

Technical Data

Pump Name

CMB 1.50

| | | | |
|----------|------------|---------------------------------------|-----------|
| 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 |
| 3 | Flow | m³/h | Kin. viscosity | mm²/s |
| 4 | Head | m | Vapour pressure | bar |
| 5 | Geodetic head | m | PH value | |
| 6 | Inlet pressure (pin) | bar | Density | kg/m³ |
| 7 | Available system NPSH | | Solids | Weight % |
| 8 | Ambient temperature | °C | | |

Pump

| | | | | | | |
|----|----------------------|-------------------|--------------------------------|-----------------------------------|-----------|------|
| 9 | Pump Name | CMB 1.50 | Frequency | Hz | 50 | |
| 10 | Design | CENTRIFUGAL PUMPS | Installation type | | STANDARD | |
| 11 | Manufacturer | EBARA | Impeller Diameter | Max. | mm | |
| 12 | Speed | rpm | | 2800 | Designed | mm |
| 13 | No. of Stage | 1 | | Min. | mm | 132 |
| 14 | Connection | Suction side | UNI ISO 228 | Flow | Operating | m³/h |
| 15 | Connection | Discharge side | UNI ISO 228 | | Max- | m³/h |
| 16 | Max Working Pressure | bar | 6 | | Min- | m³/h |
| 17 | Shut-off head | bar | 2.19 | 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 | 1.28 |
| 21 | Required pump NPSH | m | | Efficiency | % | |

Materials

| | | | | |
|----|----------|--------------------------|--|--|
| 22 | Impeller | Cast iron | | |
| 23 | Casing | Cast iron | | |
| 24 | Shaft | AISI 303 (wet extension) | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |

Motor

| | | | | | |
|----|----------------------|----------------------------------|------------------|------------------|-----|
| 28 | Manufacturer | EPE Standard | Insulation class | F | |
| 29 | Type | TEFC_CMB 1.50 M_230_Single Phase | Phases | 1~ | |
| 30 | Specific design | IE2 / 50 Hz / Pole pairs 1 | Frame size | | |
| 31 | Rated power | kW | 1.1 | Weight | kg |
| 32 | Number of poles | 2 | Electric voltage | V | 230 |
| 33 | Speed | rpm | 2800 | Electric current | A |
| 34 | Degree of protection | IP 44 | | | |
| 35 | | | | | |

Remarks

Performance Curve

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Requested data

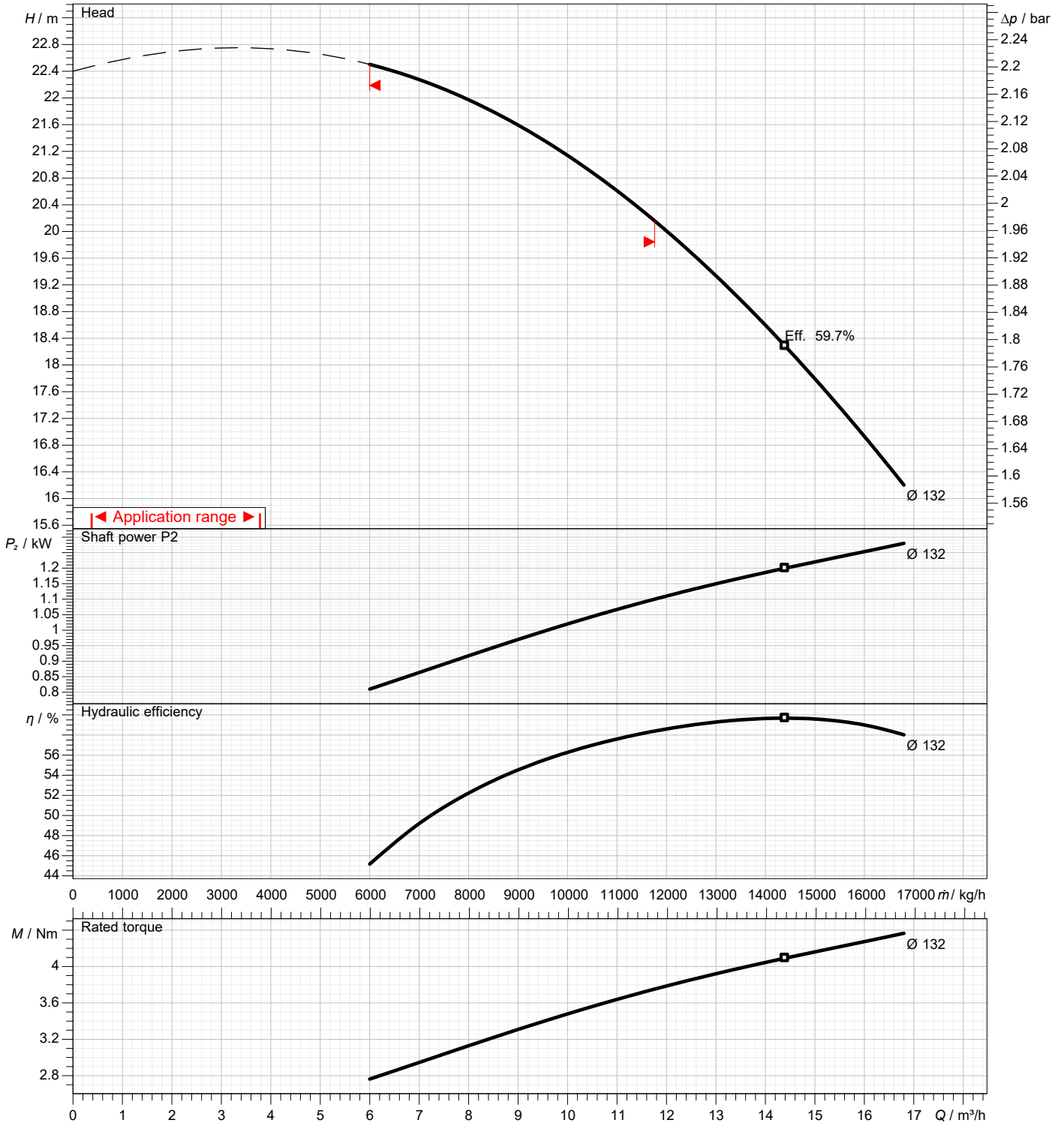
| | | | |
|---|---------------|------|--|
| 1 | Flow | m³/h | |
| 2 | Head | m | |
| 3 | Geodetic head | m | |

Pump

| | | | | | |
|----------------------------|------|-----|-----------------|-----|------|
| Operating flow | m³/h | | Frequency | Hz | 50 |
| Operating head | m | | Number of poles | | 2 |
| Impeller diameter designed | mm | 132 | Speed | rpm | 2800 |

Test standard: ISO 9906:2012 - Grade3B

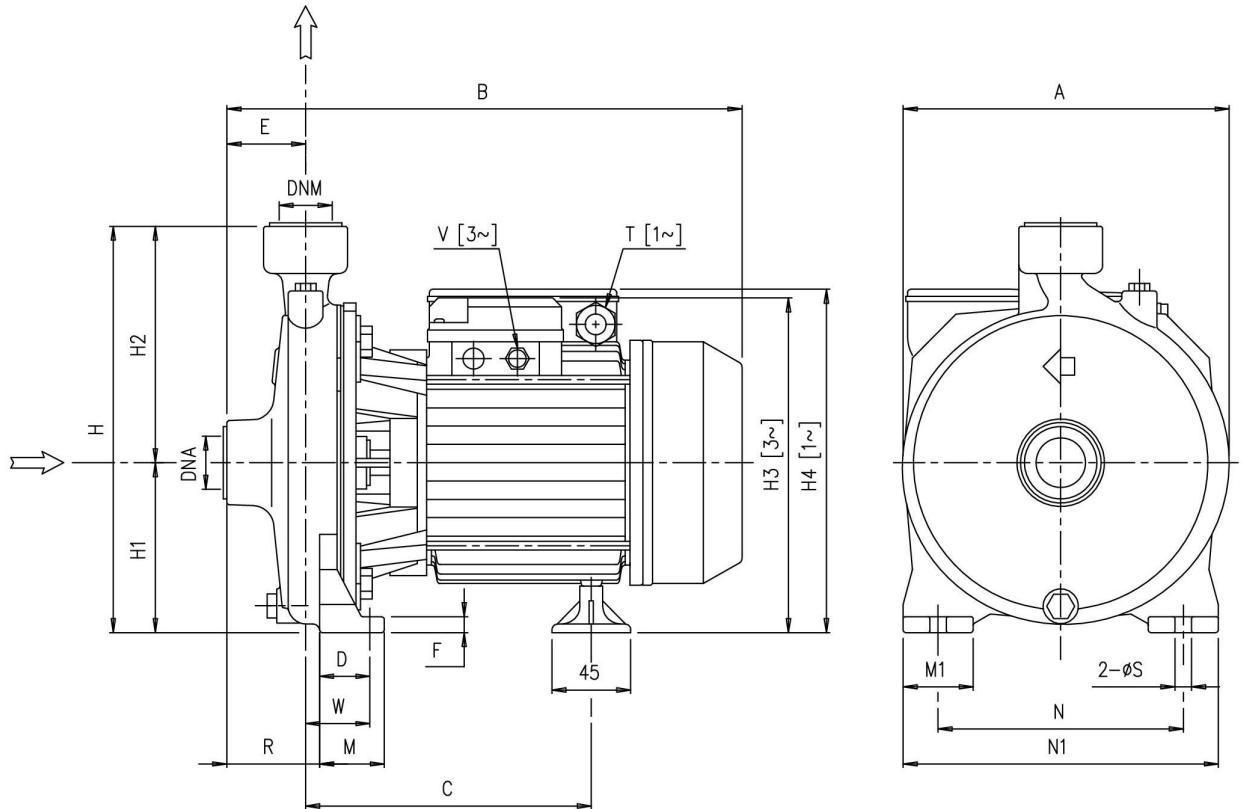
Water; 20°C; 998.3kg/m³; 1mm²/s



Dimensions

Pump Name CMB 1.50

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[1~] Single phase
[3~] Three phase

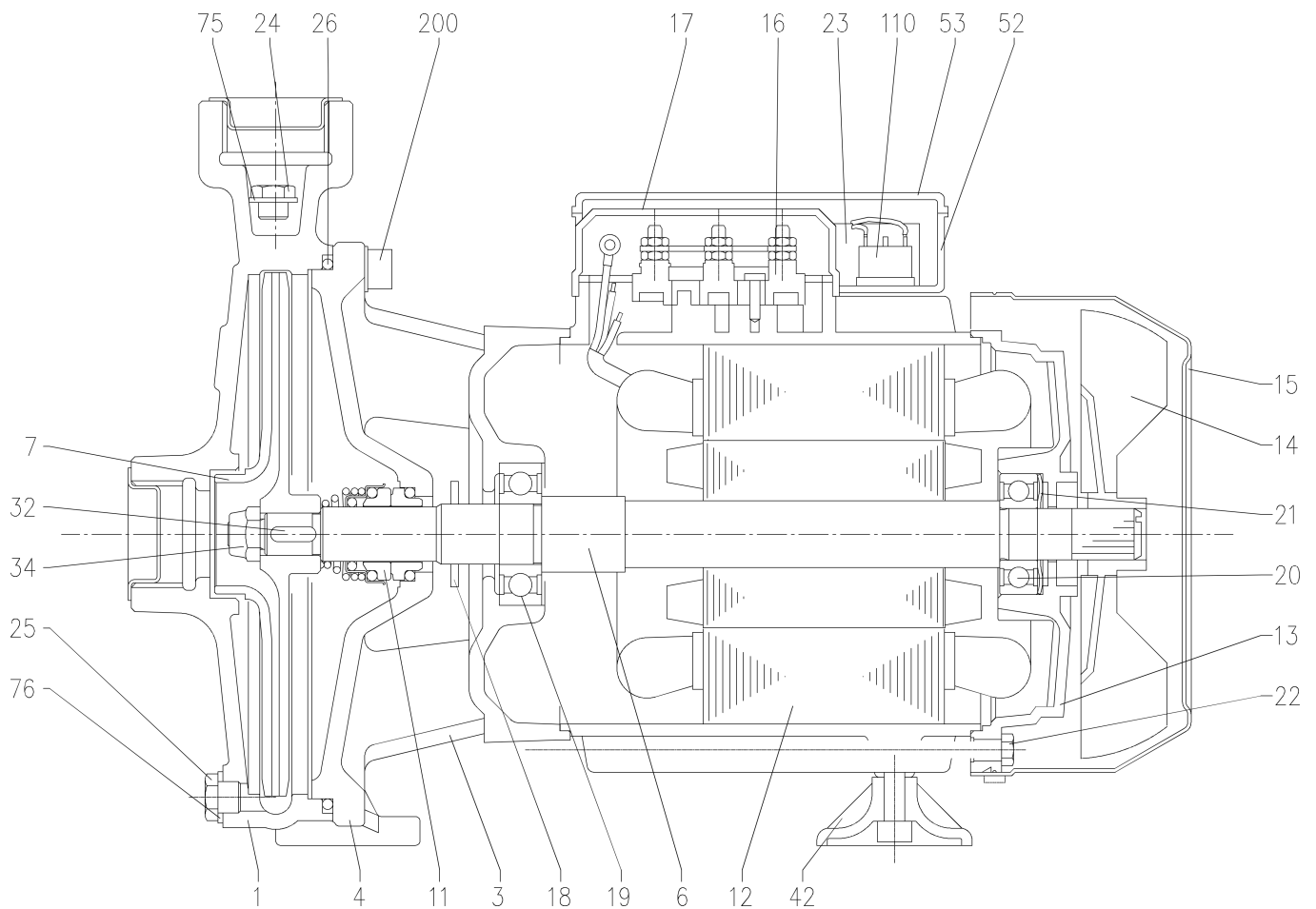
| Dimensions in | | mm | | | | | | |
|---------------|-----|---------|------------|---------|--|--|--|--|
| 1 | A | 188 | N1 | 180 | | | | |
| 2 | B | 349.3 | R | 65.5 | | | | |
| 3 | C | 206.3 | S | 9.5 | | | | |
| 4 | D | 36.8 | T | PG 13.5 | | | | |
| 5 | DNA | G 2 | W | 52.8 | | | | |
| 6 | DNM | G 1 1/4 | Weight P&M | 19.9 kg | | | | |
| 7 | E | 49.5 | | | | | | |
| 8 | F | 9 | | | | | | |
| 9 | H | 251.5 | | | | | | |
| 10 | H1 | 101.5 | | | | | | |
| 11 | H2 | 150 | | | | | | |
| 12 | H4 | 233.5 | | | | | | |
| 13 | M | 63 | | | | | | |
| 14 | M1 | 40 | | | | | | |
| 15 | N | 140 | | | | | | |

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Construction

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Construction

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| N° | PART NAME | MATERIAL | DIMENSIONS | STANDARD | Q.TY | |
|-----|-------------------------|-------------------------------|------------------|---------------|-----------|---|
| 1 | Casing | Cast iron | | | 1 | |
| 3 | Motor bracket | Cast iron | | | 1 | |
| 4 | Casing cover | AISI 304 | | | 1 | |
| 6 | Shaft with rotor | [1] | | | 1 | |
| 7 | Impeller | [2] | | | 1 | |
| 11 | Mechanical seal | [5] Carbon/Ceramic/NBR | | | 1 | |
| 12 | Motor frame with stator | - | | | 1 | |
| 13 | Motor cover | Aluminium | | | 1 | |
| 14 | Fan | PA | | | 1 | |
| 15 | Fan cover | Fe P04 Galvanized | | | 1 | |
| 16 | Terminal board | - | | | 1 | |
| 17 | Terminal box cover | [3] Aluminium | | | 1 | |
| 18 | Splash ring | NBR | D35x19.5x2.5 | EBARA DRAWING | 1 | |
| 19 | Pump side ball bearing | - | | | 1 | |
| 20 | Fan side ball bearing | - | | | 1 | |
| 21 | Adjusting ring | Steel C70 | | | 1 | |
| 22 | Tie rod | Fe 42 Galvanized | | | 4 | |
| 23 | Capacitor | [4] - | | | 1 | |
| 24 | Priming plug | CMD 1.50; 2.00; 3.00; 4.00 | Brass | G 1/4" | UNI 338 | 1 |
| | | other models | | G 1/8" | | |
| 25 | Drain plug | CMD 1.50; 2.00; 3.00; 4.00 | Brass | G 1/4" | UNI 338 | 1 |
| | | other models | | G 1/8" | | |
| 26 | O-ring | NBR | | | 1 | |
| 32 | Key | AISI 316 | | | 1 | |
| 34 | Impeller nut | other models | AISI 304 | M10 | UNI 7474 | 1 |
| | | CMB 4.00; 5.50 | | M12x1.25 | | 1 |
| 42 | Foot | PP | | | 1 | |
| 52 | Capacitor box | [4] ABS class V-0 | | | 1 | |
| 53 | Capacitor box cover | [4] ABS class V-0 | | | 1 | |
| 75 | Washer | CMD 1.50; 2.00; 3.00; 4.00 | Aluminium | 13.5x19x1.5 | | 1 |
| | | other models | | 10x16x1.5 | | 1 |
| 76 | Washer | CMD 1.50; 2.00; 3.00; 4.00 | Aluminium | 13.5x19x1.5 | | 1 |
| | | other models | | 10x16x1.5 | | 1 |
| 110 | Protector | [4] - | | | 1 | |
| 200 | Screw | CMD 1.50; 2.00; 3.00; 4.00 | Zn Steel Cl. 8.8 | M8x25 | ISO 898-1 | 4 |
| | | CMB 1.50; 2.00; 3.00 | | M8x22 | | |
| | | CMA 1.50 | | M10x35 | | |

[1] Material: AISI303 (wet extension) for version CMA, CMB 1.50-2.00-3.00, CMD 1.50-2.00-3.00
AISI304 (wet extension) for version CMB 4.00-5.50, CMD 4.00

[2] Material: Brass for version: CMA, CMB 2.00-3.00-4.00-5.50
Cast iron for version: CMB 1.50, CMD

[3] Only for three phase

[4] Only for single phase

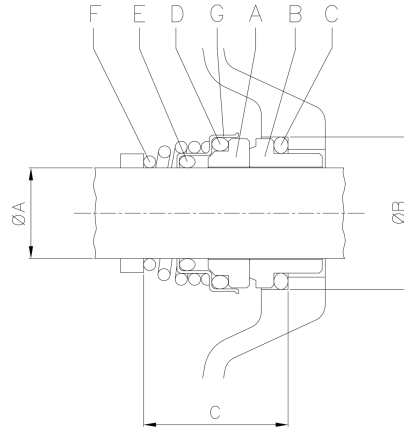
[5] See **CONSTRUCTION 3**

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Construction

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| Pump type | | Dimensions mm | | |
|--------------|-------------|---------------|------|----|
| Single phase | Three phase | Ø A | Ø B | C |
| CMA 1.50 M | CMA 1.50 T | 18 | 30.9 | 32 |
| CMA 2.00 M | CMA 2.00 T | 18 | 30.9 | 32 |
| - | CMA 3.00 T | 18 | 30.9 | 32 |
| CMB 1.50 M | CMB 1.50 T | 18 | 30.9 | 32 |
| CMB 2.00 M | CMB 2.00 T | 18 | 30.9 | 32 |
| - | CMB 3.00 T | 18 | 30.9 | 32 |
| CMD 1.50 M | CMD 1.50 T | 18 | 30.9 | 32 |
| CMD 2.00 M | CMD 2.00 T | 18 | 30.9 | 32 |
| - | CMD 3.00 T | 18 | 30.9 | 32 |
| - | CMD 4.00 T | 18 | 30.9 | 32 |

| REF | PART NAME | MATERIAL |
|-----|----------------------|-----------------|
| 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 |