

Technical data

Pump name

GSD2 50-315/B1/A 45

| | | | |
|----------|------------|---|-----------|
| Customer | Date | 2024-06-16 | Company |
| Contact | Item no. | | Issued by |
| Phone | Project | | Phone |
| E-mail | Project ID | Proiect redenumit 2024-06-16 12:31:28.; | E-mail |

Requested data

| | | | | |
|---|---------------------------|-------------------------|--------------------|-------------|
| 1 | Pump type | End Suction Volute 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 | GSD2 50-315/B1/A 45 | Frequency | Hz 50 |
| 10 | Item number | 2697001025 | Installation type | Standard (without base) |
| 11 | Design | End Suction Volute Pump | Impeller Diameter | Max. mm 280 |
| 12 | Manufacturer | EBARA | | Designed mm 280 |
| 13 | Speed | rpm 2955 | | Min. mm 280 |
| 14 | No. of Stage | 1 | Flow | Operating m³/h |
| 15 | Connection Suction side | EN 1092-1 PN16 | | Max- m³/h 133 |
| 16 | Connection Discharge side | EN 1092-1 PN16 | | Min- m³/h 13.9 |
| 17 | Max Working Pressure | bar 16 | Head | Operating m |
| 18 | Shut-off head | bar 11.08 | | - (Qmax.) m 69.2 |
| 19 | Total weight | kg See the table of "Dimensions". | | - (Qmin.) m 113.1 |
| 20 | Shaft power | kW | Max. Shaft Power at max. impeller | kW 44.81 |
| 21 | Required pump NPSH | m | Efficiency | % |

Materials

| | | | | |
|----|-----------------------|-----------|--|--|
| 22 | Impeller | Cast iron | | |
| 23 | Casing | Cast iron | | |
| 24 | Shaft (wet extension) | AISI 420 | | |
| 25 | Liner ring | Bronze | | |
| 26 | O-ring | EPDM | | |
| 27 | | | | |

Motor

| | | | | |
|----|----------------------|----------------------------|------------------|--------|
| 28 | Manufacturer | FELM | Insulation class | F |
| 29 | Type | 225M_B35_45_3_400_2 | Phases | 3~ |
| 30 | Specific design | IE3 / 50 Hz / Pole pairs 1 | Frame size | 225M |
| 31 | Rated power | kW 45 | Weight | kg 328 |
| 32 | Number of poles | 2 | Electric voltage | V 400 |
| 33 | Speed | rpm 2960 | Electric current | A 77.6 |
| 34 | Degree of protection | IP55 | | |
| 35 | | | | |

Remarks

| |
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| |
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Performance curve

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Requested data

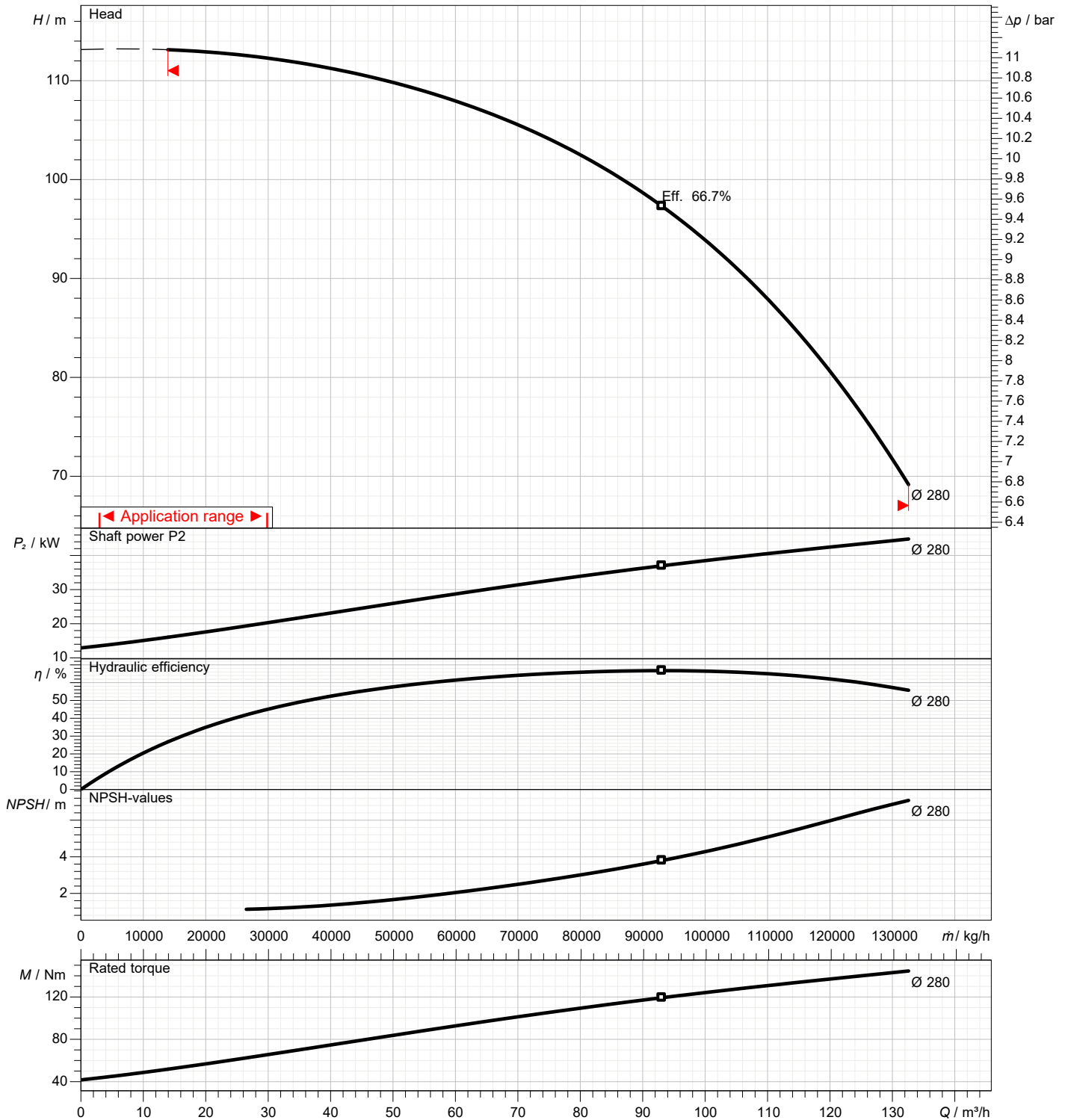
| | | | |
|---|---------------|------|--|
| 1 | Flow | m³/h | |
| 2 | Head | m | |
| 3 | Geodetic head | m | |

Pump

| | | | | | |
|---------------------------|------|-----|-----------------|-----|------|
| Operating flow | m³/h | | Frequency | Hz | 50 |
| Operating head | m | | Number of poles | | 2 |
| ImpellerDiameter Designed | mm | 280 | Speed | rpm | 2960 |

Test standard: ISO 9906:2012 - Grade3B

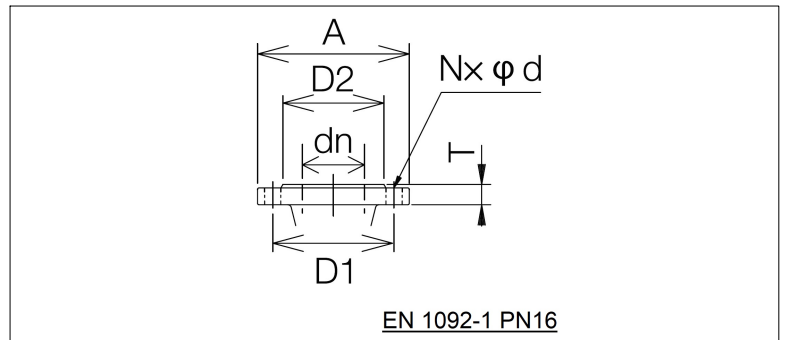
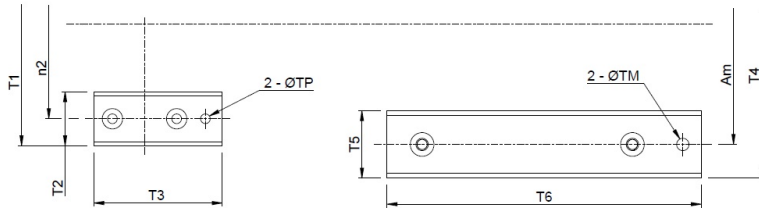
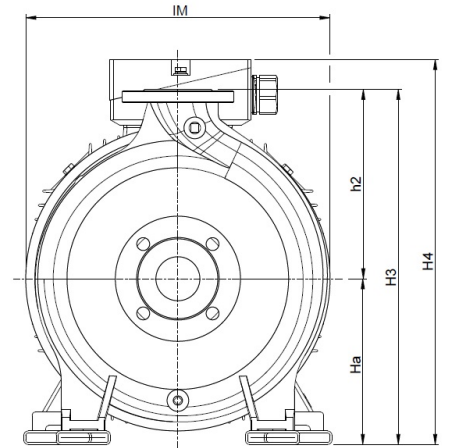
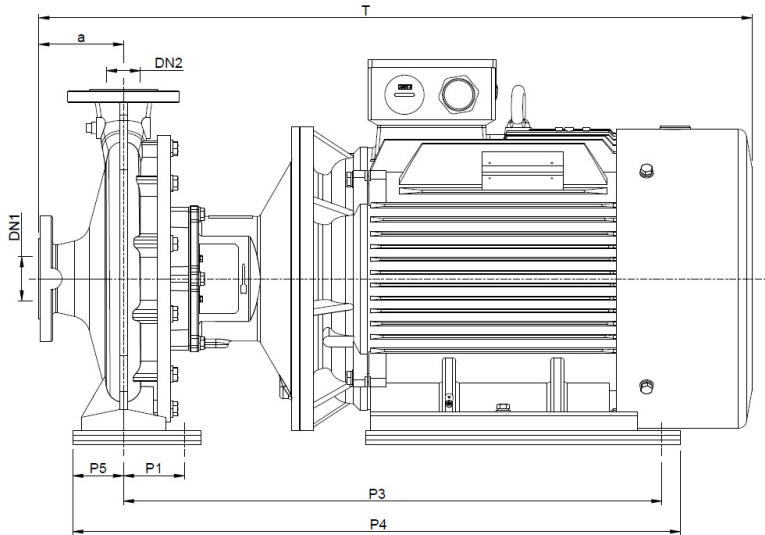
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

Pump name GSD2 50-315/B1/A 45

| | | |
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| Pump dimensions | | | | Suction side | | Discharge side | |
|-----------------|-------|-----------|-------|--------------|--------|----------------|--------|
| | mm | | mm | | mm | | mm |
| a | 125 | T3 | 190 | A | 185 | A | 165 |
| Am | 356 | T4 | 456 | d | 19 | d | 19 |
| DN1 | 65 | T5 | 100 | D1 | 145 | D1 | 125 |
| DN2 | 50 | T6 | 465 | D2 | 118 | D2 | 99 |
| h2 | 280 | TM | 18.25 | DN | 65 | DN | 50 |
| H3 | 525 | TP | 14.25 | N | 4(Num) | N | 4(Num) |
| H4 | 570 | Weight kg | 422 | T | 20 | T | 20 |
| Ha | 245 | | | | | | |
| IM | 456 | | | | | | |
| n2 | 280 | | | | | | |
| P3 | 796 | | | | | | |
| P4 | 898.5 | | | | | | |
| T | 1054 | | | | | | |
| T1 | 360 | | | | | | |
| T2 | 80 | | | | | | |

(1/2)

Construction

Pump name GSD2 50-315/B1/A 45

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Construction

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SECTIONAL VIEW TABLE

| No. | Part name | Materials | ISO or EN equivalent | Q.ty |
|--------|--------------------------------------|---|-----------------------|------|
| 001 | Casing | Cast iron | EN-GJL-250(EN-JL1040) | 1 |
| 010 | Protector | Carbon steel | DC01(1.0330) | 1 |
| 014 | Inspection cover [1] | Cast iron | EN-GJL-250(EN-JL1040) | 1 |
| 018 | Casing cover | Cast iron | EN-GJL-250(EN-JL1040) | 1 |
| 021 | Impeller | Cast iron | EN-GJL-200(EN-JL1030) | 1 |
| | | Ductile cast iron [2] | EN-GJS-400-15(5.3106) | |
| | | Bronze [3] | CuSn5Zn5Pb5(CC491K) | |
| 031 | Shaft | Martensitic stainless steel / Carbon steel | X30Cr13(1.4028) / C35 | 1 |
| 039-1 | Key | Martensitic stainless steel | X30Cr13(1.4028) | 1 |
| 039-2 | Key | Carbon steel | C50(1.0540) | 1 |
| 040 | Mechanical seal sleeve | Austenitic stainless steel | X5CrNi18-10(1.4301) | 1 |
| 048-1 | Impeller nut (A) | Austenitic stainless steel | X5CrNi18-10(1.4301) | 1 |
| 048-2 | Impeller nut (B) | Austenitic stainless steel | X5CrNi18-10(1.4301) | 1 |
| 051 | Bracket | Cast iron | EN-GJL-250(EN-JL1040) | 1 |
| 095 | Stay [4] | Carbon steel | DC01(1.0327) | 1 |
| 107-1 | Casing Ring | Copper alloy | CuSn5Zn5Pb5(CC491K) | 1 |
| 107-2 | Casing Ring | Copper alloy | CuSn5Zn5Pb5(CC491K) | 1 |
| 111 | Mechanical Seal | Sic/Carbon/EPDM | --- | 1 |
| | | Sic/Carbon/FPM | --- | |
| 115 | O-Ring | EPDM | --- | 1 |
| | | FPM | --- | |
| 117-2 | Gasket [1] | PTFE fiber | --- | 1 |
| 120-1 | Screw with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | [5] |
| 120-1A | Stud Bolt with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | [7] |
| 120-1B | Stud Bolt with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | 2 |
| 120-2 | Screw with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | 6 |
| 120-3 | Screw with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | 2 |
| 120-4 | Screw with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | 4 |
| 120-6 | Screw with plan washer | Steel+Trivalent chromate | S275JR (1.0044) | 6 |
| 120-8 | Stud Bolt (with sping & plan washer) | Steel+Trivalent chromate | AISI4135/C45/SS | 4 |
| 130 | Set screw | Carbon Steel 45H | --- | 2 |
| 144 | Hub | Carbon Steel | C35 | 1 |
| 137-1 | Plan Washer | 304 Stainless steel | X5CrNi18-10(1.4301) | 1 |
| 137-2 | Spring Lock Washer | 304 Stainless steel | X5CrNi18-10(1.4301) | 1 |
| 193-1 | Air vent Plug | Steel+Trivalent chromate | S275JR (1.0044) | 1 |
| 193-2 | Drain Plug | Steel+Trivalent chromate | S275JR (1.0044) | 1 |
| 193-3 | Air vent Plug [1] | Steel+Trivalent chromate | S275JR (1.0044) | 1 |
| 319 | Pin | Stainless steel | --- | 2 |
| 12 | Motor | --- | --- | 1 |
| 12-13 | Bolt with plan washer or Screw [11] | Galvanized Steel 8.8 strenght class ISO 898/1 | --- | 4 |
| 42 | Base [8] | Galvanized steel | S235 | 1 |
| 50-01 | Motor spacer | Galvanized steel | S235 | [9] |
| 50-02 | Pump spacer | Galvanized steel | S235 | [10] |

- [1] Only for pump size 150-400
 [2] Only for pump size 100-400; 125-400; 150-400
 [3] For for models with Bronze impeller
 [4] Only for pump with motor up to 7,5kW
 [5] no.8 pcs for pump size 32-200.1 80-200 100-200 125-200 150-200 ; no.10 pcs for pump size 32-250 40-250 50-250 65-250 80-250 100-250 125-250 ; no.12 pcs for pump size 40-315 50-315 65-315 80-315 100-315 ; no.16 pcs for size 80-100 100-400 125-400 150-400
 [6] Only for pump size 32-125.1 and 32-160.1
 [7] Only for pump size 32-125.1 no.4 pcs ; size 32-160.1 no.6 pcs
 [8] Only for pump with base version
 [9] no.0-1-2 pcs Depend of the model see drawings
 [10] no.0-1-2 pcs Depend of the model see drawings
 [11] Screw for model GSD2 32-125.1/1.5, GSD2 32-125.1/2.2, GSD2 32-160.1/2.2, GSD4 32-250/1.1, GSD4 32-250/1.5, GSD4 80-160/1.5

Shaft seal

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| Dimensions | Value / mm |
|------------|------------|
| d1 | 38 |
| d6 | 49 |
| d7 | 56 |
| da | 59 |
| L1N | 55 |
| L2 | 46 |



| Liquid temperature | Liquid | Rotating part | Fixed part | Elastomers | Spring |
|--------------------|--|----------------------|---------------------------------------|--------------------------------------|--------------|
| -10 to 120 °C | Clean water, hot water, water with glicole (30%) | Silicon carbide (Q1) | Carbon graphite resin impregnated (B) | Ethylene propylene rubber - EPDM (E) | AISI 316 (G) |