

# VEH Series



## Standard specifications

### Structure

- Drive: Direct drive motor
- Gas seal: Double seal using V-ring and air ring
- Pump body piping: High rigidity plastic type with metal insert

- Casing: Integrated molded volute type
- Impeller: Closed type (Shaft sleeve integrated)

### Operating temperature range:

- PP: 0 to 80°C
- PVDF: 0 to 90°C

### Rotating direction: Clockwise

(When viewed from the motor side)

### Flange: Equivalent to JIS 10K FF

### Motor: 2-pole induction motor of general-purpose flange type for outdoor use

### Paint color: Equivalent to Munsell 2.5B4/8 (Metal, such as bed plate)

## Model identification

**VEH - 025 1 F 01 P N A**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Name ② Nozzle diameter ③ Frame No.

④ O-ring material

E: EPDM F: FPM

⑤ Motor output

- 01: 0.75 kW 02: 1.5 kW
- 03: 2.2 kW 05: 3.7 kW
- 07: 5.5 kW 10: 7.5 kW

⑥ Body material (casing, body piping, etc.) and length under neck

- P: Made of PP, Length under neck: 400 mm
- K: Made of PP, Length under neck: 275 mm
- M: Made of PVDF, Length under neck: 400 mm
- S: Made of PVDF, Length under neck: 275 mm
- C: Made of PP, Length under neck: 350 mm
- V: Made of PVDF, Length under neck: 350 mm

⑦ Installation condition

- T: Outside of tank N: Inside of tank (PVC)\*
- R: Inside of tank (Other than PVC)

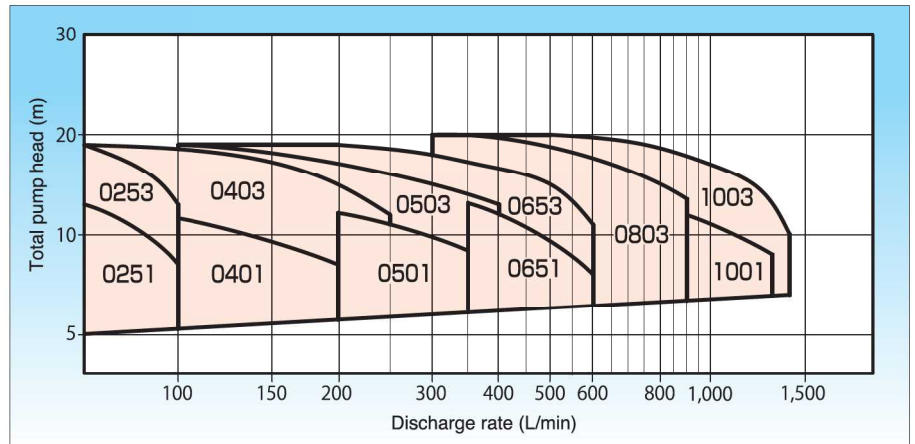
\* Indicates materials of suction strainer, discharge pipe and bed plate.

⑧ Material of bolts inside tank

- A: PP P: PVDF
- (Blank: SUS)

\* The C/V type is applicable with nozzle diameters 80 and 100 only.

## 50 Hz model capacity chart



## 50 Hz model specifications table

| Model    | Nozzle diameter (mm) | Discharge rate (L/min) | Total pump head (m) | Motor output (kW) |
|----------|----------------------|------------------------|---------------------|-------------------|
| VEH-0251 | 25                   | 60                     | 10                  | 0.75              |
| VEH-0253 |                      | 50                     | 14                  | 1.5               |
| VEH-0401 | 40                   | 150                    | 9                   | 0.75              |
| VEH-0403 |                      | 200                    | 15                  | 1.5               |
| VEH-0501 | 50                   | 290                    | 10                  | 1.5               |
| VEH-0503 |                      | 300                    | 15                  | 2.2               |
| VEH-0651 | 65                   | 400                    | 12                  | 2.2               |
| VEH-0653 |                      | 500                    | 15                  | 3.7               |
| VEH-0803 | 80                   | 800                    | 15                  | 5.5               |
| VEH-1001 | 100                  | 1,000                  | 10                  | 5.5               |
| VEH-1003 |                      | 1,200                  | 15                  | 7.5               |

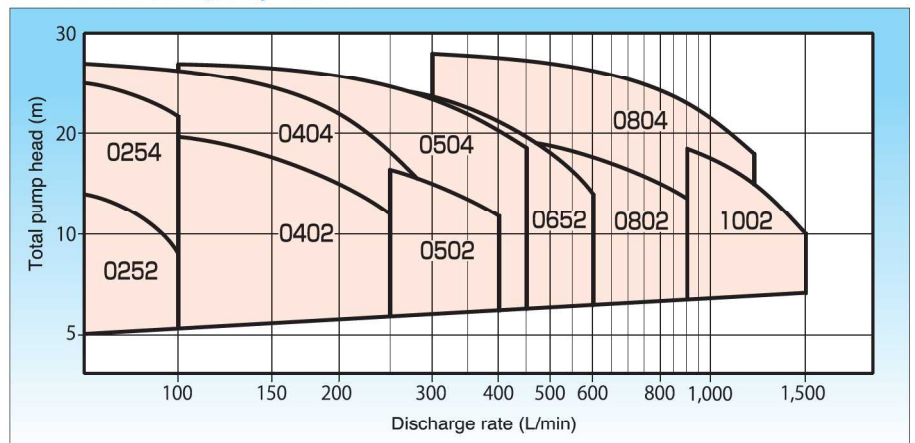
## 50 Hz model applicable motors

| Model         | Applicable motor (kW) |
|---------------|-----------------------|
| VEH-0251-0653 | 0.75, 1.5, 2.2, 3.7   |
| VEH-0803-1003 | 5.5, 7.5              |

Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Motor: For fully-closed outer fan type for outdoor use

## 60 Hz model capacity chart



## 60 Hz model specifications table

| Model    | Nozzle diameter (mm) | Discharge rate (L/min) | Total pump head (m) | Motor output (kW) |
|----------|----------------------|------------------------|---------------------|-------------------|
| VEH-0252 | 25                   | 50                     | 12                  | 0.75              |
| VEH-0254 |                      | 70                     | 23                  | 1.5               |
| VEH-0402 | 40                   | 200                    | 15                  | 1.5               |
| VEH-0404 |                      | 200                    | 22                  | 2.2               |
| VEH-0502 | 50                   | 300                    | 15                  | 2.2               |
| VEH-0504 |                      | 350                    | 22                  | 3.7               |
| VEH-0652 | 65                   | 500                    | 18                  | 3.7               |
| VEH-0802 | 80                   | 800                    | 15                  | 5.5               |
| VEH-0804 |                      | 800                    | 24                  | 7.5               |
| VEH-1002 | 100                  | 1,200                  | 15                  | 7.5               |

## 60 Hz model applicable motors

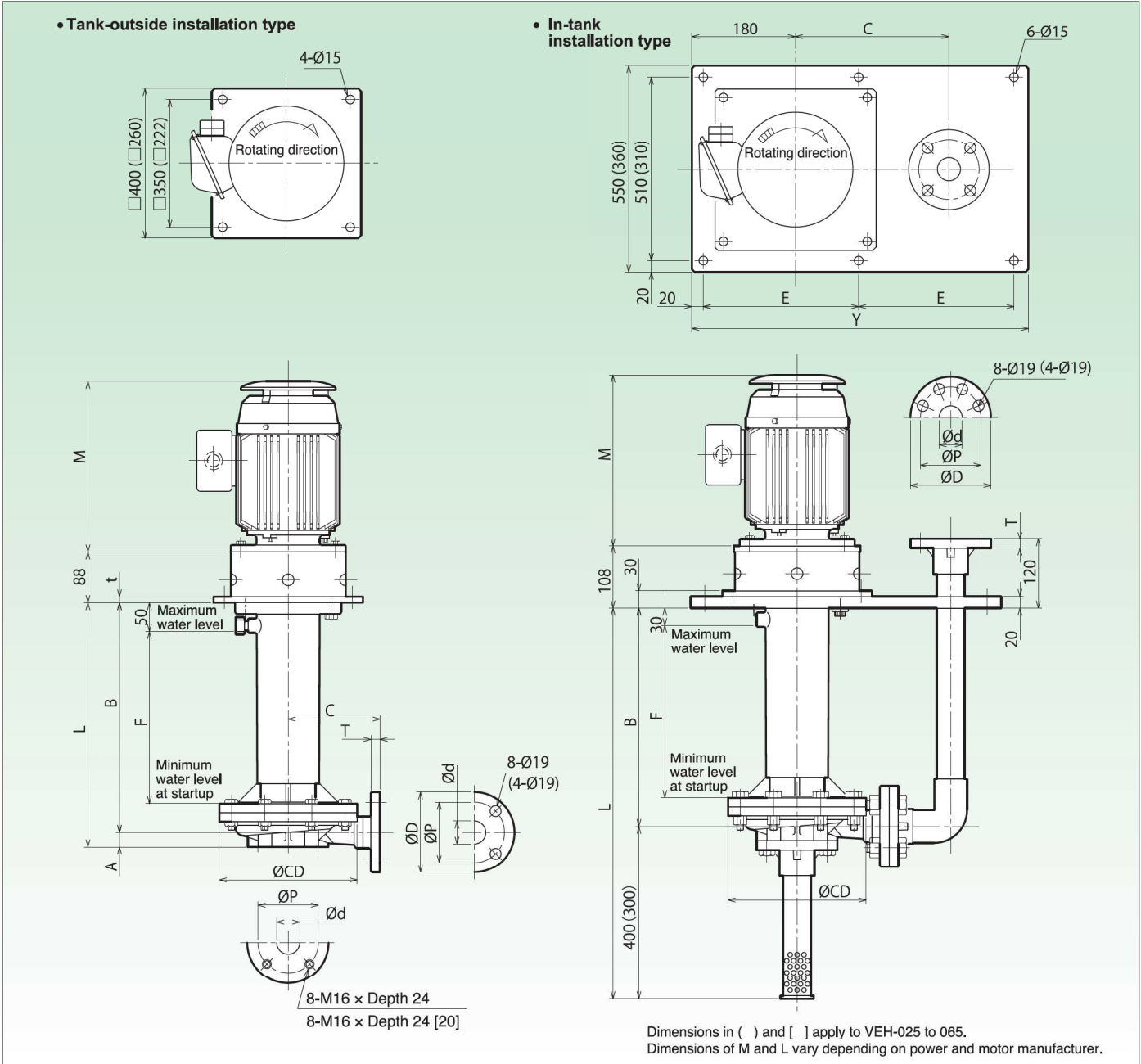
| Model         | Applicable motor (kW) |
|---------------|-----------------------|
| VEH-0252-0652 | 0.75, 1.5, 2.2, 3.7   |
| VEH-0802-1002 | 5.5, 7.5              |

Motor output is given for liquids with a specific gravity of 1.0 at the target point.

Motor: For fully-closed outer fan type for outdoor use

# VEH Series

## Dimensional drawing



### Dimensions table for tank-outside installation type

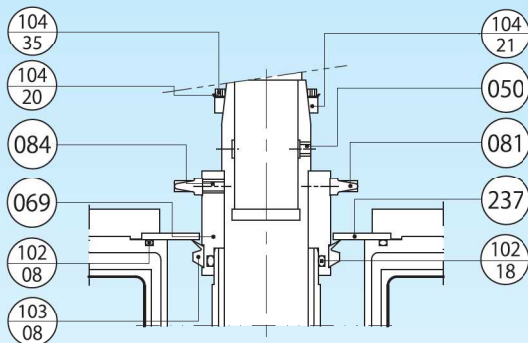
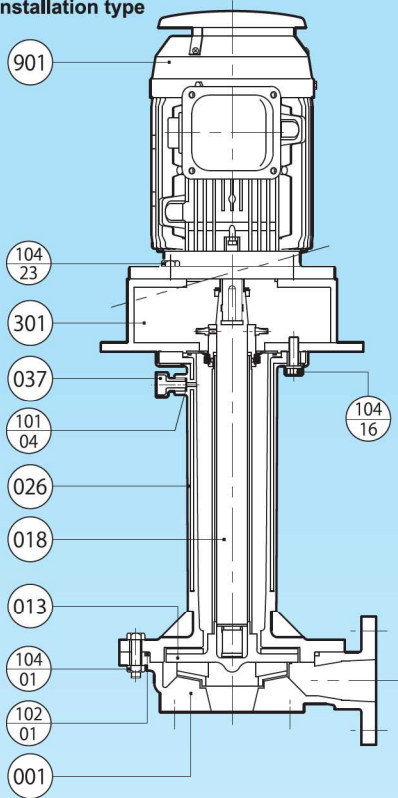
| Model   | A  | B   |          | F   |          | L   |          | C   | ØCD | Ød  | ØP  | ØD  | T  | t  |
|---------|----|-----|----------|-----|----------|-----|----------|-----|-----|-----|-----|-----|----|----|
|         |    | K/S | P/M, C/V | K/S | P/M, C/V | K/S | P/M, C/V |     |     |     |     |     |    |    |
| VEH-025 | 25 | 275 | 400      | 175 | 300      | 300 | 425      | 160 | 240 | 25  | 90  | 125 | 15 | 10 |
| VEH-040 | 25 | 275 | 400      | 175 | 300      | 300 | 425      | 160 | 240 | 40  | 105 | 140 | 16 | 10 |
| VEH-050 | 38 | 275 | 400      | 175 | 300      | 313 | 438      | 175 | 260 | 50  | 120 | 155 | 20 | 10 |
| VEH-065 | 38 | 275 | 400      | 175 | 300      | 313 | 438      | 175 | 260 | 65  | 140 | 175 | 20 | 10 |
| VEH-080 | 50 | —   | 350      | —   | 250      | —   | 400      | 240 | 310 | 77  | 150 | 185 | 20 | 14 |
| VEH-100 | 50 | —   | 350      | —   | 250      | —   | 400      | 240 | 310 | 100 | 175 | 210 | 20 | 14 |

### Dimensions table for in-tank installation type

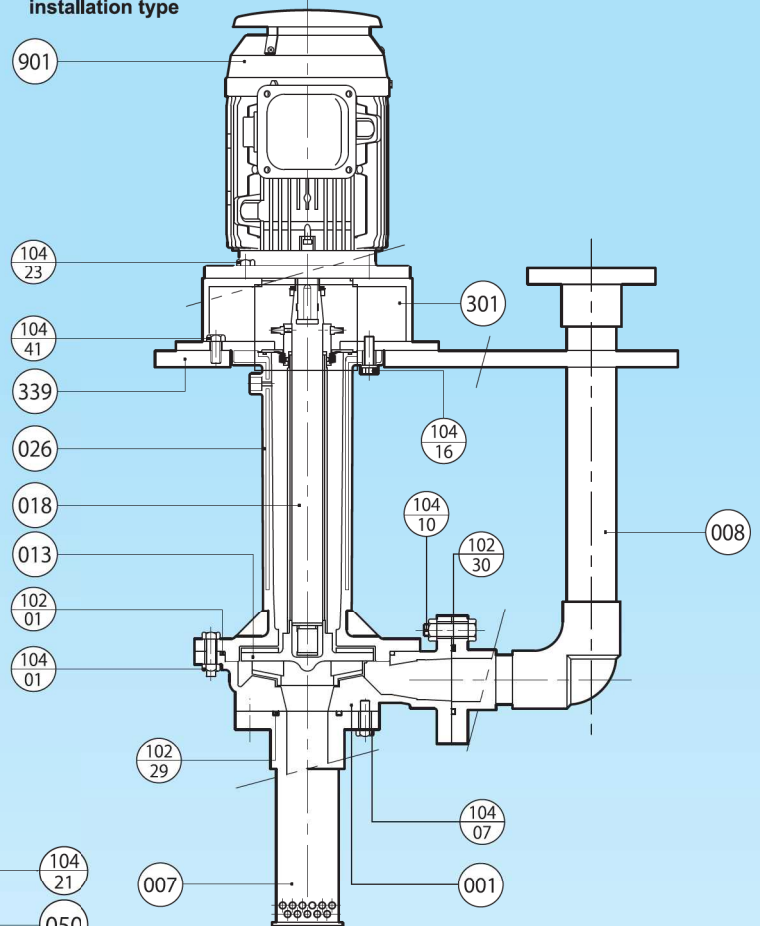
| Model   | B   |          | F   |          | L   |          | C   | φCD | E   | Y   | φd  | φP  | φD  | T  |
|---------|-----|----------|-----|----------|-----|----------|-----|-----|-----|-----|-----|-----|-----|----|
|         | K/S | P/M, C/V | K/S | P/M, C/V | K/S | P/M, C/V |     |     |     |     |     |     |     |    |
| VEH-025 | 255 | 380      | 175 | 300      | 555 | 680      | 267 | 240 | 245 | 530 | 25  | 90  | 125 | 15 |
| VEH-040 | 255 | 380      | 175 | 300      | 555 | 680      | 307 | 240 | 270 | 580 | 40  | 105 | 140 | 16 |
| VEH-050 | 255 | 380      | 175 | 300      | 555 | 680      | 345 | 260 | 295 | 630 | 50  | 120 | 155 | 20 |
| VEH-065 | 255 | 380      | 175 | 300      | 555 | 680      | 359 | 260 | 305 | 650 | 65  | 140 | 175 | 20 |
| VEH-080 | —   | 330      | —   | 250      | —   | 730      | 415 | 310 | 380 | 800 | 80  | 150 | 185 | 22 |
| VEH-100 | —   | 330      | —   | 250      | —   | 730      | 487 | 310 | 430 | 900 | 100 | 175 | 210 | 22 |

## Cross-section structural drawing

### Tank-outside installation type



### In-tank installation type



| Part No. | Part name                          | Material  | Q'ty  |
|----------|------------------------------------|-----------|-------|
| 001      | Casing                             | PVDF/PP   | 1     |
| 007      | Suction strainer                   | PVC/HTPVC | 1     |
| 008      | Discharge pipe                     | PVC/HTPVC | 1     |
| 013      | Impeller (Shaft sleeve integrated) | PVDF/PP   | 1     |
| 018      | Main shaft                         | S45C      | 1     |
| 026      | Pump body piping                   | PVDF/PP   | 1     |
| 037      | Air vent plug                      | PVDF/PP   | 1     |
| 050      | Main shaft set screw               | SUS304    | 1 set |
| 069      | Gas seal support                   | PP        | 1     |
| 081      | Air ring                           | EPDM      | 1     |
| 084      | Gas seal support set screw         | SUS304    | 1 set |
| 101-04   | Gasket (Air vent plug)             | FPM       | 1     |
| 102-01   | O-ring (Casing)                    | FPM/EPDM  | 1     |
| 102-08   | O-ring (Gas seal plate)            | EPDM      | 1     |
| 102-18   | O-ring (Gas seal support)          | EPDM      | 1     |
| 102-29   | O-ring (Suction pipe)              | FPM/EPDM  | 1     |
| 102-30   | O-ring (Discharge pipe)            | FPM/EPDM  | 1     |

| Part No. | Part name               | Material  | Q'ty  |
|----------|-------------------------|-----------|-------|
| 103-08   | V-ring (Gas seal)       | FPM       | 1     |
| 104-01   | Casing bolt/nut         | PVDF/PP   | 1 set |
| 104-07   | Suction pipe bolt       | PVC/HTPVC | 1 set |
| 104-10   | Discharge pipe bolt/nut | PVDF/PP   | 1 set |
| 104-16   | Pump body piping bolt   | PPS       | 1 set |
| 104-20   | Rolling bearing washer  | SS400     | 1     |
| 104-21   | Shaft joint ring        | S45C      | 1     |
| 104-23   | Motor bolt              | SUS304    | 1 set |
| 104-35   | Rolling bearing nut     | SS400     | 1     |
| 104-41   | Bed plate bolt          | SUS304    | 1 set |
| 237      | Gas seal plate          | C-PTFE    | 1     |
| 301      | Bed                     | SS400     | 1     |
| 339      | Bed plate               | PVC       | 1     |
| 901      | Motor                   |           | 1     |

\* ●007: Exchangeable with suction short pipe.

●104-01: For tank outside installation, SUS304 is used.