

SBN

Dual-channel closed impeller

All product images are indicative only



General characteristics

Dual-channel closed impeller	
motor power	18,5 ÷ 50,0 kW
poles	4 / 6
discharge	DN150 ÷ DN300 horizontal
free passage	90 ÷ 140 mm
max flow rate	378.0 l/s
max head	53.2 m

Electromechanical assembly

Electromechanical assembly in GJL-250 cast iron, for submerged operation. Seal set comprising 2 (two) opposing silicon carbide mechanical seals in inspectable oil sump. Ecological dry motor.

Applications

Designed for heavy-duty professional applications, they are used in civil and industrial wastewater treatment plants. Lifting sewage, pumping industrial sludges and rainwater containing solids, and recycling raw or activated sludges and biological liquids. This series is prefitted for installation of the ZENIT cooling system for dry or semi-submerged installation.

Construction materials

Case	Cast iron EN-GJL 250
Impeller	Cast iron EN-GJL-250
Nuts and bolts	Stainless steel - Class A2-70
Standard gasket	Rubber - NBR
Shaft	Stainless steel - AISI 420
Cooling jacket	Carbon steel or AISI 304 stainless steel
Paint type	Ecological bicomponent epoxy (medium thickness 150 µm)
Set of standard mechanical seals	Two silicon carbide mechanical seals (2SiC)

Operating limits

Maximum operating temperature	40 °C
PH of treated fluid	6 ÷ 14
Viscosity of treated fluid	1 mm ² /s
Maximum immersion depth	20 m
Density of treated fluid	1 Kg/dm ³
Maximum acoustic pressure	70 dB
max starts per hour	20

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Cooling system

Dry installation available using the cooling jacket (see details to page 17)



Cable Gland

Cable gland system to guarantee perfect water-tightness. The universal thread ring-nut can be removed to fix a rigid or flexible duct to the cable gland to protect the power supply cable.



Sensor

Sensor for detecting water in the mechanical seal oil chamber. Connected to an electrical panel, the sensor provides immediate warning of wear on the first mechanical seal, preventing possible damage to the motor.



Mechanical seals

Two mechanical seals in silicon carbide (2SiC) in oil sump.



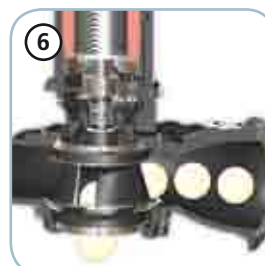
Oil sump

Large oil sump to guarantee longer mechanical seal lifetime.



Drive shaft

Impeller connected to the drive shaft by means of tapered coupling.



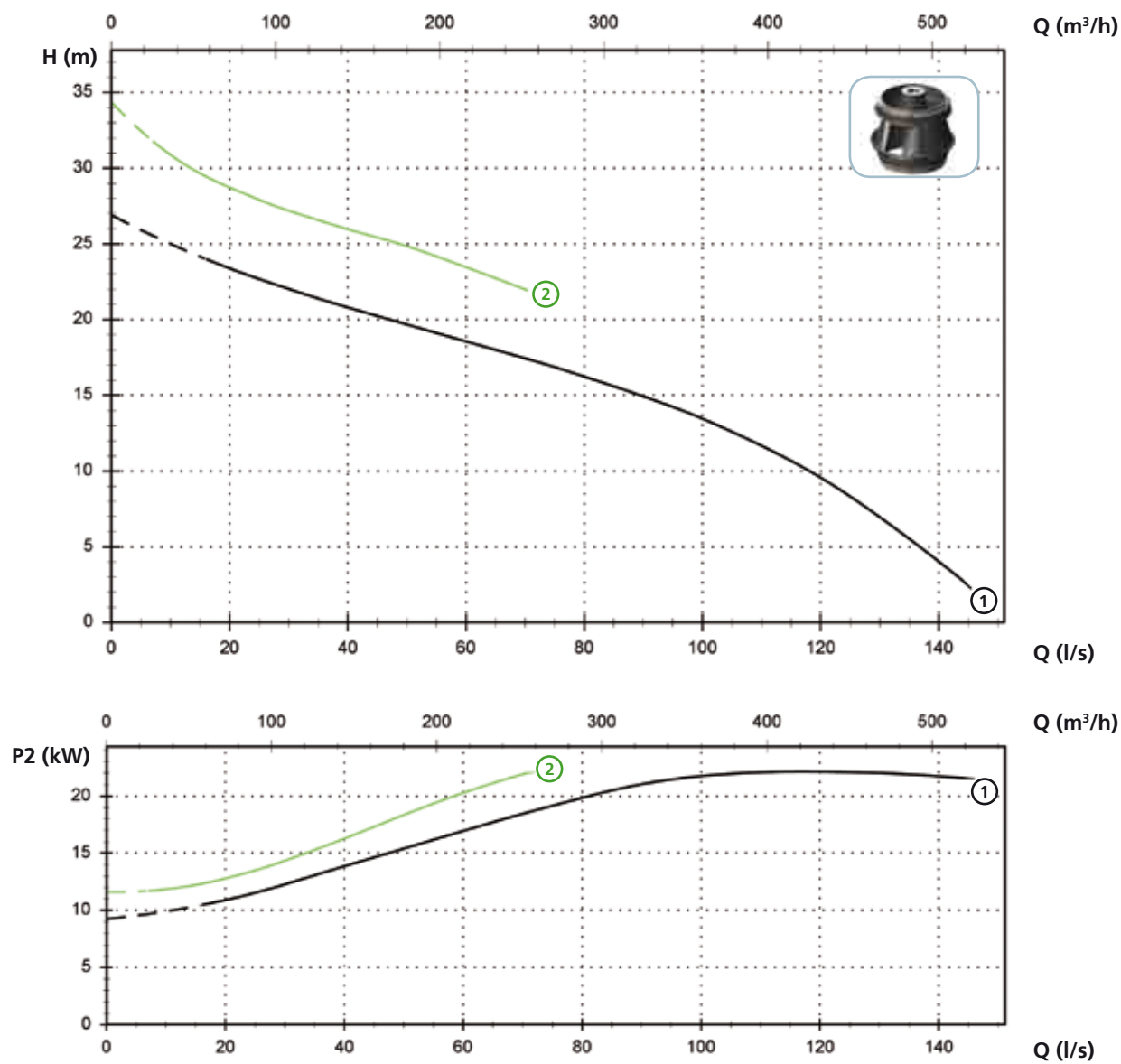
Free passage

Wide free passage allowing the expulsion of solids and preventing fouling of the impeller.

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Models with horizontal DN150 PN10-16 flanged discharge - 4 poles

Performances

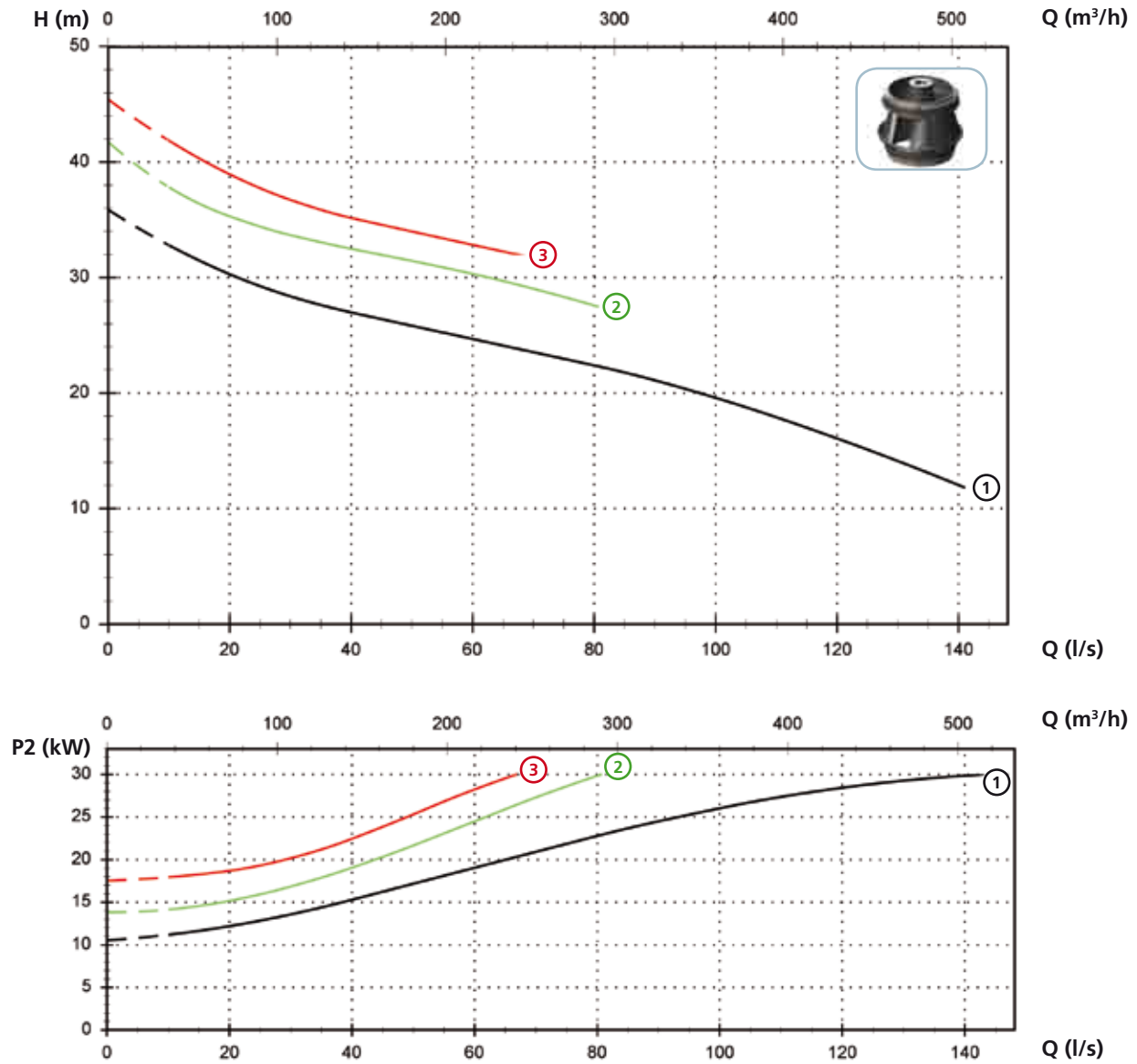


Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 3000/4/150 A1LT/50	400	3	25.3	22	43.5	1450	Y Δ	DN150 PN10-16	90 mm
② SBN 3000/4/150 F1LT/50	400	3	25.3	22	43.5	1450	Y Δ	DN150 PN10-16	90 mm

Models with horizontal DN150 PN10-16 flanged discharge - 4 poles

Performances



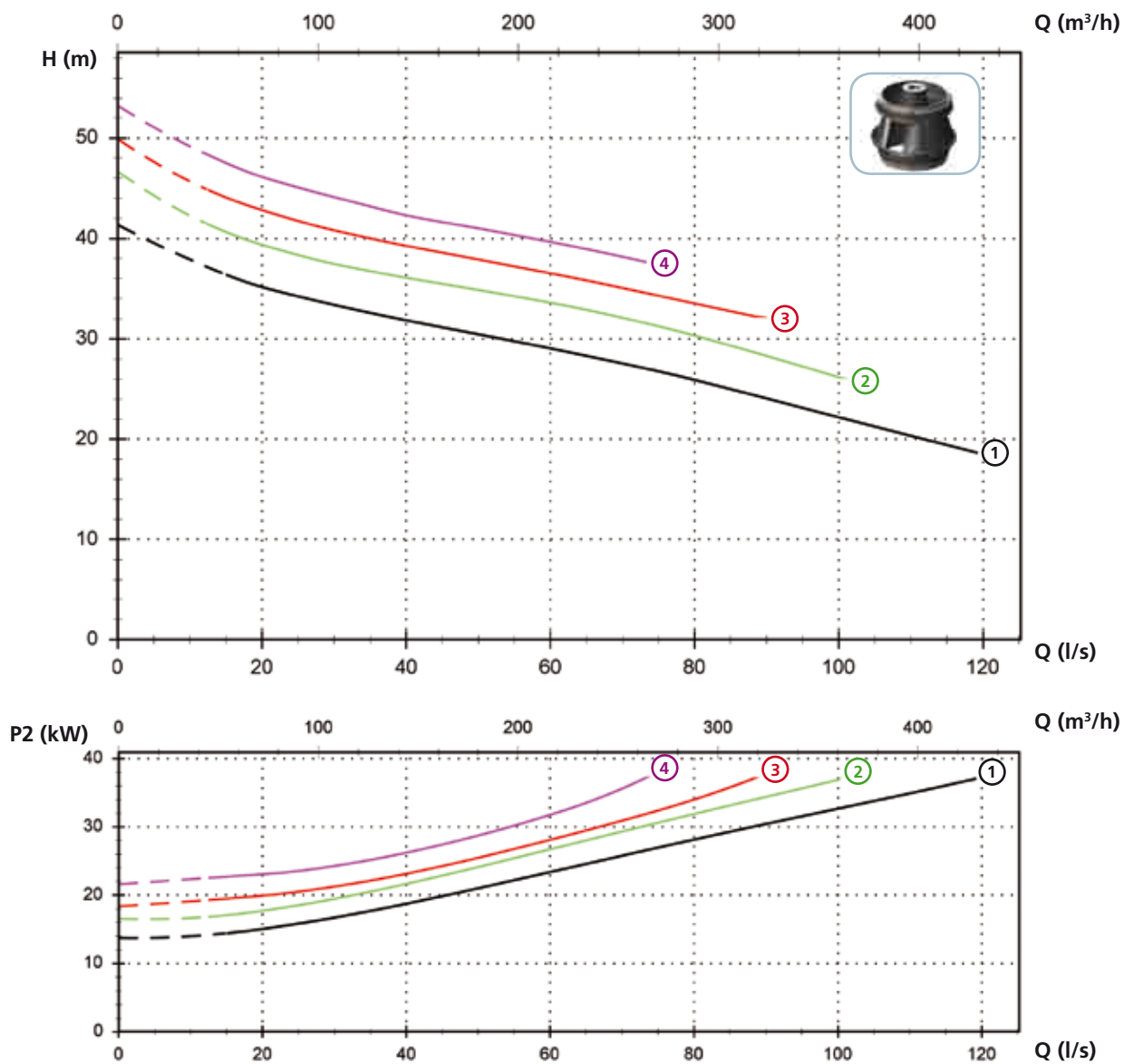
Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 4000/4/150 A1LT/50	400	3	35.9	30	61	1450	Y Δ	DN150 PN10-16	90 mm
② SBN 4000/4/150 F1LT/50	400	3	35.9	30	61	1450	Y Δ	DN150 PN10-16	90 mm
③ SBN 4000/4/150 G1LT/50	400	3	35.9	30	61	1450	Y Δ	DN150 PN10-16	90 mm

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Models with horizontal DN150 PN10-16 flanged discharge - 4 poles

Performances

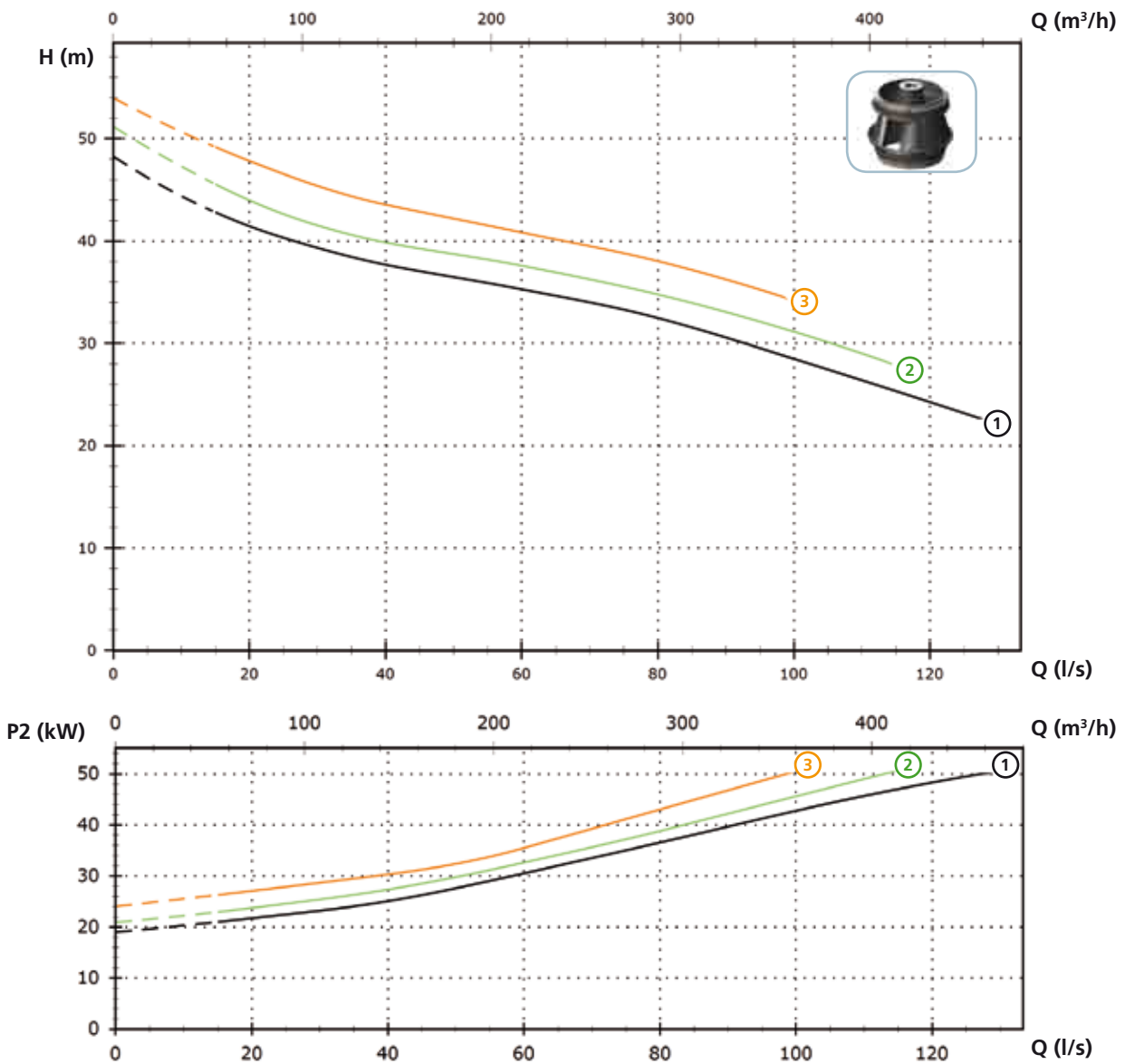


Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 5000/4/150 A1LT/50	400	3	45.8	37	76	1450	Y Δ	DN150 PN10-16	90 mm
② SBN 5000/4/150 F1LT/50	400	3	45.8	37	76	1450	Y Δ	DN150 PN10-16	90 mm
③ SBN 5000/4/150 G1LT/50	400	3	45.8	37	76	1450	Y Δ	DN150 PN10-16	90 mm
④ SBN 5000/4/150 H1LT/50	400	3	45.8	37	76	1450	Y Δ	DN150 PN10-16	90 mm

Models with horizontal DN150 PN10-16 flanged discharge - 4 poles

Performances



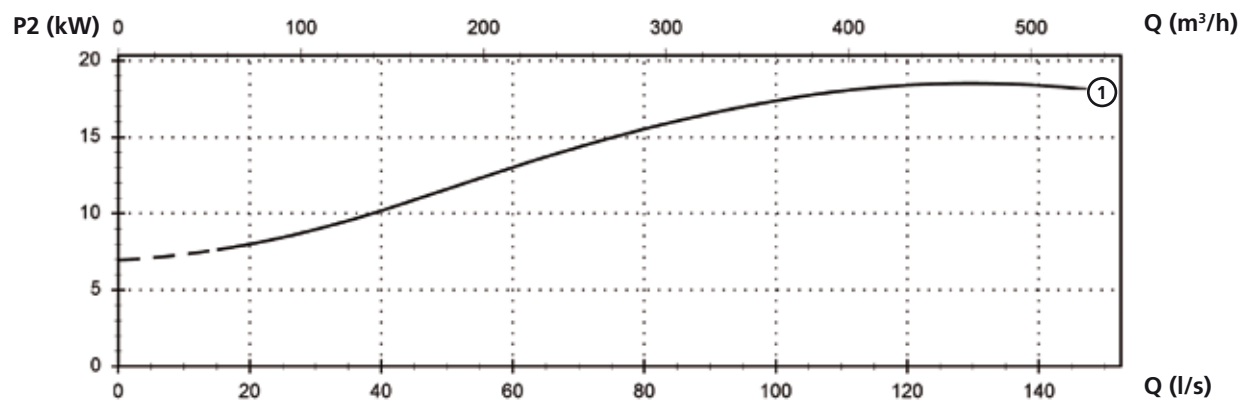
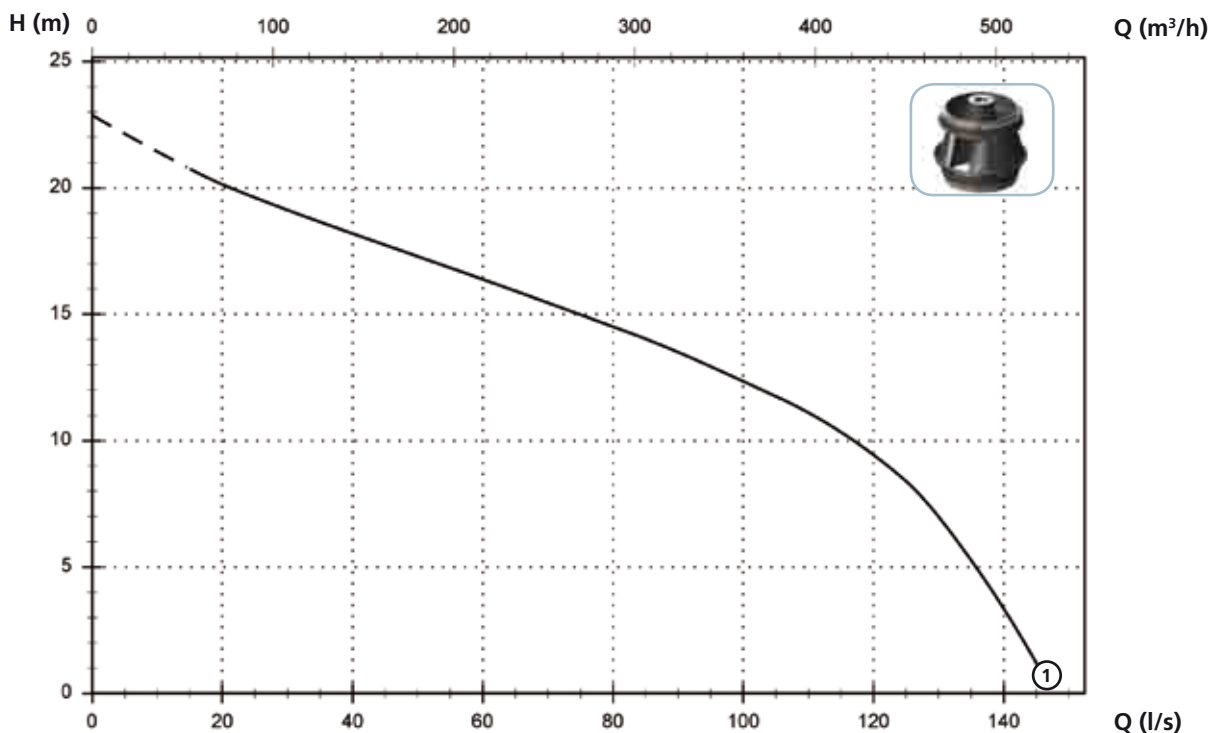
Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 6500/4/150 A0MT/50	400	3	54.8	50	90	1450	Y Δ	DN150 PN10-16	90 mm
② SBN 6500/4/150 F0MT/50	400	3	54.8	50	90	1450	Y Δ	DN150 PN10-16	90 mm
③ SBN 6500/4/150 G0MT/50	400	3	54.8	50	90	1450	Y Δ	DN150 PN10-16	90 mm

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Models with horizontal DN150 PN10-16 flanged discharge - 6 poles

Performances

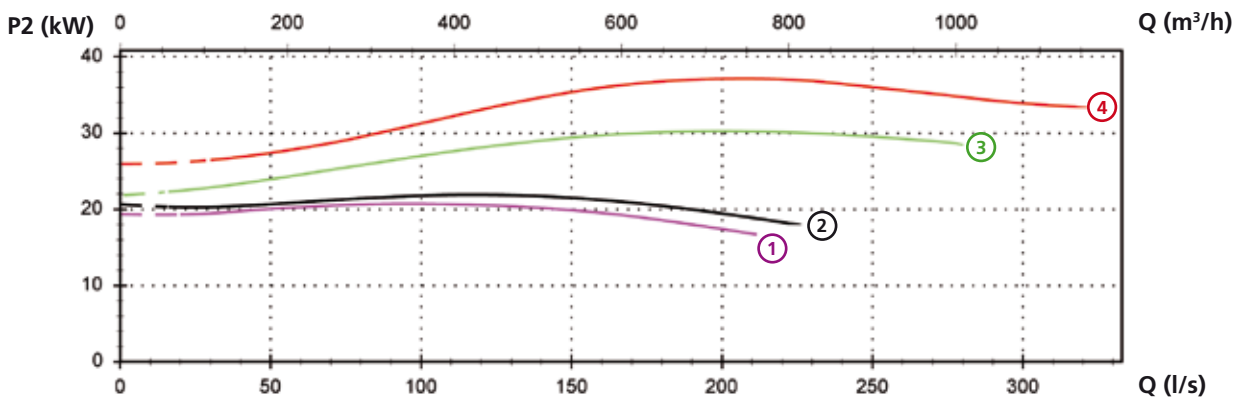
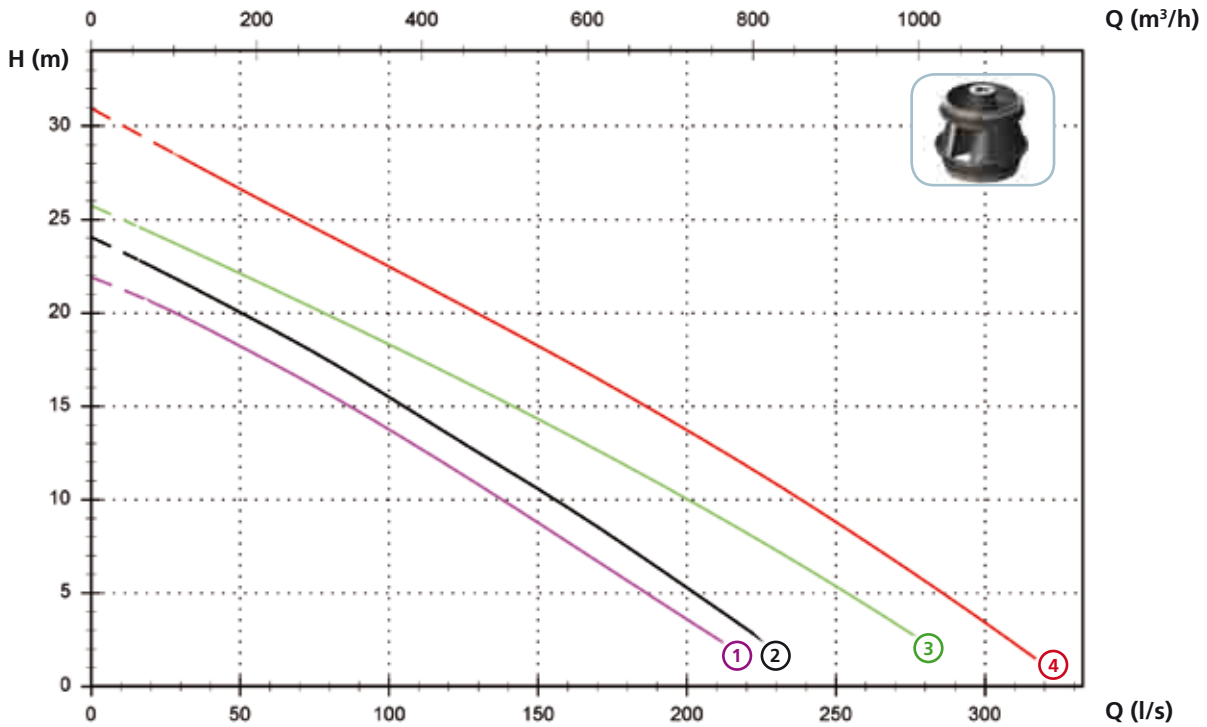


Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 2500/6/150 A1LT/50	400	3	23.0	18.5	40	960	Y Δ	DN150 PN10-16	90 mm

Models with horizontal DN200 PN10 flanged discharge - 4 poles

Performances



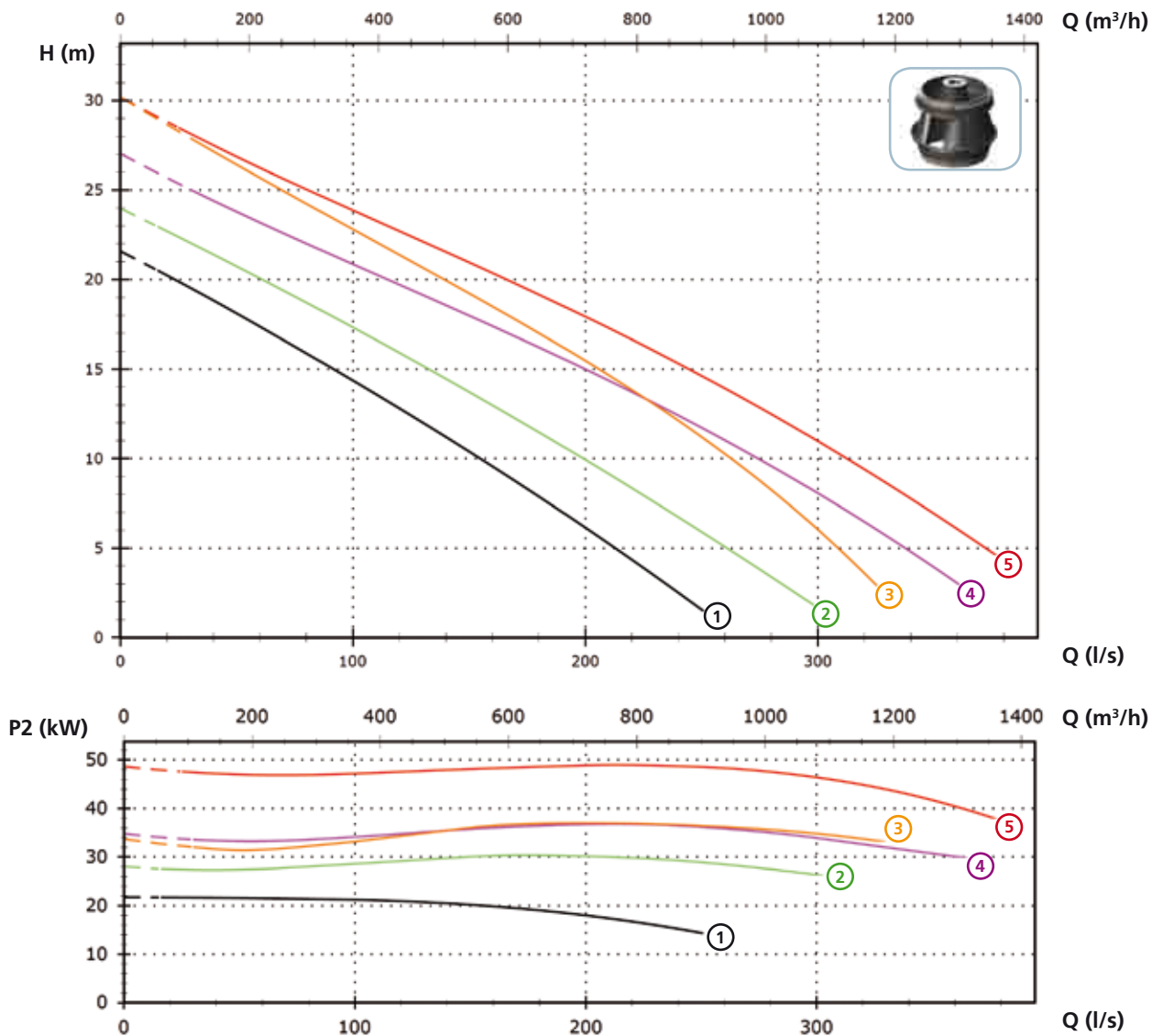
Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 3000/4/200 B1LT/50	400	3	23.8	22	41	1450	Y Δ	DN200 PN10	105x140 mm
② SBN 3000/4/200 A1LT/50	400	3	25.3	22	43.5	1450	Y Δ	DN200 PN10	105x140 mm
③ SBN 4000/4/200 A1LT/50	400	3	35.9	30	61	1450	Y Δ	DN200 PN10	105x140 mm
④ SBN 5000/4/200 A1LT/50	400	3	45.8	37	76	1450	Y Δ	DN200 PN10	105x140 mm

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Models with horizontal DN250 PN10 flanged discharge - 4 poles

Performances

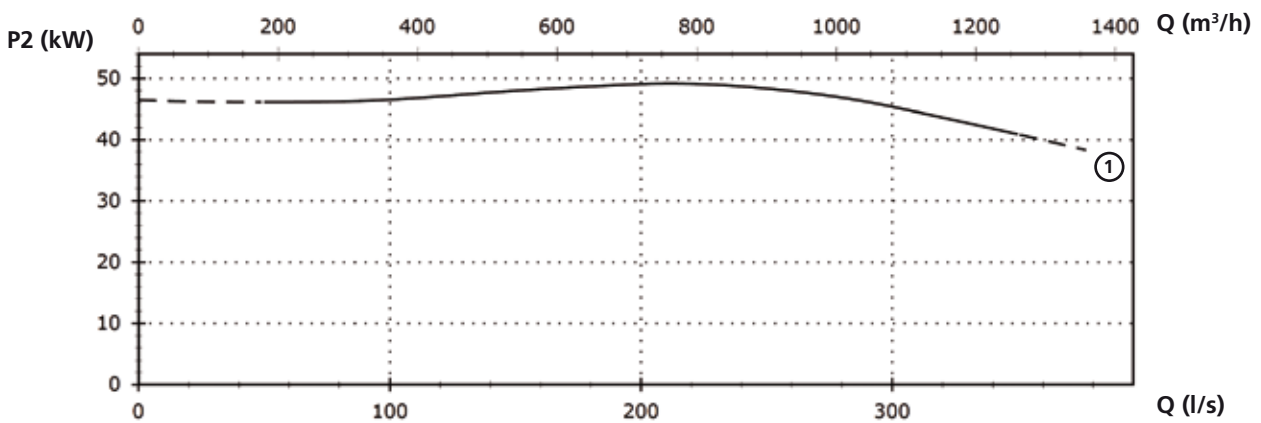
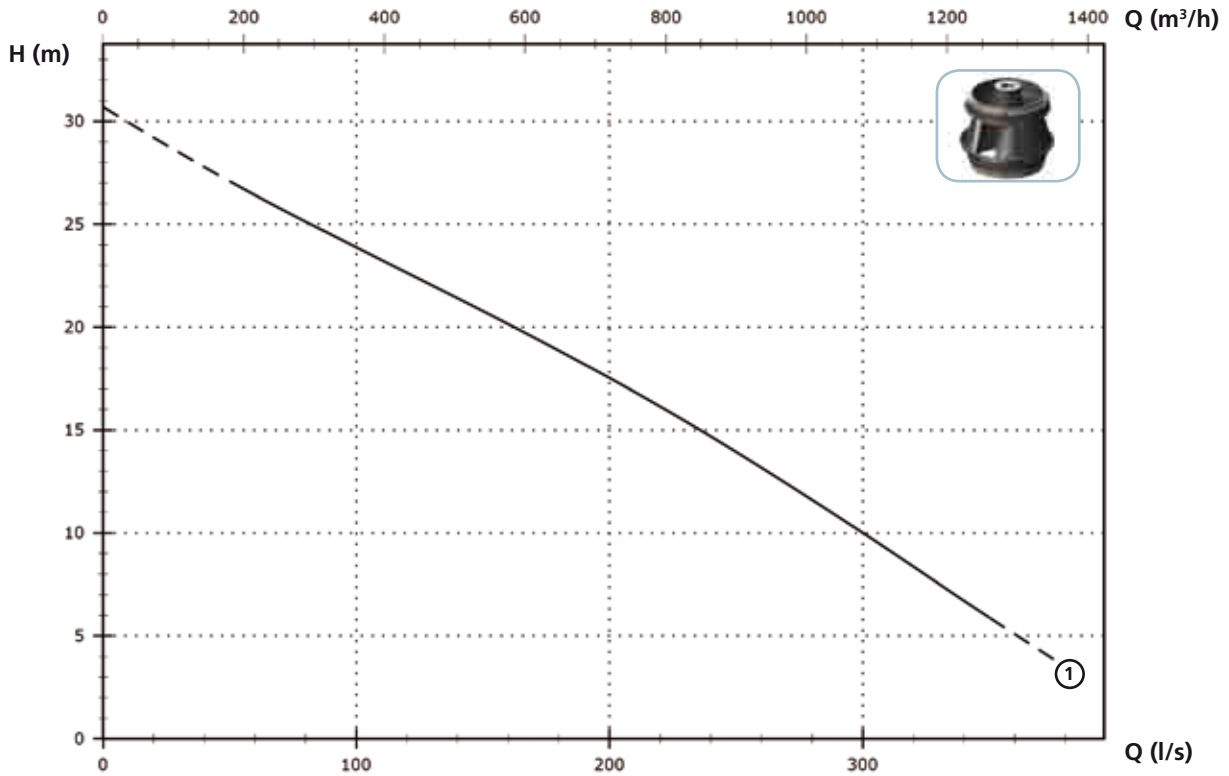


Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 3000/4/250 A1LT/50	400	3	25.3	22	43.5	1450	Y Δ	DN250 PN10	105x140 mm
② SBN 4000/4/250 A1LT/50	400	3	35.9	30	61	1450	Y Δ	DN250 PN10	105x140 mm
③ SBN 5000/4/250 A1LT/50	400	3	45.8	37	76	1450	Y Δ	DN250 PN10	105x140 mm
④ SBN 5000/4/250 B1LT/50	400	3	45.8	37	76	1450	Y Δ	DN250 PN10	135 mm
⑤ SBN 6500/4/250 A1MT/50	400	3	54.8	50	90	1450	Y Δ	DN250 PN10	110 mm

Models with horizontal DN300 PN10 flanged discharge - 4 poles

Performances



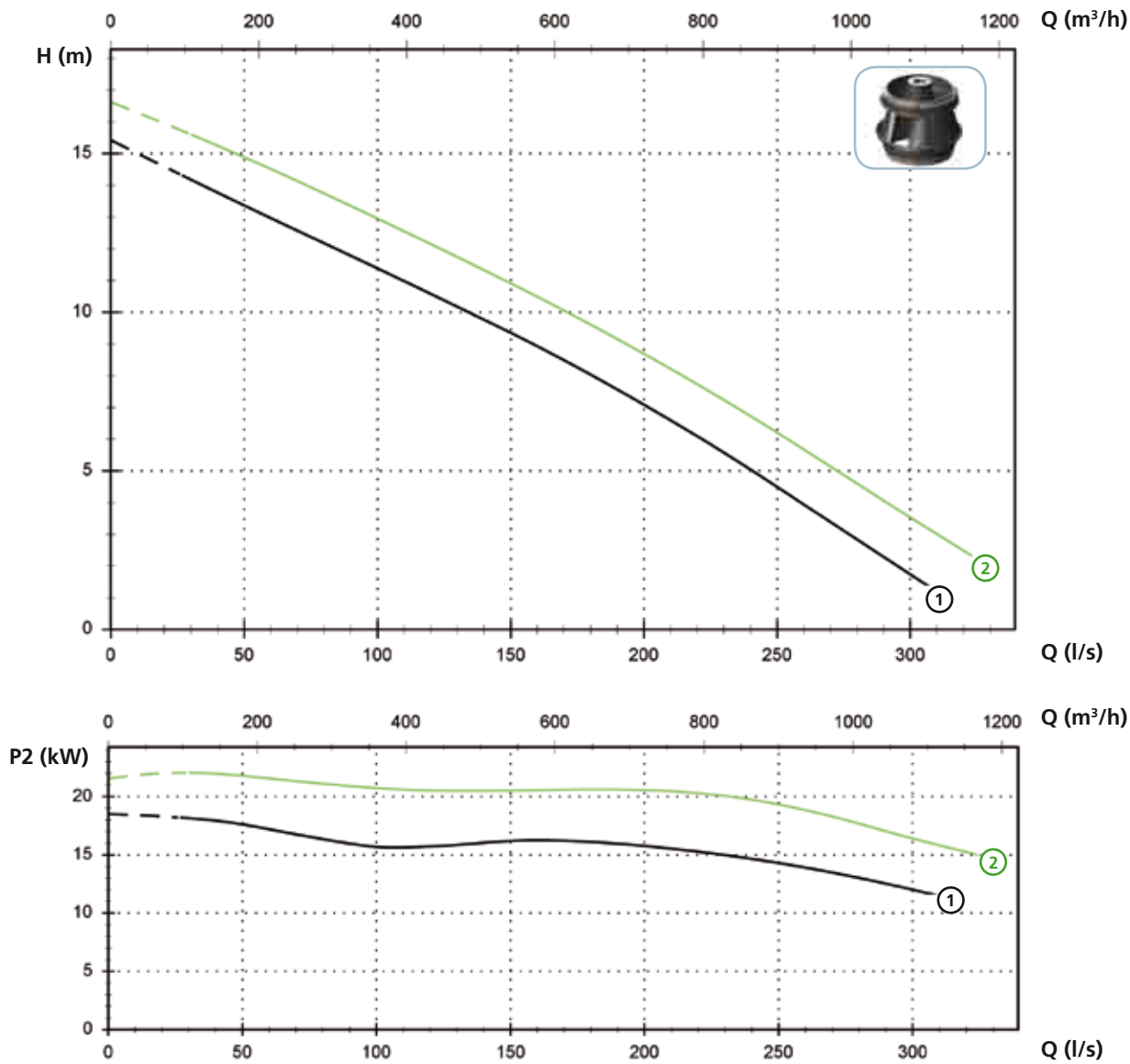
Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 6500/4/300 A0MT/50	400	3	54.8	50	90	1450	Y Δ	DN300 PN10	110 mm

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Models with horizontal DN250 PN10 flanged discharge - 6 poles

Performances

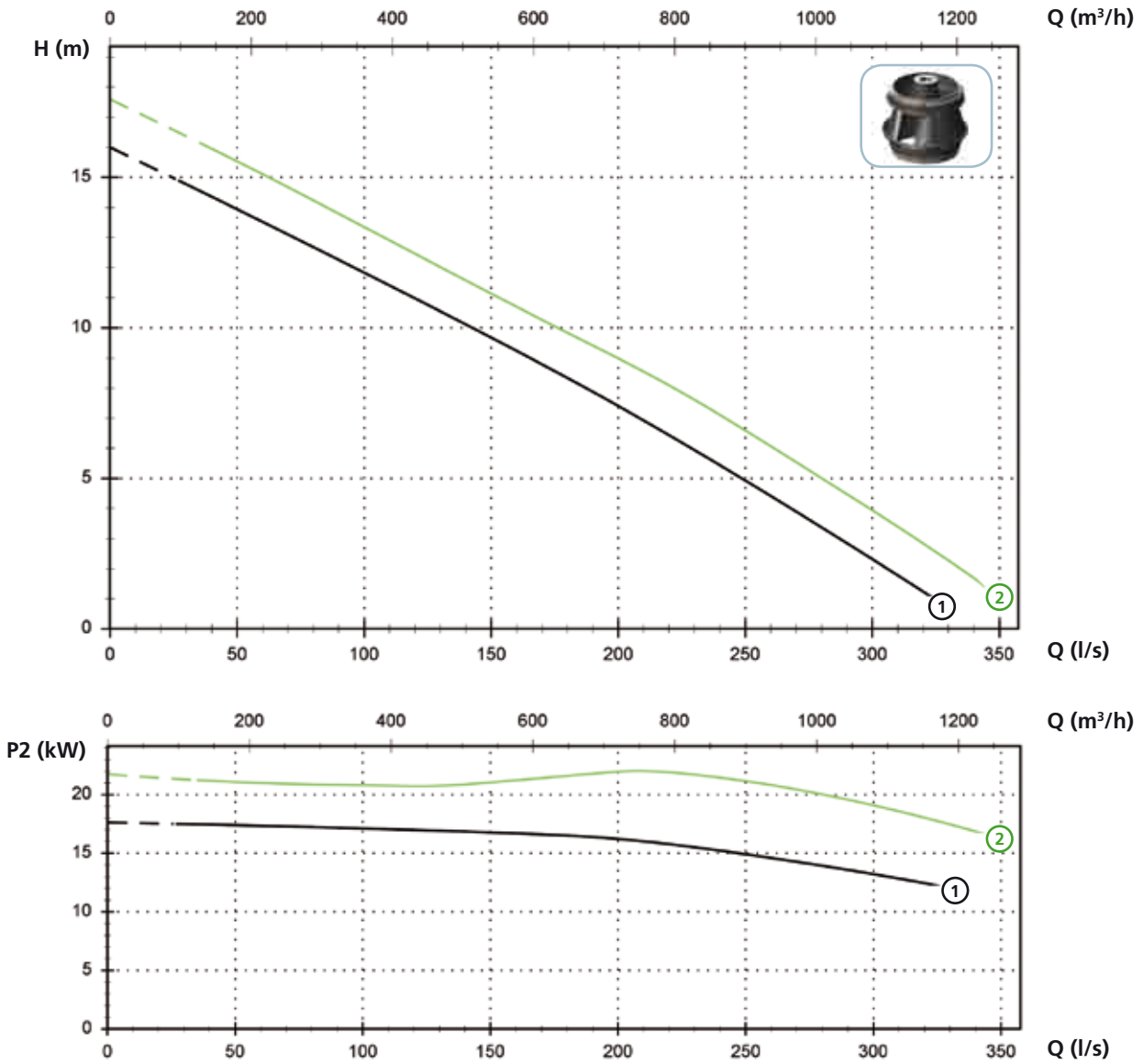


Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 2500/6/250 A2LT/50	400	3	23.0	18.5	40	960	Y Δ	DN250 PN10	130 mm
② SBN 3000/6/250 A2LT/50	400	3	26.1	22	46	960	Y Δ	DN250 PN10	130 mm

Models with horizontal DN300 PN10 flanged discharge - 6 poles

Performances



Technical data

	V	Phases	P1 (kW)	P2 (kW)	A	Rpm	Start	Ø	Free passage
① SBN 2500/6/300 A1LT/50	400	3	23.0	18.5	40	960	Y Δ	DN300 PN10	130 mm
② SBN 3000/6/300 A1LT/50	400	3	26.1	22	46	960	Y Δ	DN300 PN10	130 mm

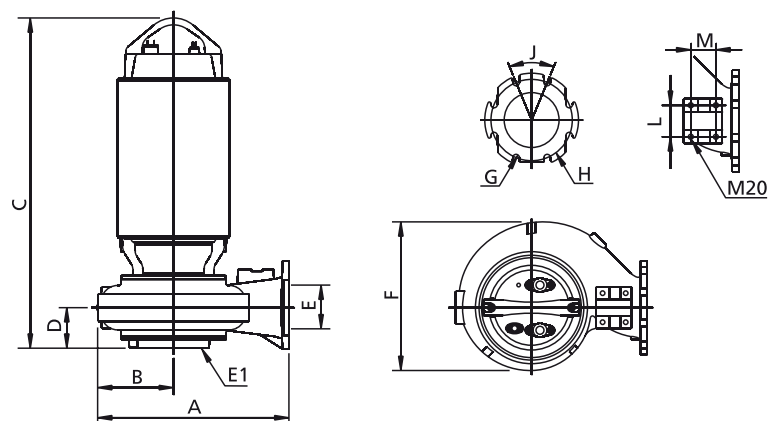
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Versions available

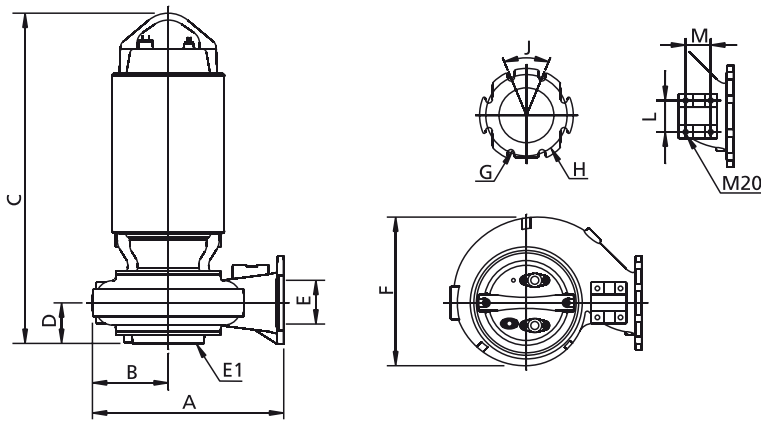
(Key to versions on page 16)

	Electrical variants											Cooling				Mechanical seals			
	N A E	T	T C D	T C D	T C D	T C D	T C G	T C S T	T C S G T	T S	T R	T R G	N	CC CCE	FT	C G F T	2SIC	SICM	SICAL
SBN 3000/4/150 A(F)1LT/50												●	●			●			
SBN 4000/4/150 A(F)(G)1LT/50												●	●			●			
SBN 5000/4/150 A(F)(G)(H)1LT/50												●	●			●			
SBN 6500/4/150 A(F)(G)0MT/50												●				●			
SBN 2500/6/150 A1LT/50												●	●			●			
SBN 3000/4/200 A(B)1LT/50												●	●			●			
SBN 4000/4/200 A1LT/50												●	●			●			
SBN 5000/4/200 A1LT/50												●	●			●			
SBN 3000/4/250 A1LT/50												●	●			●			
SBN 4000/4/250 A1LT/50												●	●			●			
SBN 5000/4/250 A(B)1LT/50												●	●			●			
SBN 6500/4/250 A1MT/50												●				●			
SBN 2500/6/250 A2LT/50												●	●			●			
SBN 3000/6/250 A2LT/50												●	●			●			
SBN 6500/4/300 A0MT/50												●				●			
SBN 2500/6/300 A1LT/50												●	●			●			
SBN 3000/6/300 A1LT/50												●	●			●			

Overall dimensions and weights



	A	B	C	D	E	E1 (*)	F	G	H	J	L	M	kg
SBN 3000/4/150 A(F)1LT/50	695	265	1155	130	150	150-200	520	24	240	45°	109	79	385
SBN 4000/4/150 A(F)(G)1LT/50	695	265	1155	130	150	150-200	520	24	240	45°	109	79	410
SBN 5000/4/150 A(F)(G)(H)1LT/50	695	265	1155	130	150	150-200	520	24	240	45°	109	79	423
SBN 6500/4/150 A(F)(G)0MT/50	695	265	1215	130	150	150	520	24	240	45°	109	79	476
SBN 2500/6/150 A1LT/50	695	265	1155	130	150	150-200	520	24	240	45°	109	79	410
SBN 3000/4/200 A(B)1LT/50	695	275	1205	150	200	200	540	24	295	45°	109	79	385
SBN 4000/4/200 A1LT/50	695	275	1205	155	200	200	540	24	295	45°	109	79	410
SBN 5000/4/200 A1LT/50	695	275	1205	150	200	200	540	24	295	45°	109	79	423
SBN 3000/4/250 A1LT/50	785	310	1200	150	250	250	610	24	350	30°	109	79	393
SBN 4000/4/250 A1LT/50	785	310	1205	155	250	200	610	24	350	30°	109	79	418
SBN 5000/4/250 A(B)1LT/50	785	310	1205	155	250	200	610	24	350	30°	109	79	431
SBN 6500/4/250 A1MT/50	880	370	1250	185	250	250	735	24	350	30°	109	79	525



	A	B	C	D	E	E1 (*)	F	G	H	J	L	M	kg
SBN 2500/6/250 A2LT/50	880	370	1275	195	250	300	735	24	350	30°	109	79	470
SBN 3000/6/250 A2LT/50	880	370	1275	195	250	300	735	24	350	30°	109	79	480
SBN 6500/4/300 A0MT/50	945	405	1320	190	300	250	790	22	400	30°	109	79	548
SBN 2500/6/300 A1LT/50	940	400	1275	200	300	300	790	24	400	30°	109	79	520
SBN 3000/6/300 A1LT/50	940	400	1275	200	300	300	790	24	400	30°	109	79	540

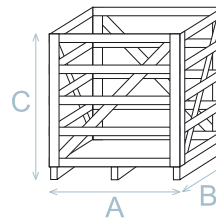
Dimensions in mm

All weights and dimensions are indicative only

(*) DN of the suction flange - PN6

Packaging dimension

	A	B	C
SBN 3000/4/150 A(F)1LT/50	1080	1245	1135
SBN 4000/4/150 A(F)(G)1LT/50	1080	1245	1135
SBN 5000/4/150 A(F)(G)(H)1LT/50	1080	1245	1135
SBN 6500/4/150 A(F)(G)0MT/50	1080	1245	1135
SBN 2500/6/150 A1LT/50	1080	1245	1135
SBN 3000/4/200 A(B)1LT/50	1080	1245	1135
SBN 4000/4/200 A1LT/50	1080	1245	1135
SBN 5000/4/200 A1LT/50	1080	1245	1135
SBN 3000/4/250 A1LT/50	1080	1245	1135
SBN 4000/4/250 A1LT/50	1080	1245	1135
SBN 5000/4/250 A(B)1LT/50	1080	1245	1135
SBN 6500/4/250 A1MT/50	1080	1245	1135
SBN 2500/6/250 A2LT/50	1080	1245	1135
SBN 3000/6/250 A2LT/50	1080	1245	1135
SBN 6500/4/300 A0MT/50	1080	1245	1135
SBN 2500/6/300 A1LT/50	1080	1245	1135
SBN 3000/6/300 A1LT/50	1080	1245	1135



Dimension in mm

All weights and dimensions are indicative only

Installations available

