

# Technical Data

Pump Name

CDM 90/10

|          |            |                                       |           |
|----------|------------|---------------------------------------|-----------|
| Customer | Date       | 2024-06-13                            | Company   |
| Contact  | Item no.   |                                       | Issued by |
| Phone    | Project    |                                       | Phone     |
| E-mail   | Project ID | Proiect redenumit 2024-06-13 13:12:02 | E-mail    |

## Requested data

|   |                           |                   |                       |        |
|---|---------------------------|-------------------|-----------------------|--------|
| 1 | Pump type                 | CENTRIFUGAL PUMPS | 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                 | CDM 90/10                      | Frequency Hz                         | 50               |
| 10 | Design                    | CENTRIFUGAL PUMPS              | Installation type                    | STANDARD         |
| 11 | Manufacturer              | EBARA                          | Impeller Diameter                    | Max. mm 157      |
| 12 | Speed rpm                 | 2800                           |                                      | Designed mm 157  |
| 13 | No. of Stage              | 1                              |                                      | Min. mm 157      |
| 14 | Connection Suction side   | UNI ISO 228-1                  | Flow                                 | Operating m³/h   |
| 15 | Connection Discharge side | UNI ISO 228-1                  |                                      | Max- m³/h 6.6    |
| 16 | Max Working Pressure bar  | 8                              |                                      | Min- m³/h 1.2    |
| 17 | Shut-off head bar         | 2.99                           | Head                                 | Operating m      |
| 18 | Total weight kg           | See the table of "Dimensions". |                                      | - (Qmax.) m 19.3 |
| 19 | Shaft power kW            |                                |                                      | - (Qmin.) m 29.1 |
| 20 |                           |                                | Max. Shaft Power at max. impeller kW | 0.87             |
| 21 | Required pump NPSH m      |                                | Efficiency %                         |                  |

## Materials

|    |          |                          |  |  |
|----|----------|--------------------------|--|--|
| 22 | Impeller | AISI 304                 |  |  |
| 23 | Casing   | AISI 304                 |  |  |
| 24 | Shaft    | AISI 303 (Wet extension) |  |  |
| 25 |          |                          |  |  |
| 26 |          |                          |  |  |
| 27 |          |                          |  |  |

## Motor

|    |                      |                                 |                    |     |
|----|----------------------|---------------------------------|--------------------|-----|
| 28 | Manufacturer         | EPE Standard                    | Insulation class   | F   |
| 29 | Type                 | TEFC_CDM 90/10_230_Single Phase | Phases             | 1~  |
| 30 | Specific design      | IE2 / 50 Hz / Pole pairs 1      | Frame size         |     |
| 31 | Rated power kW       | 0.9                             | Weight kg          |     |
| 32 | Number of poles      | 2                               | Electric voltage V | 230 |
| 33 | Speed rpm            | 2800                            | Electric current A | 5.4 |
| 34 | Degree of protection | IP 55                           |                    |     |
| 35 |                      |                                 |                    |     |

## Remarks

# Performance Curve

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## Requested data

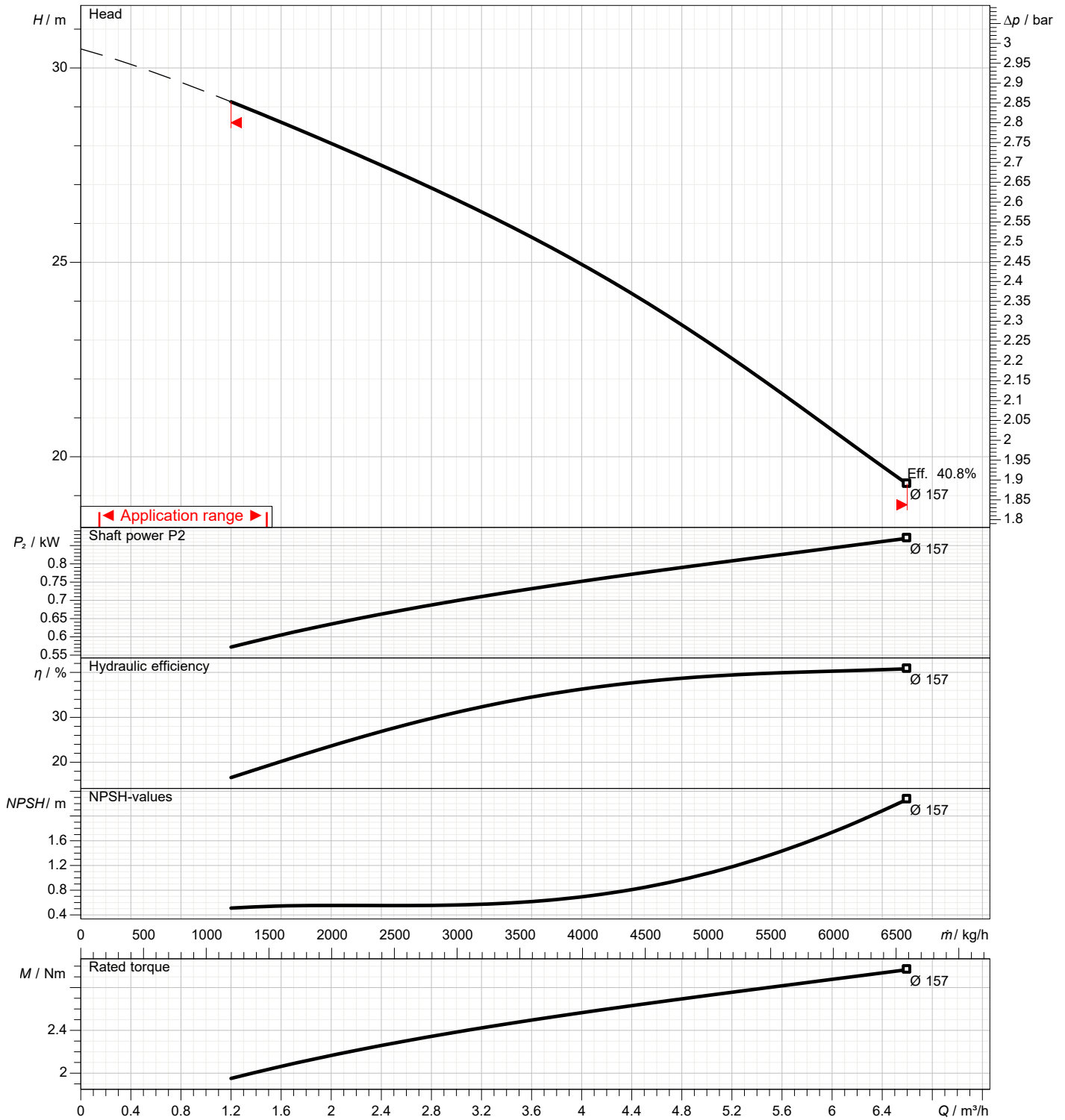
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

## Pump

|                            |      |     |                 |     |      |
|----------------------------|------|-----|-----------------|-----|------|
| Operating flow             | m³/h |     | Frequency       | Hz  | 50   |
| Operating head             | m    |     | Number of poles |     | 2    |
| Impeller diameter designed | mm   | 157 | Speed           | rpm | 2800 |

Test standard: ISO 9906:2012 - Grade3B

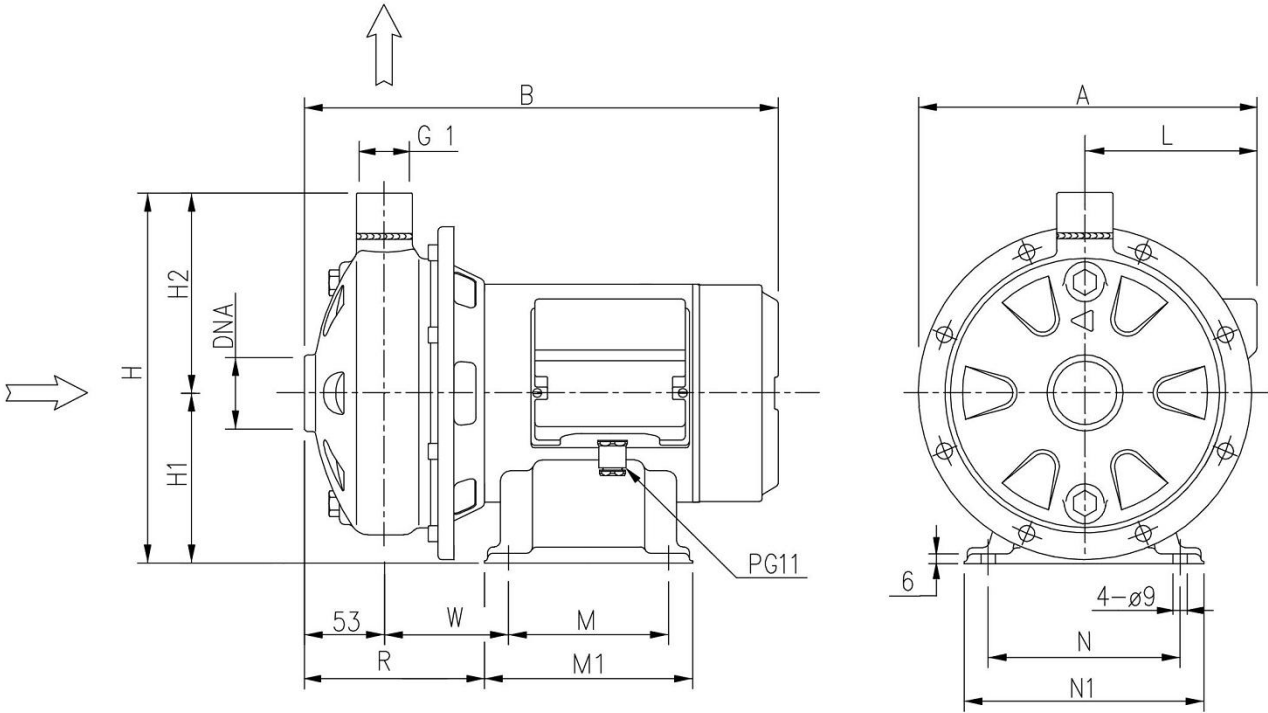
Water; 20°C; 998.3kg/m³; 1mm²/s



# Dimensions

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|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
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| Dimensions in mm |            |          |  |  |  |  |  |  |
|------------------|------------|----------|--|--|--|--|--|--|
| 1                | A          | 209      |  |  |  |  |  |  |
| 2                | B          | 338      |  |  |  |  |  |  |
| 3                | DNA        | G 1" 1/4 |  |  |  |  |  |  |
| 4                | H          | 229.5    |  |  |  |  |  |  |
| 5                | H1         | 106      |  |  |  |  |  |  |
| 6                | H2         | 123.5    |  |  |  |  |  |  |
| 7                | L          | 105      |  |  |  |  |  |  |
| 8                | M          | 100      |  |  |  |  |  |  |
| 9                | M1         | 130      |  |  |  |  |  |  |
| 10               | N          | 120      |  |  |  |  |  |  |
| 11               | N1         | 150      |  |  |  |  |  |  |
| 12               | R          | 130.5    |  |  |  |  |  |  |
| 13               | W          | 92.5     |  |  |  |  |  |  |
| 14               | Weight P&M | 12kg     |  |  |  |  |  |  |
| 15               |            |          |  |  |  |  |  |  |

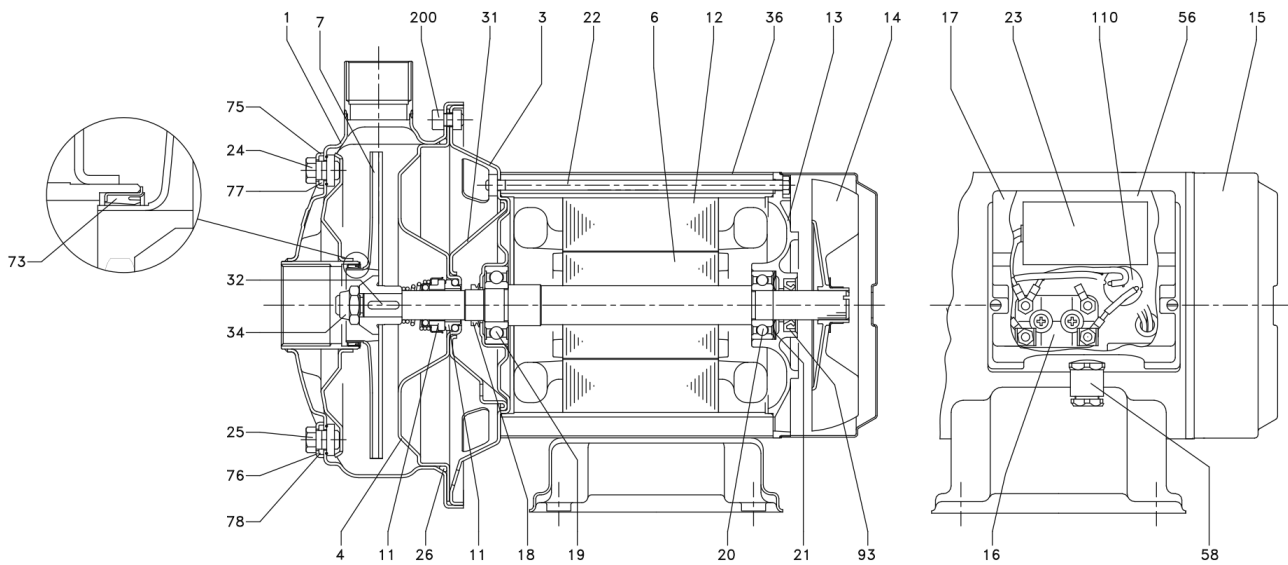
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Construction

Pump Name

CDM 90/10

|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
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## Construction

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|          |                                                  |           |
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| N°  | PART NAME               | MATERIAL                              | DIMENSION | STANDARD | Q.TY |
|-----|-------------------------|---------------------------------------|-----------|----------|------|
| 1   | Casing                  | AISI 304                              |           |          | 1    |
| 3   | Motor bracket           | AISI 304                              |           |          | 1    |
| 4   | Casing cover            | AISI 304                              |           |          | 1    |
| 6   | Shaft with rotor        | AISI 303 (Wet extension)              |           |          | 1    |
| 7   | Impeller                | AISI 304                              |           |          | 1    |
| 11  | Mechanical seal [4]     | Ceramic/Carbon/NBR                    |           |          | 1    |
| 12  | Motor frame with stator | -                                     |           |          | 1    |
| 13  | Motor cover             | Aluminium                             |           |          | 1    |
| 14  | Fan                     | PA                                    |           |          | 1    |
| 15  | Fan cover               | AISI 304                              |           |          | 1    |
| 16  | Terminal board          | -                                     |           |          | 1    |
| 17  | Terminal box cover      | PA66 glass fibre reinforced class V-0 |           |          | 1    |
| 18  | Splash ring             | NBR                                   |           |          | 1    |
| 19  | Pump side ball bearing  | -                                     |           |          | 1    |
| 20  | Fan side ball bearing   | -                                     |           |          | 1    |
| 21  | Adjusting ring          | Steel C70                             |           |          | 1    |
| 22  | Tie rod                 | Fe 420 Galvanized                     |           |          | 4    |
| 23  | Capacitor [1]           | -                                     |           |          | 1    |
| 24  | Priming plug            | AISI 304                              |           |          | 1    |
| 25  | Drain plug              | AISI 304                              |           |          | 1    |
| 26  | O-ring [2]              | NBR                                   |           |          | 1    |
| 31  | Thrust flange           | AISI 304                              |           |          | 1    |
| 32  | Key                     | AISI 316                              | 4x4x14    | UNI 6604 | 1    |
| 34  | Impeller nut            | Stainless steel A2-70                 | M10X1,25  | UNI 7474 | 1    |
| 36  | Motor casing            | AISI 304                              |           |          | 1    |
| 56  | Box gasket              | NBR                                   |           |          | 1    |
| 58  | Cable entry             | -                                     |           |          | 1    |
| 73  | Casing ring [3]         | NBR                                   |           |          | 1    |
| 75  | Washer                  | AISI 304                              |           |          | 1    |
| 76  | Washer                  | AISI 304                              |           |          | 1    |
| 77  | O-ring [2]              | NBR                                   |           |          | 1    |
| 78  | O-ring [2]              | NBR                                   |           |          | 1    |
| 93  | Lip seal                | NBR                                   |           |          | 1    |
| 110 | Protector [1]           | -                                     |           |          | 1    |
| 200 | Screw                   | 70/05, 70/07, 90/10                   | M6X12     | UNI 5931 | 8    |
|     |                         | 70/12                                 | M8X14     |          |      |
|     |                         | Stainless steel A2-70                 |           |          |      |

[1] Only for single phase

[2] FPM for H-HS-HW-HSW

EPDM for E and Special Mechanical Seal

[3] FPM for H-HS-HW-HSW 70/05, 70/07, 90/10

NBR for E 70/05, 70/07, 90/10

[4] See **CONSTRUCTION 3**

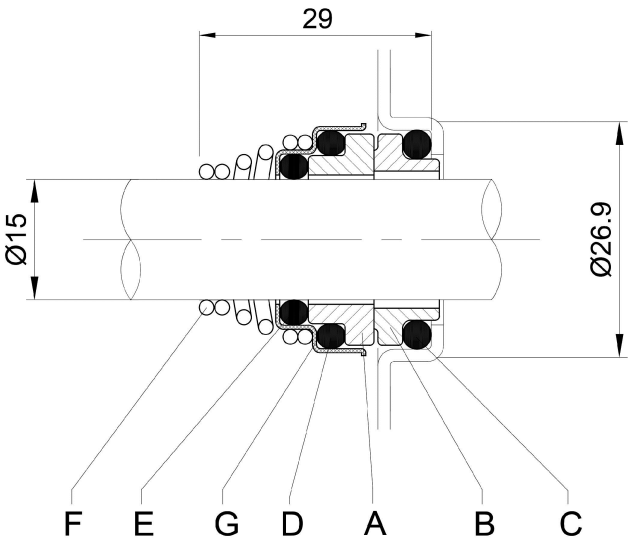
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Construction

Pump Name

CDM 90/10

|          |                                                 |           |
|----------|-------------------------------------------------|-----------|
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| REF | PART NAME            | MATERIAL<br>Standard and L version |
|-----|----------------------|------------------------------------|
| A   | Rotary seal ring     | Ceramic                            |
| B   | Stationary seal ring | Carbon graphite                    |
| C   | O-Ring               | NBR                                |
| D   | O-Ring               | NBR                                |
| E   | O-Ring               | NBR                                |
| F   | Self-driving spring  | AISI 316                           |
| G   | Frame                | AISI 304                           |