

Technical Data

Pump Name

EVMSG15 13F5HQ1BEGE/11

| | | | |
|----------|------------|---------------------------------------|-----------|
| Customer | Date | 2024-06-14 | Company |
| Contact | Item no. | | Issued by |
| Phone | Project | | Phone |
| E-mail | Project ID | Proiect redenumit 2024-06-14 15:41:37 | 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 | Density | kg/m³ | 998.3 |
| 7 | Available system NPSH | | Solids | Weight % | 0 |
| 8 | Ambient temperature | °C | 20 | | |

Pump

| | | | | | | | |
|----|----------------------|--------------------------|--------------------------------|-----------------------------------|-------------------------|-------|-------|
| 9 | Pump Name | EVMSG15 13F5HQ1BEGE/11 | Frequency | Hz | 50 | | |
| 10 | Design | VERTICAL MULTISTAGE PUMP | Installation type | | Round flange (STANDARD) | | |
| 11 | Manufacturer | EBARA | Impeller Diameter | Max. | mm | 107 | |
| 12 | Speed | rpm | | 2940 | Designed | mm | 107 |
| 13 | No. of Stage | 13 | | Min. | mm | 107 | |
| 14 | Connection | Suction side | Flow | Operating | m³/h | | |
| 15 | Connection | Discharge side | | Max- | m³/h | 24 | |
| 16 | Max Working Pressure | bar | | 25 | Min- | m³/h | 7.8 |
| 17 | Shut-off head | bar | 19.50 | Head | Operating | m | |
| 18 | Total weight | kg | See the table of "Dimensions". | | - (Qmax.) | m | 116.0 |
| 19 | Shaft power | kW | | | - (Qmin.) | m | 184.7 |
| 20 | | | | Max. Shaft Power at max. impeller | kW | 10.87 | |
| 21 | Required pump NPSH | m | | Efficiency | % | | |

Materials

| | | | | |
|----|---------------------|-----------|--|--|
| 22 | Impeller | AISI 304 | | |
| 23 | Intermediate casing | AISI 304 | | |
| 24 | Bottom casing | Cast iron | | |
| 25 | Shaft | AISI 329A | | |
| 26 | O-ring | EPDM | | |
| 27 | | | | |

Motor

| | | | | | | |
|----|----------------------|-----------------------------------|------------------|------------------|-----|------|
| 28 | Manufacturer | ETM | Insulation class | F | | |
| 29 | Type | TEFC_EVMS15 13/11_400_Three Phase | Phases | 3~ | | |
| 30 | Specific design | IE3 / 50 Hz / Pole pairs 1 | Frame size | 160 | | |
| 31 | Rated power | kW | 11 | Weight | kg | 62.5 |
| 32 | Number of poles | 2 | Electric voltage | V | 400 | |
| 33 | Speed | rpm | 2930 | Electric current | A | 21.3 |
| 34 | Degree of protection | IP 55 | | | | |
| 35 | | | | | | |

Remarks

| |
|--|
| |
|--|

Performance Curve

Pump Name

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| Contact | Item no. | | Issued by |
| Phone | Project | | Phone |
| E-mail | Project ID | Project redenumit 2024-06-14 15:41:37 | E-mail |

Requested data

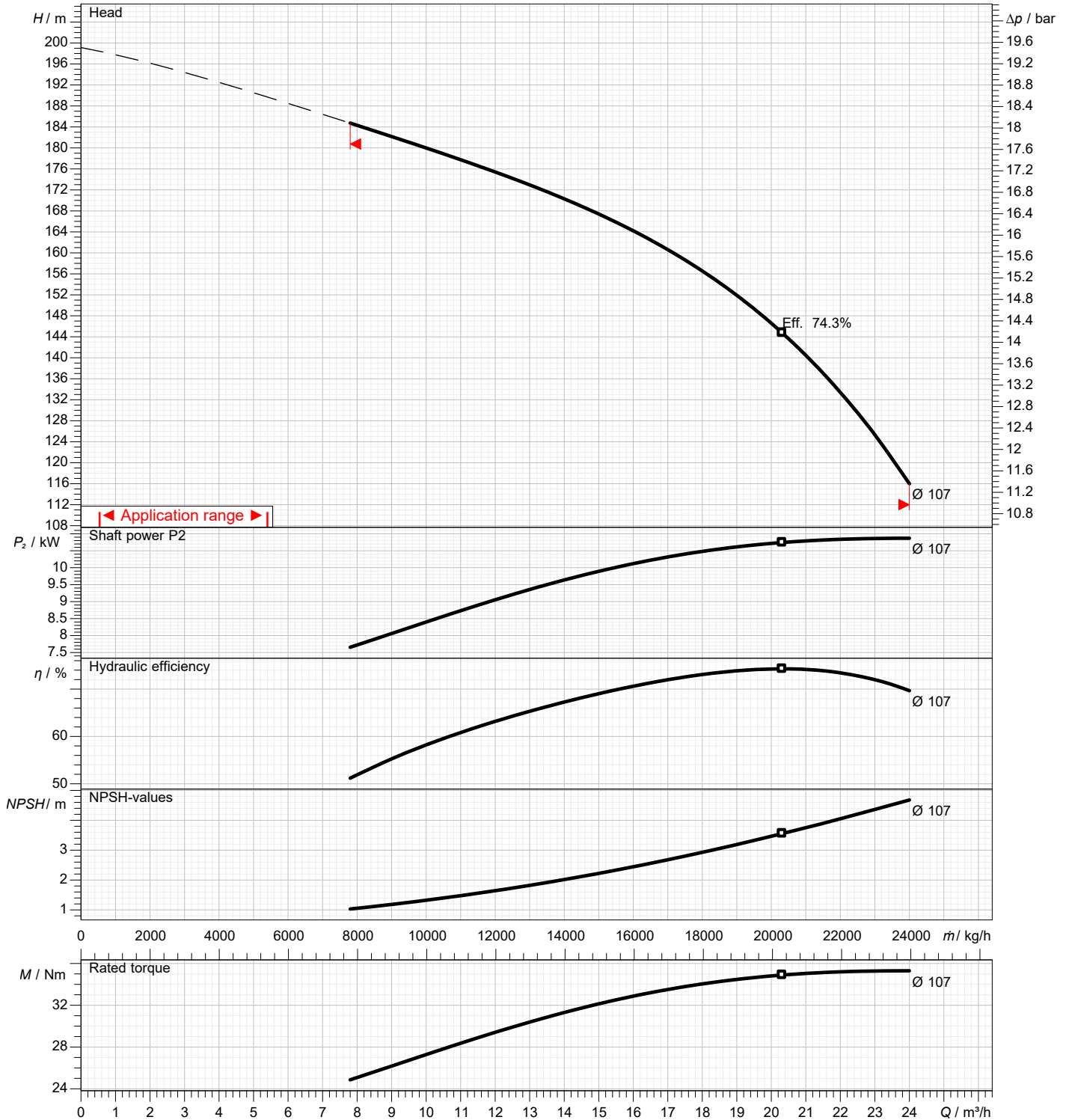
| | | | |
|---|---------------|------|--|
| 1 | Flow | m³/h | |
| 2 | Head | m | |
| 3 | Geodetic head | m | |

Pump

| | | | | | |
|----------------------------|------|-----|-----------------|-----|------|
| Operating flow | m³/h | | Frequency | Hz | 50 |
| Operating head | m | | Number of poles | | 2 |
| Impeller diameter designed | mm | 107 | Speed | rpm | 2940 |

Test standard: ISO 9906:2012 - Grade3B

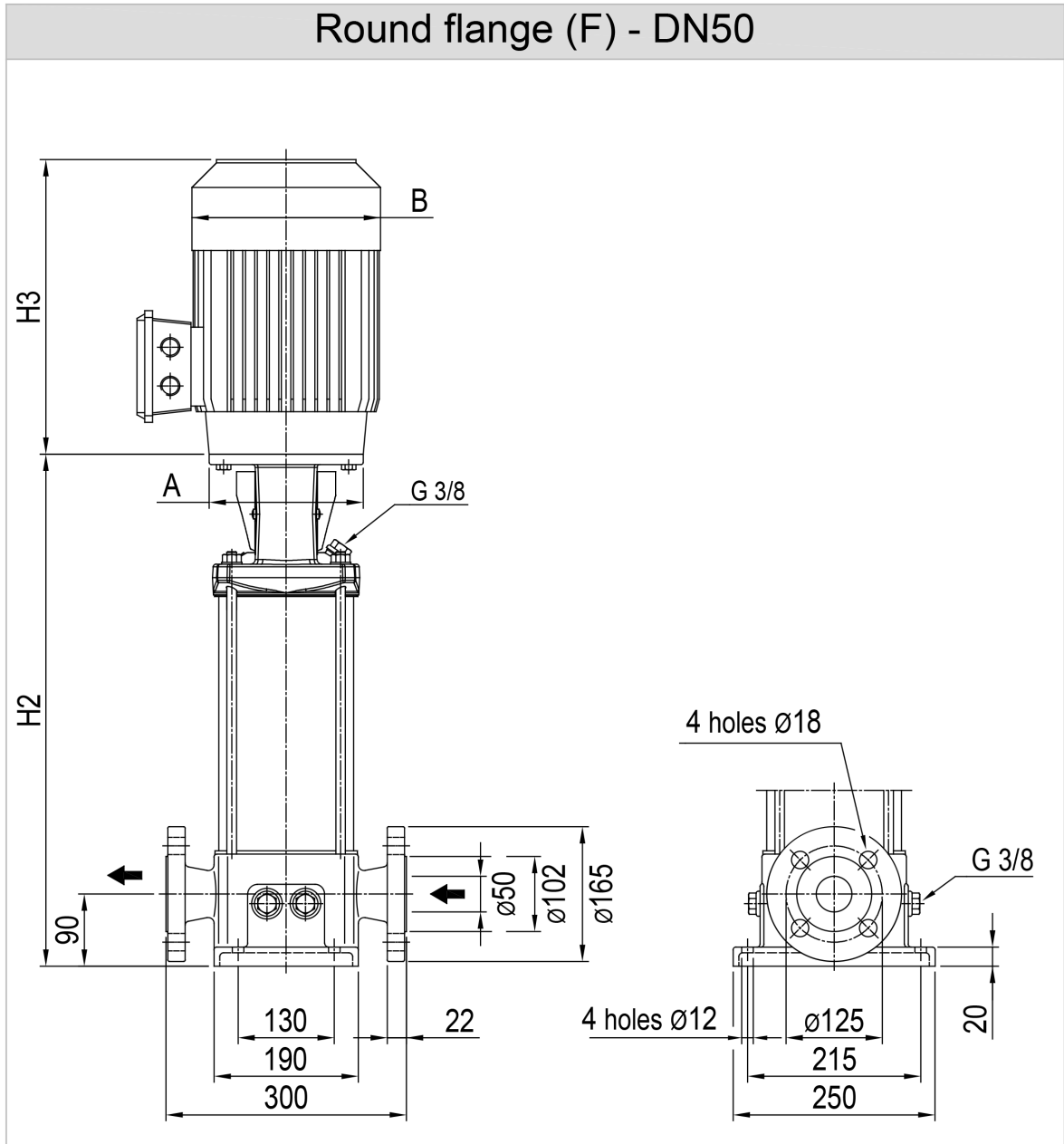
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

Pump name EVMSG15 13F5HQ1BEGE/11

| | | |
|----------|--|-----------|
| Customer | Date 2024-06-14 | Company |
| Contact | Item no. | Issued by |
| Phone | Project | Phone |
| E-mail | Project ID Proiect redenumit 2024-06-14 15:41:37 | E-mail |



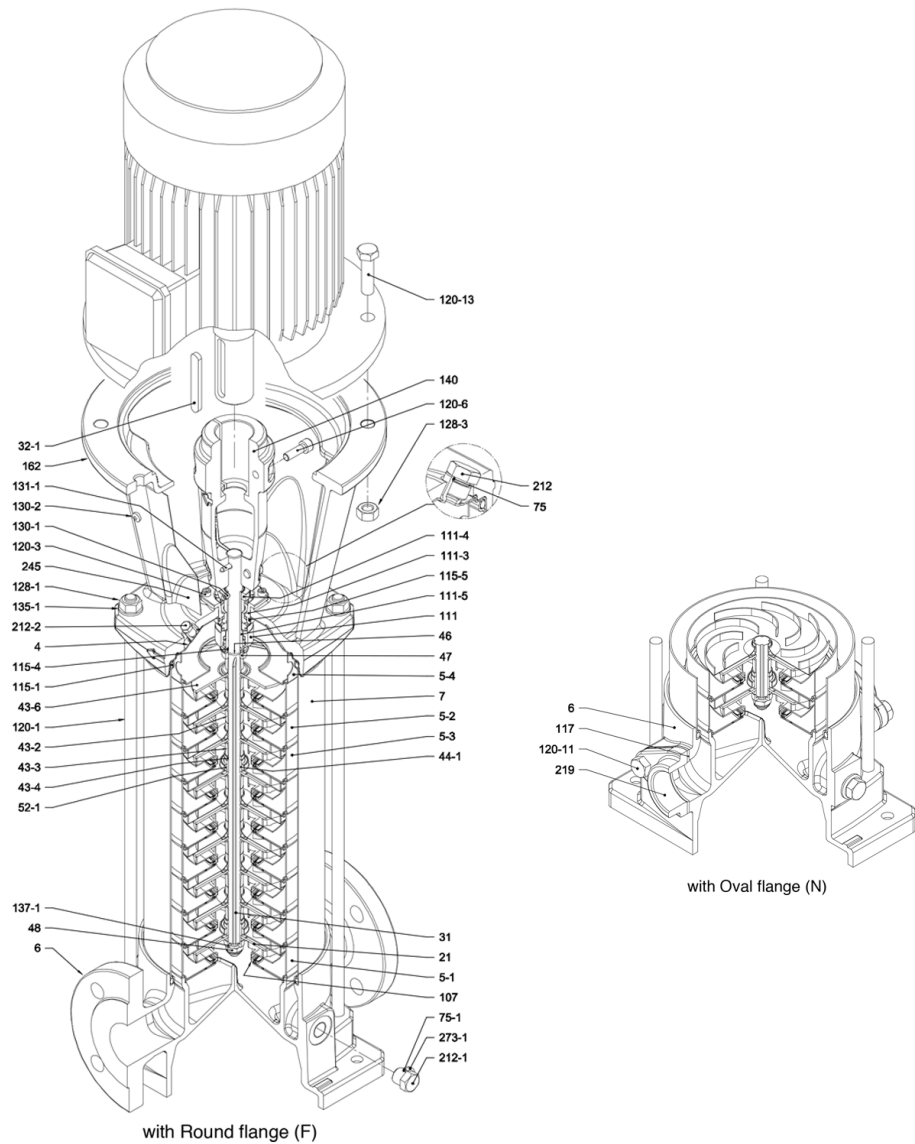
| Dimensions in | | mm | | | | | | |
|---------------|-----------------|--------|--|--|--|--|--|--|
| 1 | A | Dia350 | | | | | | |
| 2 | B | 259 | | | | | | |
| 3 | C | 180 | | | | | | |
| 4 | H2 | 964 | | | | | | |
| 5 | H3 | 440 | | | | | | |
| 6 | Weight P&M (kg) | 119.8 | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| 14 | | | | | | | | |
| 15 | | | | | | | | |

(1/4)

Construction

Pump name EVMSG15 13F5HQ1BEGE/11

| | | |
|----------|--|-----------|
| Customer | Date 2024-06-14 | Company |
| Contact | Item no. | Issued by |
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| E-mail | Project ID Proiect redenumit 2024-06-14 15:41:37 | E-mail |



(2/4)**Construction****Pump name EVMSG15 13F5HQ1BEGE/11**

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| E-mail | Project ID | Proiect redenumit 2024-06-14 15:41:37 | E-mail |

| N° | PART NAME | MATERIAL EVMSG | DIMENSIONS | STANDARD |
|--------|----------------------------------|--|------------------------------------|--|
| 4 | Casing cover | EN 1.4301 (AISI 304) | | |
| 5-1 | Suction casing | EN 1.4301 (AISI 304) | | |
| 5-2 | Intermediate casing | EN 1.4301 (AISI 304) | | |
| 5-3 | Intermediate casing with bearing | EN 1.4301 (AISI 304) | | |
| 5-4 | Discharge casing | EN 1.4301 (AISI 304) | | |
| 6 | Bottom casing | Cast Iron EN GJL-250EN1551 | | |
| 7 | Outer casing | EN 1.4301 (AISI 304) | | |
| 21 | Impeller | EN 1.4301 (AISI 304) | | |
| 31 | Shaft | EN 1.4301 (AISI 304) - EN 1.4462 (AISI 329A) | | |
| 32-1 | Adjuster key | EN 1.4301 (AISI 304) | | |
| 43-2 | Shaft sleeve (intermediate) | EN 1.4301 (AISI 304) | | |
| 43-3 | Shaft sleeve (bearing) | EN 1.4301 (AISI 304) | | |
| 43-4 | Shaft sleeve (adjustment) | EN 1.4301 (AISI 304) | | |
| 43-6 | Washer | EN 1.4404 (AISI 316L) | Ø26x2.5 | |
| 44-1 | Shaft sleeve bearing | Tungsten carbide | | |
| 46 | Ring (mechanical seal) | EN 1.4404 (AISI 316L) | | |
| 47 | Ring holder | EN 1.4404 (AISI 316L) | | |
| 48 | Impeller nut | EN 1.4301 (AISI 304) with inox insert | M10 | |
| 52-1 | Sleeve bearing | Tungsten carbide | | |
| 75 | O-Ring (priming plug) | EPDM / FPM * | Ø12.37x2.62 | OR 3050 |
| 75-1 | O-Ring (drainage plug) | EPDM / FPM * | | |
| 107 | Liner ring | EN 1.4301 (AISI 304) + PPS | | |
| 111 | Mechanical seal | --- ** | | |
| 111-3 | Mechanical seal seat | EN 1.4308 (ASTM CF8) | | |
| 111-4 | Seal holder | EN 1.4301 (AISI 304) | | |
| 111-5 | Mechanical seal cartridge sleeve | EN 1.4301 (AISI 304) | | |
| 115-1 | O-Ring (outer casing) | EPDM / FPM * | Ø164.46x5.34 | OR 6945 |
| 115-4 | O-Ring (cartridge sleeve) | EPDM / FPM * | Ø15.88x2.62 | OR 4093 |
| 115-5 | O-Ring (seal flange) | EPDM / FPM * | Ø37.77x2.62 | OR 4175 |
| 117 | Flange gasket | EPDM / FPM * | | |
| 120-1 | Tie-rod | EN 1.4057 (AISI 431) | M12 | |
| 120-3 | Screw (seal flange) | A2-70 | M5x12 | ISO 4762 |
| 120-6 | Screw (pump coupling) | Galvanized steel 6.8 strength class ISO 898/1 | M6x25 M8x20 M10x30 | ISO 4762 ISO 4762 ISO 4762 |
| 120-11 | Screw (counterflange) | A2-70 | | |
| 120-13 | Screw for motor | Galvanized steel 8.8 strength class ISO 898/1 | M6x20 M8x20 M12x40 M16x50 | ISO 4017 ISO 4017 ISO 4017 ISO 4017 |
| 128-1 | Nut (tie rod) | A2-70 | M12 | ISO 4032 |
| 128-3 | Nut (motor) | Galvanized steel | M12 M16 | ISO 4032 ISO 4032 |
| 128-6 | Nut (aluminium coupling) | Galvanized steel | M6 | ISO 4032 |
| 130-1 | Set screw | EN 1.4301 (AISI 304) | M5x8 | ISO 4026 |
| 130-2 | Screw for coupling guard | A2-70 | M5x6 | UNI 7687 |
| 131-1 | Pin for shaft | Carbon Steel | Ø5x35 | ISO 2338 |
| 135-1 | Washer (tie rod) | EN 1.4301 (AISI 304) | Ø13x24x2.5 | ISO 7089 |
| 135-6 | Washer (aluminium coupling) | Carbon Steel | Ø6 | |
| 137-1 | Impeller spacer | EN 1.4301 (AISI 304) | | |
| 140 | Coupling | Die cast Aluminium EN AB-AISI11Cu2 (Fe) Cast Iron | | |
| 162 | Motor bracket | Cast iron EN-GJL-250 | | |
| 212 | Priming plug | EN 1.4301 (AISI 304) | G 3/8 | |
| 212-1 | Drainage plug | EN 1.4301 (AISI 304) | G 3/8 | |
| 212-2 | Venting plug | EN 1.4404 (AISI 316L) | | |
| 219 | Counter flange | Galvanized steel | | |
| 245 | Coupling guard | EN 1.4301 (AISI 304) | | |
| 273-1 | Washer (drainage plug) | EN 1.4301 (AISI 304) | | |

* EPDM (standard)
FPM (option)

** see CONSTRUCTION 4/4

(3/4)

Construction

Pump name EVMSG15 13F5HQ1BEGE/11

| | | | |
|----------|------------|---------------------------------------|-----------|
| Customer | Date | 2024-06-14 | Company |
| Contact | Item no. | | Issued by |
| Phone | Project | | Phone |
| E-mail | Project ID | Proiect redenumit 2024-06-14 15:41:37 | E-mail |

| Pump Type | N° | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|----|-----|-----|-----|-----|---|---|----|-------|------|------|------|------|------|------|----|----|----|------|----|------|-----|-----|-------|-------|-------|-------|-------|-------|
| | 4 | 5-1 | 5-2 | 5-3 | 5-4 | 6 | 7 | 21 | 31*** | 32-1 | 43-2 | 43-3 | 43-4 | 43-6 | 44-1 | 46 | 47 | 48 | 52-1 | 75 | 75-1 | 107 | 111 | 111-3 | 111-4 | 111-5 | 115-1 | 115-4 | 115-5 |
| EVMSG15 1/1.1 | 1 | 1 | / | 1 | 1 | 1 | 1 | 1 | 1 | 1 | / | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 2/2.2 | 1 | 1 | / | 1 | 1 | 1 | 1 | 2 | 1 | 1 | / | 2 | 1 | / | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 3/3.0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 1 | / | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 4/4.0 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 2 | 1 | / | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 5/5.5 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 5 | 1 | 1 | 3 | 2 | 1 | / | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 5 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 6/5.5 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 6 | 1 | 1 | 4 | 2 | 1 | / | 1 | 2 | 1 | 1 | 1 | 1 | 4 | 6 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 7/7.5 | 1 | 1 | 4 | 2 | 1 | 1 | 1 | 7 | 1 | 1 | 4 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 7 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 8/7.5 | 1 | 1 | 5 | 2 | 1 | 1 | 1 | 8 | 1 | 1 | 5 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 8 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 9/11 | 1 | 1 | 6 | 2 | 1 | 1 | 1 | 9 | 1 | 1 | 6 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 9 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 10/11 | 1 | 1 | 7 | 2 | 1 | 1 | 1 | 10 | 1 | 1 | 7 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 10 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 11/11 | 1 | 1 | 8 | 2 | 1 | 1 | 1 | 11 | 1 | 1 | 8 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 11 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 12/11 | 1 | 1 | 9 | 2 | 1 | 1 | 1 | 12 | 1 | 1 | 9 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 12 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 13/11 | 1 | 1 | 10 | 2 | 1 | 1 | 1 | 13 | 1 | 1 | 10 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 13 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 15/15 | 1 | 1 | 12 | 2 | 1 | 1 | 1 | 15 | 1 | 1 | 12 | 3 | 2 | / | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 15 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |
| EVMSG15 17/15 | 1 | 1 | 13 | 3 | 1 | 1 | 1 | 17 | 1 | 1 | 13 | 3 | 3 | / | 3 | 2 | 1 | 1 | 3 | 1 | 4 | 17 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |

| Pump Type | N° | | | | | | | | | | | | | | | | | | | | | | |
|---------------|------|-------|-------|-------|---------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-------|-------|------|-----|-------|
| | 117* | 120-1 | 120-3 | 120-6 | 120-11* | 120-13 | 128-1 | 128-3 | 128-6 | 130-1 | 130-2 | 131-1 | 135-1 | 135-6 | 137-1 | 140 | 162 | 212 | 212-1 | 212-2 | 219* | 245 | 273-1 |
| EVMSG15 1/1.1 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 4 | 3 | 4 | 1 | 4 | 4 | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 |
| EVMSG15 2/2.2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 4 | 3 | 4 | 1 | 4 | 4 | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 |
| EVMSG15 3/3.0 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 4 | 3 | 4 | 1 | 4 | 4 | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 |
| EVMSG15 4/4.0 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 4 | 3 | 4 | 1 | 4 | 4 | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 |
| EVMSG15 5/5.5 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 6/5.5 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 7/7.5 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 8/7.5 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 9/11 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 10/11 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 11/11 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | 2 | 2 | 4 | |
| EVMSG15 12/11 | / | 4 | 4 | 4 | / | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | / | 2 | 4 | |
| EVMSG15 13/11 | / | 4 | 4 | 4 | / | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | / | 2 | 4 | |
| EVMSG15 15/15 | / | 4 | 4 | 4 | / | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | / | 2 | 4 | |
| EVMSG15 17/15 | / | 4 | 4 | 4 | / | 4 | 4 | / | 3 | 4 | 1 | 4 | / | 1 | 2 | 1 | 1 | 4 | 1 | / | 2 | 4 | |

* only for Oval flange (N)

*** shaft in EN 1.4462 (AISI 329A)

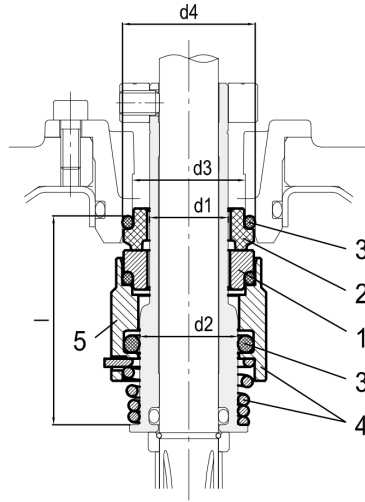
128-6 / 135-6: with Aluminium coupling

(4/4)

Construction

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| | | |
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● : Standard

| Pump model | Max operating temperature | Shaft seal type | | Shaft seal material | | | | | | | | Type key | |
|------------------------|---------------------------|-----------------|----------|---------------------|------|-----------------|------|------------|------|--------------------|--------|----------|--------|
| | | Unbalanced | Balanced | 1 | | 2 | | 3 | | 4 | | | 5 |
| Max operating pressure | | | | Rotating Part | Code | Stationary Part | Code | Elastomers | Code | Compression spring | Collar | Code | |
| from 16 bar to 25 bar | - 30°C to + 140°C | | ● | SiC | (Q1) | Carbon | (B) | EPDM | (E) | AISI 316 | | (G) | HQ1BEG |

| Max operating pressure | d1 | d2 | d3 | d4 | l |
|------------------------|------|------|------|------|------|
| | [mm] | [mm] | [mm] | [mm] | [mm] |
| 25 bar | 20 | 24 | 29 | 35 | 45 |