

# TP 100-70/4-A-F-A-BQQE 1X230 50HZ

Grundfos pump 96384313



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https://www.lenntech.com/grundfos/TP000/96384313/TP-100-70-4-A-F-A-BQQE.html

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#### Position | Qty. | Description

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#### TP 100-70/4 A-F-A-BQQE



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 an unbalanced rubber bellows seal. The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2).

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

### Further product details

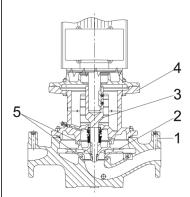
The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

## **Pump**

Pump housing and pump head are electrocoated to improve the corrosion resistance.

Electrocoating includes:

- 1) Alkaline-based cleaning.
- 2) Pretreatment with zinc phosphate coating.
- 3) Cathodic electrocoating (epoxy).
- 4) Curing of paint film at 200-250 °C.



- 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 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.

#### Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

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

#### **Position** Qty. Description

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

The flanges have tappings 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 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 has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

#### **Technical data**

#### Liquid:

Pumped liquid: Water Liquid temperature range: -25 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m<sup>3</sup>

# Technical:

Rated flow: 79.1 m<sup>3</sup>/h Rated head: 4.75 m Actual impeller diameter: 150 mm Primary shaft seal: BOOF

Curve tolerance: ISO9906:2012 3B

#### Materials:

Pump housing: Cast iron

EN-JL1040

**ASTM A48-40 B** 

Impeller: Cast iron

> FN-.II 1030 **ASTM A48-30 B**

## Installation:

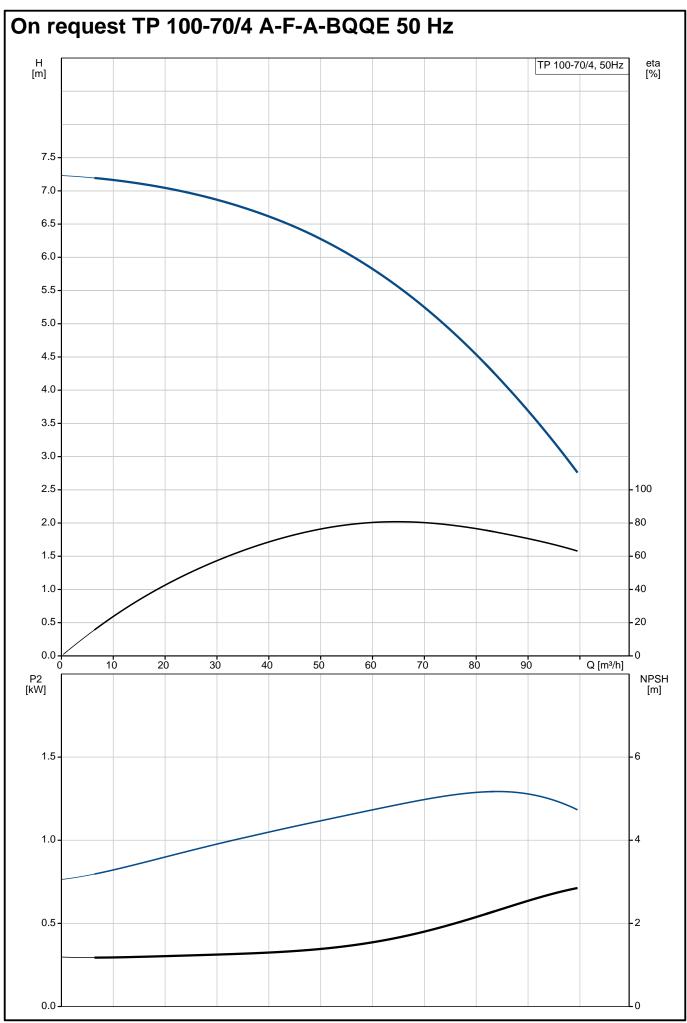
Range of ambient temperature: -30 .. 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: **DN 100** Pump inlet: **DN 100** Pump outlet: **DN 100** Pressure rating: PN 16 550 mm (@):Flange size for motor: FF165

#### **Electrical data:**

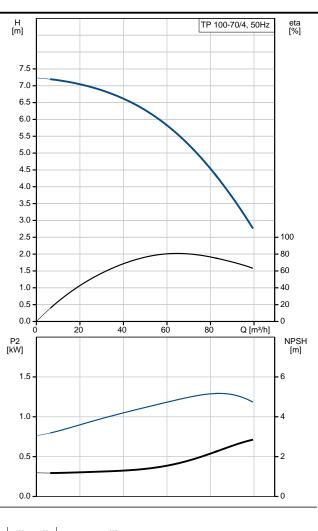
Motor type: 90LC Rated power - P2: 1.5 kW Power (P2) required by pump: 1.5 kW Mains frequency: 50 Hz Rated voltage: 1 x 220-230 V

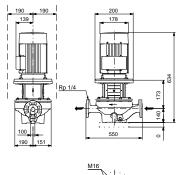
Rated current: 9.9 A

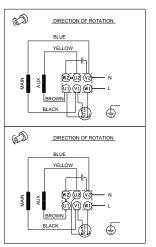
Position	Qty.	Description	
	-	Starting current: Cos phi - power factor: Rated speed: Motor efficiency at full load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85):	400 % 0.97 1390-1400 rpm 74-73 % 4 55 Dust/Jetting
		Others: Minimum efficiency index, MEI ErP status: Net weight: Gross weight: Shipping volume:	

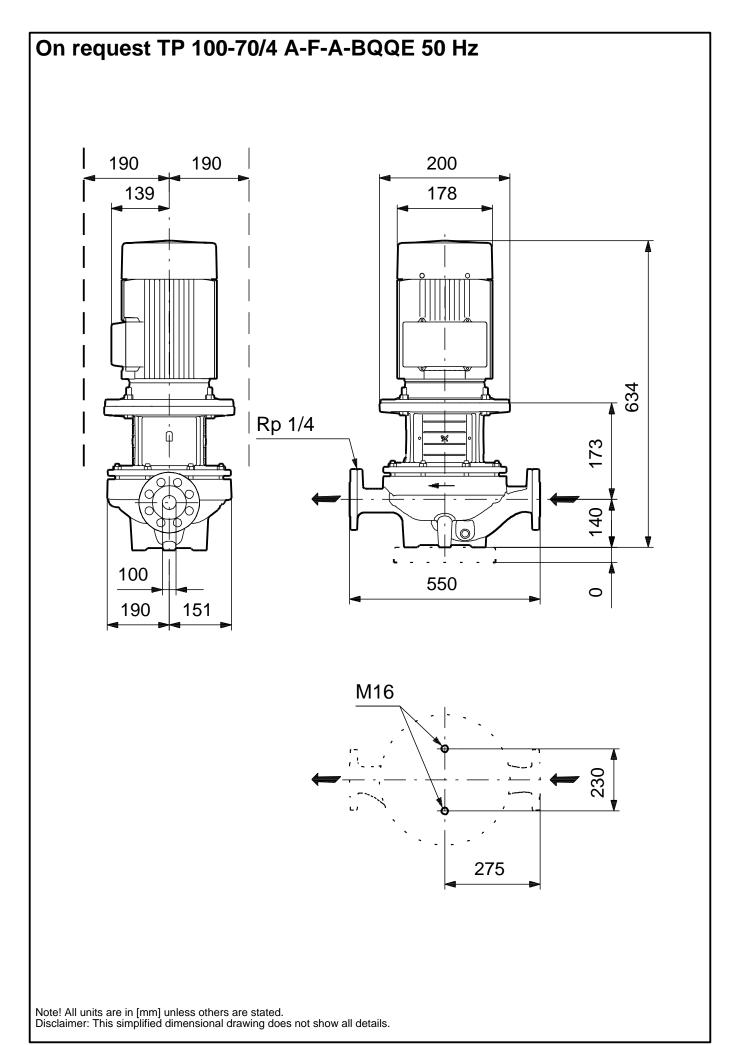


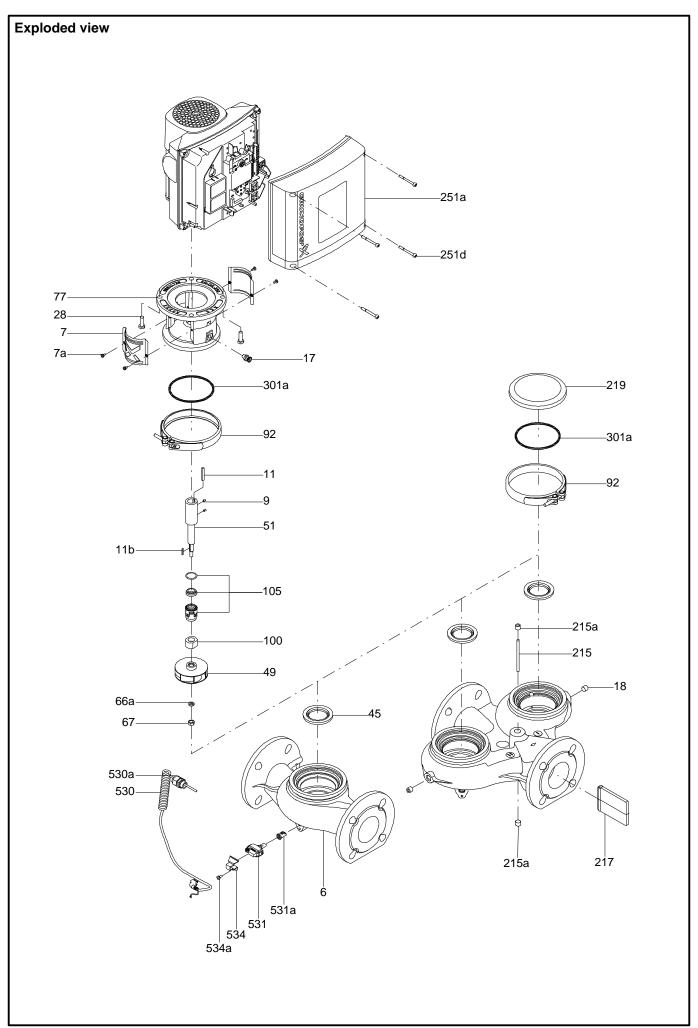
Description	Value	
General information:	raiuo	
Product name:	TP 100-70/4 A-F-A-BQQE	
Product No:	On request	
EAN number:	On request	
Technical:	On request	
Rated flow:	79.1 m³/h	
Rated head:	4.75 m	
Head max:	70 dm	
Actual impeller diameter:	150 mm	
Primary shaft seal:	BQQE	
Curve tolerance:	ISO9906:2012 3B	
Pump version:	A	
Model:	A	
Materials:		
Pump housing:	Cast iron	
	EN-JL1040	
	ASTM A48-40 B	
Impeller:	Cast iron	
	EN-JL1030	
	ASTM A48-30 B	
Material code:	A	
Installation:		
Range of ambient temperature:	-30 40 °C	
Maximum operating pressure:	16 bar	
Flange standard:	DIN	
Pipe connection:	DN 100	
Pump inlet:	DN 100	
Pump outlet:	DN 100	
<u>'</u>	PN 16	
Pressure rating:		
(@)	550 mm	
Flange size for motor:	FF165	
Connect code:	F	
Liquid:		
Pumped liquid:	Water	
Liquid temperature range:	-25 120 °C	
Liquid temperature during operation:	20 °C	
Density:	998.2 kg/m³	
Electrical data:		
Motor type:	90LC	
Rated power - P2:	1.5 kW	
Power (P2) required by pump:	1.5 kW	
Mains frequency:	50 Hz	
Rated voltage:	1 x 220-230 V	
Rated current:	9.9 A	
Starting current:	400 %	
Cos phi - power factor:	0.97	
Rated speed:	1390-1400 rpm	
Motor efficiency at full load:	74-73 %	
Number of poles:	4 FF Dust/letting	
*Enclosure class (IEC 34-5):	55 Dust/Jetting	
মাণ্ডিয়াation class (IEC 85):	F	
Motor protec:	PTO	
Motor No:	87200344	
Others:		
Minimum efficiency index, MEI :	0.70	
ErP status:	EuP Standalone/Prod.	
Net weight:	95 kg	
Gross weight:	114 kg	

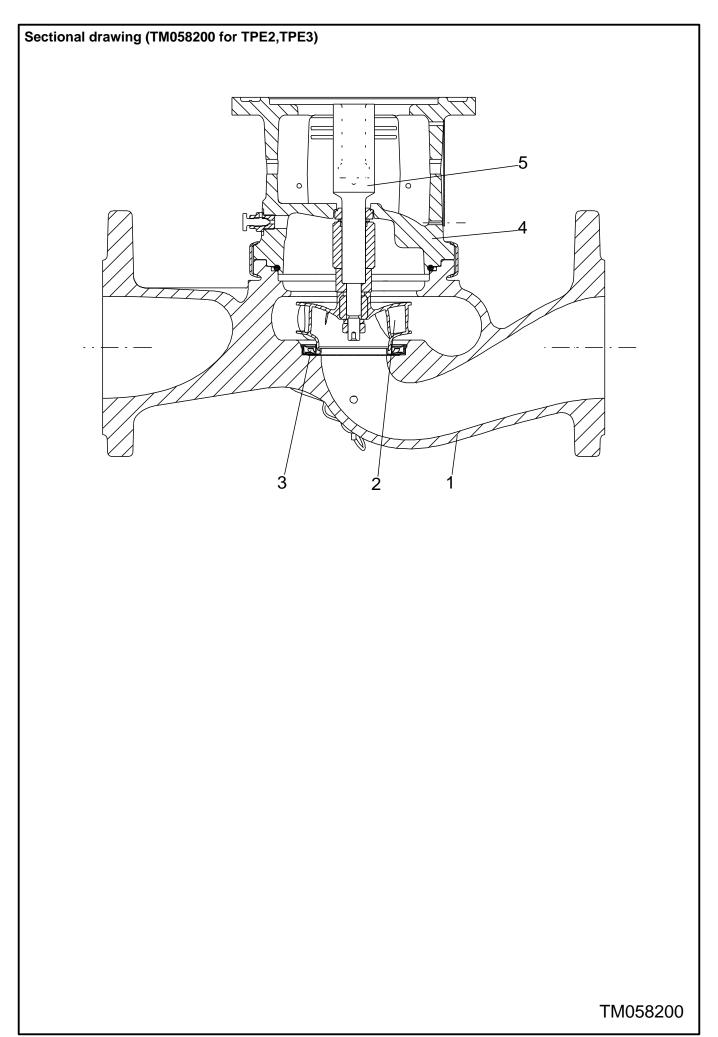


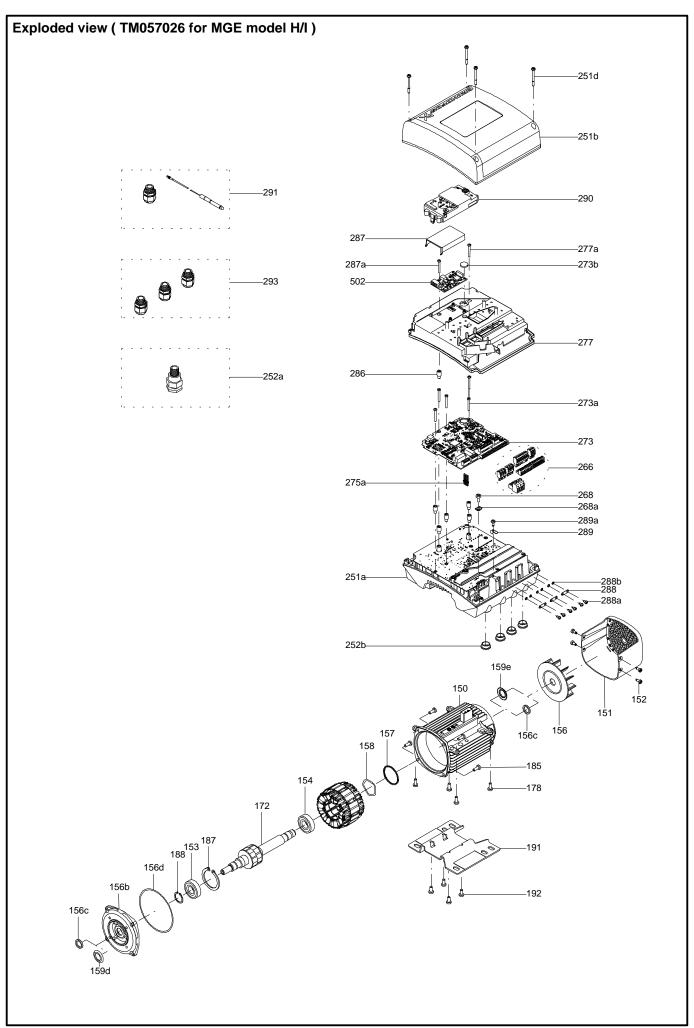












# Parts list TP 100-70/4, Product No. On request Valid from 1.5.2004 (0418)

	Pos	Description	Annotation	Données de classification	Référence	Quanti	té Unité
+		Motor				1	pcs
-		Motor stool cpl.				1	pcs
	2a	Motor stool				1	
	7	Coupling guard				2	
	9	Hex socket head cap screw		Designation: DIN 912		4	
				Length (mm): 25			
				Thread: M10			
	9	Socket set screw				2	
	11	Parallel key		Dimension: 6X6X35		1	
	17	Air vent screw				1	
	51	Pump shaft				1	
	76	Plate				1	
	76a	Rivet				2	
	77a	Pan head screw				4	
-		Shaft seal cpl.				1	pcs
	72a	O-ring		Diameter: 177,39		1	
				Material type: EPDM			
				Thickness: 3,53			
	105	Shaft seal		Material type: BAQE		1	
-	49a	Impeller cpl.				1	pcs
	49	Impeller				1	
	66	Washer				1	
	66a	Spring lock washer				1	
	67	Nut		Thread: M14		1	
-	50	Pump housing cpl.				1	pcs
-	6	Pump housing w/wear ring				1	
		Pump housing					1
	26	Staybolt		Length (mm): 35			6
				Thread: M10			
	45	Wear ring					1
	19	Plug				1	
	20	Plug				1	
	36	Nut		Thread: M10		6	

Disclaimer: The information about the Grundfos pump in this document may be outdated. Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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