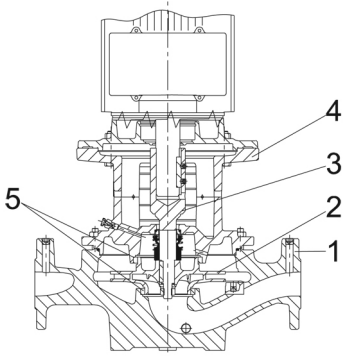


| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <p data-bbox="204 338 574 360"><b>TPD 100-250/4 A-F-A-BQQE-NX3</b></p> <div data-bbox="268 383 515 701">  </div> <p data-bbox="595 685 1062 707"><b>Note! Product picture may differ from actual product</b></p> <p data-bbox="204 719 478 741">Product No.: On request</p> <p data-bbox="204 775 1460 824">Single-stage, close-coupled, volute twin-head pump with in-line suction and discharge ports of identical diameter. The twin-head pump is designed with two parallel power-heads.</p> <p data-bbox="204 835 1460 884">The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.</p> <p data-bbox="204 896 909 918">Each power head is fitted with an unbalanced rubber bellows seal.</p> <p data-bbox="204 929 1460 952">The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).</p> <p data-bbox="204 983 1078 1005">Each power head is fitted with a fan-cooled asynchronous motor of identical size.</p> <p data-bbox="204 1016 1460 1081">Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.</p> <p data-bbox="204 1126 280 1149"><b>Pump</b></p> <div data-bbox="212 1171 555 1525">  </div> <p data-bbox="204 1570 384 1592">1: Pump housing</p> <p data-bbox="204 1603 316 1626">2: Impeller</p> <p data-bbox="204 1637 341 1659">3: Stub shaft</p> <p data-bbox="204 1671 480 1693">4: Pump head/motor stool</p> <p data-bbox="204 1704 347 1727">5: Wear rings</p> <p data-bbox="204 1738 1460 1787">The twin-head pump is designed with two parallel power-heads. A non-return flap valve in the common discharge port is opened by the flow of the pumped liquid and prevents backflow of liquid into the idle pump head.</p> <p data-bbox="204 1798 1460 1848">The pump housing is provided with a replaceable brass neck ring to reduce the amount of liquid running from the outlet side of the impeller to the inlet side.</p> <p data-bbox="204 1859 695 1881">The impeller is secured to the shaft with a nut.</p> <p data-bbox="204 1892 1460 1957">The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.</p> <p data-bbox="204 1968 323 1991">Seal faces:</p> <ul data-bbox="240 2002 788 2051" style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p data-bbox="204 2063 1460 2112">This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> |

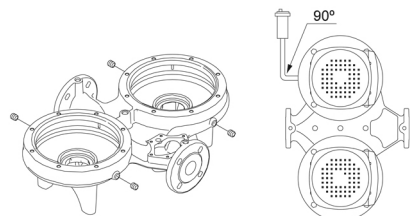
## Qty. Description

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.

The pump housing has four Rp 1/8 tapings for mounting of automatic air vents. Fit an air vent to the upper pump housing if the twin-head pump is to be installed in a horizontal pipeline with horizontal pump shaft.



The flanges have tapings for mounting of pressure gauges.

The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.

The central part of the motor stool is provided with guards for protection against the shaft and coupling. The pump shaft is fastened directly on the motor shaft with key and set screws.

The pump is mounted with a base plate.

### Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.

The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

### Further product details

Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

### Technical data

Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water

Liquid temperature range: -25 .. 120 °C

Selected liquid temperature: 20 °C

Density: 998.2 kg/m<sup>3</sup>

Technical:

Pump speed on which pump data are based: 1460 rpm

Rated flow: 113 m<sup>3</sup>/h

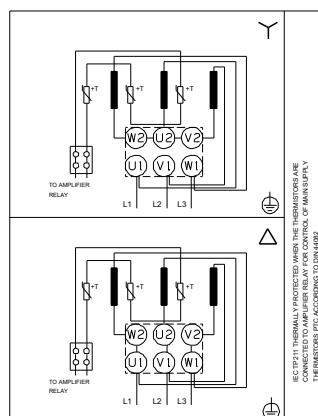
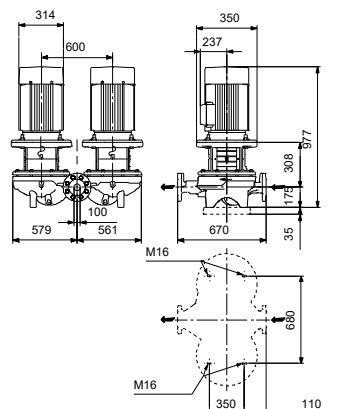
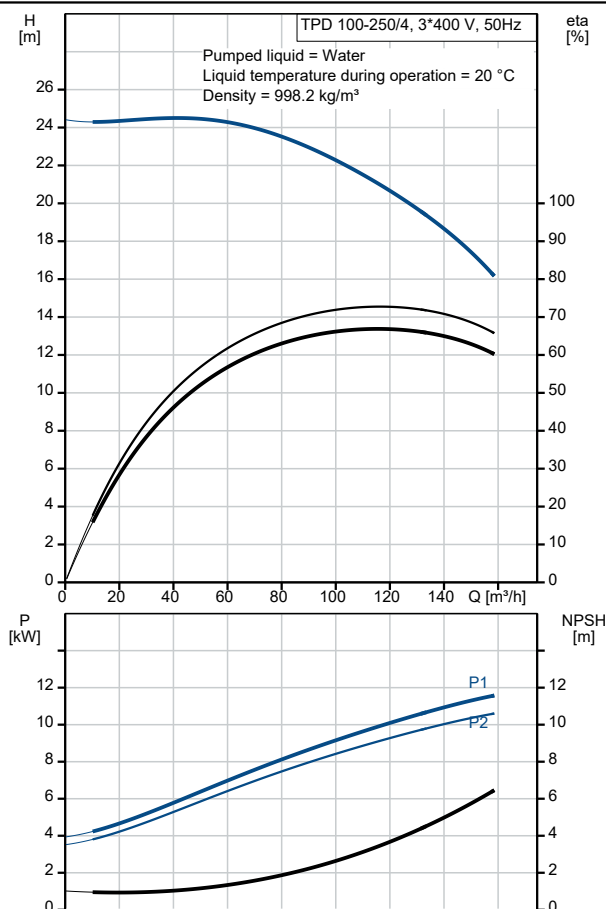
Rated head: 21.1 m

Actual impeller diameter: 270 mm

Code for shaft seal: BQQE

| Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <p>Curve tolerance: ISO9906:2012 3B</p> <p>Materials:</p> <p>Pump housing: Cast iron<br/>EN-GJL-250<br/>ASTM class 35</p> <p>Impeller: Cast iron<br/>EN-GJL-200<br/>ASTM class 30</p> <p>Installation:</p> <p>Range of ambient temperature: -20 .. 55 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Max pressure at stated temp: 16 bar / 120 °C</p> <p>Type of connection: DIN</p> <p>Size of connection: DN 100</p> <p>Pressure rating for connection: PN 16</p> <p>Port-to-port length: 670 mm</p> <p>Flange size for motor: FF300</p> <p>Electrical data:</p> <p>Motor type: SIEMENS</p> <p>IE Efficiency class: IE3</p> <p>Rated power - P2: 11 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 3 x 380-420D/660-725Y V</p> <p>Rated current: 20.5/12 A</p> <p>Starting current: 680-680 %</p> <p>Cos phi - power factor: 0.84</p> <p>Rated speed: 1475 rpm</p> <p>Efficiency: IE3 91,4%</p> <p>Motor efficiency at full load: 91.4-91.4 %</p> <p>Motor efficiency at 3/4 load: 91.9-91.9 %</p> <p>Motor efficiency at 1/2 load: 91.4-91.4 %</p> <p>Number of poles: 4</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99032129</p> <p>Others:</p> <p>Minimum efficiency index, MEI ≥: 0.45</p> <p>Net weight: 500 kg</p> <p>Gross weight: 541 kg</p> <p>Shipping volume: 1.14 m³</p> <p>Country of origin: HU</p> <p>Custom tariff no.: 84137065</p> |

| Description                              | Value                           |
|------------------------------------------|---------------------------------|
| <b>General information:</b>              |                                 |
| Product name:                            | TPD 100-250/4<br>A-F-A-BQQE-NX3 |
| Product No:                              | On request                      |
| EAN number:                              | On request                      |
| <b>Technical:</b>                        |                                 |
| Pump speed on which pump data are based: | 1460 rpm                        |
| Rated flow:                              | 113 m³/h                        |
| Rated head:                              | 21.1 m                          |
| Maximum head:                            | 250 dm                          |
| Actual impeller diameter:                | 270 mm                          |
| Code for shaft seal:                     | BQQE                            |
| Curve tolerance:                         | ISO9906:2012 3B                 |
| Pump version:                            | A                               |
| <b>Materials:</b>                        |                                 |
| Pump housing:                            | Cast iron                       |
| Pump housing:                            | EN-GJL-250                      |
| Pump housing:                            | ASTM class 35                   |
| Impeller:                                | Cast iron                       |
| Impeller:                                | EN-GJL-200                      |
| Impeller:                                | ASTM class 30                   |
| Material code:                           | A                               |
| <b>Installation:</b>                     |                                 |
| Range of ambient temperature:            | -20 .. 55 °C                    |
| Maximum operating pressure:              | 16 bar                          |
| Max pressure at stated temp:             | 16 bar / 120 °C                 |
| Type of connection:                      | DIN                             |
| Size of connection:                      | DN 100                          |
| Pressure rating for connection:          | PN 16                           |
| Port-to-port length:                     | 670 mm                          |
| Flange size for motor:                   | FF300                           |
| Connect code:                            | F                               |
| <b>Liquid:</b>                           |                                 |
| Pumped liquid:                           | Water                           |
| Liquid temperature range:                | -25 .. 120 °C                   |
| Selected liquid temperature:             | 20 °C                           |
| Density:                                 | 998.2 kg/m³                     |
| <b>Electrical data:</b>                  |                                 |
| Motor type:                              | SIEMENS                         |
| IE Efficiency class:                     | IE3                             |
| Rated power - P2:                        | 11 kW                           |
| Mains frequency:                         | 50 Hz                           |
| Rated voltage:                           | 3 x 380-420D/660-725Y V         |
| Rated current:                           | 20.5/12 A                       |
| Starting current:                        | 680-680 %                       |
| Cos phi - power factor:                  | 0.84                            |
| Rated speed:                             | 1475 rpm                        |
| Efficiency:                              | IE3 91,4%                       |
| Motor efficiency at full load:           | 91.4-91.4 %                     |
| Motor efficiency at 3/4 load:            | 91.9-91.9 %                     |
| Motor efficiency at 1/2 load:            | 91.4-91.4 %                     |
| Number of poles:                         | 4                               |
| Enclosure class (IEC 34-5):              | IP55                            |
| Insulation class (IEC 85):               | F                               |
| Built-in motor protection:               | PTC                             |
| Motor No:                                | 99032129                        |
| <b>Controls:</b>                         |                                 |
| Frequency converter:                     | NONE                            |





Company name:

Created by:

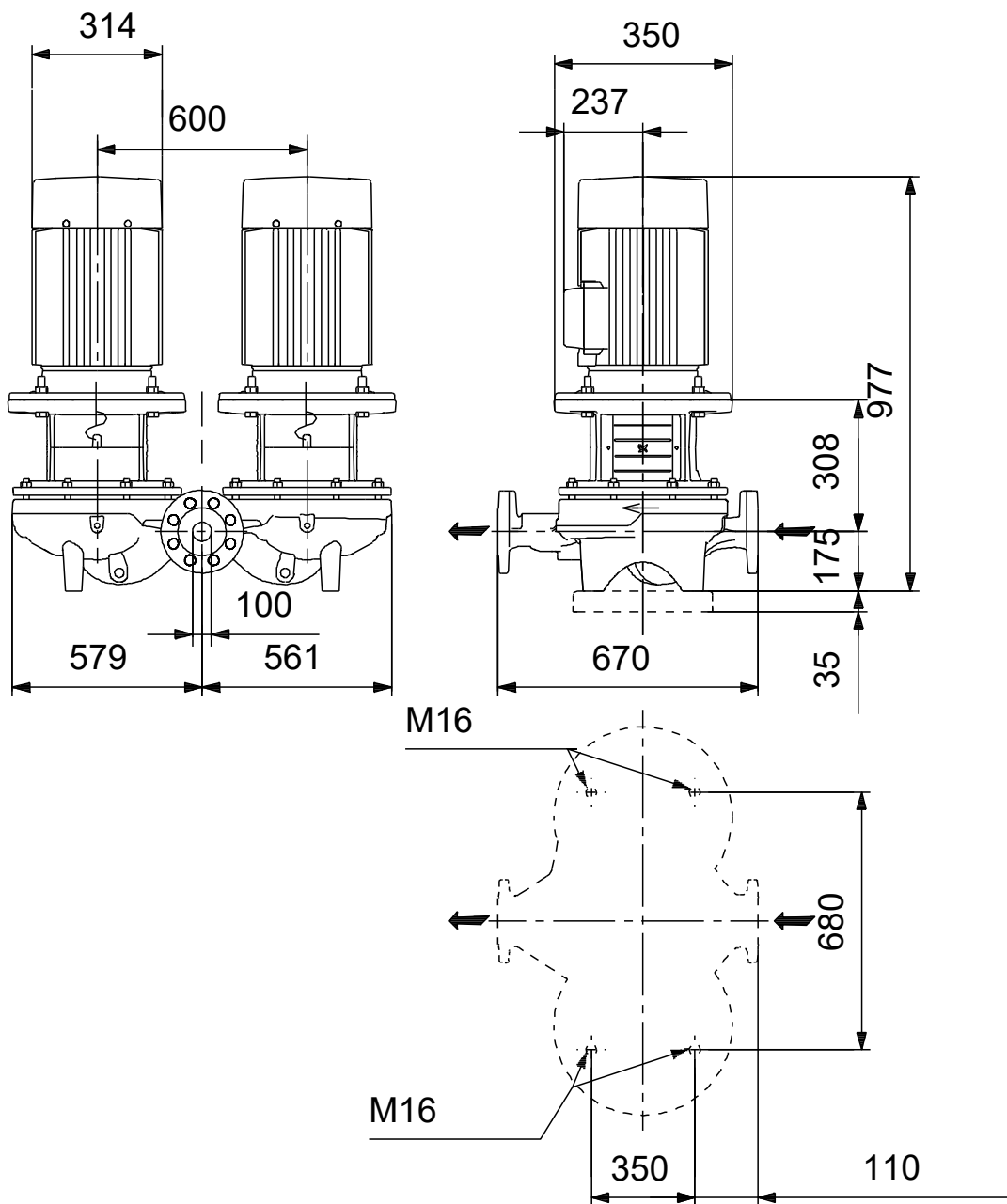
Phone:

Date:

17/06/2022

| Description                      | Value               |
|----------------------------------|---------------------|
| <b>Others:</b>                   |                     |
| Minimum efficiency index, MEI ≥: | 0.45                |
| Net weight:                      | 500 kg              |
| Gross weight:                    | 541 kg              |
| Shipping volume:                 | 1.14 m <sup>3</sup> |
| Country of origin:               | HU                  |
| Custom tariff no.:               | 84137065            |

## On request TPD 100-250/4 A-F-A-BQQE-NX3 50 Hz



Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.



Company name:

Created by:

Phone:

Date:

17/06/2022

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**Order Data:**

Product name: TPD 100-250/4

Amount: 1

Product No: On request

Total: Price on request

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