250	710
							350	-	280	100	280	190	18	
50-180	12	160M		H771	65	50	1800	20	1760	168	180	839	250	645
							350	-	280	100	260	190	18	
50-180	12	160L		H772	65	50	1900	20	1860	168	180	839	250	675
							350	-	280	100	260	190	18	
50-180	12	180M		H773	65	50	1900	20	1860	168	180	839	250	710
							350	-	280	100	280	190	18	
50-180	13	160M		H774	65	50	1900	20	1860	168	180	906	250	645
							350	-	280	100	260	190	18	
50-180	13	160L		H775	65	50	1900	20	1860	168	180	906	250	675
							350	-	280	100	260	190	18	
50-180	13	180M		H776	65	50	1900	20	1860	168	180	906	250	710
							350	-	280	100	280	190	18	
50-180	13	180L		H780	65	50	2000	20	1960	168	180	906	250	750
							350	-	280	100	280	190	18	
65-205	1	100L		H801N	80	65	1100	20	1060	178	195	125	275	400
							350	-	280	100	280	210	18	
65-205	1	112M		H802N	80	65	1100	20	1060	178	195	125	275	400
							350	-	280	100	280	210	18	

Dimensions

Arrangement E

Suction and discharge connection
Flange connections according to EN 1092-2, PN10-40.

DN	PN	D	k	d2	y
32	10-40	140	100	18	4
40	10-40	150	110	18	4
50	10-40	165	125	18	4
65	10-16	185	145	18	4
65	25-40	185	145	18	8
80	10-40	200	160	18	8

y = Number of bores

Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
65-205	1	160M		H803	80	65	1100	20	1060	178	195	125	275	645
							350	-	280	100	280	210	18	
65-205	1	160L		H804	80	65	1200	20	1160	178	195	125	275	675
							350	-	280	100	280	210	18	
65-205	1	180M		H805	80	65	1200	20	1160	178	195	125	275	710
							350	-	280	100	280	210	18	
65-205	1	200L		H806	80	65	1300	20	1260	178	195	125	275	800
							400	-	320	110	310	210	18	
65-205	2	100L		H807N	80	65	1100	20	1060	178	195	200	275	400
							350	-	280	100	280	210	18	
65-205	2	112M		H808N	80	65	1100	20	1060	178	195	200	275	400
							350	-	280	100	280	210	18	
65-205	2	132S		H809N	80	65	1100	20	1060	178	195	200	275	470
							350	-	280	100	280	210	18	
65-205	2	132M		H879N	80	65	1100	20	1060	178	195	200	275	525
							350	-	280	100	280	210	18	
65-205	2	160M		H810	80	65	1200	20	1160	178	195	200	275	645
							350	-	280	100	280	210	18	
65-205	2	160L		H811	80	65	1300	20	1260	178	195	200	275	675
							350	-	280	100	280	210	18	
65-205	2	180M		H812	80	65	1300	20	1260	178	195	200	275	710
							350	-	280	100	280	210	18	
65-205	2	200L		H813	80	65	1300	20	1260	178	195	200	275	800
							400	-	320	110	310	210	18	
65-205	2	225M	2	H814	80	65	1270	215	840	163	195	200	275	870
							-	580	540	25	300	210	18	
65-205	3	112M		H815N	80	65	1200	20	1160	178	195	275	275	400
							350	-	280	100	280	210	18	
65-205	3	132S		H816N	80	65	1200	20	1160	178	195	275	275	470
							350	-	280	100	280	210	18	

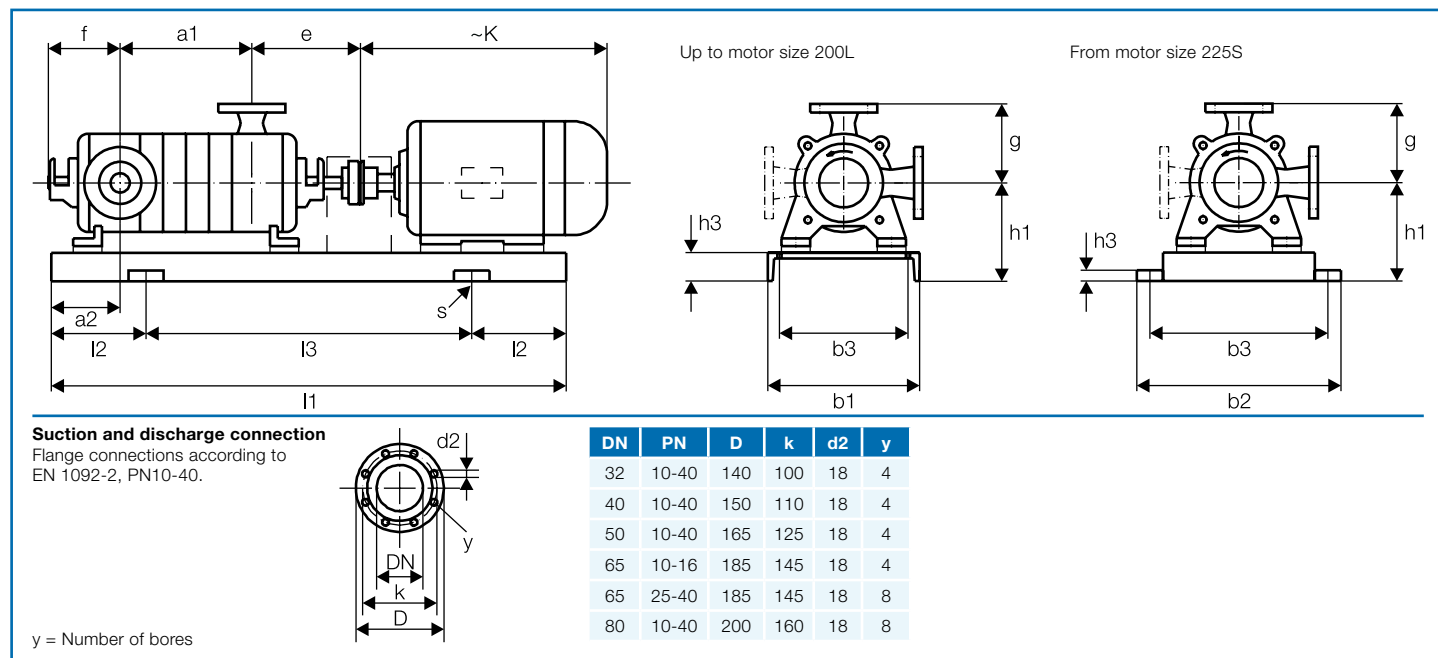
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
65-205	3	132M		H817N	80	65	1200	20	1160	178	195	275	275	525
							350	-	280	100	280	210	18	
65-205	3	160M		H859	80	65	1300	20	1260	178	195	275	275	645
							350	-	280	100	280	210	18	
65-205	3	180M		H818	80	65	1300	20	1260	178	195	275	275	710
							350	-	280	100	280	210	18	
65-205	3	200L		H819	80	65	1400	20	1360	178	195	275	275	800
							400	-	320	110	310	210	18	
65-205	3	225M	2	H820	80	65	1420	240	940	163	195	275	275	870
							-	580	540	25	300	210	18	
65-205	3	250M		H821	80	65	1620	280	1060	163	195	275	275	990
							-	630	590	25	335	210	18	
65-205	3	280S		H822	80	65	1620	280	1060	163	195	275	275	1075
							-	700	660	25	365	210	18	
65-205	4	132S		H823N	80	65	1300	20	1260	178	195	350	275	470
							350	-	280	100	280	210	18	
65-205	4	132M		H824N	80	65	1300	20	1260	178	195	350	275	525
							350	-	280	100	280	210	18	
65-205	4	160M		H825	80	65	1400	20	1360	178	195	350	275	645
							350	-	280	100	280	210	18	
65-205	4	200L		H826	80	65	1500	20	1460	178	195	350	275	800
							400	-	320	110	310	210	18	
65-205	4	225M	2	H827	80	65	1420	240	940	163	195	350	275	870
							-	580	540	25	300	210	18	
65-205	4	250M		H828	80	65	1620	280	1060	163	195	350	275	990
							-	630	590	25	335	210	18	
65-205	4	280 S		H829	80	65	1620	280	1060	163	195	350	275	1075
							-	700	660	25	365	210	18	
65-205	4	280M		H830	80	65	1620	280	1060	163	195	350	275	1125
							-	700	660	25	365	210	18	
65-205	5	132S		H831N	80	65	1400	20	1360	178	195	425	275	470
							350	-	280	100	280	210	18	
65-205	5	132M		H832N	80	65	1400	20	1360	178	195	425	275	525
							350	-	280	100	280	210	18	
65-205	5	160M		H833	80	65	1400	20	1360	178	195	425	275	645
							350	-	280	100	280	210	18	
65-205	5	160L		H834	80	65	1500	20	1460	178	195	425	275	675
							350	-	280	100	280	210	18	
65-205	5	180M		H881	80	65	1500	20	1460	178	195	425	275	710
							350	-	280	100	280	210	18	
65-205	5	200L		H835	80	65	1600	20	1560	178	195	425	275	800
							400	-	320	110	310	210	18	
65-205	5	225M	2	H836	80	65	1620	280	1060	163	195	425	275	870
							-	580	540	25	300	210	18	
65-205	5	250M		H837	80	65	1620	280	1060	163	195	425	275	990
							-	630	590	25	335	210	18	
65-205	5	280S		H838	80	65	1820	310	1200	163	195	425	275	1075
							-	700	660	25	365	210	18	
65-205	5	280M		H839	80	65	1820	310	1200	163	195	425	275	1125
							-	700	660	25	365	210	18	

Dimensions

Arrangement E



Type	Stages	Motor size	Poles	Code	DNS	DND	l1	l2	l3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
65-205	5	315S	2	H840	80	65	1820	310	1200	163	195	425	275	1170
							-	770	730	25	400	210	18	
65-205	6	132M		H841N	80	65	1400	20	1360	178	195	500	275	525
							350	-	280	100	280	210	18	
65-205	6	160M		H842	80	65	1500	20	1460	178	195	500	275	645
							350	-	280	100	280	210	18	
65-205	6	160L		H843	80	65	1600	20	1560	178	195	500	275	675
							350	-	280	100	280	210	18	
65-205	6	180M		H844	80	65	1600	20	1560	178	195	500	275	710
							350	-	280	100	280	210	18	
65-205	6	225M	2	H845	80	65	1620	280	1060	163	195	500	275	870
							-	580	540	25	300	210	18	
65-205	6	250M		H846	80	65	1820	310	1200	163	195	500	275	990
							-	630	590	25	335	210	18	
65-205	6	280S		H847	80	65	1820	310	1200	163	195	500	275	1075
							-	700	660	25	365	210	18	
65-205	6	280M		H848	80	65	1820	310	1200	163	195	500	275	1125
							-	700	660	25	365	210	18	
65-205	6	315S	2	H849	80	65	1820	310	1200	163	195	500	275	1170
							-	770	730	25	400	210	18	
65-205	7	132M		H850N	80	65	1500	20	1460	178	195	575	275	525
							350	-	280	100	280	210	18	
65-205	7	160M		H851	80	65	1600	20	1560	178	195	575	275	645
							350	-	280	100	280	210	18	
65-205	7	160L		H852	80	65	1600	20	1560	178	195	575	275	675
							350	-	280	100	280	210	18	
65-205	7	180M		H853	80	65	1600	20	1560	178	195	575	275	710
							350	-	280	100	280	210	18	
65-205	7	180L		H854	80	65	1700	20	1660	178	195	575	275	750
							350	-	280	100	280	210	18	

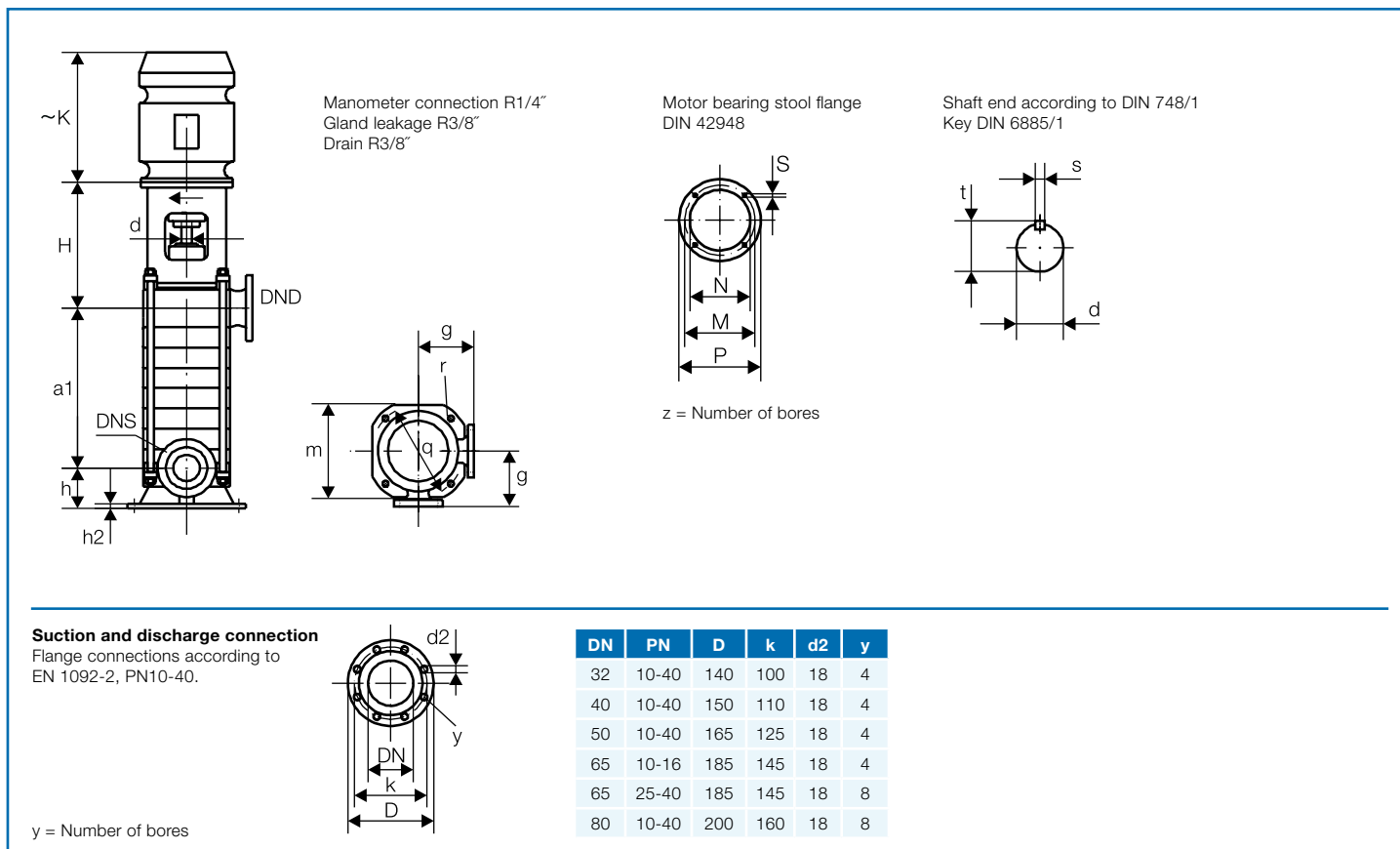
Dimensions

Arrangement E

Type	Stages	Motor size	Poles	Code	DNS	DND	I1	I2	I3	a2	f	a1	e	~K
							b1	b2	b3	h3	h1	g	s	
65-205	7	250M		H855	80	65	1820	310	1200	163	195	575	275	990
							-	630	590	25	335	210	18	
65-205	7	280S		H856	80	65	1820	310	1200	163	195	575	275	1075
							-	700	660	25	365	210	18	
65-205	7	280M		H857	80	65	2020	330	1360	163	195	575	275	1125
							-	700	660	25	380	210	18	
65-205	7	315S	2	H858	80	65	2020	330	1360	163	195	575	275	1170
							-	770	730	25	425	210	18	
65-205	8	160M		H860	80	65	1700	20	1660	178	195	650	275	645
							350	-	280	100	280	210	18	
65-205	8	160L		H861	80	65	1700	20	1660	178	195	650	275	675
							350	-	280	100	280	210	18	
65-205	8	180M		H862	80	65	1700	20	1660	178	195	650	275	710
							350	-	280	100	280	210	18	
65-205	8	180L		H863	80	65	1700	20	1660	178	195	650	275	750
							350	-	280	100	280	210	18	
65-205	8	200L		H880	80	65	1800	20	1760	178	195	650	275	800
							400	-	320	110	310	210	18	
65-205	9	160M		H864	80	65	1700	20	1660	178	195	725	275	645
							350	-	280	100	280	210	18	
65-205	9	160L		H865	80	65	1800	20	1760	178	195	725	275	675
							350	-	280	100	280	210	18	
65-205	9	180M		H866	80	65	1800	20	1760	178	195	725	275	710
							350	-	280	100	280	210	18	
65-205	9	180L		H867	80	65	1800	20	1760	178	195	725	275	750
							350	-	280	100	280	210	18	
65-205	9	200L		H868	80	65	1900	20	1860	178	195	725	275	800
							400	-	320	110	310	210	18	
65-205	10	160M		H869	80	65	1800	20	1760	178	195	800	275	645
							350	-	280	100	280	210	18	
65-205	10	160L		H870	80	65	1800	20	1760	178	195	800	275	675
							350	-	280	100	280	210	18	
65-205	10	180M		H871	80	65	1900	20	1860	178	195	800	275	710
							350	-	280	100	280	210	18	
65-205	10	180L		H872	80	65	1900	20	1860	178	195	800	275	750
							350	-	280	100	280	210	18	
65-205	10	200L		H873	80	65	1900	20	1860	178	195	800	275	800
							400	-	320	110	310	210	18	
65-205	11	160M		H878	80	65	1900	20	1860	178	195	875	275	645
							350	-	280	100	280	210	18	
65-205	11	160L		H874	80	65	1900	20	1860	178	195	875	275	675
							350	-	280	100	280	210	18	
65-205	11	180M		H875	80	65	1900	20	1860	178	195	875	275	710
							350	-	280	100	280	210	18	
65-205	11	180L		H876	80	65	2000	20	1960	178	195	875	275	750
							350	-	280	100	280	210	18	
65-205	11	200L		H877	80	65	2000	20	1960	178	195	875	275	800
							400	-	320	110	310	210	18	
65-205	11	225S	4	H883	80	65	2020	330	1360	163	195	875	275	830
							-	580	540	25	320	210	18	

Dimensions

Arrangement S



Dimension »a1« for number of stages

Type	DNS	DND	1	2	3	4	5	6	7	8	9	10	11	12	13	14
32-135	40	32	83	131	179	227	275	323	371	419	467	515	563	611	659	707
40-155	50	40	90	145	200	255	310	365	420	475	530	585	640	695	750	805
50-180	65	50	102	169	236	303	370	437	504	571	638	705	772	839	906	
65-205	80	65	125	200	275	350	425	500	575	650	725	800	875			

Type	h	h2	m	g	q	r	d	t	s	P	M	N	H	S	z
32-135	105	23	300	165	300	18	25	28	8	200	165	130	220	M 10	4
										250	215	180	230	M 12	4
										300	265	230	250	M 12	4
										350	300	250	280	Ø 18	4
										400	350	300	280	Ø 18	4
40-155	105	23	300	170	300	18	25	28	8	200	165	130	220	M 10	4
										250	215	180	230	M 12	4
										300	265	230	250	M 12	4
										350	300	250	280	Ø 18	4
										400	350	300	280	Ø 18	4
										450	400	350	280	Ø 18	8

Dimensions

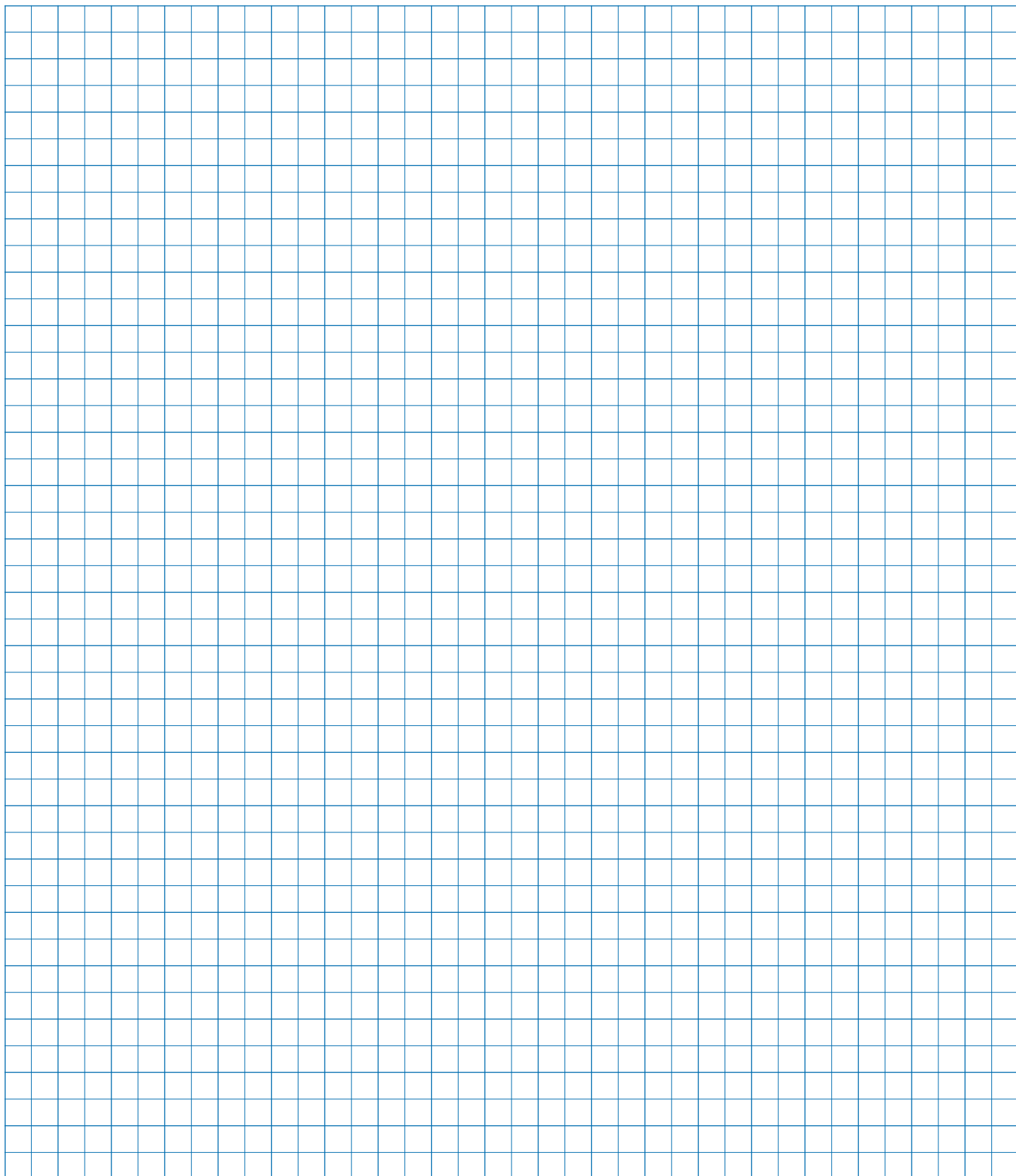
Arrangement S

Type	h	h2	m	g	q	r	d	t	s	P	M	N	H	S	z
50-180	120	23	350	190	350	18	30	33	8	250	215	180	245	M 12	4
										300	265	230	265	M 12	4
										350	300	250	295	M 16	4
										400	350	300	295	Ø 18	4
										450	400	350	295	Ø 18	8
										550	500	450	325	Ø 18	8
65-205	130	23	350	210	350	18	35	38	10	250	215	180	245	M 12	4
										300	265	230	265	M 12	4
										350	300	250	295	M 16	4
										400	350	300	295	Ø 18	4
										450	400	350	295	Ø 18	8
										550	500	450	325	Ø 18	8
										660	600	550	325	Ø 23	8

Nominal motor power [kW]		Motor size	Flange	Motor length ~K	
1450 rpm	2900 rpm			1450 rpm	2900 rpm
0,55 / 0,75	0,75 / 1,1	80	200	250	250
1,1	1,5	90S	200	300	300
1,5	2,2	90L	200	300	300
2,2 / 3	3	100L	250	330	330
4	4	112M	250	350	350
5,5	5,5 / 7,5	132S	300	390	390
7,5		132M	300	430	430
11	11 / 15	160M	350	530	530
15	18,5	160L	350	570	570
18,5	22	180M	350	600	600
22	-	180L	350	640	640
30	30 / 37	200L	400	700	700
37	-	225S	450	-	730
45	45	225M	450	730	730
55	55	250M	550	810	810
75	75	280S	550	940	960
90	90	280M	550	985	1010
110	110	315S	660	1040	1050

Dimension valid for 3-pase IEC standard motors, enclosure IP55.

For your notes



Close to our customers



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