Stainless steel 4-Pole,direct driven type

SJ4S-e

■Applications

- General water supply
- Industrial use
- Circulation of cold/warm water
- Conveyance of industrial water
- Conveyance and distribution of tap water
- Other uses

■Features

① Energy-saving pump with a Top Runner efficiency (equivalent to IE3) motor

② Stainless steel on the wetted part
These pumps can be used for a wide range of applications from measures against rust-colored water to paint liquid.

③ Diverse shaft seal specifications
Mechanical seal comes as standard. For special specifications, gland packings and double mechanical seal are supported.

④ Easy maintenance
These pumps have a simple structure and the BPO (Back Pullout) method. Therefore, it is easy to disassemble and inspect.

⑤ Highly rigid structure
The overhead discharge design enables stable installment, and the structure which withstands pipe loads well.

⑥ Compatible mounting dimensions with conventional pumps

■Description of types

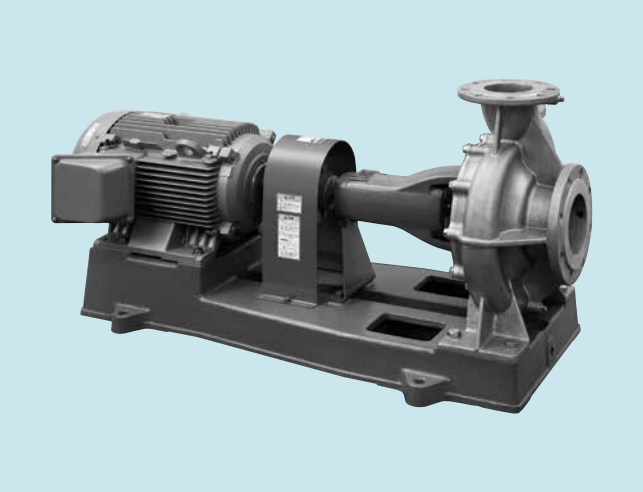
SJ4S 50 × 40 K 5 1.5 - e
① ② ③ ④ ⑤ ⑥ ⑦

①Model
②Suction nominal diameter (50mm)
③Discharge nominal diameter (40mm)
④Type
⑤Frequency (50Hz)
⑥Output (1.5kW)
⑦Equipped with a Top Runner efficiency (equivalent to IE3) motor

■Standard specifications

Pumping liquid	Liquid quality	Fresh water and special liquid ※1
	Liquid temperature	0～80℃※2
Total suction head (In case of 20℃)		-6m. However, 60% or less of the total head when the pump is used with 10m or less total head.
Allowable boost pressure		See the specification table.
Structure	Impeller	Closed
	Shaft seal	Mechanical seal (SiC vs carbon)
	Bearing	Sealed ball bearing
Material	Casing	SCS13
	Casing cover	SCS13
	Impeller	SCS13
	Shaft	SUS304
	Rubber wetted part	NBR
Motor	Efficiency	Top Runner efficiency (equivalent to IE3)
	Starting method	Direct-on-Line start 7.5kW or less Star-delta start 11kW or more
	Type	Totally enclosed fan-cooled indoor type
	Power source	3-phase, 200V
	Synchronous rotation speed	1500min-1
Flange spec		JIS10K standard type

※1 Contact us for the use of special liquid.
※2 When the temperature exceeds 80°C, please contact us.



※Please note that of the devices in the photo may differ from actual devices in coating color,etc.

■Standard accessories

Motor 1
Common base 1
Priming plug 1
Coupling ..... 1 set
Coupling cover 1

■Special specifications

Structure	Shaft seal	Mechanical seal (SiC vs SiC) Double mechanical seal (rubber wetted part: FKM; liquid temperature: Max. 60°C), Gland packing, External water injection method (when foreign articles are slightly included in the handling liquid)
	Other	Drain (below gland/below casing) Seal type coupling cover, no common base
Paint ※1		Specified color for outer surface,salt-resistant paint,heavy-duty salt-resistant paint
Motor	Type	Totally enclosed fan-cooled outdoor type
	Power supply	Voltage change
Other		Oil-free treatment (Grade I / Grade II)

※Please note that in case of special specifications, the assembly drawing, etc., may differ from the standard drawing.
※1 No coating for stainless steel parts.

■Special accessories

Companion flange (bolt and nut included) .....2 sets
Foot valve
Suction cover
Sluice valve,check valve
Vibration isolator
Pressure gauge, compound gauge, vacuum gauge
Vibration isolation joint

Double mechanical seal specifications which support painting facilities (special specifications)

■Features of Double Mechanical Seal Specifications

Highly technical support

These products can support coagulable fluid, such as paint, by circulating flushing fluid between two seal surfaces on the pumping liquid side and the atmospheric side.

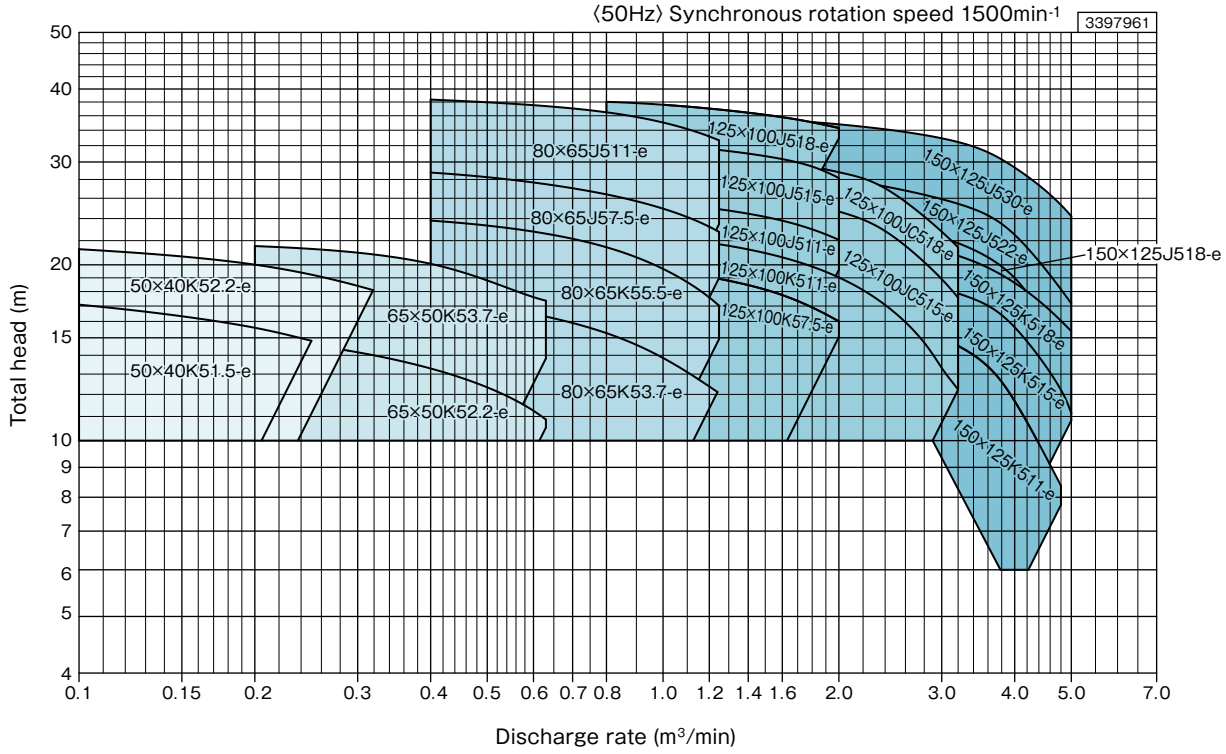
Reliability

The specially shaped sliding surface is applied to the inside of the equipment, and it provides high seal performance even for coagulable fluid with high viscosity. Also, since metal bellows are used, these pumps possess excellent followability. You don't have to be worried about operational problems caused by the adherence of paint and the like, and foreign articles.

Easy and safe assembly

It is easy to attach and assemble by adapting the cartridge type. It also prevents the damage on the sliding surface when the parts are assembled into the system.

Selection chart



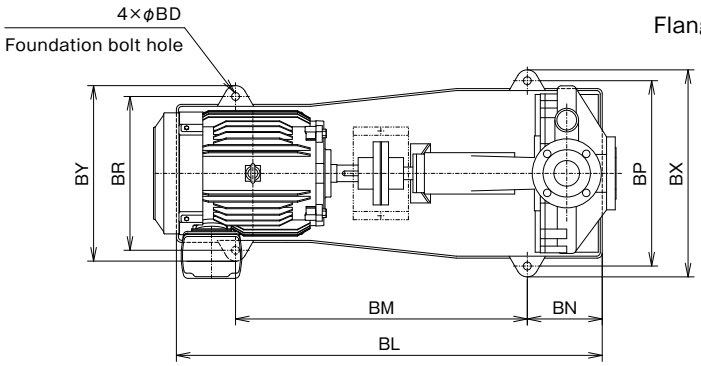
Specification table

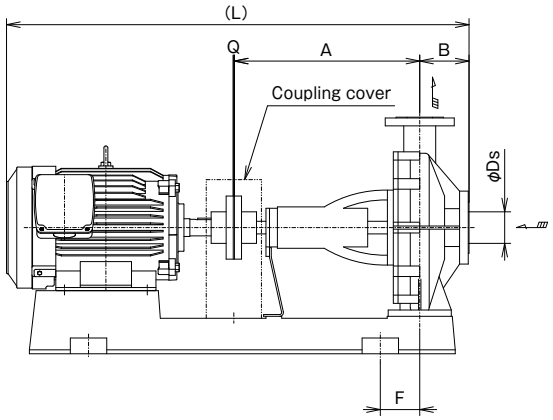
Nominal diameter (mm)		Type	Output (kW)	Specifications						Allowable boost pressure (MPa)			※ Flushing	
Suction	Discharge			Discharge rate (m³/min)	Total head (m)	Discharge rate (m³/min)	Total head (m)	Discharge rate (m³/min)	Total head (m)	Single mechanical seal	Double mechanical seal	Gland packing	Pressure (MPa)	Flow rate (L/min)
50	40	SJ4S-50 × 40K51.5-e	1.5	0.1	17.1	0.2	15.6	0.25	14.8	0.81	0.42	0.59	0.27	3
		SJ4S-50 × 40K52.2-e	2.2	0.1	21.3	0.2	20.0	0.32	18.1	0.77	0.41	0.59	0.29	3
65	50	SJ4S-65 × 50K52.2-e	2.2	0.2	14.9	0.4	13.3	0.63	10.9	0.84	0.43	0.59	0.27	4
		SJ4S-65 × 50K53.7-e	3.7	0.2	21.5	0.4	20.1	0.63	17.4	0.77	0.40	0.59	0.29	4
80	65	SJ4S-80 × 65K53.7-e	3.7	0.4	17.5	0.8	15.2	1.25	12.0	0.82	0.42	0.59	0.27	4
		SJ4S-80 × 65K55.5-e	5.5	0.4	23.8	0.8	21.4	1.25	16.9	0.75	0.40	0.59	0.30	4
		SJ4S-80 × 65J57.5-e	7.5	0.4	28.8	0.8	26.4	1.25	22.7	0.70	0.38	0.59	0.32	4
		SJ4S-80 × 65J511-e	11	0.4	38.4	0.8	36.5	1.25	32.6	0.60	0.34	0.59	0.36	4
125	100	SJ4S-125 × 100K57.5-e	7.5	0.8	20.0	1.6	17.7	2.0	15.9	0.69	0.41	0.59	0.28	4
		SJ4S-125 × 100K511-e	11	0.8	22.5	1.6	20.6	3.2	12.2	0.67	0.40	0.59	0.29	4
		SJ4S-125 × 100J511-e	11	0.8	25.9	1.6	23.8	2.0	22.1	0.73	0.39	0.59	0.30	4
		SJ4S-125 × 100J515-e	15	0.8	32.5	1.6	30.3	2.0	28.1	0.67	0.36	0.59	0.33	4
		SJ4S-125 × 100J518-e	18.5	0.8	38.0	1.6	35.8	2.0	34.1	0.61	0.34	0.59	0.35	4
		SJ4S-125 × 100JC515-e	15	2.0	24.6	2.5	22.2	3.2	17.6	0.70	0.38	0.59	0.32	4
		SJ4S-125 × 100JC518-e	18.5	2.0	28.8	2.5	26.3	3.2	21.5	0.66	0.36	0.59	0.33	4
150	125	SJ4S-150 × 125K511-e	11	1.6	17.6	3.2	14.5	4.8	8.4	0.81	0.42	0.69	0.27	4
		SJ4S-150 × 125K515-e	15	1.6	21.4	3.2	17.8	5.0	11.0	0.77	0.41	0.69	0.29	4
		SJ4S-150 × 125K518-e	18.5	1.6	22.4	3.2	20.7	5.0	15.4	0.77	0.40	0.69	0.29	4
		SJ4S-150 × 125J518-e	18.5	1.6	25.6	3.2	21.7	4.6	15.5	0.93	0.39	0.69	0.31	6
		SJ4S-150 × 125J522-e	22	1.6	28.9	3.2	25.3	5.0	17.2	0.90	0.38	0.69	0.32	6
		SJ4S-150 × 125J530-e	30	1.6	35.4	3.2	32.4	5.0	24.2	0.83	0.34	0.69	0.35	6

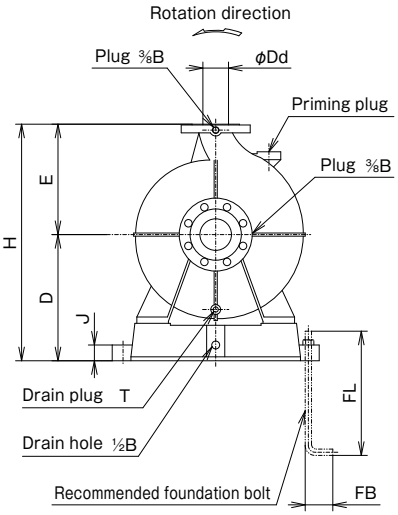
※ It applies only to the double mechanical seal specifications.

Assembly drawing

Flange dimensions : JIS 10K standard type or equivalent







Note) Total length dimension,approximate mass and terminal box position may be slightly different depending on motor manufacturer. The coupling cover is included in the standard accessories.

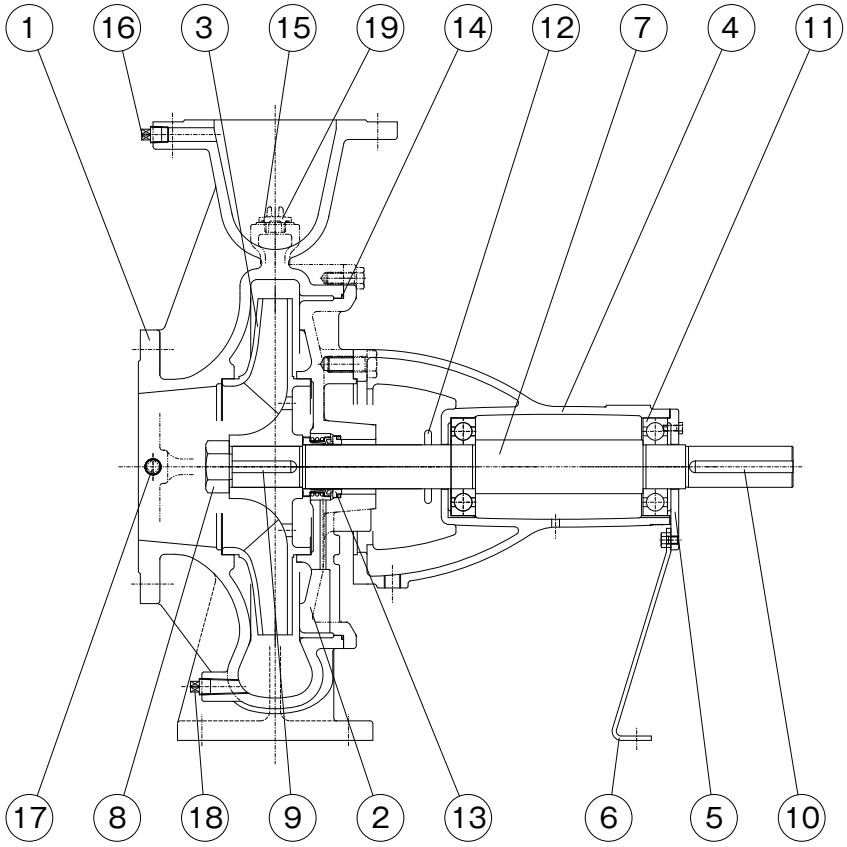
Dimensions

Unit (mm)

Nominal diameter (mm)		Type	Output (kW)	Pump / Motor									Common base									Foundation bolt			Approx. mass (kg)
Ds	Dd			A	B	D	E	H	F	L	Q	T	J	BD	BL	BM	BN	BP	BR	BX	BY	FB	FD	FL	
50	40	SJ4S-50 × 40K51.5-e	1.5	360	100	235	225	460	40	775	3	¼B	30	15	700	480	115	375	245	420	290	55	M12	250	90
		SJ4S-50 × 40K52.2-e	2.2	360	100	235	225	460	40	829	3	¼B	30	16	740	480	115	375	275	420	320	55	M12	250	99
65	50	SJ4S-65 × 50K52.2-e	2.2	360	100	235	225	460	40	829	3	¼B	30	15	740	480	115	375	275	420	320	55	M12	250	104
		SJ4S-65 × 50K53.7-e	3.7	360	100	235	225	460	55	844	3	¼B	30	15	740	540	130	375	295	420	340	55	M12	250	114
80	65	SJ4S-80 × 65K53.7-e	3.7	470	100	270	250	520	60	954	3	¼B	40	20	870	600	150	430	310	485	365	70	M16	315	130
		SJ4S-80 × 65K55.5-e	5.5	470	100	270	250	520	80	1024	3	¼B	40	20	950	660	170	430	340	485	395	70	M16	315	153
		SJ4S-80 × 65J57.5-e	7.5	470	125	320	280	600	80	1087	3	¼B	40	20	950	660	170	470	340	525	395	70	M16	315	180
		SJ4S-80 × 65J511-e	11	470	125	320	280	600	100	1173	3	¼B	40	20	1080	740	190	470	390	525	445	70	M16	315	231
125	100	SJ4S-125 × 100K57.5-e	7.5	470	140	320	280	600	80	1102	3	¼B	40	20	950	660	170	470	340	525	395	70	M16	315	180
		SJ4S-125 × 100K511-e	11	470	140	320	280	600	100	1257	3	¼B	40	20	1080	740	190	470	390	525	445	70	M16	315	257
		SJ4S-125 × 100J511-e	11	470	140	320	315	635	100	1257	3	¼B	40	20	1080	740	190	470	390	525	445	70	M16	315	282
		SJ4S-125 × 100J515-e	15	470	140	320	315	635	100	1232	3	¼B	40	20	1080	740	190	470	390	525	445	70	M16	315	268
		SJ4S-125 × 100J518-e	18.5	470	140	330	315	645	115	1286	3	¼B	50	25	1120	840	205	480	440	550	510	90	M20	400	346
		SJ4S-125 × 100JC515-e	15	470	140	320	315	635	100	1287	3	¼B	40	20	1080	740	190	470	390	525	445	70	M16	315	295
		SJ4S-125 × 100JC518-e	18.5	470	140	330	315	645	115	1286	3	¼B	50	25	1120	840	205	480	440	550	510	90	M20	400	346
150	125	SJ4S-150 × 125K511-e	11	470	140	320	355	675	100	1257	3	⅜B	40	20	1080	740	190	470	390	525	445	70	M16	315	279
		SJ4S-150 × 125K515-e	15	470	140	320	355	675	100	1287	3	⅜B	40	20	1080	740	190	470	390	525	445	70	M16	315	292
		SJ4S-150 × 125K518-e	18.5	470	140	330	355	685	115	1286	3	⅜B	50	25	1120	840	205	480	440	550	510	90	M20	400	353
		SJ4S-150 × 125J518-e	18.5	530	140	360	355	715	95	1346	3	⅜B	50	25	1200	840	205	580	440	650	510	90	M20	400	423
		SJ4S-150 × 125J522-e	22	530	140	360	355	715	95	1346	3	⅜B	50	25	1200	840	205	580	440	650	510	90	M20	400	428
		SJ4S-150 × 125J530-e	30	530	140	360	355	715	95	1385	4	⅜B	50	25	1200	840	205	580	440	650	510	90	M20	400	460

※ Mounting dimension is compatible with SJ4S type (product equipped with totally enclosed fan-cooled IE1 motor). In addition, the motor frame No. is the same, so it is possible to replace with a top runner (equivalent to IE3) motor. However, pay attention to the following. The rotation speed of the motor increases because of its characteristics.
Therefore adjust the flow rate and use the product so that the current should not exceed the rated current.

■Example of sectional drawing



※ The drawing shows the standard specifications. Contact us for special specifications because some parts may differ.

■Parts list

No.	Part name	Qty	Material
1	Casing	1	SCS13
2	Casing cover	1	SCS13
3	Impeller	1	SCS13
4	Bearing case	1	FC200
5	Bearing cover	1	FC200
6	Mounting leg	1	SS400
7	Shaft	1	SUS304
8	Impeller nut	1	SUS304
9	Impeller key	1	SUS304
10	Coupling key	1	S45C
11	Ball bearing	2	SUJ2
12	Deflector	1	CR
13	Mechanical seal	1	SiC vs carbon
14	O-ring	1	NBR
15	O-ring	1	NBR
16	Plug	1	SUS304
17	Plug	1	SUS304
18	Drain plug	1	SUS304
19	Priming plug	1	SCS13