

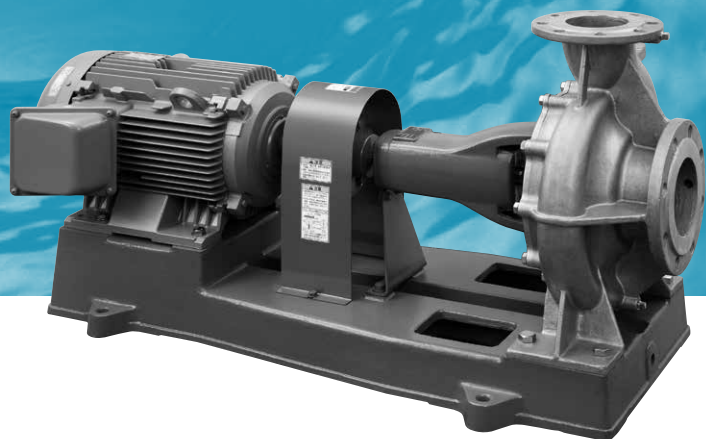
Volute pumps

SJ4S

TERAL



50Hz



TERAL INC.

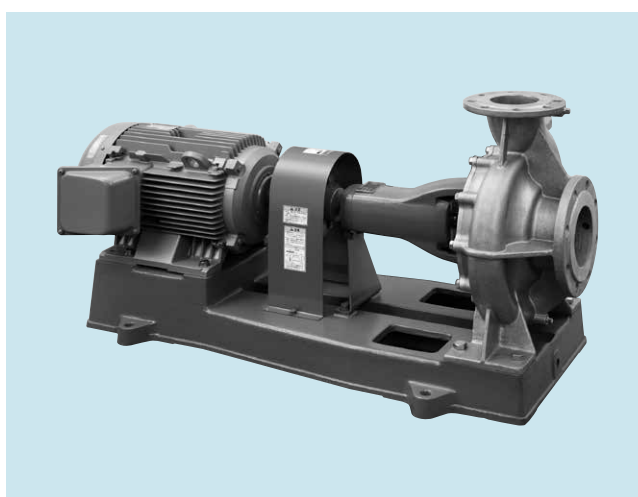
Applications

- 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 rusty 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

※Flushing fluid is circulated between the two seals on the pumping and atmospheric sides to handle high-viscosity fluids and fluids with impurities such as and paint.
The cartridge design allows for easy installation.



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

Description of types

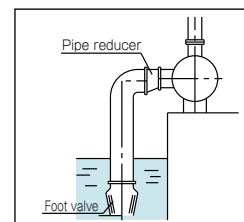
SJ4S 50 × 40 K 5 1.5 - e

① ② ③ ④ ⑤ ⑥ ⑦

- | | |
|----------------------|------------------------------|
| ① Model | ⑤ Frequency (5:50Hz, 6:60Hz) |
| ② Suction diameter | ⑥ Output |
| ③ Discharge diameter | ⑦ Top Runner efficiency |
| ④ Head K : Low head | (equivalent to IE3) |
| J, JC : High head | |

Foot valve / pipe reducer application table

Nominal diameter		Foot valve nominal diameter	Pipe reducer
Suction s	Discharge d		
80	65	100	80×100
125	100	150	125×150
150	125	200	150×200



Standard specifications/Special specifications

— : Not available

Pumping liquid	Liquid quality	Fresh water and special liquid ^{※1}	
	Liquid temperature	0 ~ 80℃ ^{※2}	
Total suction head (In case of 20℃)		— 6m If the pump is used with the total suction head of 10 m or less, the total suction head should not exceed 60% of the total head.	
Allowable positive pressure		See the specification table.	
Specifications		Standard specifications	Special specifications
Structure	Impeller	Closed	—
	Shaft seal	Mechanical seal (SiC vs Carbon)	Mechanical seal (SiC vs SiC) Double mechanical seal (liquid contact part: FKM liquid temperature : MAX 60℃) Gland packing External water injection...when handling liquid contains some foreign matter
	Bearing	Sealed ball bearing	—
	Gland drain	Drain hole	Cock
	Casing drain	Plug	Cock
	Coupling guard	TERAL standard	Sealed type coupling guard
	Others	—	Oil-free treatment (Grade 1) ^{※4}
Material	Impeller	SCS13	—
	Shaft	SUS304	—
	Casing	SCS13	—
	Casing cover	SCS13	—
	Liquid contact 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	Totally enclosed fan-cooled outdoor
	Power source	3-phase/200V	3-phase/400V
	Synchronous rotation speed	1500min ⁻¹	—
Piping connection		JIS10K standard flange	—
Painting ^{※3}	Paint color	7.5BG5/1.5	Specified color for outer surface
	Painting type	TERAL standard	Salt-resistant paint Heavy-duty salt-resistant paint

※ Please note that in case of special specifications, the assembly drawing, etc., may differ from the standard drawing.

※ 1 Contact us for the use of special liquid.

※ 2 When it exceeds 80℃, please contact us.

※ 3 Stainless steel parts are not painted.

※ 4 It is not available for the common base of total length 1200mm or more.

Standard accessories

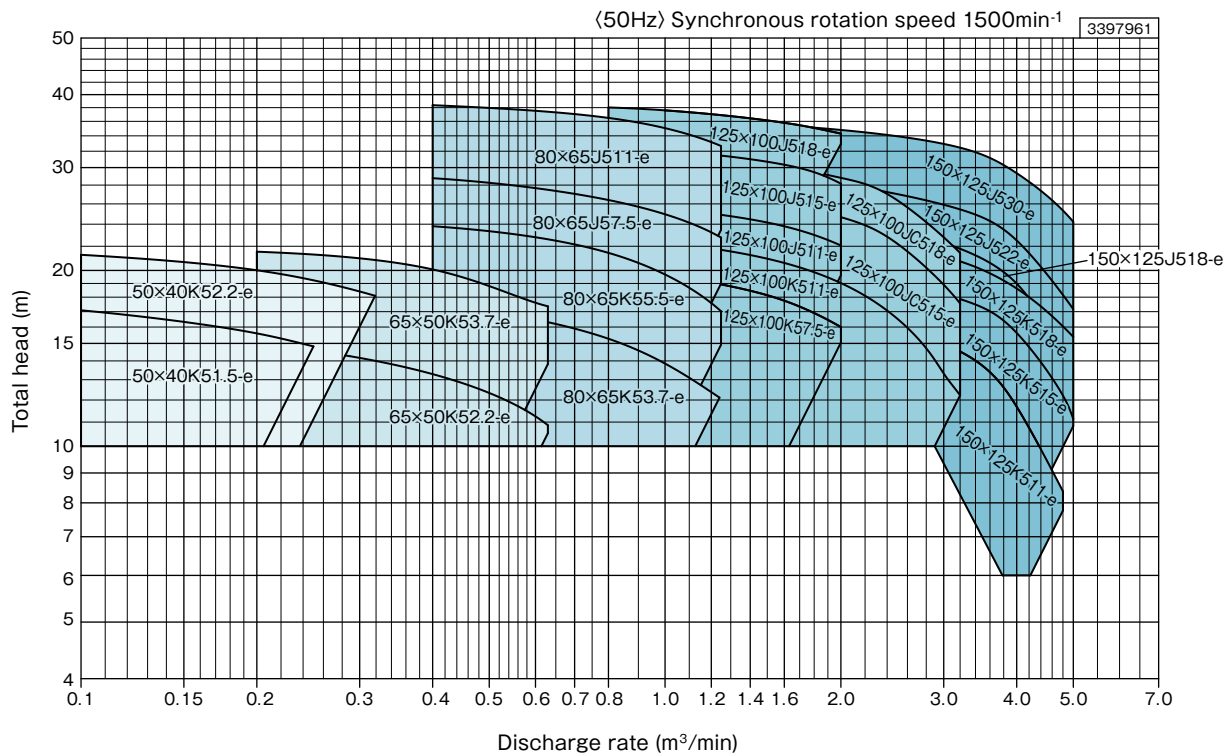
Common base	1
Priming plug	1
Coupling	1 set
Coupling guard	1

※ Standard accessories are included in the product components.

Special accessories

Foot valve
Suction cover
Sluice valve, check valve
Companion flange (packing, bolt and nut included)
Pipe reducer
Vibration isolator
Pressure gauge, compound gauge (with cock and pipes)
Vibration isolation joint
Anchor bolt

Selection chart

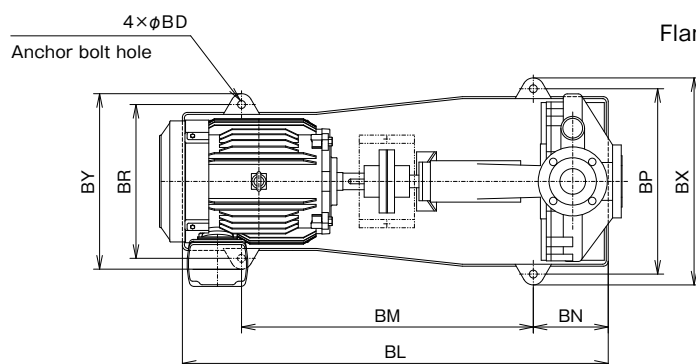


Specification table

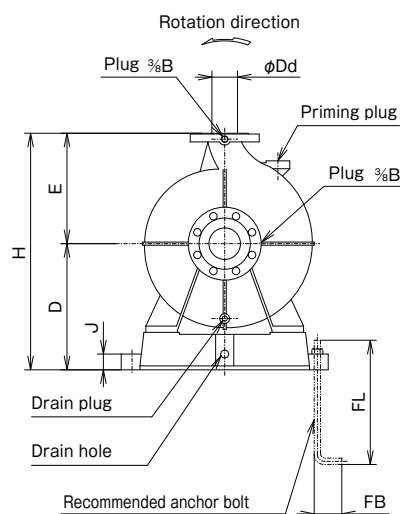
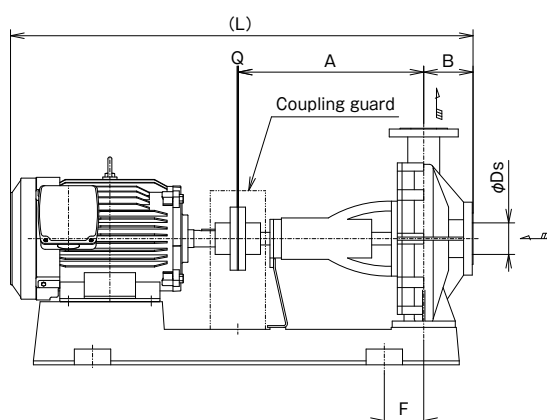
Nominal diameter (mm)		Type	Output (kW)	Specifications						Allowable positive pressure (MPa)			※ Flushing	
Suction	Discharge			Discharge rate (m³/min)	Total head (m)	Discharge rate (m³/min)	Total head (m)	Discharge rate (m³/min)	Total head (m)	Single mechanical seal	Double mechanical seal	Gland packing	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 × 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 × 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 × 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.

Dimensions

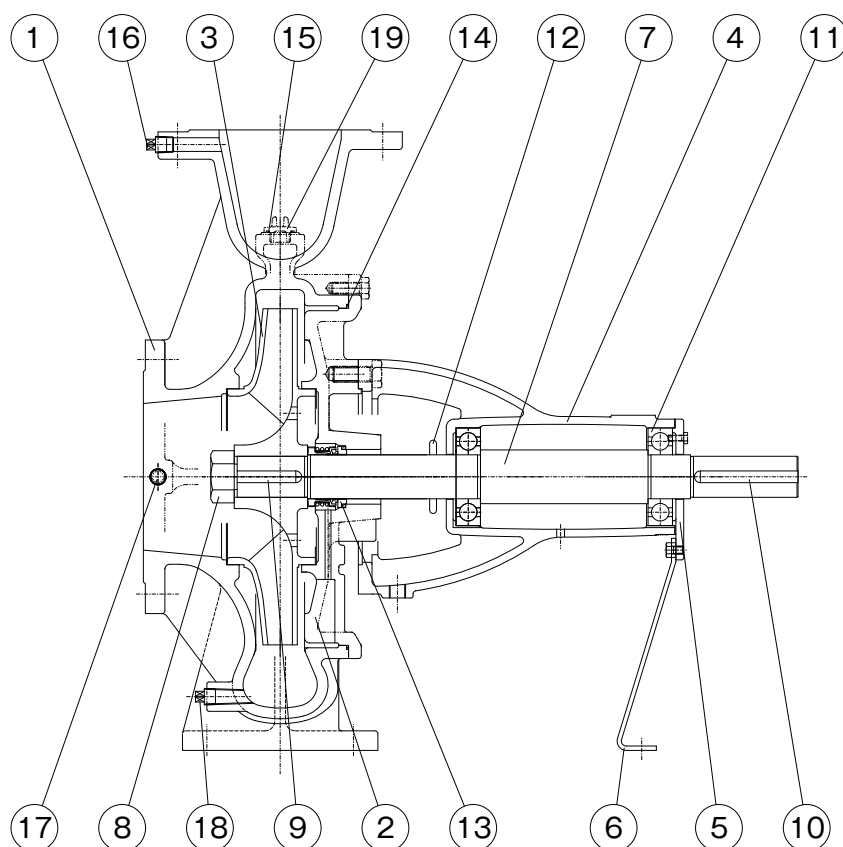
Unit (mm)

Nominal diameter (mm)		Type	Output (kW)	Pump / Motor								Common base								Anchor bolt			Approx mass (kg)	
Ds	Dd			A	B	D	E	H	F	L	Q	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	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	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	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	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	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	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	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	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	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	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	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	40	20	1080	740	190	470	390	525	445	70	M16	315	268
		SJ4S-125 × 100JC515-e	15	470	140	320	315	635	100	1287	3	40	20	1080	740	190	470	390	525	445	70	M16	315	295
		SJ4S-125 × 100J518-e	18.5	470	140	330	315	645	115	1286	3	50	25	1120	840	205	480	440	550	510	90	M20	400	346
		SJ4S-125 × 100JC518-e	18.5	470	140	330	315	645	115	1286	3	50	25	1120	840	205	480	440	550	510	90	M20	400	346
		SJ4S-150 × 125K511-e	11	470	140	320	355	675	100	1257	3	40	20	1080	740	190	470	390	525	445	70	M16	315	279
150	125	SJ4S-150 × 125K515-e	15	470	140	320	355	675	100	1287	3	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	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	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	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	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

MEMO





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