

**Qty. Description**

1 TP 100-410/4 A3-F-O-DAQF-QW3



**Note!** Product picture may differ from actual product

Product No.: On request

Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. 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.

The pump is fitted with a balanced O-ring seal. The shaft seal is according to EN 12756. Pipework connection is via PN 25 DIN flanges (EN 1092-2 and ISO 7005-2).

The pump is fitted with a fan-cooled asynchronous motor.

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.

**Pump**



- 1: Pump housing
- 2: Impeller
- 3: Stub shaft
- 4: Pump head/motor stool
- 5: Wear rings

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.

The impeller is secured to the shaft with a nut.

The pump is fitted with a balanced O-ring seal. Due to the balancing, this seal type is suitable for high-pressure applications. This seal type is excellent for high-viscosity, dirt- and fibre-containing liquids due to the spring location on the atmospheric side. The seal features a rigid torque-transmission design.

Seal faces:

- Rotating seal ring material: carbon graphite, metal-impregnated
- Stationary seat material: silicon carbide (SiC)

Due to the favourable lubricating properties of carbon graphite, the seal is suitable for use even under poor lubricating conditions, such as hot water.

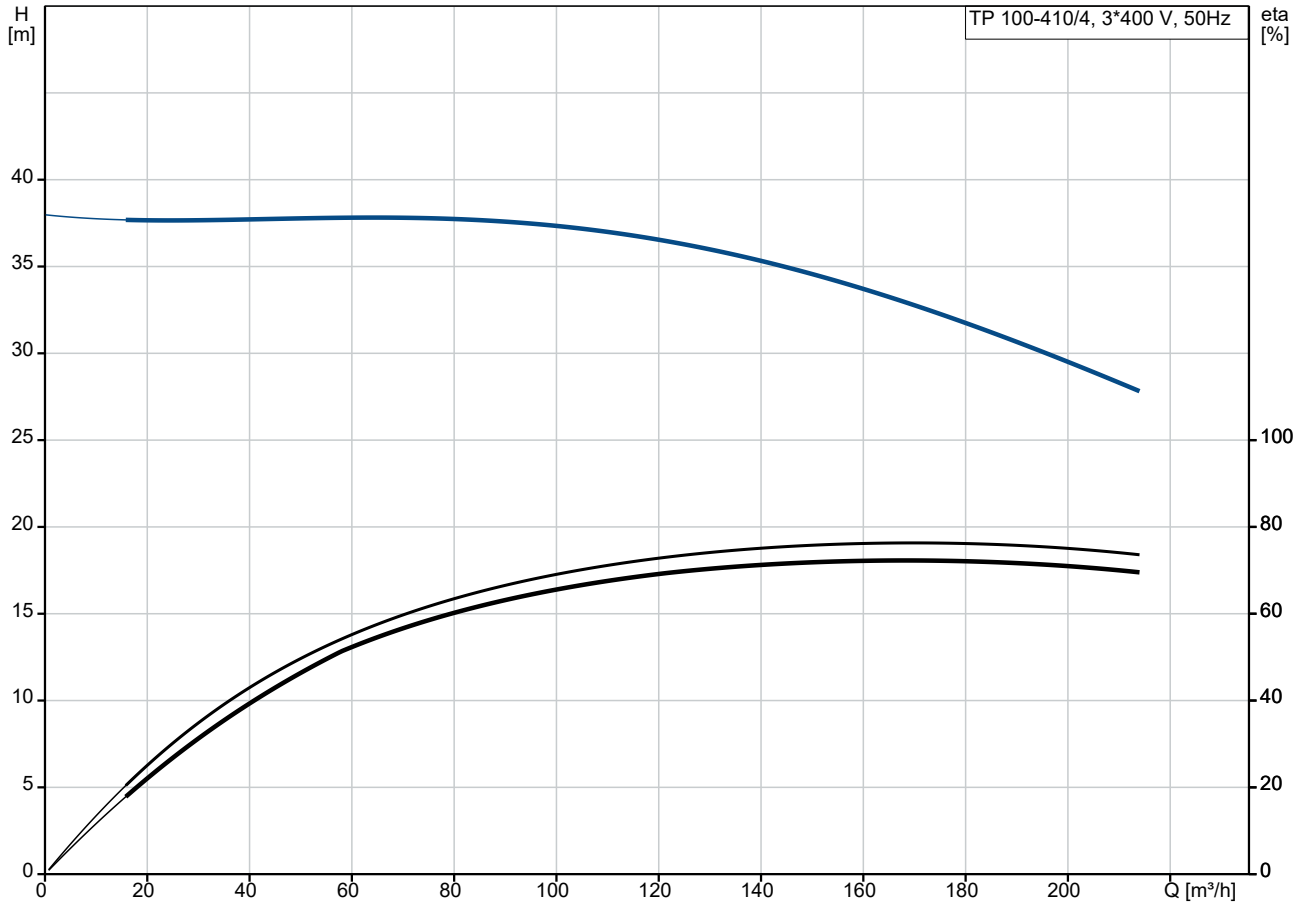
However, under such conditions, wear on the carbon graphite face can be expected, and seal life will be reduced .

The material pairing is not recommended for liquids containing particles as this will result in wear on the SiC face.  
Secondary seal material: FXM (fluorinated copolymer)

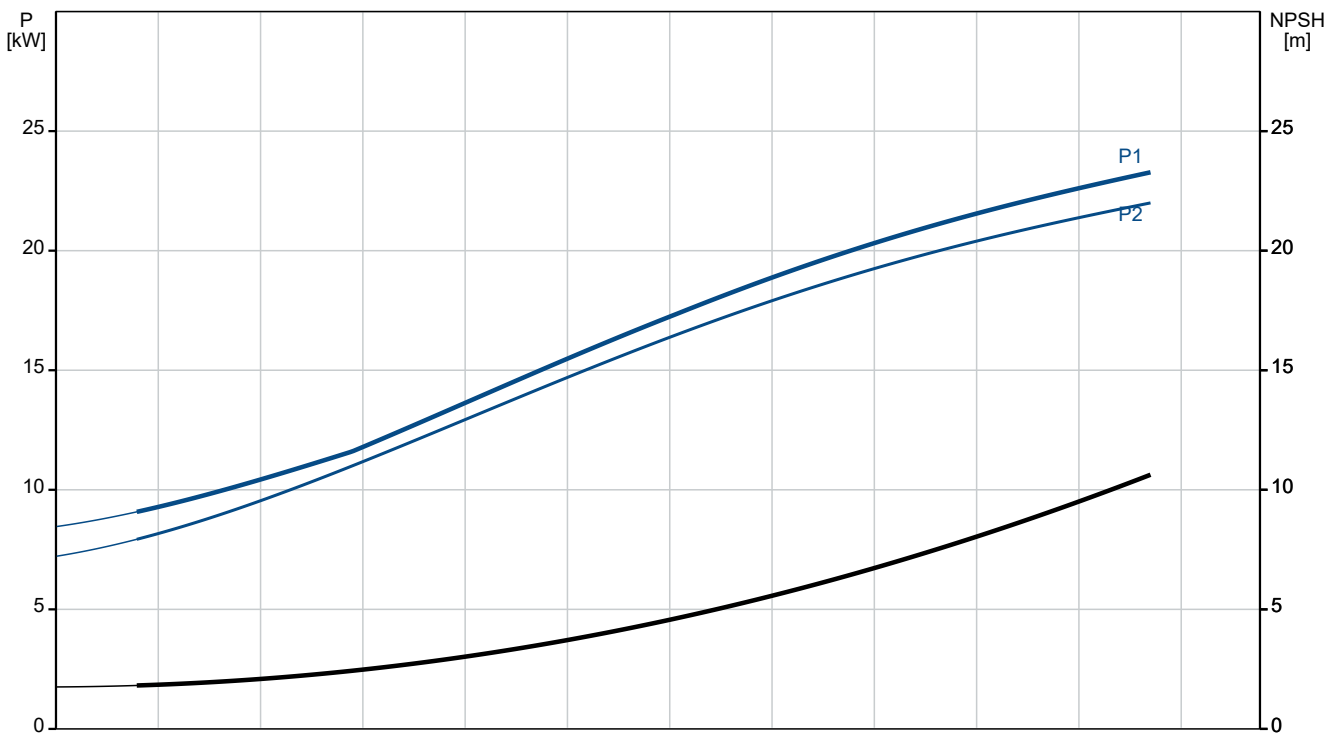
Qty.	Description
1	<p data-bbox="196 338 1465 371">FXM is particularly suitable for extremely high temperatures and pressures. FXM has a good chemical resistance.</p> <p data-bbox="196 394 1465 427">A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.</p> <p data-bbox="196 427 1465 461">The flanges have tappings for mounting of pressure gauges.</p> <p data-bbox="196 461 1465 539">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.</p> <p data-bbox="196 539 1465 595">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.</p> <p data-bbox="196 595 1465 629">The pump is mounted with a base plate.</p> <p data-bbox="196 663 284 696"><b>Motor</b></p> <p data-bbox="196 696 1465 752">The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p data-bbox="196 752 1465 786">The motor is flange-mounted with free-hole flange (FF).</p> <p data-bbox="196 786 1465 819">Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (Code II).</p> <p data-bbox="196 842 1465 875">The motor efficiency is classified as IE4 in accordance with IEC 60034-30-1.</p> <p data-bbox="196 875 1465 931">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.</p> <p data-bbox="196 931 1465 1010">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.</p> <p data-bbox="196 1010 1465 1066">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.</p> <p data-bbox="196 1099 512 1133"><b>Further product details</b></p> <p data-bbox="196 1133 1465 1211">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="196 1279 400 1312"><b>Technical data</b></p> <p data-bbox="196 1346 1465 1402">Controls: Frequency converter:                      None</p> <p data-bbox="196 1435 1465 1491">Liquid: Liquid temperature range:                0 .. 140 °C</p> <p data-bbox="196 1525 1465 1738">Technical: Pump speed on which pump data are based:    1465 rpm Rated flow:                                    171 m<sup>3</sup>/h Rated head:                                    32.7 m Actual impeller diameter:                    334 mm Code for shaft seal:                         DAQF Curve tolerance:                              ISO9906:2012 3B</p> <p data-bbox="196 1771 1465 1984">Materials: Pump housing:                                 Ductile iron     EN-GJS-400-18-LT     ASTM Grade 60-40-18 Impeller:                                        Cast iron     EN-GJL-200     ASTM class 30</p> <p data-bbox="196 2018 1465 2105">Installation: Range of ambient temperature:            -20 .. 55 °C Maximum operating pressure:              25 bar</p>

Qty.	Description
1	<p>Max pressure at stated temp: 25 bar / 140 °C Type of connection: DIN Size of connection: DN 100 Pressure rating for connection: PN 25 Port-to-port length: 670 mm Flange size for motor: FF300</p> <p>Electrical data: Motor type: SIEMENS Rated power - P2: 22 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 41.5/24.0 A Starting current: 770-770 % Cos phi - power factor: 0.81 Rated speed: 1475 rpm IE efficiency: IE4 94,5% IE Efficiency class: IE4 Motor efficiency at full load: 94.5-94.5 % Motor efficiency at 3/4 load: 95.0-95.0 % Motor efficiency at 1/2 load: 94.8-94.8 % Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 83V16230</p> <p>Others: Minimum efficiency index, MEI ≥: 0.69 Net weight: 353 kg Gross weight: 414 kg Shipping volume: 0.937 m<sup>3</sup> Country of origin: HU Custom tariff no.: 84137051</p>

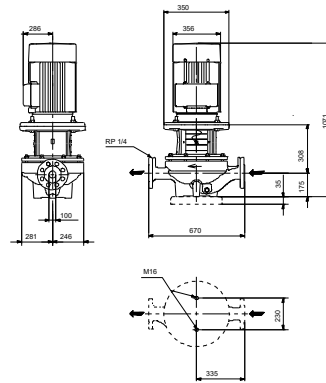
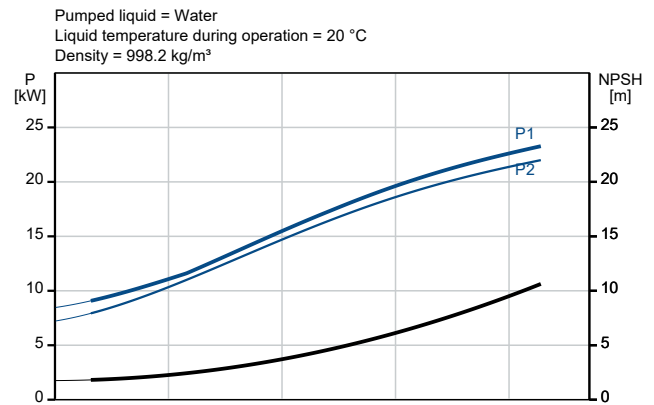
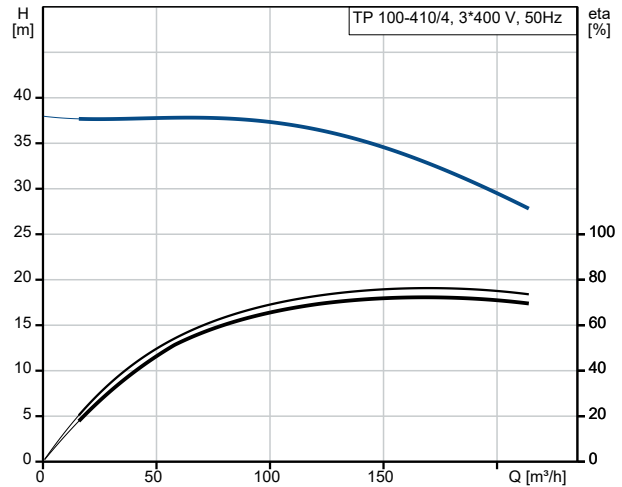
## On request TP 100-410/4 A3-F-O-DAQF-QW3 50 Hz



Pumped liquid = Water  
 Liquid temperature during operation = 20 °C  
 Density = 998.2 kg/m³



Description	Value
<b>General information:</b>	
Product name:	TP 100-410/4 A3-F-O-DAQF-QW3
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Pump speed on which pump data are based:	1465 rpm
Rated flow:	171 m <sup>3</sup> /h
Rated head:	32.7 m
Maximum head:	410 dm
Actual impeller diameter:	334 mm
Code for shaft seal:	DAQF
Curve tolerance:	ISO9906:2012 3B
Pump version:	A3
<b>Materials:</b>	
Pump housing:	Ductile iron
Pump housing:	EN-GJS-400-18-LT
Pump housing:	ASTM Grade 60-40-18
Impeller:	Cast iron
Impeller:	EN-GJL-200
Impeller:	ASTM class 30
Material code:	O
<b>Installation:</b>	
Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	25 bar
Max pressure at stated temp:	25 bar / 140 °C
Type of connection:	DIN
Size of connection:	DN 100
Pressure rating for connection:	PN 25
Port-to-port length:	670 mm
Flange size for motor:	FF300
Connect code:	F
<b>Liquid:</b>	
Liquid temperature range:	0 .. 140 °C
<b>Electrical data:</b>	
Motor type:	SIEMENS
Rated power - P2:	22 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	41.5/24.0 A
Starting current:	770-770 %
Cos phi - power factor:	0.81
Rated speed:	1475 rpm
IE efficiency:	IE4 94,5%
IE Efficiency class:	IE4
Motor efficiency at full load:	94.5-94.5 %
Motor efficiency at 3/4 load:	95.0-95.0 %
Motor efficiency at 1/2 load:	94.8-94.8 %
Number of poles:	4
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	PTC
Motor No:	83V16230
<b>Controls:</b>	
Frequency converter:	None
<b>Others:</b>	
Minimum efficiency index, MEI ≥:	0.69





Company name:

Created by:

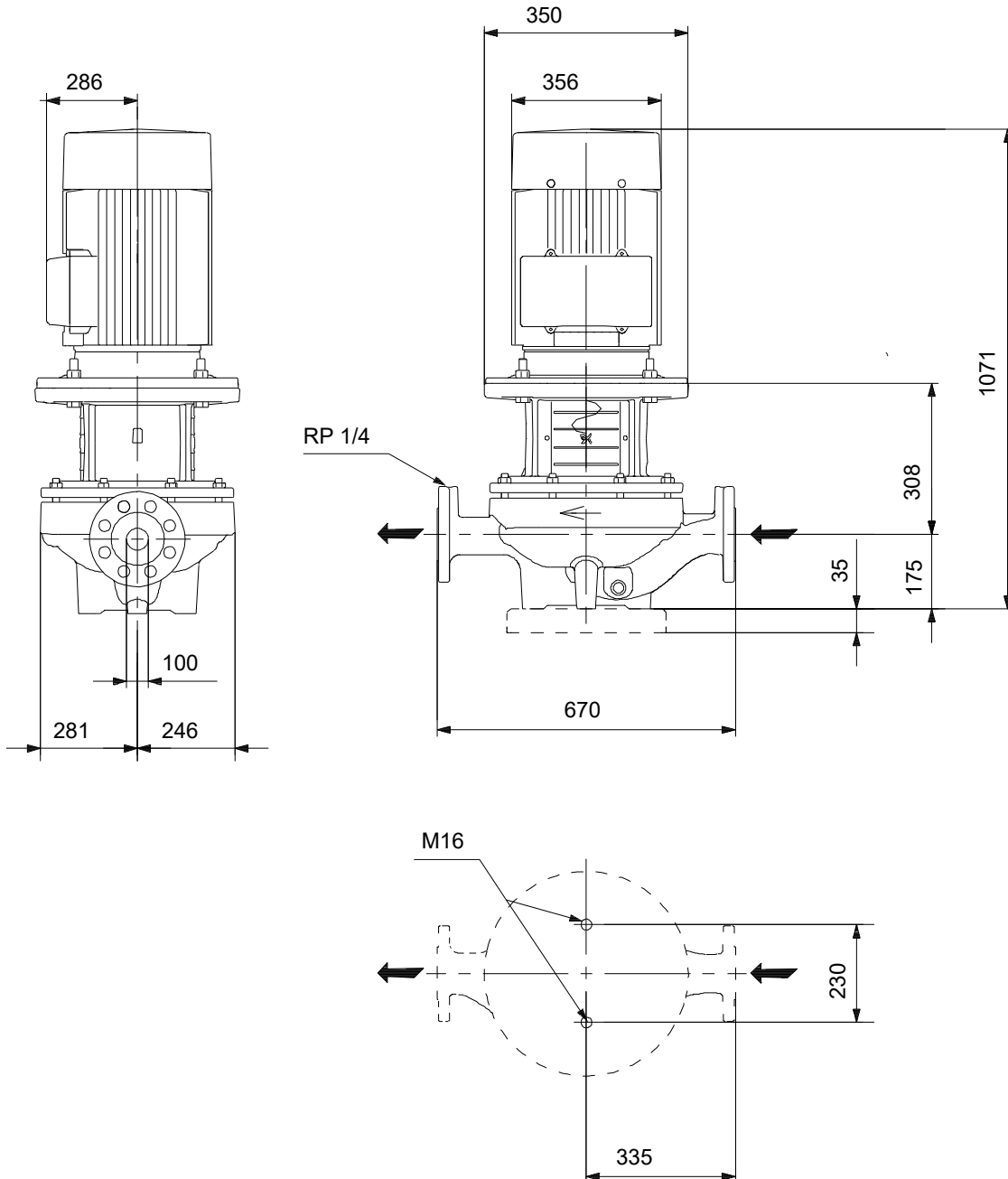
Phone:

Date:

02/12/2023

Description	Value
Net weight:	353 kg
Gross weight:	414 kg
Shipping volume:	0.937 m <sup>3</sup>
Country of origin:	HU
Custom tariff no.:	84137051

## On request TP 100-410/4 A3-F-O-DAQF-QW3 50 Hz



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

