

# Technical Data

Booster set name

2GP MATRIX 10-5T/2,2M

|          |            |            |           |
|----------|------------|------------|-----------|
| Customer | Date       | 09.06.2024 | Company   |
| Contact  | Item no.   |            | Issued by |
| Phone    | Project    |            | Phone     |
| E-mail   | Project ID |            | E-mail    |

## Requested data

|   |                        |                               |                           |       |
|---|------------------------|-------------------------------|---------------------------|-------|
| 1 | Pump type              | Booster Set                   | Fluid                     | Water |
| 2 | Number of pumps        | 2                             | Liquid temperature °C     | 20    |
| 3 | Flow m <sup>3</sup> /h |                               | Kin. viscosity cSt        | 1.005 |
| 4 | Head m                 |                               | Vapour pressure kPa       | 2.34  |
| 5 | Geodetic head m        |                               | PH value                  |       |
| 6 | Inlet pressure kPa     | 0                             | Density kg/m <sup>3</sup> | 998.3 |
| 7 | Available system NPSH  | Ask our technical department. | Solids Weight %           | 0     |
| 8 | Ambient temperature °C | 20                            | Installation height m     | 100   |

## Booster Set

|    |                           |                                |                                      |                             |
|----|---------------------------|--------------------------------|--------------------------------------|-----------------------------|
| 9  | Booster set name          | 2GP MATRIX 10-5T/2,2M          | Frequency Hz                         | 50                          |
| 10 | Design                    | Booster Set                    |                                      |                             |
| 11 | Manufacturer              | EBARA                          | Impeller Dia.                        | Max. mm 101                 |
| 12 | Speed rpm                 | 2850                           |                                      | Designed mm 101             |
| 13 | No. of Stage              | 5                              |                                      | Min. mm 101                 |
| 14 | Connection Suction side   | G2 1/2 PN10                    | Flow                                 | Operating m <sup>3</sup> /h |
| 15 | Connection Discharge side | G2 1/2 PN10                    |                                      | Max- m <sup>3</sup> /h 15   |
| 16 | Max Working Pressure kPa  | 1000                           |                                      | Min- m <sup>3</sup> /h 3.6  |
| 17 | Shut-off head kPa         | 588.77                         | Head                                 | Operating m                 |
| 18 | Total weight kg           | See the table of "Dimensions". |                                      | - (Qmax.) m 14.3            |
| 19 | Shaft power kW            |                                |                                      | - (Qmin.) m 55.5            |
| 20 |                           |                                | Max. Shaft Power at max. impeller kW | 1.90                        |
| 21 | Required NPSH m           |                                | Efficiency %                         |                             |

## Materials

|    |             |                  |                      |                     |
|----|-------------|------------------|----------------------|---------------------|
| 22 | Frame       | Galvanized steel | External pump casing | AISI 304            |
| 23 | Manifold    | AISI 304         | Shaft                | AISI 304            |
| 24 | Check valve | Brass / NBR      | Shaft seal           | Ceramic/Carbon/EPDM |
| 25 | Ball valve  | Brass / PTFE     | O-ring               | EPDM                |
| 26 | Impeller    | AISI 304         |                      |                     |
| 27 | Casing      | AISI 304         |                      |                     |

## Motor

|    |                      |   |                    |     |
|----|----------------------|---|--------------------|-----|
| 28 | Manufacturer         | EPE Standard                            | Insulation class   | F   |
| 29 | Type                 | TEFC_MATRIX 10-5T/2.2M_230_Single Phase | Phases             | 1~  |
| 30 | Specific design      | - / 50 Hz / Pole pairs 1                | Frame size         |     |
| 31 | Rated power kW       | 2.2                                     | Weight; motor kg   |     |
| 32 | Number of poles      | 2                                       | Electric voltage V | 230 |
| 33 | Speed rpm            | 2850                                    | Electric current A | 13  |
| 34 | Degree of protection | IP 55                                   |                    |     |
| 35 |                      |   |                    |     |

## Remarks

# Performance curve

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## Requested data

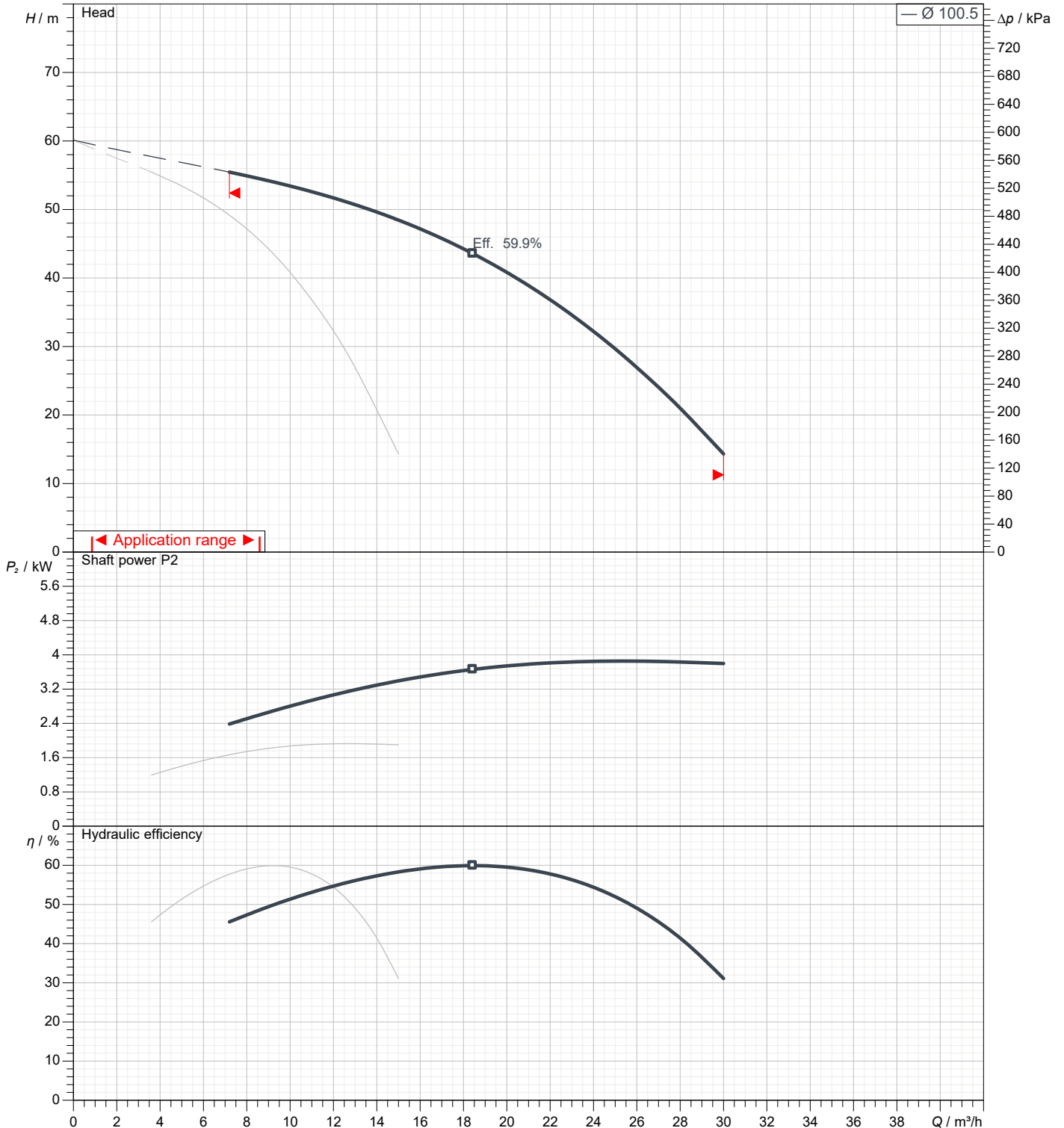
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

## Booster set

|                           |      |     |                 |     |      |
|---------------------------|------|-----|-----------------|-----|------|
| Operating flow            | m³/h |     | Frequency       | Hz  | 50   |
| Operating head            | m    |     | Number of poles |     | 2    |
| ImpellerDiameter Designed | mm   | 101 | Speed           | rpm | 2850 |

Test standard: ISO 9906:2012 - Grade3B

Water; 20°C; 998.3kg/m³; 1cSt

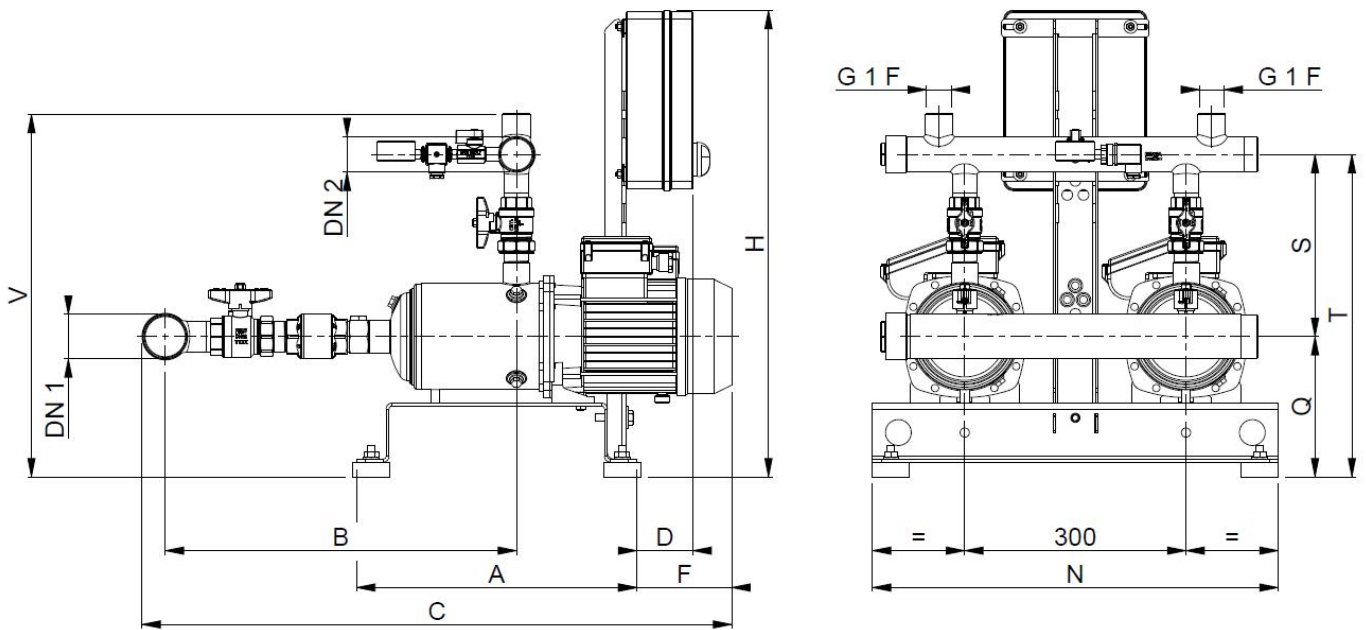


# Dimensions

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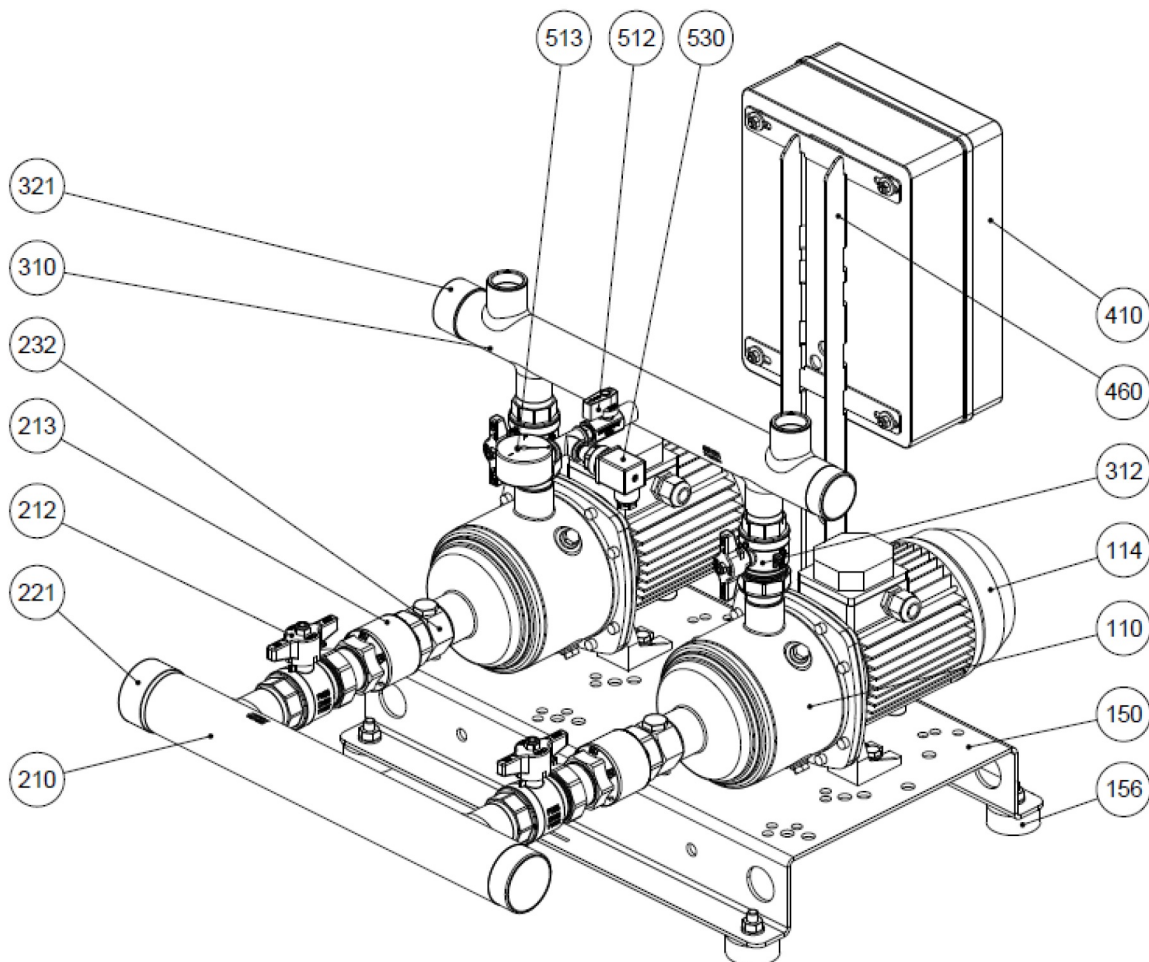


| Dimensions in |           | mm     |  |  |  |  |  |  |
|---------------|-----------|--------|--|--|--|--|--|--|
| 1             | A         | 540    |  |  |  |  |  |  |
| 2             | B         | 485    |  |  |  |  |  |  |
| 3             | C         | 965    |  |  |  |  |  |  |
| 4             | D         | 25     |  |  |  |  |  |  |
| 5             | DN1       | G2 1/2 |  |  |  |  |  |  |
| 6             | DN2       | G2 1/2 |  |  |  |  |  |  |
| 7             | F         | 105    |  |  |  |  |  |  |
| 8             | H         | 640    |  |  |  |  |  |  |
| 9             | N         | 570    |  |  |  |  |  |  |
| 10            | Q         | 190    |  |  |  |  |  |  |
| 11            | S         | 270    |  |  |  |  |  |  |
| 12            | T         | 460    |  |  |  |  |  |  |
| 13            | V         | 530    |  |  |  |  |  |  |
| 14            | Weight kg | 86     |  |  |  |  |  |  |
| 15            |           |        |  |  |  |  |  |  |

# (1/2) Construction

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| N°  | PART NAME              | MATERIAL               | Quantity |
|-----|------------------------|------------------------|----------|
| 110 | Principal pump         | -                      | 2        |
| 114 | Electric motor         | -                      | 2        |
| 150 | Basement               | Galvanized steel       | 1        |
| 156 | Basement foot          | SBR                    | 4        |
| 210 | Suction manifold       | AISI 304               | 1        |
| 212 | Union ball valve       | Brass / P.T.F.E.       | 2        |
| 213 | Check valve            | Brass / NBR            | 2        |
| 221 | Threaded female cap    | AISI 304               | 1        |
| 232 | Nipple for air feeders | Yellow brass           | 2        |
| 310 | Discharge manifold     | AISI 304               | 1        |
| 312 | Union ball valve       | Brass / P.T.F.E.       | 2        |
| 321 | Threaded female cap    | AISI 304               | 1        |
| 410 | Control panel          | -                      | 1        |
| 460 | Control panel frame    | Galvanized steel       | 1        |
| 512 | Ball valve             | Brass / P.T.F.E.       | 1        |
| 513 | Pressure gauge         | Copper alloy / plastic | 1        |
| 530 | Pressure transmitter   | -                      | 1        |

**(2/2)**  
**Construction**

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**MECHANICAL SEAL**



|                  | A                | B                    | C      | Material     | E                    | F                    | G                    |
|------------------|------------------|----------------------|--------|--------------|----------------------|----------------------|----------------------|
|                  | Rotary seal ring | Stationary seal ring | Gasket | D<br>Bellows | Spring               | Frame                | Retainer ring        |
| <b>STANDARD*</b> | Carbon           | Ceramic              | EPDM   | EPDM         | EN 1.4402 (AISI 316) | EN 1.4402 (AISI 316) | EN 1.4402 (AISI 316) |

\*Approval for drinking water application  
WRAS Approval product

