

# Technical Data

Pump Name

150 DL 515

|          |            |                                       |           |
|----------|------------|---------------------------------------|-----------|
| 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                 | SUBMERSIBLE SEWAGE PUMP-Non-clog | 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                 | 150 DL 515                       | Frequency Hz                         | 50               |
| 10 | Design                    | SUBMERSIBLE SEWAGE PUMP-Non-clog | Installation type                    | STANDARD         |
| 11 | Manufacturer              | EBARA                            | Impeller Diameter                    | Max. mm 319      |
| 12 | Speed rpm                 | 1450                             |                                      | Designed mm 319  |
| 13 | No. of Stage              | 1                                |                                      | Min. mm 319      |
| 14 | Connection Suction side   |                                  | Flow                                 | Operating m³/h   |
| 15 | Connection Discharge side | JIS 10K                          |                                      | Max- m³/h 240    |
| 16 | Max Working Pressure bar  |                                  |                                      | Min- m³/h 90     |
| 17 | Shut-off head bar         | 3.08                             | Head                                 | Operating m      |
| 18 | Total weight kg           | See the table of "Dimensions".   |                                      | - (Qmax.) m 13.5 |
| 19 | Shaft power kW            |                                  |                                      | - (Qmin.) m 25.8 |
| 20 |                           |                                  | Max. Shaft Power at max. impeller kW | 14.04            |
| 21 | Required pump NPSH m      |                                  | Efficiency %                         |                  |

## Materials

|    |                         |                |                         |                  |
|----|-------------------------|----------------|-------------------------|------------------|
| 22 | Casing                  | FC200          | Mechanical seal (Lower) | SiC/SiC          |
| 23 | Suction Cover           | FC200          | Lubricating Oil         | Turbine Oil VG32 |
| 24 | Impeller                | FC200          |                         |                  |
| 25 | Shaft                   | SUS403         |                         |                  |
| 26 | Motor frame             | FC150          |                         |                  |
| 27 | Mechanical seal (Upper) | Carbon/Ceramic |                         |                  |

## Motor

|    |                      |                                             |                    |     |
|----|----------------------|---------------------------------------------|--------------------|-----|
| 28 | Manufacturer         | --                                          | Insulation class   | F   |
| 29 | Type                 | DL 515_380_Three phase                      | Phases             | 3~  |
| 30 | Specific design      | Submersible dry type / 50 Hz / Pole pairs 2 | Frame size         |     |
| 31 | Rated power kW       | 15                                          | Weight kg          |     |
| 32 | Number of poles      | 4                                           | Electric voltage V | 380 |
| 33 | Speed rpm            | 1450                                        | Electric current A | 30  |
| 34 | Degree of protection | IP68                                        |                    |     |
| 35 |                      |                                             |                    |     |

## Remarks

# Performance Curve

Pump Name

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## Requested data

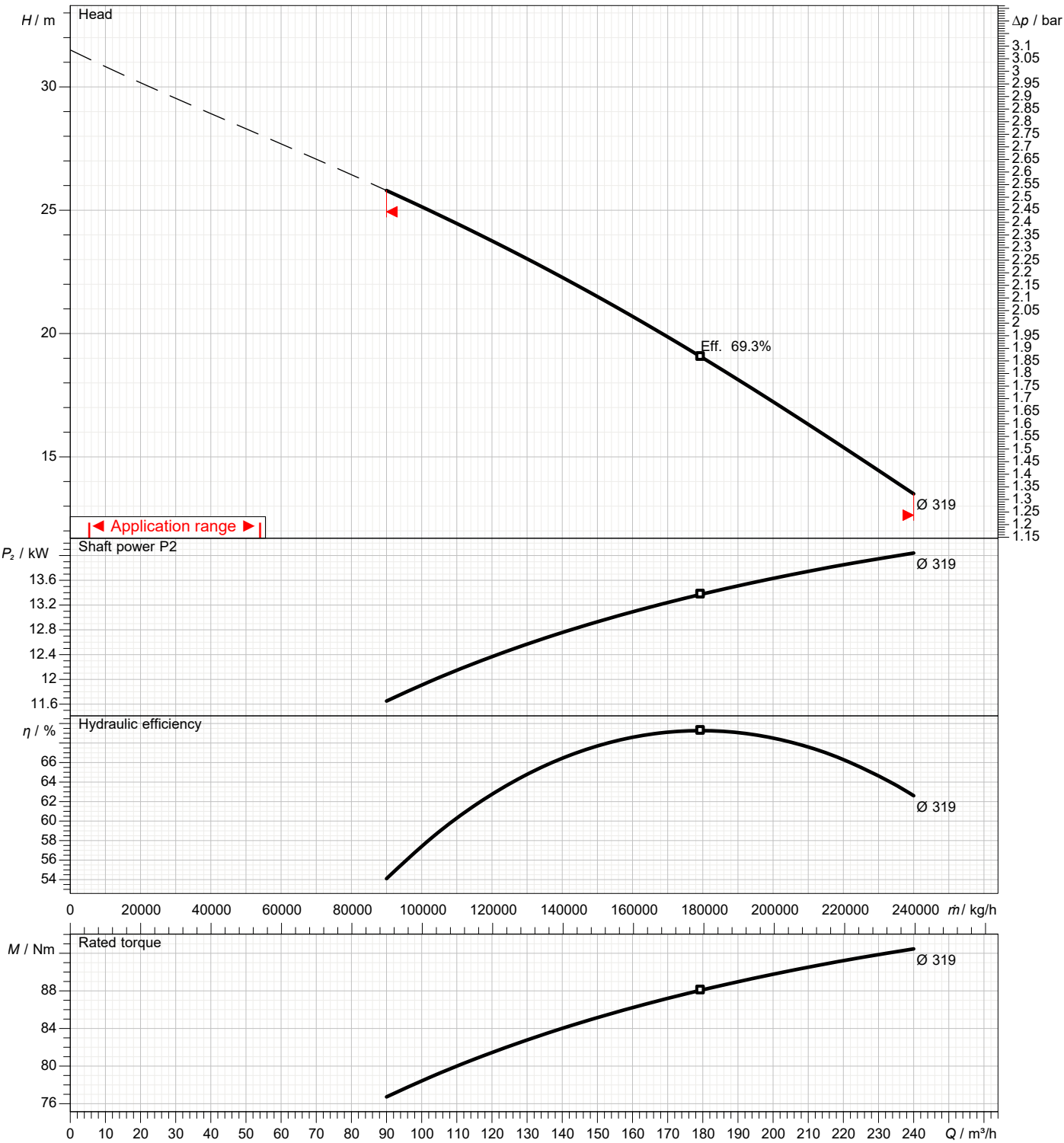
|   |               |      |  |
|---|---------------|------|--|
| 1 | Flow          | m³/h |  |
| 2 | Head          | m    |  |
| 3 | Geodetic head | m    |  |

## Pump

|                            |      |     |                 |     |      |
|----------------------------|------|-----|-----------------|-----|------|
| Operating flow             | m³/h |     | Frequency       | Hz  | 50   |
| Operating head             | m    |     | Number of poles |     | 4    |
| Impeller diameter designed | mm   | 319 | Speed           | rpm | 1450 |

Test standard: ISO 9906:2012 - Grade3B

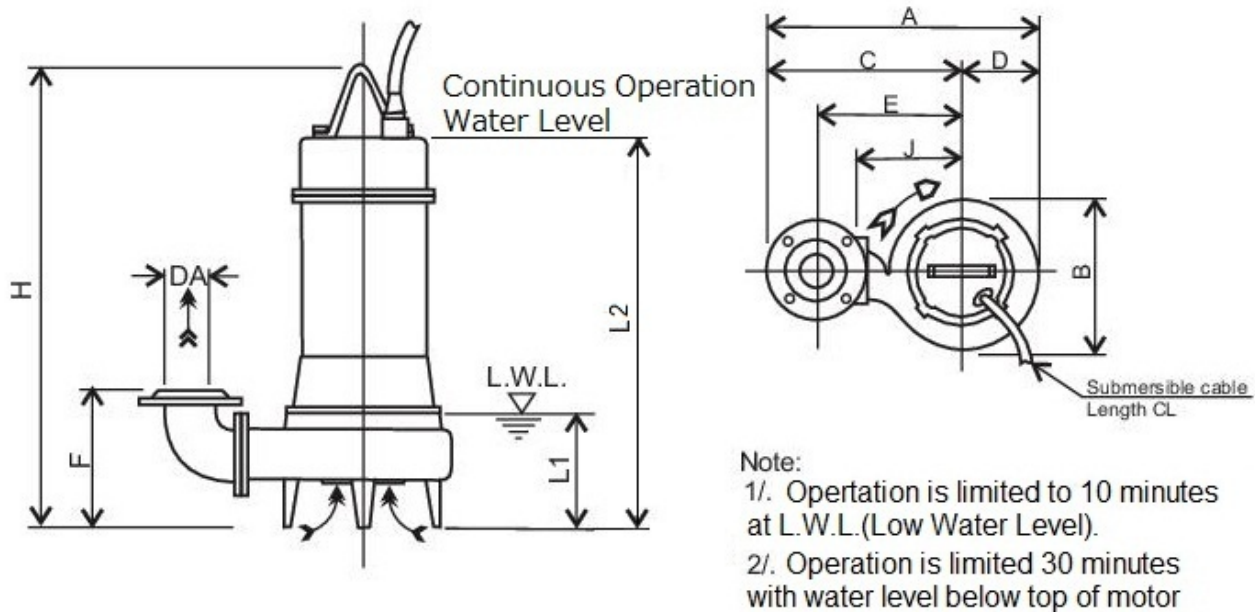
Water; 20°C; 998.3kg/m³; 1mm²/s



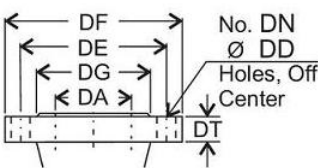
# Dimensions

Pump name 150 DL 515

|          |                                                  |           |
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| E-mail   | Project ID Project redenumit 2024-06-13 13:12:02 | E-mail    |



Discharge Flange Dimensions (JIS 10kgf/cm<sup>2</sup>)

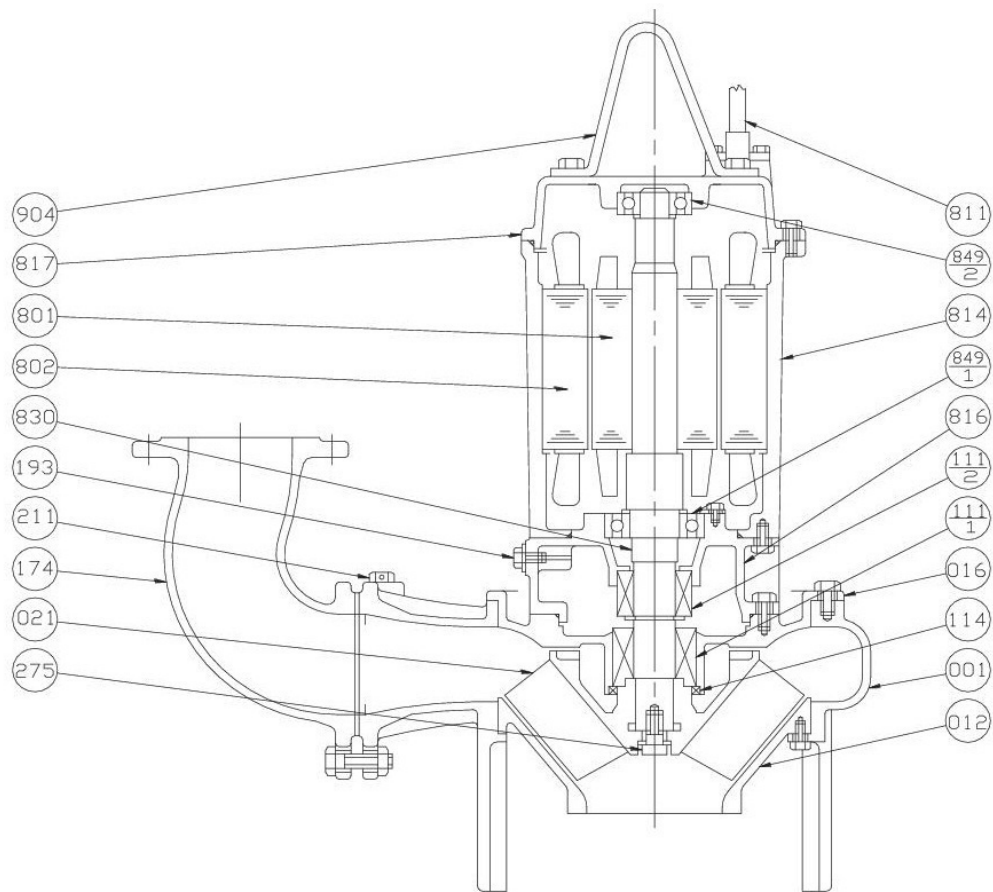


| Pump dimensions |     |  |  | mm |  | Suction side |  | mm |  | Discharge side |         | mm |  |
|-----------------|-----|--|--|----|--|--------------|--|----|--|----------------|---------|----|--|
| A               | 810 |  |  |    |  |              |  |    |  | DA             | 150     |    |  |
| B               | 438 |  |  |    |  |              |  |    |  | DD             | 19      |    |  |
| C               | 590 |  |  |    |  |              |  |    |  | DE             | 240     |    |  |
| CL              | 10m |  |  |    |  |              |  |    |  | DF             | 280     |    |  |
| D               | 220 |  |  |    |  |              |  |    |  | DG             | 212     |    |  |
| E               | 450 |  |  |    |  |              |  |    |  | DN Num         | 8 (Num) |    |  |
| F               | 377 |  |  |    |  |              |  |    |  | DT             | 22      |    |  |
| H               | 972 |  |  |    |  |              |  |    |  |                |         |    |  |
| J               | 320 |  |  |    |  |              |  |    |  |                |         |    |  |
| L1              | 245 |  |  |    |  |              |  |    |  |                |         |    |  |
| L2              | 812 |  |  |    |  |              |  |    |  |                |         |    |  |

# Construction

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|          |                                                  |           |
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\*: 2 FOR POWER AND 1 FOR CONTROL CABLE (THERMAL PROTECTOR)

| Item Number | Description           | Material        |                              | Quantity per unit |
|-------------|-----------------------|-----------------|------------------------------|-------------------|
| 001         | Pump Casing           | FC200           | Cast iron                    | 1                 |
| 012         | Suction Cover         | FC200           | Cast Iron                    | 1                 |
| 016         | Mechanical Seal Cover | FC200           | Cast iron                    | 1                 |
| 021         | Impeller              | FC200           | Cast iron                    | 1                 |
| 111-1       | Mechanical Seal       |                 |                              | 1                 |
| 111-2       | Mechanical Seal       |                 |                              | 1                 |
| 114         | Oil Seal              | NBR             | Rubber                       | 1                 |
| 174         | Discharge Bend        | FC200           | Cast iron                    | 1                 |
| 193         | Oil Plug              | C3604 or SUS304 | Brass or 304 Stainless Steel | 1                 |
| 211         | Airvent Valve         | C3604           | Brass                        | 1                 |
| 275         | Impeller Bolt         | SUS304          | Stainless Steel              | 1                 |

| Item Number | Description           | Material |                 | Quantity per unit |
|-------------|-----------------------|----------|-----------------|-------------------|
| 801         | Rotor                 |          |                 | 1                 |
| 802         | Stator                |          |                 | 1                 |
| 811         | Submersible Cable     |          |                 | 3 *               |
| 814         | Motor Frame           | FC150    | Cast Iron       | 1                 |
| 816         | Power Side Bracket    | FC150    | Cast Iron       | 1                 |
| 817         | Opposite Side Bracket | FC150    | Cast Iron       | 1                 |
| 830         | Shaft                 | SUS403   | Stainless Steel | 1                 |
| 849-1       | Ball Bearing          |          |                 | 1                 |
| 849-2       | Ball Bearing          |          |                 | 1                 |
| 904         | Lifting Hanger        | SS       | Steel           | 1                 |