



STAIRS PUMPS

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

Vertical Multistage Centrifugal  
In-line Pumps

50Hz



STAIRS INDUSTRIAL CO., LTD.



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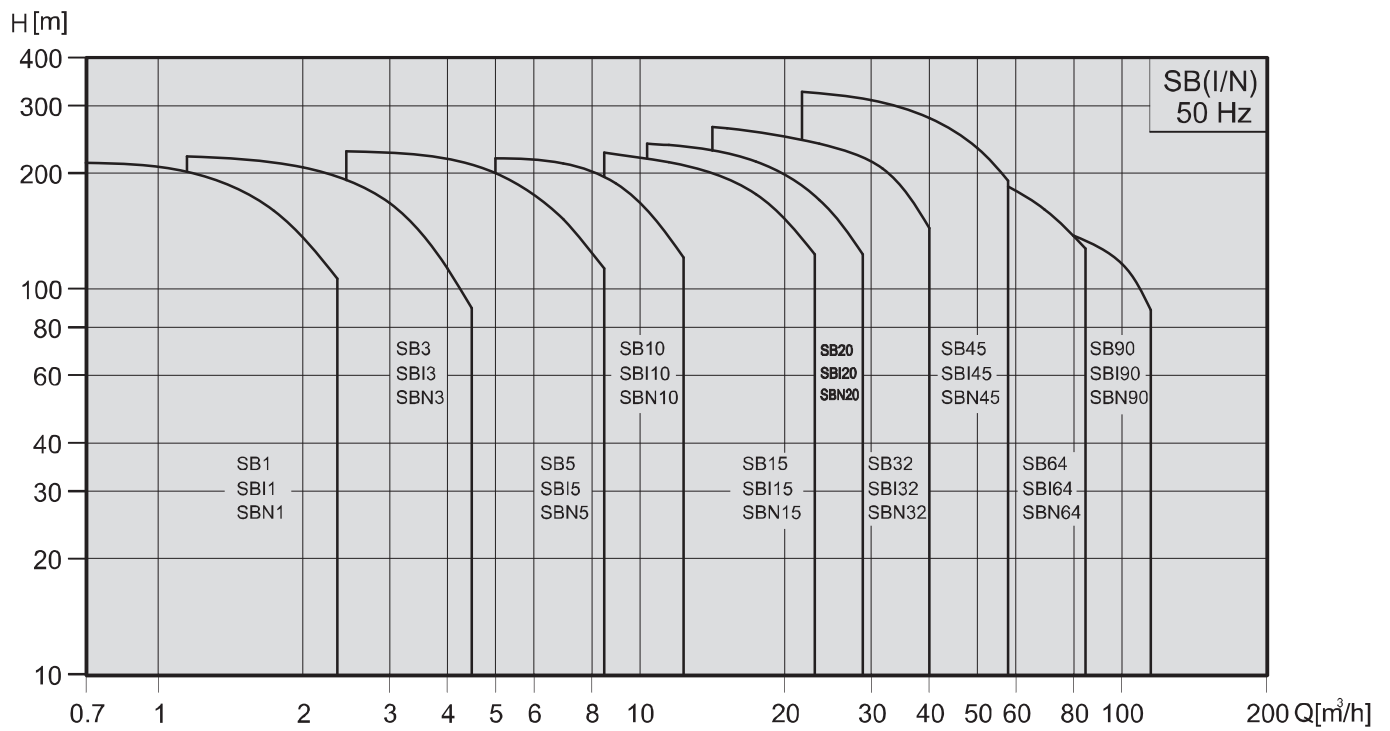
# Contents

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

## SB, SBI, SBN Series Performance range 50 Hz



# Contents

Vertical Multistage Centrifugal In-line Pumps



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## Product data

Range	SB, SBI, SBN									
	1	3	5	10	15	20	32	45	64	90
<b>50Hz</b>										
Nominal flow [ m <sup>3</sup> /h ]	1	3	5	10	15	20	32	45	64	90
Flow range [ m <sup>3</sup> /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	30-85	45-120
Max. pressure [ bar ]	21.5	23	24	21.5	23	24.3	27.5	33	21.8	20
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	4-45	5.5-45
<b>Version</b>										
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	•	•	•	•	•	•	•	•	•	•
<b>Motor</b>										
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									
<b>SB Pipe Connection</b>										
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN100	DN100
<b>SBI, SBN Pipe Connection</b>										
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN100	DN100
Victaulic-connections	R 1 1/4 DN32	R 1 1/4 DN 32	R 1 1/4 DN 32	R 2 DN 50	R 2 DN 50	R 2 DN 50	N/A	N/A	N/A	N/A
<b>Mechanical Seals</b>										
SiC/SiC	Standard									
<b>Seals</b>										
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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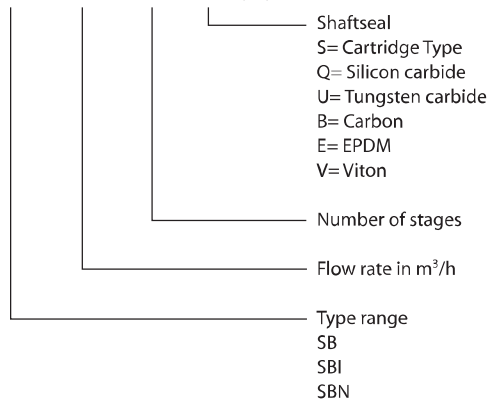
Vertical Multistage Centrifugal In-line Pumps



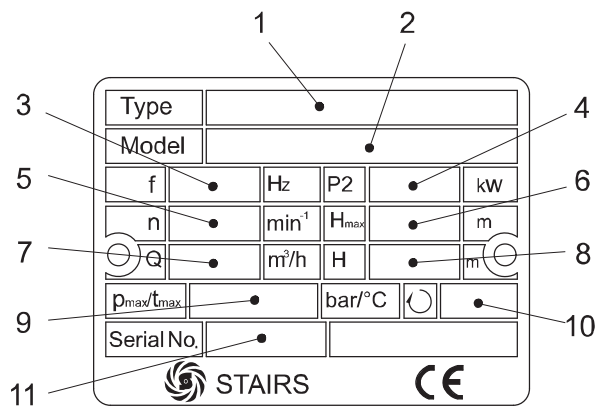
STAIRS PUMPS

## 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

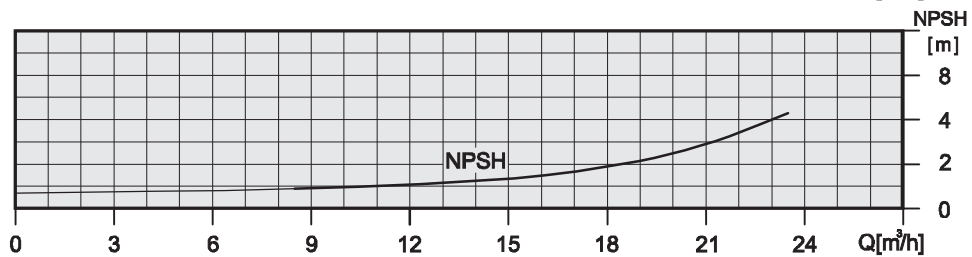
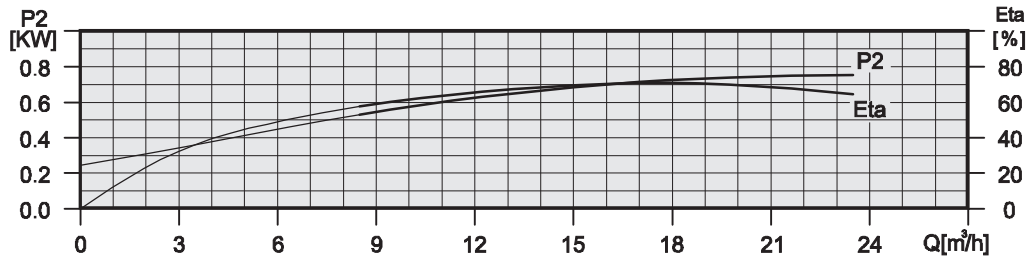
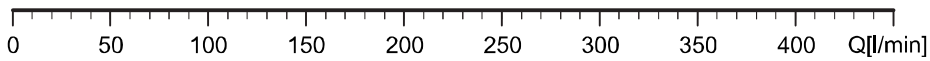
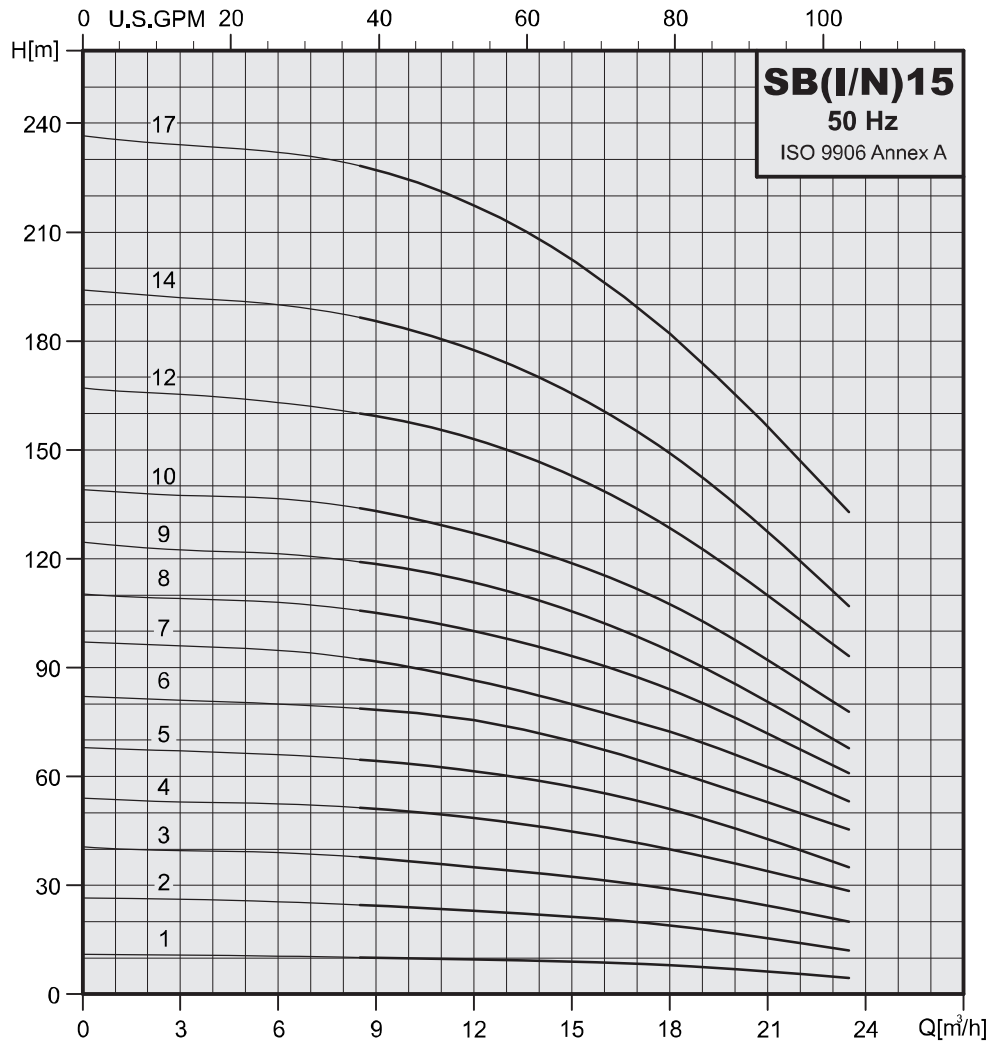
# Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

## SB, SBI, SBN 15



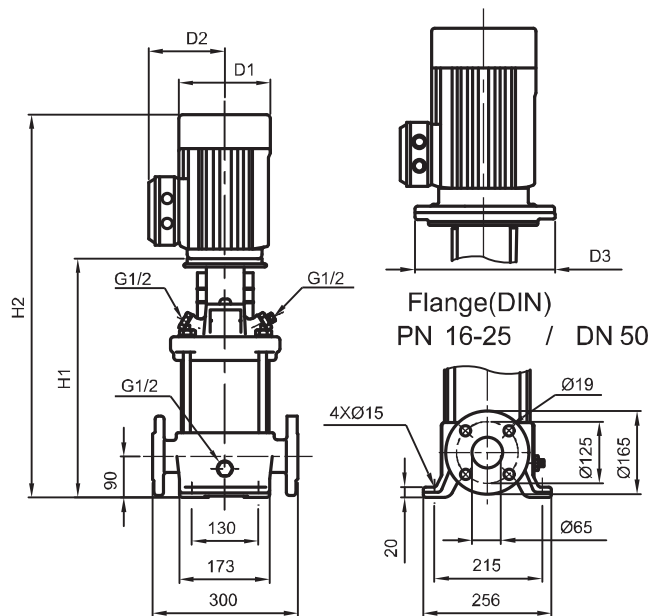
# Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

## Dimensions and weights – SB 15



Pump type	Motor	SB					
		Dimension[mm]					Net weight[kg]
	P <sub>2</sub> [KW]	DIN flange		D1	D2	D3	DIN flange
		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

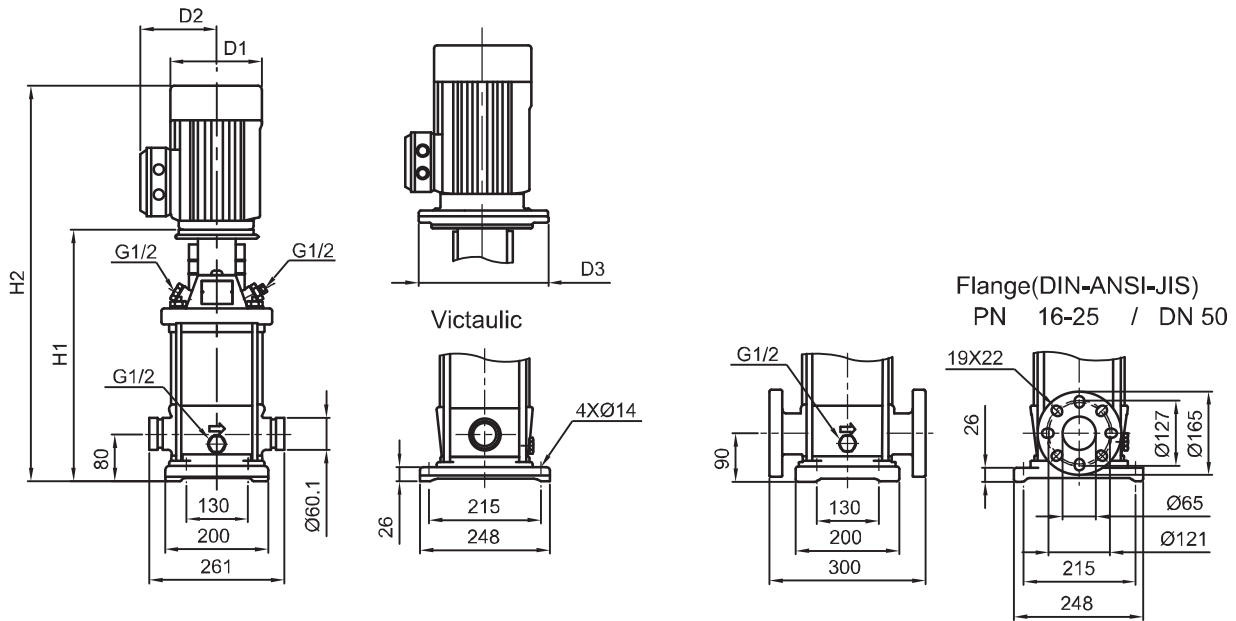
# Technical data

Vertical Multistage Centrifugal In-line Pumps



STAIRS PUMPS

## Dimensions and weights – SBI, SBN 15



Pump type	Motor P <sub>2</sub> [KW]	SBI,SBN								
		Dimension[mm]						Net weight[kg]		
		Vicaltic		DIN flange		D1	D2	D3	Vicaltic	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