

# Technical data

Pump name EVMS64 4-1LF6HQ1BEG/37

|          |                                                |           |
|----------|------------------------------------------------|-----------|
| Customer | Date 2024-07-01                                | Company   |
| Contact  | Item no.                                       | Issued by |
| Phone    | Project                                        | Phone     |
| E-mail   | Project ID Project redenumit 2024-07-01 19:11: | E-mail    |

## Requested data

|   |                           |                          |                       |        |
|---|---------------------------|--------------------------|-----------------------|--------|
| 1 | Pump type                 | VERTICAL MULTISTAGE PUMP | Fluid                 | Water  |
| 2 | Number of pumps / Reserve | 1 / 0                    | Liquid temperature °C | 20     |
| 3 | Flow m³/h                 |                          | Kin. viscosity mm²/s  | 1.005  |
| 4 | Head m                    |                          | Vapour pressure bar   | 0.0234 |
| 5 | Geodetic head m           |                          | PH value              |        |
| 6 | Inlet pressure (pin) bar  | 0                        | Density kg/m³         | 998.3  |
| 7 | Available system NPSH     |                          | Solids Weight %       | 0      |
| 8 | Ambient temperature °C    | 20                       |                       |        |

## Pump

|    |                           |                                |                                      |                |
|----|---------------------------|--------------------------------|--------------------------------------|----------------|
| 9  | Pump name                 | EVMS64 4-1LF6HQ1BEG/37         | Frequency Hz                         | 60             |
| 10 | Design                    | VERTICAL MULTISTAGE PUMP       | Installation type                    | Loose flange   |
| 11 | Manufacturer              | EBARA                          | Impeller Diameter                    | Max. mm        |
| 12 | Speed rpm                 | 3550                           |                                      | Designed mm    |
| 13 | No. of Stage              | 4                              |                                      | Min. mm        |
| 14 | Connection Suction side   |                                | Flow                                 | Operating m³/h |
| 15 | Connection Discharge side |                                |                                      | Max- m³/h      |
| 16 | Max Working Pressure bar  | 25                             |                                      | Min- m³/h      |
| 17 | Shut-off head bar         | 16.55                          | Head                                 | Operating m    |
| 18 | Total weight kg           | See the table of "Dimensions". |                                      | - (Qmax.) m    |
| 19 | Shaft power kW            |                                |                                      | - (Qmin.) m    |
| 20 |                           |                                | Max. Shaft Power at max. impeller kW | 35.00          |
| 21 | Required pump NPSH m      |                                | Efficiency %                         |                |

## Materials

|    |                     |                      |  |  |
|----|---------------------|----------------------|--|--|
| 22 | Impeller            | AISI 304             |  |  |
| 23 | Intermediate casing | AISI 304             |  |  |
| 24 | Bottom casing       | EN 1.4308 (ASTM CF8) |  |  |
| 25 | Casing cover        | AISI 304             |  |  |
| 26 | Shaft               | AISI 304             |  |  |
| 27 | O-ring              | EPDM                 |  |  |

## Motor

|    |                      |                                    |                    |      |
|----|----------------------|------------------------------------|--------------------|------|
| 28 | Manufacturer         | ATB                                | Insulation class   | F    |
| 29 | Type                 | TEFC_EVMS64 4-1/37_380_Three Phase | Phases             | 3~   |
| 30 | Specific design      | - / 60 Hz / Pole pairs 1           | Frame size         | 200  |
| 31 | Rated power kW       | 37                                 | Weight kg          | 260  |
| 32 | Number of poles      | 2                                  | Electric voltage V | 380  |
| 33 | Speed rpm            | 3555                               | Electric current A | 66.8 |
| 34 | Degree of protection | IP56                               |                    |      |
| 35 |                      |                                    |                    |      |

## Remarks

# Performance curve

Pump name EVMS64 4-1LF6HQ1BEG/37

|          |            |                                     |           |
|----------|------------|-------------------------------------|-----------|
| Customer | Date       | 2024-07-01                          | Company   |
| Contact  | Item no.   |                                     | Issued by |
| Phone    | Project    |                                     | Phone     |
| E-mail   | Project ID | Project redenumit 2024-07-01 19:11: | E-mail    |

## Requested data

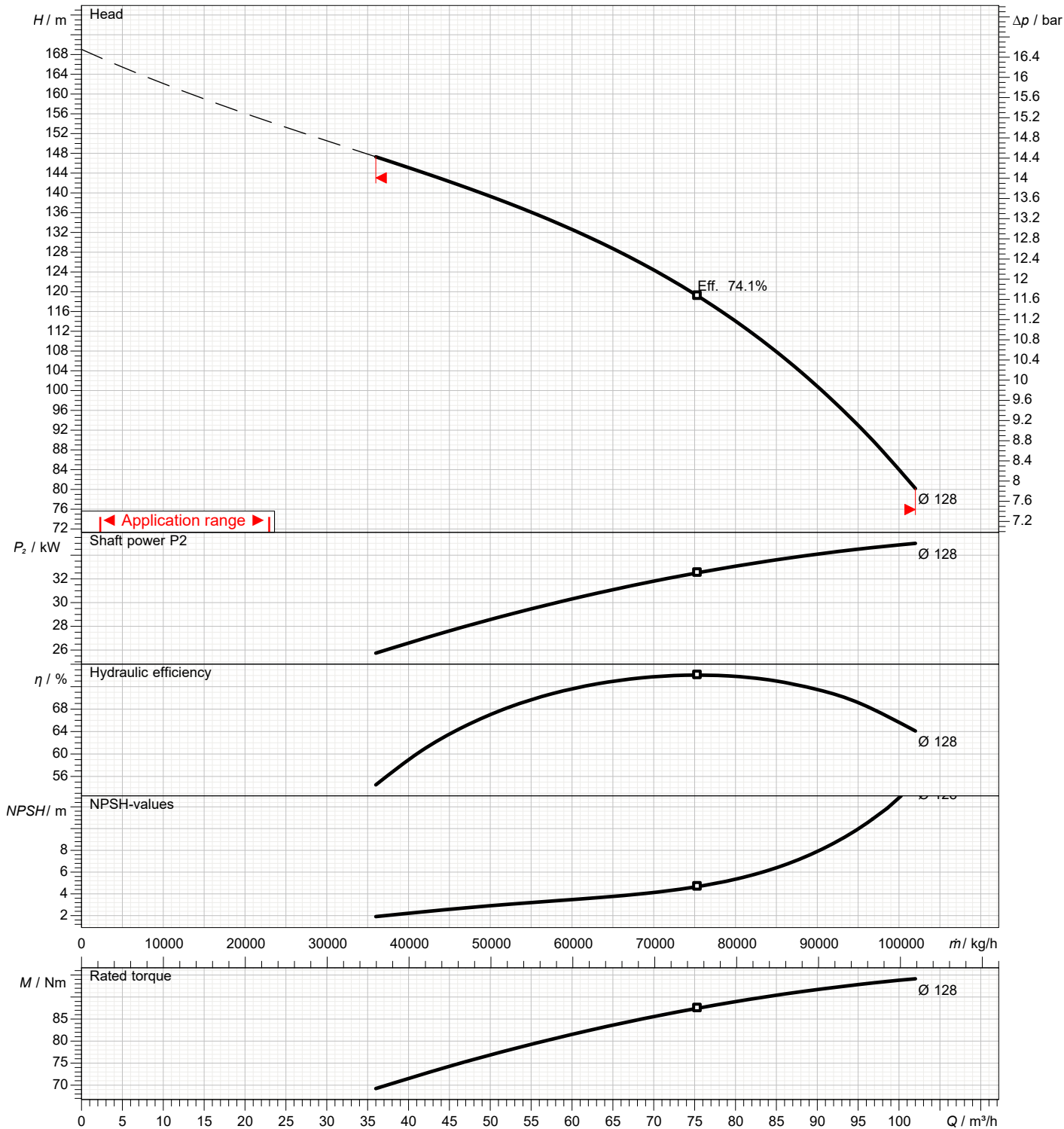
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

## Pump

|                |      |  |                            |     |      |
|----------------|------|--|----------------------------|-----|------|
| Operating flow | m³/h |  | Impeller Diameter Designed | mm  |      |
| Operating head | m    |  | Frequency                  | Hz  | 60   |
|                |      |  | Speed                      | rpm | 3550 |

Test standard: ISO 9906:2012 - Grade3B

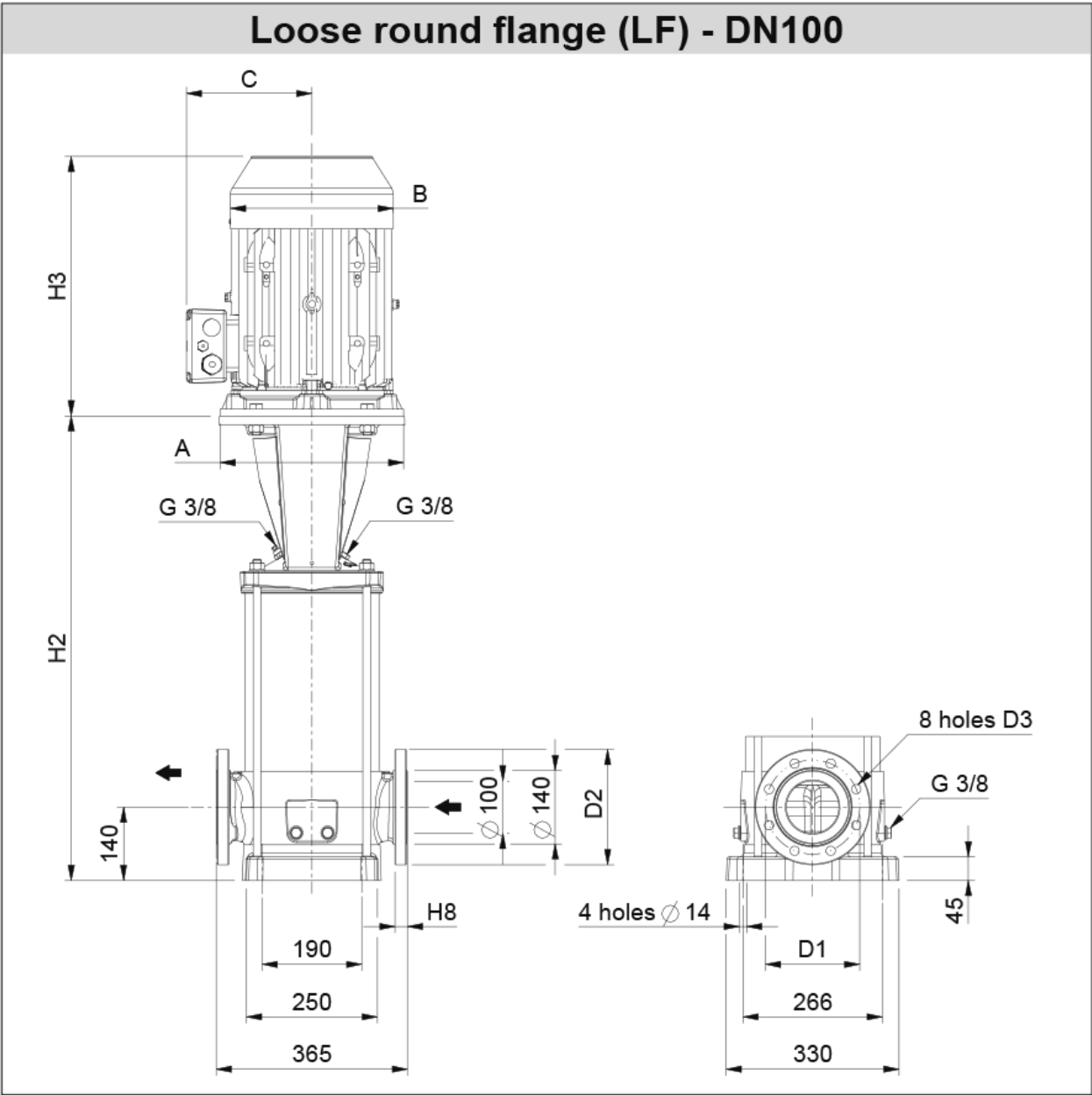
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

Pump Name EVMS64 4-1LF6HQ1BEG/37

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| Customer | Date 2024-07-01                                  | Company   |
| Contact  | Item no.                                         | Issued by |
| Phone    | Project                                          | Phone     |
| E-mail   | Project ID Proiect redenumit 2024-07-01 19:11:46 | E-mail    |

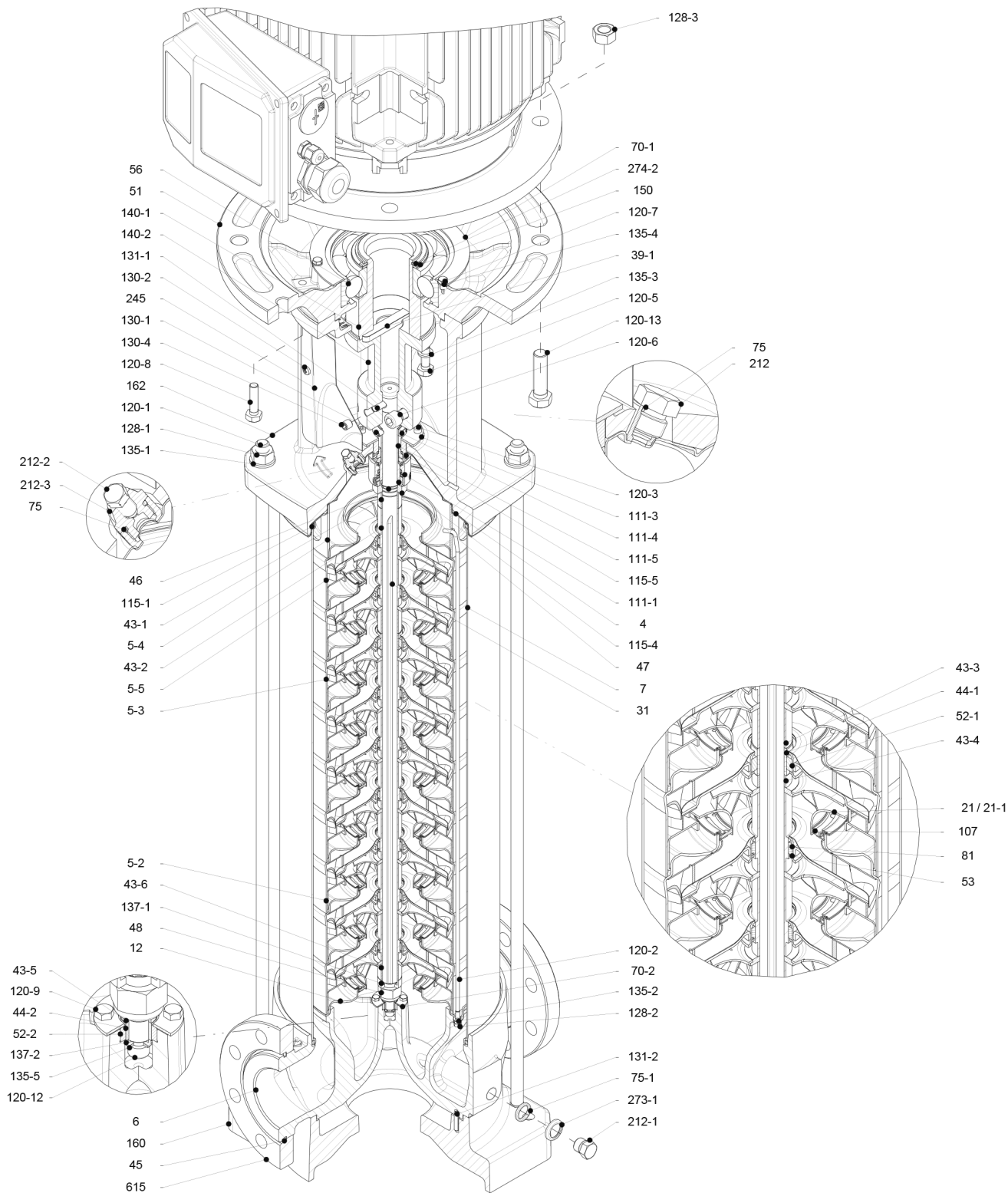


| Dimensions in mm |                |        |  |  |  |  |  |  |
|------------------|----------------|--------|--|--|--|--|--|--|
| 1                | A              | Dia400 |  |  |  |  |  |  |
| 2                | B              | 382    |  |  |  |  |  |  |
| 3                | C              | 295    |  |  |  |  |  |  |
| 4                | D1             | 190    |  |  |  |  |  |  |
| 5                | D2             | 235    |  |  |  |  |  |  |
| 6                | D3             | 22     |  |  |  |  |  |  |
| 7                | H2             | 913    |  |  |  |  |  |  |
| 8                | H2+H3          | 1590   |  |  |  |  |  |  |
| 9                | H8             | 30     |  |  |  |  |  |  |
| 10               | Weight P&M(kg) | 382.2  |  |  |  |  |  |  |
| 11               |                |        |  |  |  |  |  |  |
| 12               |                |        |  |  |  |  |  |  |
| 13               |                |        |  |  |  |  |  |  |
| 14               |                |        |  |  |  |  |  |  |
| 15               |                |        |  |  |  |  |  |  |

(1/3)  
Construction

Pump Name EVMS64 4-1LF6HQ1BEG/37

|          |                                                  |           |
|----------|--------------------------------------------------|-----------|
| Customer | Date 2024-07-01                                  | Company   |
| Contact  | Item no.                                         | Issued by |
| Phone    | Project                                          | Phone     |
| E-mail   | Project ID Proiect redenumit 2024-07-01 19:11:46 | E-mail    |



|          |            |                                       |           |
|----------|------------|---------------------------------------|-----------|
| Customer | Date       | 2024-07-01                            | Company   |
| Contact  | Item no.   |                                       | Issued by |
| Phone    | Project    |                                       | Phone     |
| E-mail   | Project ID | Proiect redenumit 2024-07-01 19:11:46 | E-mail    |

| N°     | PART NAME                        | MATERIAL                                      |                                                  | DIMENSIONS   | STANDARD | QTY |
|--------|----------------------------------|-----------------------------------------------|--------------------------------------------------|--------------|----------|-----|
|        |                                  | EVMS                                          | EVMSL                                            |              |          |     |
| 4      | Casing cover                     | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 5-2    | Intermediate casing              | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 4   |
| 5-3    | Intermediate casing with bearing | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 5-4    | Discharge casing                 | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 5-5    | Top intermediate casing          | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 6      | Bottom casing                    | EN 1.4308 (ASTM CF8)                          | EN 1.4408 (ASTM CF8M)                            |              |          | 1   |
| 7      | Outer casing                     | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 12     | Suction cover                    | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 21     | Impeller                         | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 3   |
| 21-1   | Reduced impeller                 | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 31     | Shaft                            | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L) -<br>EN 1.4462 (AISI 329A) |              |          | 1   |
| 39-1   | Coupling key                     | Carbon Steel                                  |                                                  |              |          | 1   |
| 43-1   | Shaft sleeve (mechanical seal)   | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 43-2   | Shaft sleeve (intermediate)      | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 5   |
| 43-3   | Shaft sleeve (bearing)           | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 43-4   | Shaft sleeve (adjustment)        | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 43-5   | Shaft sleeve (last stage)        | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 43-6   | Shaft sleeve (adjustment)        | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 44-1   | Shaft sleeve bearing             | Tungsten carbide                              |                                                  |              |          | 1   |
| 44-2   | Shaft sleeve (bearing)           | Tungsten carbide                              |                                                  |              |          | 1   |
| 45     | Flange holder                    | EN 1.4301 (AISI 304)                          |                                                  |              |          | 4   |
| 46     | Ring (mechanical seal)           | EN 1.4404 (AISI 316L)                         |                                                  |              |          | 1   |
| 47     | Ring holder                      | EN 1.4404 (AISI 316L)                         |                                                  |              |          | 1   |
| 48     | Impeller nut                     | EN 1.4301 (AISI 304)<br>with inox insert      | EN 1.4401 (AISI 316)<br>with inox insert         |              |          | 1   |
| 51     | Motor adapter                    | Cast Iron EN GJL250 EN 1561                   |                                                  |              |          | 1   |
| 52-1   | Sleeve bearing                   | Tungsten carbide                              |                                                  |              |          | 1   |
| 52-2   | Bearing sleeve (bottom casing)   | Tungsten carbide                              |                                                  |              |          | 1   |
| 53     | Bush holder                      | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 6   |
| 56     | Ball bearing                     | 6315 ZZ C3                                    |                                                  |              |          | 1   |
| 70-1   | Ring for ball bearing            | EN 1.4301 (AISI 304)                          |                                                  |              |          | 1   |
| 70-2   | Ring for bearing sleeve          | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 75     | O-Ring (priming plug)            | EPDM / FPM * *                                |                                                  | Ø12.37x2.62  | OR 3050  | 2   |
| 75-1   | O-Ring (drainage plug)           | EPDM / FPM * *                                |                                                  |              |          | 4   |
| 81     | Bush                             | PTFE                                          |                                                  |              |          | 5   |
| 107    | Liner ring                       | EN 1.4301 (AISI 304) + PPS                    | EN 1.4404 (AISI 316L) + PPS                      |              |          | 4   |
| 111-1  | Mechanical seal                  | --- **                                        |                                                  |              |          | 1   |
| 111-3  | Mechanical seal seat             | EN 1.4301 (AISI 304)                          | EN 1.4401 (AISI 316)                             |              |          | 1   |
| 111-4  | Seal holder                      | EN 1.4404 (AISI 316L)                         |                                                  |              |          | 1   |
| 111-5  | Mechanical seal cartridge sleeve | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 115-1  | O-Ring (outer casing)            | EPDM / FPM * *                                |                                                  | Ø240.66x5.34 | OR 6945  | 2   |
| 115-4  | O-Ring (cartridge sleeve)        | EPDM / FPM * *                                |                                                  | Ø23.39x3.53  | OR 4093  | 1   |
| 115-5  | O-Ring (seal flange)             | EPDM / FPM * *                                |                                                  | Ø44.04x3.53  | OR 4175  | 1   |
| 120-1  | Tie rod                          | EN 1.4057 (AISI 431)                          |                                                  |              |          | 4   |
| 120-2  | Tie rod (stage)                  | EN 1.4301 (AISI 304)                          | EN 1.4401 (AISI 316)                             |              |          | 2   |
| 120-3  | Screw (seal flange)              | A2-70                                         |                                                  | M5x12        | ISO 4762 | 4   |
| 120-5  | Screw (extension coupling)       | Galvanized steel 8.8 strength class ISO 898/1 |                                                  | M10x30       | ISO 4017 | 4   |
| 120-6  | Screw (pump coupling)            | Galvanized steel 8.8 strength class ISO 898/1 |                                                  | M12x30       | ISO 4762 | 2   |
| 120-7  | Screw (ball bearing)             | Galvanized steel 8.8 strength class ISO 898/1 |                                                  | M6x10        | ISO 4017 | 3   |
| 120-8  | Screw (motor adapter)            | Galvanized steel 8.8 strength class ISO 898/1 |                                                  | M10x40       | ISO 4017 | 4   |
| 120-9  | Screw (bottom casing)            | A2-70                                         |                                                  | M5x8         | ISO 4017 | 4   |
| 120-12 | Screw (shaft)                    | A2-70                                         |                                                  | M6x16        | ISO 4762 | 1   |
| 120-13 | Screw for motor                  | Galvanized steel 8.8 strength class ISO 898/1 |                                                  | M16x60       | ISO 4014 | 4   |
| 128-1  | Nut (tie rod)                    | A2-70                                         |                                                  | M16          | ISO 4032 | 4   |
| 128-2  | Nut (casing tie rod)             | A2-70 UNI 7323                                |                                                  | M5           | ISO 4032 | 4   |
| 128-3  | Nut (motor)                      | Galvanized steel                              |                                                  | M16          | ISO 4032 | 4   |
| 130-1  | Set screw                        | EN 1.4301 (AISI 304)                          |                                                  | M6x8         | ISO 4026 | 3   |
| 130-2  | Screw for coupling guard         | A2-70                                         |                                                  | M5x6         | UNI 7687 | 4   |
| 130-4  | Set screw (pump coupling)        | Galvanized steel                              |                                                  | M10x10       | ISO 4026 | 1   |
| 131-1  | Pin for shaft                    | Carbon Steel                                  |                                                  | Ø8X50        | ISO 2338 | 1   |
| 131-2  | Elastic pin                      | EN 1.4301 (AISI 304)                          |                                                  | Ø6x26        | ISO 8752 | 1   |
| 135-1  | Washer (tie rod)                 | EN 1.4301 (AISI 304)                          |                                                  | Ø16          | ISO 7089 | 4   |
| 135-2  | Washer (casing tie rod)          | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316)                             | Ø5.1         | UNI 1751 | 2   |
| 135-3  | Washer (extension coupling)      | Galvanized steel                              |                                                  | Ø10.2        | UNI 1751 | 4   |
| 135-4  | Washer (ball bearing)            | Plated carbon steel                           |                                                  | Ø6.1         | UNI 1751 | 3   |
| 135-5  | Washer (impeller nut)            | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 137-1  | Impeller spacer                  | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 137-2  | Shaft spacer                     | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 140-1  | Extension coupling               | Carbon Steel                                  |                                                  |              |          | 1   |
| 140-2  | Coupling                         | Carbon Steel                                  |                                                  |              |          | 1   |
| 150    | Spacer (snap ring)               | Carbon Steel                                  |                                                  |              |          | 1   |
| 160    | Base                             | Cast Iron EN GJL200 EN 1561                   |                                                  |              |          | 1   |
| 162    | Motor bracket                    | Cast Iron EN GJS 400-15 EN 1563               |                                                  |              |          | 1   |
| 212    | Priming plug                     | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 212-1  | Drainage plug                    | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 4   |
| 212-2  | Venting plug                     | EN 1.4401 (AISI 316)                          |                                                  |              |          | 1   |
| 212-3  | Priming plug                     | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 1   |
| 245    | Coupling guard                   | EN 1.4301 (AISI 304)                          |                                                  |              |          | 2   |
| 273-1  | Washer (drainage plug)           | EN 1.4301 (AISI 304)                          | EN 1.4404 (AISI 316L)                            |              |          | 4   |
| 274-2  | C-type snap ring (coupling)      | Carbon Steel TC80                             |                                                  | Ø75          | UNI 7435 | 1   |
| 615    | Loose flange                     | Cast Iron EN GJS 500-7 EN 1563                |                                                  |              |          | 2   |

\* EPDM (standard)  
FPM (option)

\*\* see CONSTRUCTION 3/3

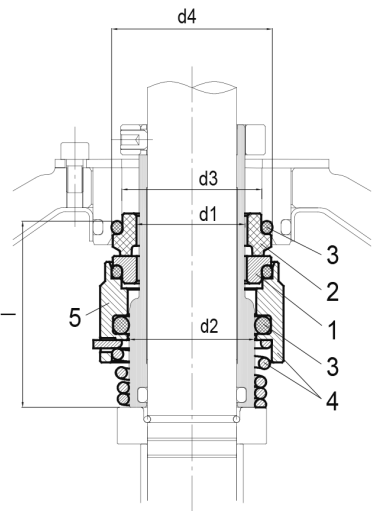
(3/3)

Construction

Pump Name

EVMS64 4-1LF6HQ1BEG/37

|          |            |                                       |           |
|----------|------------|---------------------------------------|-----------|
| Customer | Date       | 2024-07-01                            | Company   |
| Contact  | Item no.   |                                       | Issued by |
| Phone    | Project    |                                       | Phone     |
| E-mail   | Project ID | Proiect redenumit 2024-07-01 19:11:46 | E-mail    |



● Standard

| Type key | Availability | Max operating pressure | Max operating temperature | Shaft seal type |      | Shaft seal material |      |                 |      |            |      |                    |        |      |  |
|----------|--------------|------------------------|---------------------------|-----------------|------|---------------------|------|-----------------|------|------------|------|--------------------|--------|------|--|
|          |              |                        |                           | Cartridge       |      | 1                   |      | 2               |      | 3          |      | 4                  |        | 5    |  |
|          |              |                        |                           | Type            | Code | Rotating part       | Code | Stationary part | Code | Elastomers | Code | Compression spring | Collar | Code |  |
| HQ1BEG   | ●            | 25/35 bar              | - 30°C to + 140°C         | Balanced        | (H)  | SiC                 | (Q1) | Carbon          | (B)  | EPDM       | (E)  | AISI 316           |        | (G)  |  |

| Max operating pressure | d1 [mm] | d2 [mm] | d3 [mm] | d4 [mm] | l [mm] |
|------------------------|---------|---------|---------|---------|--------|
| 25 bar                 | 28      | 33      | 37      | 43      | 50     |