# Technical data

**Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

**Requested data**

| | | | | | |
|---|---|---|---|---|---|
| 1 | Pump type | CENTRIFUGAL PUMP | Fluid | | Water, clean |
| 2 | Number of pumps / Reserve | 1 / 0 | Liquid temperature | K | 293 |
| 3 | Flow m³/h | 0 | Kin. viscosity | mm²/s | 1 |
| 4 | Head m | 0 | Vapour pressure | kPa | 2.2 |
| 5 | Geodetic head m | 0 | PH value | | 7 |
| 6 | Inlet pressure (pin) kPa | 10 | Density | kg/m³ | 1000 |
| 7 | Available system NPSH | 0 | Solids | Weight % | 0 |
| 8 | Ambient temperature K | 290 | | | |

**Pump**

| | | | | | | |
|---|---|---|---|---|---|---|
| 9 | Pump name | 3D 50-200/11 | Frequency | | Hz | 50 |
| 10 | Design | CENTRIFUGAL PUMP | Installation type | | | STANDARD |
| 11 | Manufacturer | EPE | Impeller Diameter | Max. | mm | 200 |
| 12 | Speed 1/min | 2900 | | Designed | mm | 200 |
| 13 | No. of Stage | 1 | | Min. | mm | 200 |
| 14 | Connection Suction side | EN 1092-2 | Flow | Operating | m³/h | |
| 15 | Connection Discharge side | EN 1092-2 | | Max- | m³/h | 72 |
| 16 | Max Working Pressure kPa | 1000 | | Min- | m³/h | 30 |
| 17 | Shut-off head kPa | 563.11 | Head | Operating | m | |
| 18 | Total weight kg | See the table of "Dimensions". | | - (Qmax.) | m | 42.0 |
| 19 | Shaft power kW | | | - (Qmin.) | m | 55.6 |
| 20 | | | Max. Shaft Power at max. impeller | | kW | 11.11 |
| 21 | Required pump NPSH m | | Efficiency | | % | |

**Materials**

| | | | | |
|---|---|---|---|---|
| 22 | Impeller | AISI 304 | | |
| 23 | Casing | Cast iron | | |
| 24 | Shaft | AISI 304 (wet extension) | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |

**Motor**

| | | | | | |
|---|---|---|---|---|---|
| 28 | Manufacturer | EPE Standard | Insulation class | | F |
| 29 | Type | TEFC_3D 50-200/11_400_Three Phase | Phases | | 3~ |
| 30 | Specific design | IE3 / 50 Hz / Pole pairs 1 | Frame size | | |
| 31 | Rated power kW | 11 | Weight | kg | 0 |
| 32 | Number of poles | 2 | Electric voltage | V | 400 |
| 33 | Speed 1/min | 2900 | Electric current | A | 21.3 |
| 34 | Degree of protection | IP 55 | | | |
| 35 | | | | | |

**Remarks**

EBARA

# Performance curve **Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

**Requested data**

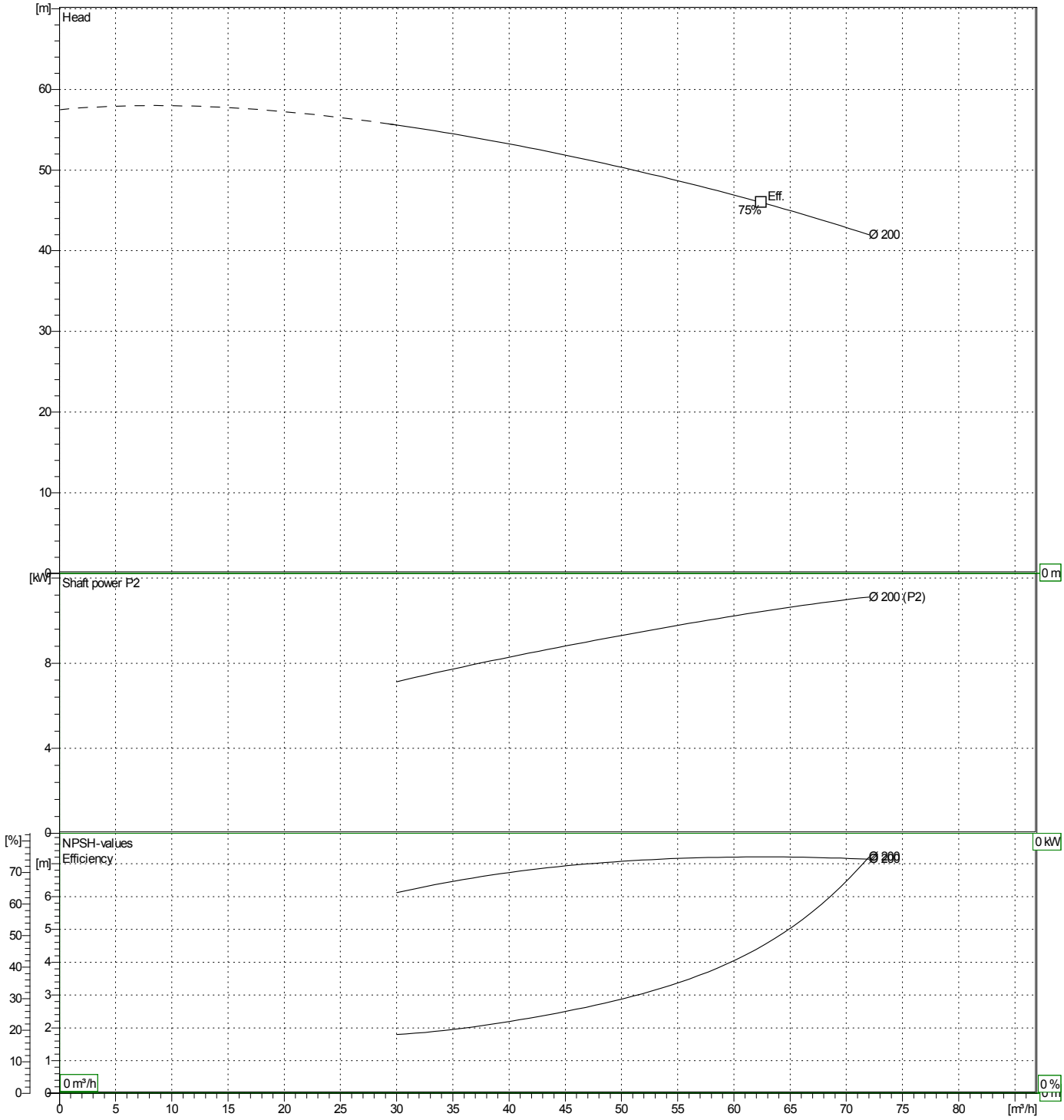
| | | | |
|---|---|---|---|
| 1 | Flow | m³/h | 0 |
| 2 | Head | m | 0 |
| 3 | Geodetic head | m | 0 |

**Pump**

| | | | | | |
|---|---|---|---|---|---|
| Operating Flow | m³/h | | Frequency | Hz | 50 |
| Operating Head | m | | Number of poles | | 2 |
| Impeller Diameter | Designed mm | 200 | Speed | 1/min | |

Test standard: ISO 9906:2012 - Grade3B

Water, clean [100%] ; 293K; 998.3kg/m³; 1mm²/s

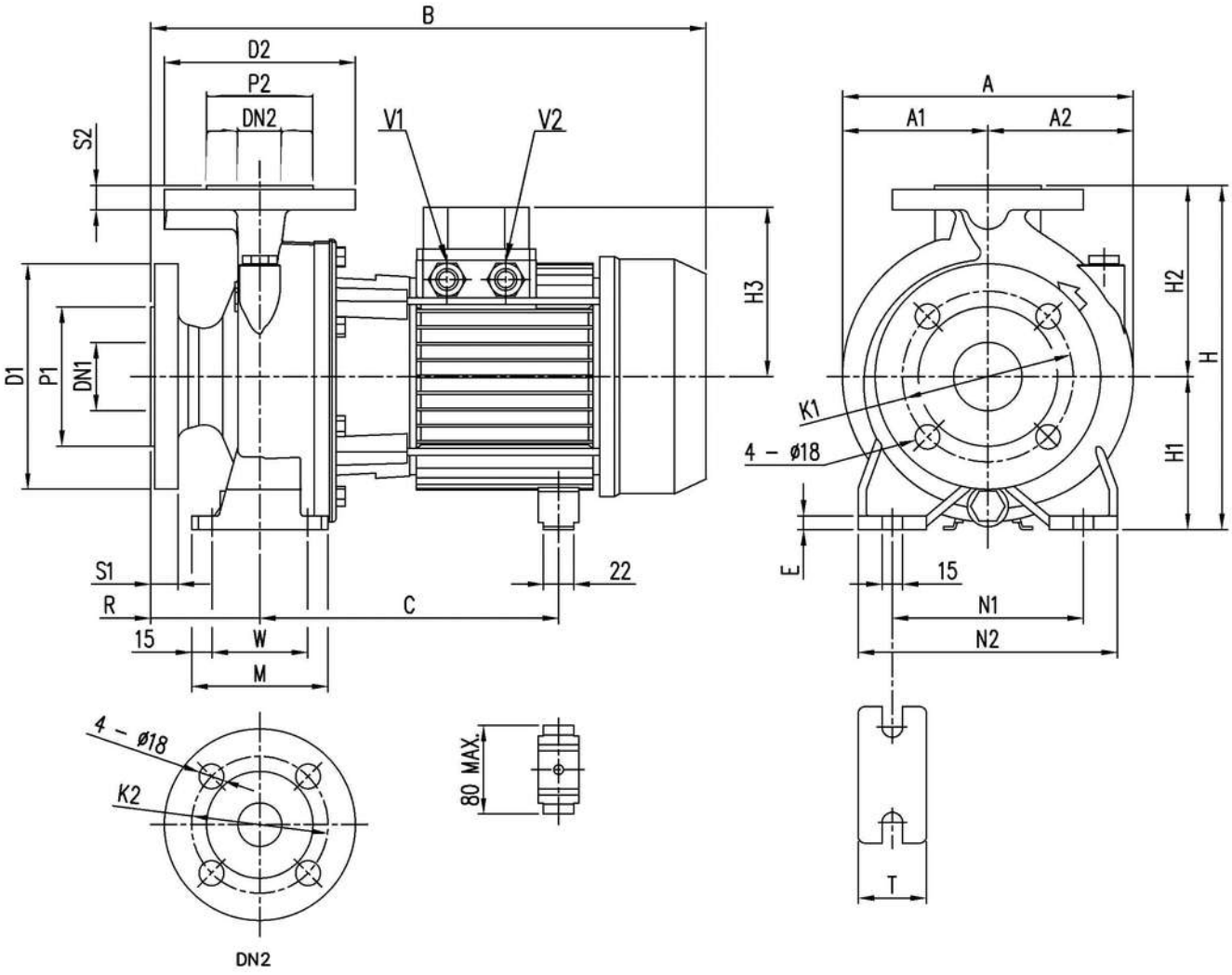



EBARA

# Dimensions

**Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |



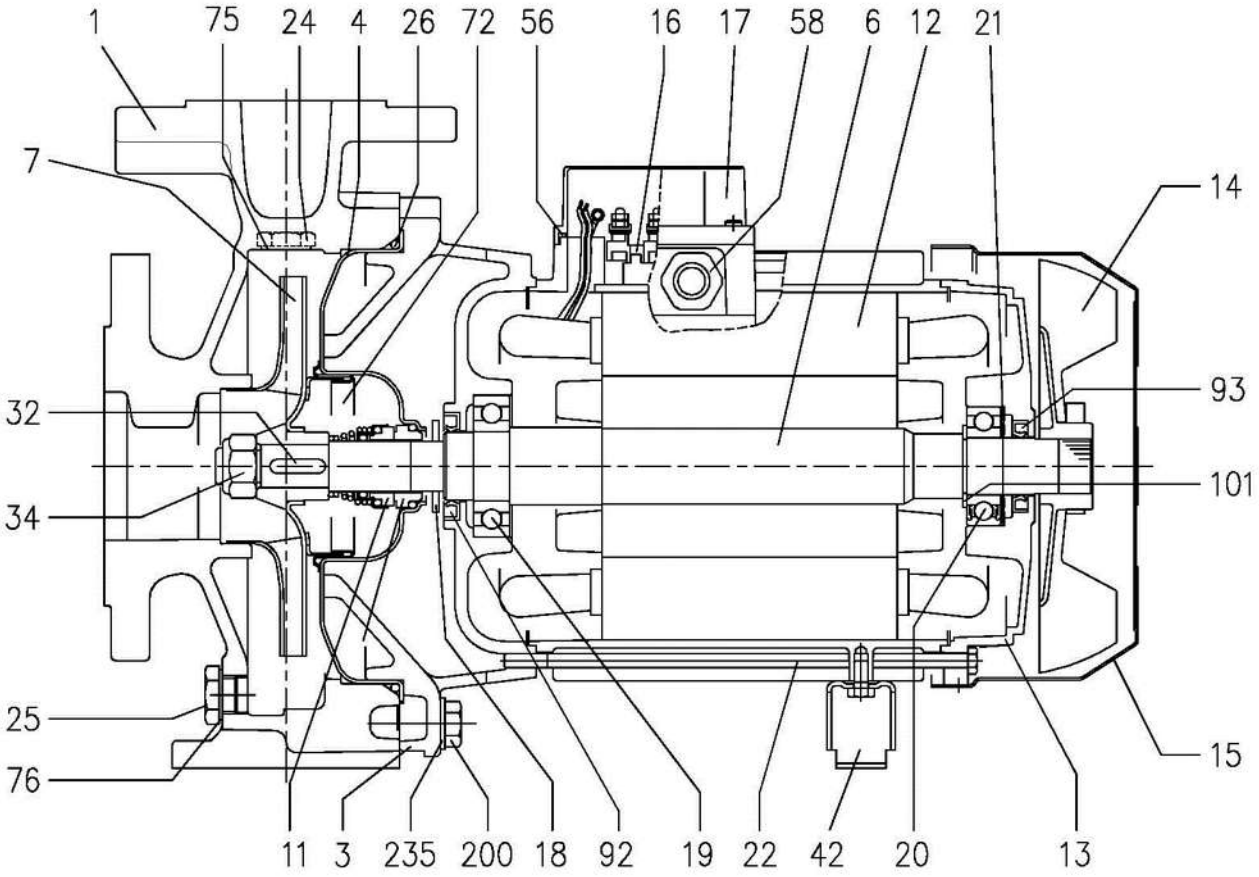

| Dimensions in mm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | A | 296 | E | 10 | V2 | PG 21 | | |
| 2 | A1 | 148 | H | 360 | W | 70 | | |
| 3 | A2 | 148 | H1 | 160 | Weight P&M | 82.4 kg | | |
| 4 | B | 595 | H2 | 200 | | | | |
| 5 | C | 359 | H3 | 178 | | | | |
| 6 | Dia D1 | 185 | M | 100 | | | | |
| 7 | Dia D2 | 165 | N1 | 212 | | | | |
| 8 | Dia DN1 | 65 | N2 | 265 | | | | |
| 9 | Dia DN2 | 50 | R | 100 | | | | |
| 10 | Dia K1 | 145 | S1 | 20 | | | | |
| 11 | Dia K2 | 125 | S2 | 20 | | | | |
| 12 | Dia P1 | 122 | T | 50 | | | | |
| 13 | Dia P2 | 102 | V1 | PG 13,5 | | | | |

EBARA

# (1/3)
# Construction

**Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |



# (2/3)
# Construction

**Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |

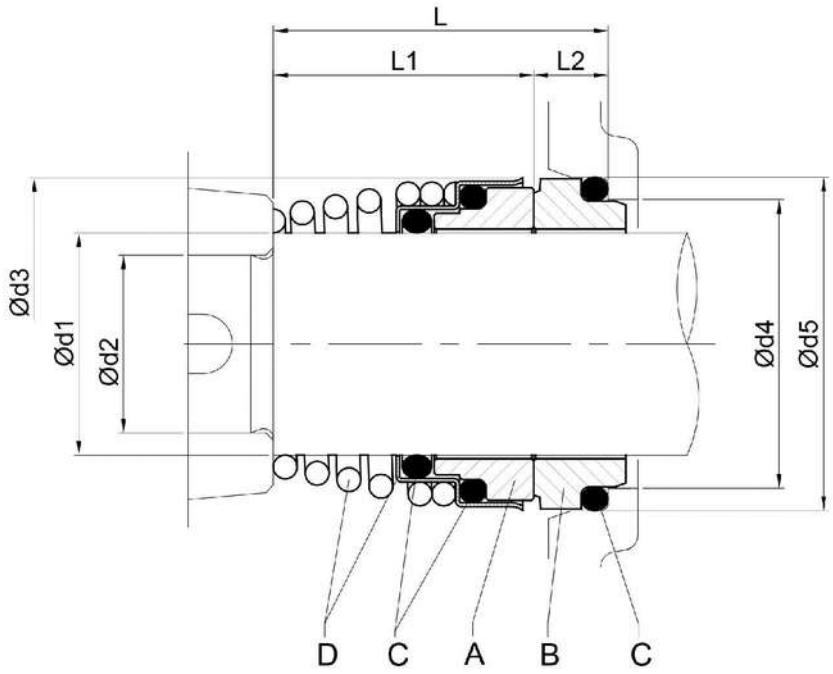
| N° | PART NAME | MATERIAL | DIMENSIONS | STANDARD | Q.TY |
|---|---|---|---|---|---|
| 1 | Casing | Cast iron EN-GJL-250-EN 1561 | | | 1 |
| 3 | Motor bracket [1] | - | | | 1 |
| 4 | Casing cover | EN 1.4301 (AISI 304) | | | 1 |
| 6 | Shaft with rotor - Wet extension | EN 1.4301 (AISI 304) | | | 1 |
| 7 | Impeller [2] | - | | | 1 |
| 11 | Mechanical seal [3] | - | | | 1 |
| 12 | Motor frame with stator | - | | | 1 |
| 13 | Motor cover | Aluminium | | | 1 |
| 14 | Fan | PA | | | 1 |
| 15 | Fan cover | Fe P04 Galvanized | | | 1 |
| 16 | Terminal | - | | | 1 |
| 17 | Terminal box cover | Aluminium (three phase version) | | | 1 |
| 18 | Splash ring Up to 11 kW | NBR | 40x21.5x2 | EBARA DRAWING | 1 |
| 19 | Bearing [10] | - | | | 1 |
| 20 | Bearing [10] | - | | | 1 |
| 21 | Adjusting ring | Steel C70 | | | 1 |
| 22 | Tie rod Up to 3 kW | Fe 42 Galvanized | M5 | EBARA DRAWING | 4 |
| | Tie rod For 4 - 5.5 - 7.5 kW | | M6 | | |
| | Tie rod 9.2 e 11 kW | | M8 | | |
| 24 | Priming plug | Brass | G 3/8" L=8 | | 1 |
| 25 | Draing plug | Brass | G 3/8" L=8 | | 1 |
| 26 | O-ring 32-125, 40-125 [4] | NBR/FPM/EPDM | 158.11x5.34 | OR 6625 | 1 |
| | O-ring 32-160, 40-160, 50-125, 65-125 [4] | | 183.52x5.34 | OR 6720 | |
| | O-ring 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11 [4] | | 227.96x5.34 | OR 6895 | |
| 32 | Key Up to 11 kW | EN 1.4401 (AISI 316) | A 6x6x25 | UNI 6604 | 1 |
| 34 | Impeller nut Up to 11 kW | EN 1.4301 (AISI 304) | M16x1.5 | UNI 7474 | 1 |
| 42 | Foot | Aluminium / Galvanized steel | | EBARA DRAWING | 1 |
| 56 | Box gasket | NBR | | | 1 |
| 58 | Cable gland | - | | | 1 |
| 72 | Casing ring [5] | EN 1.4301 (AISI 304) | | | 1 |
| 75 | Washer | Aluminum | 22x17x1.5 | EBARA DRAWING | 1 |
| 76 | Washer | Aluminum | | | 1 |
| 92 | Lip seal Up to 3 kW | - | 25x40x7 | DIN 3760 without spring | 1 |
| | Lip seal From 4 to 7.5 kW | | 30x47X7 | | |
| | Lip seal From 9.2 kW to 11 kW | | 40x55x7 | | |
| 93 | Lip seal Up to 4 kW | - | 25x40x7 | DIN 3760 without spring | 1 |
| | Lip seal From 5.5 kW to 7.5 kW | | 30x47X7 | | |
| | Lip seal From 9.2 kW to 11 kW | | 40x55x7 | | |
| 101 | Snap ring [6] | Carbon tool steels TC 80 | Ø 40 | UNI 7435 | 1 |
| 200 | Screw 32-125, 40-125 | Gv. Steel 8.8 strenght class ISO 898-1 | M 8x30 | UNI 5739 | 8 |
| | Screw 32-160, 40-160, 50-125, 65-125 | | M 10x35 | | 10 |
| | Screw 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11 | | | | 12 |
| 235 | Washer 32-125, 40-125 | Galvanized Steel | 8.4x17 | UNI 6592 | 8 |
| | Washer 32-160, 40-160, 50-125, 65-125 | | 10.5x21 | | 10 |
| | Washer 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11, 65-160/7.5, 65-160/9.2, 65-160/11 | | | | 12 |

[1] Cast iron EN-GJL-200-EN 1561 for 3D 32-200/3
Aluminum AL-EN-1706-AC-46000-D for all the others
[2] EN 1.4301 (AISI 304) for 32, 40, 50 series
EN 1.4401 (AISI 316) for 65 series
[3] See **CONSTRUCTION 3**
[4] See **CONSTRUCTION 3**, "O-ring" column
[5] Only for: 32-200, 40-200, 50-160, 50-200/9.2, 50-200/11
[6] Only for pumps with 9.2 and 11 kW motor

# (3/3)
# Construction

**Pump name** 3D 50-200/11

| | | |
|---|---|---|
| Customer | Date 23-June-2020 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID | E-mail |




| Pump type | Dimensions [ mm ] | | | | | | | | Material Standard | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | d1 | d2 | d3 | d4 | d5 | L | L1 | L2 | A Rotary seal ring | B Stationary seal ring | C O-ring | D Frame + Spring |
| 32-125/160/200<br>40-125/160/200<br>50-125/160/200<br>65-125<br>65-160/7.5-9.2-11 | 22 | 19 | 38 | 31 | 37 | 37.5 | 27.5 | 10 | Ceramic | Carbon | NBR | EN 1.4301 (AISI 304) |