



SYSTEMFLO

SCB-C 2, 4, 8, 12 SERIES

SCB-S 2, 4 SERIES

SHB-S, SHB-N 2, 4, 8, 12 SERIES

Catalog

HORIZONTAL MULTISTAGE CENTRIFUGAL PUMPS

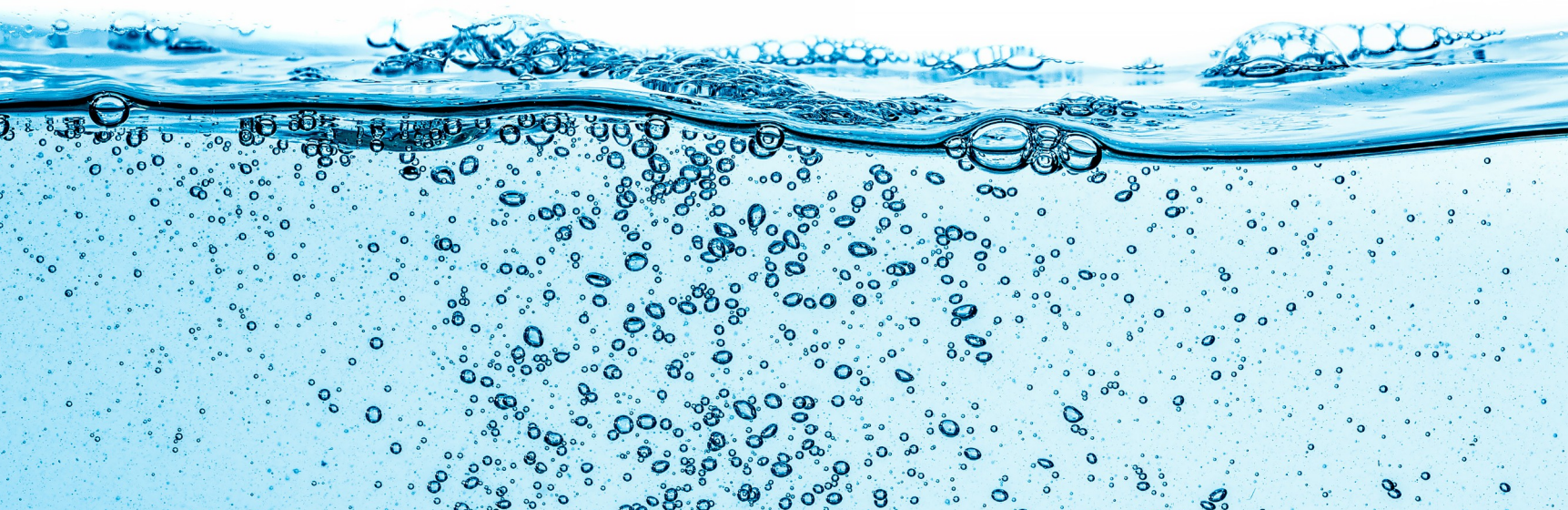


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General data

Applications

- *Domestic
- *Liquid transfer and circulation of liquids within light industry and farming
- *Pressure boosting
- *Air-conditioning systems
- *Cooling systems or cooling machine
- *Specialized OEM equipment

Pump

The SCB-C and SCB-S series are non-self priming, horizontal multistage centrifugal pumps. Pump is coupled with motor at the same shaft and mounted on a base-plate. The friendly design makes the pump suitable for installation in the small domestic or industrial water supply systems. The pump is fitted with a mechanical seal and through-going pump-motor shaft.

SCB-C: The discharge and suction chamber are made of cast iron. The other parts of pump in contact with the liquid are made of stainless steel. EPDM or Viton O-rings are available as standard.

SCB-S: All parts of pump in contact with the liquid are made of stainless steel. EPDM or Viton O-rings are available as standard.

Pipe connections:

Connections	SCB-C 2 SCB-S 2	SCB-C 4 SCB-S 4	SCB-C 8	SCB-C 12
Suction port	Rp or NPT 1	Rp or NPT 1 1/4	Rp or NPT 1 1/2	Rp or NPT 1 1/2
Discharge port	Rp or NPT 1	Rp or NPT 1	Rp or NPT 1 1/4	Rp or NPT 1 1/2
Drain hole, priming hole	Rc 3/8	Rc 3/8	Rp 1/2	Rp 1/2

Motor

The pump is fitted with a totally enclosed, fan-cooled, squirrel-cage motor. Single-phase motors have built-in thermal overload protection.
 Rated speed: 2850rpm(50Hz), 3450rpm(60Hz)
 Enclosure class: IP 55
 Insulation class: F

Standard voltages:

	Phase	Voltages
60Hz	1Ø	110 / 220V
		220-240V
	3Ø	220-277V / 380-480V

Operating Conditions

Liquid temperature range: 0°C~+90°C
 Maximum ambient temperature: +40°C
 Maximum operating pressure: 10 kg/cm².
 Maximum inlet pressure is limited by maximum operating pressure.



General data

Model Code

Type range	Nominal flow rate [m3/h]	Number of stages x 10	Mechanical Seals
SCB-C(S) 2~30	2	30	CQBE
SCB-C(S) 4~30	4		
Type range	Nominal flow rate [m3/h]	Number of stages x 10	Mechanical Seals
SCB-C 8~30	8	30	CQBE
SCB-C 12~30	12		

Operating Conditions

Liquid: SCB-C : Thin, clean, non-aggressive and non-explosive liquids without solid particles or fibres.

SCB-S : Thin, clean, slightly aggressive and non-explosive liquids without solid particles or fibres.

Liquid temperature range: 0°C ~ +90°C.

Maximum ambient temperature: +50°C.

The maximum operating pressure depends on the temperature of the pumped liquid, see table:

Max. operating pressure	10 kg/cm2 / bar	6 kg/cm2 / bar
SCB-C(S)2, 4	0°C to +40°C	+41°C to +90°C
SCB-C 8,12	0°C to +55°C	+56°C to +90°C

Min. inlet pressure: According to the NPSH curve + a safety margin of 0.5m.

Max. inlet pressure: Limited by the max. operating pressure.

Mechanical seals

List of Materials	
Q : Silicon carbide	E:EPDM
U:Tungsten carbide	V:Viton
B:Carbon	C:Seal Type
H:Seal Type	

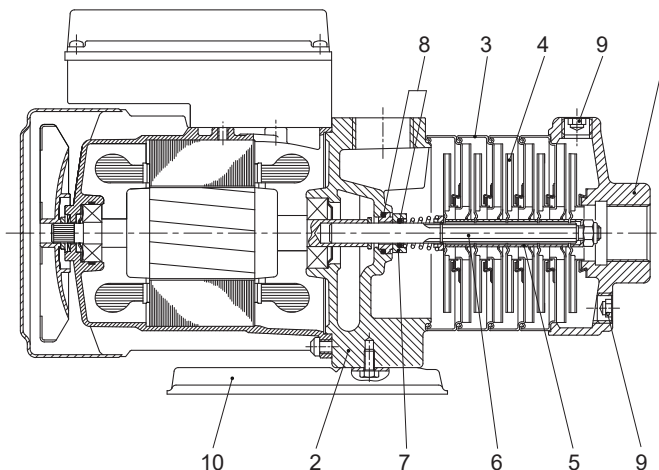
Mechanical Seals	SCB-C(S) 2,4	SCB-C(S) 8,12
CQB	•	•
CQQ	Optional	Optional
HUU	Optional	Optional
O-rings		
E	•	•
V	Optional	Optional

2/2 Standard

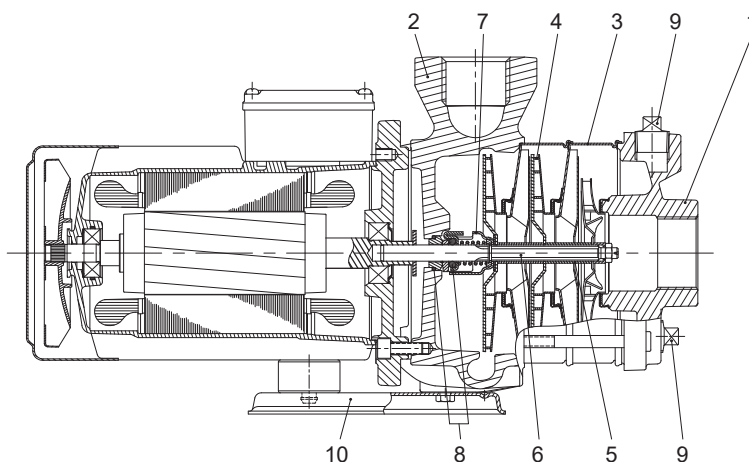
Material

Material construction

SCB-C(S) 2,4



SCB-C 8,12

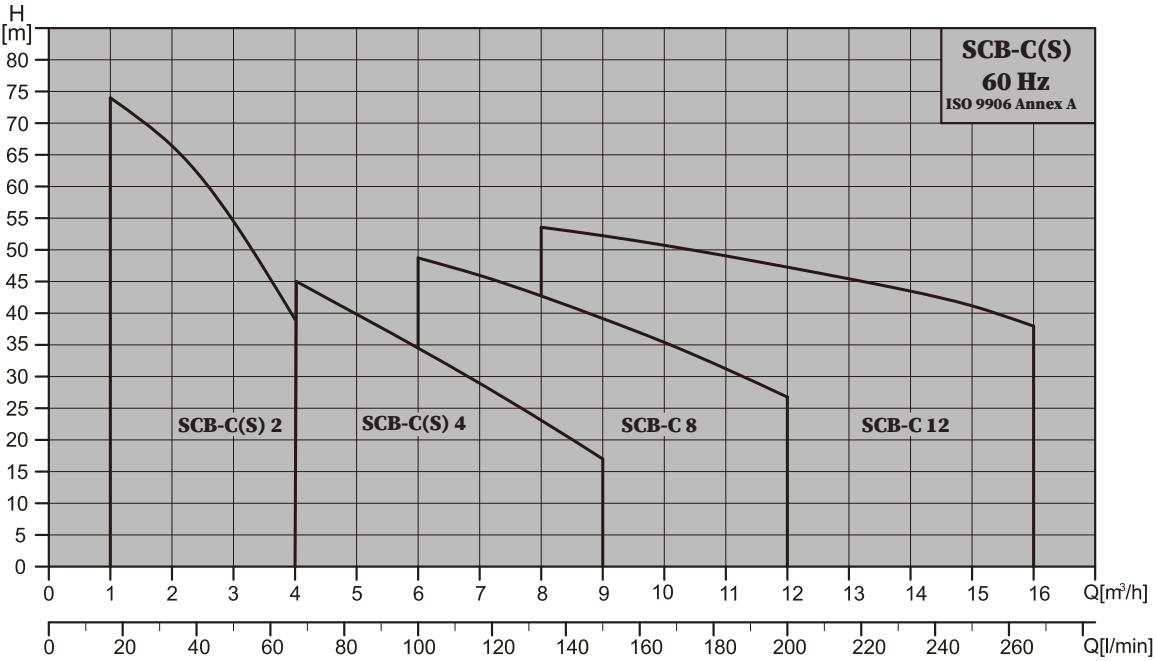


Materials

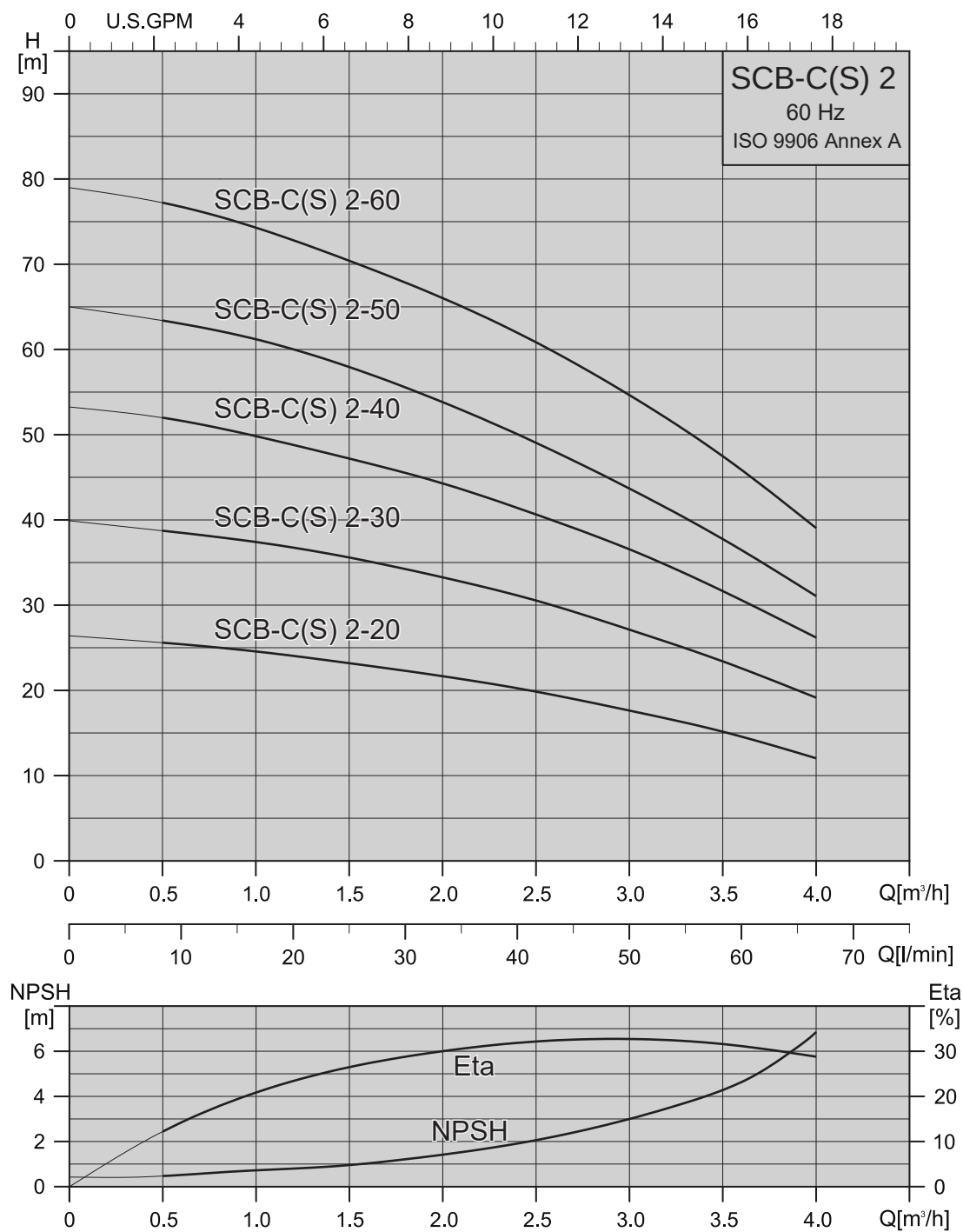
Pos.	Description	Materials	
		SCB-C	SCB-S
1	Suction chamber	Cast iron	SS304
2	Pump head	Cast iron	SS304
3	Intermediate chamber	SS304	SS304
4	Impeller	SS304	SS304
5	Spacing pipe	SS304	SS304
6	Shaft	SS431	SS431
7	Mechanical seal	Silicon carbide / Carbon	Silicon carbide / Carbon
8	O-ring	EPDM	EPDM
9	Drain and priming plug	Steel	SS304
10	Base plate	Steel	SS304

Performance Range

Performance range 60Hz



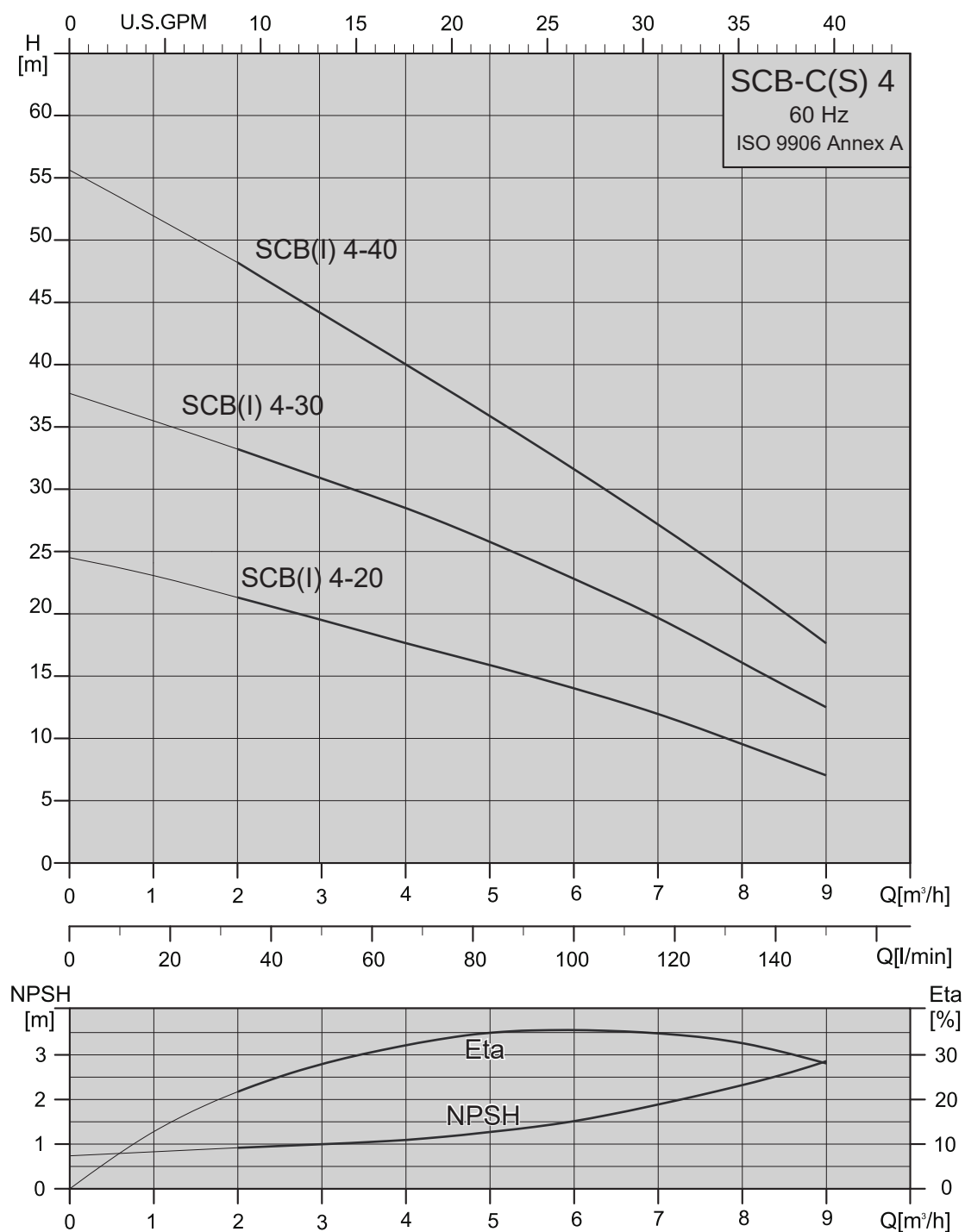
Performance Curves SCB 2



Electrical data, 3450 rpm

Pump type	1Ø 110-220V			3Ø Δ 220-277V / Y 380-480V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SCB-C(S) 2-20	6.3 / 3.2	570	460	1.8-1.9 / 1.0-1.1	525	385
SCB-C(S) 2-30	7.9 / 4.1	780	630	2.3-2.2 / 1.3-1.2	730	535
SCB-C(S) 2-40	8.8 / 4.4	870	710	2.9-3.0 / 1.6-1.7	940	725
SCB-C(S) 2-50	11.7 / 5.9	1190	995	3.6-3.8 / 2.1-2.2	1140	880
SCB-C(S) 2-60	13.7 / 6.9	1410	1180	4.1-4.0 / 2.4-2.3	1325	1020

Performance Curves SCB 4



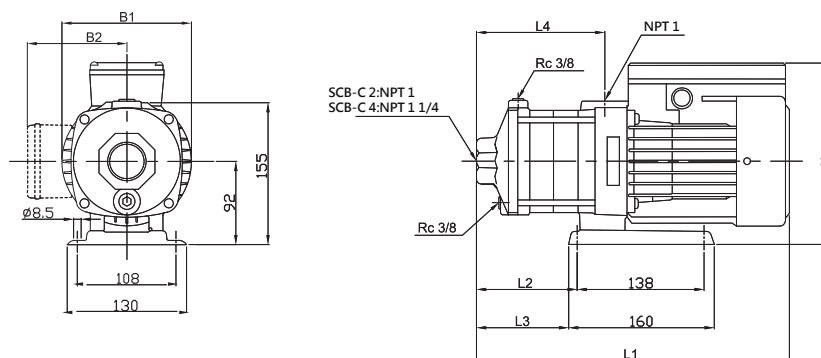
Electrical data, 3450 rpm

Pump type	1 Ø 110-220V			3 Ø Δ 220-277V / Y 380-480V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SCB-C(S) 4-20	9.5 / 4.7	950	770	2.7-2.9 / 1.6-1.7	910	700
SCB-C(S) 4-30	12.5 / 6.2	1310	1100	3.8-3.9 / 2.2-2.3	1245	960
SCB-C(S) 4-40	- / 8.3	1700	1360	5.1-5.6 / 2.9-3.2	1625	1365

Dimensions and Weights SCB 2, 4

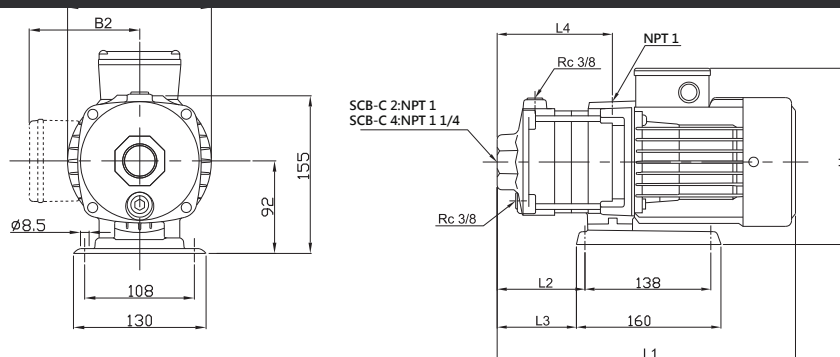
Performance range 60Hz

SCB-C 2 SCB-C 4



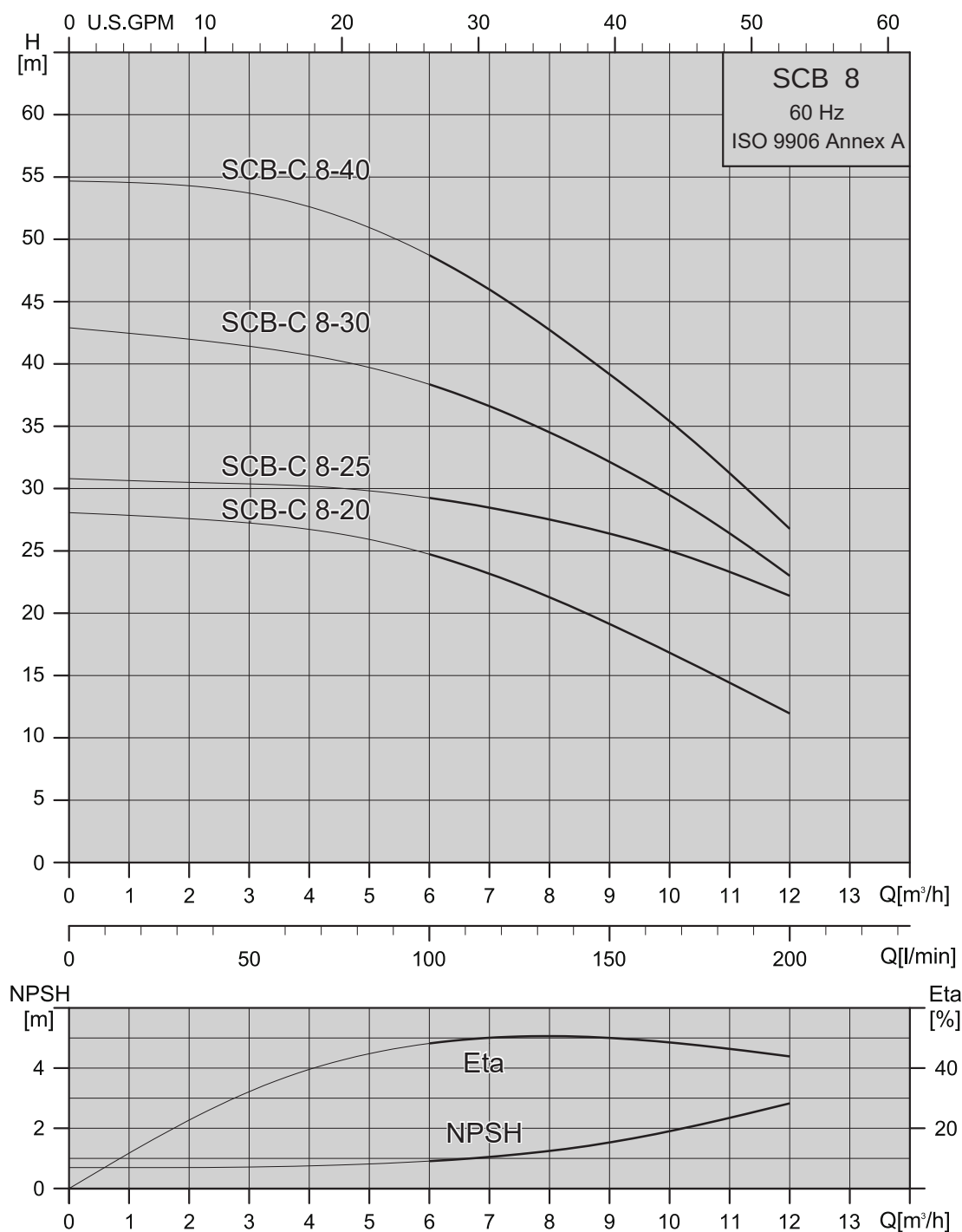
PUMP TYPE	Dimensions [mm]								Net Weight [kg]		
	L1	L2	L3	L4	B1	B2		H			
						1Ø	3Ø	1Ø	3Ø	1Ø	3Ø
SCB-C 2-20	309	75	63	101	141	136	115	228	207	10.3	10.4
SCB-C 2-30	327	93	81	119	141	136	115	228	207	11.1	10.7
SCB-C 2-40	345	111	99	137	141	136	115	228	207	11.3	11.2
SCB-C 2-50	403	129	117	155	141	136	115	228	207	13	13.4
SCB-C 2-60	421	147	135	173	141	136	115	228	207	13.2	13.9
SCB-C 4-20	318	84	72	110	141	136	115	228	207	12.2	10.7
SCB-C 4-30	384	111	99	137	141	136	115	228	207	12.7	13.3
SCB-C 4-40	432	138	126	164	141	136	115	228	207	14	15.1

SCB-S 2 SCB-S 4



PUMP TYPE	Dimensions [mm]								Net Weight [kg]		
	L1	L2	L3	L4	B1	B2		H			
						1Ø	3Ø	1Ø	3Ø	1Ø	3Ø
SCB-S 2-20	309	75	63	101	141	136	115	228	207	9.1	9.3
SCB-S 2-30	327	93	81	119	141	136	115	228	207	10.0	9.6
SCB-S 2-40	345	111	99	137	141	136	115	228	207	10.2	10.1
SCB-S 2-50	403	129	117	155	141	136	115	228	207	11.8	12.3
SCB-S 2-60	421	147	135	173	141	136	115	228	207	12.1	12.8
SCB-S 4-20	318	84	72	110	141	136	115	228	207	9.8	9.6
SCB-S 4-30	384	111	99	137	141	136	115	228	207	11.5	12.2
SCB-S 4-40	432	138	126	164	141	136	115	228	207	12.8	14.0

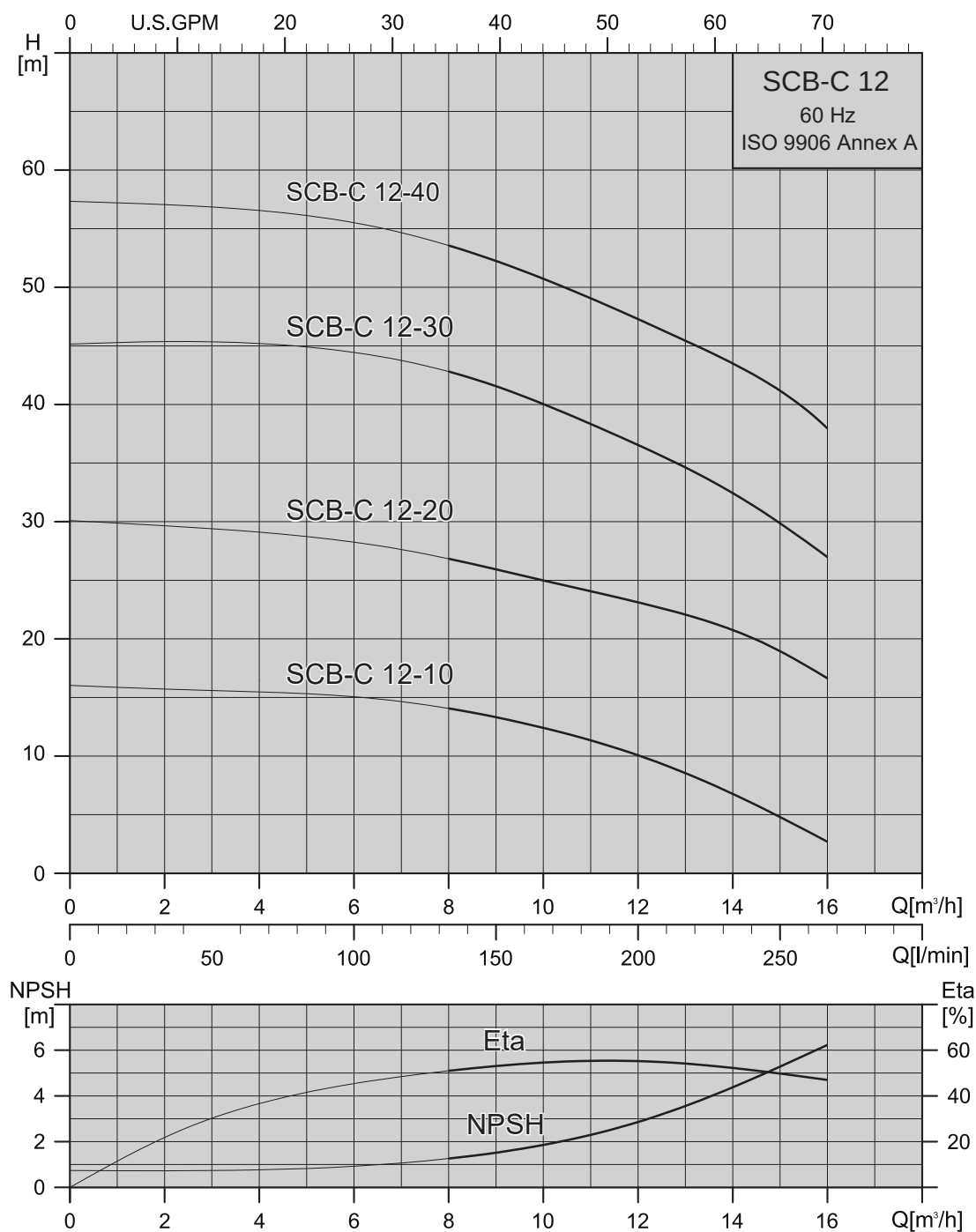
Performance Curves SCB-C 8



Electrical data, 3450 rpm

Pump type	1Ø 110-220V			3Ø Δ 220-277V / Y 380-480V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SCB-C 8-20	11.7 / 5.9	1250	1050	3.9-4.0 / 2.2-2.3	1290	995
SCB-C 8-25	-	-	-	5.0-5.6 / 2.8-3.2	1590	1335
SCB-C 8-30	- / 8.9	1830	1510	5.9-6.2 / 3.4-3.5	1950	1640
SCB-C 8-40	- / 10.4	2080	1720	7.4-6.7 / 4.3-3.9	2510	2180

Performance Curves SCB-C 12



Electrical data, 3450 rpm

Pump type	1 Ø 110-220V			3 Ø Δ 220-277V / Y 380-480V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SCB-C 12-10	-	-	-	3.0-3.4 / 1.7-2.0	860	660
SCB-C 12-20	- / 9.4	2120	1750	6.1-6.4 / 3.6-3.7	1970	1660
SCB-C 12-30	-	-	-	8.4-8.0 / 5.0-4.7	2740	2480
SCB-C 12-40	-	-	-	12-11 / 7.0-6.3	3985	3560

Dimensions and Weights SCB-C 8, 12

SCB-C 8

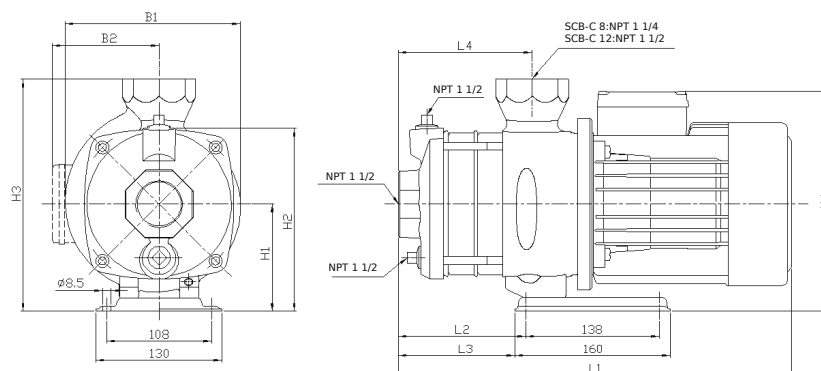


Fig. 1

PUMP TYPE	Plase	Dimensions [mm]										Fig.	Net Weight [kg]
		L1	L2	L3	L4	B1	B2	H1	H2	H3	H4		
SCB 8-20	1Ø	360	54	41	77	181	135	110	187	239	245	1	18.6
	3Ø	360	54	41	77	181	114	110	187	239	224	1	18.8
SCB 8-25	1Ø	-	-	-	107	-	-	110	187	239	-	-	-
	3Ø	410	84	71	107	181	114	110	187	239	224	1	20.7
SCB 8-30	1Ø	450	132	81	107	185	152	110	187	239	262	2	26.6
	3Ø	410	84	71	107	181	114	110	187	239	224	1	20.8
SCB 8-40	1Ø	450	132	81	107	185	152	110	187	239	262	2	26.8
	3Ø	450	132	81	107	185	139	110	187	239	249	2	26.9

SCB-C 12

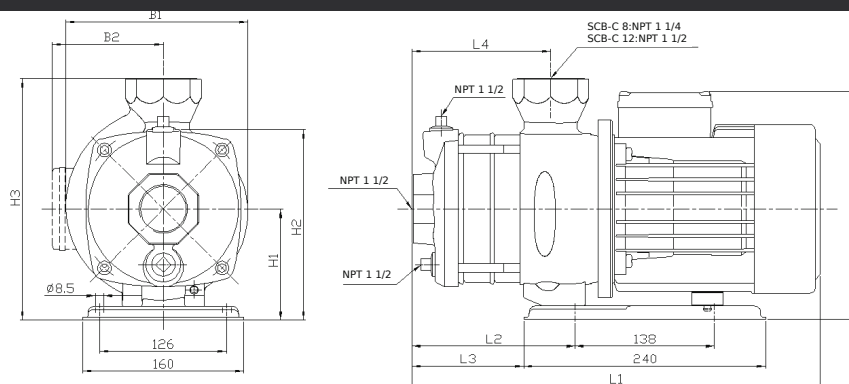


Fig. 2

PUMP TYPE	Plase	Dimensions [mm]										Fig.	Net Weight [kg]
		L1	L2	L3	L4	B1	B2	H1	H2	H3	H4		
SCB 12-20	1Ø	-	-	-	77	-	-	110	187	239	-	-	-
	3Ø	360	54	41	77	181	114	110	187	239	224	1	18.9
SCB 12-25	1Ø	420	102	51	77	185	152	110	187	239	262	2	25.8
	3Ø	380	54	41	77	181	114	110	187	239	224	1	20.4
SCB 12-30	1Ø	-	-	-	107	-	-	110	187	239	-	-	-
	3Ø	450	132	81	107	185	139	110	187	239	249	2	30.0
SCB 12-40	1Ø	-	-	-	107	-	-	122	199	251	-	-	-
	3Ø	471	132	81	107	196	150	122	199	251	272	2	35.1

General data

Applications

Water supply and pressure boosting
Air-conditioning
Water treatment
Heating and cooling in industrial processes
Industrial washing and dish-washing machines softened water
Pressure boosting of process water
Fertilizer/dosing systems



Pump

A horizontal, multistage centrifugal pump is made of stainless steel. The pump is a non-self priming type and fitted with a mechanical shaft seal.

Pipe connections:

Connections/Pump	SHB-S(N) 2	SHB-S(N) 4	SHB-S(N) 8	SHB-S(N) 12
Suction port	Rp or NPT 1	Rp or NPT 1 1/4	Rp or NPT 1 1/2	Rp or NPT 1 1/2
Discharge port	Rp or NPT 1	Rp or NPT 1 1/4	Rp or NPT 1 1/2	Rp or NPT 1 1/2
Drain hole, priming hole	Rc 3/8	Rc 3/8	Rc 3/8	Rc 3/8

Motor

Totally enclosed and fan-cooled standard motor.
Rated speed: 2850rpm(50Hz), 3450rpm(60Hz)
Enclosure class: IP 55
Insulation class:F

Standard voltages:

	Phase	Voltages
60Hz	1Ø	110 / 220V
		220-240V
	3Ø	220-277V / 380-480V

Operating conditions

Liquid temperature range: 0°C~+110°C
Maximum ambient temperature: +40°C
Maximum operating pressure: 10 kg./cm².
Maximum inlet pressure is limited by maximum operating pressure.

Pumped Liquids

These pumps are designed for pumping freely flowing non-corrosive, non-explosive. and non-flammable liquids. The liquids to be pumped must also be free of solid matter,sands, fibers, and similar materials.

Most common non-highly corrosive watery liquids,oily liquids, hot and cold liquids can be pumped with these pumps.

The suitability of these pumps for pumping any particular liquid depends upon a number of factors, such as the ph value,contents of chemicals such as chlorides, oils, the temperature of the liquids,etc.

Please contact your distributor or the factory if there are any questions as to whether certain liquids are suitable for pumping with these pumps.

General data

Type range	Nominal flow rate [m3/h]	Number of stages x 10		Mechanical Seals
SHB-S(N) 2~30	2	30		RQBE (SHB-S) RQQE (SHB-N)
SHB-S(N) 4~30	4			
Type range	Nominal flow rate [m3/h]	Number of 130mm diameter impellers	Number of 98mm diameter impellers	Mechanical Seals
SHB-S(N) 8~30	8	1	5	RQBE (SHB-S) RQQE (SHB-N)
SHB-S(N) 12~30	12			

SHB-S 8-20M = Two 98 mm diameter impellers

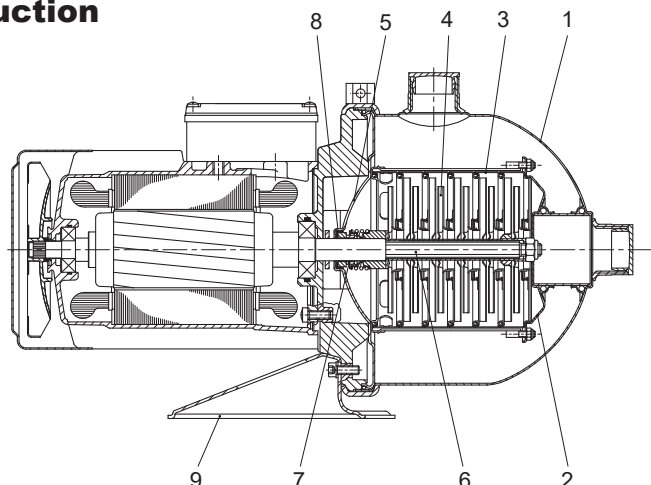
Mechanical Seals

List of Materials	
Q : Silicon carbide	E:EPDM
B:Carbon	V:Viton
R:Seal Type	

Mechanical Seals	SHB-S 2/4	SHB-S 8,12	SHB-N 2/4	SHB-N 8,12
RQB	•	•	-	-
RQQ	Optional	Optional	•	•
O-rings				
E	•	•	•	•
V	Optional	Optional	Optional	Optional

2/21 Standard

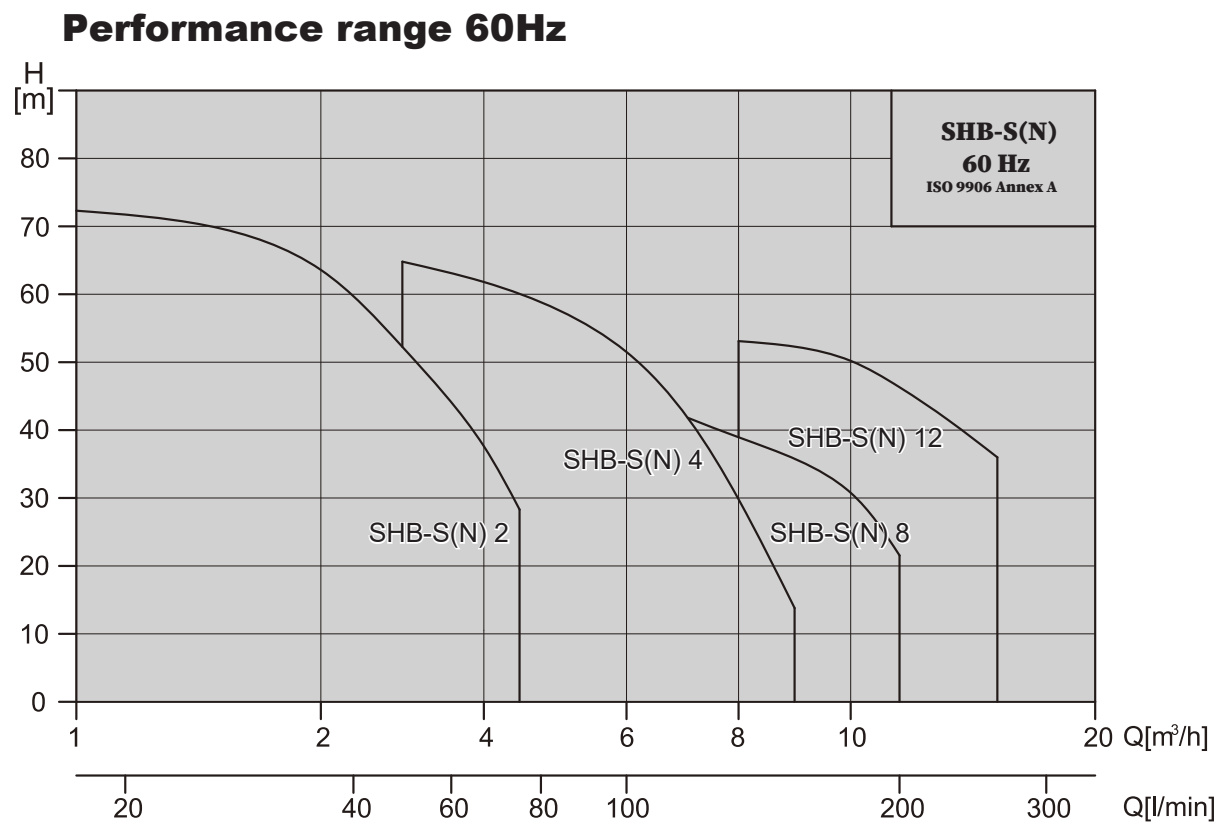
Mechanical construction



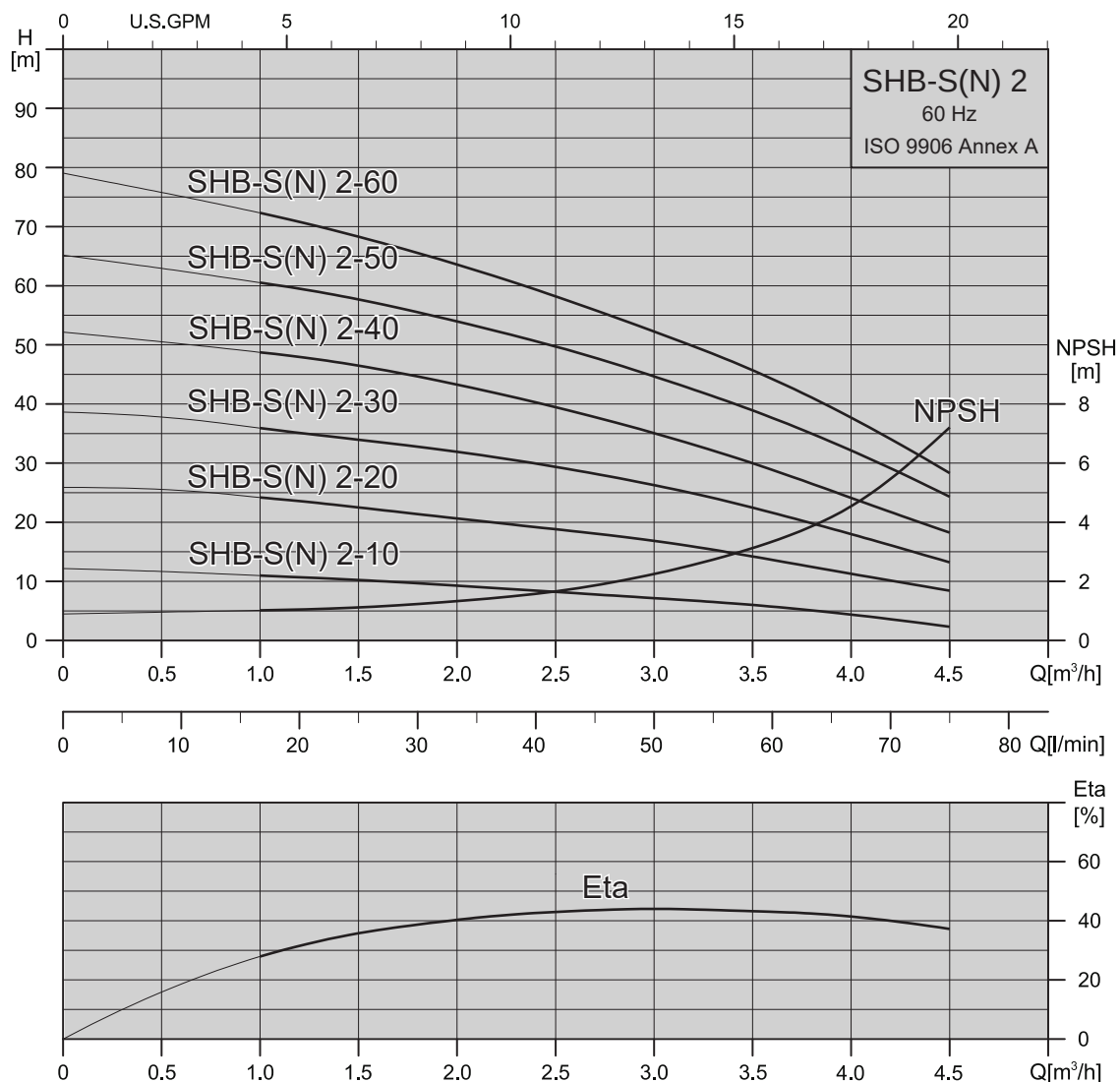
Materials

Pos.	Description	Materials	
		SHB-S	SHB-N
1	Pump casing	SS304	SS316
2	Suction inter-connector	SS304	SS316
3	Chamber	SS304	SS316
4	Impeller	SS304	SS316
5	Cover plate	SS304	SS316
6	Shaft	SS431	SS316
7	Mechanical seal	Silicon carbide / Carbon	Silicon carbide / Silicon carbide
8	O-ring	EPDM	EPDM
9	Base plate	Steel	SS304

Performance Curve



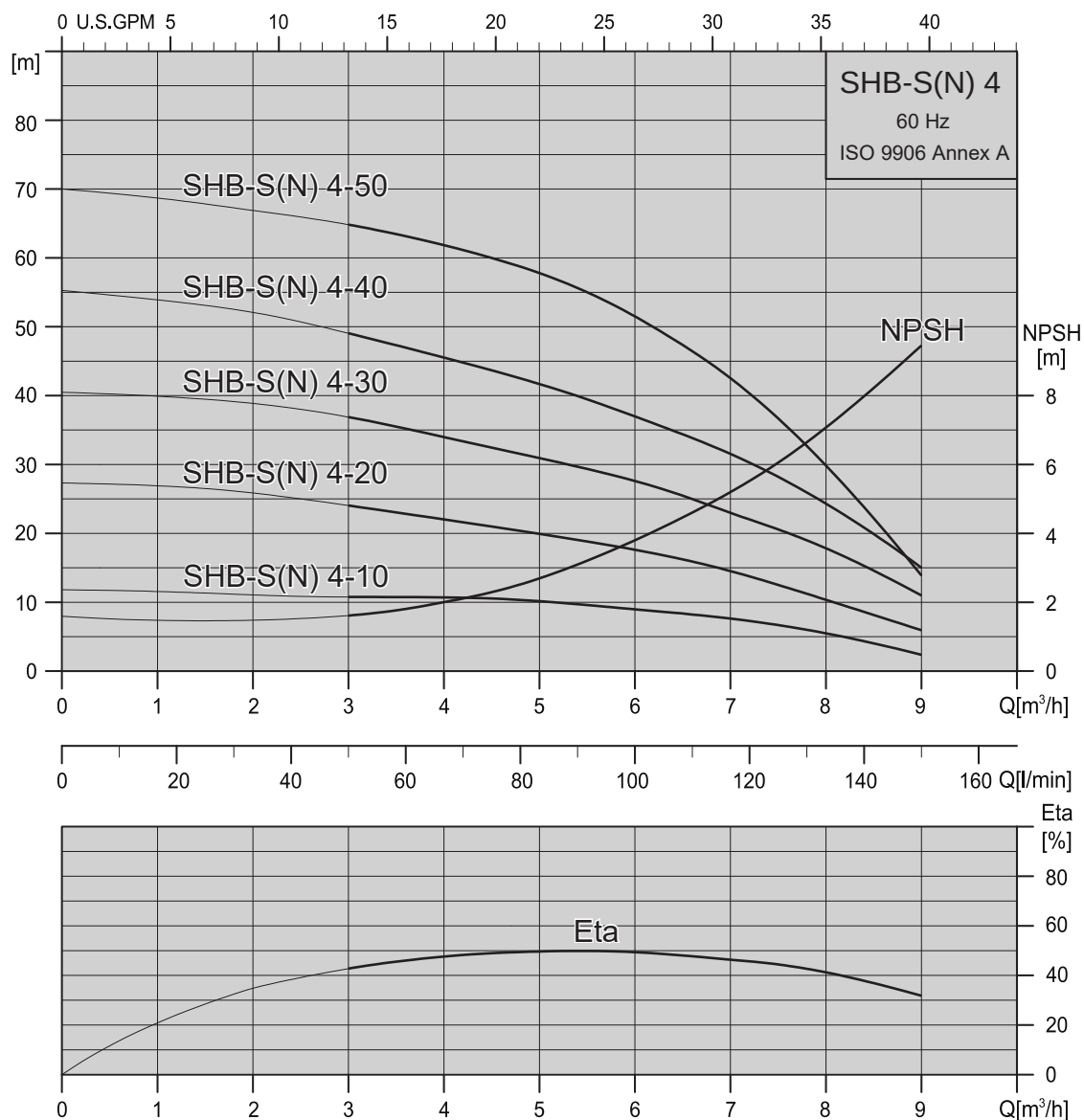
Performance Curves SHB 2



Electrical data, 3450 rpm

Pump type	1Ø 220-240V			3Ø 220-277Δ / 380-480 V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SHB-S(N) 2-10	5.9 / 3.0	390	310	1.4-1.7 / 0.8-1.0	340	250
SHB-S(N) 2-20	6.6 / 3.4	570	455	1.7-1.9 / 1.0-1.1	565	415
SHB-S(N) 2-30	7.6 / 3.8	750	605	2.2-2.1 / 1.3-1.2	720	530
SHB-S(N) 2-40	9.3 / 4.7	980	790	2.8-3.0 / 1.6-1.7	931	715
SHB-S(N) 2-50	10.7 / 5.4	1160	970	3.6-3.8 / 2.0-2.1	1155	890
SHB-S(N) 2-60	12.4 / 6.3	1375	1150	4.1-4.0 / 2.4-2.3	1345	1035

Performance Curves SHB 4

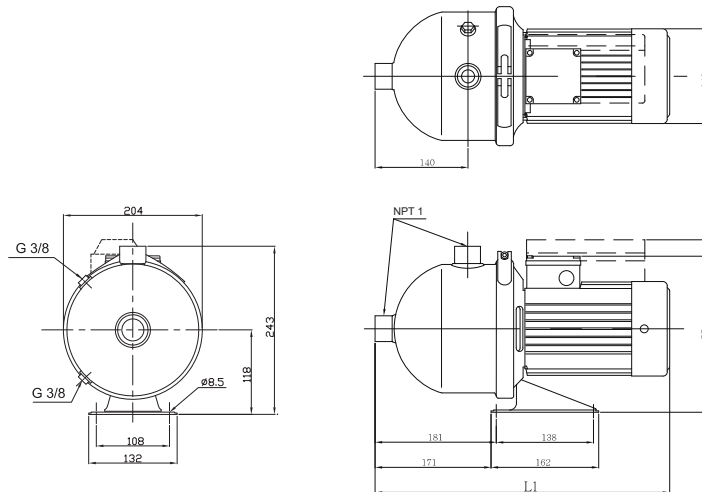


Electrical data, 3450 rpm

Pump type	1Ø 220-240V			3Ø 220-277Δ / 380-480 V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SHB-S(N) 4-10	5.9 / 3.1	530	425	1.9-2.0 / 1.0-1.1	580	425
SHB-S(N) 4-20	9.3 / 4.7	970	780	2.9-3.0 / 1.7-1.8	980	750
SHB-S(N) 4-30	12.5 / 6.5	1360	1140	4.3-4.1 / 2.4-2.3	1355	1045
SHB-S(N) 4-40	- / 8.5	1730	1380	5.5-5.8 / 3.1-3.3	1775	1490
SHB-S(N) 4-50	- / 9.9	2080	1660	6.2-6.3 / 3.6-3.7	2085	1750

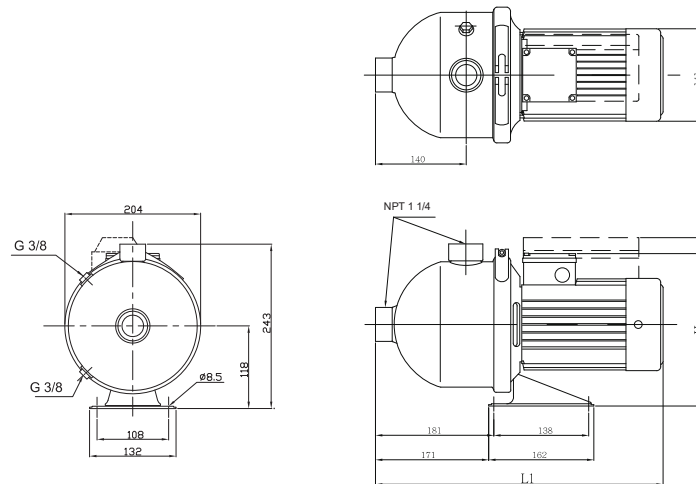
Dimensions and Weights SHB 2, 4

SHB-S(N) 2



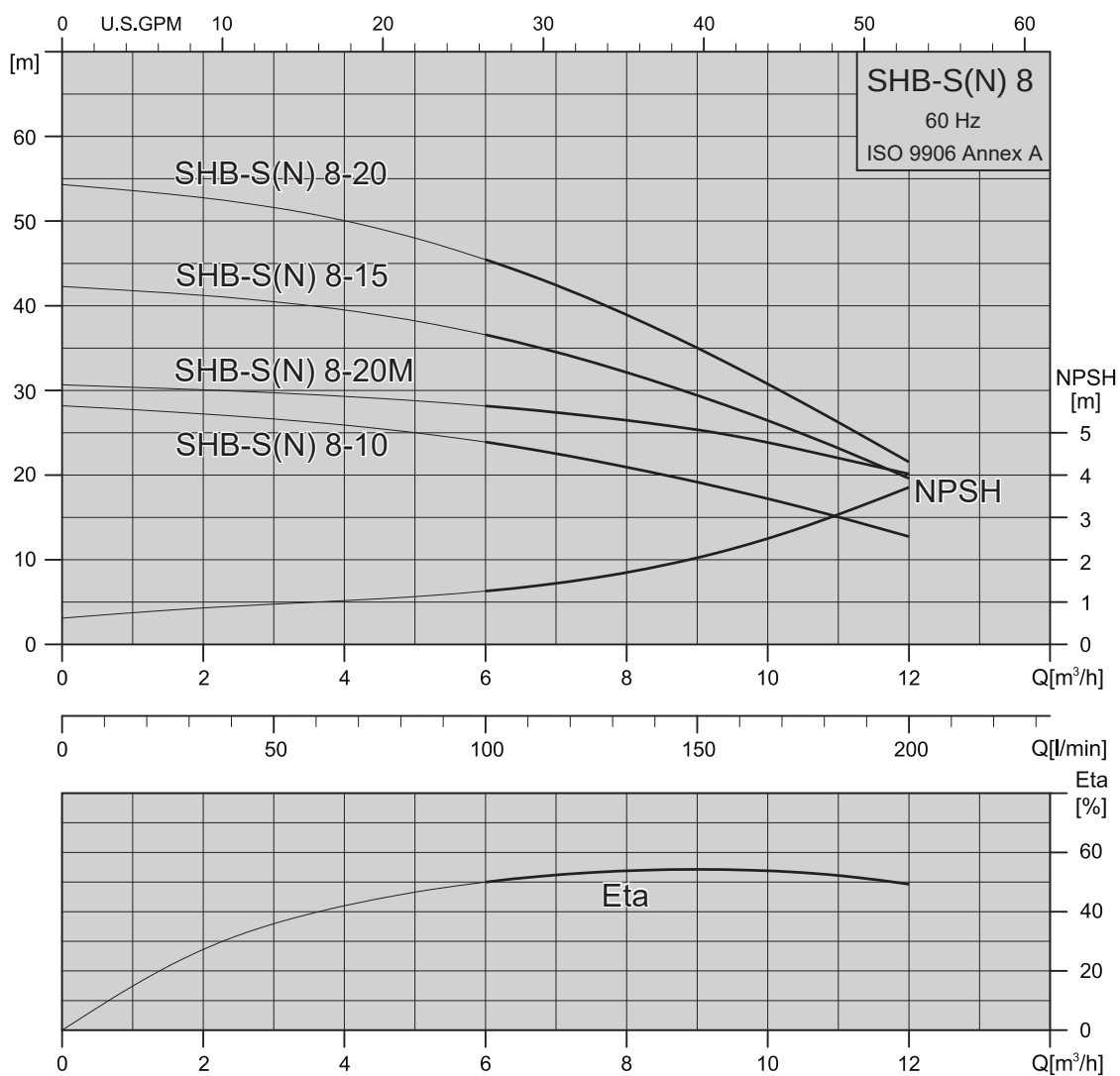
PUMP TYPE	Dimensions [mm]				Net Weight [kg]	
	L1		H			
	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø
SHB-S(N) 2-10	403	403	255	233	9.5	9.5
SHB-S(N) 2-20	403	403	255	233	9.5	9.5
SHB-S(N) 2-30	403	403	255	233	9.8	9.8
SHB-S(N) 2-40	403	403	255	233	10.3	10.3
SHB-S(N) 2-50	441	441	255	233	11.7	12.6
SHB-S(N) 2-60	441	441	255	233	12.0	12.8

SHB-S(N) 4



PUMP TYPE	Dimensions [mm]				Net Weight [kg]	
	L1		H			
	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø
SHB-S(N) 4-10	403	403	255	233	9.5	9.5
SHB-S(N) 4-20	403	403	255	233	9.5	9.7
SHB-S(N) 4-30	441	441	255	233	10.1	12.2
SHB-S(N) 4-40	441	461	255	233	11.5	13.8
SHB-S(N) 4-50	441	461	255	233	12.8	14.1

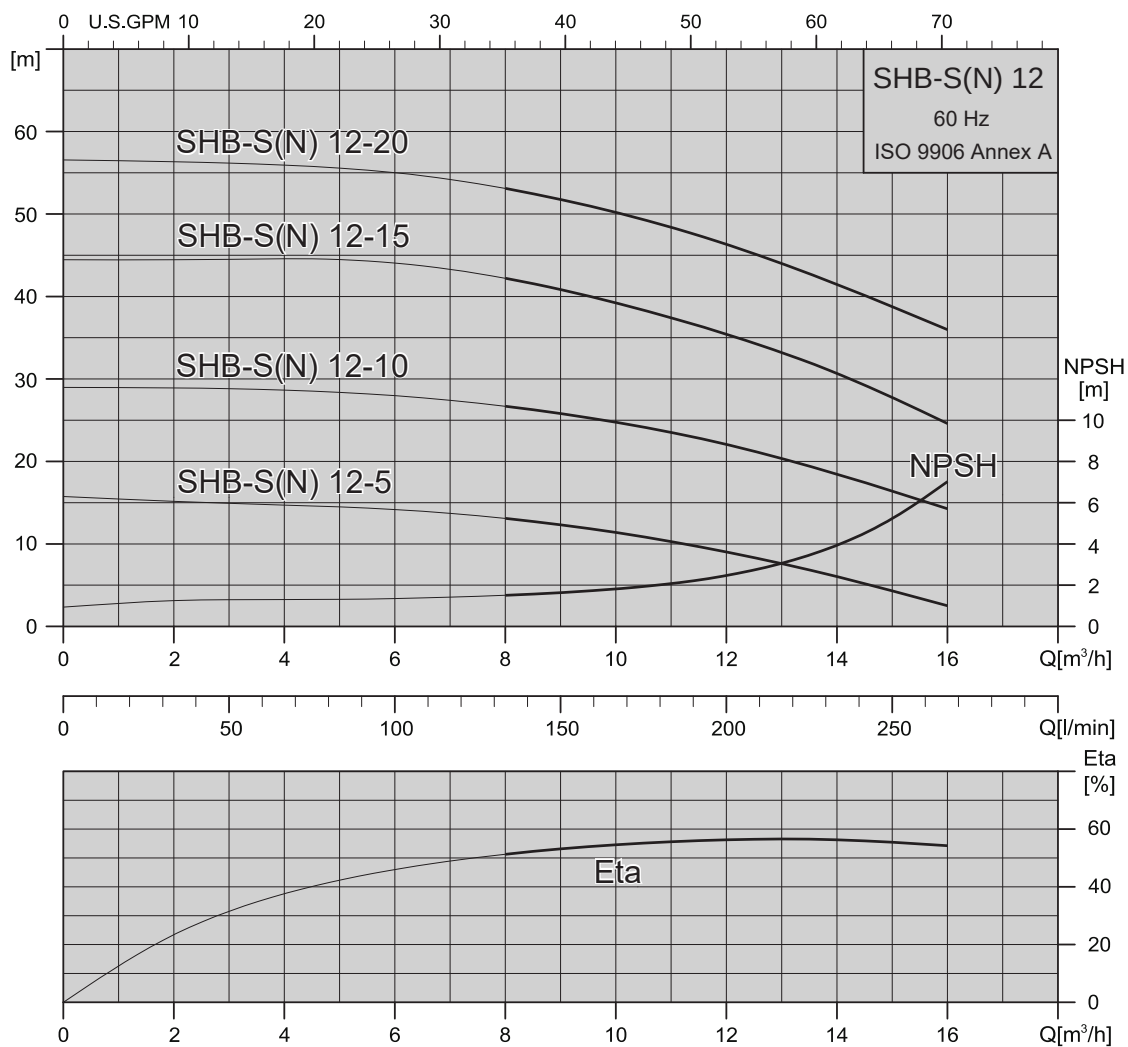
Performance Curves SHB 8



Electrical data, 3450 rpm

Pump type	1 Ø 110-220V			3 Ø 220-277Δ / 380-480 V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SHB-S(N) 8-10	11.4 / 6.0	1280	1070	4.0-4.1 / 2.4-2.3	1290	995
SHB-S(N) 8-20M	- / 8.3	1730	1380	5.0-5.6 / 2.9-3.2	1605	1350
SHB-S(N) 8-15	- / 9.3	2080	1710	6.0-6.1 / 3.5-3.6	1995	1680
SHB-S(N) 8-20	- / 10.9	2460	2030	7.4-6.7 / 4.3-3.9	2510	2180

Performance Curves SHB 12

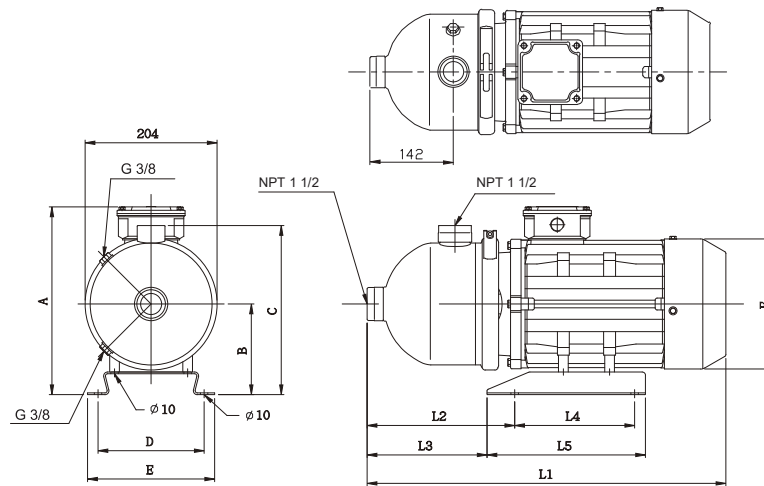


Electrical data, 3450 rpm

Pump type	1 Ø 110-220V			3 Ø 220-277Δ / 380-480 V		
	I _{L1} [A]	P ₁ [W]	P ₂ [W]	I _{L1} [A]	P ₁ [W]	P ₂ [W]
SHB-S(N) 12-05	8.5 / 4.5	940	760	2.6-2.8 / 1.5-1.6	840	645
SHB-S(N) 12-10	- / 9.7	2170	1790	5.8-6.1 / 3.4-3.5	1950	1635
SHB-S(N) 12-15	-	-	-	8.3-7.8 / 4.7-4.5	2765	2500
SHB-S(N) 12-20	-	-	-	12.1-10.3 / 7.0-5.9	3975	3550

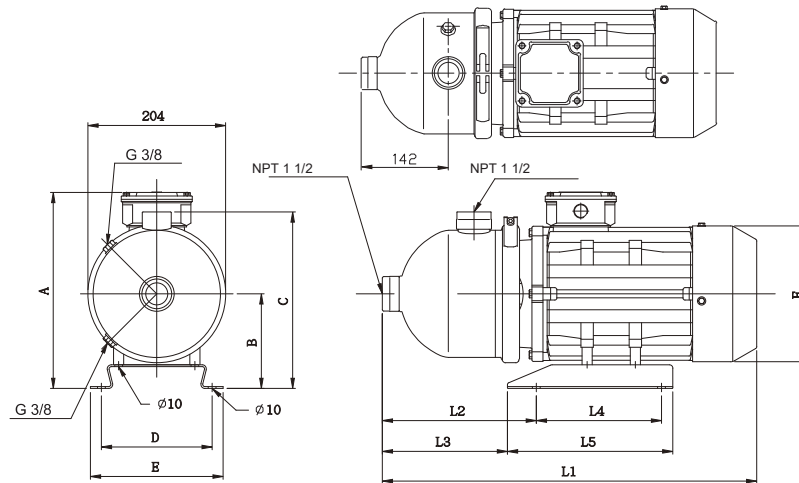
Dimensions and Weights SHB 8, 12

SHB-S(N) 8



PUMP TYPE	Dimensions [mm]												Net Weight		
	L1		L2	L3	L4	L5	A		B	C	D	E	F	[kg]	
	1Ø	3Ø					1Ø	3Ø						1Ø	3Ø
SHB-S(N) 8-10	441	441	181	171	138	162	255	233	118	243	108	132	141	11.70	12.3
SHB-S(N) 8-15	514	461	181	171	138	162	267	233	118	243	108	132	141	21.42	14.2
SHB-S(N) 8-20M	441	461	181	171	138	162	255	233	118	243	108	132	141	13.24	14.0
SHB-S(N) 8-20	514	514	200	180	195	235	267	261	121	245	158	178	177	21.5	21.8

SHB-S(N) 12



PUMP TYPE	Dimensions [mm]													Net Weight	
	L1		L2	L3	L4	L5	A		B	C	D	E	F	[kg]	
	1Ø	3Ø					1Ø	3Ø						1Ø	3Ø
SHB-S(N) 12-05	403	403	181	171	138	162	255	233	118	243	108	132	141	10.26	10.1
SHB-S(N) 12-10	514	461	181	171	138	162	267	233	118	243	108	132	141	20.64	13.5
SHB-S(N) 12-15	-	493	200	180	195	235	-	261	121	245	158	178	177	-	24.6
SHB-S(N) 12-20	-	514	230	198	195	245	-	284	133	259	174	198	197	-	30.1



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