

## Tender text

Project name

Project ID

Customer

Contact

E-mail

Phone

Company

Contact

E-mail

Phone

2025-01-20

Page 1 / 6

| Pos.no | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Item no.                                                  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
|        | <b>Volute casing pump</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |
|        | Centrifugal pump: Etanorm PumpDrive 05122919<br>065-050-160/1504 GG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |
|        | <b>Etanorm PumpDrive</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                           |
|        | Horizontal single-stage volute casing pump, ratings to EN 733, radially split volute casing with integrally cast pump feet, long-coupled design. The pump is designed with replaceable casing wear rings, closed radial impeller with multiply curved vanes, single mechanical seal or double mechanical seals to EN 12756, shaft equipped with replaceable shaft protecting sleeve in the shaft seal area. The back pull-out design allows the coupling, bearing brackets and impeller to be dismantled without the need to disconnect the pump casing from the piping. |                                                           |
|        | PumpDrive 2 frequency inverter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                           |
|        | Self-cooling frequency inverter is mounted directly on the motor. Controlled by integrated PI controller. Controlled variables are pressure, differential pressure, flow rate, temperature. Display and setting of all operating parameters via a control unit with graphical display. Setpoint adjustment or control via external standard signal or via the control unit. Protective function for drive and pump. Pump and drive parameters pre-set at the factory.                                                                                                    |                                                           |
|        | Design:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                           |
|        | Mains voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | : 3~ 380 V AC -10 %<br>to 480 V AC +10 %                  |
|        | Mains frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | : 50 - 60 Hz ± 2 %                                        |
|        | Internal power supply unit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | : 24 V ± 10 %, max.<br>600 mA DC                          |
|        | Enclosure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | : IP55 (to EN 60529)                                      |
|        | Ambient temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | : -10 °C to +50 °C                                        |
|        | Relative humidity in operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | : 5 % to 85 %, non-condensing                             |
|        | Service interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | : optical                                                 |
|        | Analog input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | : 2 x 0/2 - 10 V or 0/4 - 20 mA                           |
|        | Analog output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | : 1 x 0 - 10 V or 4 - 20 mA                               |
|        | Digital input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | : 1 x hardware enable input,<br>5 x parameterisable       |
|        | Relay output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | : 2 changeover contacts,<br>parameterisable               |
|        | Bus systems (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | : Modbus RTU, Profibus DP,<br>LON, BACnet MS/TP, Profinet |
|        | PumpMeter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                           |
|        | Integrated, intelligent pressure transmitter with on-site display of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |

## Tender text

**Project name**

**Project ID**

**Customer**

Contact

E-mail

Phone

**Company**

Contact

E-mail

Phone

2025-01-20

Page 2 / 6

| Pos.no | Description                                                                                                                                                                                                                                                                                                                                      | Item no.                                       | Qty. | UP / EUR | TP / EUR |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------|----------|----------|
|        | operating data such as suction pressure and discharge pressure, calculates the differential pressure and establishes the pump's operating point. The measured and calculated values are shown in alternation on a user-friendly display. PumpMeter is supplied completely assembled and parameterised individually for the pump it is used with. |                                                |      |          |          |
|        | <b>Operating data</b>                                                                                                                                                                                                                                                                                                                            |                                                |      |          |          |
|        | Fluid handled                                                                                                                                                                                                                                                                                                                                    | : Water                                        |      |          |          |
|        | Flow rate                                                                                                                                                                                                                                                                                                                                        | :                                              |      |          |          |
|        | Head                                                                                                                                                                                                                                                                                                                                             | :                                              |      |          |          |
|        | Fluid temperature                                                                                                                                                                                                                                                                                                                                | : 20,00 °C                                     |      |          |          |
|        | Permissible fluid temperature (min./max.)                                                                                                                                                                                                                                                                                                        | : 0 bis +110                                   |      |          |          |
|        | Maximum operating pressure                                                                                                                                                                                                                                                                                                                       | : ≤ 16 bar                                     |      |          |          |
|        | Ambient temperature (min./max.)                                                                                                                                                                                                                                                                                                                  | : -10 to +50°C                                 |      |          |          |
|        | <b>Motor/electronics</b>                                                                                                                                                                                                                                                                                                                         |                                                |      |          |          |
|        | MEI value                                                                                                                                                                                                                                                                                                                                        | : ≥ 0,4                                        |      |          |          |
|        | Motor rating                                                                                                                                                                                                                                                                                                                                     | : 15 kW                                        |      |          |          |
|        | Max. rated current                                                                                                                                                                                                                                                                                                                               | : 33 A                                         |      |          |          |
|        | Speed                                                                                                                                                                                                                                                                                                                                            | : 580 1/min ... 4.060 1/min                    |      |          |          |
|        | Power supply                                                                                                                                                                                                                                                                                                                                     | : 3 x 380 V AC - 15 % to 480 V AC +10 %        |      |          |          |
|        | Motor size                                                                                                                                                                                                                                                                                                                                       | : 160M                                         |      |          |          |
|        | Energy efficiency class                                                                                                                                                                                                                                                                                                                          | : IE5                                          |      |          |          |
|        | Enclosure                                                                                                                                                                                                                                                                                                                                        | : IP55                                         |      |          |          |
|        | Motor make                                                                                                                                                                                                                                                                                                                                       | : KSB-Standard                                 |      |          |          |
|        | <b>Materials</b>                                                                                                                                                                                                                                                                                                                                 |                                                |      |          |          |
|        | Pump casing (102)                                                                                                                                                                                                                                                                                                                                | : Grey cast iron JL1040                        |      |          |          |
|        | Impeller (230)                                                                                                                                                                                                                                                                                                                                   | : Steel/tempered steel E335/C45                |      |          |          |
|        | Pump shaft (210)                                                                                                                                                                                                                                                                                                                                 | : Grey cast iron JL1040                        |      |          |          |
|        | Casing cover (161)                                                                                                                                                                                                                                                                                                                               | : Grey cast iron JL1040                        |      |          |          |
|        | Casing wear ring, suction side (502.01):                                                                                                                                                                                                                                                                                                         | DPAF seal plate, asbestos-free                 |      |          |          |
|        | Casing wear ring, discharge side (502.02):                                                                                                                                                                                                                                                                                                       | Grey cast iron GG / cast iron                  |      |          |          |
|        | Shaft seal type                                                                                                                                                                                                                                                                                                                                  | : Single mechanical seal, conical casing cover |      |          |          |
|        | Shaft seal material                                                                                                                                                                                                                                                                                                                              | : 10 = Q1Q1X4GG                                |      |          |          |
|        | <b>Installation</b>                                                                                                                                                                                                                                                                                                                              |                                                |      |          |          |
|        | Installation type                                                                                                                                                                                                                                                                                                                                | : Baseplate for the entire pump set (pump      |      |          |          |



### Tender text

Project name

Project ID

**Customer**

Contact

E-mail

Phone

**Company**

Contact

E-mail

Phone

2025-01-20

Page 3 / 6

| Pos.no | Description                            | Item no.                             | Qty. | UP / EUR | TP / EUR |
|--------|----------------------------------------|--------------------------------------|------|----------|----------|
|        | + drive)                               |                                      |      |          |          |
|        | <b>Dimensions and connections</b>      |                                      |      |          |          |
|        | Nominal size of discharge nozzle DN2   | : DN 50                              |      |          |          |
|        | Nominal diameter of suction nozzle DN1 | : DN 65                              |      |          |          |
|        | Nominal pressure, suction side         | : 16                                 |      |          |          |
|        | Nominal pressure, discharge side       | : 16                                 |      |          |          |
|        | <b>Purchase order information</b>      |                                      |      |          |          |
|        | Approx. net weight                     | : 228,1 kg                           |      |          |          |
|        | Make                                   | : KSB                                |      |          |          |
|        | Type                                   | : Etanorm PumpDrive 065-050-160/1504 |      |          |          |
|        | GG                                     |                                      |      |          |          |
|        | Material price group                   | : 55                                 |      |          |          |
|        | <b>Material number</b>                 | : 05122919                           |      |          |          |
|        | Frequency controller: PumpDrive2       |                                      | 1    |          |          |

## Data sheet: technical data

**Project name**

**Project ID**

**Customer**

Contact

E-mail

Phone

**Item-No.**

**Design**

**Type / Coding**

**Volute casing pump**

**Etanorm PumpDrive 065-050-160/1504 GG**

**Company**

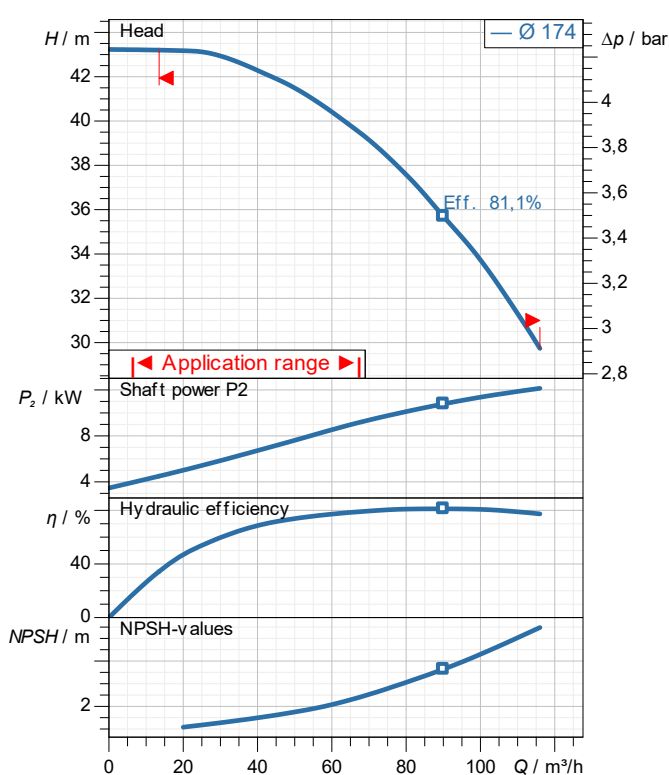
Contact

E-mail

Phone

**2025-01-20**

**Page 4 / 6**



### demand data

Flow

Head

Geodetic head

Media

Liquid temperature

Concentration

Water

20 °C

100 %

### Pump data

Make

Type

Design

Specific design

Max. fluid temperature

KSB

Etanorm PumpDrive 065-050-160/1504 GG

Volute casing pump

Single head pump

140 °C

### Hydraulic data (Duty point)

Flow

Head

Efficiency

Minimum Efficiency Index  $\geq 0,4$

### Material / sealing element

Volute casing

Discharge cover

Shaft

Impeller

Bearing bracket lantern

Casing wear ring

Grey cast iron JL1040

Grey cast iron JL1040

Steel/tempered steel E335/C45

Grey cast iron JL1040

DPAF seal plate, asbestos-free

Grey cast iron GG / cast iron

### Motor data

Power uptake

Rated power

Speed

Rated voltage

Rated current

Degree of protection

16 kW

15 kW

1.500 1/min

400 V

33 A

IP55

### Product information

Ident. No./ type key

Weight loaded

Gross price

PL 2025-01-20

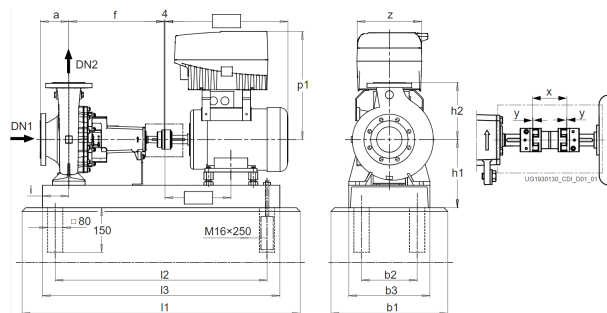
Price group

05122919

228,1 kg

20.321,42 EUR

55



## Data sheet: performance curve

Project name

Project ID

Item-No.

Design

Type / Coding

Volute casing pump

Etanorm PumpDrive 065-050-160/1504 GG

Customer

Contact

E-mail

Phone

Company

Contact

E-mail

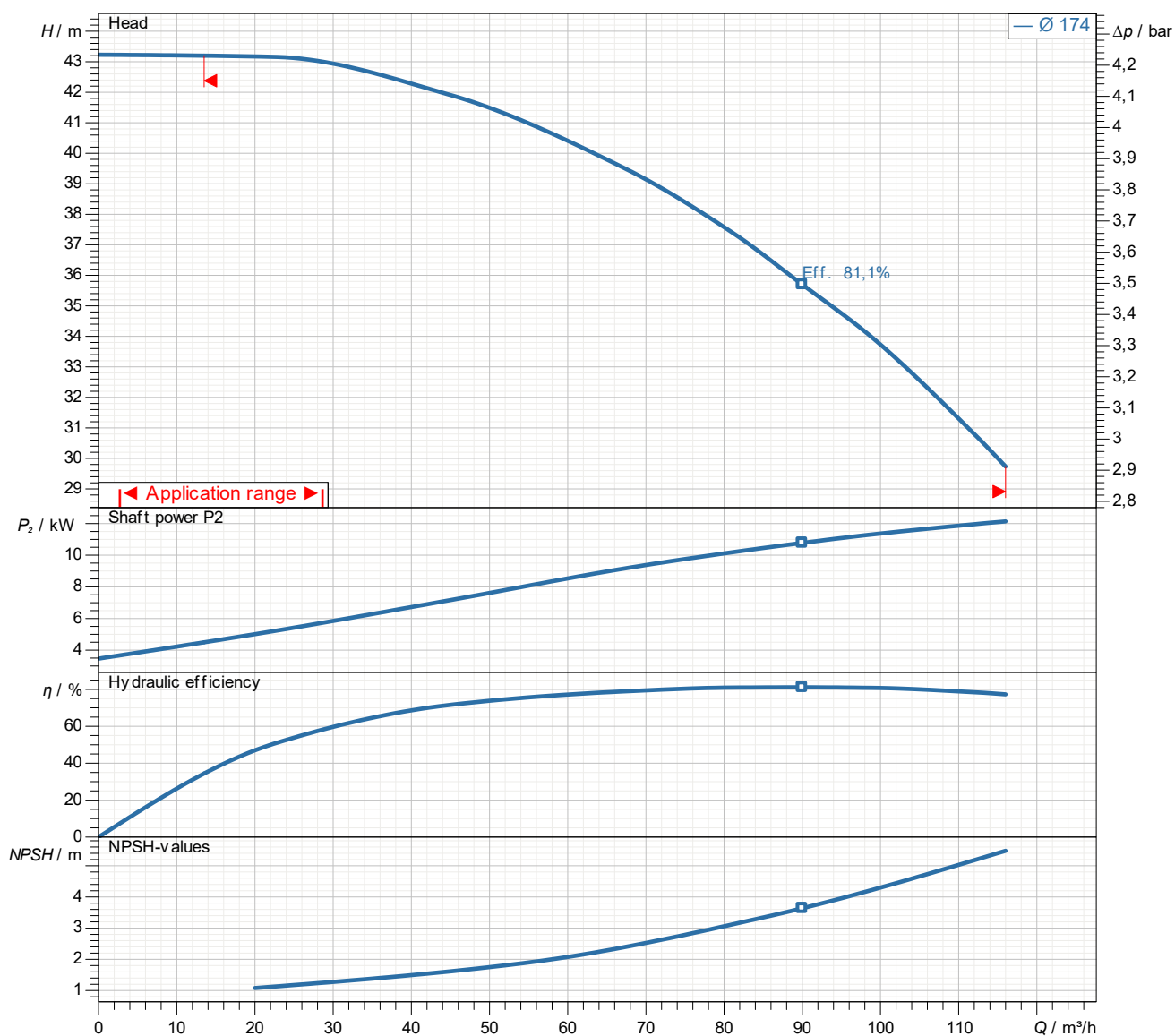
Phone

2025-01-20

Page 5 / 6

### Performance curve

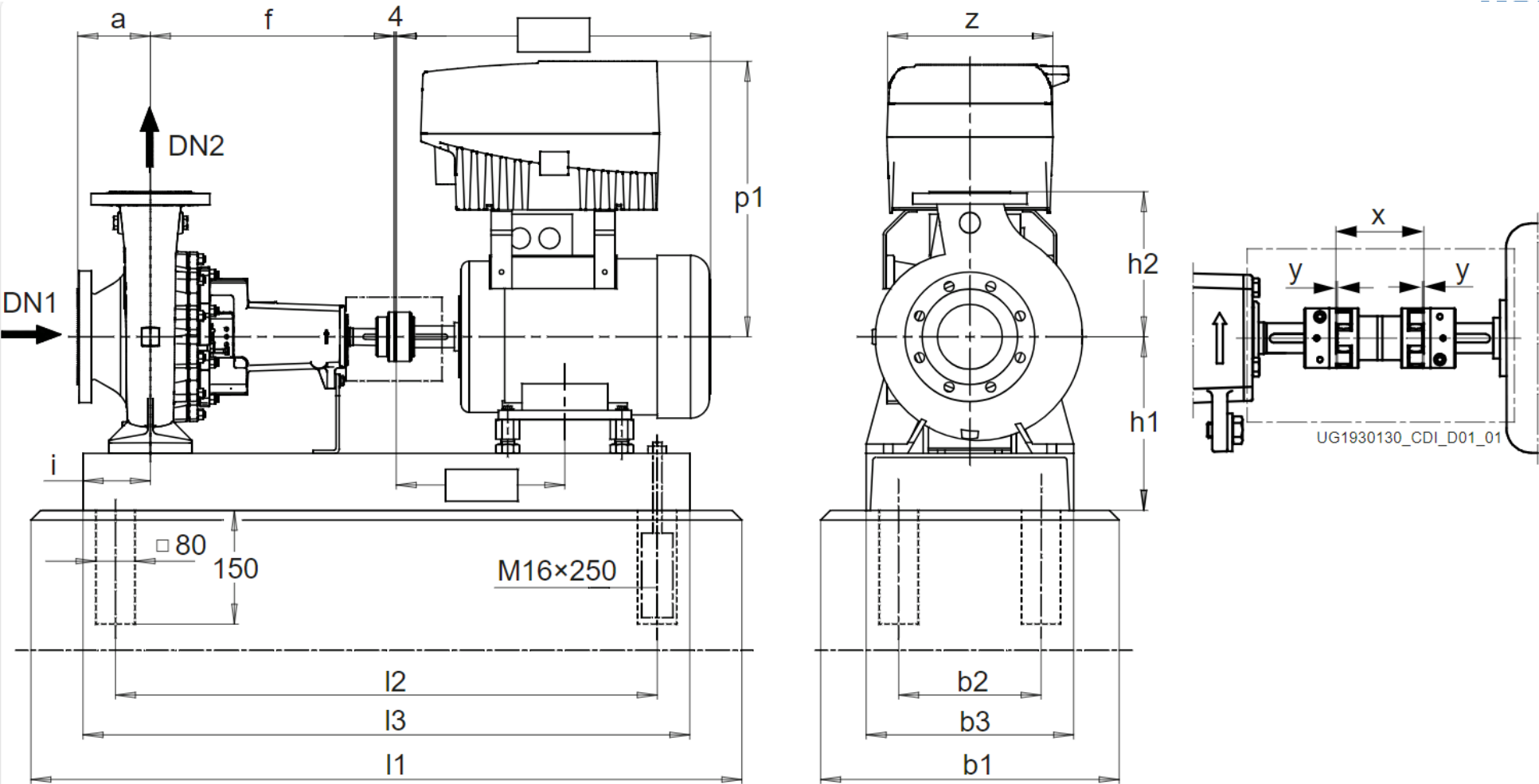
#### Etanorm PumpDrive 065-050-160/1504 GG



Density 998,3 kg/m³

Viscosity 1,005 mm²/s

Dimensions



| Name | Wert   | Name | Wert |
|------|--------|------|------|
| a    | 100 mm |      |      |
| DN1  | 65 mm  |      |      |
| DN2  | 50 mm  |      |      |
| f    | 360 mm |      |      |
| h1   | 260 mm |      |      |
| h2   | 180 mm |      |      |
| i    | 100 mm |      |      |
| x    | 100 mm |      |      |