



SB, SBI, SBN 1,3,5,10,15,20,32,45,64,90 series

Vertical Multistage Centrifugal
In-line Pumps

60Hz



motralec

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STAIRS INDUSTRIAL CO., LTD.



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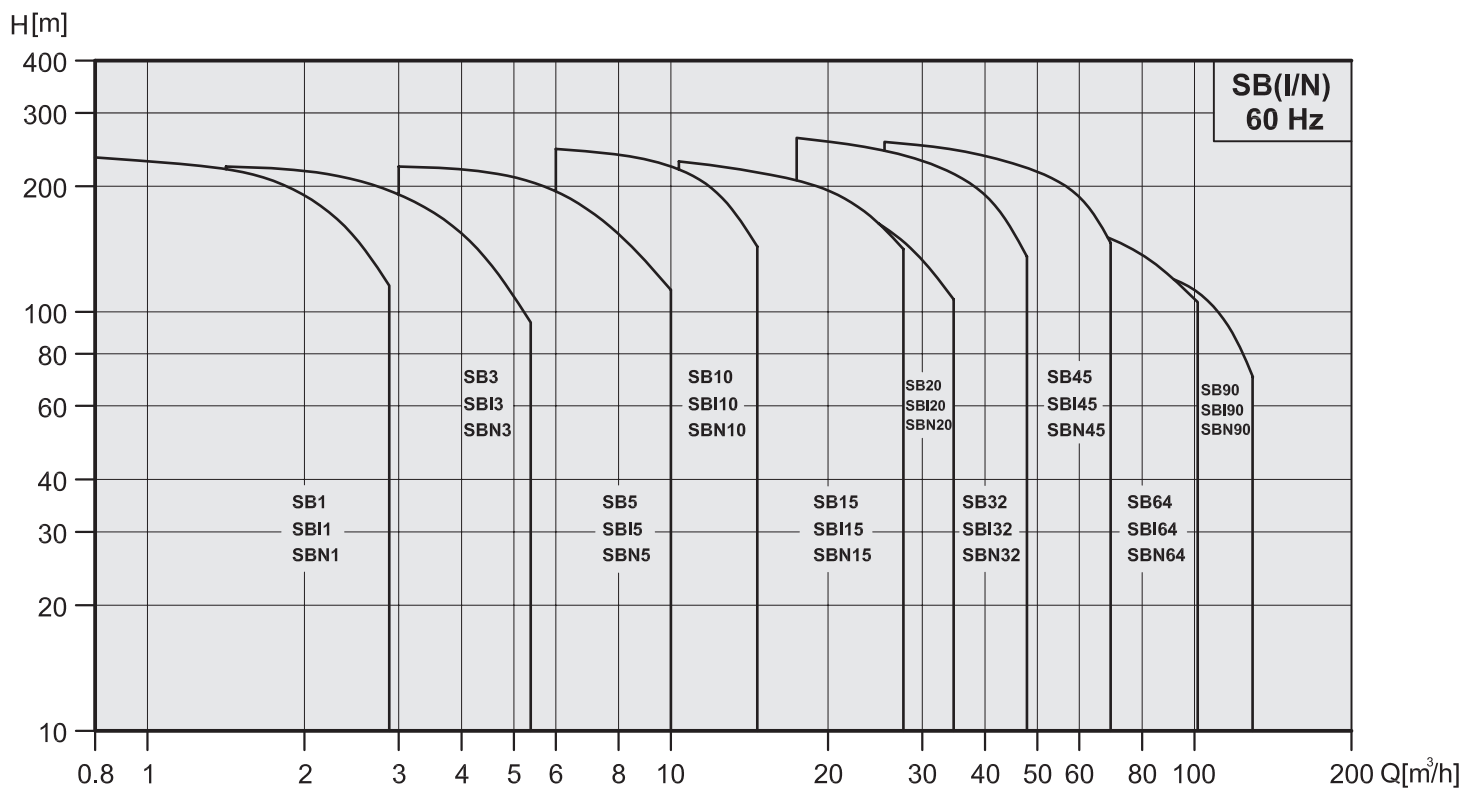
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN Series Performance range 60 Hz



Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Product data

Range	SB, SBI, SBN									
	1	3	5	10	15	20	32	45	64	90
60Hz										
Nominal flow [m ³ /h]	1.2	3.6	6	12	18	24	38	54	77	108
Flow range [m ³ /h]	0.8-2.9	1.5-5.4	3-10	6-15.5	10.5-28	12.5-35	18-48	26-70	36-102	54-146
Max. pressure [bar]	23.5	23.3	23	24.5	23.5	20.5	27	26	17.8	15.9
Fluid temperature [°C]	-15 to +120									
Motor power [kW]	0.37-3.0	0.37-4.0	0.55-7.5	0.75-11	1.5-18.5	2.2-18.5	2.2-30	5.5-45	7.5-45	11-45
Version										
SB: Cast iron and stainless steel EN 1.4301/AISI 304	●	●	●	●	●	●	●	●	●	●
SBI: Stainless steel EN 1.4301/AISI 304	●	●	●	●	●	●	●	●	●	●
SBN: Stainless steel EN 1.4401/AISI 316	●	●	●	●	●	●	●	●	●	●
Motor										
Mains connection 3 [~] [V/Hz] (Permissible voltage tolerance ± 10%)	0.37-1.1 kW 220-255/380-440 V 60 Hz 1.5-7.5 kW 220-277/380-480 V 60 Hz From 11 kW 220/380/440 V 60 Hz									
Insulation class	F									
Enclosure class	IP 55									
Ambient temperature	50°C									
SB Pipe Connection										
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN80	DN100	DN100
SBI, SBN Pipe Connection										
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN80	DN100	DN100
Victaulic-connections	R 1 ¹ / ₄ DN 32	R 1 ¹ / ₄ DN 32	R 1 ¹ / ₄ DN 32	R 2 DN50	R 2 DN50	R 2 DN50	N/A	N/A	N/A	N/A
Mechanical Seals										
SiC/SiC	Standard									
Seals										
EPDM	Standard									
Viton	Standard									

* Flange standards : Refer to dimensional drawings

Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Pump



The SB, SBI and SBN pumps are non-self priming vertical multistage pump of in-line design, flange or with Victaulic coupling with equally sized suction and discharge ports. Stage construction with stainless steel impellers, chambers and pressure casing. Pump stub shaft and motor shaft of the IEC-standards motor are directly close coupled. All pumps are equipped with a cartridge type mechanical seal for easy maintenance.

SB, SBI and SBN pumps have different pump sizes and various numbers of stages to provide the flow and the pressure required.

Applications

WATER SUPPLY AND PRESSURE BOOSTING

Pressure boosting in buildings, hotels, residential complexes
Pressure booster stations, supply of water networks
Pressure boosting for industrial water supply

IRRIGATION AND AGRICULTURE

Greenhouses
Sprinkler irrigation
Field irrigation (flooding)

LIGHT INDUSTRY

Washing and cleaning systems
Car washing facilities
Fire fighting systems
Process water systems
Machine tools (cooling lubricants)

WATER TREATMENT

Water softeners and de-mineralization
Reverse Osmosis systems
Distillation systems
Filtration
Ultra-filtration systems

HEATING, VENTILATION AND AIR-CONDITIONING

Boilers
Induction heating
Heat exchangers
Refrigerators
Cooling towers and systems
Temperature control systems

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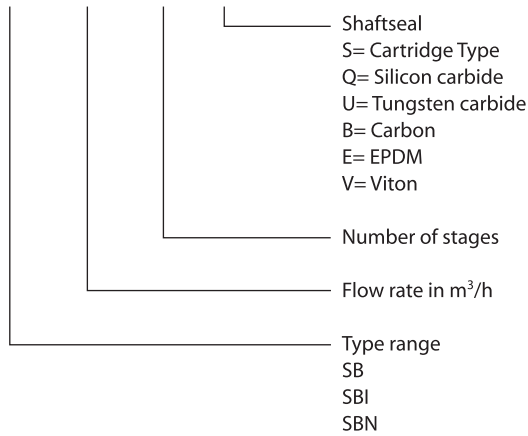
Vertical Multistage Centrifugal In-line Pumps



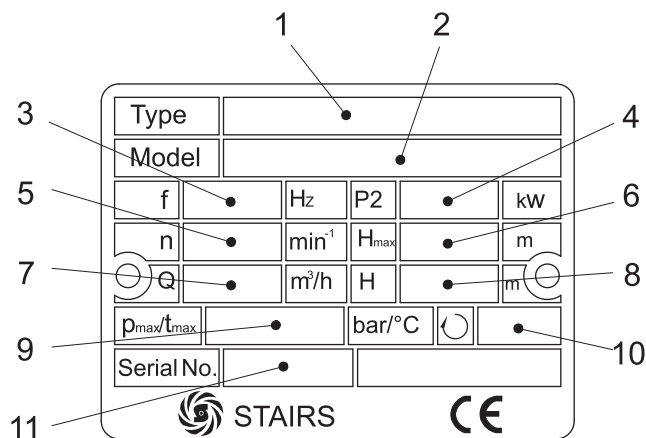
STAIRS PUMPS

Identification Code

SB - 10 - 5 - S Q Q E



Pump nameplate information



1. Pump Type - Seal Type

2. Pump Model

3. Frequency

4. Rated Power

5. Speed

6. Maximum Head

7. Capacity

8. Head Range

9. Maximum Operating Pressure

10. Rotating Direction

11. Serial number

Motor

- Squirrel cage in short circuit, aluminum casing up to 22 kW, totally enclosed, fan-cooled, 2-pole standard motor.
- Standard supply Stairs motors up to 1.1 kW. Other motor brands for higher powers.
- Electrical data
 - Enclosure class: IP55
 - Insulation class: F
 - Standard voltages: P2: 0.37-1.1 kW 3 x 220-255/380-440 V
P2: 1.5-7.5 kW 3 x 220-277/380-480 V
P2: From 11 kW 3 x 220/380/440 V
- The motors have efficiency values that fall within the range normally referred to as high efficiency.
- Ambient temperature: Max. +50°C

Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Motor Data

Motor Type				Nominal current in [A]					
HP	KW	Pole	Flange	Frame	3~220 V	3~255V	3~380 V	3~440 V	
0.5	0.37	2	B14	71	1.8	1.7	1	1.1	
0.75	0.55			71	2.5	2.4	1.5	1.6	
1.0	0.75			80	2.9	2.8	1.7	1.8	
1.5	1.1			90S	4.1	4	2.4	2.5	
						3~220 V	3~277V	3~380 V	3~480 V
2.0	1.5			90L	5.7	5	3.3	2.9	
3.0	2.2			90L	8.3	6.9	4.8	4	
4.0	3.0			100L	11.4	9.9	6.6	5.7	
5.5	4.0			112M	14	14.2	8.1	8.2	
7.5	5.5			132S	20.3	18.2	11.7	10.5	
10.0	7.5		132M	26.8	22.9	15.5	13.2		
						3~220V	3~380 V	3~440 V	
15	11		160M		36.5	21.2	18.3		
20.0	15.0		160M		47.5	27.5	23.8		
25	18.5		160L		58.5	33.9	29.3		
30	22		180M		73.3	42.4	36.7		
40	30		180M		97.8	56.6	48.9		
50	37		200L		122	70.6	61		
60	45	200L		143	82.8	71.5			

Mechanical Seal

Standard Cartridge type mechanical seal made of Silicon Carbide/Silicon Carbide/EPDM or Viton. Based on the type of application, alternative materials are available for the seal and the elastomers. The cartridge type mechanical seal can be replaced in minutes without special tools and without dismantling the pump.



List of Materials

Q : Silicon carbide	E : EPDM
U : Tungsten carbide	V : Viton
B : Carbon	

Type of Seal

Seal Type	SB	SBI	SBN
	1/3/5/10/15/20 32/45/64/90	1/3/5/10/15/20 32/45/64/90	1/3/5/10/15/20 32/45/64/90
Mechanical Seals			
S : Cartridge seal	●	●	●
QQ	●	●	●
UU	Optional	Optional	Optional
QB	Optional	Optional	Optional
UB	Optional	Optional	Optional
Seals			
E	●	●	●
V	●	●	●

Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Maximum operating and inlet pressures

60Hz

Stages	Maximum Operating Pressure	Stages	Maximum Inlet Pressures
SB, SBI, SBN 1			
2-27	25bar	2-25	10bar
		27	15bar
SB, SBI, SBN 3			
2-25	25bar	2-15	10bar
		17-25	15bar
SB, SBI, SBN 5			
2-24	25bar	2-9	10bar
		10-24	15bar
SB, SBI, SBN 10			
1-10	16bar	1-5	8bar
12-17	25bar	6-18	10bar
SB, SBI, SBN 15			
1-8	16bar	1-2	8bar
9-12	25bar	3-12	10bar
SB, SBI, SBN 20			
1-7	16bar	1	8bar
8-10	25bar	2-10	10bar
SB, SBI, SBN 32			
(1-1)-5	16bar	(1-1)-(2)	4bar
(6-2)-(10-2)	30bar	(3-2)-(6)	10bar
	30bar	(7-2)-(10-2)	15bar
SB, SBI, SBN 45			
(1-1)-4	16bar	(1-1)-1	4bar
(5-2)-7	30bar	(2-2)-3	10bar
		(4-2)-7	15bar
SB, SBI, SBN 64			
(1-1)-3	16bar	(1-1)	4bar
(4-2)-(5-2)	30bar	1-(2-1)	10bar
		2-(5-2)	15bar
SB, SBI, SBN 90			
(1-1)-3	16 bar	(1-1) - (2-2)	10bar
(4-2)	30 bar	(2-1) - (4-2)	15bar

* Rule to follow : The inlet pressure+ the pressure against a closed valve < Max. Operating pressure.

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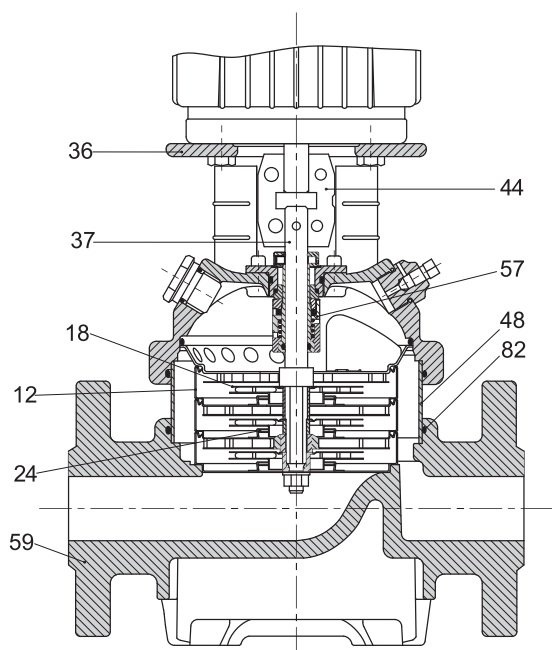
Vertical Multistage Centrifugal In-line Pumps



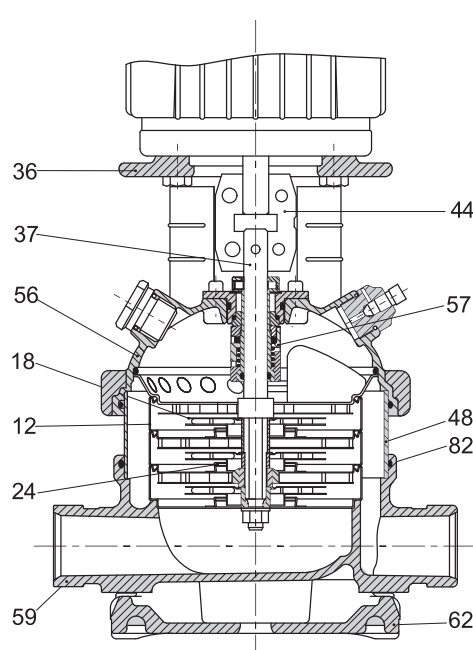
STAIRS PUMPS

Construction

SB-1,3,5,10,15,20



SBI(N)-1,3,5,10,15,20



CONSTRUCTION

Pos.	Name	Material	SB 1,3,5,10,15,20		SBI 1,3,5,10,15,20		SBN 1,3,5,10,15,20	
			Standard		Standard		Standard	
			Europe	USA	Europe	USA	Europe	USA
36	Pump head	Cast Iron	EN-GJL-200	ASTM 25B	EN-GJS-450-10	ASTM 65-45-12	EN-GJS-450-10	ASTM 65-45-12
56	Pump head cover	Stainless steel	N/A		1.4301	AISI 304	1.4401	AISI 316
18	Impeller	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
37	Shaft	Stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI 316
48	Outer Sleeve	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
82	O-ring for outer sleeve	EPDM						
12	Chamber	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
24	Neck ring	PTFE						
59	Base	Cast Iron	EN-GJL-200	ASTM 25B	N/A			
	Base	Stainless steel	N/A		1.4301	AISI 304	1.4401	AISI 316
62	Base plate	Cast Iron	N/A		EN-GJL-200	ASTM 25B	EN-GJL-200	ASTM 25B
44	Coupling	Fe-Cu-C	SINT C11	MPIF FC0525	SINT C11	MPIF FC0525	SINT C11	MPIF FC0525
57	Mechanical seal	Cartridge type						

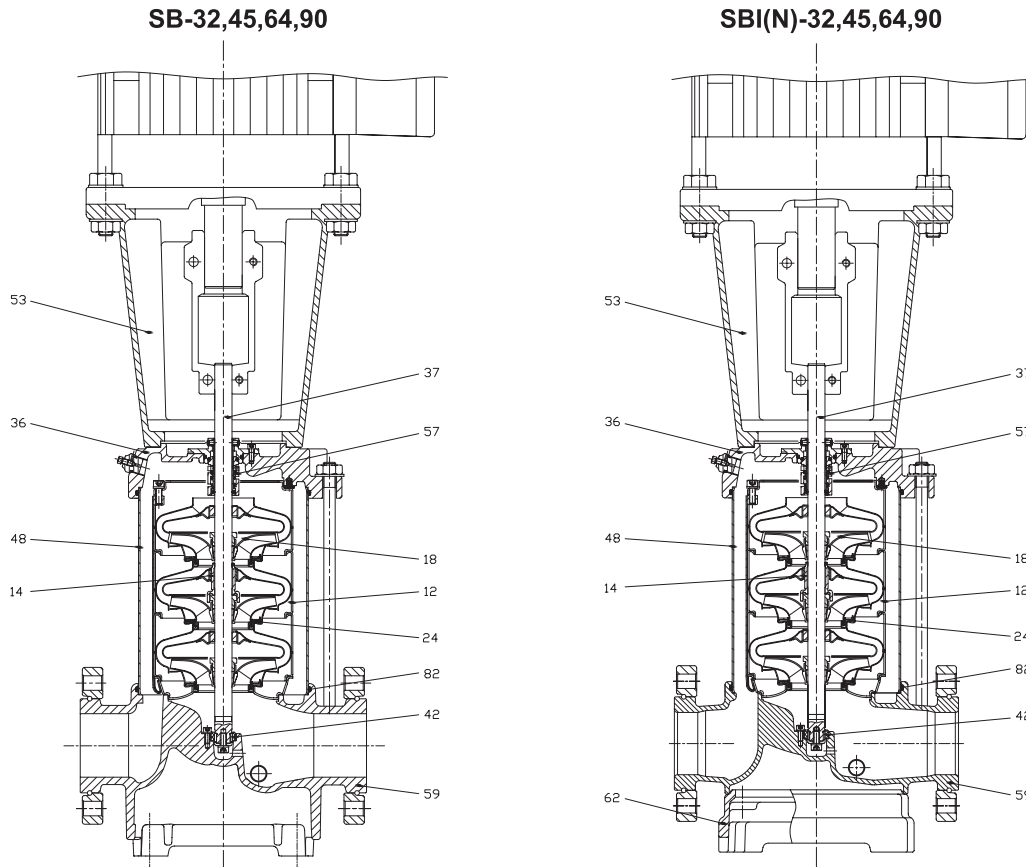
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Construction



CONSTRUCTION

Pos.	Name	Material	SB 32, 45, 64, 90		SBI 32, 45, 64, 90		SBN 32, 45, 64, 90	
			Standard		Standard		Standard	
			Europe	USA	Europe	USA	Europe	USA
36	Pump head	Cast Iron	EN-GJL-250	ASTM 35B				
		Stainless steel			1.4301	AISI 304	1.4401	AISI 316
53	Motor Bracket	Cast Iron	EN-GJL-250	ASTM 35B	EN-GJL-250	ASTM 35B	EN-GJL-250	ASTM 35B
18	Impeller	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
37	Shaft	Stainless steel	1.4057	AISI 431	1.4057	AISI 431	1.4401	AISI 316
48	Outer Sleeve	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
82	O-ring for outer sleeve	EPDM						
12	Chamber	Stainless steel	1.4301	AISI 304	1.4301	AISI 304	1.4401	AISI 316
24	Neck ring	Carbon Fiber + POB + PTFE						
59	Base	Cast Iron	EN-GJL-250	ASTM 35B	N/A			
	Base	Stainless steel	N/A		1.4301	AISI 304	1.4401	AISI 316
62	Base plate	Cast Iron	N/A		EN-GJL-250	ASTM 35B	EN-GJL-250	ASTM 35B
57	Mechanical seal	Cartridge type						
14	Bearing ring		Bronze				POB+Graphite+PTFE	
42	Bottom bearing ring	Tungsten carbide/ Tungsten carbide						

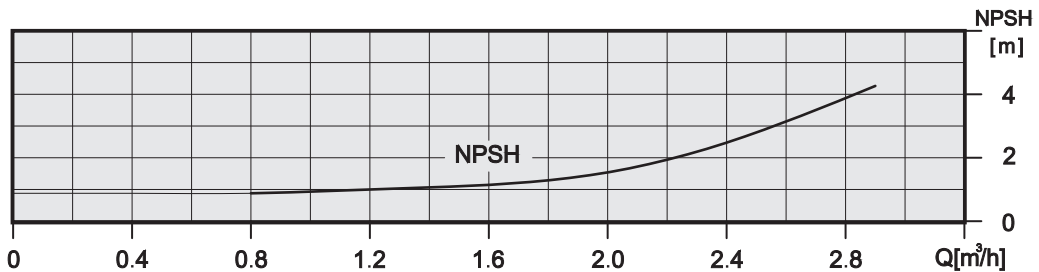
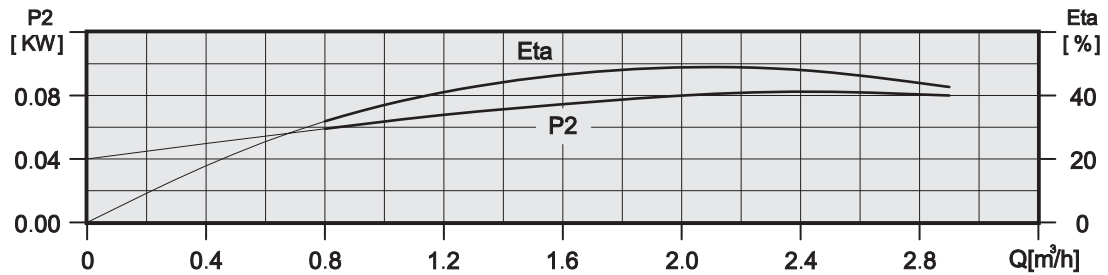
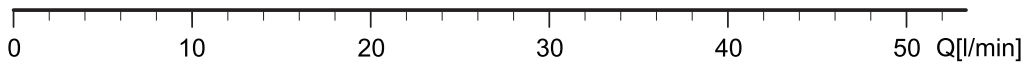
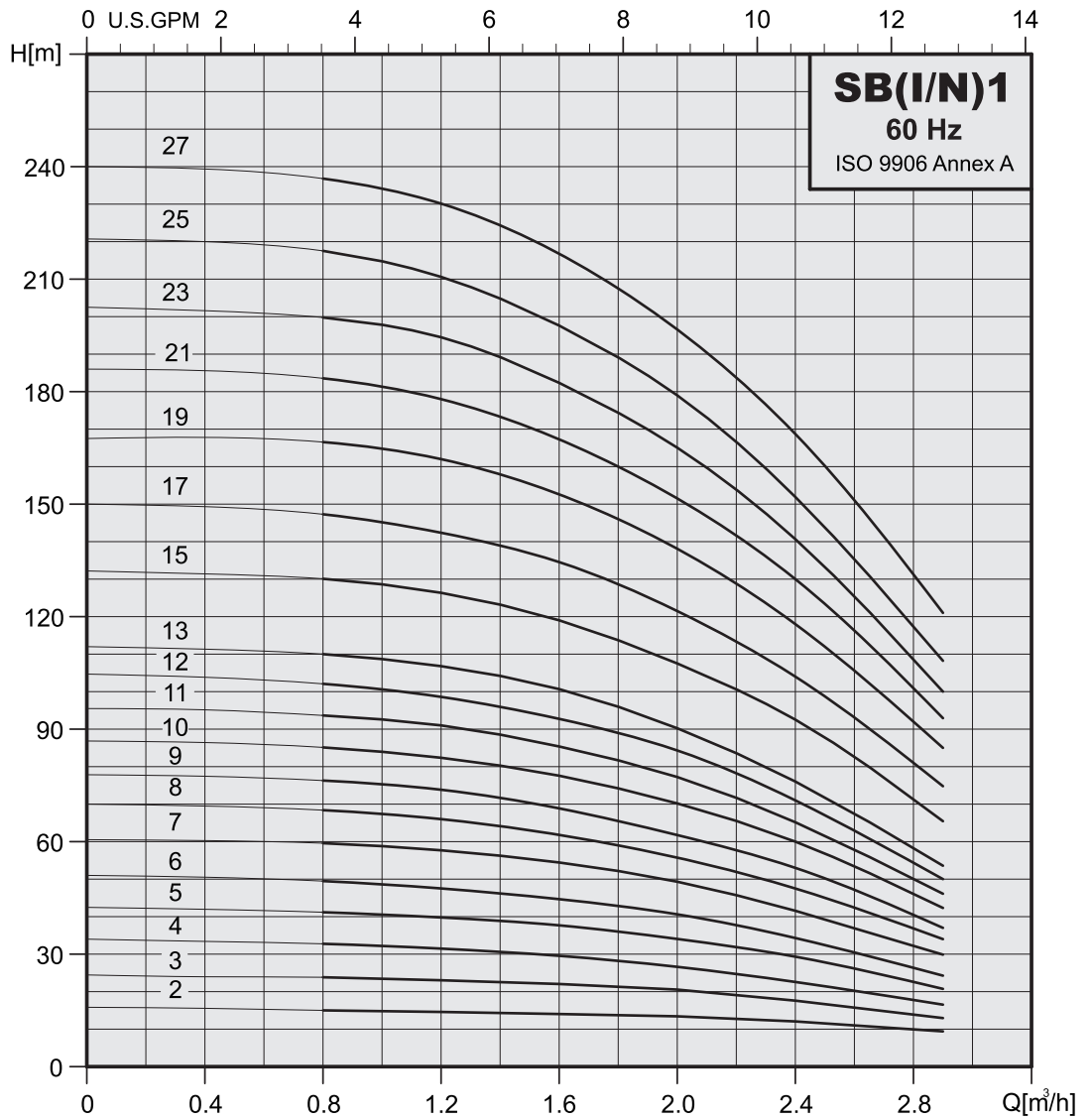
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 1



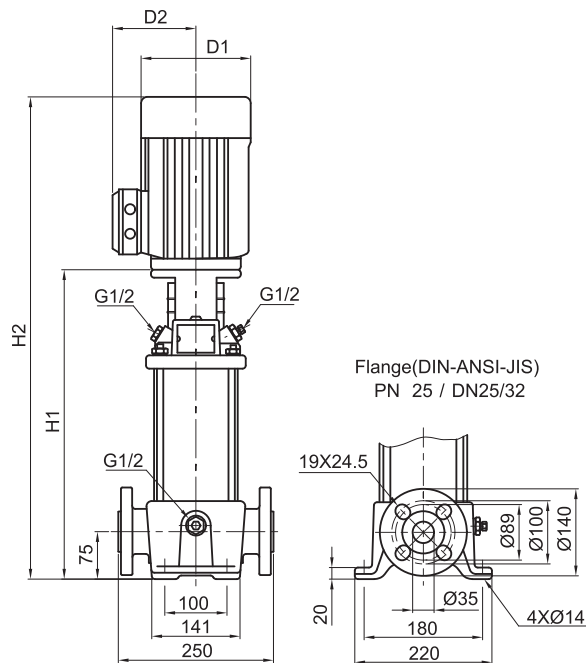
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 1



Pump type	Motor	SB				
		Dimension[mm]				Net weight[kg]
	P ₂ [kW]	DIN flange		D1	D2	DIN flange
		H1	H2			
SB1-2	0.37	279	470	141	109	23
SB1-3	0.37	279	470	141	109	23
SB1-4	0.37	297	488	141	109	23
SB1-5	0.55	315	506	141	109	24
SB1-6	0.55	333	524	141	109	25
SB1-7	0.75	357	588	141	109	27
SB1-8	0.75	375	606	141	109	27
SB1-9	0.75	393	624	141	109	28
SB1-10	1.1	411	642	141	109	30
SB1-11	1.1	429	660	141	109	31
SB1-12	1.1	447	678	141	109	31
SB1-13	1.1	465	696	141	109	31
SB1-15	1.5	517	792	175	140	39.1
SB1-17	1.5	553	828	175	140	39.9
SB1-19	2.2	589	864	175	140	42.7
SB1-21	2.2	625	900	175	140	43.4
SB1-23	2.2	661	936	175	140	44.2
SB1-25	2.2	697	972	175	140	44.9
SB1-27	3	737	1057	196	148	52.4

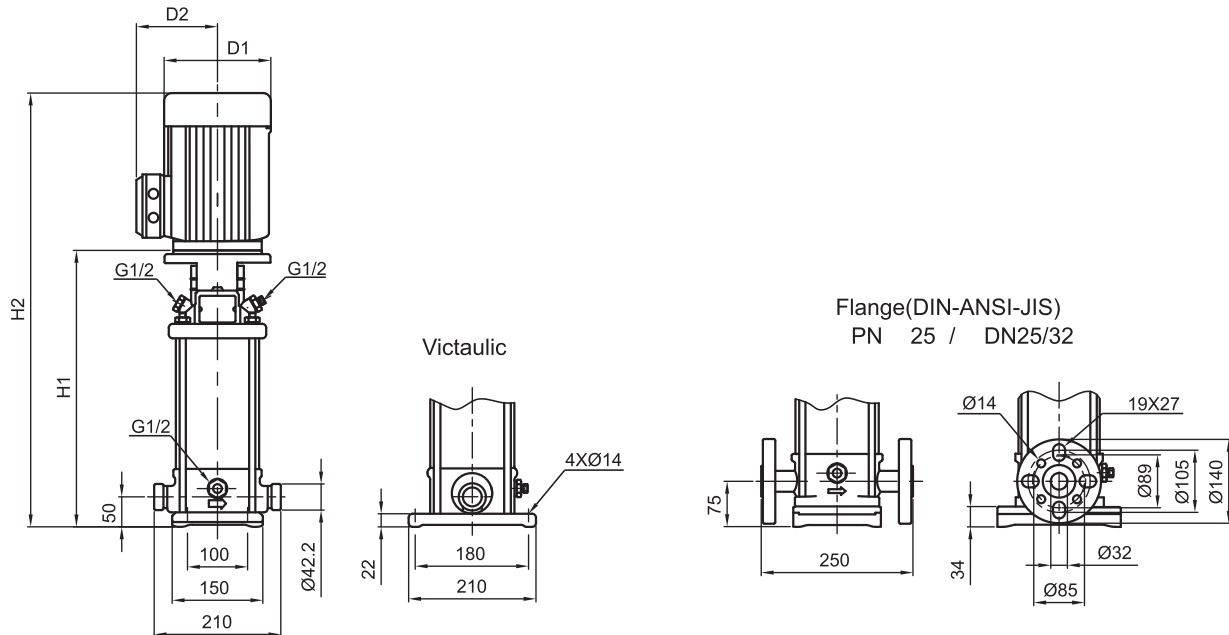
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI,SBN 1



Pump type	Motor P ₂ [kW]	SBI,SBN							
		Dimension[mm]						Net weight[kg]	
		Victaulic		DIN flange		D1	D2	Victaulic	DIN flange
H1	H2	H1	H2						
SBI,SBN1-2	0.37	257	448	282	473	141	109	16	20
SBI,SBN1-3	0.37	257	448	282	473	141	109	16	21
SBI,SBN1-4	0.37	275	466	300	491	141	109	17	21
SBI,SBN1-5	0.55	293	484	318	509	141	109	18	22
SBI,SBN1-6	0.55	311	502	336	527	141	109	18	22
SBI,SBN1-7	0.75	335	566	360	591	141	109	21	25
SBI,SBN1-8	0.75	353	584	378	609	141	109	21	26
SBI,SBN1-9	0.75	371	602	396	627	141	109	22	26
SBI,SBN1-10	1.1	389	620	414	645	141	109	24	28
SBI,SBN1-11	1.1	407	638	432	663	141	109	25	29
SBI,SBN1-12	1.1	425	656	450	681	141	109	25	29
SBI,SBN1-13	1.1	443	674	468	699	141	109	26	30
SBI,SBN1-15	1.5	495	770	520	795	175	140	33.8	37.3
SBI,SBN1-17	1.5	531	806	556	831	175	140	34.5	38.1
SBI,SBN1-19	2.2	567	842	592	867	175	140	37.3	40.8
SBI,SBN1-21	2.2	603	878	628	903	175	140	38	41.6
SBI,SBN1-23	2.2	639	914	664	939	175	140	38.8	42.3
SBI,SBN1-25	2.2	675	950	700	975	175	140	39.5	43.1
SBI,SBN1-27	3	716	1036	741	1034	196	148	46.7	50.3

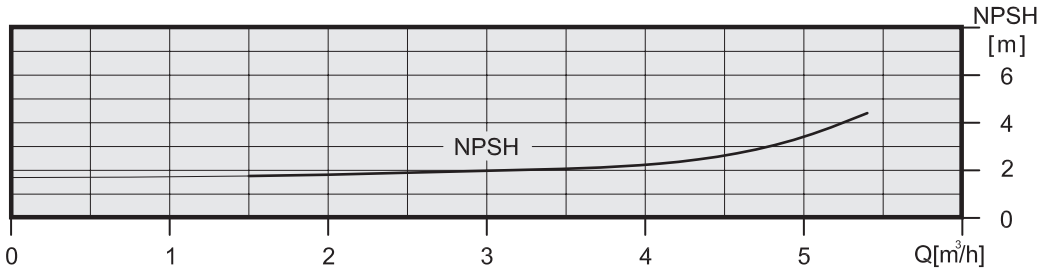
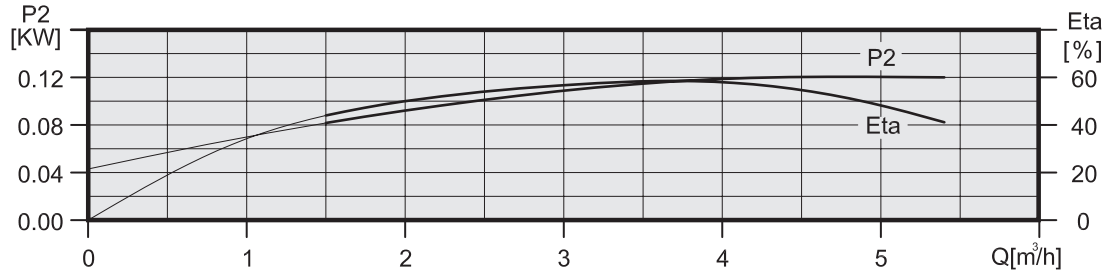
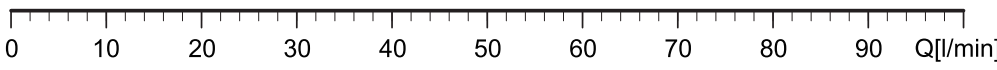
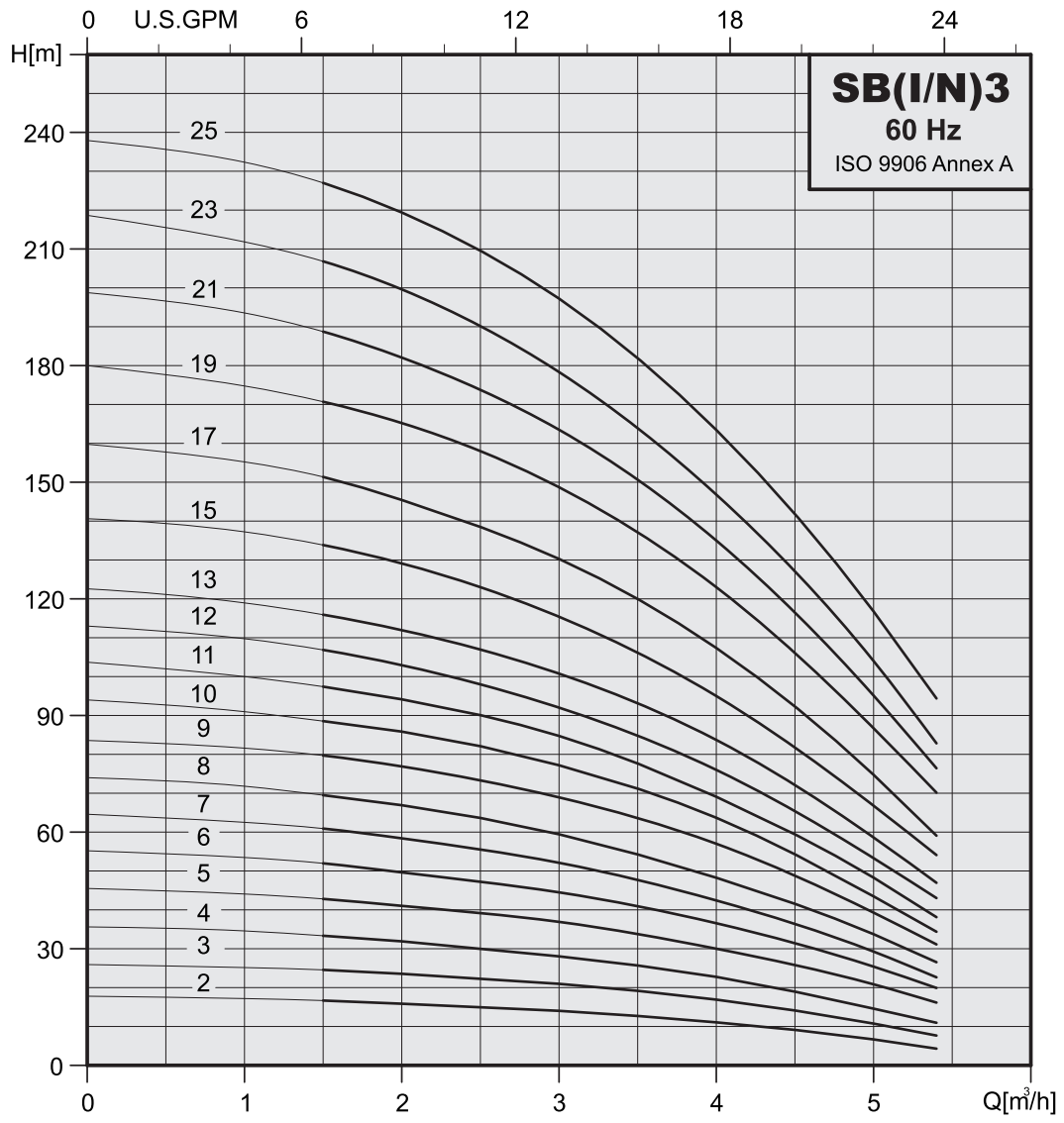
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 3



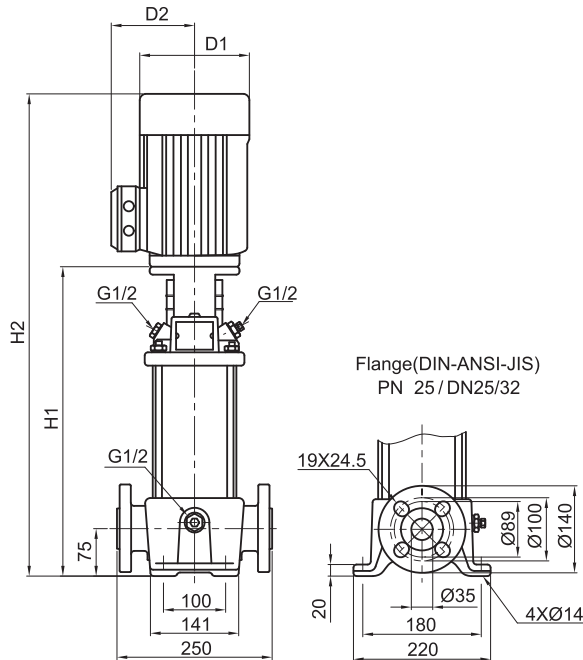
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 3



Pump type	Motor	SB				
		Dimension[mm]				Net weight[kg]
	P ₂ [kW]	DIN flange		D1	D2	DIN flange
		H1	H2			
SB 3-2	0.37	279	470	141	109	23
SB 3-3	0.55	279	470	141	109	24
SB 3-4	0.55	297	488	141	109	24
SB 3-5	0.75	321	552	141	109	26
SB 3-6	1.1	339	570	141	109	29
SB 3-7	1.1	357	588	141	109	29
SB 3-8	1.1	375	606	141	109	29
SB 3-9	1.5	409	684	175	140	36.9
SB 3-10	1.5	427	702	175	140	37.3
SB 3-11	1.5	445	720	175	140	37.6
SB 3-12	2.2	463	738	175	140	40.0
SB 3-13	2.2	517	792	175	140	40.4
SB-3-15	2.2	553	828	175	140	41.1
SB-3-17	2.2	593	868	175	140	41.9
SB-3-19	3	629	949	196	148	49.4
SB-3-21	3	665	985	196	148	50.2
SB-3-23	3	665	985	196	148	50.9
SB-3-25	4	701	1036	219	162	58.7

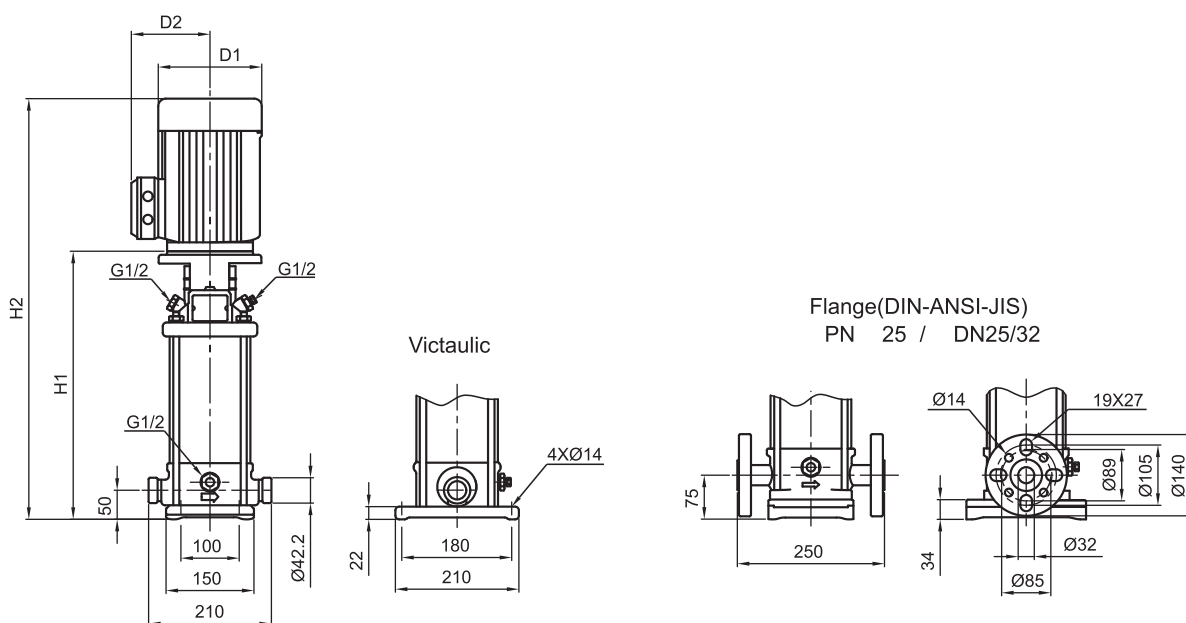
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI, SBN 3



Pump type	Motor P ₂ [kW]	SBI,SBN							
		Dimension[mm]						Net weight[kg]	
		Victaulic		DIN flange		D1	D2	Victaulic	DIN flange
		H1	H2	H1	H2				
SBI,SBN3-2	0.37	257	448	282	473	141	109	16	20
SBI,SBN3-3	0.55	257	448	282	473	141	109	17	21
SBI,SBN3-4	0.55	275	466	300	491	141	109	17	22
SBI,SBN3-5	0.75	299	530	324	555	141	109	20	24
SBI,SBN3-6	1.1	317	548	342	573	141	109	23	27
SBI,SBN3-7	1.1	335	566	360	591	141	109	23	27
SBI,SBN3-8	1.1	353	584	378	609	141	109	24	28
SBI,SBN3-9	1.5	387	662	412	687	175	140	31.2	35.1
SBI,SBN3-10	1.5	405	680	430	705	175	140	31.6	35.5
SBI,SBN3-11	1.5	423	698	448	723	175	140	31.9	35.9
SBI,SBN3-12	2.2	441	716	466	741	175	140	34.3	38.2
SBI,SBN3-13	2.2	459	734	484	759	175	140	34.7	38.6
SBI,SBN3-15	2.2	495	770	520	795	175	140	35.5	39.4
SBI,SBN3-17	2.2	531	806	556	831	175	140	36.5	40.1
SBI,SBN3-19	3	572	892	597	917	196	148	43.3	46.8
SBI,SBN3-21	3	608	928	633	953	196	148	44.0	47.5
SBI,SBN3-23	3	644	964	669	989	196	148	44.8	48.3
SBI,SBN3-25	4	680	1015	705	1040	219	162	52.5	56.1

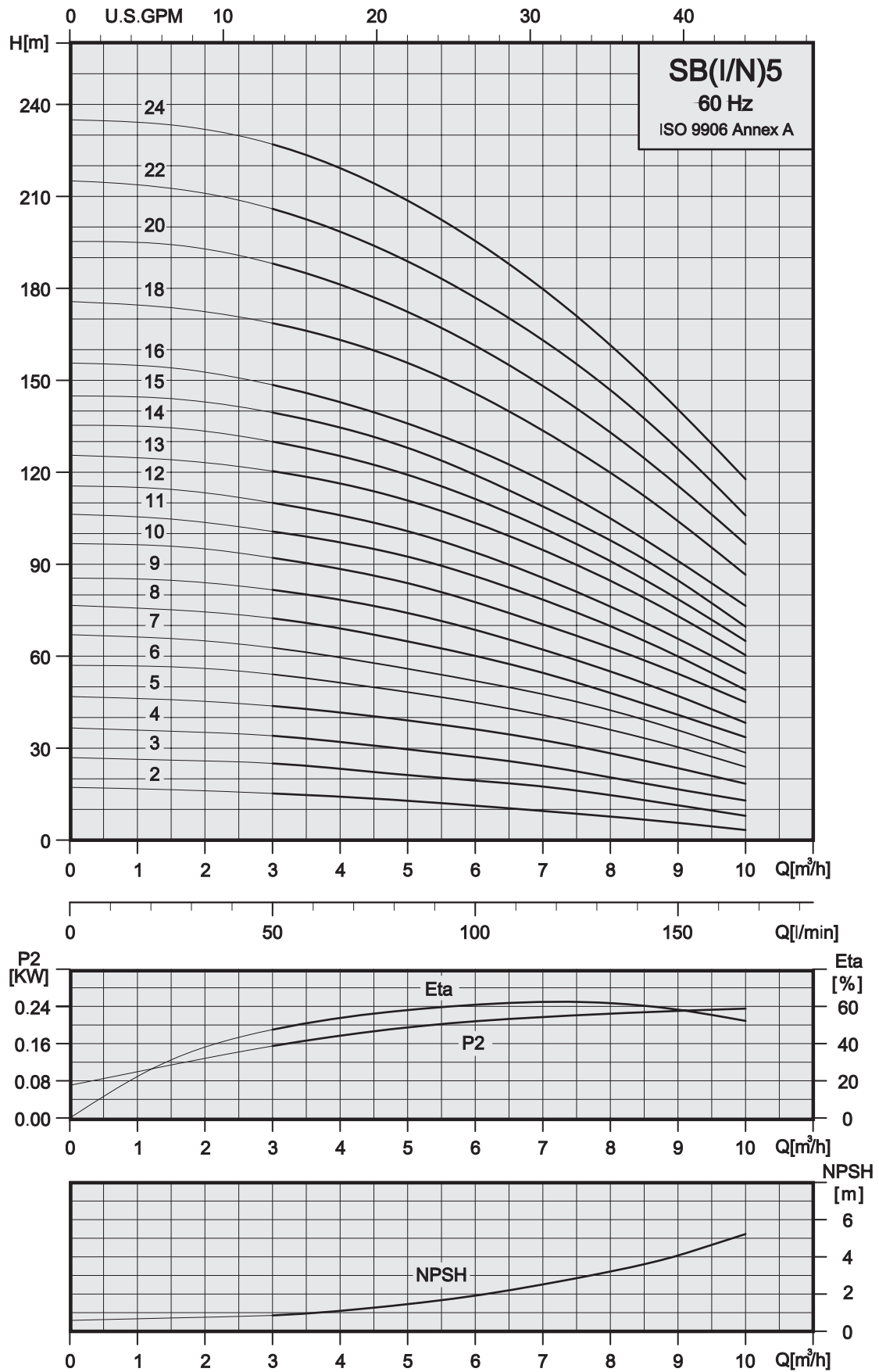
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 5



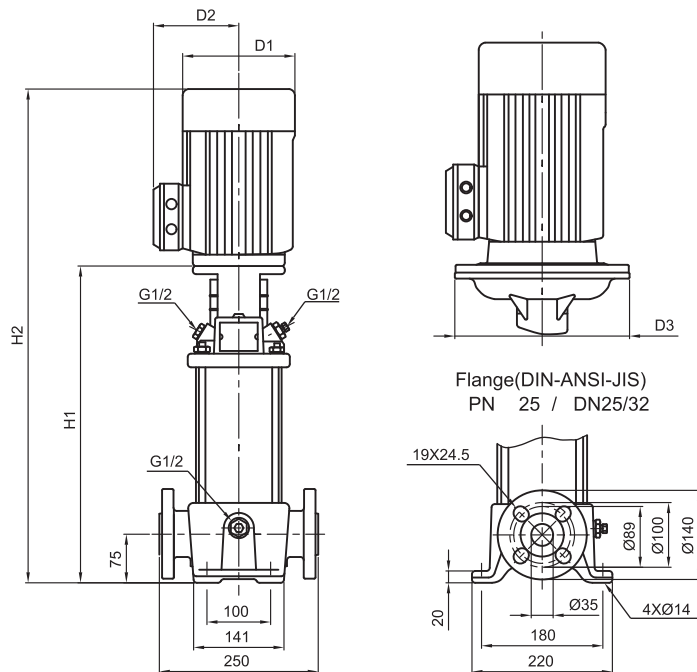
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 5



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P ₂ [kW]	DIN flange		D1	D2	D3	DIN flange
	H1	H2					
SB5-2	0.55	279	470	141	109	—	23
SB5-3	1.1	312	543	141	109	—	28
SB5-4	1.1	339	570	141	109	—	28
SB5-5	1.5	382	657	175	140	—	36.1
SB5-6	2.2	409	684	175	140	—	38.7
SB5-7	2.2	436	711	175	140	—	39.2
SB5-8	2.2	463	738	175	140	—	39.8
SB5-9	2.2	490	765	175	140	—	40.3
SB5-10	3	521	841	196	148	—	47.6
SB5-11	3	548	868	196	148	—	48.2
SB5-12	3	575	895	196	148	—	48.8
SB5-13	4	602	937	219	162	—	56.4
SB5-14	4	629	964	219	162	—	56.9
SB5-15	4	656	991	219	162	—	57.5
SB5-16	4	683	1018	219	162	—	58.1
SB5-18	5.5	767	1127	234	199	300	77.9
SB5-20	5.5	821	1181	234	199	300	79.1
SB5-22	5.5	875	1235	234	199	300	80.2
SB5-24	7.5	929	1329	234	199	300	90.2

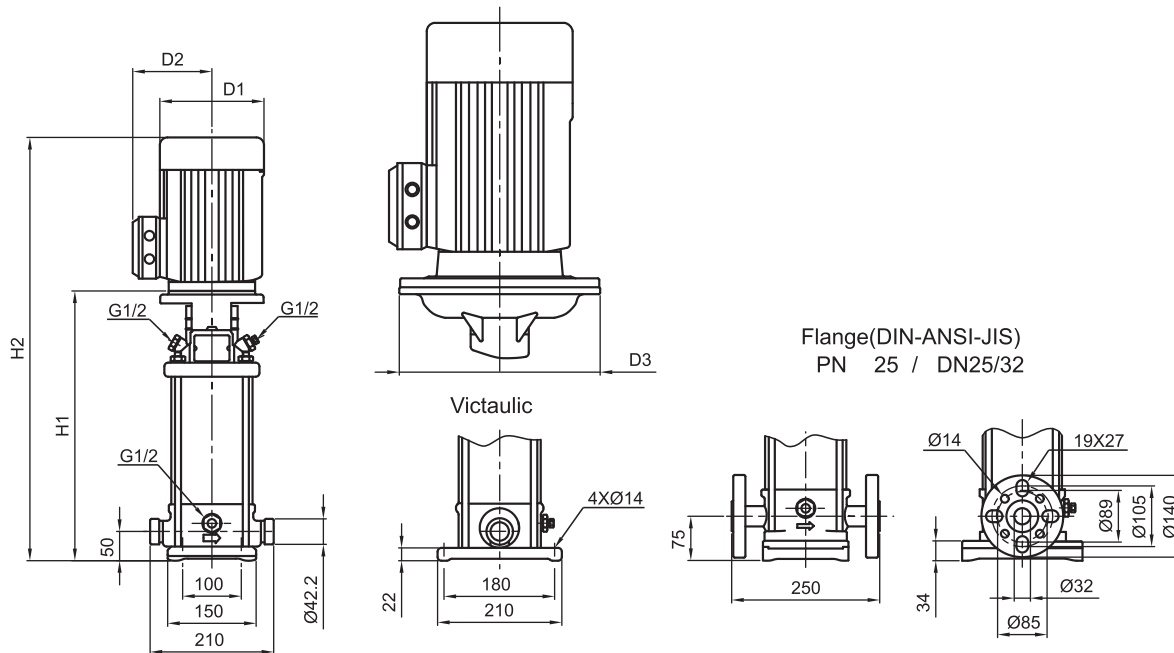
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI, SBN 5



Pump type	Motor	SBI,SBN								
		Dimension[mm]						Net weight[kg]		
	P ₂ [kW]	Victaulic		DIN flange		D1	D2	D3	Victaulic	DIN flange
		H1	H2	H1	H2					
SBI,SBN5-2	0.55	257	448	282	473	141	109	—	17	21
SBI,SBN5-3	1.1	290	521	315	546	141	109	—	22	26
SBI,SBN5-4	1.1	317	548	342	573	141	109	—	23	27
SBI,SBN5-5	1.5	360	635	385	660	175	140	—	30.8	34.3
SBI,SBN5-6	2.2	387	662	412	687	175	140	—	33.3	36.8
SBI,SBN5-7	2.2	414	689	439	714	175	140	—	33.8	37.3
SBI,SBN5-8	2.2	441	716	466	741	175	140	—	34.4	37.9
SBI,SBN5-9	2.2	468	743	493	768	175	140	—	34.9	38.5
SBI,SBN5-10	3	500	870	525	845	196	148	—	42.0	45.5
SBI,SBN5-11	3	527	847	552	872	196	148	—	42.5	46.1
SBI,SBN5-12	3	554	874	579	899	196	148	—	43.1	46.6
SBI,SBN5-13	4	581	916	606	941	219	162	—	50.7	54.2
SBI,SBN5-14	4	608	943	633	968	219	162	—	51.2	54.8
SBI,SBN5-15	4	635	970	660	995	219	162	—	51.8	55.4
SBI,SBN5-16	4	662	997	687	1022	219	162	—	52.4	55.9
SBI,SBN5-18	5.5	745	1105	770	1130	234	199	300	72.2	75.7
SBI,SBN5-20	5.5	799	1159	824	1184	234	199	300	73.3	76.9
SBI,SBN5-22	5.5	853	1213	878	1238	234	199	300	74.5	78.0
SBI,SBN5-24	7.5	907	1307	932	1332	234	199	300	84.6	88.2

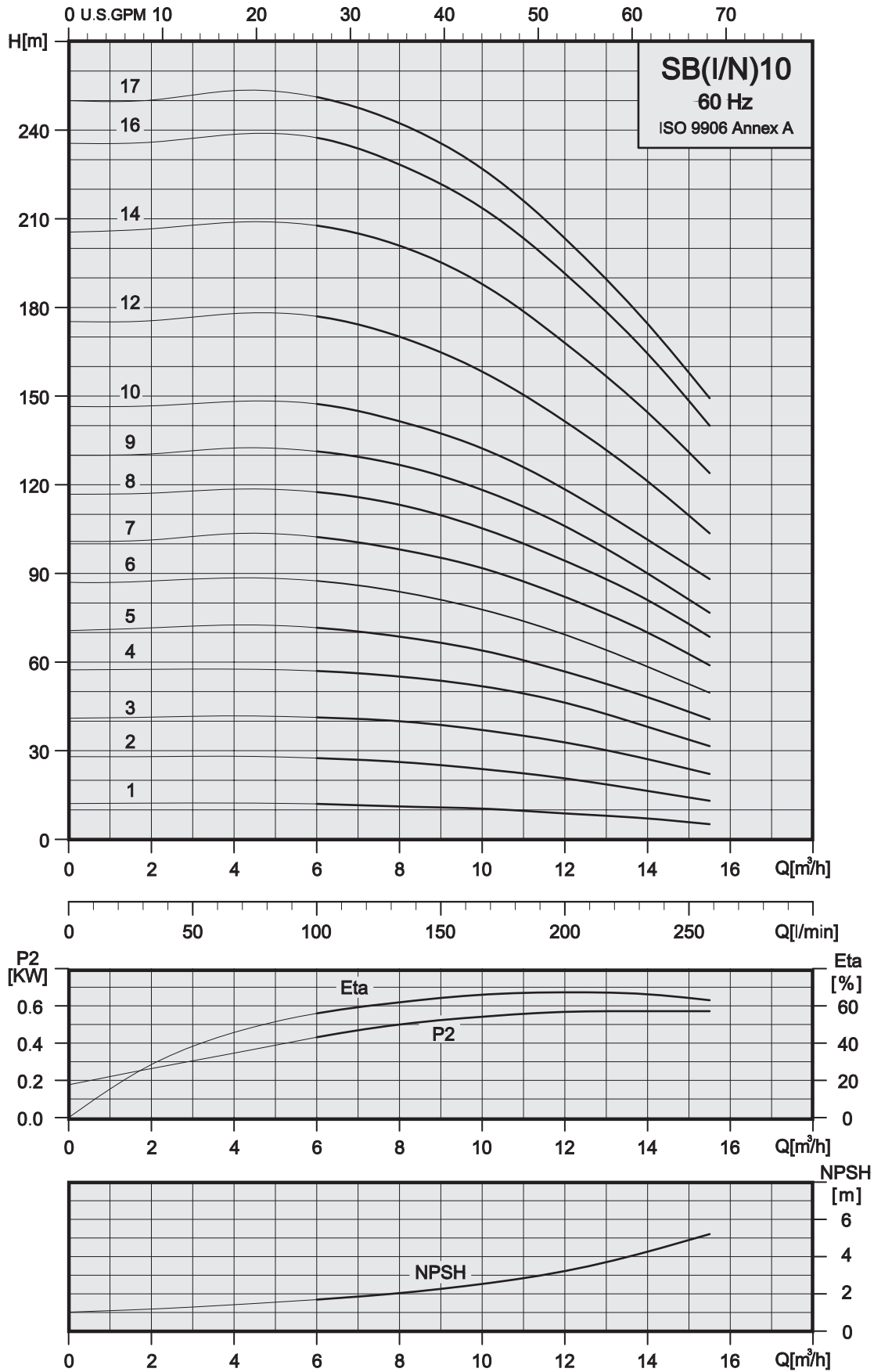
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 10



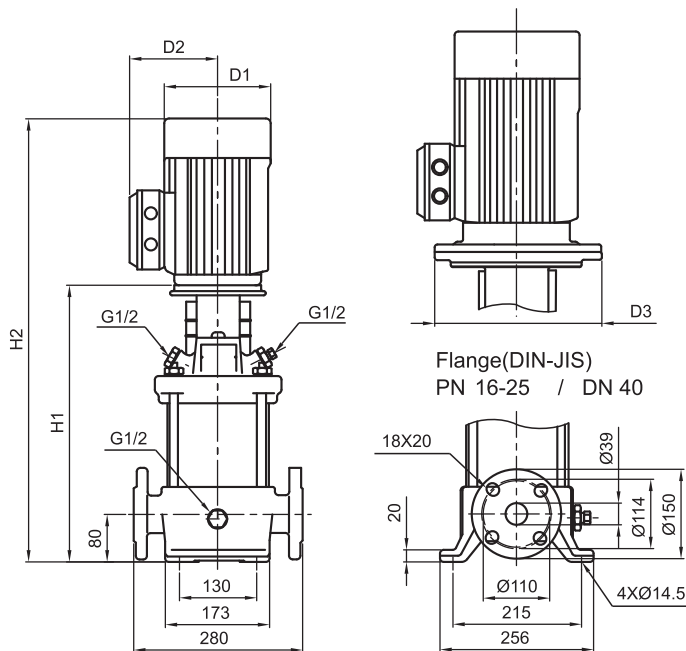
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 10



Pump type	Motor P ₂ [kW]	SB					
		Dimension[mm]				Net weight[kg]	
		DIN flange		D1	D2	D3	DIN flange
		H1	H2				
SB10-1	0.75	347	578	141	109	—	36
SB10-2	1.5	363	638	175	140	—	46.2
SB10-3	2.2	393	668	175	140	—	49.2
SB10-4	3	428	748	196	148	—	57.5
SB10-5	3	458	778	196	148	—	58.6
SB10-6	4	488	823	219	162	—	66.6
SB10-7	5.5	550	910	234	199	300	91.6
SB10-8	5.5	580	940	234	199	300	92.6
SB10-9	5.5	610	970	234	199	300	93.6
SB10-10	7.5	640	1040	234	199	300	103.6
SB10-12	7.5	700	1100	234	199	300	105.6
SB10-14	11	837	1282	268	215	350	137.3
SB10-16	11	897	1342	268	215	350	139.3
SB10-17	11	957	1402	268	215	350	140.3

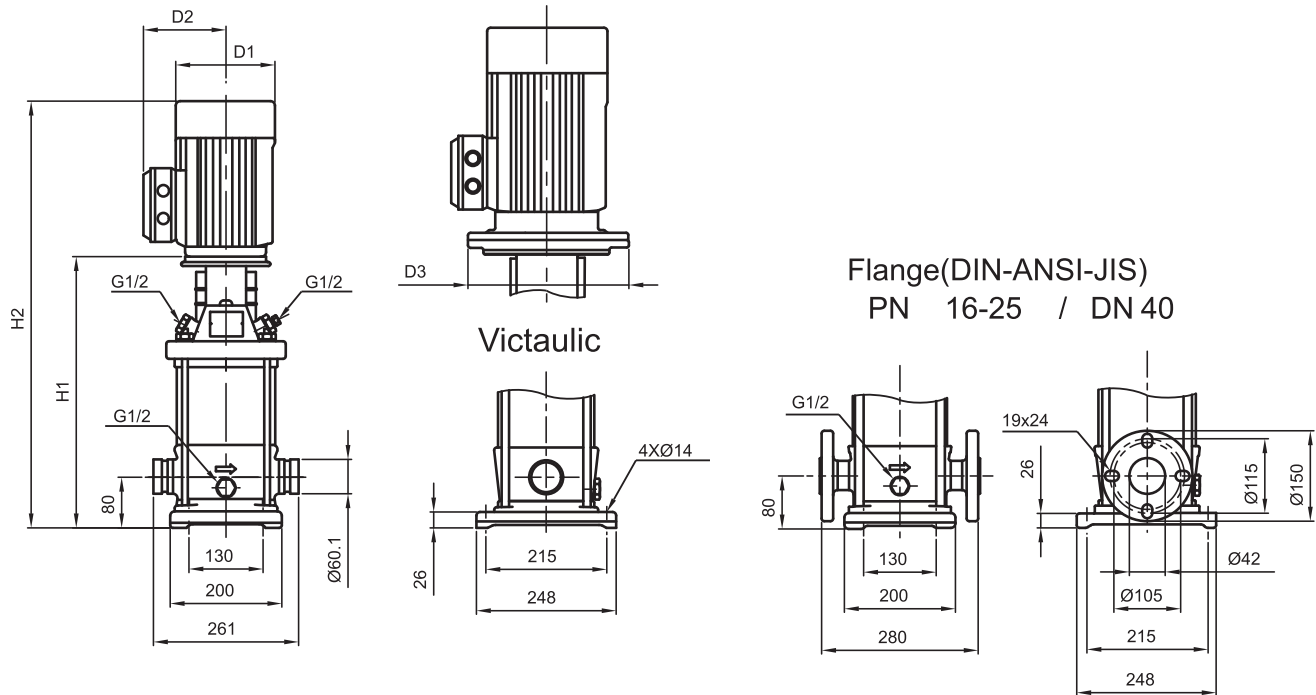
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights SBI, SBN 10



Pump type	Motor P ₂ [kW]	SBI,SBN								
		Dimension[mm]						Net weight[kg]		
		Victaulic		DIN flange		D1	D2	D3	Victaulic	DIN flange
H1	H2	H1	H2							
SBI,SBN10-1	0.75	357	588	357	588	141	109	—	31	34
SBI,SBN10-2	1.5	373	648	373	648	175	140	—	41.6	45.1
SBI,SBN10-3	2.2	403	678	403	678	175	140	—	44.6	48.1
SBI,SBN10-4	3	438	758	438	758	196	148	—	51.4	54.9
SBI,SBN10-5	3	468	788	468	788	196	148	—	52.4	55.9
SBI,SBN10-6	4	498	833	498	833	219	162	—	60.4	63.9
SBI,SBN10-7	5.5	560	920	560	920	234	199	300	86.3	89.8
SBI,SBN10-8	5.5	590	950	590	950	234	199	300	87.3	90.8
SBI,SBN10-9	5.5	620	980	620	980	234	199	300	88.3	91.9
SBI,SBN10-10	7.5	650	1050	650	1050	234	199	300	98.3	101.9
SBI,SBN10-12	7.5	710	1110	710	1110	234	199	300	100.4	103.9
SBI,SBN10-14	11	847	1292	847	1292	268	215	350	132.7	136.2
SBI,SBN10-16	11	907	1352	907	1352	268	215	350	134.7	138.2
SBI,SBN10-17	11	967	1412	967	1412	268	215	350	135.7	139.2

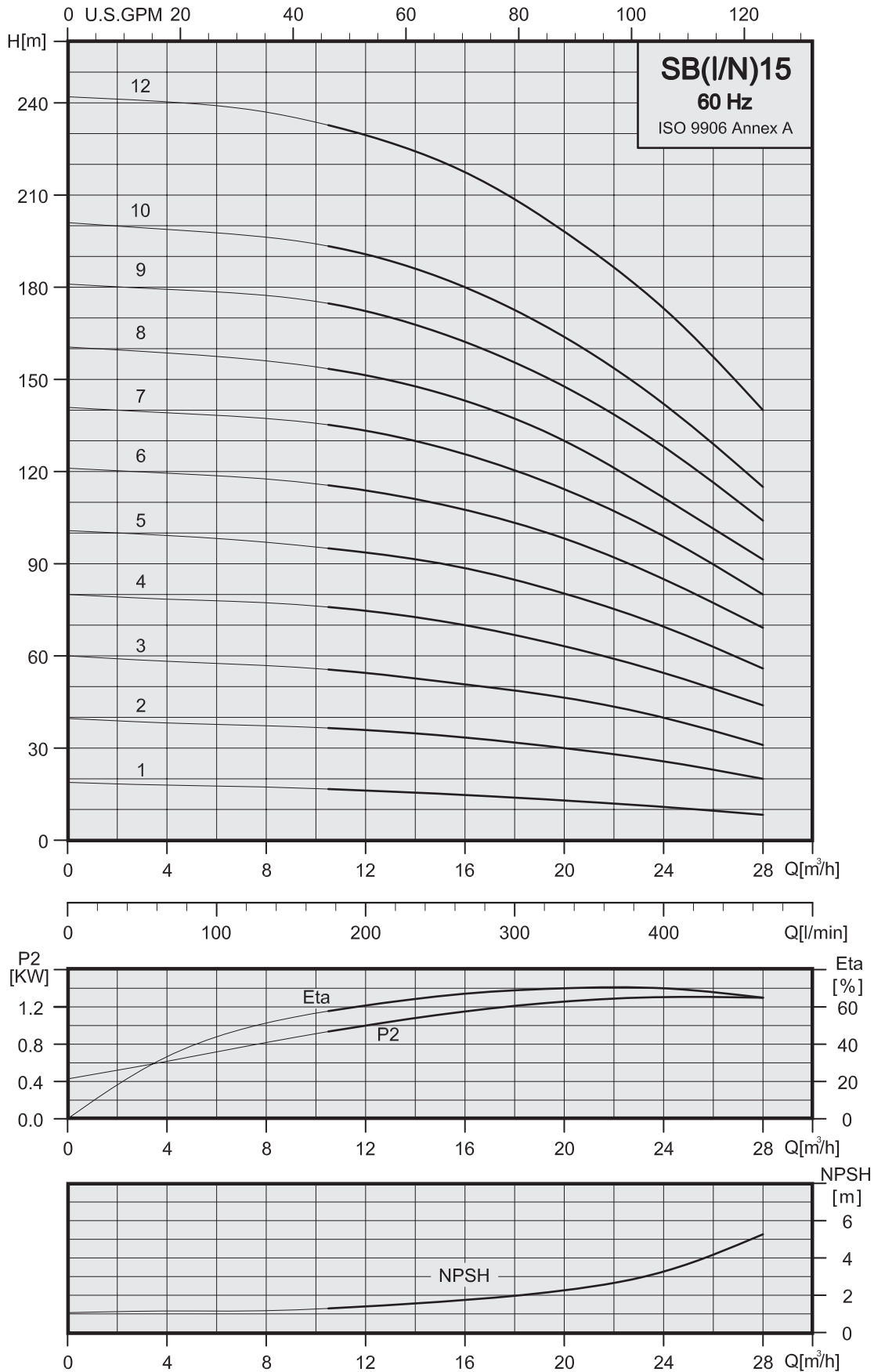
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 15



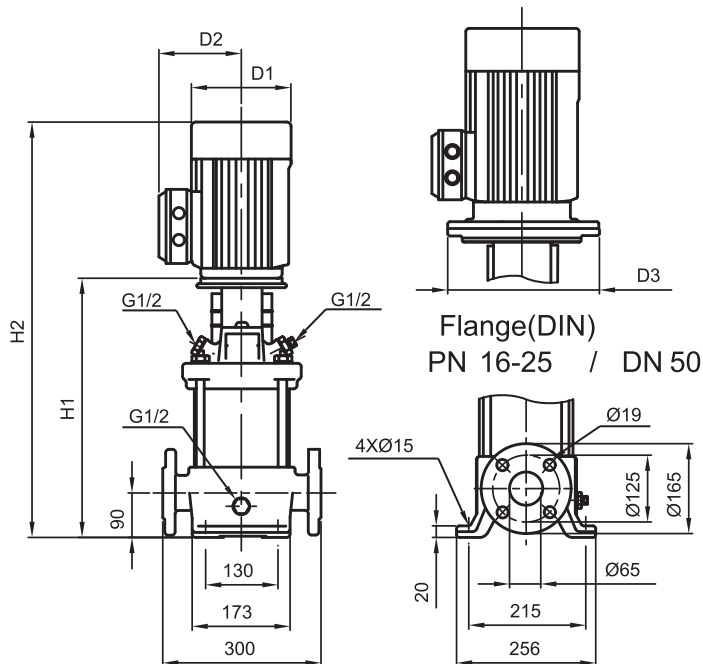
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 15



Pump type	Motor	SB					Net weight[kg]
		Dimension[mm]				DIN flange	
	P ₂	DIN flange		D1	D2		D3
	[kW]	H1	H2				
SB15-1	1.5	415	690	175	140	—	49.8
SB15-2	3	450	770	196	148	—	59.9
SB15-3	4	465	800	219	162	—	68.3
SB15-4	5.5	542	902	234	199	300	93.7
SB15-5	7.5	587	987	234	199	300	104.1
SB15-6	11	709	1154	268	215	350	135.2
SB15-7	11	754	1199	268	215	350	136.5
SB15-8	11	799	1244	268	215	350	137.9
SB15-9	15	844	1333	268	215	350	150.3
SB15-10	15	889	1378	268	215	350	151.7
SB15-12	18.5	979	1514	317	242	350	189.5

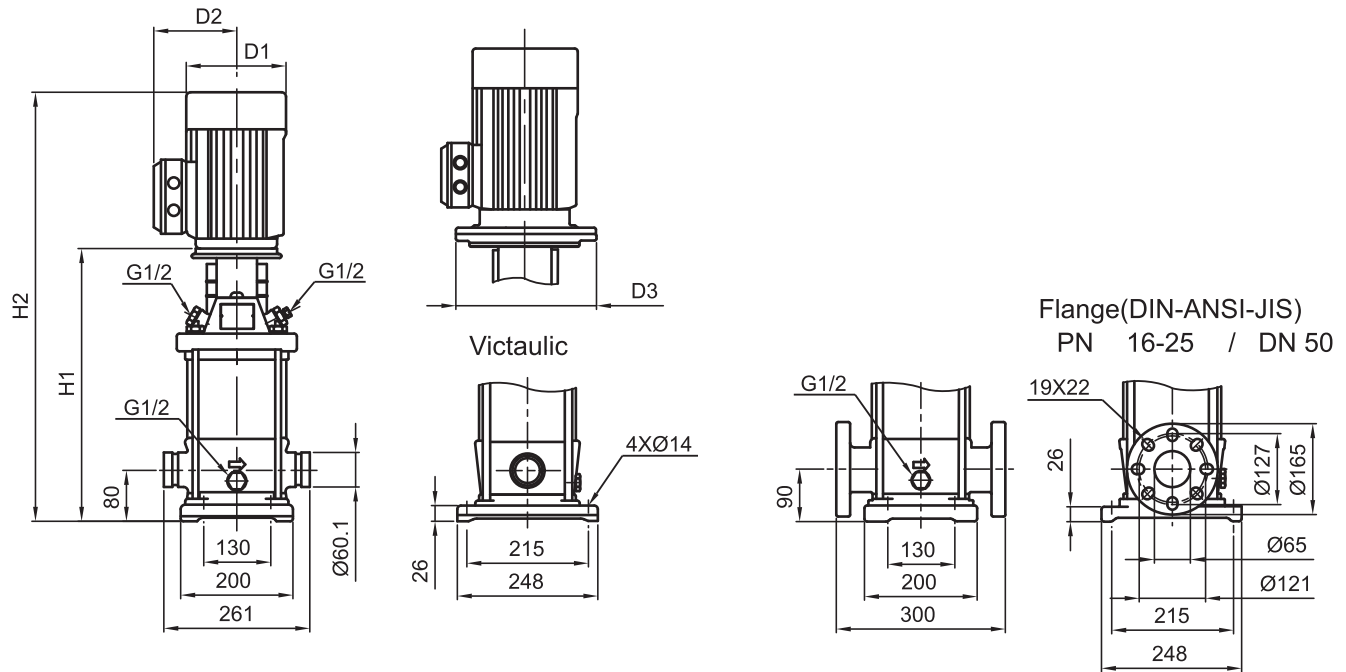
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI, SBN 15



Pump type	Motor P ₂ [kW]	SBI,SBN								
		Dimension[mm]						Net weight[kg]		
		Victaulic		DIN flange		D1	D2	D3	Victaulic	DIN flange
		H1	H2	H1	H2					
SBI,SBN15-1	1.5	403	678	413	688	175	140	—	41.5	46.0
SBI,SBN15-2	3	408	728	418	738	196	148	—	50.1	54.6
SBI,SBN15-3	4	453	788	463	798	219	162	—	58.5	63.0
SBI,SBN15-4	5.5	530	890	540	900	234	199	300	84.8	89.3
SBI,SBN15-5	7.5	575	975	585	985	234	199	300	95.2	99.7
SBI,SBN15-6	11	697	1142	707	1152	268	215	350	126.8	131.3
SBI,SBN15-7	11	742	1187	752	1197	268	215	350	128.2	132.7
SBI,SBN15-8	11	787	1232	797	1242	268	215	350	129.6	134.1
SBI,SBN15-9	15	832	1321	842	1331	268	215	350	142.0	146.5
SBI,SBN15-10	15	877	1366	887	1376	268	215	350	143.4	147.9
SBI,SBN15-12	18.5	967	1502	977	1512	317	242	350	181.2	185.7

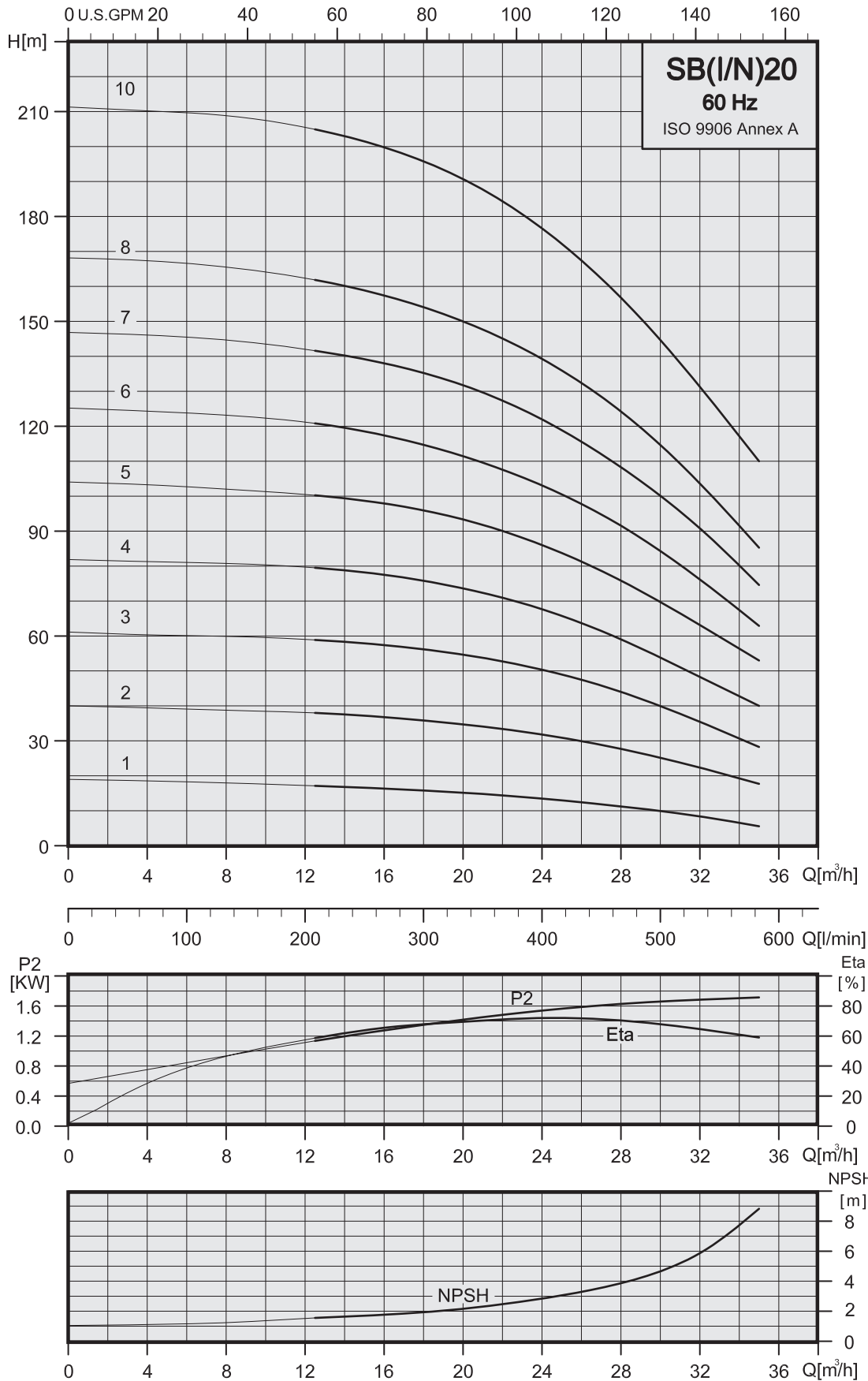
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 20



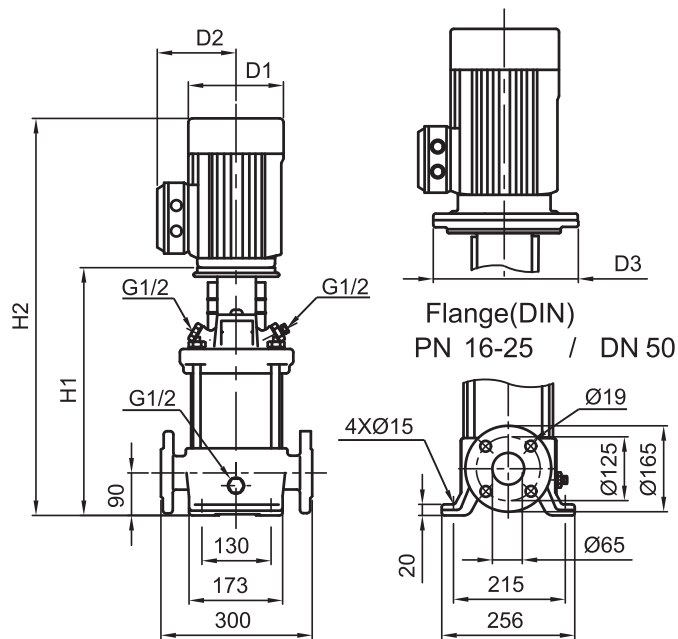
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 20



Pump type	Motor	SB					Net weight[kg]
		Dimension[mm]					
	P ₂ [kW]	DIN flange		D1	D2	D3	DIN flange
		H1	H2				
SB20-1	2.2	415	690	175	140	—	51.9
SB20-2	4	420	755	219	162	—	67.0
SB20-3	5.5	497	857	234	199	300	92.4
SB20-4	7.5	542	942	234	199	300	102.8
SB20-5	11	664	1109	268	215	350	133.3
SB20-6	11	709	1154	268	215	350	134.7
SB20-7	15	754	1243	268	215	350	147.6
SB20-8	15	799	1288	268	215	350	149.0
SB20-10	18.5	889	1424	317	242	350	186.8

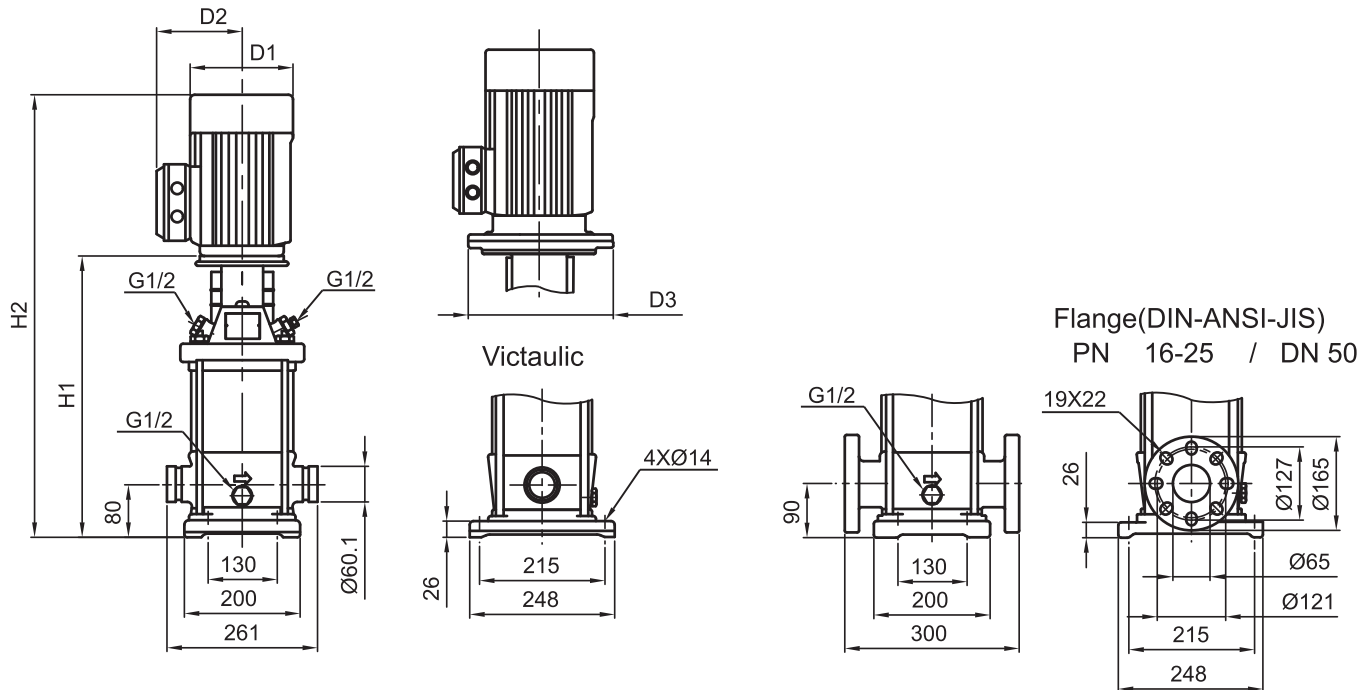
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI, SBN 20



Pump type	Motor P ₂ [KW]	SBI,SBN								
		Dimension[mm]						Net weight[kg]		
		Victaulic		DIN flange		D1	D2	D3	Victaulic	DIN flange
		H1	H2	H1	H2					
SBI,SBN20-1	2.2	405	680	415	690	175	140	—	43.5	48.0
SBI,SBN20-2	4	410	745	420	755	219	162	—	57.1	61.6
SBI,SBN20-3	5.5	487	847	497	857	234	199	300	83.4	87.9
SBI,SBN20-4	7.5	532	932	542	942	234	199	300	93.8	98.3
SBI,SBN20-5	11	654	1099	664	1109	268	215	350	125.4	129.9
SBI,SBN20-6	11	699	1144	709	1154	268	215	350	126.8	131.3
SBI,SBN20-7	15	744	1233	754	1243	268	215	350	139.2	143.7
SBI,SBN20-8	15	789	1278	799	1288	268	215	350	140.6	145.1
SBI,SBN20-10	18.5	879	1414	889	1424	317	242	350	178.4	182.9

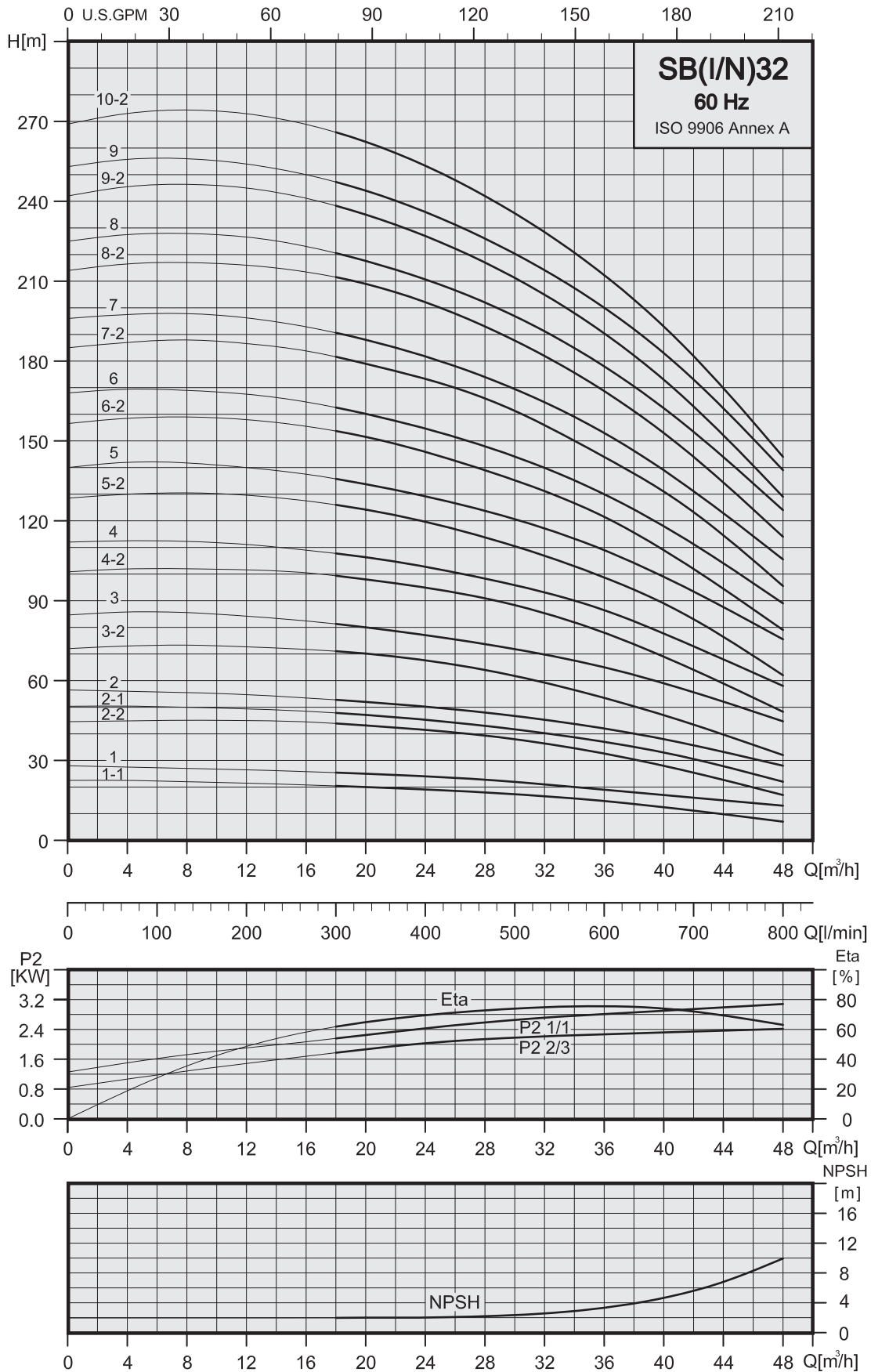
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 32



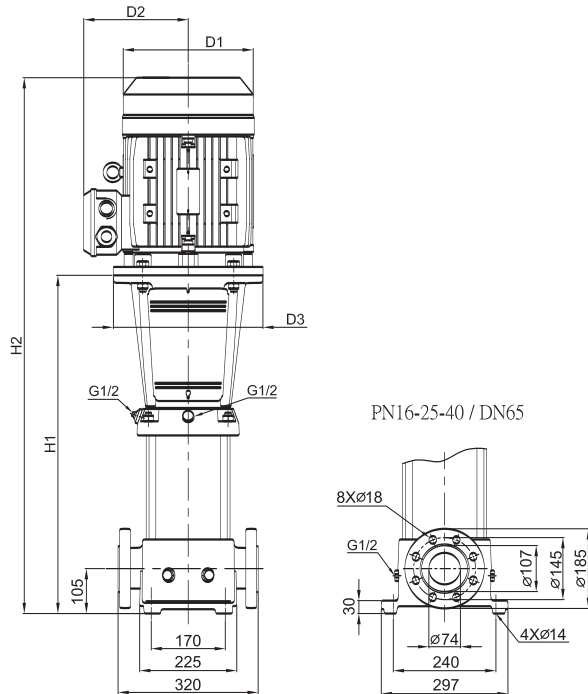
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB32



Pump type	Motor P ₂ [kW]	SB					Net weight[kg]
		DIN flange		Dimension[mm]			
		H1	H2	D1	D2	D3	
SB 32-1-1	2.2	504	779	175	140	280	71.5
SB 32-1	3.0	504	824	196	148	280	77.5
SB 32-2-2	5.5	574	934	234	199	300	101.3
SB 32-2-1	5.5	574	934	234	199	300	101.4
SB 32-2	7.5	574	974	234	199	300	110.4
SB 32-3-2	11.0	754	1199	268	215	350	146.9
SB 32-3	11.0	754	1199	268	215	350	147.0
SB 32-4-2	11.0	824	1269	268	215	350	150.0
SB 32-4	15.0	824	1313	268	215	350	161.0
SB 32-5-2	15.0	894	1383	268	215	350	164.0
SB 32-5	18.5	894	1429	317	242	350	199.0
SB 32-6-2	18.5	964	1499	317	242	350	202.0
SB 32-6	18.5	964	1499	317	242	350	202.0
SB 32-7-2	22.0	1034	1613	317	242	350	215.8
SB 32-7	22.0	1034	1613	317	242	350	215.8
SB 32-8-2	30.0	1104	1727	317	290	400	304.2
SB 32-8	30.0	1104	1727	317	290	400	304.2
SB 32-9-2	30.0	1174	1797	317	290	400	306.9
SB 32-9	30.0	1174	1797	317	290	400	306.9
SB 32-10-2	30.0	1244	1867	317	290	400	309.5

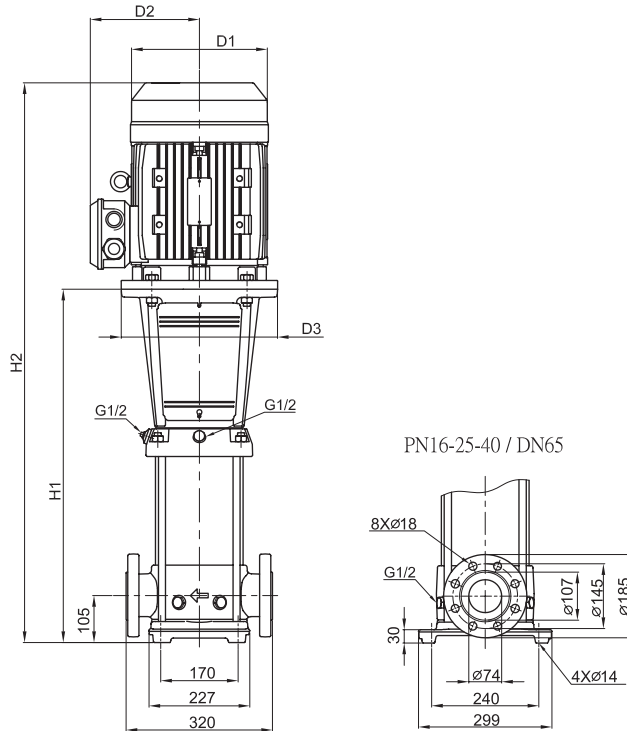
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SBI,SBN32



Pump type	Motor	SBI, SBN					
		Dimension[mm]					Net weight[kg]
	P ₂ [kW]	DIN flange		D1	D2	D3	DIN flange
		H1	H2				
SBI, SBN 32-1-1	2.2	504	779	175	140	280	66.6
SBI, SBN 32-1	3.0	504	824	196	148	280	72.6
SBI, SBN 32-2-2	5.5	574	934	234	199	300	96.5
SBI, SBN 32-2-1	5.5	574	934	234	199	300	96.5
SBI, SBN 32-2	7.5	574	974	234	199	300	105.5
SBI, SBN 32-3-2	11.0	754	1199	268	215	350	142.1
SBI, SBN 32-3	11.0	754	1199	268	215	350	142.1
SBI, SBN 32-4-2	11.0	824	1269	268	215	350	145.1
SBI, SBN 32-4	15.0	824	1313	268	215	350	156.1
SBI, SBN 32-5-2	15.0	894	1383	268	215	350	159.1
SBI, SBN 32-5	18.5	894	1429	317	242	350	194.2
SBI, SBN 32-6-2	18.5	964	1499	317	242	350	197.1
SBI, SBN 32-6	18.5	964	1499	317	242	350	197.2
SBI, SBN 32-7-2	22.0	1034	1613	317	242	350	210.9
SBI, SBN 32-7	22.0	1034	1613	317	242	350	211.0
SBI, SBN 32-8-2	30.0	1104	1727	317	290	400	299.4
SBI, SBN 32-8	30.0	1104	1727	317	290	400	299.4
SBI, SBN 32-9-2	30.0	1174	1797	317	290	400	302.0
SBI, SBN 32-9	30.0	1174	1797	317	290	400	302.1
SBI, SBN 32-10-2	30.0	1244	1867	317	290	400	304.6

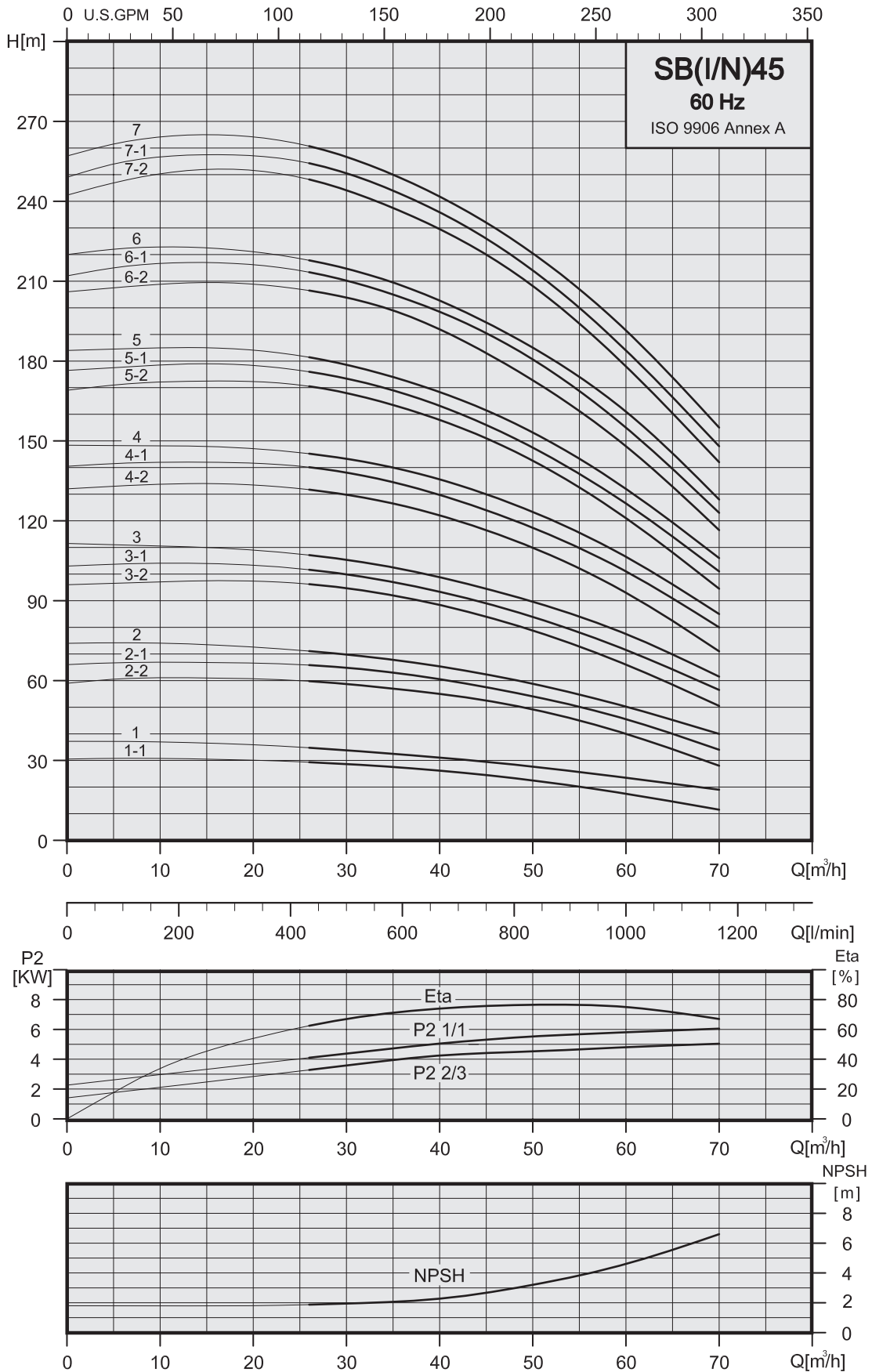
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 45



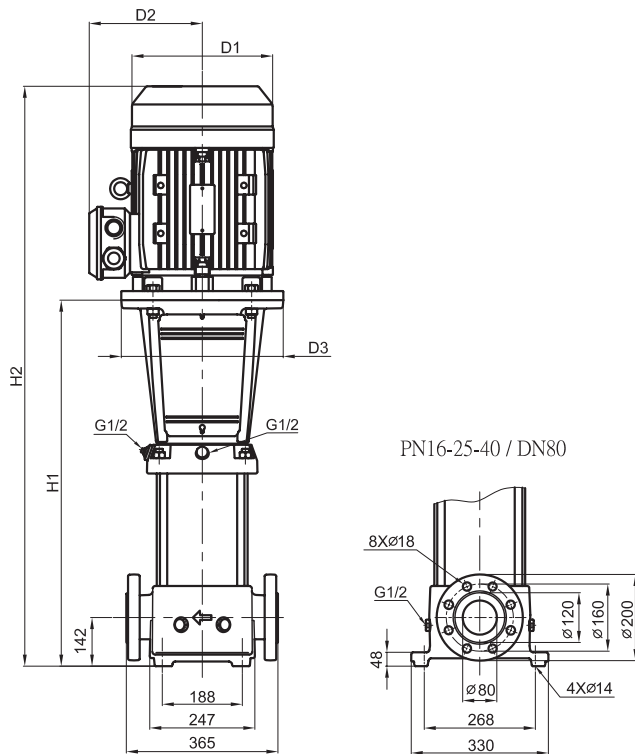
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB45



Pump type	Motor P ₂ [kW]	SB					Net weight[kg]	
		Dimension[mm]			D1	D2		D3
		DIN flange		DIN flange				
		H1	H2					
SB 45-1-1	5.5	561	921	234	199	300	108.67	
SB 45-1	7.5	561	961	234	199	300	117.68	
SB 45-2-2	11.0	751	1196	268	215	350	154.91	
SB 45-2-1	11.0	751	1196	268	215	350	154.92	
SB 45-2	15.0	751	1240	268	215	350	165.93	
SB 45-3-2	18.5	831	1366	317	242	350	204.58	
SB 45-3-1	18.5	831	1366	317	242	350	204.59	
SB 45-3	18.5	831	1366	317	242	350	204.60	
SB 45-4-2	22.0	911	1490	317	242	350	219.01	
SB 45-4-1	30.0	911	1534	317	290	400	304.26	
SB 45-4	30.0	911	1534	317	290	400	304.27	
SB 45-5-2	30.0	991	1614	317	290	400	307.92	
SB 45-5-1	30.0	991	1614	317	290	400	307.93	
SB 45-5	30.0	991	1614	317	290	400	307.94	
SB 45-6-2	37.0	1071	1796	398	365	400	380.59	
SB 45-6-1	37.0	1071	1796	398	365	400	380.60	
SB 45-6	37.0	1071	1796	398	365	400	380.61	
SB 45-7-2	45.0	1151	1876	398	365	450	412.26	
SB 45-7-1	45.0	1151	1876	398	365	450	412.27	
SB 45-7	45.0	1151	1876	398	365	450	412.28	

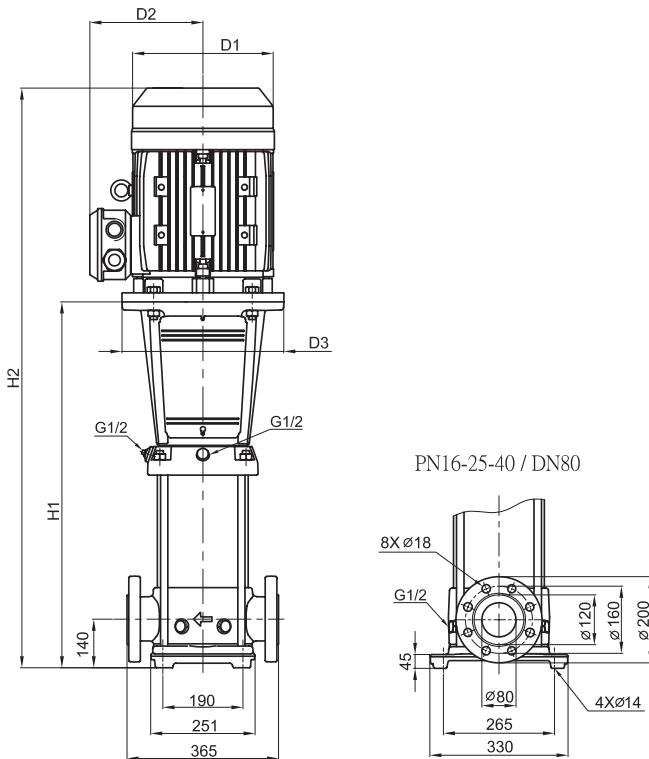
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SBI,SBN45



Pump type	Motor P ₂ [kW]	SBI, SBN					Net weight[kg]
		DIN flange		Dimension[mm]			
		H1	H2	D1	D2	D3	
SBI, SBN 45-1-1	5.5	559	919	234	199	300	100.13
SBI, SBN 45-1	7.5	559	959	234	199	300	109.14
SBI, SBN 45-2-2	11.0	749	1194	268	215	350	146.37
SBI, SBN 45-2-1	11.0	749	1194	268	215	350	146.38
SBI, SBN 45-2	15.0	749	1238	268	215	350	157.39
SBI, SBN 45-3-2	18.5	829	1364	317	242	350	196.04
SBI, SBN 45-3-1	18.5	829	1364	317	242	350	196.05
SBI, SBN 45-3	18.5	829	1364	317	242	350	196.06
SBI, SBN 45-4-2	22.0	909	1488	317	242	350	210.47
SBI, SBN 45-4-1	30.0	909	1532	317	290	400	295.72
SBI, SBN 45-4	30.0	909	1532	317	290	400	295.73
SBI, SBN 45-5-2	30.0	989	1612	317	290	400	299.38
SBI, SBN 45-5-1	30.0	989	1612	317	290	400	299.39
SBI, SBN 45-5	30.0	989	1612	317	290	400	299.40
SBI, SBN 45-6-2	37.0	1069	1794	398	365	400	372.05
SBI, SBN 45-6-1	37.0	1069	1794	398	365	400	372.06
SBI, SBN 45-6	37.0	1069	1794	398	365	400	372.07
SBI, SBN 45-7-2	45.0	1149	1874	398	365	450	403.72
SBI, SBN 45-7-1	45.0	1149	1874	398	365	450	403.73
SBI, SBN 45-7	45.0	1149	1874	398	365	450	403.74

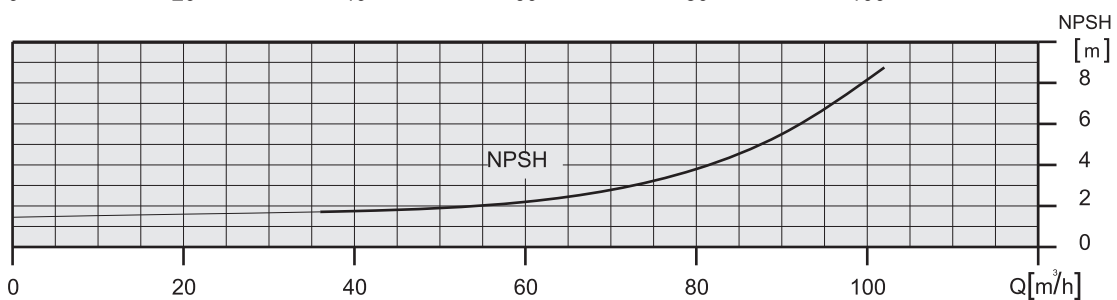
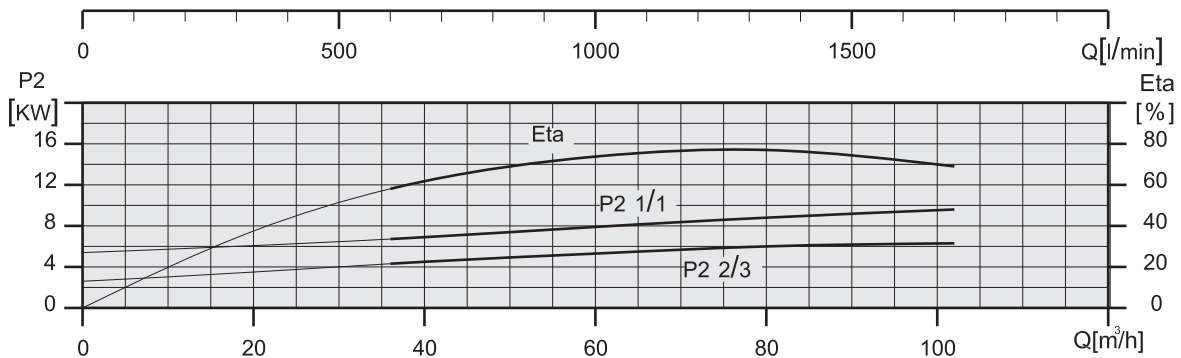
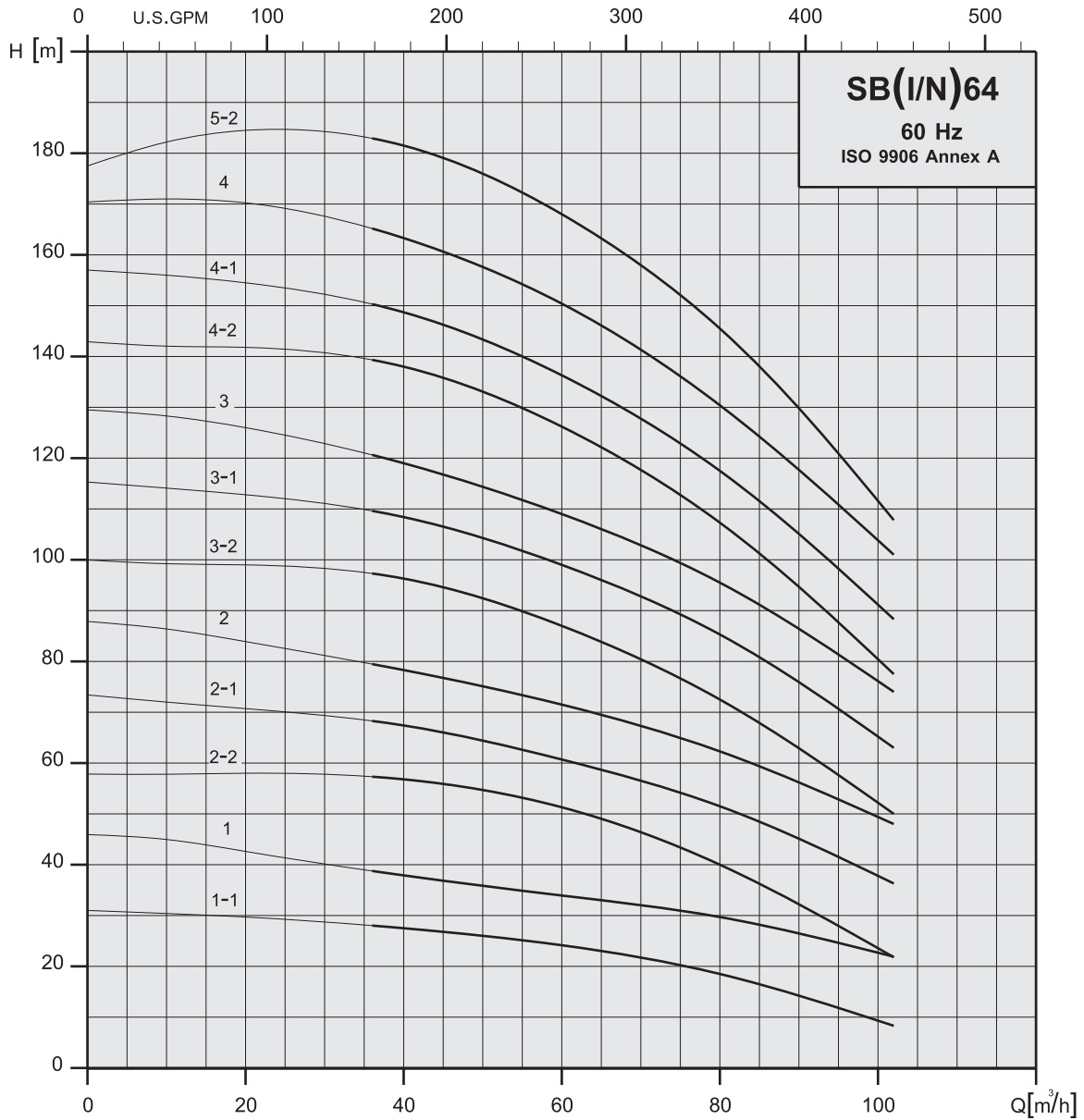
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 64



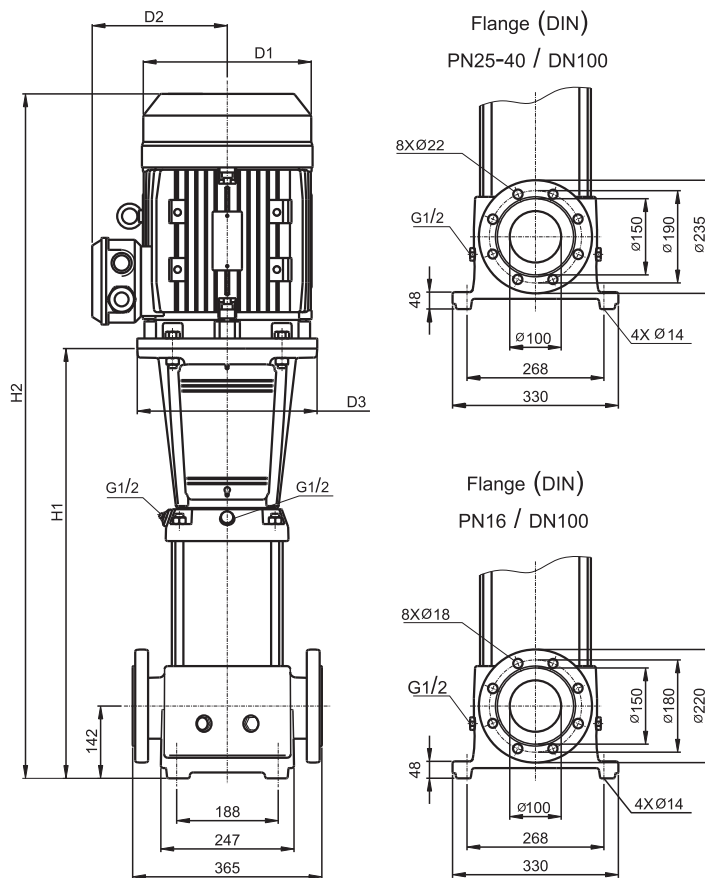
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB-64



Pump type	Motor P ₂ [kW]	SB					Net weight [kg]	
		Dimension [mm]			D1	D2		D3
		DIN flange		DIN flange				
SB 64-1-1	7.5	H1	H2					
SB 64-1	11.0	563	963	234	199	300	111.64	
SB 64-2-2	15.0	673	1118	268	215	350	145.22	
SB 64-2-1	18.5	756	1245	268	215	350	160.16	
SB 64-2	22.0	756	1291	317	242	350	195.16	
SB 64-2	22.0	756	1335	317	242	350	205.92	
SB 64-3-2	22.0	838	1417	317	242	350	210.38	
SB 64-3-1	30.0	838	1461	317	290	400	295.62	
SB 64-3	30.0	838	1461	317	290	400	295.62	
SB 64-4-2	37.0	921	1646	398	365	400	368.52	
SB 64-4-1	37.0	921	1646	398	365	400	368.52	
SB 64-4	45.0	925	1650	398	365	450	396.52	
SB 64-5-2	45.0	1007	1732	398	365	450	400.43	

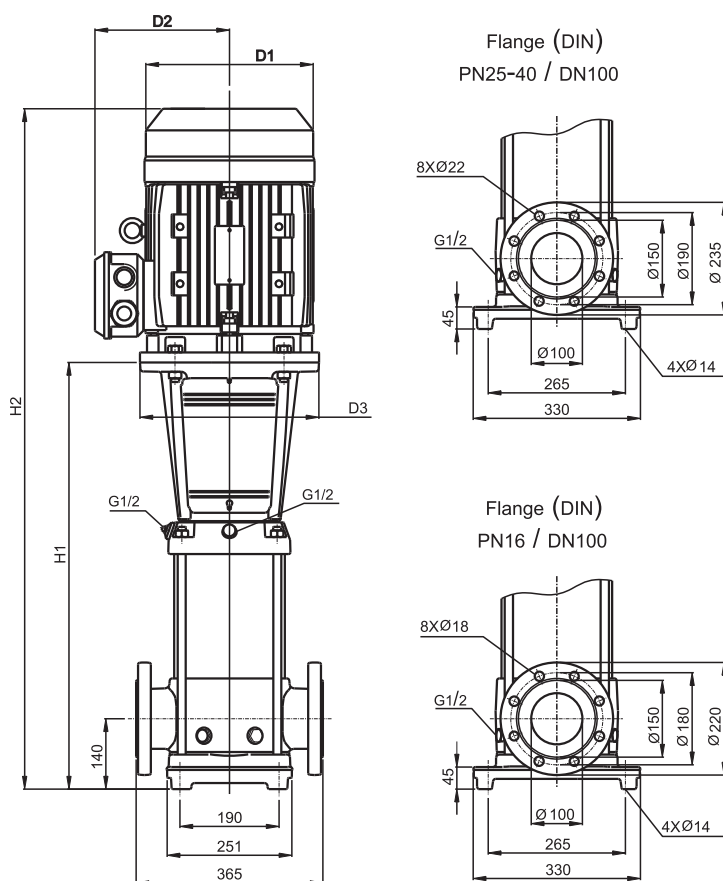
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB(I/N)-64



Pump type	Motor P ₂ [kW]	SBI ,SBN					Net weight [kg]	
		Dimension [mm]			D1	D2		D3
		DIN flange		DIN flange				
H1	H2	DIN flange						
SBI, SBN 64-1-1	7.5	563	963	234	199	300	104.82	
SBI, SBN 64-1	11.0	673	1118	268	215	350	138.40	
SBI, SBN 64-2-2	15.0	756	1245	268	215	350	153.33	
SBI, SBN 64-2-1	18.5	756	1291	317	242	350	188.33	
SBI, SBN 64-2	22.0	756	1335	317	242	350	199.09	
SBI, SBN 64-3-2	22.0	838	1417	317	242	350	203.10	
SBI, SBN 64-3-1	30.0	838	1461	317	290	400	288.34	
SBI, SBN 64-3	30.0	838	1461	317	290	400	288.34	
SBI, SBN 64-4-2	37.0	921	1646	398	365	400	361.21	
SBI, SBN 64-4-1	37.0	921	1646	398	365	400	361.21	
SBI, SBN 64-4	45.0	925	1650	398	365	450	389.21	
SBI, SBN 64-5-2	45.0	1007	1732	398	365	450	393.09	

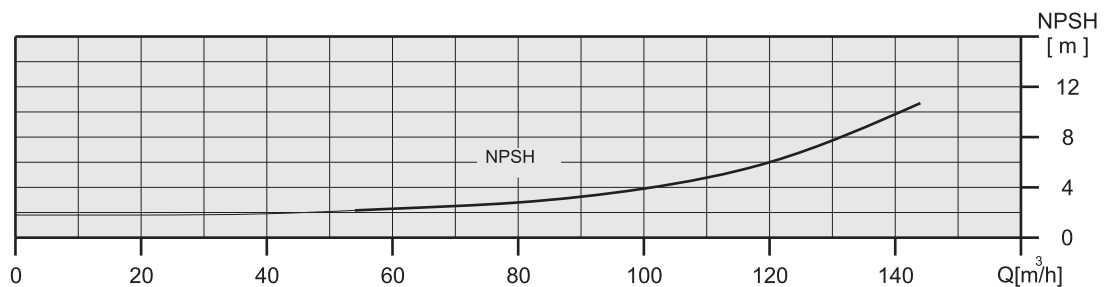
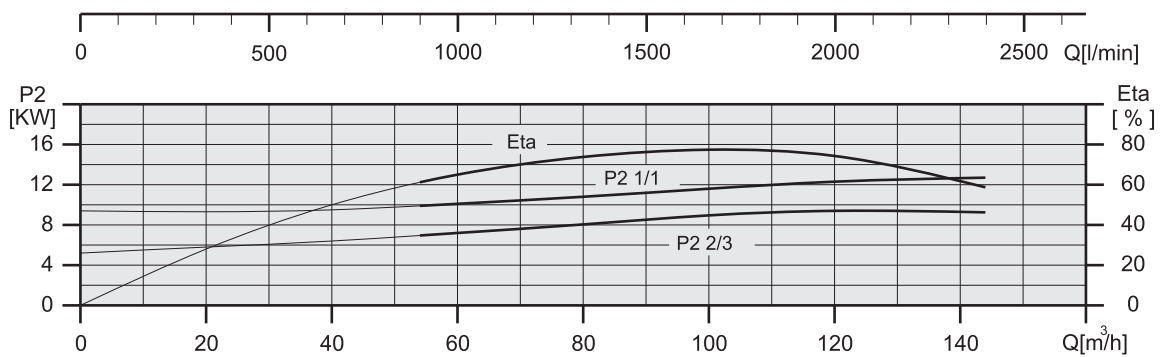
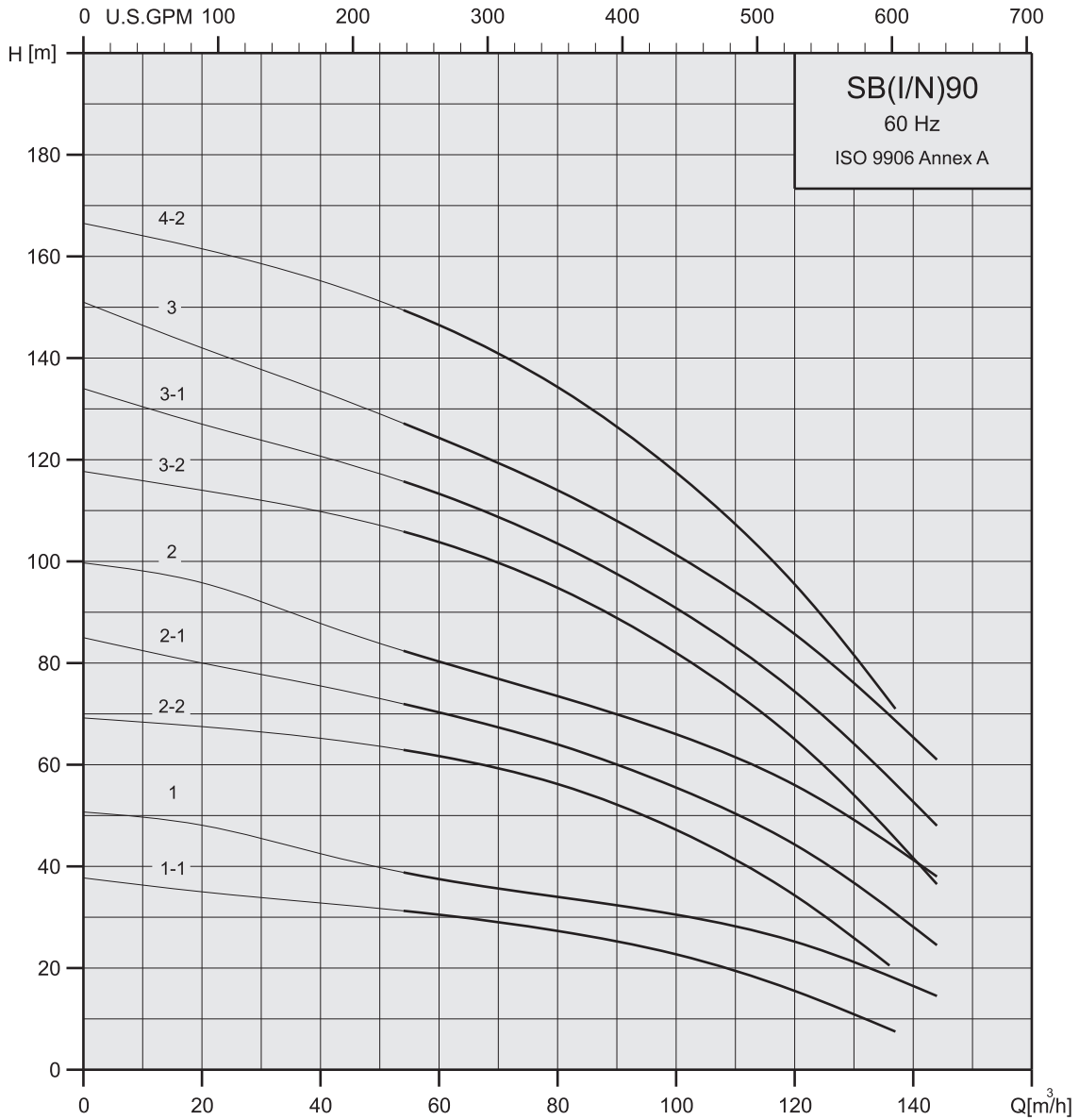
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 90



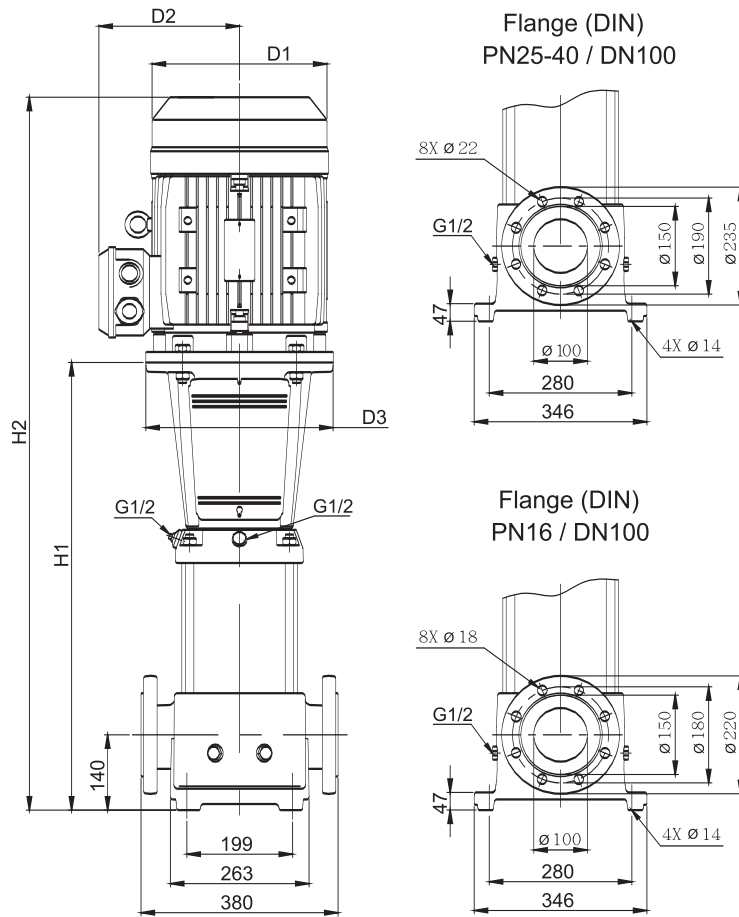
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB90



Pump type	Motor P ₂ [kW]	SB					Net weight [kg]
		DIN flange		Dimension [mm]			
		H1	H2	D1	D2	D3	
SB 90-1-1	11.0	682	1127	268	215	350	158.64
SB 90-1	15.0	682	1171	268	215	350	169.66
SB 90-2-2	18.5	774	1309	317	242	350	209.82
SB 90-2-1	22.0	774	1353	317	242	350	220.60
SB 90-2	30.0	774	1397	317	290	400	305.86
SB 90-3-2	37.0	866	1591	398	365	400	379.94
SB 90-3-1	37.0	866	1591	398	365	400	379.96
SB 90-3	45.0	866	1591	398	365	450	407.98
SB 90-4-2	45.0	958	1683	398	365	450	414.92

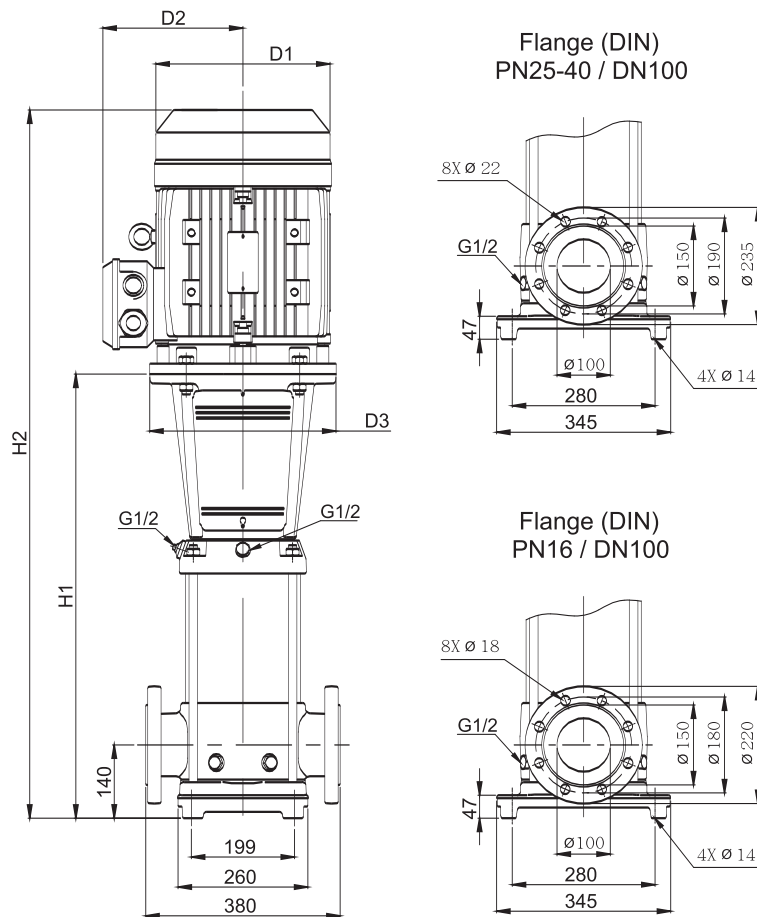
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SBI,SBN90



Pump type	Motor P ₂ [kW]	SBI ,SBN					Net weight [kg]
		Dimension [mm]				DIN flange	
		DIN flange		D1	D2		
H1	H2						
SBI, SBN 90-1-1	11.0	686	1131	268	215	350	148.88
SBI, SBN 90-1	15.0	686	1175	268	215	350	159.90
SBI, SBN 90-2-2	18.5	778	1313	317	242	350	199.92
SBI, SBN 90-2-1	22.0	778	1357	317	242	350	210.70
SBI, SBN 90-2	30.0	778	1401	317	290	400	295.96
SBI, SBN 90-3-2	37.0	870	1595	398	365	400	370.00
SBI, SBN 90-3-1	37.0	870	1595	398	365	400	370.02
SBI, SBN 90-3	45.0	870	1595	398	365	450	398.04
SBI, SBN 90-4-2	45.0	962	1687	398	365	450	404.82

Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Pumped Liquids

SB (I, N) pumps can handle a wide variety of liquids, each with its own characteristic.

SB(I)

Non-corrosive liquids

For fluid transfer, circulation and pressure boosting of cold or hot clean water.

SBN

Industrial liquids

Light acids

The fluids covered in the list are not complete. Data on the application limits of different pump materials when handling any of the listed fluids are considered to be the best choices. However, the table is intended as a general guide only, and cannot replace actual testing of the pumped fluids and pump materials under specific working conditions.

When choosing the pump version, sufficient attention should be given to the flow medium, such as density, solidification point, viscosity as well as ex-protection requirement. The limits of applicability of the pumps, based on pressure and temperature must also be considered.

● Recommended

Pumped fluid	"Fluid Concentration, temperature"	SB (I)		SBN	
		EPDM	Viton	EPDM	Viton
Acetic acid anhydride	25°C			●	
Alkaline cleaner		●			
Aluminium sulphate	10%, 25°C				●
Ammonia water (A. hydroxide)	20%, 40°C	●			
Ammonia hydrogen carbonate	10%, 40°C	●		●	
Benzoic acid	10%, 90°C				●
Boric acid	Unsaturated solution, 60°C				●
Butanol	60°C	●			
Calcium acetate	30%, 50°C	●			
Calcium hydroxide	Saturated solution, 50°C	●			
Chromic acid	1%, 20°C				●
Condensate	90°C	●			
Copper sulphate	Unsaturated solution, 60°C				●
Deionic (fully desalinated water)	50°C			●	
Ethanol	100%, 20°C	●			
Ethylene glycol/Diethylene glycol	40%, 70°C	●	●	●	●
Fixer	25°C				●
Formic acid	5%, 20°C			●	

Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Pumped fluid	"Fluid Concentration, temperature"	SB (I)		SBN	
		EPDM	Viton	EPDM	Viton
Fruit juice	50°C				●
Glycerine	50%, 50°C	●			
Heating oil (Light)		●			●
Hydraulic oil	100%, 100°C		●		
Isopropanol		●			
Lactic acid	10%, 20°C				●
Linoleic acid	100%, 20°C	●			
Linseed oil	60°C		●		
Liqueur	60°C				●
Maize oil	80°C		●		
Maleic acid	50%, 50°C				●
Methanol	100%, 20°C	●			
Motor oil	100%, 80°C	●			
Oil-water-mixture	100°C		●		
Oxalic acid	1%, 20°C			●	
Peanut oil	100%, 80°C		●		
Phosphoric acid	20%, 20°C			●	
Polyglycols	90°C		●		●
Polyethylene glycols	40%, 70°C	●			
Potassium carbonate	10%, 60°C	●			
Potassium hydrogen carbonate	10%, 60°C	●			
Potassium permanganate	5%, 20°C			●	
Potassium sulphate	Unsaturated solution, 80°C			●	
Rapeseed oil	100%, 80°C		●		
Silicone oil	100%		●		
Sodium carbonate	10%, 60°C			●	
Sodium hydroxide	25%, 50°C			●	
Sodium nitrate	Unsaturated solution, 80°C			●	
Sodium phosphate	5%, 100°C			●	
Sodium sulphate	10%, 60°C			●	
Sulphuric acid	5%, 25°C				●
Water					
Swimming pool water	35°C	● SBI		●	
Deionic	50°C			●	
Distilled water	50°C			●	
Decarbonated water				●	
Soft water				●	
Heating water				●	
Boiler water				●	
Pure water				●	
Rinsing water		● SBI		●	

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