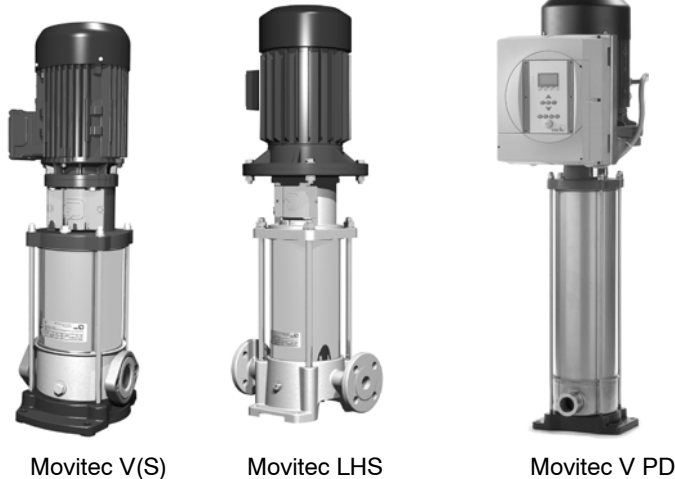


## High-pressure in-line pumps with and without speed control 50 Hz



Movitec V(S)

Movitec LHS

Movitec V PD

### Applications

**Movitec V(S) /-PD** and **LHS /-PD** are used for general water supply, spray irrigation, irrigation and pressure boosting duties, for warm water, hot water and cooling water recirculation, condensate transport. They are installed in boiler feed circuits, domestic water supply systems, washing plants, water treatment and filter systems, degreasing baths/alkaline cleaning agents, alkaline solutions and oils/emulsions, fire-fighting systems, as well as reverse osmosis and surface treatment applications.

### Design

#### Pump

Multistage, vertical (horizontal installation see page 5) high-pressure centrifugal pump, with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design).

#### Drive

##### Without speed control

Electric motor, 50 Hz, air-cooled, 2-pole and 4-pole, KSB standard motor with main dimensions to IEC. Other motor makes subject to prior consultation with KSB.

Movitec V, VS, LHS with PTC thermistors for motors  $\geq 3$  kW.

Variants: single-phase AC motor, 60 Hz (see type series booklet 1798.56-10).

##### With PumpDrive speed control system

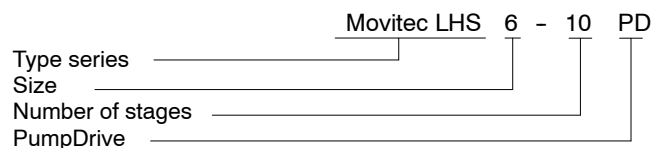
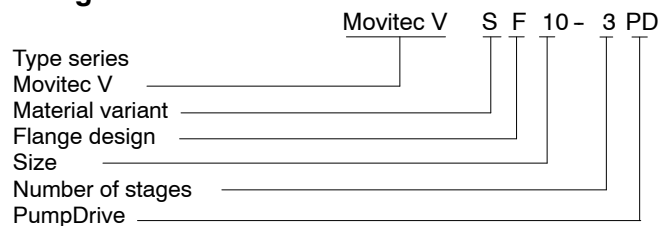
Enhanced with PumpDrive, a Movitec pump together with the appropriate sensors is turned into an intelligent, variable speed pumping system, ideal for both single-pump operation and multiple pump configurations with up to six pumps (see type series booklet PumpDrive 4070.5-10).

### Conformity mark

CE (all pumps), ACS (Movitec VE / V)

ATEX Group II, Cat. 2 and 3 on request (not for Movitec PD)

### Designation



Material variant: blank or S, see page 3  
 Flange design/connection: F = Round flange  
 V = Victaulic coupling

### Operating data

#### Movitec V(S) /-PD

|                       |                |                                     |
|-----------------------|----------------|-------------------------------------|
| Flow rate             | Q              | up to 75 m <sup>3</sup> /h (21 l/s) |
| Head                  | H              | up to 249 m                         |
| Operating pressure    | p <sub>d</sub> | up to 25 bar <sup>1)</sup>          |
| Operating temperature | t              | -15 °C to +120 °C                   |

#### Movitec LHS /-PD

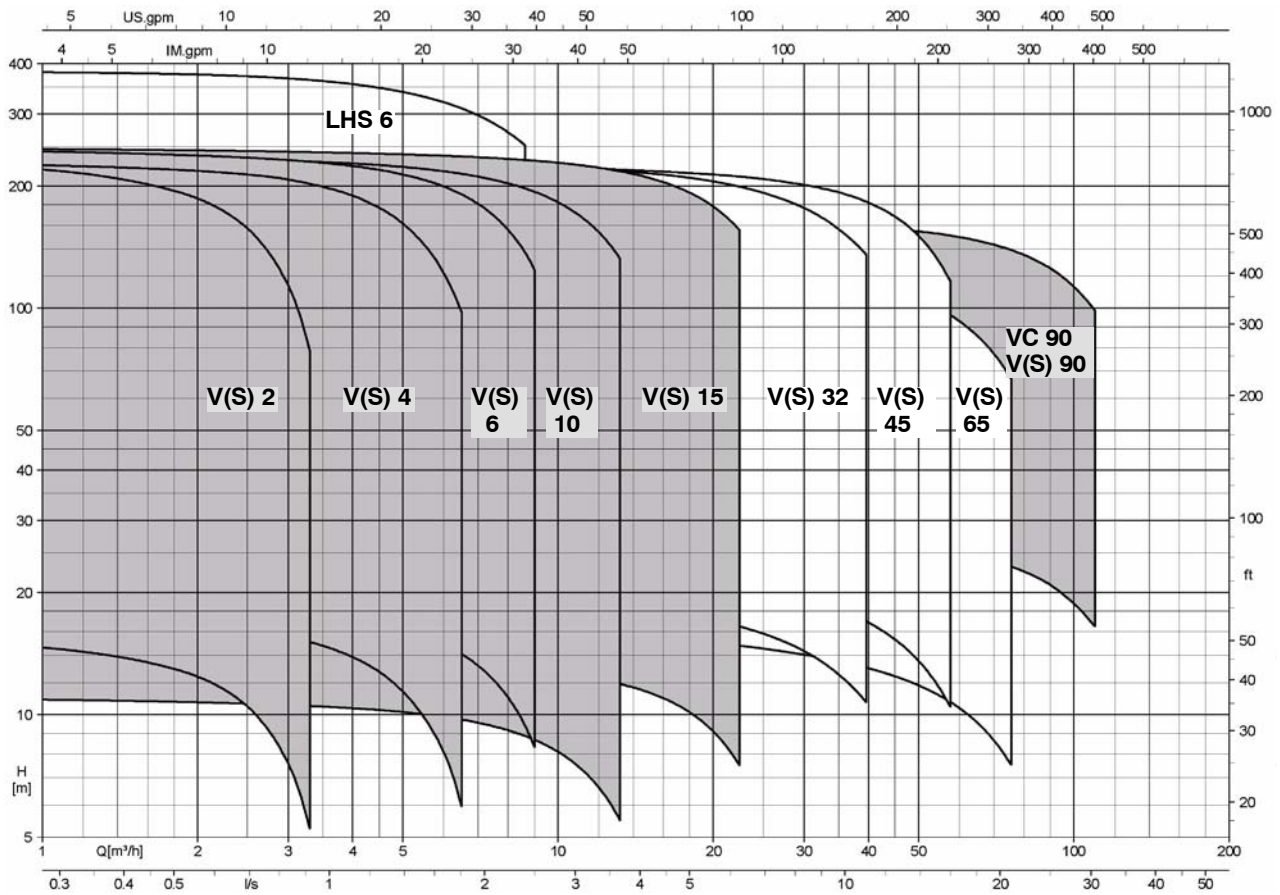
|                       |                |                                       |
|-----------------------|----------------|---------------------------------------|
| Flow rate             | Q              | up to 8.6 m <sup>3</sup> /h (2.4 l/s) |
| Head                  | H              | up to 401 m                           |
| Operating pressure    | p <sub>d</sub> | up to 40 bar <sup>1)</sup>            |
| Operating temperature | t              | -15 °C to +120 °C <sup>2)</sup>       |

<sup>1)</sup> The sum of inlet pressure and shut-off head must not exceed the value indicated.

<sup>2)</sup> Discharge pressure  $\leq$  PN 25: up to 120 °C

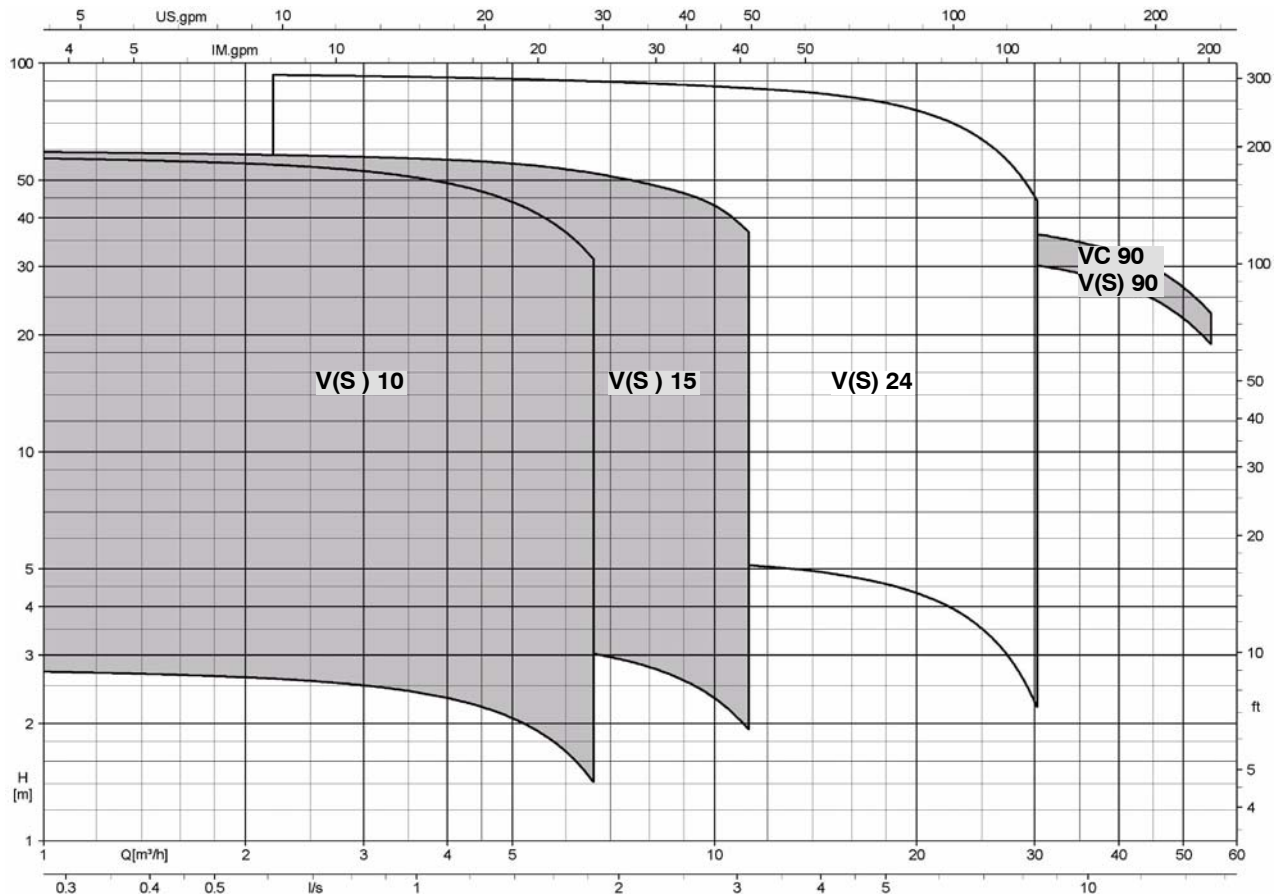
**Selection charts**

$n \approx 2900$  1/min



For Movitec 2, 4, 6, 10 15 and 90 please refer to type series booklet Movitec B, reference No. 1798.52-10

$n \approx 1450$  1/min



**Materials**

| Part No. | Description    | Material         |            |             |
|----------|----------------|------------------|------------|-------------|
|          |                | Movitec V        | Movitec VS | Movitec LHS |
| 101      | Pump casing    | 1.4301           | 1.4401     | 1.4408      |
| 108      | Stage casing   | 1.4301           | 1.4404     |             |
| 160      | Cover          | 1.4301           | 1.4404     |             |
| 171      | Diffuser       | 1.4301           | 1.4404     | -           |
| 10-6     | Pump shroud    | 1.4301           | 1.4404     |             |
| 210      | Shaft          | 1.4305           | 1.4401     |             |
| 230      | Impeller       | 1.4301           | 1.4404     |             |
| 341      | Motor stool    | JL 1040          |            | 1.4408      |
| 412      | O-ring         | EPDM             | VITON      |             |
| 525      | Spacer sleeve  | 1.4301           | 1.4404     |             |
| 529      | Bearing sleeve | Tungsten carbide |            |             |
| 1)       | Bearing        | Ceramics         |            |             |
| 890      | Baseplate      | JL 1040          |            | -           |
| 905      | Tie bolt       | 1.4057           |            |             |
| 920      | Nut            | 1.4301           | 1.4404     |             |
| 932      | Circlip        | 1.4571           |            |             |

1) Permanently connected with stage casing 108 or diffuser 171

**Key to materials**

| Description                           | Code and material No.            | Standard   | to ASTM   |
|---------------------------------------|----------------------------------|------------|-----------|
| Grey cast iron                        | JL1040 / GJL-250                 | EN 1561    | A48:40B   |
| Chrome nickel steel                   | 1.4301 / X5CrNi18-10             | EN 10088   | A276:304  |
| Chrome nickel molybdenum steel        | 1.4404 / X2CrNiMo 17-12-2        | EN 10088   | A276:316L |
| Carbon chrome nickel molybdenum steel | 1.4408 / GX5CrNiMo19-11-2        | EN 10213   | A743CF8M  |
| Chrome nickel molybdenum steel        | 1.4571 / X6CrNiMoTi17-12-2       | EN 10088   | A276:316  |
| Chrome nickel steel                   | 1.4057+QT800 / X17CrNi16-2-QT800 | EN 10088-3 | A276:431  |
|                                       | 1.4305 / X8CrNiS 18-9            | EN 10088   | A276:303  |
|                                       | 1.4401 / X5CrNiMo 17-12-2        | EN 10088   | A276:316  |
|                                       | 1.4308 / GX5CrNi 19-10           | EN 10283   | A743:CF8  |

**Please note:** Material designations to ASTM/AISI are not binding.

**Bearings**

All V , VS and LHS pumps are equipped with tungsten carbide plain bearings at the hydraulic rotor.

## Shaft seal

Single, uncooled mechanical seal in accordance with EN 12756.

### Material codes

| Mechanical seal | Description       | Code letter to EN 12756   | Material   |
|-----------------|-------------------|---|--|
|                 | Primary ring      | Q1<br>U3  | Silicon carbide (sintered without pressure)<br>Tungsten carbide (CrNiMo binder)  |
|                 | Mating ring       | B<br>U3   | Hard carbon, resin-impregnated<br>Tungsten carbide (CrNiMo binder)   |
|                 | Elastomer         | E<br>V<br>X4  | EPDM (ethylene propylene rubber)<br>Fluoroelastomer (Viton)<br>HNBR  |
|                 | Spring            | G   | CrNiMo steel   |
|                 | Other metal parts | G   | CrNiMo steel   |
|                 | Code number       | 13 Q1BEGG<br>14 Q1BVGG<br>15 U3U3X4GG<br>16 U3U3VGG<br>17 U3BVGG<br>19 U3BEGG | Silicon carbide / Hard carbon / EPDM<br>Silicon carbide / Hard carbon / Viton<br>Tungsten carbide/Tungsten carbide/HNBR<br>Tungsten carbide/Tungsten carbide/Viton<br>Tungsten carbide/Hard carbon/Viton<br>(40-bar seal; for Movitec LHS only)<br>Tungsten carbide / Hard carbon / EPDM |

### Pressure and temperature limits

| Fluid temperature t <sup>3)</sup>                       | Flange design/connection         | Material variant | Max. operating pressure p <sub>s</sub> <sup>1)</sup> | Code number of mechanical seal <sup>5)</sup> |            |
|---|----------------------------------|------------------|--|--|------------|
|   |                                  |                  |  | Standard                                     | Optional   |
| - 15 °C to + 120 °C                                     | VF = Round flange <sup>2)</sup>  | Movitec VF       | 16 to 25 bar   | 13   | 14, 15, 16 |
|   |                                  | Movitec VSF      | 16 to 25 bar   | 14   | 13, 15, 16 |
| - 15 °C to + 120 °C                                     | VSV = Victaulic coupling         | Movitec VV       | up to 25 bar   | 13   | 14, 15, 16 |
|   |                                  | Movitec VSV      | up to 25 bar   | 14   | 13, 15, 16 |
| - 15 °C to + 80 °C<br>- 15 °C to + 120 °C <sup>6)</sup> | LHS = Round flange <sup>4)</sup> | Movitec LHS      | up to 40 bar   | 17   | 19         |
|   |                                  |                  | up to 25 bar   | 17   | 19         |

1) The sum of inlet pressure and shut-off head must not exceed the value indicated.

2) Drilled to EN 1092-2 PN 25 (optional: ASME B 16.1 Class 250 or JIS B2238 16K)

3) Subject to special application limits (see List of Fluids Handled)

4) Drilled to EN 1092-2 PN 40

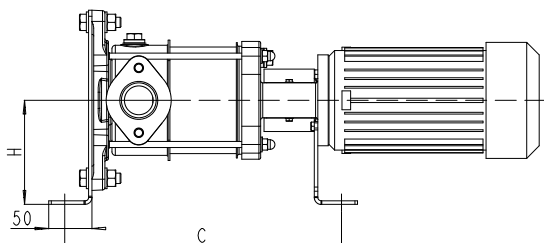
5) Movitec 24, 32 and 45 with motor ratings of 11 kW or higher: cartridge seals; Movitec 65 always with cartridge seal

6) If fluid temperature > 80 °C: PN 25, recommended elastomer - EPDM

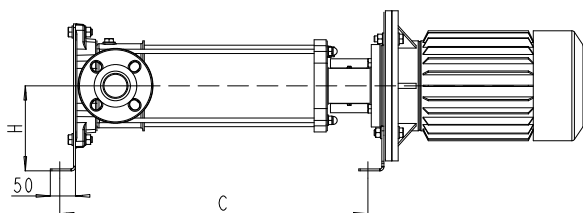
## Horizontal installation

Movitec can be installed horizontally in systems where the installation conditions do not allow vertical installation.

### Motor flange B14 (0.55 to 4.0 kW)

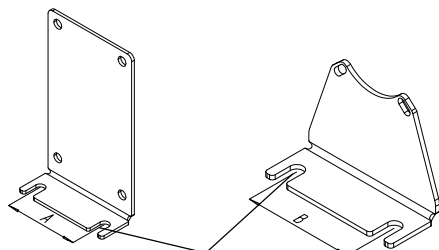


### Motor flange B5 (5.5 and 7.5 kW)



The set for horizontal installation includes 2 stainless steel holding brackets and the required fasteners.

**Foundation bolts must be supplied by the operator.**



max. Ø 13 mm for M12

Holding bracket  
(pump)  
89-11.01

Holding bracket (motor)  
89-11.02

### Dimensions of Movitec V, VS 24, 32, 45, 65

| Motor rating [kW]                          | C <sup>1)</sup> [mm] | H [mm] | A [mm] | B [mm] | Ident. No. of set <sup>2)</sup> |
|--|----------------------|--------|--------|--------|---------------------------------|
| <b>Movitec VF, VSF 24</b> - 4-pole         |                      |        |        |        |                                 |
| 1.1 - 1.5                                  | F2 + 47              | 170    | 180    | 180    | 47 116 969                      |
| 2.2 - 4.0                                  | F2 + 39              | 170    | 180    | 180    | 47 116 970                      |
| 5.5 - 7.5                                  | F2 - 17              | 170    | 180    | 180    | 47 116 971                      |
| <b>Movitec VF, VSF 32, 45, 65</b> - 2-pole |                      |        |        |        |                                 |
| 1.5 - 2.2                                  | F2 + 47              | 170    | 180    | 180    | 47 116 972                      |
| 3.0 - 4.0                                  | F2 + 39              | 170    | 180    | 180    | 47 116 973                      |
| 5.5 - 7.5                                  | F2 - 17              | 170    | 180    | 180    | 47 116 974                      |

1) For stage-dependent height dimension F2 refer to Movitec type series booklet, page 27ff

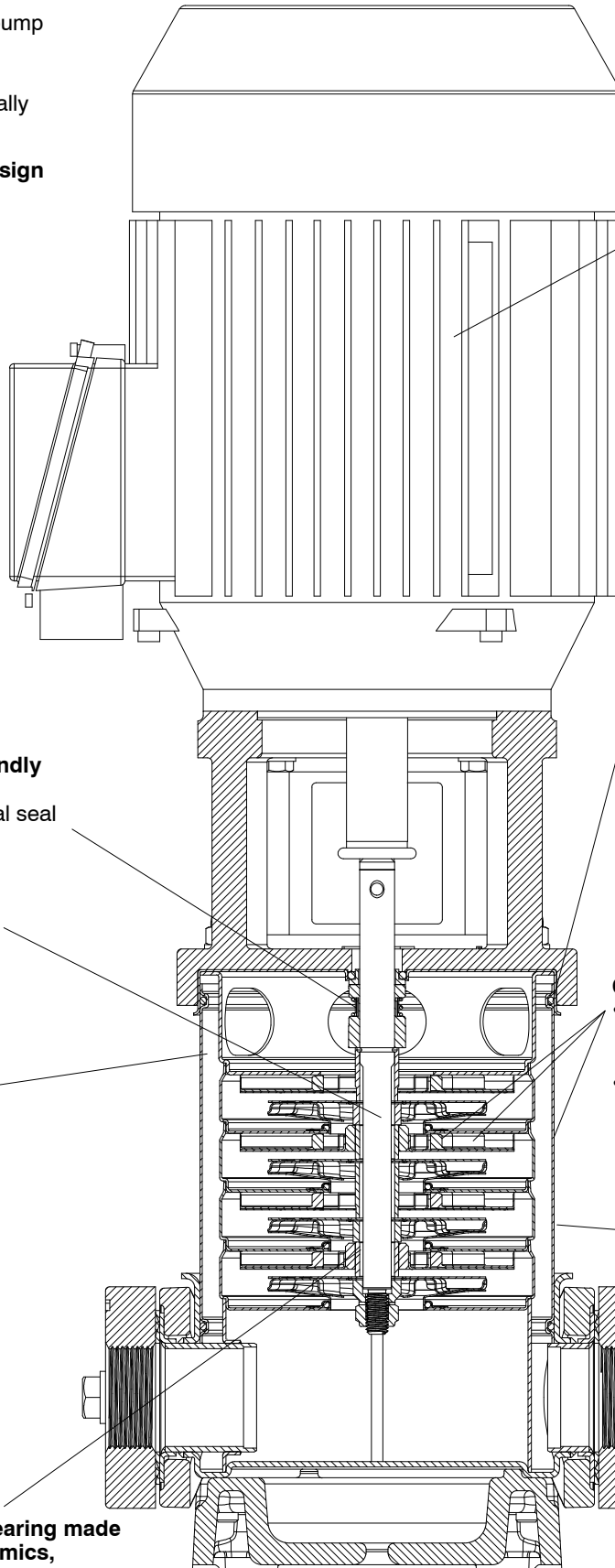
2) Not possible for Movitec LHS and PD

**Design features of Movitec V(S)**

**Universal** high-pressure pump  
up to 25 bar

- -15 °C to 120 °C
- Also suitable for chemically aggressive fluids

**Space saving vertical design**



**Service-friendly**, robust three-phase motor

- Multi-range voltage/frequency
- Enclosure IP 55
- Thermal class F
- With PTC thermistor  $\geq 3$  kW

**Leak-free and resistant to thermal shocks**

- Floating pump shroud
- Confined O-rings

**Reliable and service-friendly shaft seal**

- Standardised mechanical seal to EN 12756

**Easy-to-fit** shaft made of high-alloy steel, firm connection between shaft and impeller

**Low-noise:**  
Flow noise is damped by pump shroud

**Corrosion-resistant:**

- Hydraulic components and pump shroud made of high-alloy stainless steel
- Movitec V with pump shroud made of CrNi sheet steel

**High operating reliability** ensured by torsion-proof pump shroud

- No external joints
- Only 2 sealing elements

Highly wear-resistant and maintenance-free **plain bearing made of tungsten carbide/ceramics**, lubricated by the fluid handled

- Self-cleaning by forced flushing

**Simple installation** and piping layout thanks to in-line design

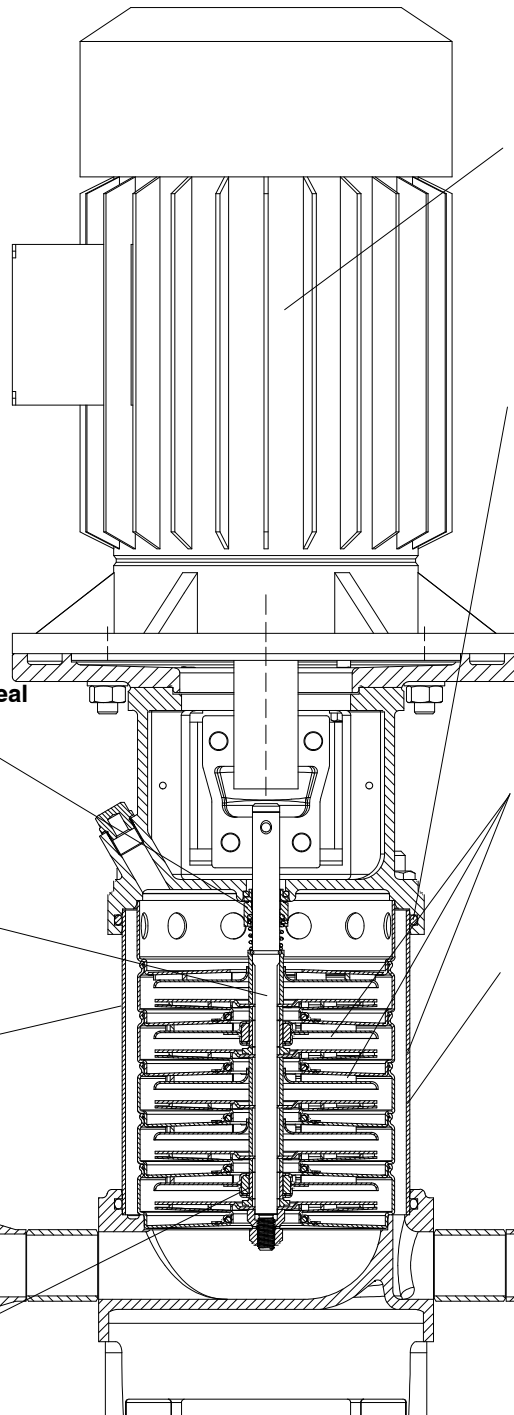
- Insensitive to external nozzle forces and moments

## Design features of Movitec LHS

**Universal** high-pressure pump  
up to 40 bar

- -15 °C to 120 °C
- Also suitable for chemically aggressive fluids

**Space saving vertical design**



**Service-friendly**, robust three-phase motor

- Multi-range voltage/frequency
- Enclosure IP 55
- Thermal class F
- With PTC thermistor  $\geq 3$  kW

**Leak-free and resistant to thermal shocks**

- Floating pump shroud
- Confined O-rings

**Reliable and service-friendly shaft seal**

- Standardised mechanical seal to EN 12756

**Easy-to-fit** shaft made of high-alloy steel, flat shaft end ensures firm connection between shaft and impeller

**Corrosion-resistant**

- Hydraulic components and pump shroud made of high-alloy stainless CrNiMo sheet steel

**Low-noise:**

Flow noise is damped by pump shroud

**High operating reliability** ensured

- by torsion-proof pump shroud
- No external joints
- Only 2 sealing elements

Highly wear-resistant and maintenance-free

**plain bearing made of tungsten carbide/ceramics**, lubricated by the fluid handled

- Self-cleaning by forced flushing

**Simple installation** and piping layout thanks to in-line design

- Insensitive to external nozzle forces and moments

**PumpDrive features**

| Functions   | PumpDrive ... |          |
|---|---------------|----------|
|   | Basic         | Advanced |
| <b>Protective functions</b>   |               |          |
| Thermal motor protection by PTC thermistors                             | ■             | ■        |
| Electrical motor protection by overvoltage/undervoltage monitoring      | ■             | ■        |
| Dynamic overload protection by speed limitation ( $i^2t$ control)       | ■             | ■        |
| Dry running protection  |               | ■        |
| Minimum flow stop   |               | ■        |
| Characteristic curve control ( $Q_{min}$ , $Q_{max}$ )                  |               | ■        |
| <b>Open-loop control</b>  |               |          |
| Open-loop operation via specified setpoint                              | ■             | ■        |
| User-definable speed (0 to 70 Hz)                                       | ■             | ■        |
| Stand-by mode<br>(stop at minimum speed after a defined period of time) | ■             | ■        |
| Programmable start and stop ramps                                       | ■             | ■        |
| Slave in multiple pump configuration with up to 6 pumps                 | ■             | ■        |
| Master in multiple pump configuration with up to 6 pumps                |               | ■        |
| Parameterisable H/Q/P curves  |               | ■        |
| <b>Closed-loop control</b>  |               |          |
| Closed-loop operation via integrated, programmable PI controller        | ■             | ■        |
| Differential pressure control   | ■             | ■        |
| Level control   | ■             | ■        |
| Temperature control   | ■             | ■        |
| Flow control  | ■             | ■        |
| Dynamic pressure setpoint compensation                                  | ■             | ■        |
| <b>Commissioning</b>  |               |          |
| Plug & run  | ■             | ■        |
| Automatic sensor recognition (when frequency inverter is started)       | ■             | ■        |
| <b>Operation</b>  |               |          |
| 3 LEDs (OK, warning and alert)  | ■             | ■        |
| Control panel (optional), rotatable 180°                                | ■             |          |
| Control panel, rotatable 180°   |               | ■        |
| <b>Monitoring</b>   |               |          |
| Fault history   | ■             | ■        |
| Energy meter (kWh)  | ■             |          |
| Operating hours counter (motor, FI)                                     | ■             | ■        |
| Energy savings meter (kWh)  |               | ■        |
| <b>Communication</b>  |               |          |
| Profibus field bus system   | ■             | ■        |
| LON field bus system  | ■             | ■        |
| RS 232 service interface  | ■             | ■        |
| <b>Installation</b>   |               |          |
| CM: in control cabinet IP 21  | ■             | ■        |
| MM: with adapter on motor, IP 55  | ■             | ■        |
| WM: wall-mounted IP 55  | ■             | ■        |
| <b>Functional enhancements (planned)</b>                                |               |          |
| Sensorless flow rate estimation   |               | ■        |
| Sensorless closed-loop control  |               | ■        |



## Casing

Pump casing with suction and discharge nozzles of identical nominal diameters arranged opposite to each other (in-line design).

**Movitec V(S):** Pump casing made of stainless steel, baseplate made of powder-coated grey cast iron.

**Movitec LHS:** stainless steel pump casing.

## Shaft seal

Uncooled, maintenance-free mechanical seal to EN 12756

## Drive

### Motor without speed control

#### Standard for V(S) and LHS:

- Electric motor, 50 Hz, air-cooled, 2-pole and 4-pole, standard KSB motor with main dimensions to IEC. Other motor makes after prior consultation with KSB, up to 2.2 kW 220–240 V/380–420 V, from 3 kW 380–420 V/660–725 V, enclosure IP 55, thermal class F, up to 4 kW in V18 type of construction; from 5.5 kW in V1 type of construction, all motors  $\geq 3$  kW with PTC thermistors.

#### Approved variants:

- Explosion-proof motor II 2 G Eexd/Eexe T3/T4, type of construction V1/V18, make to KSB's choice.
- Motor for mains voltage 500 V, type of construction V1/V18, make to KSB's choice.
- Motor make to customer's choice (upon request).
- PTC thermistors for motors < 3 kW

#### Direction of rotation:

Clockwise, viewed from the drive end (see rotation arrow on motor stool).

#### Coupling:

- All sizes: rigid coupling
- The couplings comply with the EC Machinery Directive.

### Motor with speed control system

#### Standard for V(S) and LHS:

- Electric motor, 50 Hz, air-cooled, 2-pole and 4-pole, KSB standard motor with main dimensions to IEC. Other motor makes after prior consultation with KSB, 3~380 V AC -15 % to 480 V AC +10 % Enclosure IP 55, thermal class F, up to 4 kW in V18 type of construction; from 5.5 kW in V1 type of construction, all motors  $\geq 3$  kW with PTC thermistors.

#### Approved variants:

- Motor make to customer's choice (upon request).
- PTC thermistors for motors < 3 kW

#### Direction of rotation:

Clockwise, viewed from the drive end (see rotation arrow on motor stool).

#### Coupling

- All sizes: rigid coupling
- The couplings comply with the EC Machinery Directive.

## Installation

Vertical installation (horizontal installation see page 5)

## Coating

### Movitec V(S):

Powder-coated grey cast iron motor stool and baseplate.

**Movitec V(S):** Grey cast iron sliding flanges protected by sherardising.

**All pumps:** Stainless steel parts without additional protective coating.

## Tests/Inspections

### Standard:

Pressure test to EN 809

Leak test with water

### Possible variant (on request):

Hydraulic test evidenced by test report. This test is always carried out using the original motor.

The NPSH and the suction head are not measured.

### Materials testing

Certificate of compliance with the order (corresponds to EN 10 204)

In the certificate of compliance with the order the manufacturing or processing works confirms by way of an informal report without specifying test results that the delivery complies with the stipulations of the purchase order (certificate to 2.2 and 3.1 available upon request).

## Characteristic curves <sup>2)</sup>

The characteristic curves are based on the following principles:

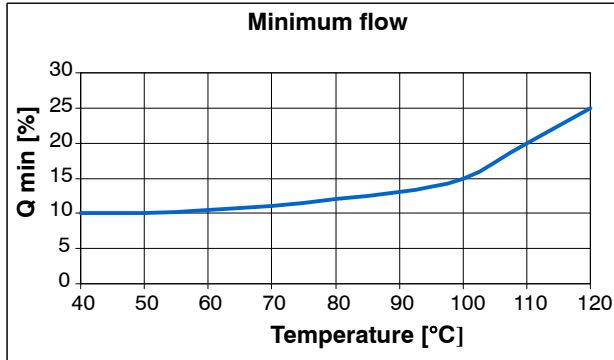
- Tolerances to ISO 9906 Class 2/Annex A
- Measurements are made with standardised KSB motors with integrated frequency inverters <sup>1)</sup>
- The characteristic curves were obtained with deaerated water at a temperature of 20 °C and a density of 1.0 kg/dm<sup>3</sup> <sup>1)</sup>
- The characteristic curves are valid for a kinematic viscosity of 1 mm<sup>2</sup>/s (1 cst) <sup>1)</sup>
- The pump is designed to give optimum performance at the point of best efficiency ( $Q_{opt}$ ). This means:
  - **Recommended operating range: 0.50 to 1.30 of  $Q_{opt}$  <sup>2)</sup>**
  - The characteristic curve outside this range is given for information purposes only <sup>2)</sup>.
- A minimum flow must be maintained to prevent the pump from overheating.

| Movitec V    | $Q_{min}$ in m <sup>3</sup> /h |
|--------------|--------------------------------|
| <b>24</b>    | 2.2                            |
| <b>32</b>    | 4.0                            |
| <b>45</b>    | 4.6                            |
| <b>65</b>    | 6.1                            |
| <b>LHS 6</b> | 0.8                            |

<sup>1)</sup> In case of different parameters, the performance data must be corrected accordingly.

<sup>2)</sup> See example on the following page

The following curve shows the minimum flow, corresponding to a percentage of the optimum flow  $Q_{opt}$  (flow rate at best efficiency point), as a function of the temperature of the fluid handled.



● **NPSH**

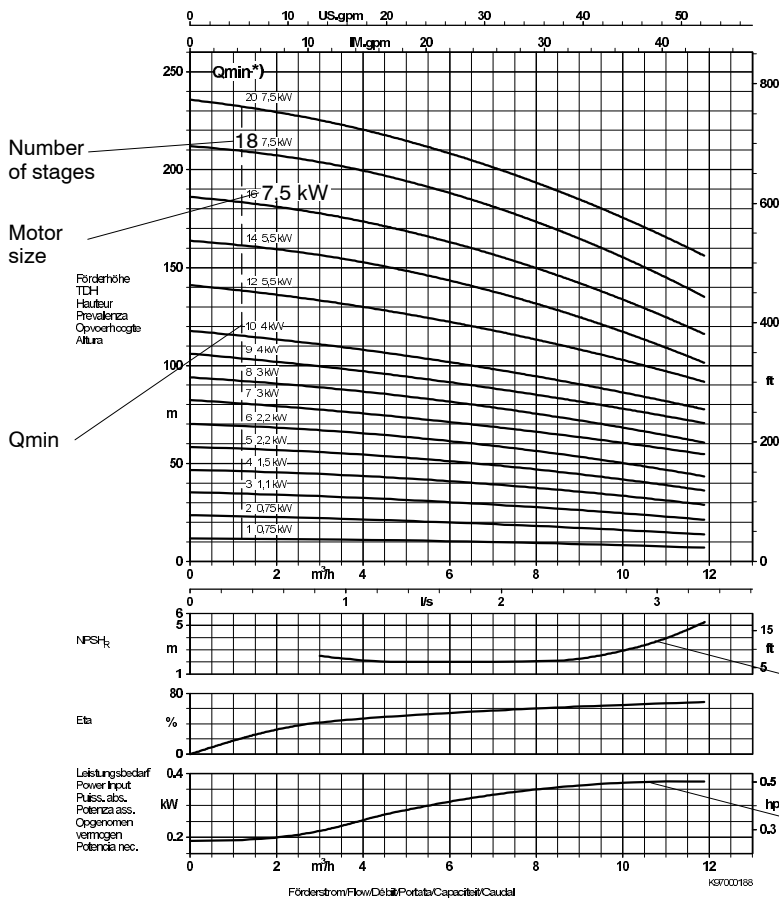
The NPSH values given in the individual characteristic curves are minimum values which correspond to the cavitation limit. They refer to deaerated water.

A safety allowance of at least 0.5 m must be added when selecting the pump to compensate for measuring inaccuracies and minor manufacturing deviations. The NPSH curve reflects mean values.

- Maximum pressure at the discharge nozzle:  
 25 bar - shut-off head with round flange (VF) and Victaulic coupling (VSV).  
 40 bar - shut-off head with round flange (LHS).

**Selection example for pump set without speed control**

|  |                                |   |   |  |                                   |  |
|--|--------------------------------|---|---|--|-----------------------------------|--|
| Baureihe-Große<br>Type-Size<br>Modelle | Tipo<br>Serie<br>Tipo          | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom. | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom. | Laufräder<br>Impeller Dia.<br>Diamètre de roue | # Stufen<br># Vaisles<br># Rodete | <br>KSB Aktiengesellschaft<br>67229 Frankfurt<br>Jürgen-Klar-Straße 9<br>67227 Frankfurt |
| Movitec V (S) 10                       | Movitec V (S) 10               | ≈ 2900 1/min                                | ≈ 2900 1/min                                | 100 mm   | 10                                |  |
| Projekt<br>Project<br>Projet           | Progetto<br>Project<br>Proyeto | Angebot-Nr.<br>Project No.<br>No. de offre  | Offerta-Nr.<br>Offertenc.<br>Offerta-Nr.    | Pos.-Nr.<br>Item No.<br>No. de pos.            | Pos.-Nr.<br>Positem.<br>Pos.-Nr.  |  |



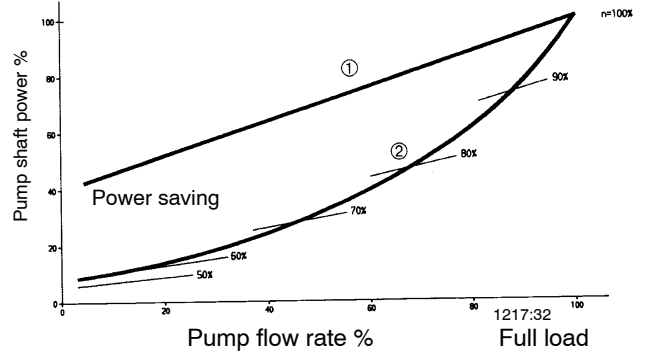
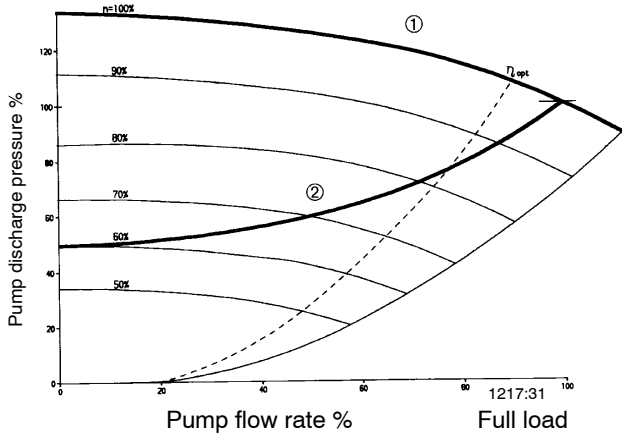
NPSH required. A safety allowance of 0.5 m must be added to the NPSH value of the characteristic curve when selecting the system.

Power input per stage at a density  $\rho = 1 \text{ kg/dm}^3$

**Example: Differential pressure control**

**Control task:**

Maintaining the differential supply pressure even with changing operating conditions and interferences.



$\eta_{opt}$  : optimum pump efficiency curve

- ① Pump curve for fixed-speed operation (n = 100 %)
- ② Pump curve for variable-speed operation (n = variable)

## Pump performance

A pump's performance is described by several characteristic curves combined in a performance chart, which correspond to the different frequencies (Hz) or motor speeds.

The motor speed is indicated for each characteristic curve.

The range covered by the H/Q curves and the power input curves extends from the minimum speed stipulated for the pump up to the maximum speed.

Any duty point within this performance range can be obtained by adjusting the rotational speed accordingly.

Speed range: 100 - 25 % or 50 - 12.5 Hz.

## Change in operating data

Flow rate Q, pump head H and power input P change as a function of speed N or frequency F.

$$Q_2 = \frac{n_2}{n_1} \cdot Q_1$$

$$H_2 = \left(\frac{n_2}{n_1}\right)^2 \cdot H_1$$

$$\eta_2 = 1 - \left( (1 - \eta_1) \cdot \frac{(n_1)^{0,1}}{(n_2)^{0,1}} \right)$$

$$P_2 = \frac{(n_2)^3}{(n_1)^3} \cdot P_1$$

$$NPSH_2 = \frac{(n_2)^2}{(n_1)^2} \cdot NPSH_1$$

A pump's NPSH changes depending on the respective H/Q curve. However, the NPSH of the pump at maximum speed (or maximum frequency) must always be taken into account and used as calculation basis.

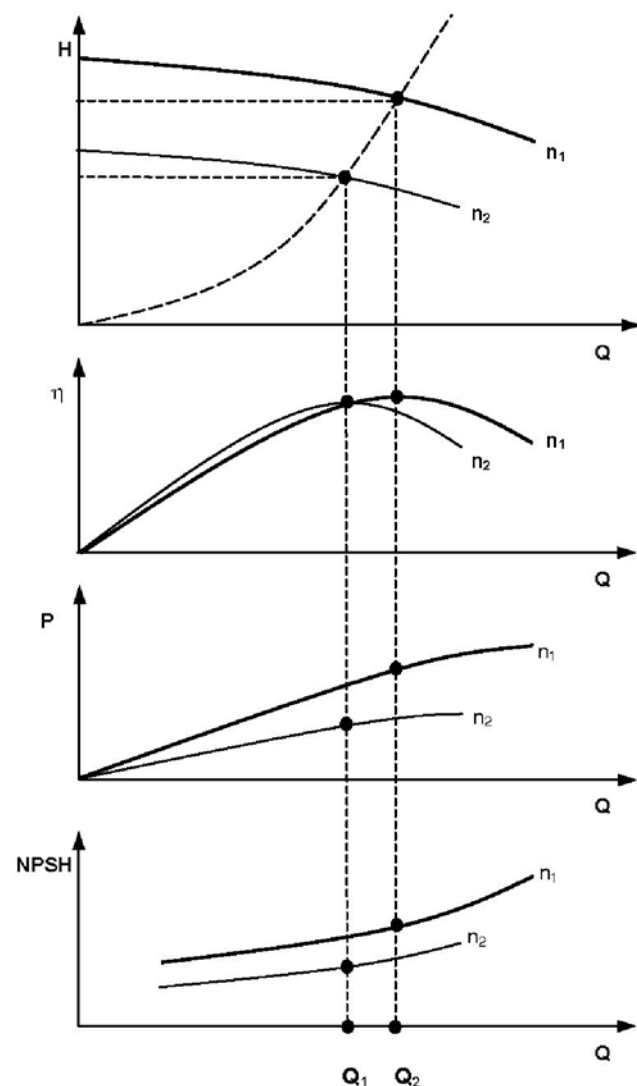
## PumpDrive

### Standard functions:

- Diagnostic LEDs signal operation, overload or fault
- Increased starting torque
- Pump-specific <sup>1)</sup> minimum and maximum speeds
- Two isolated analog inputs for standard signals / live-zero yes/no <sup>1)</sup>
- Automatic restart after automatic safety tripping yes / no<sup>1)</sup>
- Three restarting attempts within 3 seconds each <sup>1)</sup>
- Modes of operation: open-loop control/differential pressure control by integrated PI controller with automatic detection
- Direction of rotation: anti-clockwise/clockwise <sup>1)</sup>
- External standard signal 0/2 - 10 V / 0/4 - 20 mA
- General fault message contact (240 V AC, max. 1 A)
- Pump is stopped when flow rate falls below a minimum value
- Setpoint specified via motor potentiometer function

<sup>1)</sup> With optional control panel

## Performance chart



### Protective functions:

- Electronic overcurrent trip
- Integrated EMC (electromagnetic compatibility) filter, class B ≤7.5 kW, class A ≥11 kW
- Automatic overload control
- Thermal overload control
- Full motor protection by PTC thermistors
- Undervoltage/overvoltage protection
- Phase short-circuit protection
- Earth fault current protection
- Dry running protection
- Start/Stop via digital input
- No motor protection or mains switch required

For details please refer to type series booklet PumpDrive 4070.5-10

**Recommended spare parts stock for two years' continuous operation**

| Number of pumps of identical size<br>(including stand-by pumps) --> |   | 2                       | 3 | 4 | 5      | 6 and 7 | 8 and 9 | 10 and more |
|---|---|-------------------------|---|---|--------|---------|---------|-------------|
| Part No.  | Description   | Quantity of spare parts |   |   |        |         |         | %           |
| 10-5  | <b>Stage casing, cpl. with bearing kit</b><br>Stage casing with bearing (108.02) + bearing sleeve (529) + impeller (230) + spacer sleeve, short (525.01)  | 1 set                   |   |   | 2 sets |         | 3 sets  | 30          |
| 433   | 1 Mechanical seal 433<br>2 O-rings 412.01<br>2 Gaskets (oval) 400<br>(for pumps with V flange variant only)<br>1 O-ring 412.05 (for cartridge seal only)<br>1 O-ring 412.06 (for cartridge seal only) | 1 set                   |   |   | 2 sets |         | 3 sets  | 30          |

## List of fluids handled

The data refer to the chemical resistance of the materials. The relevant regulations/standards governing individual pump applications have to be complied with.

The actual operating conditions must always be checked (concentration, temperature, solids content).

The penetration of air into the system must be avoided by all means.

If the operating conditions differ from the data given (e.g. mixed products) or if the fluids are not included in the table below, please contact KSB.

### Basic data:

- Temperature ranges:
  - Reference temperature: 20 °C.
  - In the case of temperatures  $\leq 0$  °C Contact KSB.
  - In the case of temperatures  $> 50$  °C: check and observe the vapour pressure of the fluid handled!
  - Max. temperature = 120 °C, unless indicated otherwise.
- Max. concentration = 100 % unless indicated otherwise.
- Mechanical seal of silicon carbide / carbon (Q1B): not suitable for fluids containing solids.  
This rule also covers particles developing as a result of salt crystallisation at low fluid temperatures.
- Mechanical seal of tungsten carbide / tungsten carbide (U3U3): max. solids content 20 ppm (depending on particle size), with the exception of corrosive fluids. Fluids with a higher solids content are not permitted (ppm = 1 mg/kg).
- Please note: High temperatures will increase corrosion (reference temperature = 20 °C).
- Under unfavourable conditions (high temperatures, deposits, long idle periods), chloride contents of more than 300 mg/l may result in localised corrosion.

| Fluid handled<br>(see special conditions given at the end of the table) | Max. content in % | Max. temperature in °C | Mechanical seal variant |                 |                 |                 |     |     |
|---|-------------------|------------------------|-------------------------|-----------------|-----------------|-----------------|-----|-----|
|   |                   |                        | 13                      | 14              | 15              | 16              | 17  | 19  |
| Alcohol (ethanol)   |                   | 60                     | V                       | -               | -               | -               | -   | LHS |
| Alkaline solution (bottle rinsing) (pH $\leq 9.5$ )                     | 10                | 80                     | -                       | -               | V <sup>1)</sup> | -               | -   | -   |
| Alkaline solution (metal degreasing) (pH $\leq 9.5$ )                   | 10                | 80                     | -                       | -               | V <sup>1)</sup> | -               | -   | -   |
| Alum  | 3                 | 80                     | -                       | VS              | -               | -               | LHS | -   |
| Aluminium sulphate  | 5                 | 60                     | -                       | -               | -               | V <sup>1)</sup> | -   | -   |
| Ammonium bicarbonate  | 10                | 40                     | V <sup>1)</sup>         | -               | -               | -               | -   | LHS |
| Ammonium chloride (salmiac)   | 25                | 30                     | VS                      | -               | -               | -               | -   | LHS |
| Ammonium sulphate   | 20                | 60                     | V <sup>1)</sup>         | -               | -               | -               | -   | LHS |
| Antifreeze (glycol base, salt-free)                                     | min. 20           |                        | V                       | -               | -               | -               | LHS | LHS |
| Antifreeze (halogen-free) <sup>4)</sup>                                 |                   |                        | V                       | -               | -               | -               | -   | LHS |
| Buttermilk  |                   | 80                     | V <sup>1)</sup>         | -               | -               | -               | LHS | LHS |
| Butyl alcohol (Butanol)   |                   | 60                     | V                       | -               | -               | -               | -   | LHS |
| Calcium acetate   | 10                | 60                     | VS                      | -               | -               | -               | -   | LHS |
| Calcium nitrate (non acidic)  | 10                | 60                     | -                       | -               | -               | V <sup>1)</sup> | -   | -   |
| Cider   |                   | 40                     | V <sup>1)</sup>         | -               | -               | -               | LHS | LHS |
| Citric acid   | 25                | 30                     | -                       | V <sup>1)</sup> | -               | -               | -   | -   |
| Copper sulphate   | 10                | 80                     | -                       | -               | V <sup>1)</sup> | -               | -   | -   |
| Crude oil <sup>4)</sup>   |                   | 80                     | -                       | V <sup>1)</sup> | -               | -               | LHS | -   |
| Crude oil condensate <sup>4)</sup>                                      |                   |                        | -                       | V <sup>1)</sup> | -               | -               | LHS | -   |
| Deionised water (fully desalinated)                                     |                   |                        | V <sup>1)</sup>         | -               | -               | -               | -   | LHS |
| Diesel oil (light, extra light)   |                   | 80                     | -                       | V               | -               | -               | LHS | -   |
| Ethanol (alcohol)   |                   | 60                     | V                       | -               | -               | -               | -   | LHS |
| Ethylene glycol / Diethylene glycol (salt-free)                         |                   | 100                    | V                       | -               | -               | -               | LHS | LHS |
| Ferric sulphate (II)  | 10                | 80                     | -                       | -               | -               | V               | -   | -   |
| Fruit juices, pH-neutral (6.5)  |                   | 60                     | -                       | V               | -               | -               | LHS | -   |
| Fuel oil (light) (without antifreeze for -20 °C and below)              |                   | 80                     | -                       | V               | -               | -               | LHS | -   |
| Glycerine   | 40                |                        | V                       | -               | -               | -               | LHS | LHS |
| Glycol (salt-free) (see ethylene glycol)                                |                   | 100                    | V                       | -               | -               | -               | LHS | LHS |
| Hexane  |                   | 40                     | -                       | V               | -               | -               | LHS | -   |
| Isopropyl alcohol (2-propanol)  |                   | 80                     | V                       | -               | -               | -               | -   | LHS |
| Kerosene (jet fuel)   |                   | 100                    | -                       | V               | -               | -               | LHS | -   |

<sup>1)</sup> Only valid if all standard (brass) screw plugs of Movitec V are replaced by stainless steel screw plugs. Otherwise, a Movitec VS with the right seal must be used.

<sup>4)</sup> Fluid details required.

| Fluid handled<br>(see special conditions given at the end of<br>the table) | Max. con-<br>tent in % | Max. tempera-<br>ture in °C | Mechanical seal variant |                   |                 |                 |     |     |
|--|------------------------|-----------------------------|-------------------------|-------------------|-----------------|-----------------|-----|-----|
|  |                        |                             | 13                      | 14                | 15              | 16              | 17  | 19  |
| Lactic acid  | 40                     | 60                          | -                       | V <sup>1)</sup>   | -               | -               | LHS | -   |
| Liqueur  |                        | 60                          | -                       | V                 | -               | -               | LHS | -   |
| Magnesium sulphate   | 10                     | 80                          | -                       | V                 | -               | -               | LHS | -   |
| Maleic acid  | 10                     | 60                          | -                       | VS                | -               | -               | -   | -   |
| Miscella <sup>4)</sup>   |                        | 60                          | -                       | V <sup>1)</sup>   | -               | -               | LHS | -   |
| Oil-water mixtures (without solids)  |                        |                             | -                       | V                 | -               | -               | LHS | -   |
| <b>Oils</b> (without abrasive solids):                                     |                        |                             |                         |                   |                 |                 |     |     |
| Corn oil   |                        | 100                         | -                       | V <sup>1)3)</sup> | -               | -               | LHS | -   |
| Cutting oil <sup>4)</sup>  |                        | 100                         | -                       | -                 | -               | V <sup>3)</sup> | -   | -   |
| Hydraulic oil <sup>4)</sup>  |                        | 80                          | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Linseed oil  |                        | 60                          | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Linseed oil + 3 % H <sub>2</sub> SO <sub>4</sub>                           |                        | 60                          | -                       | VS                | -               | -               | -   | -   |
| Lubricating oil <sup>4)</sup>  |                        | 100                         | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Mineral oil <sup>4)</sup>  |                        | 80                          | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Peanut oil   |                        |                             | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Rapeseed oil   |                        | 100                         | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Salad oil <sup>4)</sup>  |                        | 100                         | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Silicone oil <sup>4)</sup>   |                        | 60                          | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Soybean oil  |                        | 100                         | -                       | V <sup>1)3)</sup> | -               | -               | LHS | -   |
| Turpentine oil <sup>4)</sup>   |                        | 60                          | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Turbine oil (no SDF oils) <sup>4)</sup>                                    |                        | 100                         | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Vegetable oils (H <sub>2</sub> SO <sub>4</sub> -free) <sup>4)</sup>        |                        |                             | -                       | V <sup>3)</sup>   | -               | -               | LHS | -   |
| Paraffin(s) <sup>4)</sup>  |                        |                             | -                       | V                 | -               | -               | LHS | -   |
| Petroleum (without solids)   |                        | 80                          | -                       | V                 | -               | -               | LHS | -   |
| Phosphoric acid  | 5                      | 20                          | -                       | V                 | -               | -               | -   | -   |
| Polyethylene glycol <sup>4)</sup>  |                        | 80                          | V                       | -                 | -               | -               | LHS | LHS |
| Polyglycols <sup>4)</sup>  |                        | 80                          | -                       | V                 | -               | -               | LHS | -   |
| Potassium bicarbonate  | 10                     | 60                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Potassium carbonate  | 25                     | 60                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Potassium hydroxide  | 5                      | 60                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Potassium nitrate  | 10                     | 30                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Potassium sulphate   | 3                      | 20                          | -                       | VS                | -               | -               | LHS | -   |
| Propyl alcohol (see isopropyl alcohol)                                     |                        | 80                          | -                       | -                 | -               | -               | -   | -   |
| Soda lye (see sodium hydroxide)  |                        |                             | -                       | -                 | -               | -               | -   | -   |
| Sodium carbonate   | 6                      | 60                          | V <sup>1)</sup>         | -                 | -               | -               | -   | LHS |
| Sodium hydroxide (soda lye)  | 10                     | 60                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Sodium nitrate (non acidic)  | 10                     | 60                          | V <sup>1)</sup>         | -                 | -               | -               | -   | LHS |
| Sodium sulphate (non acidic)   | 5                      | 60                          | V <sup>1)</sup>         | -                 | -               | -               | -   | LHS |
| Spirits  |                        | 60                          | V                       | -                 | -               | -               | -   | LHS |
| Sulphuric acid   | 5                      | 30                          | -                       | VS <sup>3)</sup>  | -               | -               | -   | -   |
| Tannic acid  | 20                     | 80                          | -                       | V <sup>1)</sup>   | -               | -               | LHS | -   |
| Tartaric acid  | 8                      | 60                          | -                       | V <sup>1)</sup>   | -               | -               | LHS | -   |
| Trisodium phosphate  | 4                      | 80                          | -                       | -                 | V <sup>1)</sup> | -               | -   | -   |
| Turpentine (oil) (see oil, turpentine) <sup>4)</sup>                       |                        | 60                          | -                       | V                 | -               | -               | LHS | -   |
| Vinegar (wine vinegar)   | 10                     | 60                          | VS                      | -                 | -               | -               | -   | LHS |

<sup>1)</sup> Only valid if all standard (brass) screw plugs of Movitec V are replaced by stainless steel screw plugs. Otherwise, a Movitec VS with the right seal must be used.

<sup>3)</sup> Pure fluid without abrasive solids.

<sup>4)</sup> Fluid details required.

| Fluid handled<br>(see special conditions given at the end of the table) | Max. content in % | Max. temperature in °C | Mechanical seal variant |    |                 |                 |    |     |
|---|-------------------|------------------------|-------------------------|----|-----------------|-----------------|----|-----|
|   |                   |                        | 13                      | 14 | 15              | 16              | 17 | 19  |
| Water-glycol mixture (salt-free, with inhibitors)                       | min. 20           |                        | V                       | -  | -               | -               | -  | LHS |
| <b>Water:</b>   |                   |                        |                         |    |                 |                 |    |     |
| Condensate  |                   |                        | VS <sup>2)</sup>        | -  | -               | -               | -  | LHS |
| Cooling water   |                   |                        | -                       | -  | -               | V <sup>1)</sup> | -  | -   |
| Decarbonised water  |                   |                        | -                       | -  | V <sup>1)</sup> | -               | -  | -   |
| Deionised water   |                   |                        | V <sup>1)</sup>         | -  | -               | -               | -  | LHS |
| Distilled water   |                   |                        | V <sup>1)</sup>         | -  | -               | -               | -  | LHS |
| Drinking water  |                   |                        | V                       | -  | -               | -               | -  | LHS |
| Fire-fighting water   |                   |                        | -                       | -  | V <sup>1)</sup> | -               | -  | -   |
| Fully desalinated water (see deionised water)                           |                   |                        | -                       | -  | -               | -               | -  | -   |
| Heating water   |                   |                        | V                       | -  | -               | -               | -  | LHS |
| Partly desalinated water (see decarbonised water)                       |                   |                        | -                       | -  | -               | -               | -  | -   |
| Pure water (chemically neutral, <b>no</b> ultrapure water)              |                   |                        | V <sup>1)</sup>         | -  | -               | -               | -  | LHS |
| Rinsing water   |                   |                        | -                       | -  | -               | V <sup>1)</sup> | -  | -   |
| Seawater (continuous operation)   |                   |                        | -                       | 25 | -               | -               | VS | -   |
| Softened water (see decarbonised water)                                 |                   |                        | -                       | -  | -               | -               | -  | -   |
| Swimming pool water (no brine)  |                   |                        | -                       | -  | VS              | -               | -  | LHS |
| Untreated water (suspended solids content < 20 ppm)                     |                   |                        | -                       | -  | -               | V               | -  | -   |
| Tap water   |                   |                        | V                       | -  | -               | -               | -  | LHS |
| Wine (white, red)   |                   |                        | V <sup>1)</sup>         | 40 | -               | -               | -  | LHS |

<sup>1)</sup> Only valid if all standard (brass) screw plugs of Movitec V are replaced by stainless steel screw plugs. Otherwise, a Movitec VS with the right seal must be used.

<sup>2)</sup> Water treatment shall be in accordance with VdTÜV guidelines for feed and boiler water in steam systems of up to 64 bar. The penetration of air into the system must be avoided by all means.



**Movitec V with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3~230/400 V up to 2.2 kW, 3 kW and above: 3~400/692 V**

| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup><br>Type | Max. current<br>Fixed-speed pump<br>I <sub>max</sub> in A | Oval flange<br>Movitec V<br>Fixed-speed pump |    | Round flange<br>Movitec VF<br>Fixed-speed pump |       | Victaulic coupling<br>Movitec VV<br>Fixed-speed pump |    |
|---------------|------------------|-----------------|--------------------|----------------------------------|---|--|----|--|-------|--|----|
|               |                  |                 |                    |                                  |   | Ident. No.                                   | kg | Ident. No.                                     | kg    | Ident. No.   | kg |
| <b>4-pole</b> |                  |                 |                    |                                  |   |  |    |  |       |  |    |
| Movitec V 24  | 1                | 13              | 1.1                | ..001K10..                       | 5.2 / 3.0   | -  | -  | 47 110 071                                     | 57.8  | -  | -  |
| Movitec V 24  | 2                | 13              | 1.1                | ..001K10..                       | 5.2 / 3.0   | -  | -  | 47 110 072                                     | 60.1  | -  | -  |
| Movitec V 24  | 3                | 13              | 1.5                | ..001K50..                       | 7.1 / 4.1   | -  | -  | 47 110 073                                     | 64.5  | -  | -  |
| Movitec V 24  | 4                | 13              | 2.2                | ..002K20..                       | 9.0 / 5.2   | -  | -  | 47 110 074                                     | 73.8  | -  | -  |
| Movitec V 24  | 5                | 13              | 2.2                | ..002K20..                       | 9.0 / 5.2   | -  | -  | 47 110 075                                     | 76.2  | -  | -  |
| Movitec V 24  | 6                | 13              | 3                  | ..004K00..                       | 8.1 / 4.7   | -  | -  | 47 110 076                                     | 82.5  | -  | -  |
| Movitec V 24  | 7                | 13              | 3                  | ..004K00..                       | 8.1 / 4.7   | -  | -  | 47 110 077                                     | 84.9  | -  | -  |
| Movitec V 24  | 8                | 13              | 4                  | ..004K00..                       | 9.9 / 5.7   | -  | -  | 47 110 078                                     | 94.2  | -  | -  |
| Movitec V 24  | 9                | 13              | 4                  | ..004K00..                       | 9.9 / 5.7   | -  | -  | 47 110 079                                     | 96.6  | -  | -  |
| Movitec V 24  | 10               | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 080                                     | 115.5 | -  | -  |
| Movitec V 24  | 11               | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 081                                     | 117.8 | -  | -  |
| Movitec V 24  | 12               | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 082                                     | 120.2 | -  | -  |
| Movitec V 24  | 16               | 13              | 7.5                | ..007K50..                       | 16.0 / 9.2  | -  | -  | 47 110 083                                     | 138.1 | -  | -  |
| <b>2-pole</b> |                  |                 |                    |                                  |   |  |    |  |       |  |    |
| Movitec V 32  | 1                | 13              | 2.2                | ..002K20..                       | 10.4 / 6.0  | -  | -  | 47 110 108                                     | 60.9  | -  | -  |
| Movitec V 32  | 2                | 13              | 4                  | ..004K00..                       | 9.0 / 5.2   | -  | -  | 47 110 109                                     | 81.1  | -  | -  |
| Movitec V 32  | 3                | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 110                                     | 89.5  | -  | -  |
| Movitec V 32  | 4                | 13              | 7.5                | ..007K50..                       | 15.5 / 8.9  | -  | -  | 47 110 111                                     | 95.8  | -  | -  |
| Movitec V 32  | 5                | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 112                                     | 167.1 | -  | -  |
| Movitec V 32  | 6                | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 113                                     | 169.4 | -  | -  |
| Movitec V 32  | 7                | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 114                                     | 185.7 | -  | -  |
| Movitec V 32  | 8                | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 115                                     | 188.0 | -  | -  |
| Movitec V 32  | 9                | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 48 894 051                                     | 205.0 | -  | -  |
| Movitec V 32  | 10               | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 47 110 117                                     | 207.5 | -  | -  |
| Movitec V 32  | 11               | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 47 110 118                                     | 209.8 | -  | -  |
| Movitec V 32  | 12               | 13              | 22                 | ..022K00..                       | 44.5 / 25.7   | -  | -  | 47 110 119                                     | 247.9 | -  | -  |
| Movitec V 45  | 1-1              | 13              | 2.2                | ..002K20..                       | 10.4 / 6.0  | -  | -  | 47 110 140                                     | 61.9  | -  | -  |
| Movitec V 45  | 1                | 13              | 4                  | ..004K00..                       | 9.0 / 5.2   | -  | -  | 47 110 141                                     | 80.0  | -  | -  |
| Movitec V 45  | 2-1              | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 142                                     | 88.3  | -  | -  |
| Movitec V 45  | 2                | 13              | 7.5                | ..007K50..                       | 15.5 / 8.9  | -  | -  | 47 110 143                                     | 92.4  | -  | -  |
| Movitec V 45  | 3-1              | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 144                                     | 163.7 | -  | -  |
| Movitec V 45  | 3                | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 145                                     | 163.8 | -  | -  |
| Movitec V 45  | 4-1              | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 146                                     | 166.1 | -  | -  |
| Movitec V 45  | 4                | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 147                                     | 180.1 | -  | -  |
| Movitec V 45  | 5-1              | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 148                                     | 182.5 | -  | -  |
| Movitec V 45  | 5                | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 47 110 149                                     | 197.5 | -  | -  |
| Movitec V 45  | 6-1              | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 47 110 150                                     | 199.9 | -  | -  |
| Movitec V 45  | 6                | 13              | 22                 | ..022K00..                       | 44.5 / 25.7   | -  | -  | 47 110 151                                     | 235.8 | -  | -  |
| Movitec V 45  | 7-1              | 13              | 22                 | ..022K00..                       | 44.5 / 25.7   | -  | -  | 47 110 152                                     | 238.1 | -  | -  |
| Movitec V 45  | 7                | 13              | 30                 | ..030K00..                       | 56.1 / 32.4   | -  | -  | 47 110 153                                     | 362.2 | -  | -  |
| Movitec V 45  | 8-1              | 13              | 30                 | ..030K00..                       | 56.1 / 32.4   | -  | -  | 47 110 154                                     | 364.5 | -  | -  |
| Movitec V 45  | 8                | 13              | 30                 | ..030K00..                       | 56.1 / 32.4   | -  | -  | 47 110 155                                     | 364.6 | -  | -  |
| Movitec V 45  | 9-1              | 13              | 30                 | ..030K00..                       | 56.1 / 32.4   | -  | -  | 47 110 156                                     | 366.9 | -  | -  |
| Movitec V 45  | 9                | 13              | 37                 | ..037K00..                       | 65.5 / 37.8   | -  | -  | 47 110 157                                     | 367.0 | -  | -  |
| Movitec V 45  | 10-1             | 13              | 37                 | ..037K00..                       | 65.5 / 37.8   | -  | -  | 47 110 158                                     | 369.3 | -  | -  |
| Movitec V 45  | 10               | 13              | 37                 | ..037K00..                       | 65.5 / 37.8   | -  | -  | 47 110 159                                     | 369.4 | -  | -  |
| Movitec V 65  | 1                | 13              | 3                  | ..004K00..                       | 7.0 / 4.1   | -  | -  | 47 110 176                                     | 78.1  | -  | -  |
| Movitec V 65  | 2                | 13              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -  | -  | 47 110 177                                     | 96.5  | -  | -  |
| Movitec V 65  | 3                | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 48 894 061                                     | 170.0 | -  | -  |
| Movitec V 65  | 4                | 13              | 11                 | ..011K00..                       | 30.5 / 17.6   | -  | -  | 47 110 179                                     | 173.5 | -  | -  |
| Movitec V 65  | 5                | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 180                                     | 190.9 | -  | -  |
| Movitec V 65  | 6                | 13              | 15                 | ..015K00..                       | 31.7 / 18.3   | -  | -  | 47 110 181                                     | 194.3 | -  | -  |
| Movitec V 65  | 7                | 13              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -  | -  | 47 110 182                                     | 212.7 | -  | -  |
| Movitec V 65  | 8                | 13              | 22                 | ..022K00..                       | 44.5 / 25.7   | -  | -  | 47 110 183                                     | 252.1 | -  | -  |

<sup>1)</sup> Voltage for variable-speed motors generally 3~400 V, currents see type series booklet 4070.5-10

**Movitec V with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3 kW and above: 3~230/400 V**

| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup><br>Type | Max. current<br>Fixed-speed pump<br>I <sub>max</sub> in A | Oval flange<br>Movitec V<br>Fixed-speed pump |    | Round flange<br>Movitec VF<br>Fixed-speed pump |       | Victaulic coupling<br>Movitec VV<br>Fixed-speed pump |    |
|---------------|------------------|-----------------|--------------------|----------------------------------|---|--|----|--|-------|--|----|
|               |                  |                 |                    |                                  |   | Ident. No.                                   | kg | Ident. No.                                     | kg    | Ident. No.   | kg |
| <b>4-pole</b> |                  |                 |                    |                                  |   |  |    |  |       |  |    |
| Movitec V 24  | 6                | 13              | 3                  | ..004K00..                       | 14.0 / 8.1  | -  | -  | 47 110 063                                     | 82.5  | -  | -  |
| Movitec V 24  | 7                | 13              | 3                  | ..004K00..                       | 14.0 / 8.1  | -  | -  | 47 110 064                                     | 84.9  | -  | -  |
| Movitec V 24  | 8                | 13              | 4                  | ..004K00..                       | 17.2 / 9.9  | -  | -  | 47 110 065                                     | 94.2  | -  | -  |
| Movitec V 24  | 9                | 13              | 4                  | ..004K00..                       | 17.2 / 9.9  | -  | -  | 47 110 066                                     | 96.6  | -  | -  |
| Movitec V 24  | 10               | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 067                                     | 115.5 | -  | -  |
| Movitec V 24  | 11               | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 068                                     | 117.8 | -  | -  |
| Movitec V 24  | 12               | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 069                                     | 120.2 | -  | -  |
| Movitec V 24  | 16               | 13              | 7.5                | ..007K50..                       | 27.7 / 16.0   | -  | -  | 47 110 070                                     | 138.1 | -  | -  |
| <b>2-pole</b> |                  |                 |                    |                                  |   |  |    |  |       |  |    |
| Movitec V 32  | 2                | 13              | 4                  | ..004K00..                       | 15.6 / 9.0  | -  | -  | 47 110 097                                     | 81.1  | -  | -  |
| Movitec V 32  | 3                | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 098                                     | 89.5  | -  | -  |
| Movitec V 32  | 4                | 13              | 7.5                | ..007K50..                       | 26.8 / 15.5   | -  | -  | 47 110 099                                     | 95.8  | -  | -  |
| Movitec V 32  | 5                | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 100                                     | 167.1 | -  | -  |
| Movitec V 32  | 6                | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 101                                     | 169.4 | -  | -  |
| Movitec V 32  | 7                | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 102                                     | 185.7 | -  | -  |
| Movitec V 32  | 8                | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 103                                     | 188.0 | -  | -  |
| Movitec V 32  | 9                | 13              | 18.5               | ..018K50..                       | 54.9 / 31.7   | -  | -  | 48 894 050                                     | 205.0 | -  | -  |
| Movitec V 32  | 10               | 13              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -  | -  | 47 110 105                                     | 207.5 | -  | -  |
| Movitec V 32  | 11               | 13              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -  | -  | 47 110 106                                     | 209.8 | -  | -  |
| Movitec V 32  | 12               | 13              | 22                 | ..022K00..                       | 77.1 / 44.5   | -  | -  | 47 110 107                                     | 247.9 | -  | -  |
| Movitec V 45  | 1                | 13              | 4                  | ..004K00..                       | 15.6 / 9.0  | -  | -  | 47 110 128                                     | 80.0  | -  | -  |
| Movitec V 45  | 2-1              | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 129                                     | 88.3  | -  | -  |
| Movitec V 45  | 2                | 13              | 7.5                | ..007K50..                       | 26.8 / 15.5   | -  | -  | 47 110 130                                     | 92.4  | -  | -  |
| Movitec V 45  | 3-1              | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 131                                     | 163.7 | -  | -  |
| Movitec V 45  | 3                | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 132                                     | 163.8 | -  | -  |
| Movitec V 45  | 4-1              | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 133                                     | 166.1 | -  | -  |
| Movitec V 45  | 4                | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 134                                     | 180.1 | -  | -  |
| Movitec V 45  | 5-1              | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 135                                     | 182.5 | -  | -  |
| Movitec V 45  | 5                | 13              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -  | -  | 47 110 136                                     | 197.5 | -  | -  |
| Movitec V 45  | 6-1              | 13              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -  | -  | 47 110 137                                     | 199.9 | -  | -  |
| Movitec V 45  | 6                | 13              | 22                 | ..022K00..                       | 77.1 / 44.5   | -  | -  | 47 110 138                                     | 235.8 | -  | -  |
| Movitec V 45  | 7-1              | 13              | 22                 | ..022K00..                       | 77.1 / 44.5   | -  | -  | 47 110 139                                     | 238.1 | -  | -  |
| Movitec V 65  | 1                | 13              | 3                  | ..003K00..                       | 12.1 / 7.0  | -  | -  | 47 110 167                                     | 78.1  | -  | -  |
| Movitec V 65  | 2                | 13              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -  | -  | 47 110 168                                     | 96.5  | -  | -  |
| Movitec V 65  | 3                | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 48 894 060                                     | 170.0 | -  | -  |
| Movitec V 65  | 4                | 13              | 11                 | ..011K00..                       | 52.8 / 30.5   | -  | -  | 47 110 170                                     | 173.5 | -  | -  |
| Movitec V 65  | 5                | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 171                                     | 190.9 | -  | -  |
| Movitec V 65  | 6                | 13              | 15                 | ..015K00..                       | 54.9 / 31.7   | -  | -  | 47 110 172                                     | 194.3 | -  | -  |
| Movitec V 65  | 7                | 13              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -  | -  | 47 110 173                                     | 212.7 | -  | -  |
| Movitec V 65  | 8                | 13              | 22                 | ..022K00..                       | 77.1 / 44.5   | -  | -  | 47 110 174                                     | 252.1 | -  | -  |
| Movitec V 65  | 9                | 13              | 30                 | ..030K00..                       | 77.1 / 44.5   | -  | -  | 48 894 072                                     | 329.0 | -  | -  |

\*) Available as variant (Factory Option)

<sup>1)</sup> Voltage for variable-speed motors generally 3~400 V, currents see type series booklet 4070.5-10

**Movitec VS with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3~230/400 V up to 2.2 kW, 3 kW and above: 3~400/692 V**

| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup><br>Type | Max. current<br>Fixed-speed pump<br>I <sub>max</sub> in A | Oval flange<br>Movitec VS<br>Fixed-speed pump |    | Round flange<br>Movitec VSF<br>Fixed-speed pump |       | Vitaulic coupling<br>Movitec VSV<br>Fixed-speed pump |    |
|---------------|------------------|-----------------|--------------------|----------------------------------|---|---|----|---|-------|--|----|
|               |                  |                 |                    |                                  |   | Ident. No.                                    | kg | Ident. No.                                      | kg    | Ident. No.   | kg |
| <b>4-pole</b> |                  |                 |                    |                                  |   |   |    |   |       |  |    |
| Movitec VS 24 | 1                | 14              | 1.1                | ..001K10..                       | 5.2 / 3.0   | -   | -  | 47 110 637                                      | 57.8  | -  | -  |
| Movitec VS 24 | 2                | 14              | 1.1                | ..001K10..                       | 5.2 / 3.0   | -   | -  | 47 110 638                                      | 60.1  | -  | -  |
| Movitec VS 24 | 3                | 14              | 1.5                | ..001K50..                       | 7.1 / 4.1   | -   | -  | 47 110 639                                      | 64.5  | -  | -  |
| Movitec VS 24 | 4                | 14              | 2.2                | ..002K20..                       | 9.0 / 5.2   | -   | -  | 47 110 640                                      | 73.8  | -  | -  |
| Movitec VS 24 | 5                | 14              | 2.2                | ..002K20..                       | 9.0 / 5.2   | -   | -  | 47 110 641                                      | 76.2  | -  | -  |
| Movitec VS 24 | 6                | 14              | 3                  | ..004K00..                       | 8.1 / 4.7   | -   | -  | 47 110 642                                      | 82.5  | -  | -  |
| Movitec VS 24 | 7                | 14              | 3                  | ..004K00..                       | 8.1 / 4.7   | -   | -  | 47 110 643                                      | 84.9  | -  | -  |
| Movitec VS 24 | 8                | 14              | 4                  | ..004K00..                       | 9.9 / 5.7   | -   | -  | 47 110 644                                      | 94.2  | -  | -  |
| Movitec VS 24 | 9                | 14              | 4                  | ..004K00..                       | 9.9 / 5.7   | -   | -  | 47 110 645                                      | 96.6  | -  | -  |
| Movitec VS 24 | 10               | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 646                                      | 115.5 | -  | -  |
| Movitec VS 24 | 11               | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 647                                      | 117.8 | -  | -  |
| Movitec VS 24 | 12               | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 648                                      | 120.2 | -  | -  |
| Movitec VS 24 | 16               | 14              | 7.5                | ..007K50..                       | 16.0 / 9.2  | -   | -  | 47 110 649                                      | 138.1 | -  | -  |
| <b>2-pole</b> |                  |                 |                    |                                  |   |   |    |   |       |  |    |
| Movitec VS 32 | 1                | 14              | 2.2                | ..002K20..                       | 10.4 / 6.0  | -   | -  | 47 110 674                                      | 60.9  | -  | -  |
| Movitec VS 32 | 2                | 14              | 4                  | ..004K00..                       | 9.0 / 5.2   | -   | -  | 47 110 675                                      | 81.1  | -  | -  |
| Movitec VS 32 | 3                | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 676                                      | 89.5  | -  | -  |
| Movitec VS 32 | 4                | 14              | 7.5                | ..007K50..                       | 15.5 / 8.9  | -   | -  | 47 110 677                                      | 95.8  | -  | -  |
| Movitec VS 32 | 5                | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 678                                      | 167.1 | -  | -  |
| Movitec VS 32 | 6                | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 679                                      | 169.4 | -  | -  |
| Movitec VS 32 | 7                | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 680                                      | 185.7 | -  | -  |
| Movitec VS 32 | 8                | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 681                                      | 188.0 | -  | -  |
| Movitec VS 32 | 9                | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 48 894 053                                      | 205.0 | -  | -  |
| Movitec VS 32 | 10               | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 47 110 683                                      | 207.5 | -  | -  |
| Movitec VS 32 | 11               | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 47 110 684                                      | 209.8 | -  | -  |
| Movitec VS 32 | 12               | 14              | 22                 | ..022K00..                       | 44.5 / 25.7   | -   | -  | 47 110 685                                      | 247.9 | -  | -  |
| Movitec VS 45 | 1-1              | 14              | 2.2                | ..002K20..                       | 10.4 / 6.0  | -   | -  | 47 110 705                                      | 61.9  | -  | -  |
| Movitec VS 45 | 1                | 14              | 4                  | ..004K00..                       | 9.0 / 5.2   | -   | -  | 47 110 706                                      | 80.0  | -  | -  |
| Movitec VS 45 | 2-1              | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 707                                      | 88.3  | -  | -  |
| Movitec VS 45 | 2                | 14              | 7.5                | ..007K50..                       | 15.5 / 8.9  | -   | -  | 47 110 708                                      | 92.4  | -  | -  |
| Movitec VS 45 | 3-1              | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 709                                      | 163.7 | -  | -  |
| Movitec VS 45 | 3                | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 710                                      | 163.8 | -  | -  |
| Movitec VS 45 | 4-1              | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 711                                      | 166.1 | -  | -  |
| Movitec VS 45 | 4                | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 712                                      | 180.1 | -  | -  |
| Movitec VS 45 | 5-1              | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 713                                      | 182.5 | -  | -  |
| Movitec VS 45 | 5                | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 47 110 714                                      | 197.5 | -  | -  |
| Movitec VS 45 | 6-1              | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 47 110 715                                      | 199.9 | -  | -  |
| Movitec VS 45 | 6                | 14              | 22                 | ..022K00..                       | 44.5 / 25.7   | -   | -  | 47 110 716                                      | 235.8 | -  | -  |
| Movitec VS 45 | 7-1              | 14              | 22                 | ..022K00..                       | 44.5 / 25.7   | -   | -  | 47 110 717                                      | 238.1 | -  | -  |
| Movitec VS 45 | 7                | 14              | 30                 | ..030K00..                       | 56.1 / 32.4   | -   | -  | 47 110 718                                      | 362.2 | -  | -  |
| Movitec VS 45 | 8-1              | 14              | 30                 | ..030K00..                       | 56.1 / 32.4   | -   | -  | 47 110 719                                      | 364.5 | -  | -  |
| Movitec VS 45 | 8                | 14              | 30                 | ..030K00..                       | 56.1 / 32.4   | -   | -  | 47 110 720                                      | 364.6 | -  | -  |
| Movitec VS 45 | 9-1              | 14              | 30                 | ..030K00..                       | 56.1 / 32.4   | -   | -  | 47 110 721                                      | 366.9 | -  | -  |
| Movitec VS 45 | 9                | 14              | 37                 | ..037K00..                       | 65.5 / 37.8   | -   | -  | 47 110 722                                      | 367.0 | -  | -  |
| Movitec VS 45 | 10-1             | 14              | 37                 | ..037K00..                       | 65.5 / 37.8   | -   | -  | 47 110 723                                      | 369.3 | -  | -  |
| Movitec VS 45 | 10               | 14              | 37                 | ..037K00..                       | 65.5 / 37.8   | -   | -  | 47 110 724                                      | 369.4 | -  | -  |
| Movitec VS 65 | 1                | 14              | 3                  | ..004K00..                       | 7.0 / 4.1   | -   | -  | 47 110 741                                      | 78.1  | -  | -  |
| Movitec VS 65 | 2                | 14              | 5.5                | ..005K50..                       | 12.0 / 6.9  | -   | -  | 47 110 742                                      | 96.5  | -  | -  |
| Movitec VS 65 | 3                | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 48 894 063                                      | 170.0 | -  | -  |
| Movitec VS 65 | 4                | 14              | 11                 | ..011K00..                       | 30.5 / 17.6   | -   | -  | 47 110 744                                      | 173.5 | -  | -  |
| Movitec VS 65 | 5                | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 745                                      | 190.9 | -  | -  |
| Movitec VS 65 | 6                | 14              | 15                 | ..015K00..                       | 31.7 / 18.3   | -   | -  | 47 110 746                                      | 194.3 | -  | -  |
| Movitec VS 65 | 7                | 14              | 18.5               | ..018K50..                       | 40.5 / 23.4   | -   | -  | 47 110 747                                      | 212.7 | -  | -  |
| Movitec VS 65 | 8                | 14              | 22                 | ..022K00..                       | 44.5 / 25.7   | -   | -  | 47 110 748                                      | 252.1 | -  | -  |
| Movitec VS 65 | 9                | 14              | 30                 | ..030K00..                       | 56.1 / 32.4   | -   | -  | 47 110 749                                      | 255.5 | -  | -  |

<sup>1)</sup> Voltage for variable-speed motors generally 3~400 V, currents see type series booklet 4070.5-10

**Movitec VS with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3 kW and above: 3~230/400 V**

| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup><br>Type | Max. current<br>Fixed-speed pump<br>I <sub>max</sub> in A | Oval flange<br>Movitec VS<br>Fixed-speed pump |    | Round flange<br>Movitec VSF<br>Fixed-speed pump |       | Vitauclic coupling<br>Movitec VSV<br>Fixed-speed pump |    |
|---------------|------------------|-----------------|--------------------|----------------------------------|---|---|----|---|-------|---|----|
|               |                  |                 |                    |                                  |   | Ident. No.                                    | kg | Ident. No.                                      | kg    | Ident. No.  | kg |
| <b>4-pole</b> |                  |                 |                    |                                  |   |   |    |   |       |   |    |
| Movitec VS 24 | 6                | 14              | 3                  | ..004K00..                       | 14.0 / 8.1  | -   | -  | 47 110 629                                      | 82.5  | -   | -  |
| Movitec VS 24 | 7                | 14              | 3                  | ..004K00..                       | 14.0 / 8.1  | -   | -  | 47 110 630                                      | 84.9  | -   | -  |
| Movitec VS 24 | 8                | 14              | 4                  | ..004K00..                       | 17.2 / 9.9  | -   | -  | 47 110 631                                      | 94.2  | -   | -  |
| Movitec VS 24 | 9                | 14              | 4                  | ..004K00..                       | 17.2 / 9.9  | -   | -  | 47 110 632                                      | 96.6  | -   | -  |
| Movitec VS 24 | 10               | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 633                                      | 115.5 | -   | -  |
| Movitec VS 24 | 11               | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 634                                      | 117.8 | -   | -  |
| Movitec VS 24 | 12               | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 635                                      | 120.2 | -   | -  |
| Movitec VS 24 | 16               | 14              | 7.5                | ..007K50..                       | 27.7 / 16.0   | -   | -  | 47 110 636                                      | 138.1 | -   | -  |
| <b>2-pole</b> |                  |                 |                    |                                  |   |   |    |   |       |   |    |
| Movitec VS 32 | 2                | 14              | 4                  | ..004K00..                       | 15.6 / 9.0  | -   | -  | 47 110 663                                      | 81.1  | -   | -  |
| Movitec VS 32 | 3                | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 664                                      | 89.5  | -   | -  |
| Movitec VS 32 | 4                | 14              | 7.5                | ..007K50..                       | 26.8 / 15.5   | -   | -  | 47 110 665                                      | 95.8  | -   | -  |
| Movitec VS 32 | 5                | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 666                                      | 167.1 | -   | -  |
| Movitec VS 32 | 6                | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 667                                      | 169.4 | -   | -  |
| Movitec VS 32 | 7                | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 668                                      | 185.7 | -   | -  |
| Movitec VS 32 | 8                | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 669                                      | 188.0 | -   | -  |
| Movitec VS 32 | 9                | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 48 894 052                                      | 205.0 | -   | -  |
| Movitec VS 32 | 10               | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 47 110 671                                      | 207.5 | -   | -  |
| Movitec VS 32 | 11               | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 47 110 672                                      | 209.8 | -   | -  |
| Movitec VS 32 | 12               | 14              | 22                 | ..022K00..                       | 77.1 / 44.5   | -   | -  | 47 110 673                                      | 247.9 | -   | -  |
| Movitec VS 45 | 1                | 14              | 4                  | ..004K00..                       | 15.6 / 9.0  | -   | -  | 47 110 693                                      | 80.0  | -   | -  |
| Movitec VS 45 | 2-1              | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 694                                      | 88.3  | -   | -  |
| Movitec VS 45 | 2                | 14              | 7.5                | ..007K50..                       | 26.8 / 15.5   | -   | -  | 47 110 695                                      | 92.4  | -   | -  |
| Movitec VS 45 | 3-1              | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 696                                      | 163.7 | -   | -  |
| Movitec VS 45 | 3                | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 697                                      | 163.8 | -   | -  |
| Movitec VS 45 | 4-1              | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 698                                      | 166.1 | -   | -  |
| Movitec VS 45 | 4                | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 699                                      | 180.1 | -   | -  |
| Movitec VS 45 | 5-1              | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 700                                      | 182.5 | -   | -  |
| Movitec VS 45 | 5                | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 47 110 701                                      | 197.5 | -   | -  |
| Movitec VS 45 | 6-1              | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 47 110 702                                      | 199.9 | -   | -  |
| Movitec VS 45 | 6                | 14              | 22                 | ..022K00..                       | 77.1 / 44.5   | -   | -  | 47 110 703                                      | 235.8 | -   | -  |
| Movitec VS 45 | 7-1              | 14              | 22                 | ..022K00..                       | 77.1 / 44.5   | -   | -  | 47 110 704                                      | 238.1 | -   | -  |
| Movitec VS 65 | 1                | 14              | 3                  | ..003K00..                       | 12.1 / 7.0  | -   | -  | 47 110 732                                      | 78.1  | -   | -  |
| Movitec VS 65 | 2                | 14              | 5.5                | ..005K50..                       | 20.8 / 12.0   | -   | -  | 47 110 733                                      | 96.5  | -   | -  |
| Movitec VS 65 | 3                | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 48 894 062                                      | 170.0 | -   | -  |
| Movitec VS 65 | 4                | 14              | 11                 | ..011K00..                       | 52.8 / 30.5   | -   | -  | 47 110 735                                      | 173.5 | -   | -  |
| Movitec VS 65 | 5                | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 736                                      | 190.9 | -   | -  |
| Movitec VS 65 | 6                | 14              | 15                 | ..015K00..                       | 54.9 / 31.7   | -   | -  | 47 110 737                                      | 194.3 | -   | -  |
| Movitec VS 65 | 7                | 14              | 18.5               | ..018K50..                       | 70.1 / 40.5   | -   | -  | 47 110 738                                      | 212.7 | -   | -  |
| Movitec VS 65 | 8                | 14              | 22                 | ..022K00..                       | 77.1 / 44.5   | -   | -  | 47 110 739                                      | 252.1 | -   | -  |

\*) Available as variant (Factory Option)

<sup>1)</sup> Voltage for variable-speed motors generally 3~400 V, currents see type series booklet 4070.5-10


**Movitec LHS with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3~400/692 V**

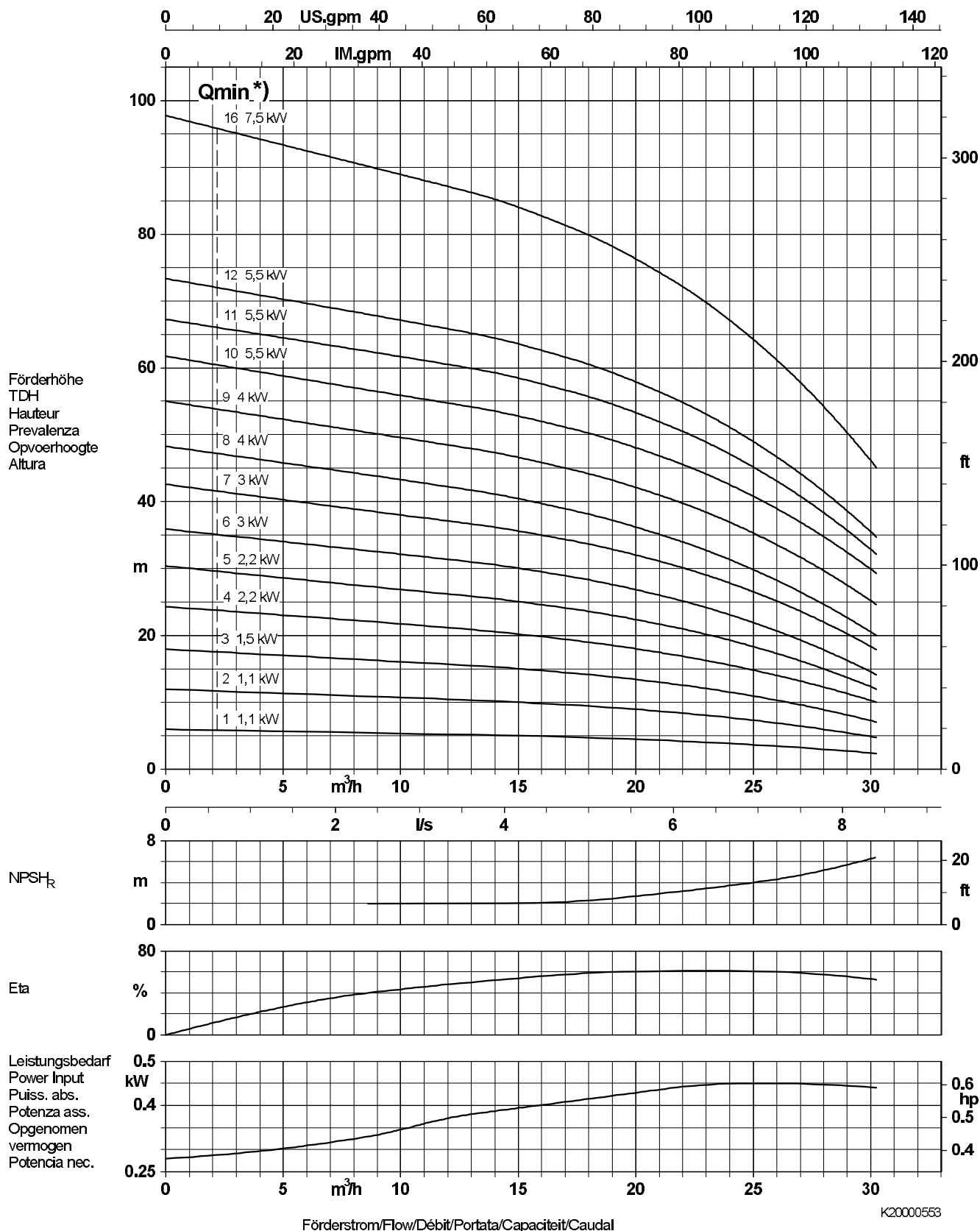
| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup> | Max. current                       | Round flange Movitec LHS Fixed-speed pump |       |
|---------------|------------------|-----------------|--------------------|--------------------------|------------------------------------|---|-------|
|               |                  |                 |                    | Type                     | Fixed-speed pump<br>$I_{max}$ in A | Ident. No.                                | kg    |
| <b>2-pole</b> |                  |                 |                    |                          |                                    |   |       |
| Movitec LHS 6 | 10               | 17              | 5.5                | ..005K50..               | 12.0 / 6.9                         | 47 110 756                                | 92.1  |
| Movitec LHS 6 | 12               | 17              | 7.5                | ..007K50..               | 15.5 / 8.9                         | 47 110 757                                | 99.1  |
| Movitec LHS 6 | 14               | 17              | 11                 | ..011K00..               | 30.5 / 17.6                        | 48 894 044                                | 166.0 |
| Movitec LHS 6 | 16               | 17              | 11                 | ..011K00..               | 30.5 / 17.6                        | 47 110 759                                | 171.2 |
| Movitec LHS 6 | 18               | 17              | 11                 | ..011K00..               | 30.5 / 17.6                        | 47 110 760                                | 174.2 |
| Movitec LHS 6 | 20               | 17              | 15                 | ..015K00..               | 31.7 / 18.3                        | 48 894 047                                | 191.0 |

**Movitec LHS with KSB standard motor, fixed/variable-speed <sup>1)</sup>**  
**3~230/400 V**

| Size          | Number of stages | Shaft seal code | Motor rating<br>kW | Pump Drive <sup>1)</sup> | Max. current                       | Round flange Movitec LHS Fixed-speed pump |       |
|---------------|------------------|-----------------|--------------------|--------------------------|------------------------------------|---|-------|
|               |                  |                 |                    | Type                     | Fixed-speed pump<br>$I_{max}$ in A | Ident. No.                                | kg    |
| <b>2-pole</b> |                  |                 |                    |                          |                                    |   |       |
| Movitec LHS 6 | 20               | 17              | 15                 | ..015K00..               | 54.9 / 31.7                        | 48 894 108                                | 191.0 |

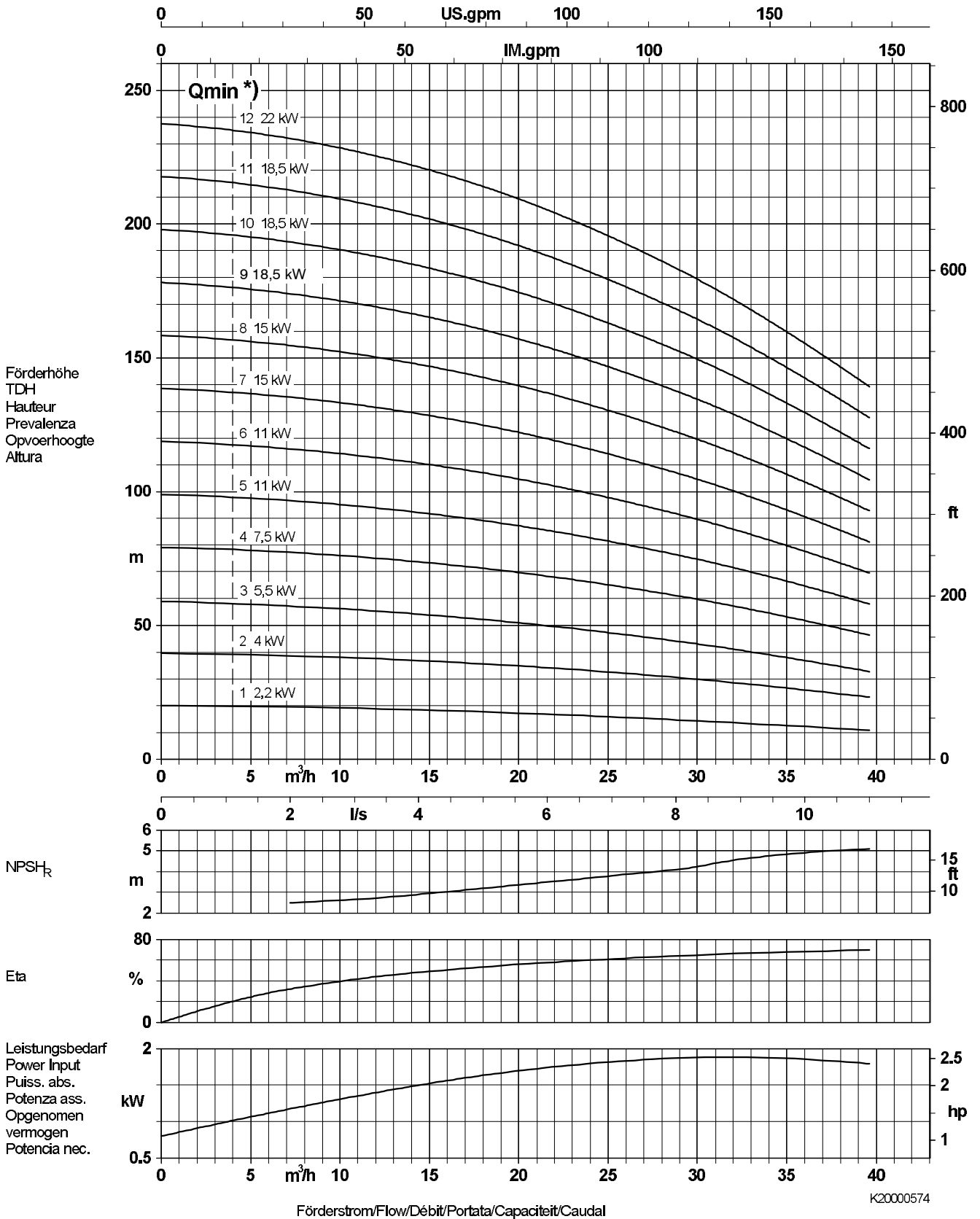
<sup>1)</sup> Voltage for variable-speed motors generally 3~400 V, currents see type series booklet 4070.5-10

|                                       |                                 |   |   |   |                                    |  |
|---------------------------------------|---------------------------------|---|---|---|------------------------------------|--|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.     | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauftrad-ø<br>Impeller Dia.<br>Diamètre de roue | ø Girante<br>ø Waaier<br>ø Rodete  | <br>KSB Aktiengesellschaft<br>67225 Frankenthal<br>Johann-Klein-Straße 9<br>67227 Frankenthal |
| <b>Movitec V (S) F 24</b>             |                                 | <b>≈ 1450 1/min</b>                           |   | <b>145 mm</b>                                   |                                    |  |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Project No.<br>No. de l'offre | Offerta-No.<br>Offertenr.<br>Offerta-No.                              | Pos.-Nr.<br>Item No.<br>No. de pos.             | Pos.-Nr.<br>Positiönr.<br>Pos.-Nr. |  |




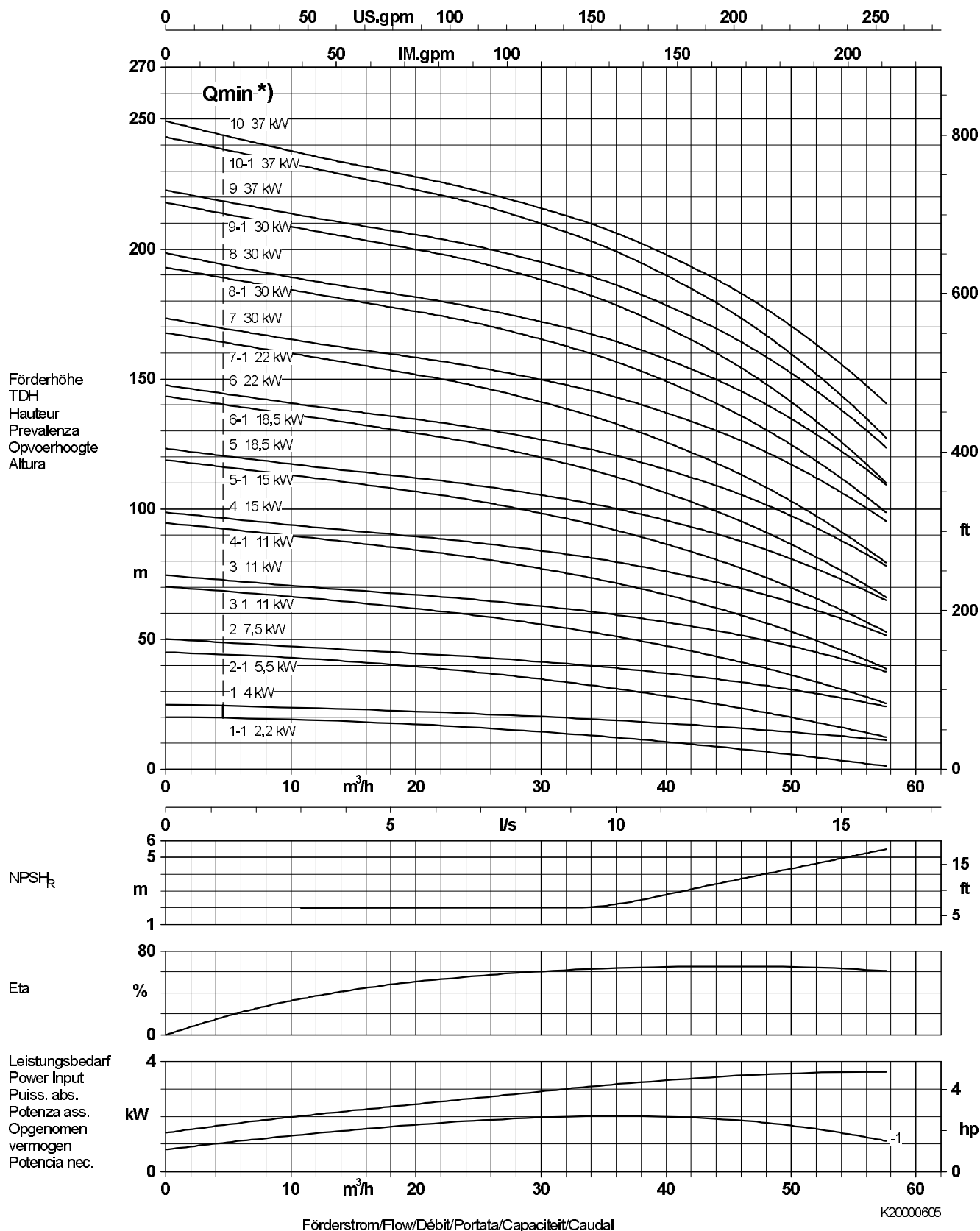
\*) Qmin up to 40 °C, for temperatures >40 °C refer to the table on page 10

|                                       |                                 |   |   |   |                                     |  |
|---------------------------------------|---------------------------------|---|---|---|-------------------------------------|--|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.     | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauftrad-Ø<br>Impeller Dia.<br>Diamètre de roue | Ø Girante<br>Ø Waaier<br>Ø Rodete   | <br>KSB Aktiengesellschaft<br>67225 Frankenthal<br>Johann-Klein-Straße 9<br>67227 Frankenthal |
| <b>Movitec V (S) F 32</b>             |                                 | <b>≈ 2900 1/min</b>                           |   | <b>132 mm</b>                                   |                                     |  |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Project No.<br>No. de l'offre | Offerta-No.<br>Offertenr.<br>Offerta-No.                              | Pos.-Nr.<br>Item No.<br>No. de pos.             | Pos.-Nr.<br>Positiennr.<br>Pos.-Nr. |  |



\*) Qmin up to 40 °C, for temperatures >40 °C refer to the table on page 10

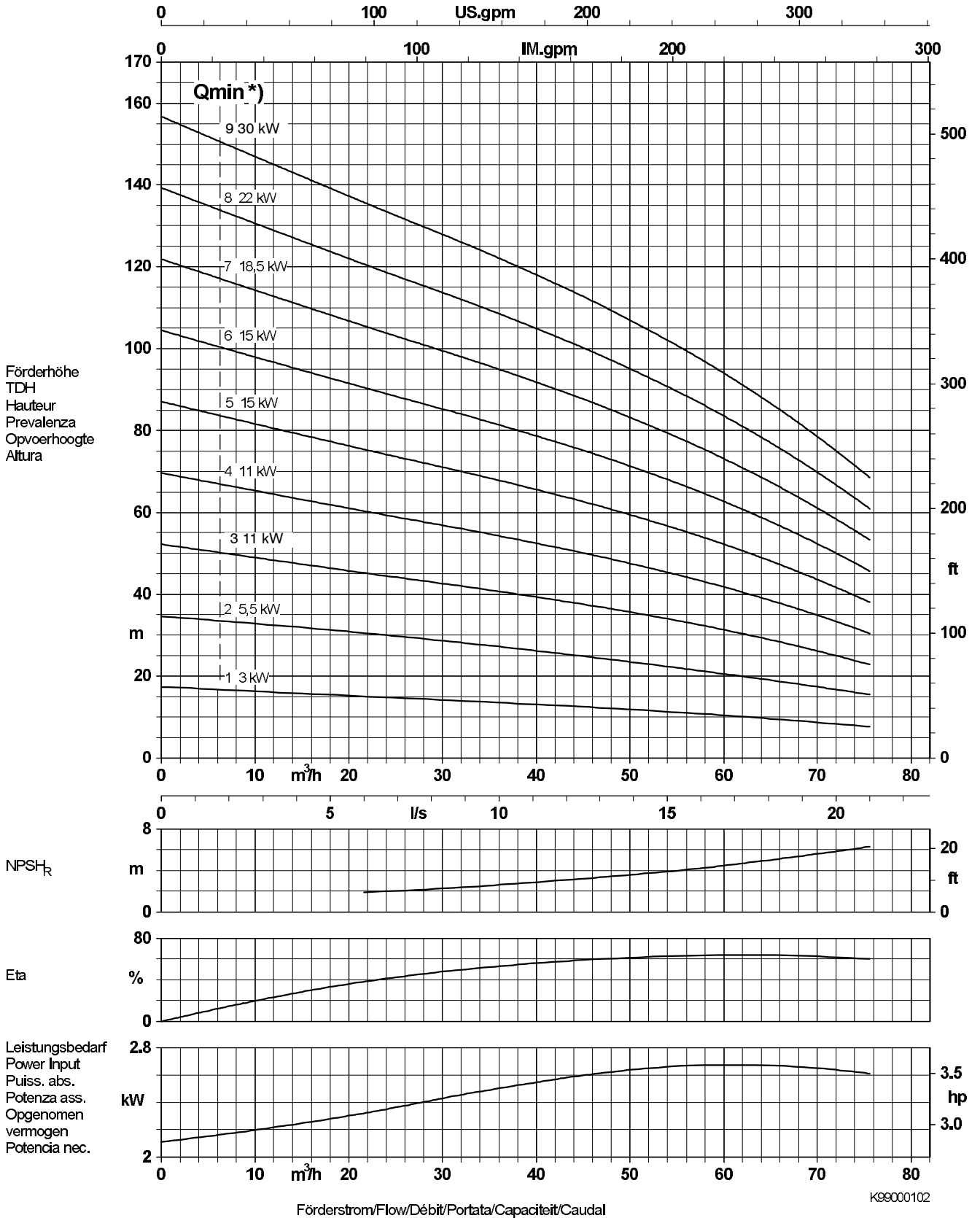
|                                       |                                 |   |   |   |  |  |
|---------------------------------------|---------------------------------|---|---|---|--|--|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nenn Drehzahl<br>Nom. speed<br>Vitesse nom.   | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauf rad- $\phi$<br>Impeller Dia.<br>Diamètre de roue | $\phi$ Girante<br>$\phi$ Waaier<br>$\phi$ Rodete | <br>KSB Aktiengesellschaft<br>67225 Frankenthal<br>Johann-Klein-Straße 9<br>67227 Frankenthal |
| Movitec V (S) F 45                    |                                 | $\approx 2900$ 1/min                          |   | 145 mm  |  |  |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Project No.<br>No. de l'offre | Offerta-No.<br>Offertenr.<br>Offerta-No.                              | Pos.-Nr.<br>Item No.<br>No. de pos.                   | Pos.-Nr.<br>Positiennr.<br>Pos.-Nr.              |  |




\*) Qmin up to 40 °C, for temperatures >40 °C refer to the table on page 10

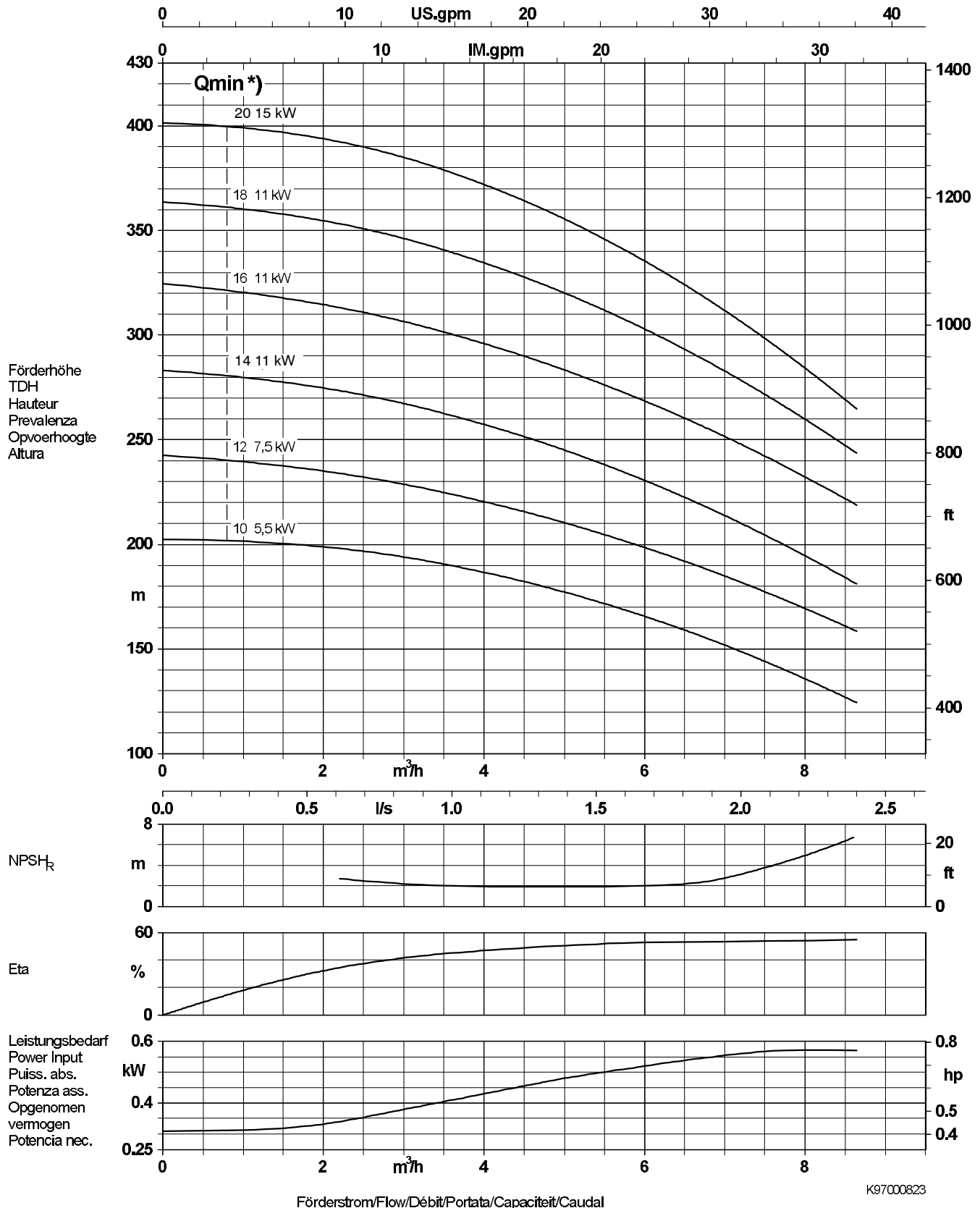


|                                       |                                 |   |   |  |                                     |  |
|---------------------------------------|---------------------------------|---|---|--|-------------------------------------|--|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennrehzahl<br>Nom. speed<br>Vitesse nom.     | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Laufrad-Ø<br>Impeller Dia.<br>Diamètre de roue | Ø Girante<br>Ø Waaijer<br>Ø Rodete  | <br>KSB Aktiengesellschaft<br>67225 Frankenthal<br>Johann-Klein-Straße 9<br>67227 Frankenthal |
| <b>Movitec V (C/S) F 65</b>           |                                 | <b>≈ 2900 1/min</b>                           |   | <b>126/131 mm</b>                              |                                     |  |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Project No.<br>No. de l'offre | Offerta-No.<br>Offertenr.<br>Offerta-No.                              | Pos.-Nr.<br>Item No.<br>No. de pos.            | Pos.-Nr.<br>Positiennr.<br>Pos.-Nr. |  |

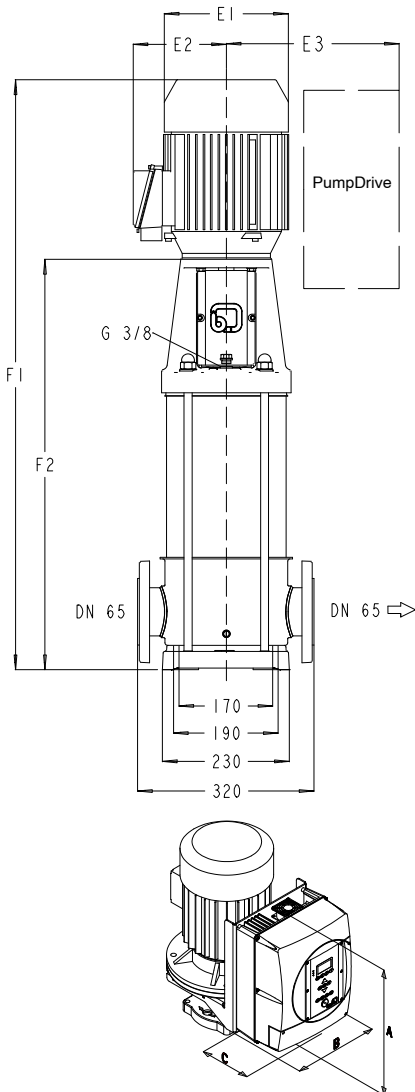


\*) Qmin up to 40 °C, for temperatures >40 °C refer to the table on page 10

|                                       |                                 |  |   |   |                                     |  |
|---------------------------------------|---------------------------------|--|---|---|-------------------------------------|--|
| Baureihe-Größe<br>Type-Size<br>Modèle | Tipo<br>Serie<br>Tipo           | Nennndrehzahl<br>Nom. speed<br>Vitesse nom.  | Velocità di rotazione nom.<br>Nominaal toerental<br>Revoluciones nom. | Lauftrad-ø<br>Impeller Dia.<br>Diamètre de roue | ø Girante<br>ø Waaier<br>ø Rodete   | <br><b>KSB</b><br>KSB Aktiengesellschaft<br>67225 Frankenthal<br>Johann-Klein-Straße 9<br>67227 Frankenthal |
| <b>Movitec LHS 6</b>                  |                                 | ≈ 2900 1/min                                 |   | 131 mm  |                                     |  |
| Projekt<br>Project<br>Projet          | Progetto<br>Projekt<br>Proyecto | Angebots-Nr.<br>Project No.<br>No. de Offfre | Offerta-No.<br>Offertenr.<br>Offerta-No.                              | Pos.-Nr.<br>Item No.<br>No. de pos.             | Pos.-Nr.<br>Positiennr.<br>Pos.-Nr. |  |



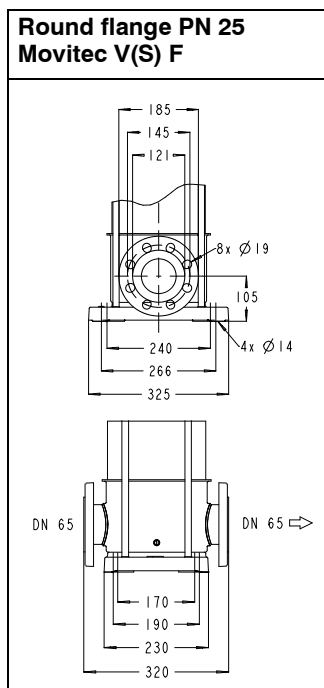
\*) Qmin up to 40 °C, for temperatures >40 °C refer to the table on page 10

**Dimensions tables**
**Movitec VF 24 1450 1/min**


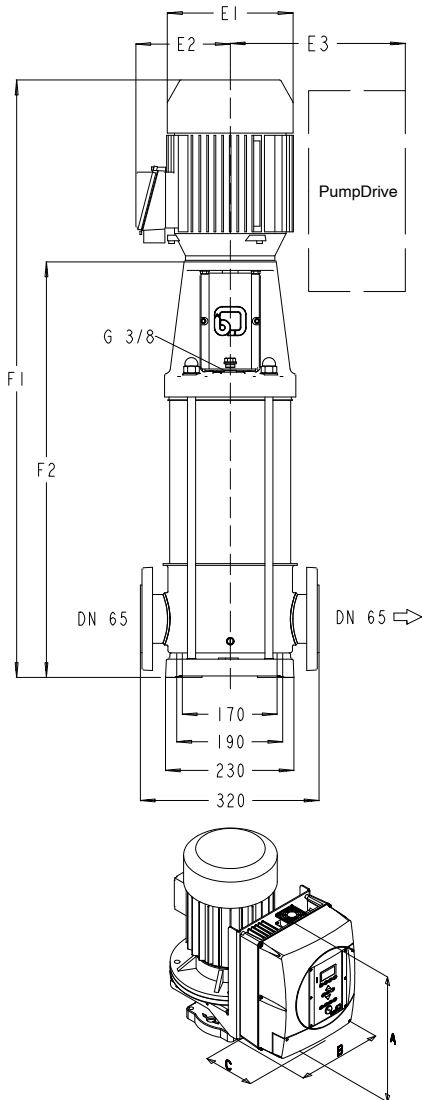
| VF 24  |    | E1  | E2  | E3  | F1   | F2   |
|--------|----|-----|-----|-----|------|------|
| Stages | PD |     |     |     |      |      |
| 1      | A  | 176 | 136 | 286 | 738  | 458  |
| 2      | A  | 176 | 136 | 286 | 786  | 506  |
| 3      | A  | 176 | 136 | 286 | 835  | 555  |
| 4      | A  | 194 | 147 | 286 | 919  | 603  |
| 5      | A  | 194 | 147 | 286 | 968  | 652  |
| 6      | B  | 194 | 147 | 286 | 1016 | 700  |
| 7      | B  | 194 | 147 | 286 | 1065 | 749  |
| 8      | B  | 233 | 162 | 305 | 1121 | 797  |
| 9      | B  | 233 | 162 | 305 | 1170 | 846  |
| 10     | B  | 266 | 179 | 328 | 1297 | 914  |
| 11     | B  | 266 | 179 | 328 | 1346 | 963  |
| 12     | B  | 266 | 179 | 328 | 1394 | 1011 |
| 16     | B  | 266 | 179 | 328 | 1626 | 1205 |

| PumpDrive Model | Dimensions |     |     |
|-----------------|------------|-----|-----|
|                 | A          | B   | C   |
| A               | 260        | 190 | 158 |
| B               | 325        | 250 | 170 |

Dimensions in mm (details see type series booklet PumpDrive 4070.5)

**Flange variants**


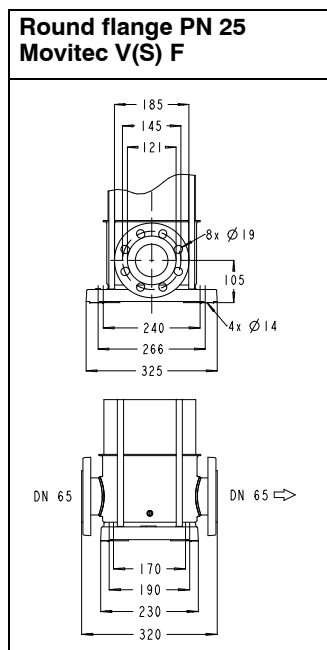
Position of terminal box for all pump sizes see page 31

**Dimensions tables**  
**Movitec VF 32 2900 1/min**


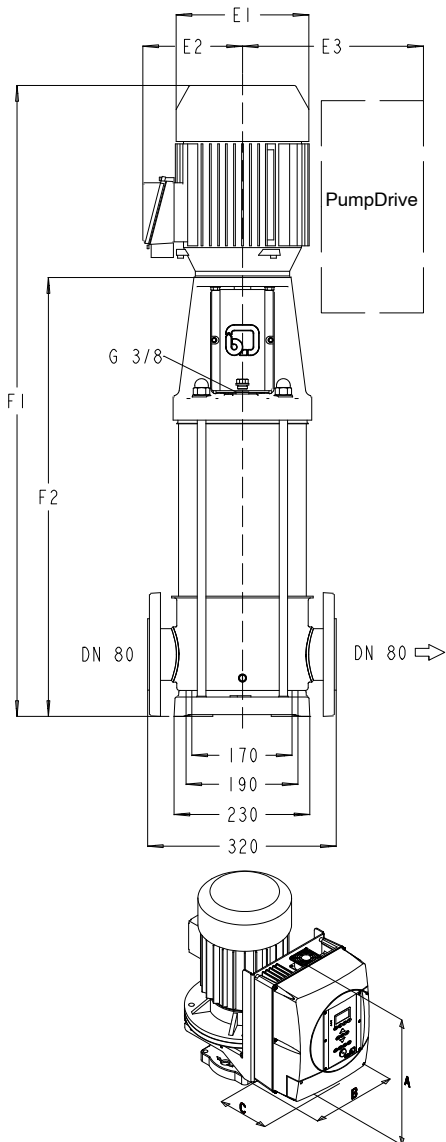
| VF 32  |    | E1  | E2  | E3  | F1   | F2   |
|--------|----|-----|-----|-----|------|------|
| Stages | PD |     |     |     |      |      |
| 1      | A  | 176 | 136 | 286 | 733  | 458  |
| 2      | B  | 233 | 162 | 305 | 830  | 506  |
| 3      | B  | 233 | 162 | 328 | 904  | 575  |
| 4      | B  | 233 | 162 | 328 | 980  | 623  |
| 5      | C  | 315 | 206 | 431 | 1279 | 777  |
| 6      | C  | 315 | 206 | 431 | 1327 | 825  |
| 7      | C  | 315 | 206 | 431 | 1376 | 874  |
| 8      | C  | 315 | 206 | 431 | 1424 | 922  |
| 9      | C  | 315 | 206 | 431 | 1517 | 971  |
| 10     | C  | 315 | 206 | 431 | 1565 | 1019 |
| 11     | C  | 315 | 206 | 431 | 1614 | 1068 |
| 12     | C  | 350 | 225 | 431 | 1711 | 1116 |

| PumpDrive Model | Dimensions |     |     |
|-----------------|------------|-----|-----|
|                 | A          | B   | C   |
| A               | 260        | 190 | 158 |
| B               | 325        | 250 | 170 |
| C               | 420        | 320 | 235 |

Dimensions in mm (details see type series booklet PumpDrive 4070.5)

**Flange variants**


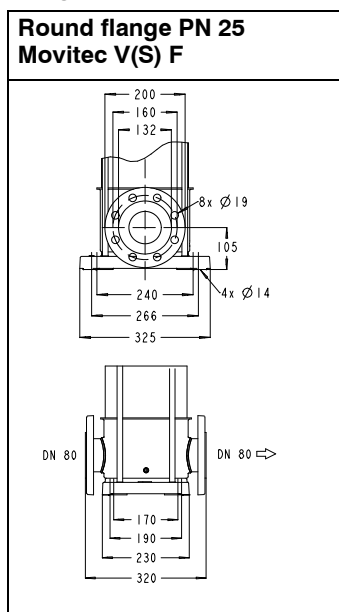
Position of terminal box for all pump sizes see page 31

**Dimensions tables**  
**Movitec VF 45 2900 1/min**


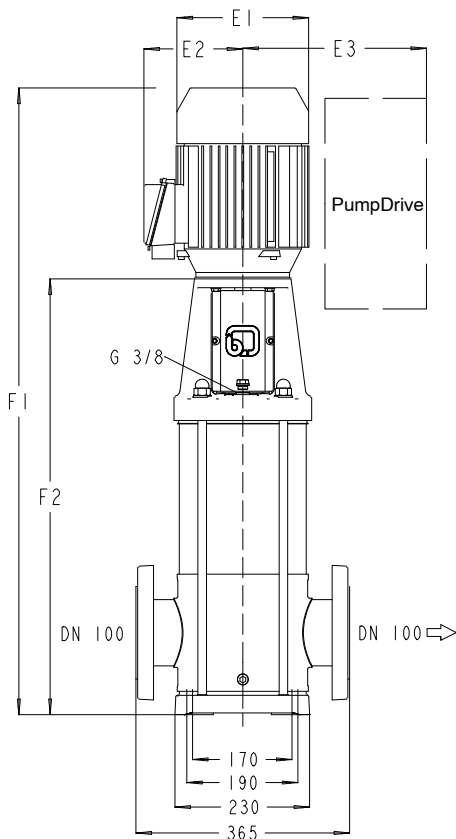
| VF 45         |   | E1  | E2  | E3  | F1   | F2   |
|---------------|---|-----|-----|-----|------|------|
| <b>Stages</b> |   |     |     |     |      |      |
| <b>PD</b>     |   |     |     |     |      |      |
| 1-1           | A | 176 | 136 | 286 | 733  | 458  |
| 1             | B | 233 | 162 | 305 | 782  | 458  |
| 2-1           | B | 233 | 162 | 328 | 855  | 526  |
| 2             | B | 233 | 162 | 328 | 883  | 526  |
| 3-1           | C | 315 | 206 | 431 | 1182 | 680  |
| 3             | C | 315 | 206 | 431 | 1182 | 680  |
| 4-1           | C | 315 | 206 | 431 | 1230 | 728  |
| 4             | C | 315 | 206 | 431 | 1230 | 728  |
| 5-1           | C | 315 | 206 | 431 | 1279 | 777  |
| 5             | C | 315 | 206 | 431 | 1323 | 777  |
| 6-1           | C | 315 | 206 | 431 | 1371 | 825  |
| 6             | C | 350 | 225 | 431 | 1420 | 825  |
| 7-1           | C | 350 | 225 | 431 | 1469 | 874  |
| 7             | D | 398 | 323 | 518 | 1524 | 874  |
| 8-1           | D | 398 | 323 | 518 | 1572 | 922  |
| 8             | D | 398 | 323 | 518 | 1572 | 922  |
| 9-1           | D | 398 | 323 | 518 | 1621 | 971  |
| 9             | D | 398 | 323 | 518 | 1621 | 971  |
| 10-1          | D | 398 | 323 | 518 | 1669 | 1019 |
| 10            | D | 398 | 323 | 518 | 1669 | 1019 |

| PumpDrive Model | Dimensions |     |     |
|-----------------|------------|-----|-----|
|                 | A          | B   | C   |
| A               | 260        | 190 | 158 |
| B               | 325        | 250 | 170 |
| C               | 420        | 320 | 235 |
| D               | 600        | 450 | 290 |

Dimensions in mm (details see type series booklet PumpDrive 4070.5)

**Flange variants**


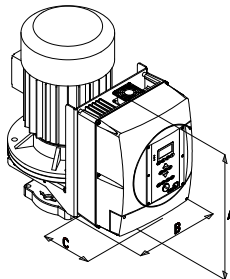
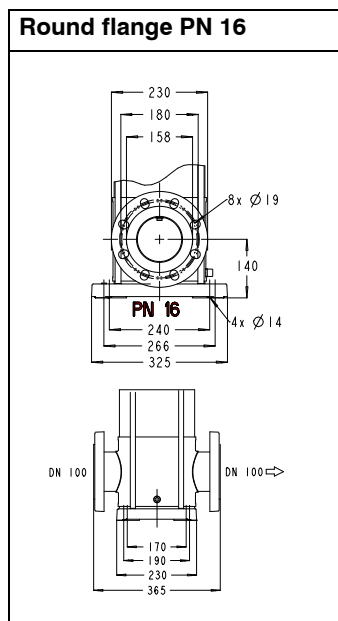
Position of terminal box for all pump sizes see page 31

**Dimensions tables**  
**Movitec VF 65 2900 1/min**


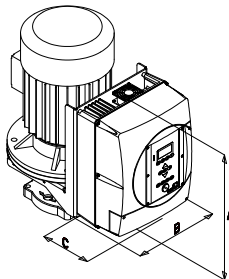
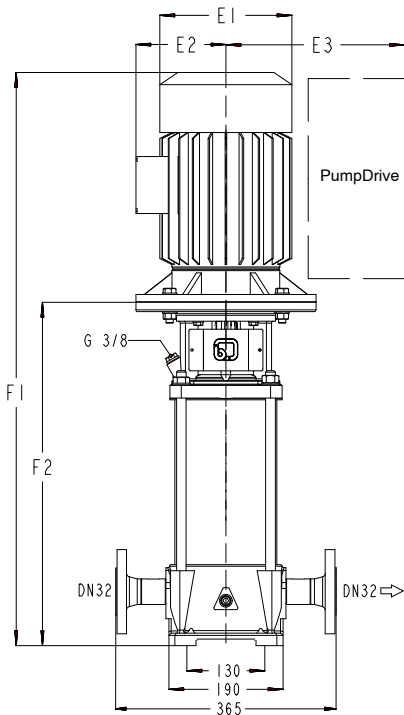
| VF 65        |   | E1  | E2  | E3  | Round flange<br>PN 16 |      |
|--------------|---|-----|-----|-----|-----------------------|------|
| Stages<br>PD |   |     |     |     | F1                    | F2   |
| 1            | B | 194 | 147 | 286 | 886                   | 570  |
| 2            | B | 233 | 162 | 328 | 1008                  | 679  |
| 3            | B | 233 | 162 | 328 | 1270                  | 768  |
| 4            | C | 315 | 206 | 431 | 1389                  | 887  |
| 5            | C | 315 | 206 | 431 | 1478                  | 976  |
| 6            | C | 315 | 206 | 431 | 1567                  | 1065 |
| 7            | C | 315 | 206 | 431 | 1700                  | 1154 |
| 8            | C | 350 | 225 | 431 | 1838                  | 1243 |
| 9            | C | 350 | 225 | 431 | 1976                  | 1332 |

| PumpDrive<br>Model | Dimensions |     |     |
|--------------------|------------|-----|-----|
|                    | A          | B   | C   |
| B                  | 325        | 250 | 170 |
| C                  | 420        | 320 | 235 |

Dimensions in mm (details see type series booklet PumpDrive 4070.5)


**Flange variants**


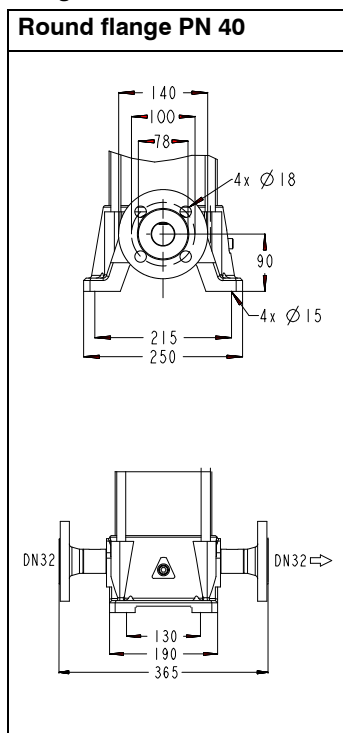
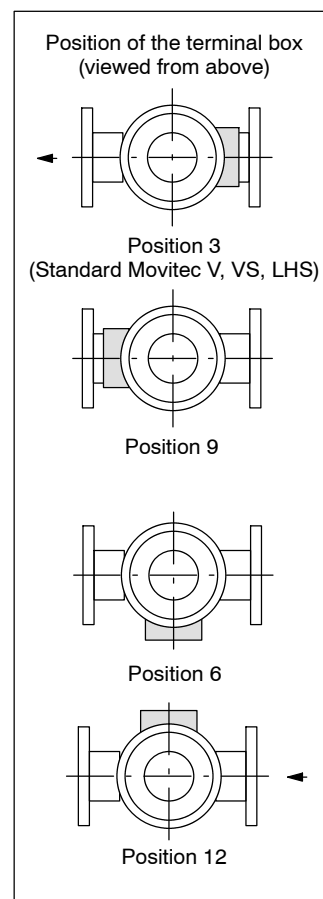
Position of terminal box for all pump sizes see page 31

**Dimensions tables**  
**Movitec LHS 6 2900 1/min**


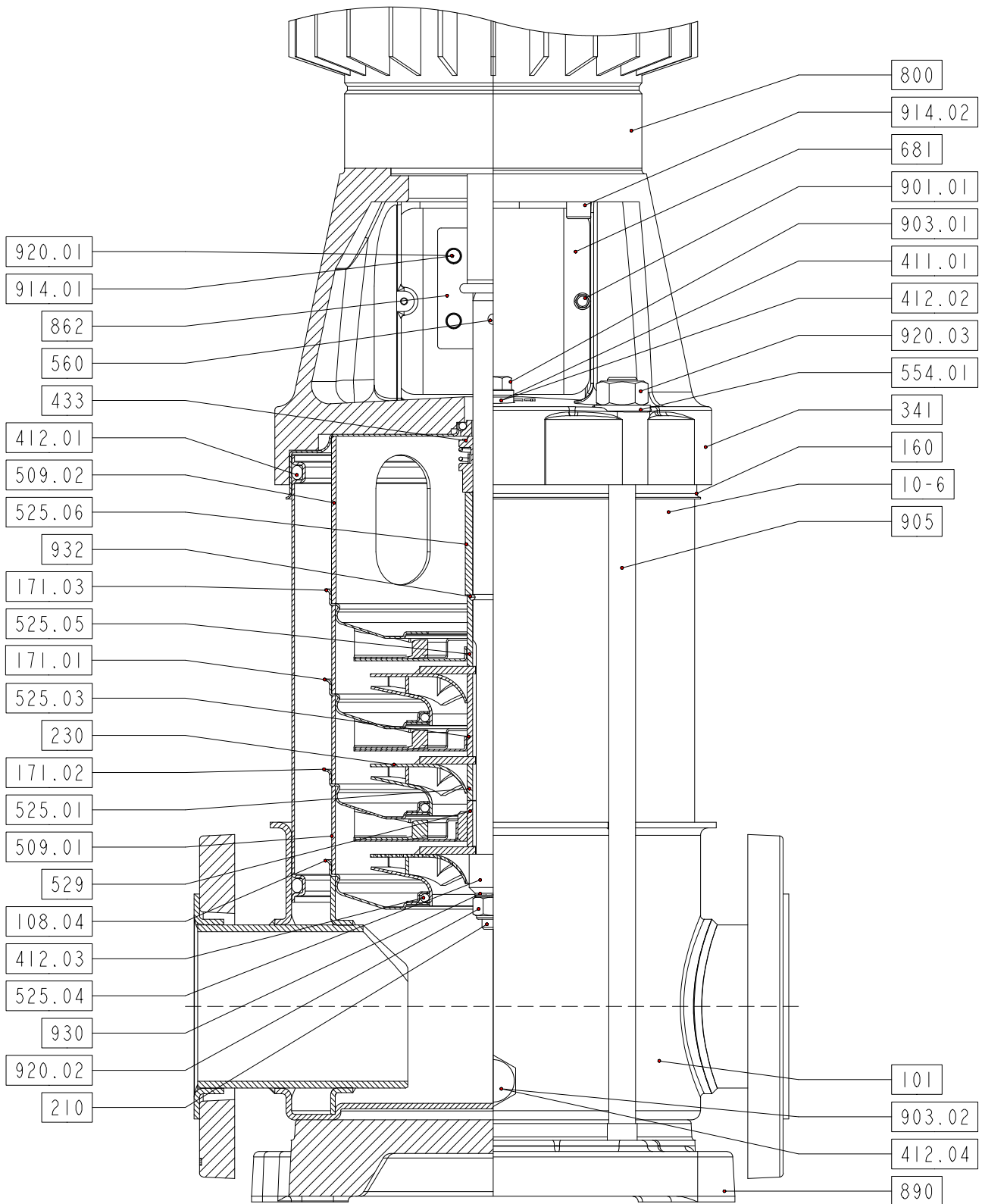
| LHS 6         |           | E1  | E2  | E3  | F1   | F2  |
|---------------|-----------|-----|-----|-----|------|-----|
| <b>Stages</b> | <b>PD</b> |     |     |     |      |     |
| 10            | B         | 233 | 162 | 328 | 928  | 599 |
| 12            | B         | 233 | 162 | 328 | 1015 | 658 |
| 14            | B         | 233 | 162 | 328 | 1250 | 718 |
| 16            | C         | 315 | 206 | 431 | 1310 | 808 |
| 18            | C         | 315 | 206 | 431 | 1369 | 867 |
| 20            | C         | 315 | 206 | 431 | 1429 | 927 |

| PumpDrive Model | Dimensions |     |     |
|-----------------|------------|-----|-----|
|                 | A          | B   | C   |
| <b>B</b>        | 325        | 250 | 170 |
| <b>C</b>        | 420        | 320 | 235 |

Dimensions in mm (details see type series booklet PumpDrive 4070.5)

**Flange variants**
**Round flange PN 40**

**Position of terminal box for all sizes**


**Sectional drawing**  
**Movitec VF 24, 32, 45**

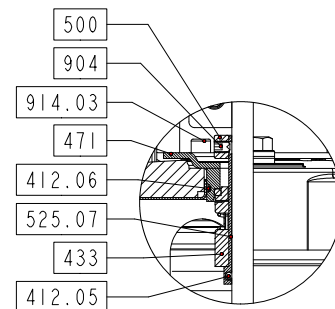


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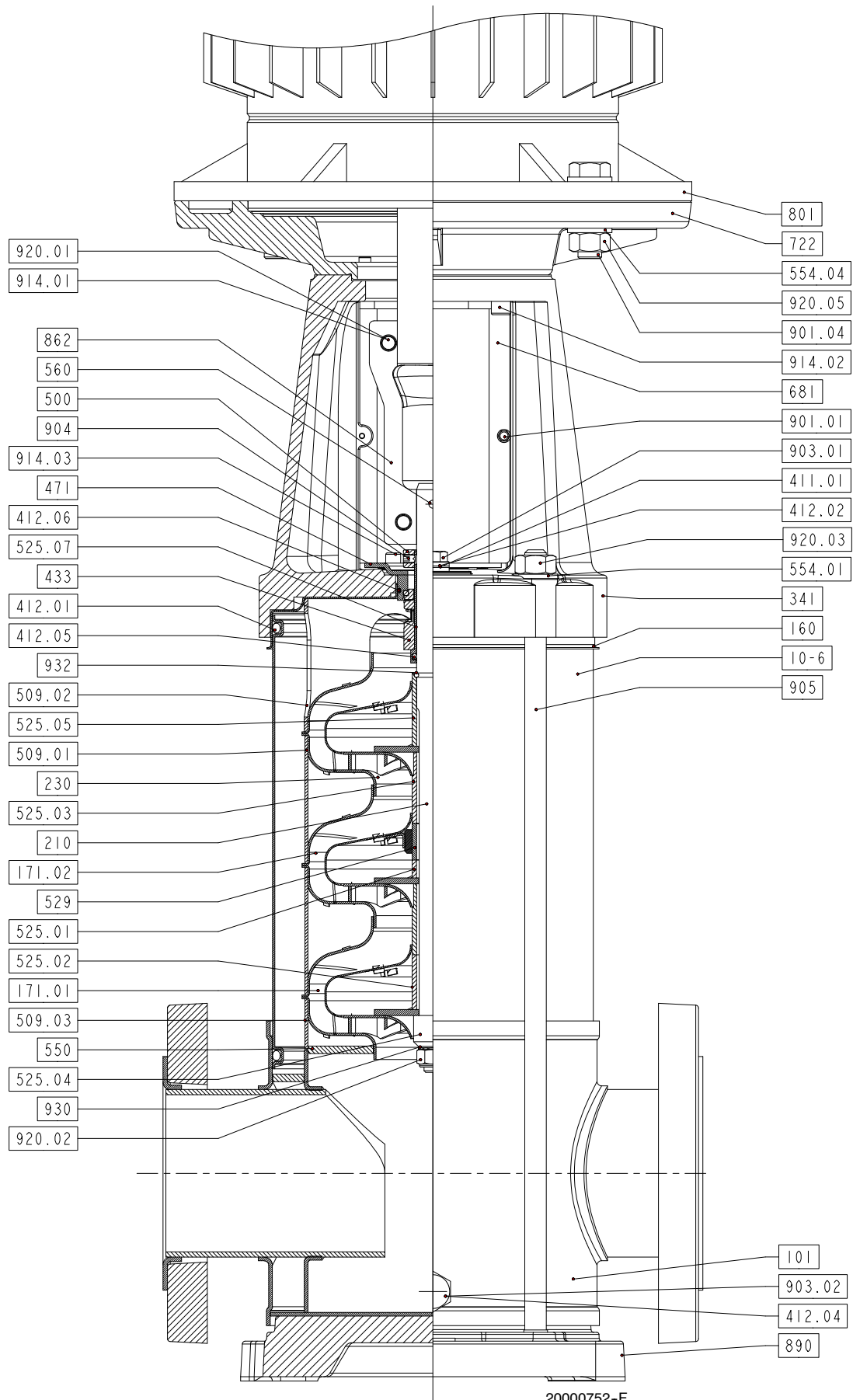


**Part No. Description**

|        |  |
|--------|--|
| 10-6   | Pump shroud                              |
| 101    | Pump casing                              |
| 108.04 | Stage casing, bottom                     |
| 160    | Cover                                    |
| 171.01 | Diffuser                                 |
| 171.02 | Diffuser with ceramic bearing            |
| 171.03 | Diffuser, upper                          |
| 210    | Shaft                                    |
| 230    | Impeller (for Movitec VF 24 and 32)      |
| 230.01 | Impeller (for Movitec VF 45)             |
| 230.02 | Impeller, half-head (for Movitec VF 45)  |
| 341    | Motor stool                              |
| 411.01 | Joint ring                               |
| 412.01 | O-ring                                   |
| 412.02 | O-ring                                   |
| 412.03 | O-ring                                   |
| 412.04 | O-ring                                   |
| 412.05 | O-ring                                   |
| 412.06 | O-ring                                   |
| 433    | Mechanical seal                          |
| 471    | Seal cover                               |
| 500    | Ring, cartridge                          |
| 509.01 | Intermediate ring                        |
| 509.02 | Intermediate ring, upper                 |
| 525.01 | Spacer sleeve, short                     |
| 525.03 | Spacer sleeve, long                      |
| 525.04 | Spacer sleeve, end                       |
| 525.05 | Spacer sleeve, seal                      |
| 525.06 | Spacer sleeve, seal extension            |
| 525.07 | Spacer sleeve, cartridge                 |
| 529    | Bearing sleeve                           |
| 554.01 | Washer                                   |
| 560    | Pin                                      |
| 681    | Coupling guard                           |
| 800    | Motor ( $\geq 5.5$ kW 801 flanged motor) |
| 862    | Coupling shell                           |
| 890    | Baseplate, cast                          |
| 901.01 | Hexagon head bolt                        |
| 903.01 | Screw plug                               |
| 903.02 | Screw plug                               |
| 904    | Grub screw                               |
| 905    | Tie bolt                                 |
| 914.01 | Hexagon socket head cap screw            |
| 914.02 | Hexagon socket head cap screw            |
| 914.03 | Hexagon socket head cap screw            |
| 920.01 | Nut                                      |
| 920.02 | Impeller nut with non-metal insert       |
| 920.03 | Nut                                      |
| 930    | Safety device                            |
| 932    | Circlip, (1/2)                           |

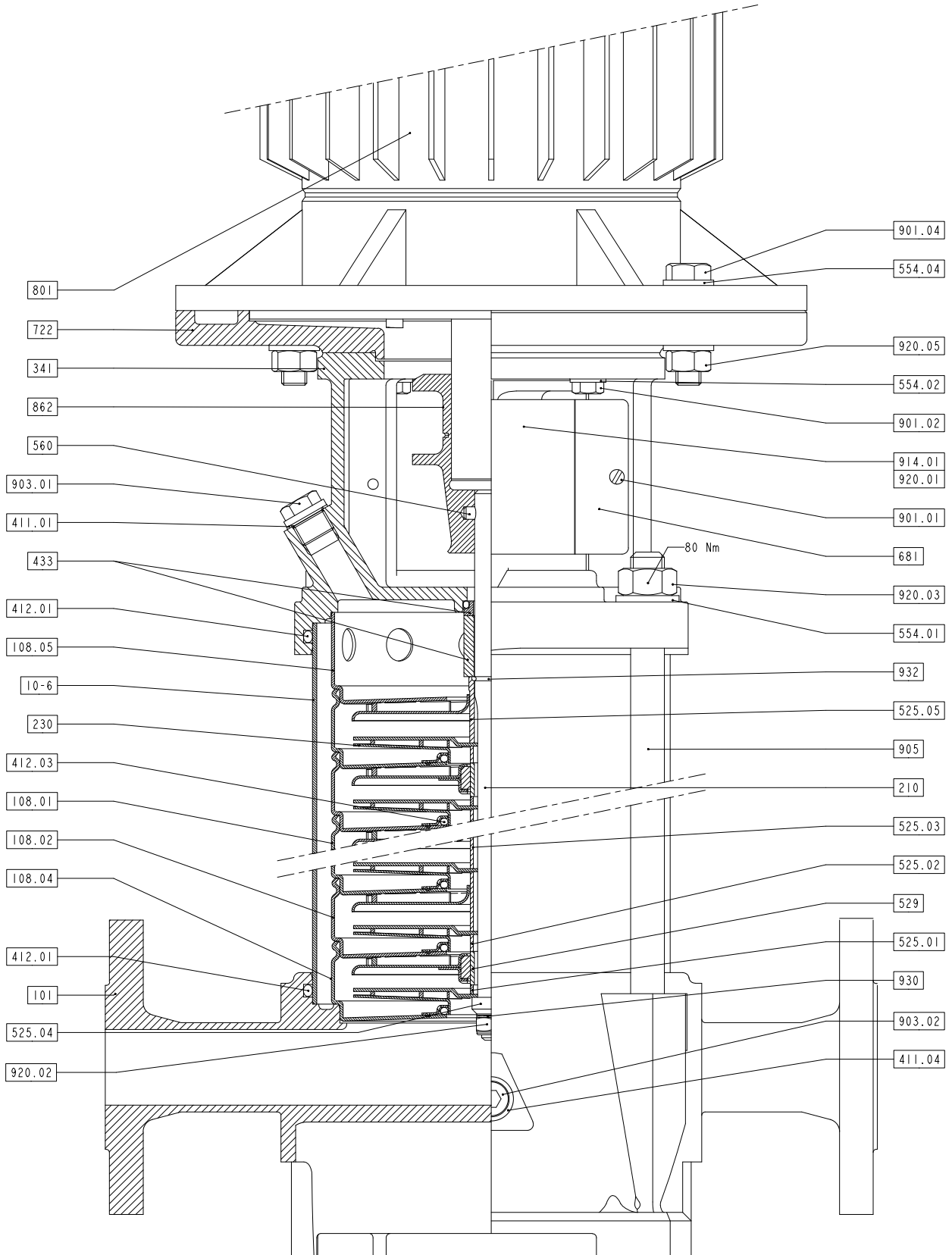
**Detail of cartridge seal**


Sectional drawing  
Movitec VF 65



| <b>Part No.</b> | <b>Description</b>                 |
|-----------------|------------------------------------|
| 10-6            | Pump shroud                        |
| 101             | Pump casing                        |
| 160             | Cover                              |
| 171.01          | Diffuser                           |
| 171.02          | Diffuser with ceramic bearing      |
| 210             | Shaft                              |
| 230             | Impeller                           |
| 341             | Motor stool                        |
| 411.01          | Joint ring                         |
| 412.01          | O-ring                             |
| 412.02          | O-ring                             |
| 412.04          | O-ring                             |
| 412.05          | O-ring                             |
| 412.06          | O-ring                             |
| 433             | Mechanical seal                    |
| 471             | Seal cover                         |
| 500             | Ring, cartridge                    |
| 509.01          | Intermediate ring                  |
| 509.02          | Intermediate ring, upper           |
| 509.03          | Intermediate ring, lower           |
| 525.01          | Spacer sleeve, short               |
| 525.02          | Spacer sleeve, middle              |
| 525.03          | Spacer sleeve, long                |
| 525.04          | Spacer sleeve, end                 |
| 525.05          | Spacer sleeve, seal                |
| 525.07          | Spacer sleeve, cartridge           |
| 529             | Bearing sleeve                     |
| 550             | Disc, lower                        |
| 554.01          | Washer                             |
| 554.04          | Washer                             |
| 560             | Pin                                |
| 681             | Coupling guard                     |
| 722             | Taper piece, flanged               |
| 801             | Flanged motor                      |
| 862             | Coupling shell                     |
| 890             | Baseplate, cast                    |
| 901.01          | Hexagon head bolt                  |
| 901.04          | Hexagon head bolt                  |
| 903.01          | Screw plug                         |
| 903.02          | Screw plug                         |
| 904             | Grub screw                         |
| 905             | Tie bolt                           |
| 914.01          | Hexagon socket head cap screw      |
| 914.02          | Hexagon socket head cap screw      |
| 914.03          | Hexagon socket head cap screw      |
| 920.01          | Nut                                |
| 920.02          | Impeller nut with non-metal insert |
| 920.03          | Nut                                |
| 920.05          | Nut                                |
| 930             | Safety device                      |
| 932             | Circlip, (1/2)                     |

Sectional drawing  
Movitec LHS 6



20030238-B

**Part No. Description**

|        |                                    |
|--------|------------------------------------|
| 10-6   | Pump shroud                        |
| 101    | Pump casing                        |
| 108.01 | Stage casing                       |
| 108.02 | Stage casing with ceramic bearing  |
| 108.04 | Stage casing, lower                |
| 108.05 | Stage casing, upper                |
| 210    | Shaft                              |
| 230    | Impeller                           |
| 341    | Motor stool                        |
| 411.01 | Joint ring                         |
| 411.04 | Joint ring                         |
| 412.01 | O-ring                             |
| 412.03 | O-ring                             |
| 433    | Mechanical seal                    |
| 525.01 | Spacer sleeve, short               |
| 525.02 | Spacer sleeve, middle              |
| 525.03 | Spacer sleeve, long                |
| 525.04 | Spacer sleeve, end                 |
| 525.05 | Spacer sleeve, seal                |
| 529    | Bearing sleeve                     |
| 554.01 | Washer                             |
| 554.02 | Washer                             |
| 554.04 | Washer                             |
| 560    | Pin                                |
| 681    | Coupling guard                     |
| 722    | Taper piece, flanged               |
| 801    | Motor                              |
| 862    | Coupling shell                     |
| 901.01 | Hexagon head bolt                  |
| 901.02 | Hexagon head bolt                  |
| 901.04 | Hexagon head bolt                  |
| 903.01 | Screw plug                         |
| 903.02 | Screw plug                         |
| 905    | Tie bolt                           |
| 914.01 | Hexagon socket head cap screw      |
| 920.01 | Nut                                |
| 920.02 | Impeller nut with non-metal insert |
| 920.03 | Nut                                |
| 920.05 | Nut                                |
| 930    | Safety device                      |
| 932    | Circlip                            |





