

Volute pumps

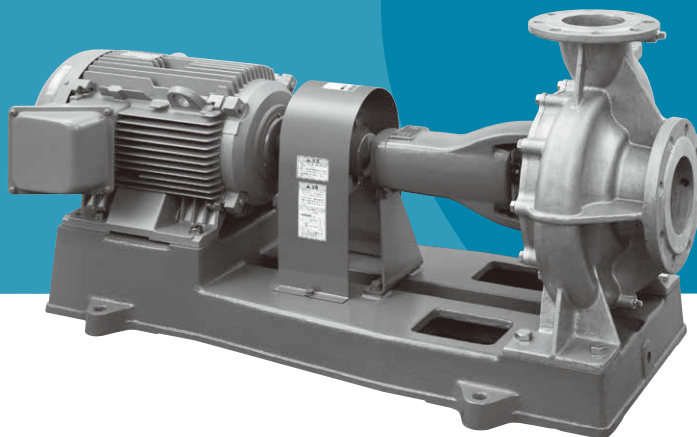
# SJS

# ***TERAL***



Triple e series

50Hz



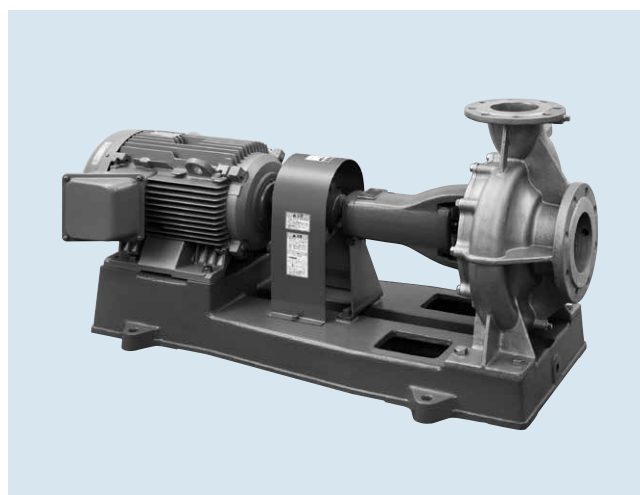
**TERAL INC.**

## Applications

- Circulation of cold/warm water
- Hot-water supply
- General water supply
- Conveyance of industrial water
- Conveyance and distribution of tap water
- Water sprinkling and irrigation of paddies and fields
- Other uses

## Features

- ① Energy-saving pump with a Top Runner efficiency (equivalent to IE3) motor.
- ② Strong, with additional distortion resistance, and longer life through the adoption of precision stainless steel casting
- ③ Usable at liquid temperatures up to 80°C.
- ④ Improved sealing performance and easy maintenance through the adoption of mechanical seal.
- ⑤ Compliant with new water quality standards.
- ⑥ B.P.O. (Back pullout) structure facilitates maintenance and inspection.
- ⑦ Compact and lightweight due to 2-pole motor.
- ⑧ Compatible mounting dimensions with conventional pumps.



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

## Description of types

**SJS 80 × 65 L 5 3.7 - e**

- |                                     |   |   |   |                                                                 |   |   |
|-------------------------------------|---|---|---|-----------------------------------------------------------------|---|---|
| ①                                   | ② | ③ | ④ | ⑤                                                               | ⑥ | ⑦ |
| ① Model                             |   |   |   | ⑤ Frequency (50Hz)                                              |   |   |
| ② Suction nominal diameter (80mm)   |   |   |   | ⑥ Output (3.7kW)                                                |   |   |
| ③ Discharge nominal diameter (65mm) |   |   |   | ⑦ Equipped with Top Runner efficiency (equivalent to IE3) motor |   |   |
| ④ Type                              |   |   |   |                                                                 |   |   |

## Standard specifications/Special specifications

— : Not available

|                                      |                            |                                                                     |                                                                                                                                                                                                                       |
|--------------------------------------|----------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pumping liquid                       | Liquid quality             | Fresh water                                                         |                                                                                                                                                                                                                       |
|                                      | Liquid temperature         | 0~80°C *1                                                           |                                                                                                                                                                                                                       |
| Total suction head (In case of 20°C) |                            | -6m but -5m for 100×80                                              |                                                                                                                                                                                                                       |
| 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)<br>Double mechanical seal (super hard vs super hard) ...7.5kW or less<br>Gland packing ...7.5kW or less<br>External water injection ...when handling liquid contains some foreign matter |
|                                      | Bearing                    | Sealed ball bearing                                                 | —                                                                                                                                                                                                                     |
|                                      | Gland drain                | Drain hole                                                          | Piping                                                                                                                                                                                                                |
|                                      | Casing drain               | Plug                                                                | Cock                                                                                                                                                                                                                  |
|                                      | Coupling guard             | TERAL standard                                                      | Sealed type coupling guard                                                                                                                                                                                            |
|                                      | Others                     | —                                                                   | Oil free treatment (grade I)                                                                                                                                                                                          |
| Material                             | Impeller                   | SCS13                                                               | —                                                                                                                                                                                                                     |
|                                      | Shaft                      | SUS304                                                              | —                                                                                                                                                                                                                     |
|                                      | Casing                     | SCS13                                                               | —                                                                                                                                                                                                                     |
| Motor                                | Efficiency                 | Top Runner efficiency (equivalent to IE3)                           | —                                                                                                                                                                                                                     |
|                                      | Starting method            | Direct-on-Line start 7.5kW or less<br>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 | 3000min <sup>-1</sup>                                               | —                                                                                                                                                                                                                     |
| Piping connection                    |                            | JIS10K standard flange                                              | —                                                                                                                                                                                                                     |
| Painting*2                           | Paint color                | 7.5BG5/1.5                                                          | Specified color for outer surface                                                                                                                                                                                     |
|                                      | Painting type              | TERAL standard                                                      | Salt-resistant paint<br>Heavy-duty salt-resistant paint                                                                                                                                                               |

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

\* 1 When it exceeds 80°C, please contact us.

\* 2 Stainless steel parts are not painted.

## Standard accessories

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

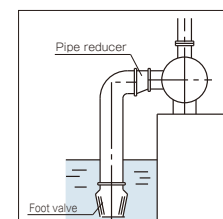
\* Standard accessories are included in the product components.

## Special accessories

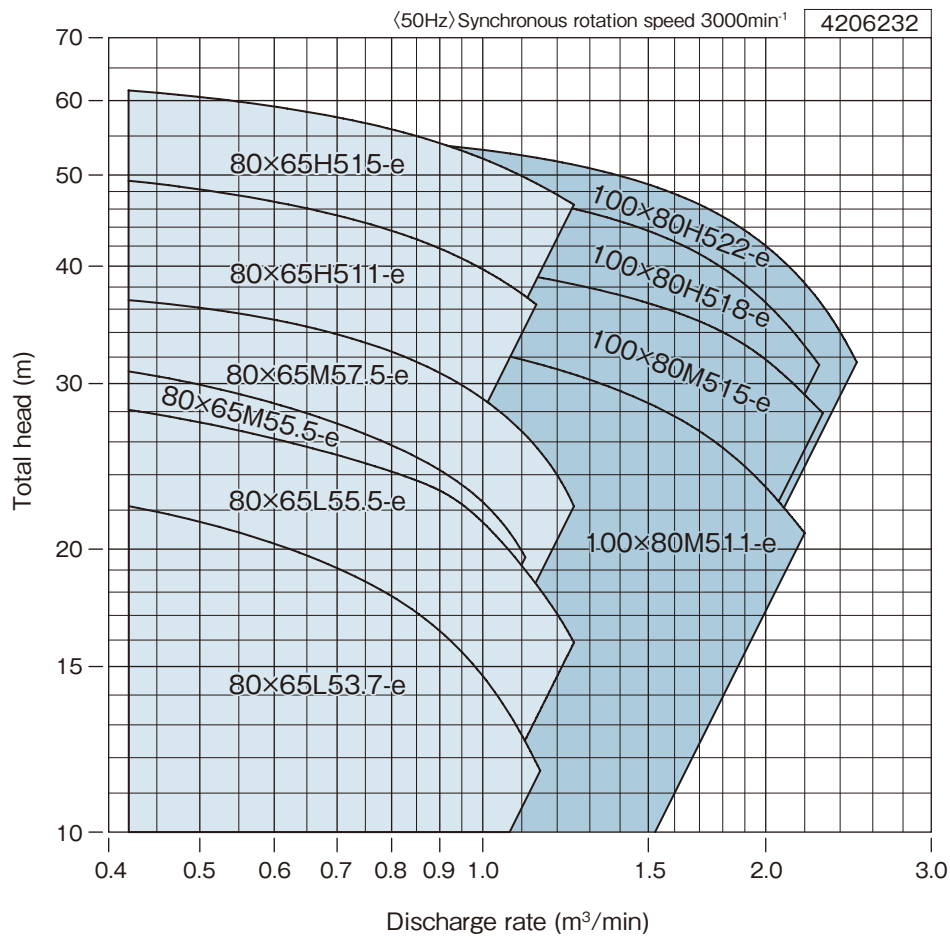
|                                                      |
|------------------------------------------------------|
| Foot valve                                           |
| Suction cover                                        |
| Sluice valve, check valve                            |
| Companion flange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

## Foot valve / pipe reducer application table

| Nominal diameter |           | Foot valve nominal diameter | Pipe reducer |
|------------------|-----------|-----------------------------|--------------|
| Suction          | Discharge |                             |              |
| 80               | 65        | 100                         | 80 × 100     |
| 125              | 100       | 150                         | 125 × 150    |



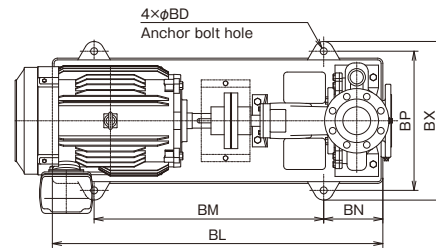
## Selection chart



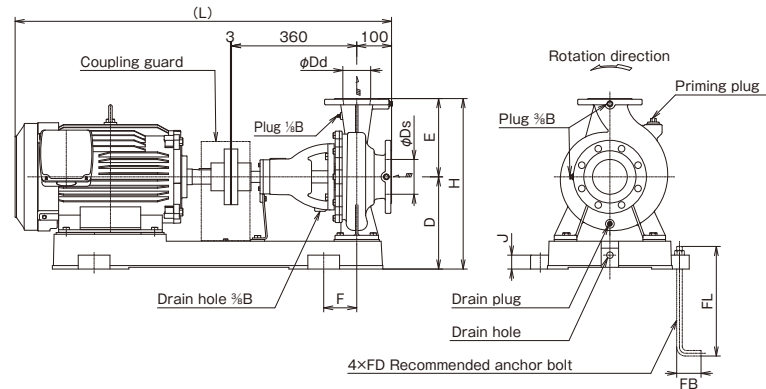
## Specification table

| Nominal diameter<br>mm |           | Type            | Output<br>kW | Allowable<br>positive pressure<br>MPa | Specifications           |                 |                          |                 |                          |                 |
|------------------------|-----------|-----------------|--------------|---------------------------------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|
| Suction                | Discharge |                 |              |                                       | Discharge rate<br>m³/min | Total head<br>m | Discharge rate<br>m³/min | Total head<br>m | Discharge rate<br>m³/min | Total head<br>m |
| 80                     | 65        | SJS80×65L53.7-e | 3.7          | 0.76                                  | 0.42                     | 22.2            | 0.84                     | 17.3            | 1.15                     | 11.6            |
|                        |           | SJS80×65L55.5-e | 5.5          | 0.70                                  | 0.42                     | 28.1            | 0.84                     | 23.8            | 1.25                     | 15.9            |
|                        |           | SJS80×65M55.5-e | 5.5          | 1.08                                  | 0.42                     | 30.9            | 0.84                     | 25.2            | 1.11                     | 19.6            |
|                        |           | SJS80×65M57.5-e | 7.5          | 1.02                                  | 0.42                     | 36.8            | 0.84                     | 31.8            | 1.25                     | 22.2            |
|                        |           | SJS80×65H511-e  | 11           | 0.89                                  | 0.42                     | 49.3            | 0.84                     | 42.9            | 1.14                     | 36.4            |
| 100                    | 80        | SJS80×65H515-e  | 15           | 0.77                                  | 0.42                     | 61.5            | 0.84                     | 55.2            | 1.25                     | 46.5            |
|                        |           | SJS100×80M511-e | 11           | 1.07                                  | 0.84                     | 33.5            | 1.67                     | 27.0            | 2.2                      | 20.8            |
|                        |           | SJS100×80M515-e | 15           | 0.99                                  | 0.84                     | 40.6            | 1.67                     | 35.2            | 2.3                      | 27.9            |
|                        |           | SJS100×80H518-e | 18.5         | 0.91                                  | 0.84                     | 48.9            | 1.67                     | 41.6            | 2.28                     | 31.4            |
|                        |           | SJS100×80H522-e | 22           | 0.86                                  | 0.84                     | 54.1            | 1.67                     | 46.9            | 2.5                      | 31.6            |

## 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

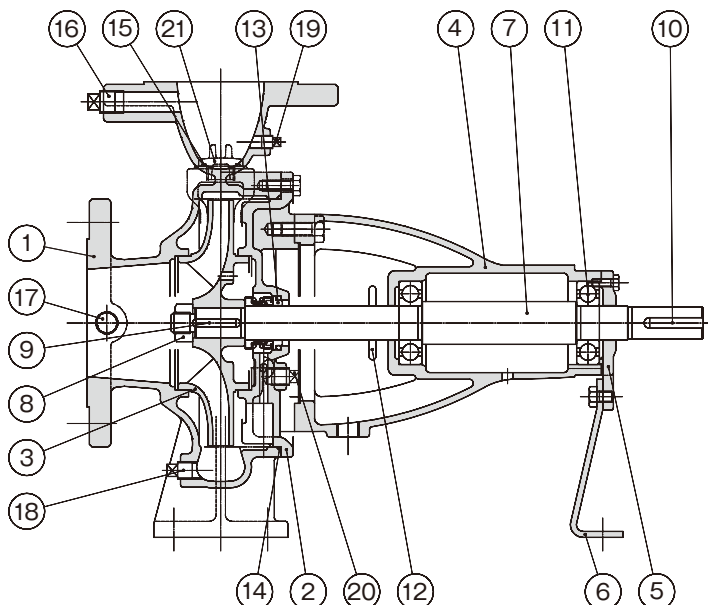
(Unit: mm)

| Nominal diameter |    | Type            | Output kW | Pump / Motor |     |     |    |      |    | Common base |      |     |     |     |     | Anchor bolt |     |     | Approx. mass kg |
|------------------|----|-----------------|-----------|--------------|-----|-----|----|------|----|-------------|------|-----|-----|-----|-----|-------------|-----|-----|-----------------|
| Ds               | Dd |                 |           | D            | E   | H   | F  | L    | J  | BD          | BL   | BM  | BN  | BP  | BX  | FB          | FD  | FL  |                 |
| 80               | 65 | SJS80×65L53.7-e | 3.7       | 202          | 160 | 362 | 70 | 844  | 30 | 15          | 730  | 540 | 130 | 290 | 335 | 55          | M12 | 250 | 114             |
|                  |    | SJS80×65L55.5-e | 5.5       | 202          | 160 | 362 | 70 | 913  | 30 | 15          | 820  | 540 | 130 | 320 | 365 | 55          | M12 | 250 | 144             |
|                  |    | SJS80×65M55.5-e | 5.5       | 230          | 180 | 410 | 55 | 914  | 30 | 15          | 820  | 540 | 130 | 350 | 395 | 55          | M12 | 250 | 124             |
|                  |    | SJS80×65M57.5-e | 7.5       | 230          | 180 | 410 | 55 | 914  | 30 | 15          | 820  | 540 | 130 | 350 | 395 | 55          | M12 | 250 | 125             |
|                  |    | SJS80×65H511-e  | 11        | 245          | 200 | 445 | 95 | 1107 | 40 | 20          | 950  | 660 | 170 | 400 | 456 | 70          | M16 | 315 | 238             |
| 100              | 80 | SJS80×65H515-e  | 15        | 245          | 200 | 445 | 95 | 1107 | 40 | 20          | 950  | 660 | 170 | 400 | 456 | 70          | M16 | 315 | 243             |
|                  |    | SJS100×80M511-e | 11        | 245          | 200 | 445 | 95 | 1107 | 40 | 20          | 950  | 660 | 170 | 400 | 456 | 70          | M16 | 315 | 244             |
|                  |    | SJS100×80M515-e | 15        | 245          | 200 | 445 | 95 | 1107 | 40 | 20          | 950  | 660 | 170 | 400 | 456 | 70          | M16 | 315 | 249             |
|                  |    | SJS100×80H518-e | 18.5      | 265          | 225 | 490 | 95 | 1137 | 40 | 20          | 950  | 660 | 170 | 400 | 456 | 70          | M16 | 315 | 288             |
|                  |    | SJS100×80H522-e | 22        | 265          | 225 | 490 | 95 | 1136 | 40 | 20          | 1000 | 660 | 170 | 440 | 496 | 70          | M16 | 315 | 337             |

\*Mounting dimension is compatible with SJS 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



## 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  | Plug            | 1   | SUS304        |
| 20  | Plug*           | 1   | SUS304        |
| 21  | Priming plug    | 1   | SCS13         |

The part indicated with an \* is not included in SJS80×65L-e.

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

## This image shows a full page of white paper with horizontal dashed lines, typical of primary-ruled notebook paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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