



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

**Vertical Multistage Centrifugal
In-line Pumps**

50Hz



STAIRS INDUSTRIAL CO., LTD.

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Vertical Multistage Centrifugal In-line Pumps



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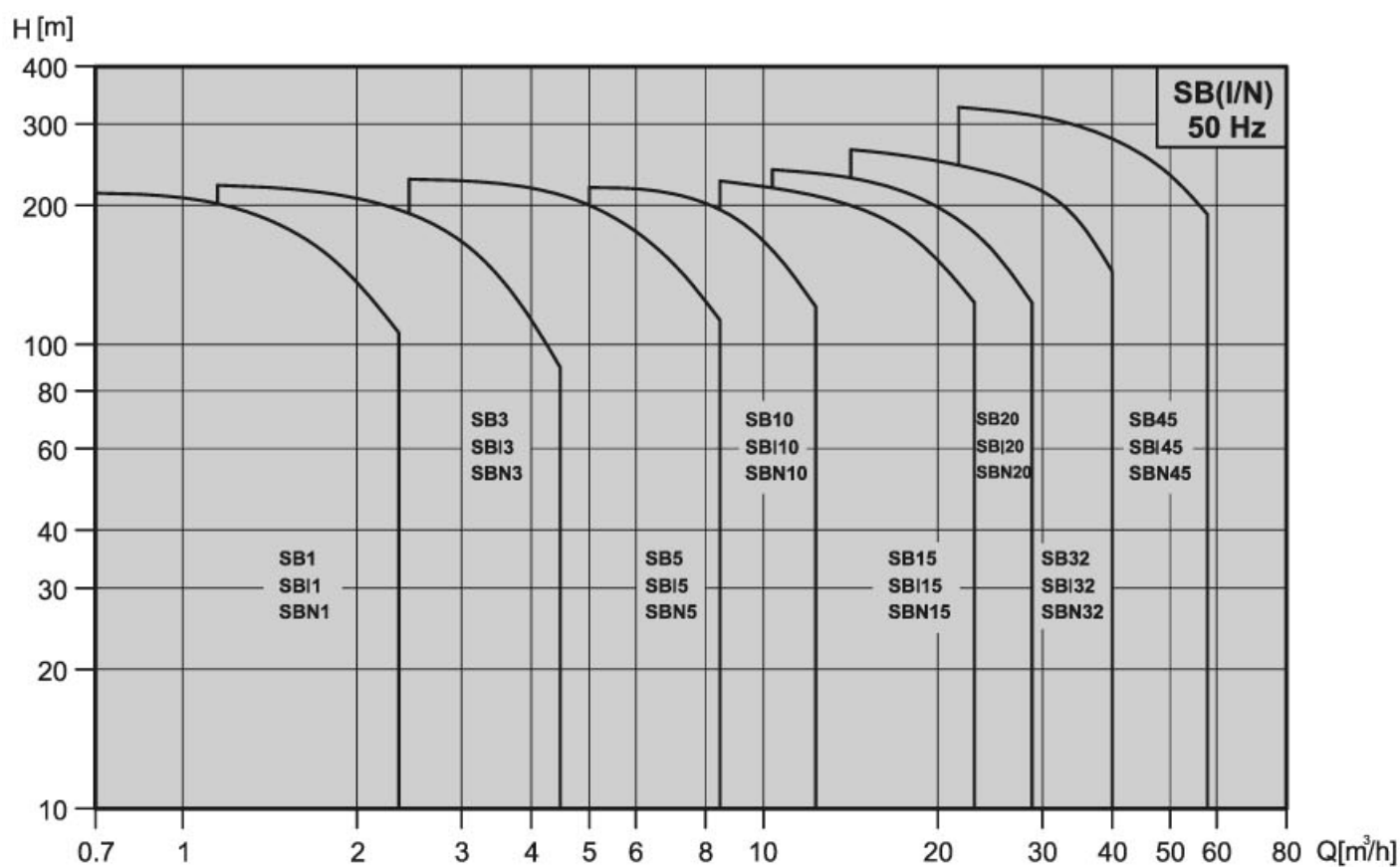
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN Series Performance range 50 Hz



Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Range	SB, SBI, SBN							
	1	3	5	10	15	20	32	45
50Hz								
Nominal flow [m³/h]	1	3	5	10	15	20	32	45
Flow range [m³/h]	0.7-2.4	1.2-4.5	2.5-8.5	5-13	8.5-23.5	10.5-29	15-40	22-58
Max. pressure [bar]	21.5	23	24	21.5	23	24.3	27.5	26
Fluid temperature [°C]	-15 to +120							
Motor power [kW]	0.37-2.2	0.37-3	0.37-5.5	0.37-7.5	1.1-15	1.1-18.5	1.5-30	3-45
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 1~ [V/Hz] (Permissible voltage tolerance± 10%)	220-240 V 50 Hz							
Mains connection 3~ [V/Hz] (Permissible voltage tolerance ± 10%)	0.37-7.5 kW 220-240/380-415 V 50 Hz From 11 kW 380-415 V 50 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
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
Victaulic-connections	R 1¼ DN 32	R 1¼ DN 32	R 1¼ DN 32	R 2 DN50	R 2 DN50	R 2 DN50	N/A	N/A
Mechanical Seals								
SiC/SiC	Standard							
Seals								
EPDM	Standard							
Viton								

* Flange standards : Refer to dimensional drawings

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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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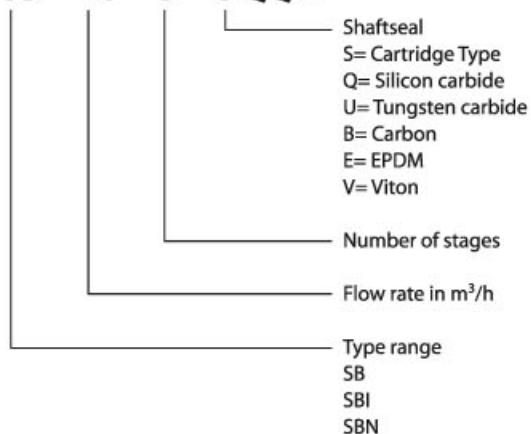
Vertical Multistage Centrifugal In-line Pumps



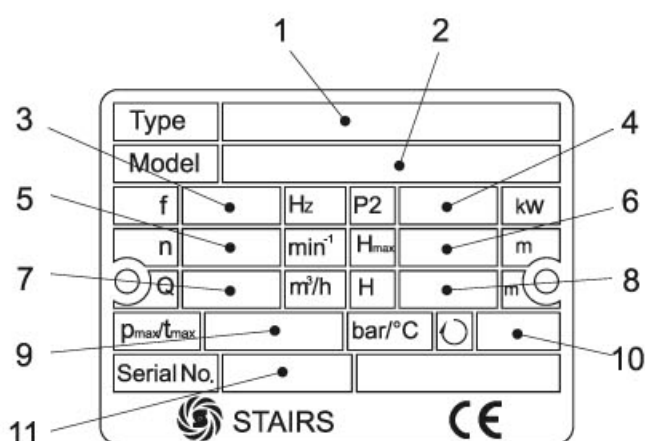
STAIRS PUMPS

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: 0.37-7.5 KW: 3 x 220-240/380-415 V
 - P2: From 11 KW 3 x 380-415 V
- The motors have efficiency values that fall within the range normally referred to as high efficiency.
- Ambient temperature: Max. +50°C



Motor Data

Motor Type				Nominal current in [A]				
HP	KW	Pole	Flange	Frame	3~220 V	3~240 V	3~380 V	3~415 V
0.5	0.37	2	B14	71	1.7	2	1.1	1.3
0.75	0.55			71	2.5	2.8	1.5	1.7
1.0	0.75			80	3.5	3.9	2.1	2.3
1.5	1.1			90S	4.4	4.7	2.7	2.9
2.0	1.5			90L	5.9	5.7	3.4	3.3
3.0	2.2			90L	8.5	8	4.9	4.6
4.0	3.0			100L	11.4	11.4	6.6	6.6
5.5	4.0			112M	15.4	16.3	8.9	9.4
7.5	5.5			132S	20.8	20.8	12	12
10.0	7.5			132M	27.4	26.7	15.8	15.4
15	11		B5	160M			21.2	20
20.0	15.0			160M			27.7	25.5
25	18.5			160L			35.2	32.4
30	22			180M			41.3	38.2
40	30			180L			54.2	50.4
50	37			200L			70.8	65.6
60	45			200L			83.1	79.2

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



Maximum operating and inlet pressures

50Hz

Stages	Maximum Operating Pressure	Stages	Maximum Inlet Pressures
SB, SBI, SBN 1			
2-36	25bar	2-36	10bar
SB, SBI, SBN 3			
2-36	25bar	2-29	10bar
		31-36	15bar
SB, SBI, SBN 5			
2-36	25bar	2-16	10bar
		18-36	15bar
SB, SBI, SBN 10			
1-16	16bar	1-6	8bar
17-22	25bar	7-22	10bar
SB, SBI, SBN 15			
1-10	16bar	1-3	8bar
12-17	25bar	4-17	10bar
SB, SBI, SBN 20			
1-10	16bar	1-3	8bar
12-17	25bar	4-17	10bar
SB, SBI, SBN 32			
1-1	16bar	1-4	4bar
8-14	30bar	5-10	10bar
		11-14	15bar
SB, SBI, SBN 45			
1-5	16bar	1-2	4bar
6-11	30bar	3-5	10bar
12-13	33bar	6-13	15bar

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

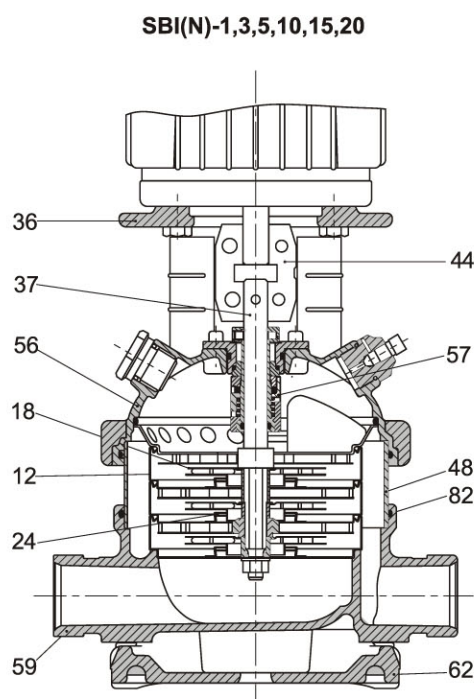
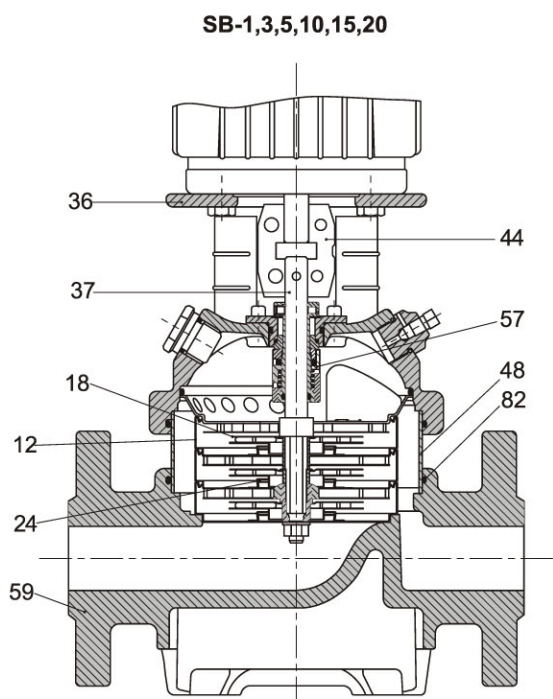
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Construction



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						

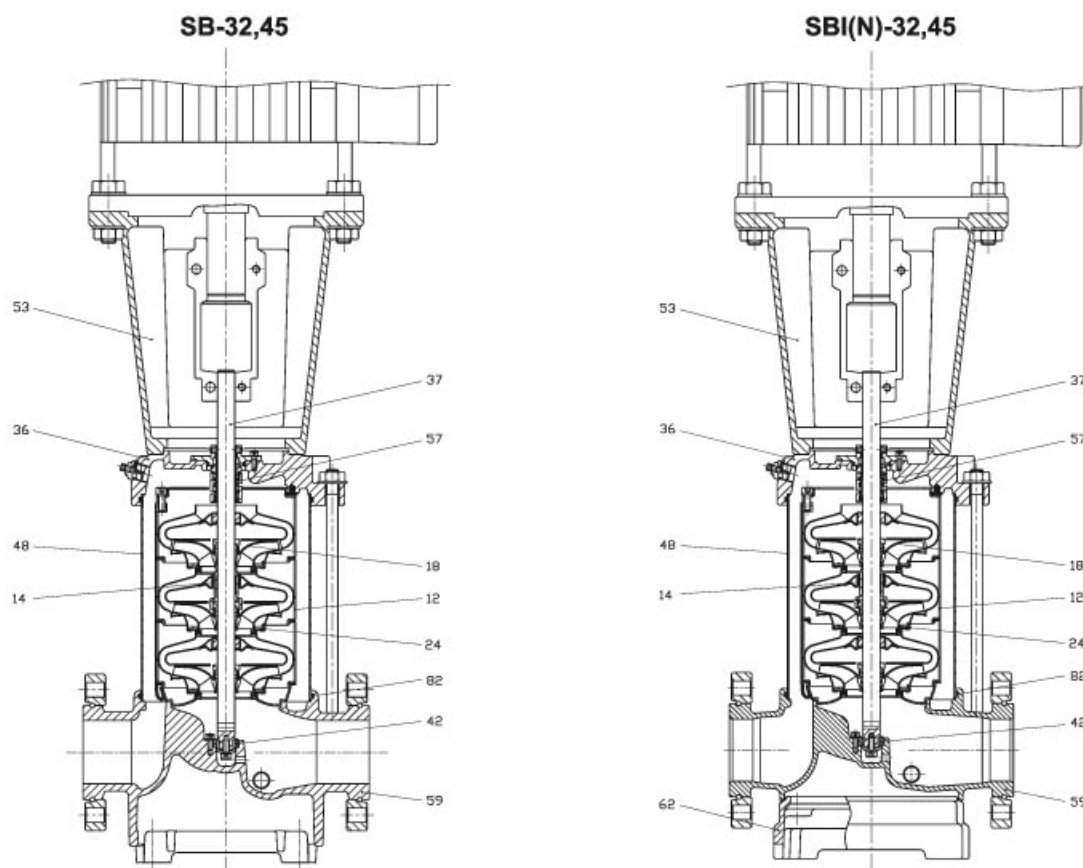
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Construction



CONSTRUCTION

Pos.	Name	Material	SB 32, 45		SBI 32, 45		SBN 32, 45	
			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						

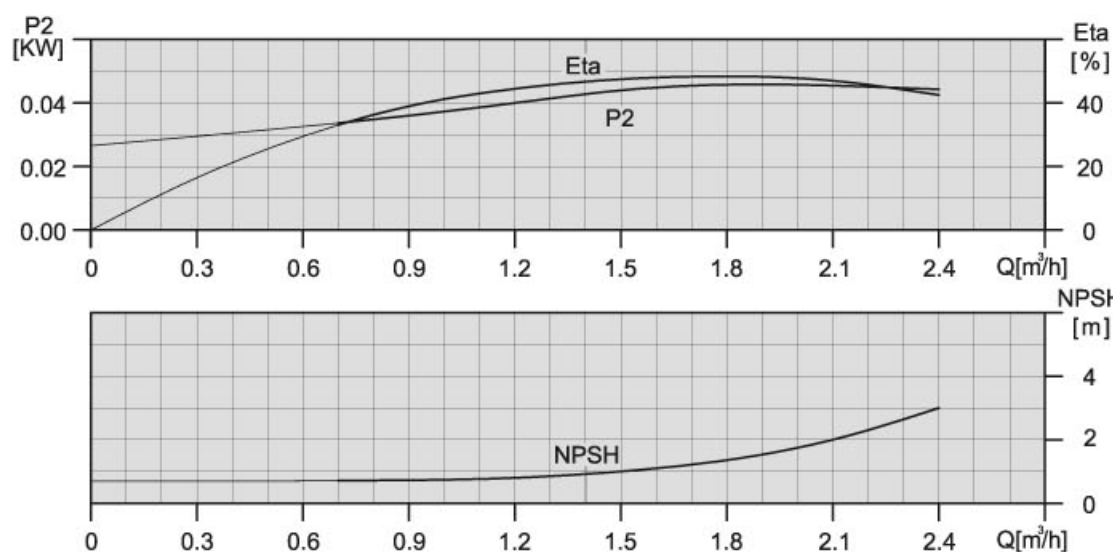
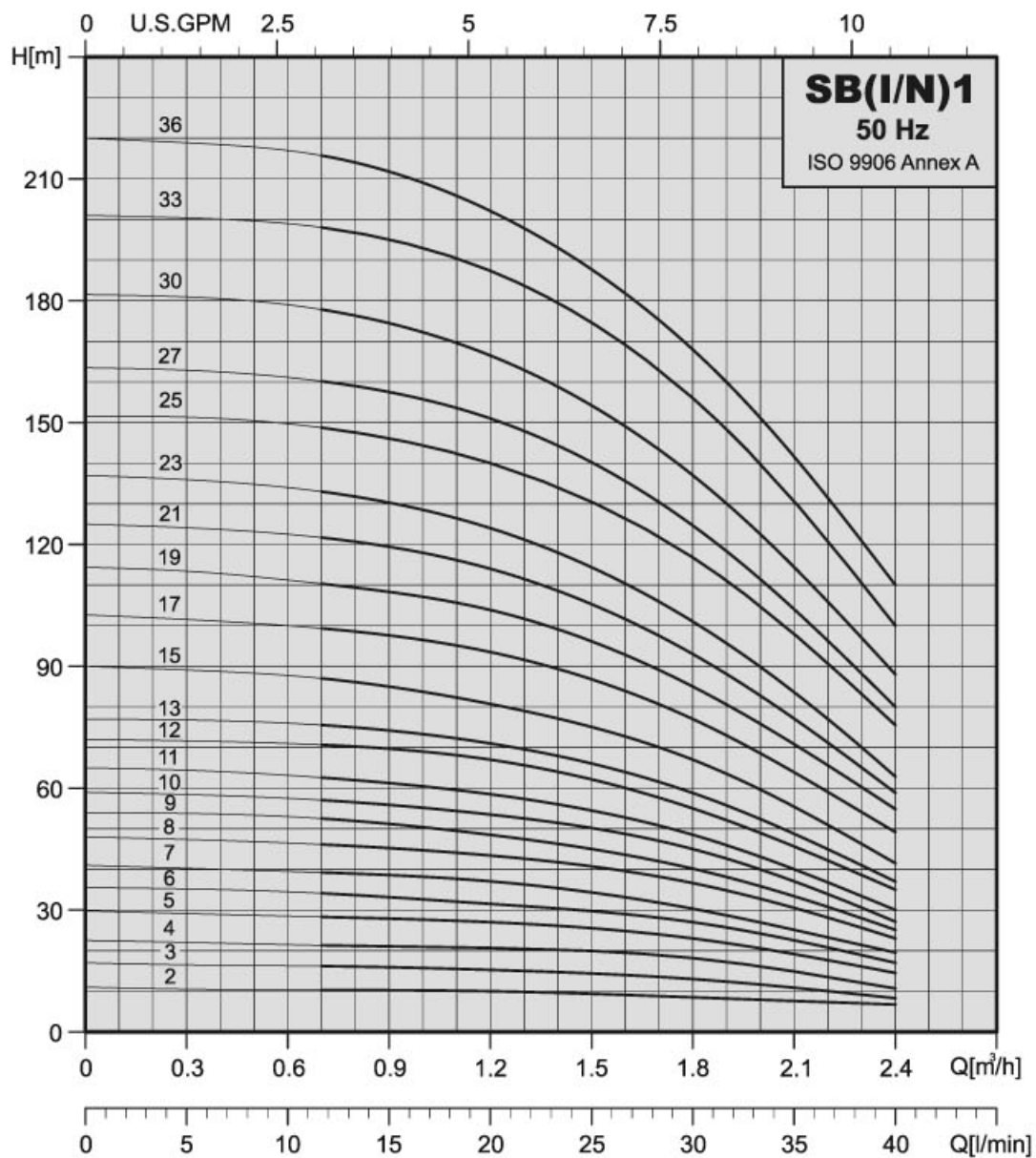
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 1



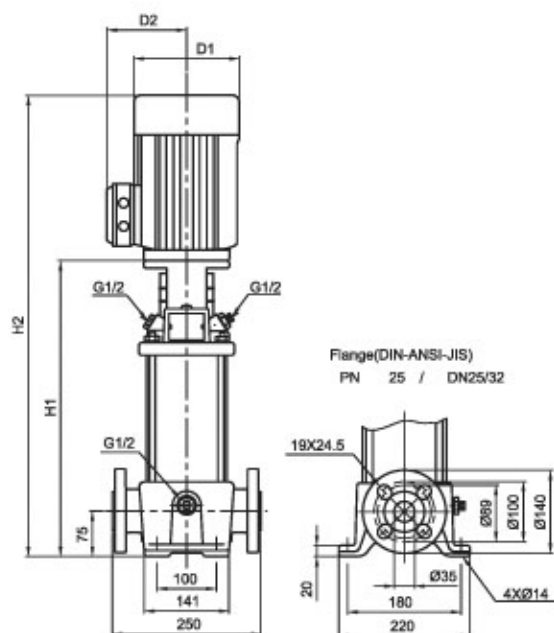
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Vertical Multistage Centrifugal In-line Pumps



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			
SB 1-2	0.37	279	470	141	109	23.0
SB 1-3	0.37	279	470	141	109	23.0
SB 1-4	0.37	297	488	141	109	23.0
SB 1-5	0.37	315	506	141	109	24.0
SB 1-6	0.37	333	524	141	109	24.0
SB 1-7	0.37	351	542	141	109	25.0
SB 1-8	0.55	369	560	141	109	26.0
SB 1-9	0.55	387	578	141	109	26.0
SB 1-10	0.55	405	596	141	109	26.0
SB 1-11	0.55	423	614	141	109	27.0
SB 1-12	0.75	447	678	141	109	29.0
SB 1-13	0.75	465	696	141	109	29.0
SB 1-15	0.75	501	732	141	109	30.0
SB 1-17	1.1	537	768	141	109	33.0
SB 1-19	1.1	573	804	141	109	34.0
SB 1-21	1.1	609	840	141	109	35.0
SB 1-23	1.1	645	876	141	109	36.0
SB 1-25	1.5	697	972	175	140	42.9
SB 1-27	1.5	733	1008	175	140	43.7
SB 1-30	1.5	787	1062	175	140	44.8
SB 1-33	2.2	841	1116	175	140	47.9
SB 1-36	2.2	895	1170	175	140	49.1

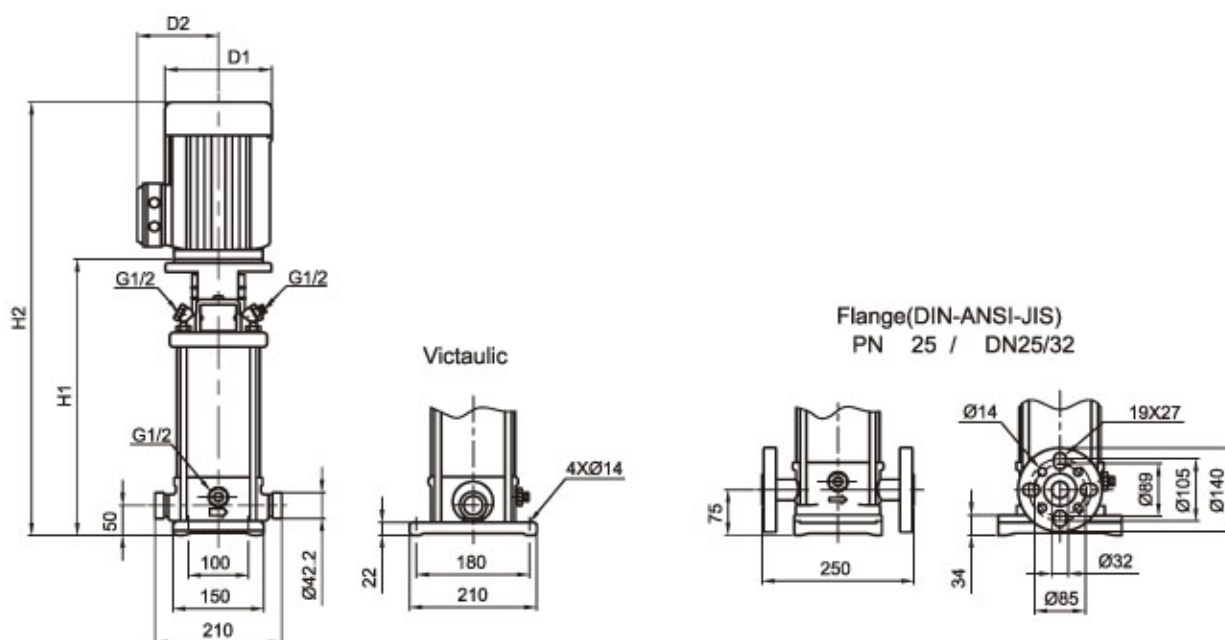
Technical data

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]	
		Vactaulic		DIN flange		D1	D2	Vactaulic	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	0.37	293	484	318	509	141	109	17	21
SBI,SBN1-6	0.37	311	502	336	527	141	109	18	22
SBI,SBN1-7	0.37	329	520	354	545	141	109	18	22
SBI,SBN1-8	0.55	347	538	372	563	141	109	19	23
SBI,SBN1-9	0.55	365	556	390	581	141	109	20	24
SBI,SBN1-10	0.55	383	574	408	599	141	109	20	24
SBI,SBN1-11	0.55	401	592	426	617	141	109	20	24
SBI,SBN1-12	0.75	425	656	450	681	141	109	23	27
SBI,SBN1-13	0.75	443	674	468	699	141	109	23	28
SBI,SBN1-15	0.75	479	710	504	735	141	109	24	28
SBI,SBN1-17	1.1	515	746	540	771	141	109	27	31
SBI,SBN1-19	1.1	551	782	576	807	141	109	28	32
SBI,SBN1-21	1.1	587	818	612	843	141	109	29	33
SBI,SBN1-23	1.1	623	854	648	879	141	109	30	34
SBI,SBN1-25	1.5	675	950	700	975	175	140	37.5	41.0
SBI,SBN1-27	1.5	711	986	736	1011	175	140	38.2	41.8
SBI,SBN1-30	1.5	765	1040	790	1065	175	140	39.4	42.9
SBI,SBN1-33	2.2	819	1094	844	1119	175	140	42.5	46.0
SBI,SBN1-36	2.2	873	1148	898	1173	175	140	43.6	47.2

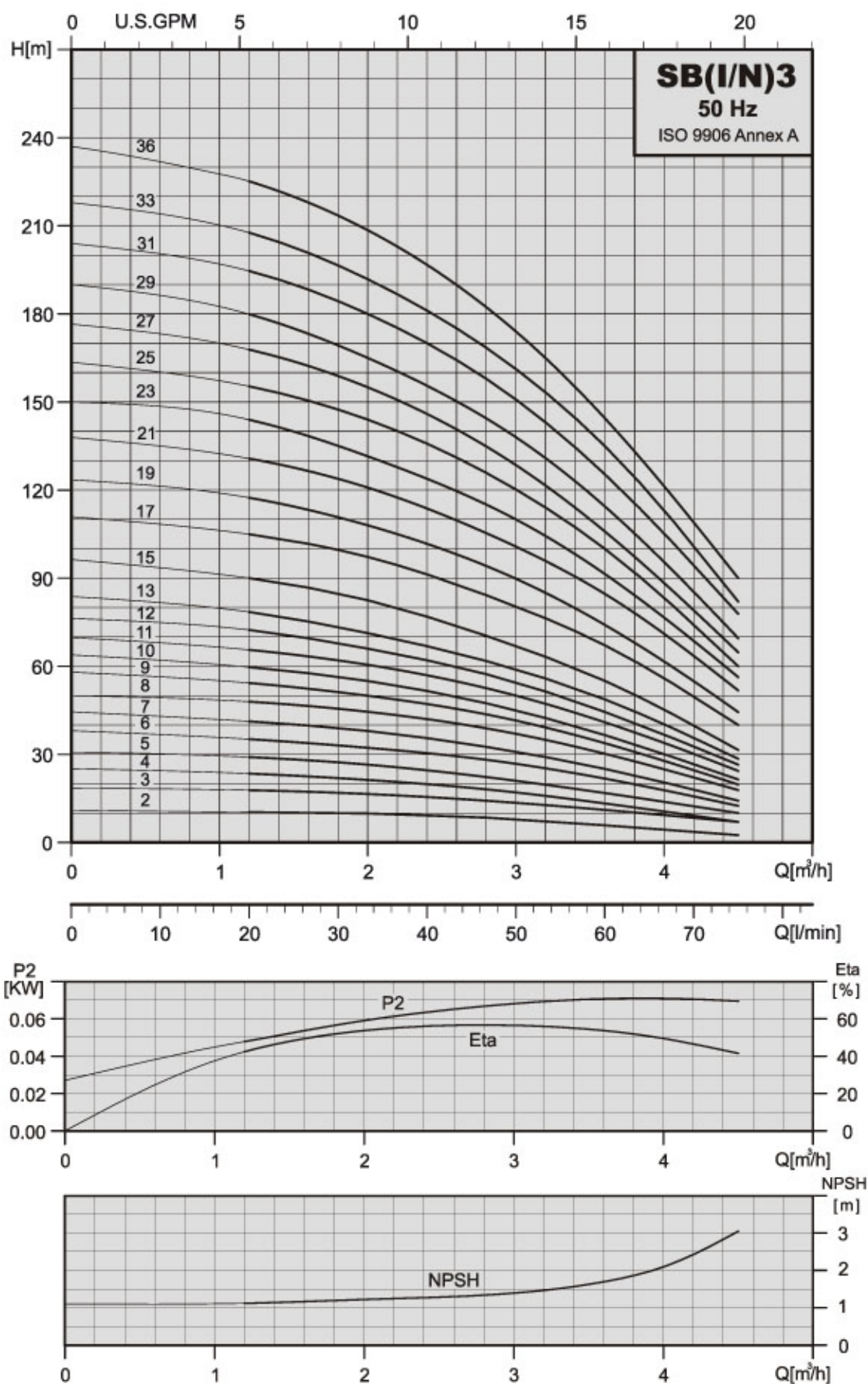
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 3



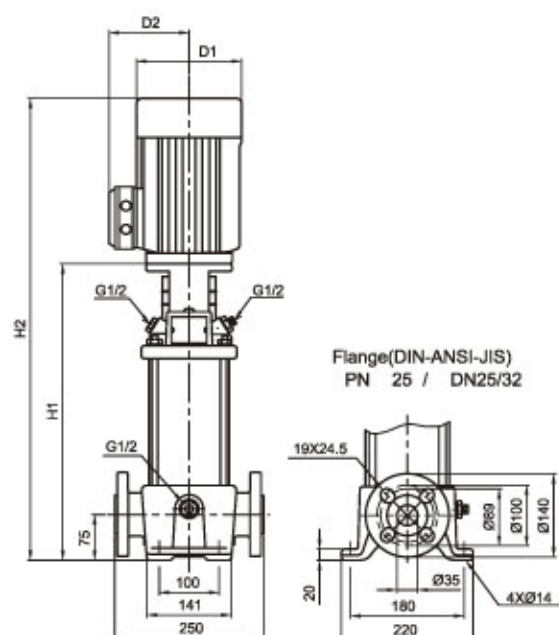
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 3



Pump type	Motor P ₂ [KW]	SB				
		Dimension[mm]				Net weight[kg]
		DIN flange		D1	D2	DIN flange
		H1	H2			
SB 3-2	0.37	279	470	141	109	23
SB 3-3	0.37	279	470	141	109	23
SB 3-4	0.37	297	488	141	109	23
SB 3-5	0.37	315	506	141	109	24
SB 3-6	0.55	333	524	141	109	25
SB 3-7	0.55	351	542	141	109	25
SB 3-8	0.75	375	606	141	109	27
SB 3-9	0.75	393	624	141	109	28
SB 3-10	0.75	411	642	141	109	28
SB 3-11	1.1	429	660	141	109	31
SB 3-12	1.1	447	678	141	109	31
SB 3-13	1.1	465	696	141	109	31
SB-3-15	1.1	501	732	141	109	32
SB-3-17	1.5	553	828	175	140	39.9
SB-3-19	1.5	589	864	175	140	40.7
SB-3-21	2.2	625	900	175	140	43.4
SB-3-23	2.2	661	936	175	140	44.2
SB-3-25	2.2	697	972	175	140	44.9
SB-3-27	2.2	733	1008	175	140	45.7
SB-3-29	2.2	769	1044	175	140	46.4
SB-3-31	3	809	1129	196	148	53.9
SB-3-33	3	845	1165	196	148	54.7
SB-3-36	3	899	1219	196	148	55.8

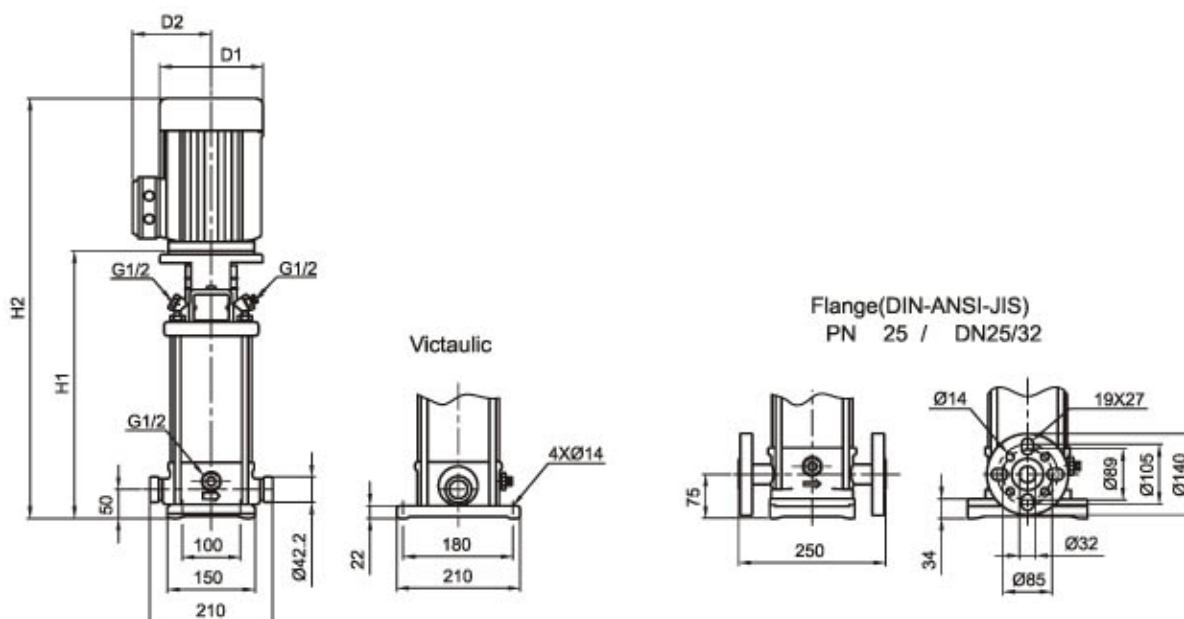
Technical data

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	19
SBI, SBN3-3	0.37	257	448	282	473	141	109	16	19
SBI, SBN3-4	0.37	275	466	300	491	141	109	17	19
SBI, SBN3-5	0.37	293	484	318	509	141	109	17	20
SBI, SBN3-6	0.55	311	502	336	527	141	109	18	21
SBI, SBN3-7	0.55	329	520	354	545	141	109	19	21
SBI, SBN3-8	0.75	353	584	378	609	141	109	21	24
SBI, SBN3-9	0.75	371	602	396	627	141	109	22	24
SBI, SBN3-10	0.75	389	620	414	645	141	109	22	25
SBI, SBN3-11	1.1	407	638	432	663	141	109	25	27
SBI, SBN3-12	1.1	425	656	450	681	141	109	25	28
SBI, SBN3-13	1.1	443	674	468	699	141	109	26	28
SBI, SBN3-15	1.1	479	710	504	735	141	109	26	29
SBI, SBN3-17	1.5	531	806	556	831	175	140	34.5	38.1
SBI, SBN3-19	1.5	567	842	592	867	175	140	35.3	38.8
SBI, SBN3-21	2.2	603	878	628	903	175	140	38.0	41.6
SBI, SBN3-23	2.2	639	914	664	939	175	140	38.8	42.3
SBI, SBN3-25	2.2	675	950	700	975	175	140	39.5	43.1
SBI, SBN3-27	2.2	711	986	736	1011	175	140	40.3	43.8
SBI, SBN3-29	2.2	747	1022	772	1047	175	140	41.0	44.6
SBI, SBN3-31	3	787	1107	812	1132	196	148	48.2	51.8
SBI, SBN3-33	3	823	1143	848	1168	196	148	49.1	52.5
SBI, SBN3-36	3	877	1197	902	1222	196	148	50.1	53.7

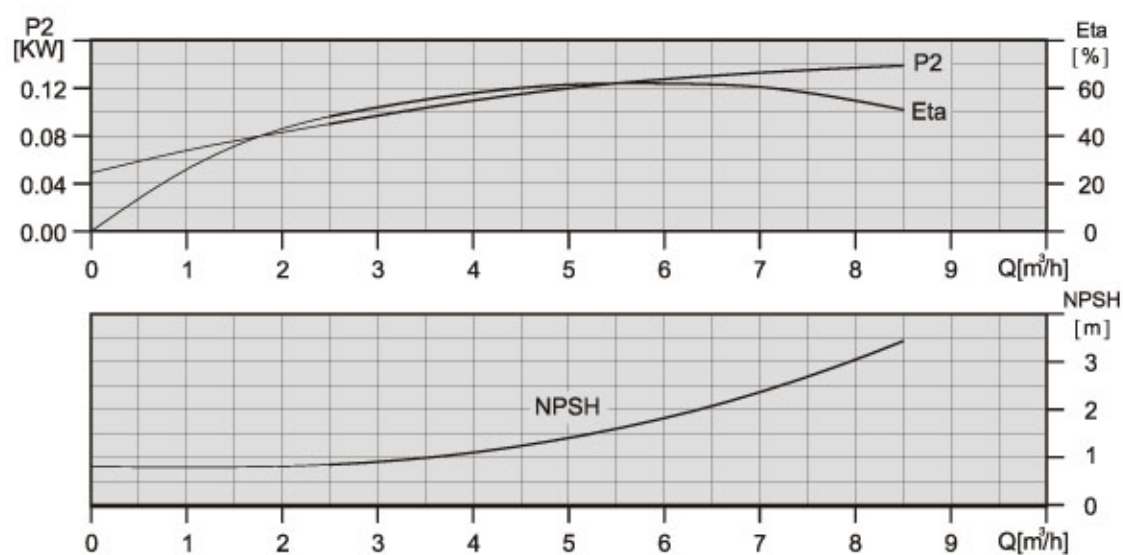
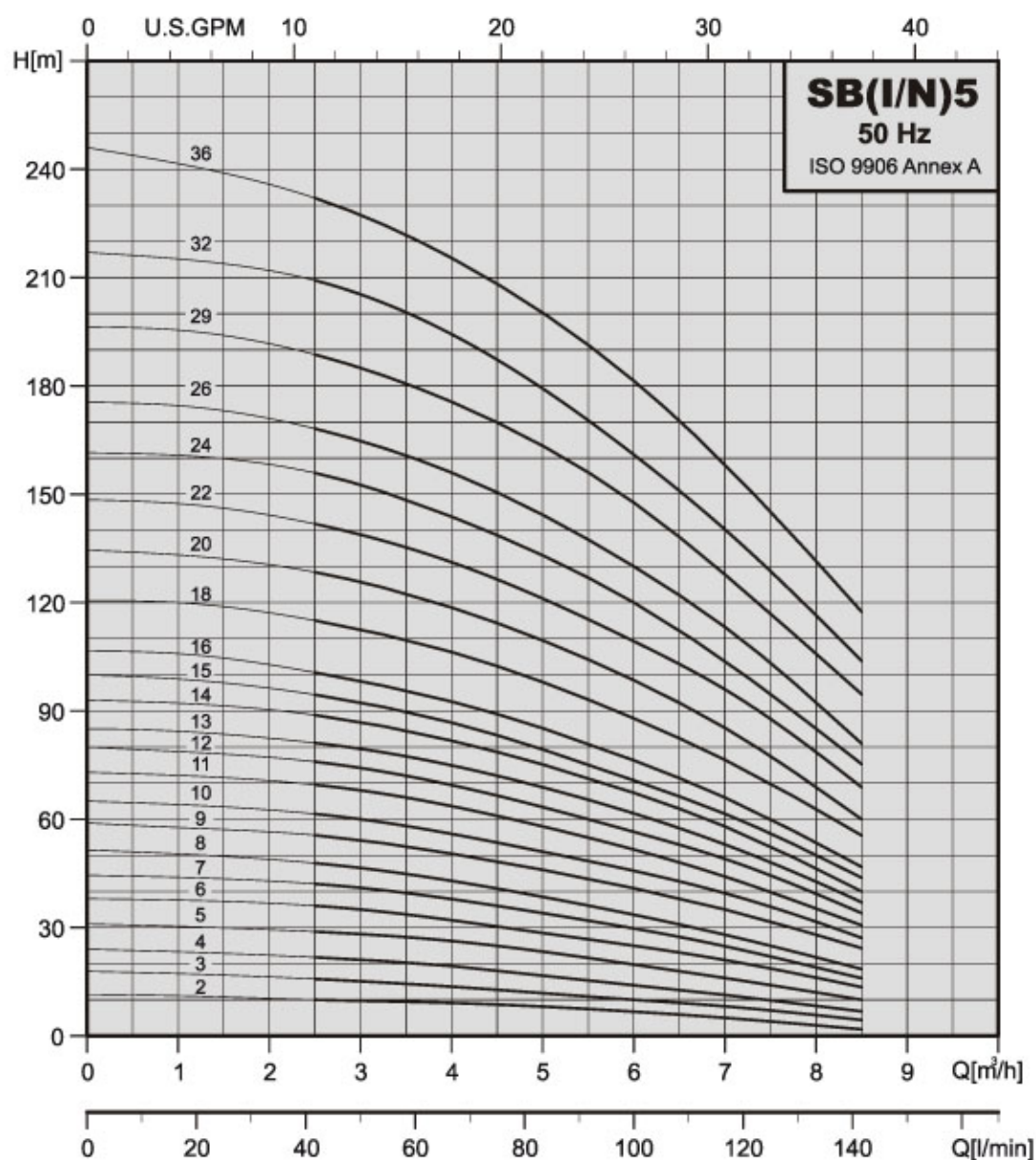
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 5



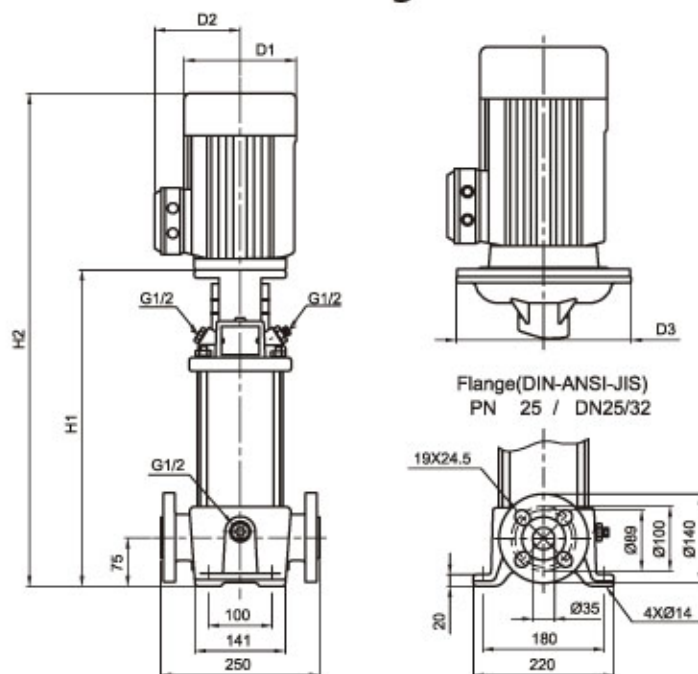
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Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 5



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P ₂	DIN flange		D1	D2	D3	
	[KW]	H1	H2				
SB5-2	0.37	279	470	141	109	—	23
SB5-3	0.55	306	497	141	109	—	24
SB5-4	0.55	333	524	141	109	—	25
SB5-5	0.75	366	597	141	109	—	27
SB5-6	1.1	393	624	141	109	—	30
SB5-7	1.1	420	651	141	109	—	30
SB5-8	1.1	447	678	141	109	—	31
SB5-9	1.5	490	765	175	140	—	38.3
SB5-10	1.5	517	792	175	140	—	38.9
SB5-11	2.2	544	819	175	140	—	41.5
SB5-12	2.2	571	846	175	140	—	42.0
SB5-13	2.2	598	873	175	140	—	42.6
SB5-14	2.2	625	900	175	140	—	43.2
SB5-15	2.2	652	927	175	140	—	43.8
SB5-16	2.2	679	954	175	140	—	44.3
SB5-18	3	737	1057	196	148	—	52.2
SB5-20	3	791	1111	196	148	—	53.4
SB5-22	4	845	1180	219	162	—	61.5
SB5-24	4	899	1234	219	162	—	62.6
SB5-26	4	953	1288	219	162	—	63.8
SB5-29	4	1034	1369	219	162	—	65.5
SB5-32	5.5	1145	1505	234	199	300	85.9
SB5-36	5.5	1253	1613	234	199	300	88.2

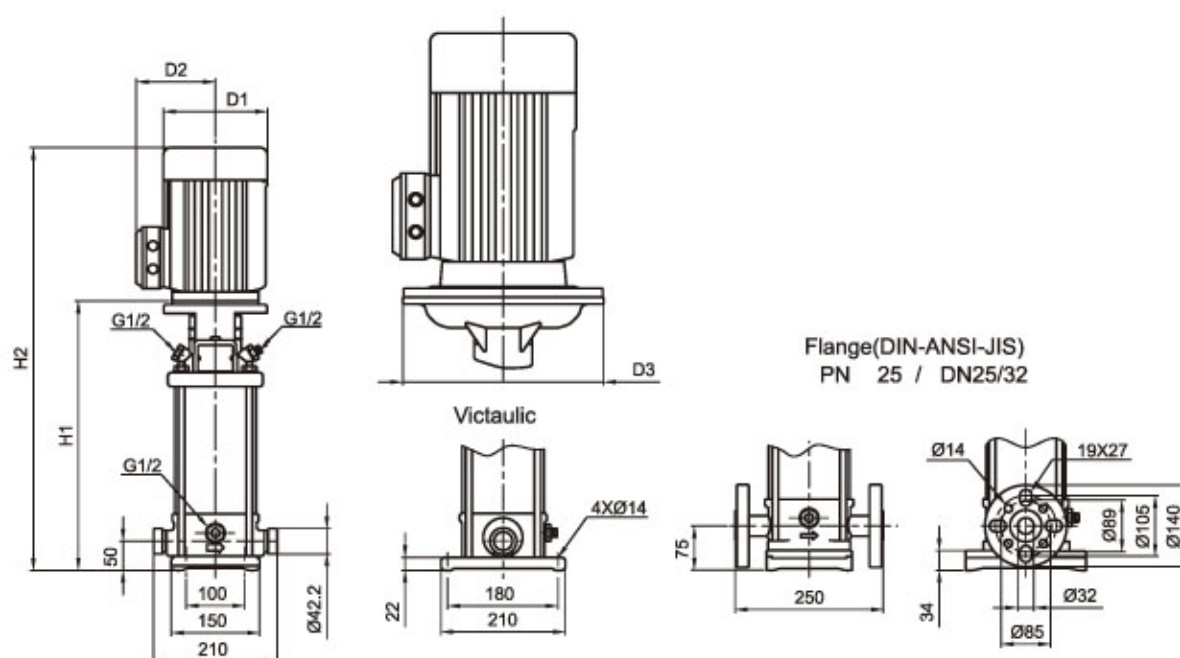
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SBI, SBN 5



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,SBN5-2	0.37	257	448	282	473	141	109	—	16	21
SBI,SBN5-3	0.55	284	475	309	500	141	109	—	18	22
SBI,SBN5-4	0.55	311	502	336	527	141	109	—	18	22
SBI,SBN5-5	0.75	344	575	369	600	141	109	—	21	25
SBI,SBN5-6	1.1	371	602	396	627	141	109	—	24	28
SBI,SBN5-7	1.1	398	629	423	654	141	109	—	24	28
SBI,SBN5-8	1.1	425	656	450	681	141	109	—	25	29
SBI,SBN5-9	1.5	468	743	493	768	175	140	—	32.5	36.5
SBI,SBN5-10	1.5	495	770	520	795	175	140	—	33.5	37.1
SBI,SBN5-11	2.2	522	797	547	822	175	140	—	36.1	39.6
SBI,SBN5-12	2.2	549	824	574	849	175	140	—	36.7	40.2
SBI,SBN5-13	2.2	576	851	601	876	175	140	—	37.2	40.8
SBI,SBN5-14	2.2	603	878	628	903	175	140	—	37.8	41.3
SBI,SBN5-15	2.2	630	905	655	930	175	140	—	38.4	41.9
SBI,SBN5-16	2.2	657	932	682	957	175	140	—	39.0	42.5
SBI,SBN5-18	3	715	1035	740	1060	196	148	—	46.5	50.1
SBI,SBN5-20	3	769	1089	794	1114	196	148	—	47.7	51.2
SBI,SBN5-22	4	823	1158	848	1183	219	162	—	55.8	59.4
SBI,SBN5-24	4	877	1212	902	1237	219	162	—	57.0	60.5
SBI,SBN5-26	4	931	1266	956	1291	219	162	—	58.1	61.6
SBI,SBN5-29	4	1012	1347	1037	1372	219	162	—	59.8	63.4
SBI,SBN5-32	5.5	1123	1483	1148	1508	234	199	300	80.2	83.7
SBI,SBN5-36	5.5	1231	1591	1256	1616	234	199	300	82.5	86.0

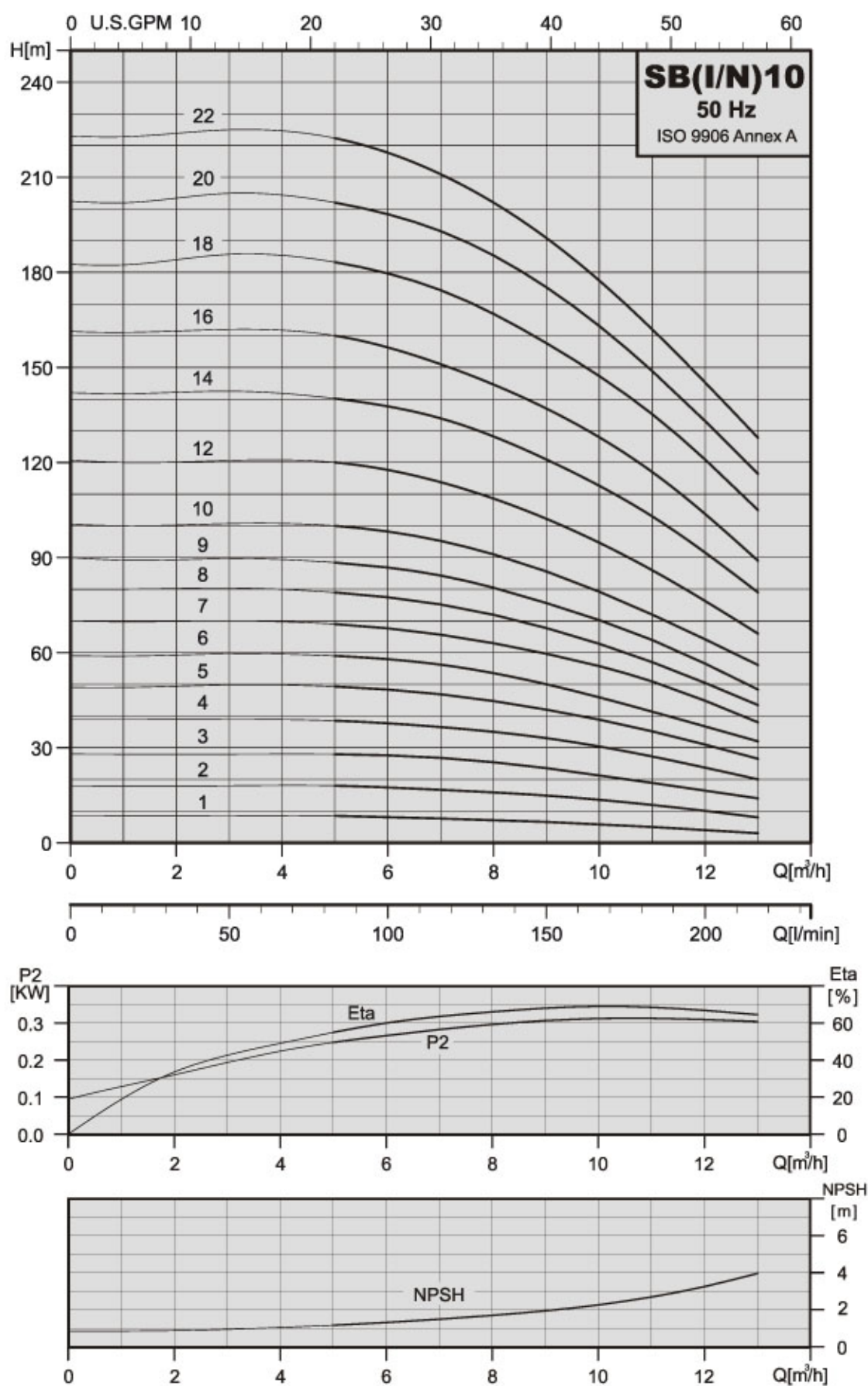
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 10



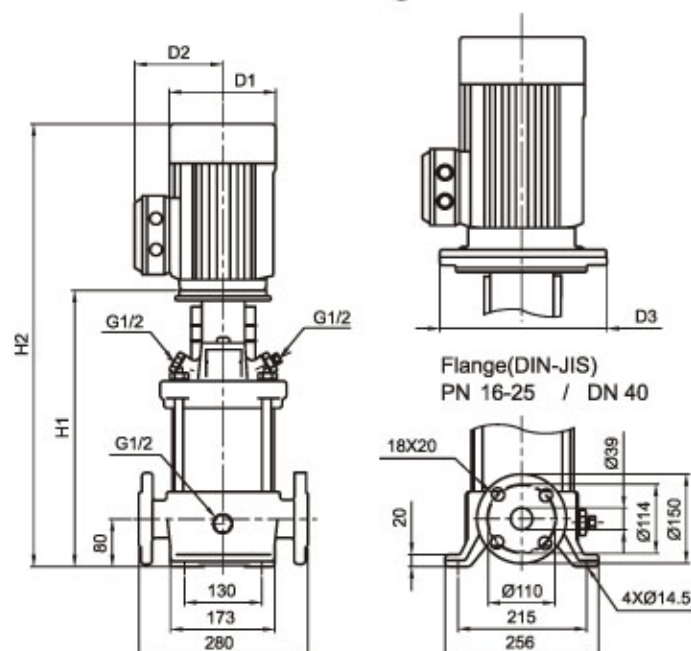
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 10



Pump type	Motor	SB						
		Dimension[mm]					Net weight[kg]	
	P ₂	DIN flange		D1	D2	D3		DIN flange
	[KW]	H1	H2					
SB10-1	0.37	343	534	141	109	—	34	
SB10-2	0.75	347	578	141	109	—	36	
SB10-3	1.1	377	608	141	109	—	39	
SB10-4	1.5	423	698	175	140	—	48.2	
SB10-5	2.2	453	728	175	140	—	51.2	
SB10-6	2.2	483	758	175	140	—	52.2	
SB10-7	3	518	838	196	148	—	60.5	
SB10-8	3	548	868	196	148	—	51.5	
SB10-9	3	578	898	196	148	—	62.5	
SB10-10	4	608	943	219	162	—	70.5	
SB10-12	4	668	1003	219	162	—	72.6	
SB10-14	5.5	760	1120	234	199	300	98.5	
SB10-16	5.5	820	1180	234	199	300	100.5	
SB10-18	7.5	880	1280	234	199	300	111.6	
SB10-20	7.5	940	1340	234	199	300	113.6	
SB10-22	7.5	1000	1400	234	199	300	115.7	

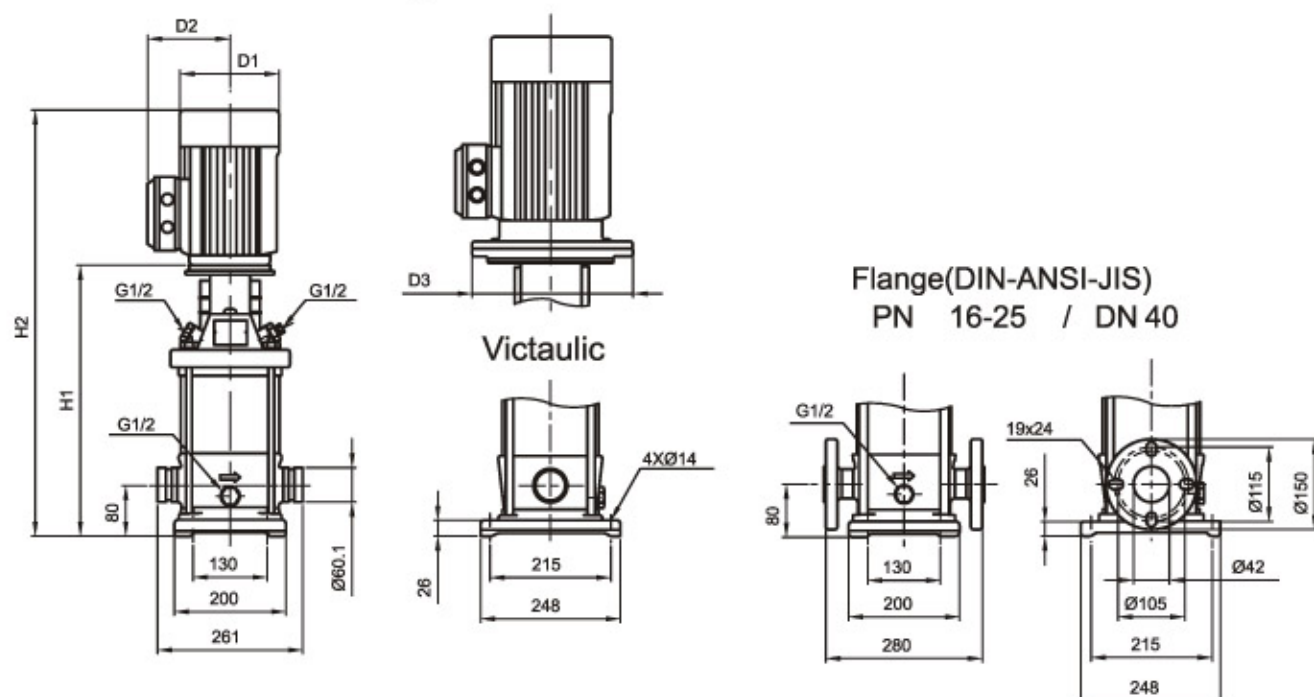
Technical data

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	0.37	353	544	353	544	141	109	—	28	32
SBI,SBN10-2	0.75	357	588	357	588	141	109	—	31	34
SBI,SBN10-3	1.1	387	618	387	618	141	109	—	34	38
SBI,SBN10-4	1.5	433	708	433	708	175	140	—	43.6	47.1
SBI,SBN10-5	2.2	463	738	463	738	175	140	—	46.6	50.1
SBI,SBN10-6	2.2	493	768	493	768	175	140	—	47.6	51.1
SBI,SBN10-7	3	528	848	528	848	196	148	—	54.4	57.9
SBI,SBN10-8	3	558	878	558	878	196	148	—	55.4	59.0
SBI,SBN10-9	3	588	908	588	908	196	148	—	56.5	60.0
SBI,SBN10-10	4	618	953	618	953	219	162	—	64.5	68.0
SBI,SBN10-12	4	678	1013	678	1013	219	162	—	66.5	70.0
SBI,SBN10-14	5.5	770	1130	770	1130	234	199	300	93.4	96.9
SBI,SBN10-16	5.5	830	1190	830	1190	234	199	300	95.4	99.0
SBI,SBN10-18	7.5	890	1290	890	1290	234	199	300	106.5	110.0
SBI,SBN10-20	7.5	950	1350	950	1350	234	199	300	108.5	112.0
SBI,SBN10-22	7.5	1010	1410	1010	1410	234	199	300	110.6	114.1

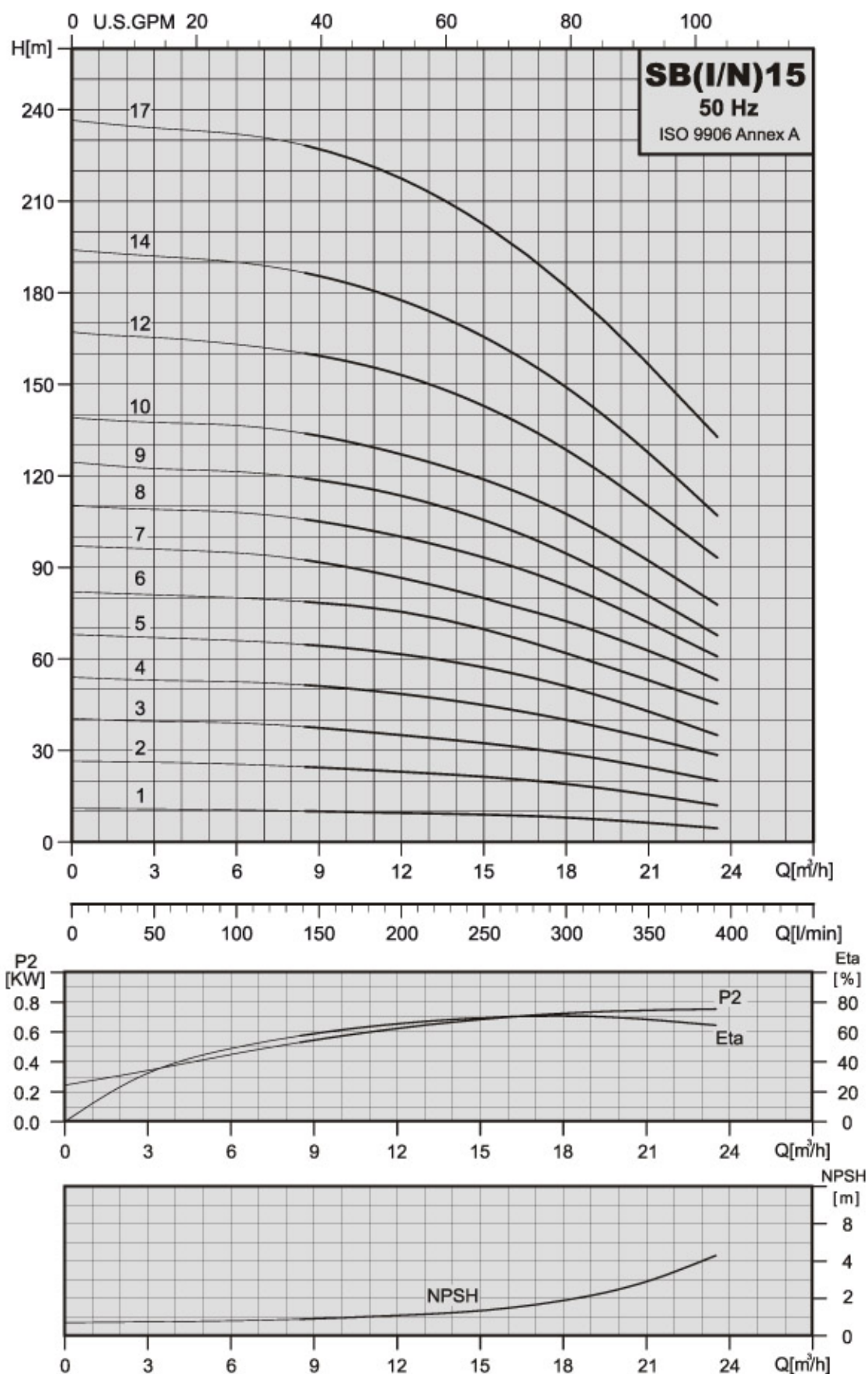
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 15



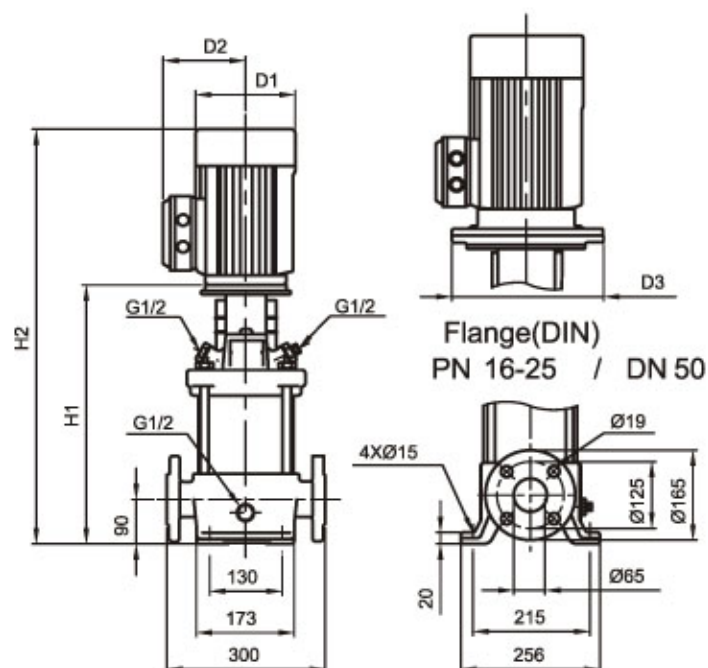
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 15



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P ₂	DIN flange		D1	D2	D3	DIN flange
	[KW]	H1	H2				
SB15-1	1.1	400	631	141	109	—	42
SB15-2	2.2	415	690	175	140	—	52.6
SB15-3	3	465	785	196	148	—	61.3
SB15-4	4	510	845	219	162	—	69.7
SB15-5	4	555	890	219	162	—	71.7
SB15-6	5.5	632	992	234	199	300	96.3
SB15-7	5.5	677	1037	234	199	300	97.7
SB15-8	7.5	722	1122	234	199	300	108.1
SB15-9	7.5	767	1167	234	199	300	109.5
SB15-10	11	889	1334	268	215	350	140.6
SB15-12	11	979	1424	268	215	350	143.4
SB15-14	11	1069	1514	268	215	350	146.2
SB15-17	15	1204	1693	268	215	350	161.4

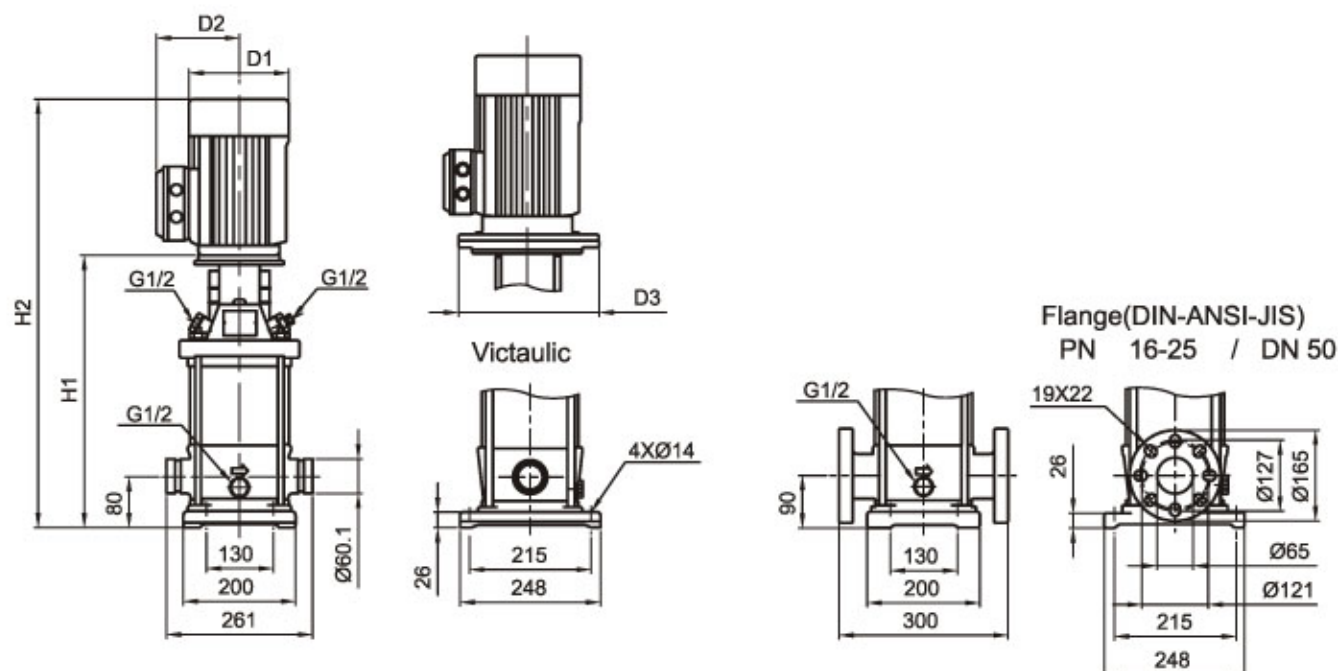
Technical data

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	1.1	387	618	397	628	141	109	—	34	42
SBI,SBN15-2	2.2	403	678	413	688	175	140	—	44.3	48.8
SBI,SBN15-3	3	453	773	463	783	196	148	—	51.5	56.0
SBI,SBN15-4	4	498	833	508	843	219	162	—	59.9	64.4
SBI,SBN15-5	4	543	878	553	888	219	162	—	61.3	65.8
SBI,SBN15-6	5.5	620	980	630	990	234	199	300	87.6	92.1
SBI,SBN15-7	5.5	665	1025	675	1035	234	199	300	89.0	93.5
SBI,SBN15-8	7.5	710	1110	720	1120	234	199	300	99.4	103.9
SBI,SBN15-9	7.5	755	1155	765	1165	234	199	300	100.8	105.3
SBI,SBN15-10	11	877	1322	887	1332	268	215	350	132.4	136.9
SBI,SBN15-12	11	967	1412	977	1422	268	215	350	135.2	139.7
SBI,SBN15-14	11	1057	1502	1067	1512	268	215	350	138.0	142.5
SBI,SBN15-17	15	1192	1681	1202	1691	268	215	350	153.2	157.7

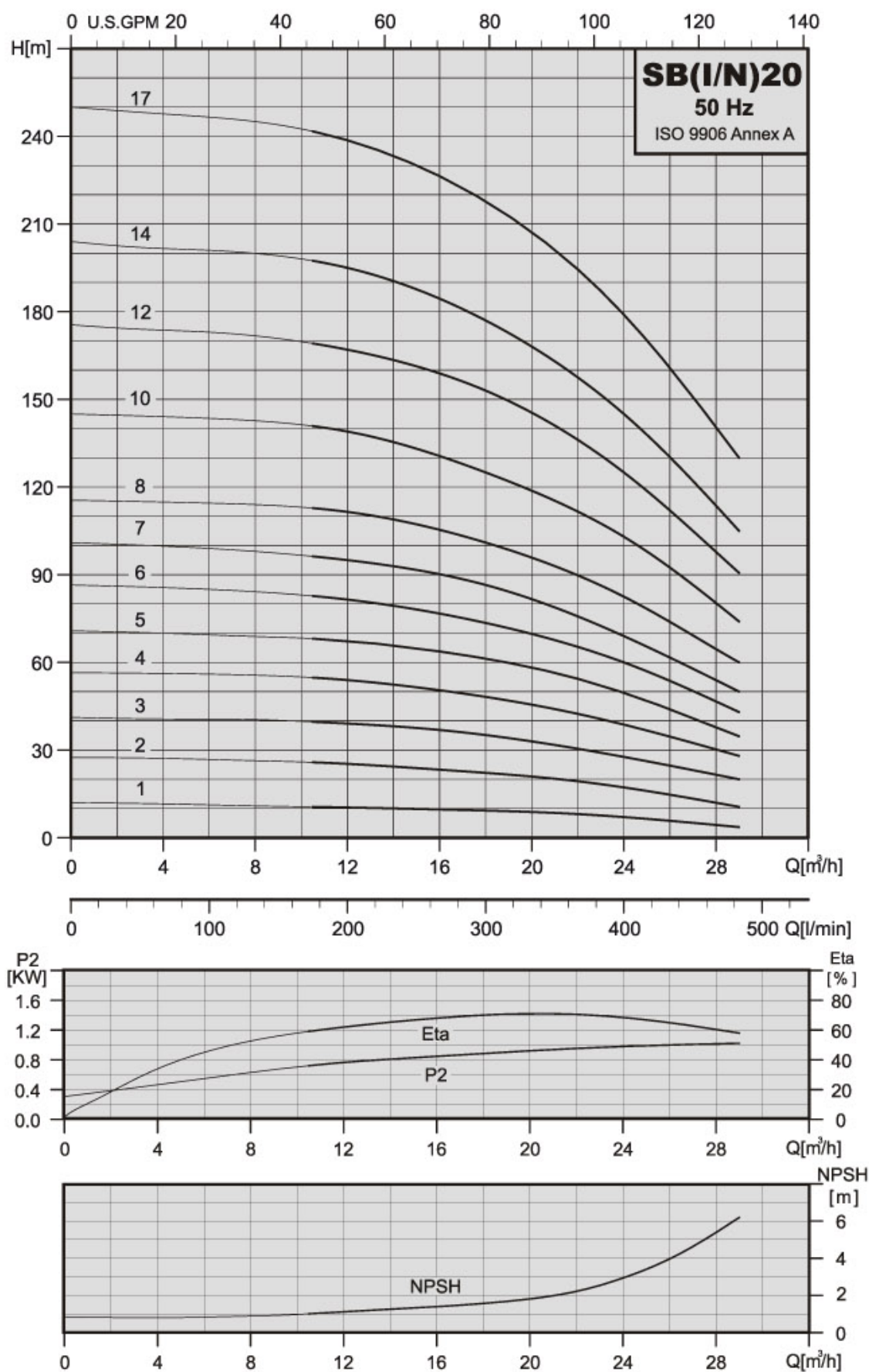
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 20



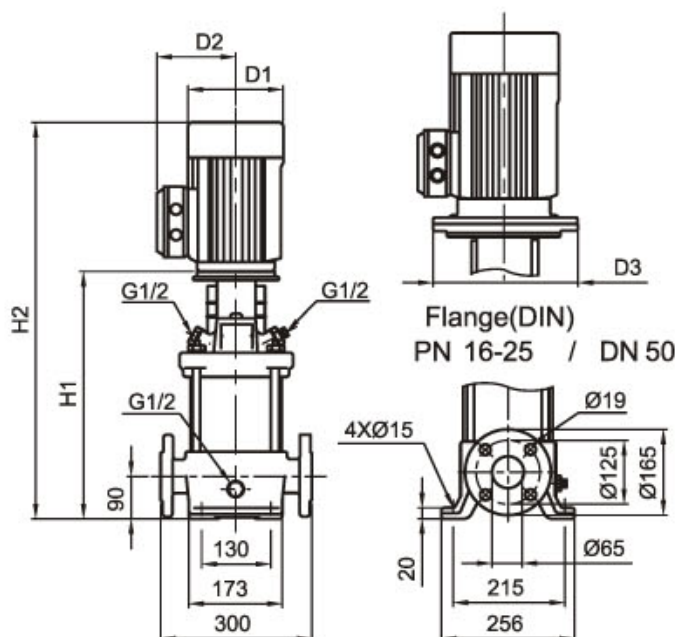
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights – SB 20



Pump type	Motor	SB						
		Dimension[mm]					Net weight[kg]	
	P ₂	DIN flange		D1	D2	D3		DIN flange
	[KW]	H1	H2					
SB20-1	1.1	400	631	141	109	—	42	
SB20-2	2.2	415	690	175	140	—	52.7	
SB20-3	4	465	800	219	162	—	68.4	
SB20-4	5.5	542	902	234	199	300	93.6	
SB20-5	5.5	587	947	234	199	300	95.0	
SB20-6	7.5	632	1032	234	199	300	105.4	
SB20-7	7.5	677	1077	234	199	300	106.8	
SB20-8	11	799	1244	268	215	350	137.9	
SB20-10	11	889	1334	268	215	350	140.7	
SB20-12	15	979	1468	268	215	350	154.5	
SB20-14	15	1069	1558	268	215	350	157.3	
SB20-17	18.5	1204	1739	317	242	350	196.4	

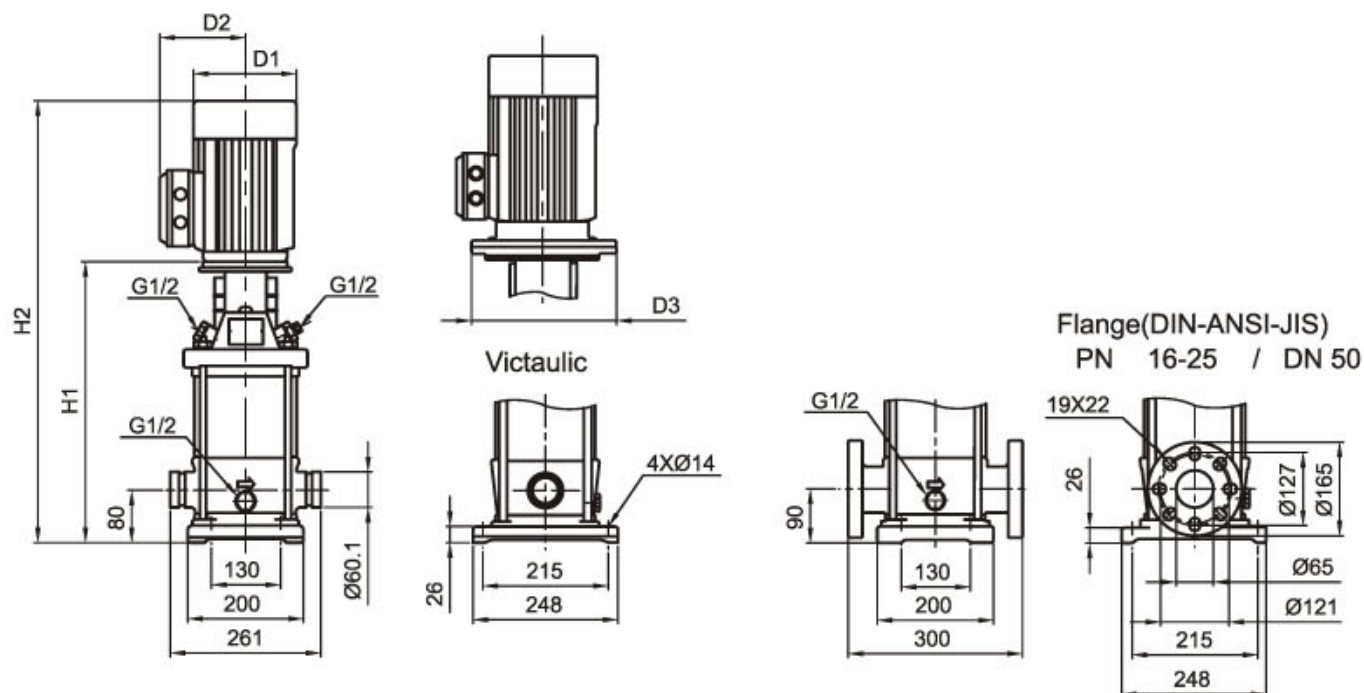
Technical data

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	1.1	387	618	397	628	141	109	—	34	39
SBI, SBN20-2	2.2	403	678	413	688	175	140	—	44.3	48.8
SBI, SBN20-3	4	453	788	463	798	219	162	—	58.5	63.0
SBI, SBN20-4	5.5	530	890	540	900	234	199	300	84.8	89.3
SBI, SBN20-5	5.5	575	935	585	945	234	199	300	86.2	90.7
SBI, SBN20-6	7.5	620	1020	630	1030	234	199	300	96.6	101.1
SBI, SBN20-7	7.5	665	1065	675	1075	234	199	300	98.0	102.5
SBI, SBN20-8	11	787	1232	797	1242	265	215	350	129.6	134.1
SBI, SBN20-10	11	877	1322	887	1332	265	215	350	132.4	136.9
SBI, SBN20-12	15	967	1456	977	1466	265	215	350	146.2	150.7
SBI, SBN20-14	15	1057	1546	1067	1556	265	215	350	149.0	153.5
SBI, SBN20-17	18.5	1192	1727	1202	1737	317	242	350	188.2	192.7

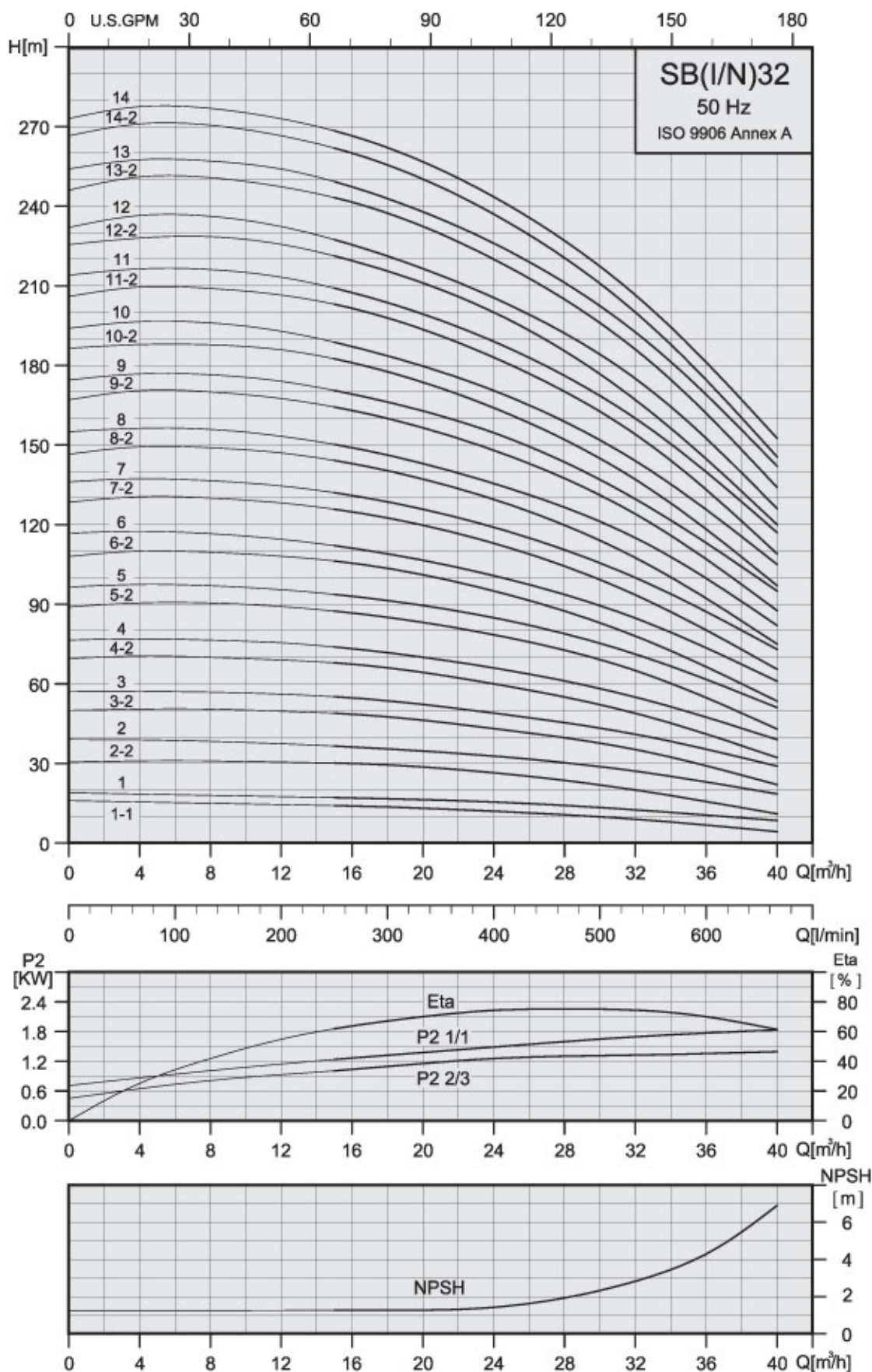
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 32



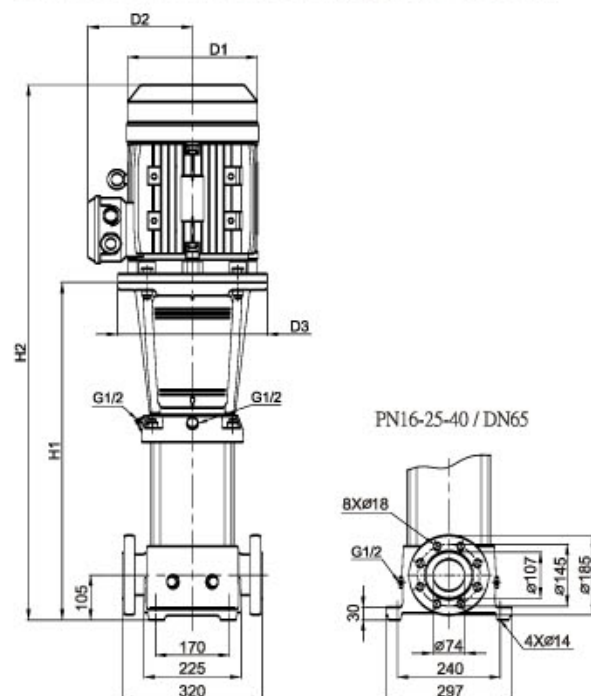
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB32



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P ₂	DIN flange		D1	D2	D3	
	[kW]	H1	H2				
SB 32-1-1	1.5	504	779	175	140	280	69.5
SB 32-1	2.2	504	779	175	140	280	71.5
SB 32-2-2	3.0	574	894	196	148	280	80.5
SB 32-2	4.0	574	909	219	162	280	87.5
SB 32-3-2	5.5	644	1004	234	199	300	104.4
SB 32-3	5.5	644	1004	234	199	300	104.4
SB 32-4-2	7.5	714	1114	234	199	300	116.4
SB 32-4	7.5	714	1114	234	199	300	116.4
SB 32-5-2	11.0	894	1339	268	215	350	153.0
SB 32-5	11.0	894	1339	268	215	350	153.0
SB 32-6-2	11.0	964	1409	268	215	350	156.0
SB 32-6	11.0	964	1409	268	215	350	156.0
SB 32-7-2	15.0	1034	1523	268	215	350	170
SB 32-7	15.0	1034	1523	268	215	350	170
SB 32-8-2	15.0	1104	1593	268	215	350	173
SB 32-8	15.0	1104	1593	268	215	350	173
SB 32-9-2	18.5	1174	1709	317	242	350	211
SB 32-9	18.5	1174	1709	317	242	350	211
SB 32-10-2	18.5	1244	1779	317	242	350	213
SB 32-10	18.5	1244	1779	317	242	350	214
SB 32-11-2	22.0	1314	1893	317	242	350	227
SB 32-11	22.0	1314	1893	317	242	350	227
SB 32-12-2	22.0	1384	1963	317	242	350	229
SB 32-12	22.0	1384	1963	317	242	350	229
SB 32-13-2	30.0	1454	2077	317	290	400	317
SB 32-13	30.0	1454	2077	317	290	400	317
SB 32-14-2	30.0	1524	2147	317	290	400	320
SB 32-14	30.0	1524	2147	317	290	400	320

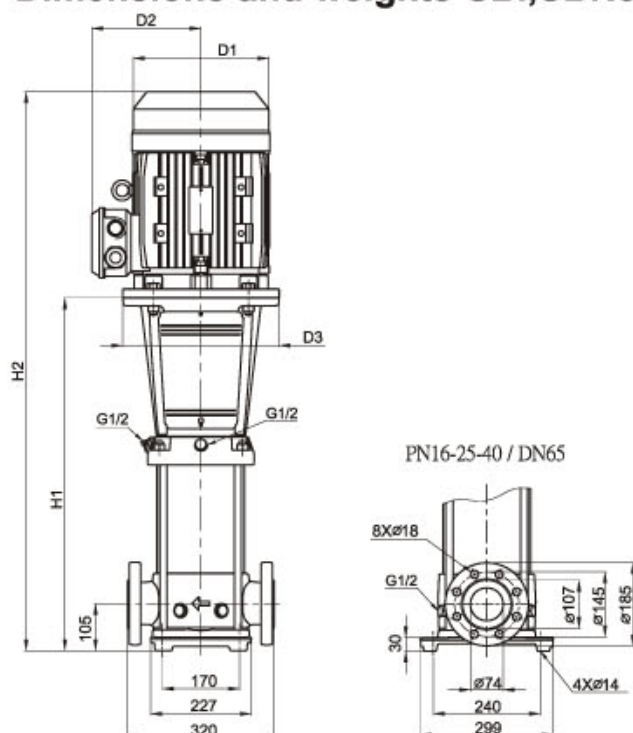
Technical data

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	DIN flange		D1	D2	D3	
	[kW]	H1	H2				
SBI, SBN 32-1-1	1.5	504	779	175	140	280	64.6
SBI, SBN 32-1	2.2	504	779	175	140	280	66.7
SBI, SBN 32-2-2	3.0	574	894	196	148	280	75.6
SBI, SBN 32-2	4.0	574	909	219	162	280	82.6
SBI, SBN 32-3-2	5.5	644	1004	234	199	300	99.5
SBI, SBN 32-3	5.5	644	1004	234	199	300	99.5
SBI, SBN 32-4-2	7.5	714	1114	234	199	300	111.5
SBI, SBN 32-4	7.5	714	1114	234	199	300	111.6
SBI, SBN 32-5-2	11.0	894	1294	268	215	350	148.1
SBI, SBN 32-5	11.0	894	1294	268	215	350	148.2
SBI, SBN 32-6-2	11.0	964	1409	268	215	350	151.1
SBI, SBN 32-6	11.0	964	1409	268	215	350	151.2
SBI, SBN 32-7-2	15.0	1034	1523	268	215	350	165.2
SBI, SBN 32-7	15.0	1034	1523	268	215	350	165.2
SBI, SBN 32-8-2	15.0	1104	1593	268	215	350	168.4
SBI, SBN 32-8	15.0	1104	1593	268	215	350	168.4
SBI, SBN 32-9-2	18.5	1174	1709	317	242	350	206.0
SBI, SBN 32-9	18.5	1174	1709	317	242	350	206.1
SBI, SBN 32-10-2	18.5	1244	1779	317	242	350	208.6
SBI, SBN 32-10	18.5	1244	1779	317	242	350	208.7
SBI, SBN 32-11-2	22.0	1314	1893	317	242	350	222.0
SBI, SBN 32-11	22.0	1314	1893	317	242	350	222.0
SBI, SBN 32-12-2	22.0	1384	1963	317	242	350	224.6
SBI, SBN 32-12	22.0	1384	1963	317	242	400	224.6
SBI, SBN 32-13-2	30.0	1454	2077	317	290	400	312.5
SBI, SBN 32-13	30.0	1454	2077	317	290	400	312.5
SBI, SBN 32-14-2	30.0	1524	2147	317	290	400	315.1
SBI, SBN 32-14	30.0	1524	2147	317	290	400	315.1

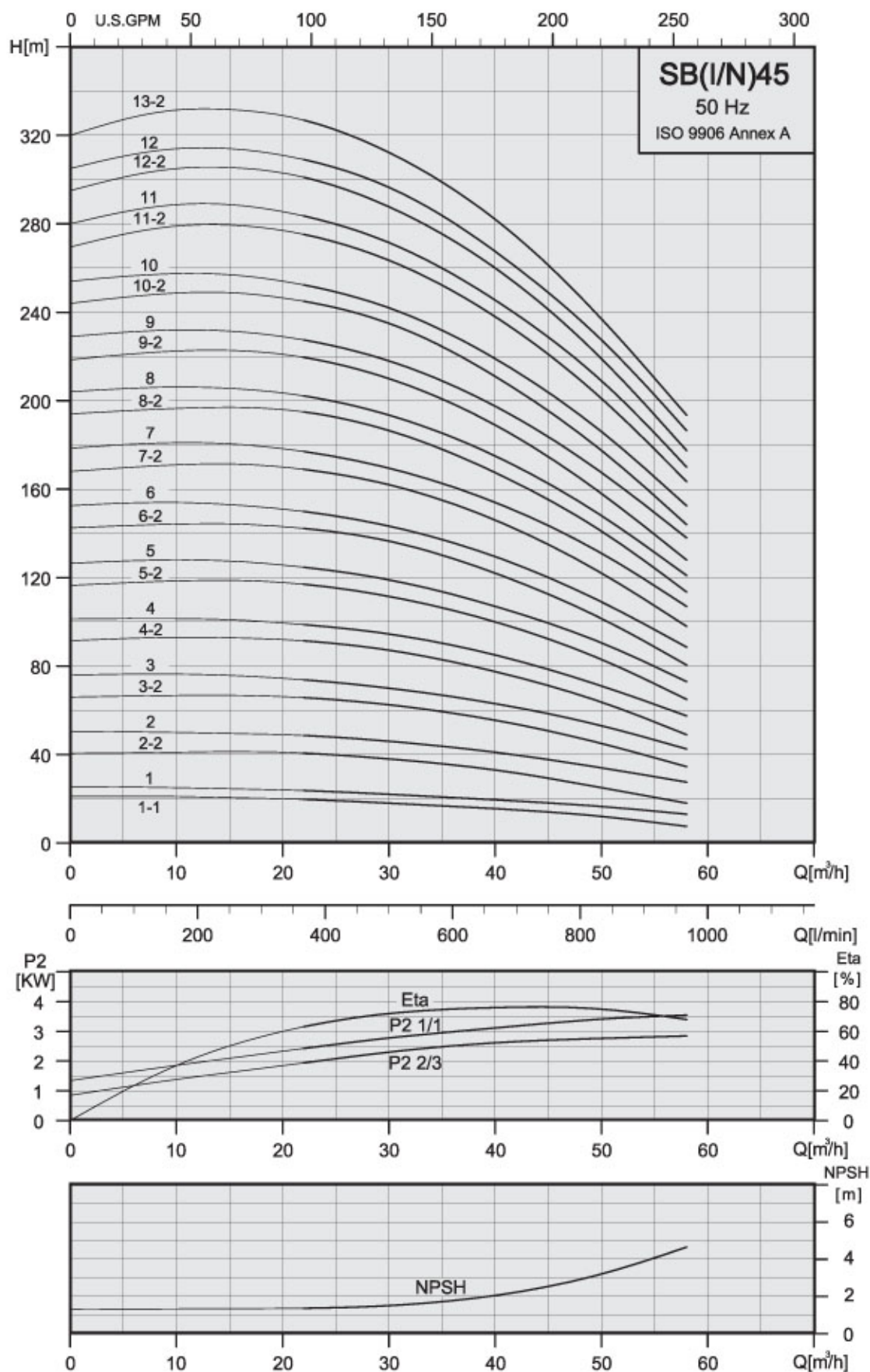
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

SB, SBI, SBN 45



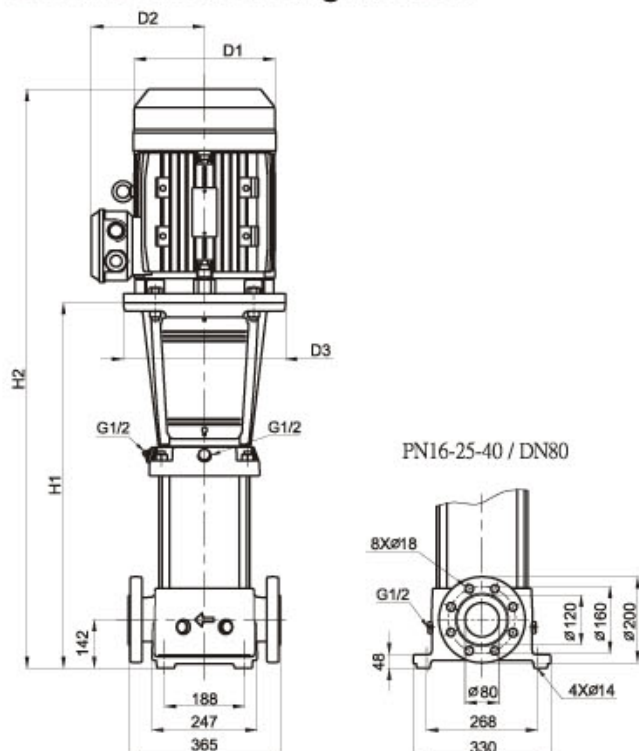
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SB45



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P ₂	DIN flange		D1	D2	D3	
	[kW]	H1	H2				
SB 45-1-1	3.0	561	881	196	148	280	87.8
SB 45-1	4.0	561	896	219	162	280	94.8
SB 45-2-2	5.5	641	1001	234	199	300	112.3
SB 45-2	7.5	641	1041	234	199	300	121.4
SB 45-3-2	11.0	831	1276	268	215	350	158.6
SB 45-3	11.0	831	1276	268	215	350	158.6
SB 45-4-2	15.0	911	1400	268	215	350	173.3
SB 45-4	15.0	911	1400	268	215	350	173.3
SB 45-5-2	18.5	991	1526	317	242	350	211.9
SB 45-5	18.5	991	1526	317	242	350	211.9
SB 45-6-2	22.0	1071	1650	317	242	350	226.4
SB 45-6	22.0	1071	1650	317	242	350	226.4
SB 45-7-2	30.0	1151	1774	317	290	400	315.3
SB 45-7	30.0	1151	1774	317	290	400	315.3
SB 45-8-2	30.0	1231	1854	317	290	400	318.9
SB 45-8	30.0	1231	1854	317	290	400	319.0
SB 45-9-2	30.0	1311	1934	317	290	400	322.6
SB 45-9	37.0	1311	2036	398	365	400	391.6
SB 45-10-2	37.0	1391	2116	398	365	400	395.2
SB 45-10	37.0	1391	2116	398	365	400	395.2
SB 45-11-2	45.0	1471	2196	398	365	450	426.8
SB 45-11	45.0	1471	2196	398	365	450	426.8
SB 45-12-2	45.0	1551	2276	398	365	450	430.4
SB 45-12	45.0	1551	2276	398	365	450	430.4
SB 45-13-2	45.0	1631	2356	398	365	450	434.0

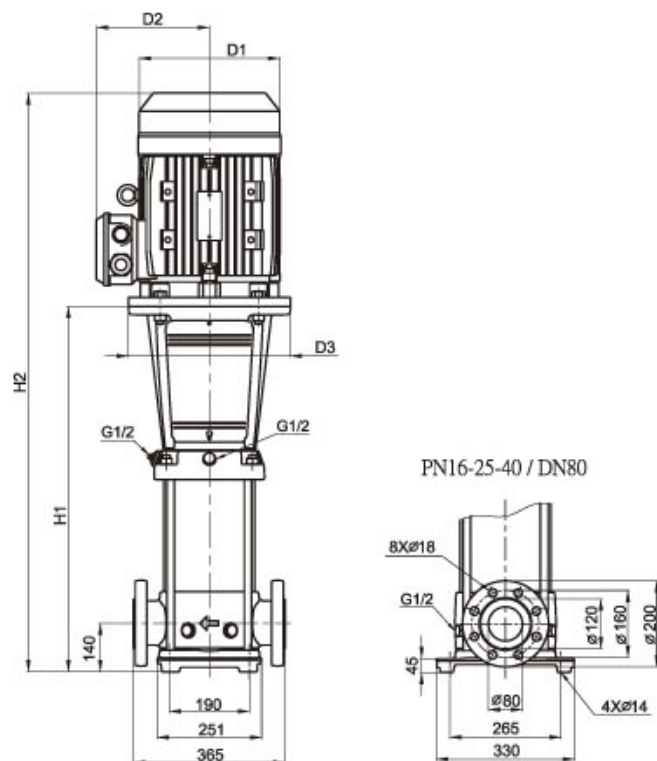
Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

Dimensions and weights-SBI,SBN45



Pump type	Motor	SBI,SBN						
		Dimension[mm]					Net weight[kg]	
	P ₂	DIN flange		D1	D2	D3		DIN flange
	[kW]	H1	H2					
SBI, SBN 45-1-1	3.0	559	879	196	148	280	79.3	
SBI, SBN 45-1	4.0	559	894	219	162	280	86.3	
SBI, SBN 45-2-2	5.5	639	999	234	199	300	103.8	
SBI, SBN 45-2	7.5	639	1039	234	199	300	112.8	
SBI, SBN 45-3-2	11.0	829	1274	268	215	350	150.0	
SBI, SBN 45-3	11.0	829	1274	268	215	350	150.1	
SBI, SBN 45-4-2	15.0	909	1398	268	215	350	164.7	
SBI, SBN 45-4	15.0	909	1398	268	215	350	164.7	
SBI, SBN 45-5-2	18.5	989	1524	317	242	350	203.4	
SBI, SBN 45-5	18.5	989	1524	317	242	350	203.4	
SBI, SBN 45-6-2	22.0	1069	1648	317	242	350	217.8	
SBI, SBN 45-6	22.0	1069	1648	317	242	350	217.8	
SBI, SBN 45-7-2	30.0	1149	1772	317	290	400	306.7	
SBI, SBN 45-7	30.0	1149	1772	317	290	400	306.7	
SBI, SBN 45-8-2	30.0	1229	1852	317	290	400	310.4	
SBI, SBN 45-8	30.0	1229	1852	317	290	400	310.4	
SBI, SBN 45-9-2	30.0	1309	1932	317	290	400	383.1	
SBI, SBN 45-9	37.0	1309	2034	398	365	400	383.1	
SBI, SBN 45-10-2	37.0	1389	2114	398	365	400	386.7	
SBI, SBN 45-10	37.0	1389	2114	398	365	400	386.7	
SBI, SBN 45-11-2	45.0	1469	2194	398	365	450	418.3	
SBI, SBN 45-11	45.0	1469	2194	398	365	450	418.3	
SBI, SBN 45-12-2	45.0	1549	2274	398	365	450	421.9	
SBI, SBN 45-12	45.0	1549	2274	398	365	450	421.9	
SBI, SBN 45-13-2	45.0	1629	2354	398	365	450	425.5	

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				●
Deionized (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



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		●	

Note



STAIRS PUMPS

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