

TP 65-90/4-A-F-A-BAQE 400Y 50HZ

Grundfos pump 96087429



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https://www.lenntech.com/grundfos/TP000/96087429/TP-65-90-4-A-F-A-BAQE.html

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Position | Qty. | Description

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TP 65-90/4 A-F-A-BAQE



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

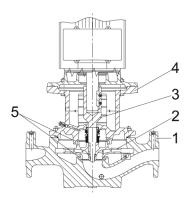
The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.

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

This material pairing has a very good corrosion resistance and is especially suitable for water up to 120 °C. However, seal life will be reduced at temperatures above 90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face.

Secondary seal material: EPDM (ethylene-propylene rubber)

Position | Qty. | Description

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 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.

Moto

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 does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (11/1).

Technical data

Liquid:

Pumped liquid: Water
Liquid temperature range: 0 .. 120 °C
Liquid temperature during operation: 20 °C
Density: 998.2 kg/m³

Technical:

Rated flow: 25 m³/h
Rated head: 7.31 m
Actual impeller diameter: 162 mm
Primary shaft seal: BAQE

Curve tolerance: ISO9906:2012 3B

Materials:

Pump housing: Cast iron

EN-JL1040

ASTM A48-40 B

Impeller: Cast iron

EN-JL1030 ASTM A48-30 B

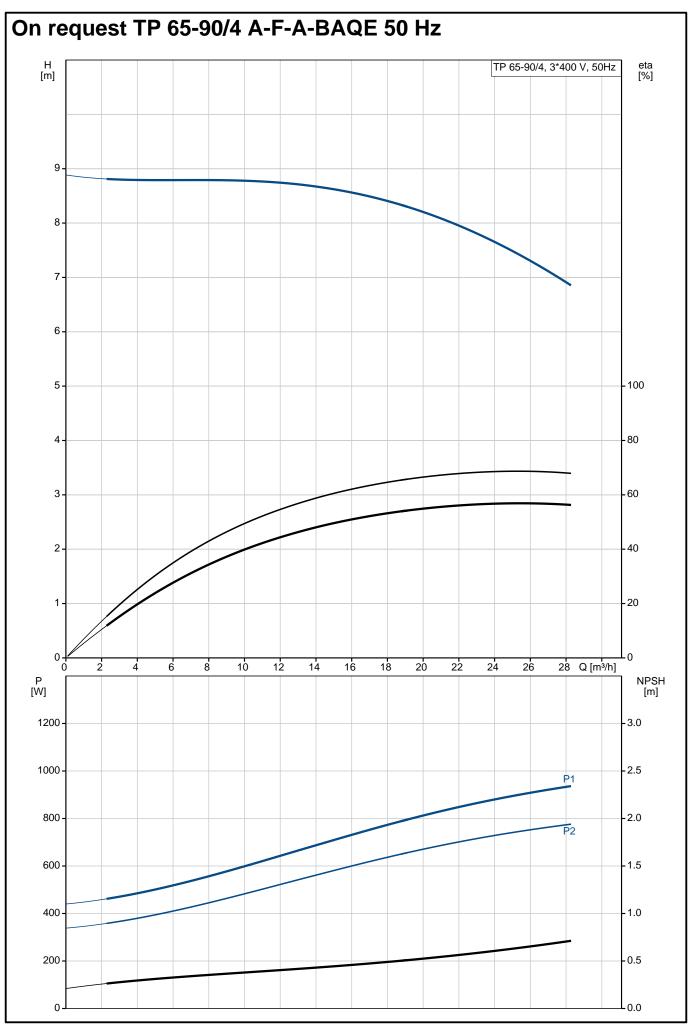
Installation:

Range of ambient temperature: -30 .. 60 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: **DN 65** Pump inlet: **DN 65** Pump outlet: **DN 65** Pressure rating: PN 16 (@):360 mm Flange size for motor: FF165

Electrical data:

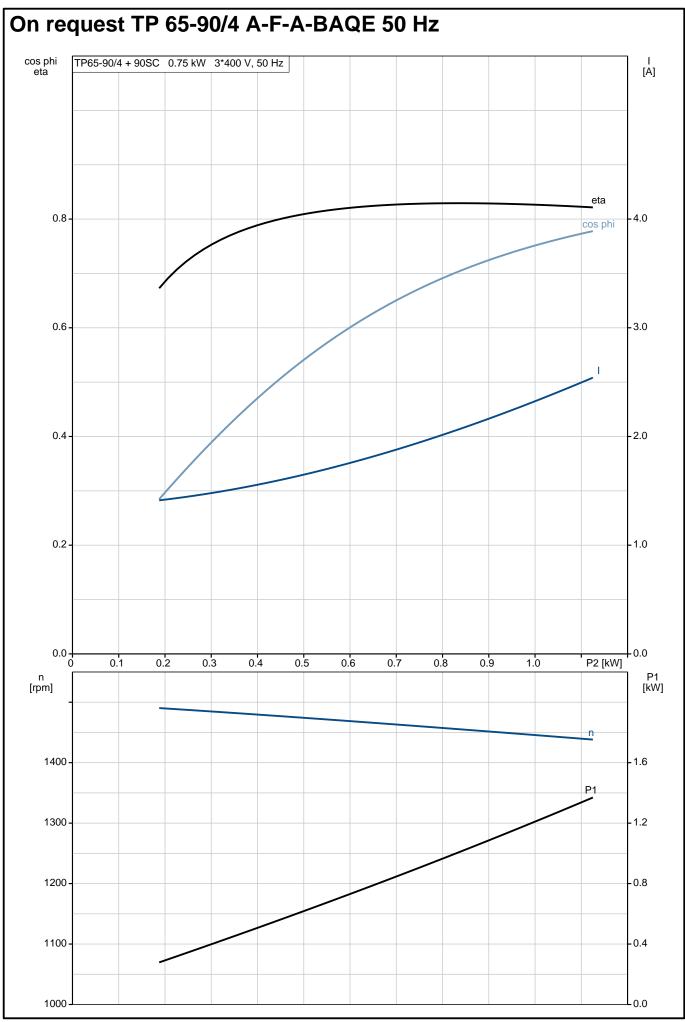
Motor type: 90SC
IE Efficiency class: IE3
Rated power - P2: 0.75 kW
Power (P2) required by pump: 0.75 kW
Mains frequency: 50 Hz

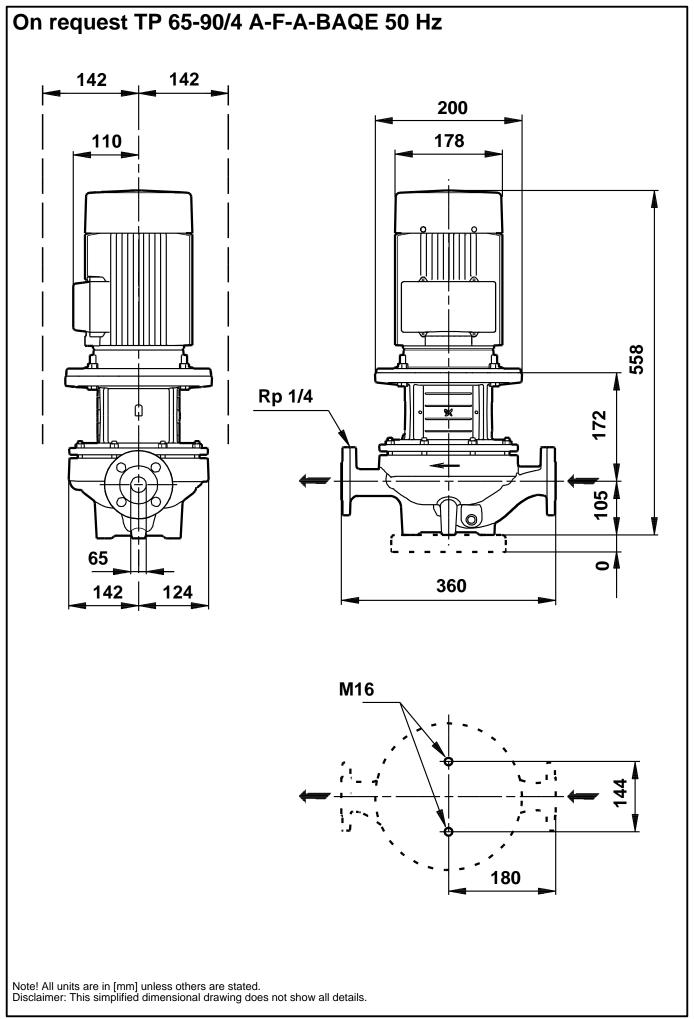
Position	Qty.	Description	
		Rated voltage: Rated current: Starting current: Cos phi - power factor: Rated speed: Efficiency: Motor efficiency at full load: Motor efficiency at 3/4 load: Motor efficiency at 1/2 load: Number of poles: Enclosure class (IEC 34-5): Insulation class (IEC 85):	3 x 220-240D/380-415Y V 3.30/1.90 A 620-670 % 0.71-0.64 1455-1463 rpm IE3 82,5% 82.5 % 83.6 % 81.1 % 4 55 Dust/Jetting F
		Others: Minimum efficiency index, MEI ErP status: Net weight: Gross weight: Shipping volume: Danish VVS No.: Swedish RSK No.: Norwegian NRF no.:	: 0.70 EuP Standalone/Prod. 56 kg 70 kg 0.18 m³ 382763091 5732888 9044222

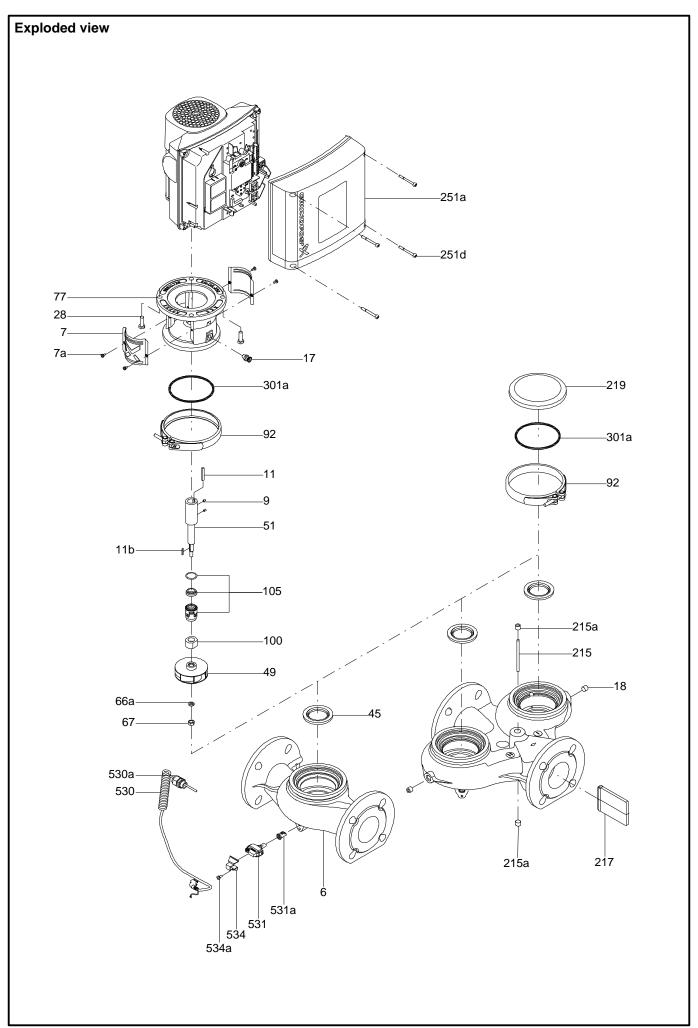


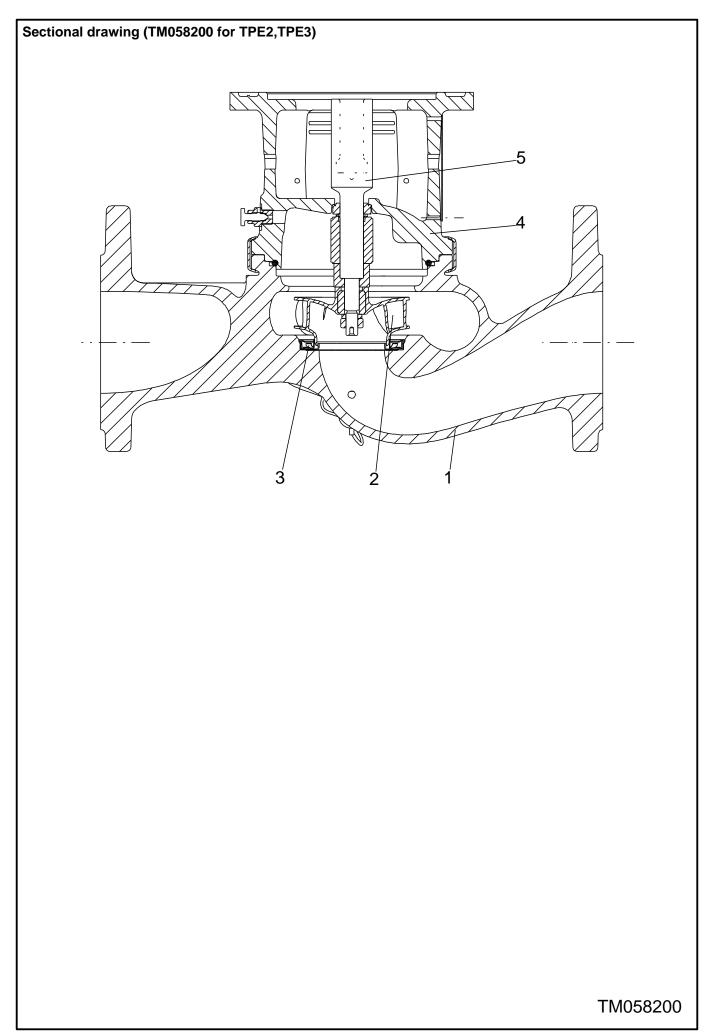
Description	Value	H [m]	TP 65-90/4, 3*400 V, 50Hz eta [%]
General information:			
Product name:	TP 65-90/4 A-F-A-BAQE		
Product No:	On request	9 -	
EAN number:	On request	- 8-	
Technical:		_	
Rated flow:	25 m³/h	7_	
Rated head:	7.31 m		
Head max:	90 dm	6-	
Actual impeller diameter:	162 mm		
Primary shaft seal:	BAQE	5 -	-100
Curve tolerance:	ISO9906:2012 3B		
Pump version:	A	4 -	-80
Model:	A		60
Materials:		3-	100
Pump housing:	Cast iron	_ 2-	40
	EN-JL1040		
	ASTM A48-40 B	1-	20
Impeller:	Cast iron		
	EN-JL1030	0	
	ASTM A48-30 B	0 - P [5 10 15 20 25 Q [m³/h] NPSH
Material code:	A	[W]	[m]
Installation:			
Range of ambient temperature:	-30 60 °C	1000 -	P1 - 2.5
Maximum operating pressure:	16 bar	_	
Flange standard:	DIN	800 -	P2 -2.0
Pipe connection:	DN 65	600 -	1.5
Pump inlet:	DN 65		
Pump outlet:	DN 65	400 -	-1.0
Pressure rating:	PN 16	200 -	-0.5
(@)	360 mm	-	
Flange size for motor:	FF165	07	0.0
Connect code:	F	142	200 _ ,
Liquid:		110	178
Pumped liquid:	Water		
Liquid temperature range:	0 120 °C		
Liquid temperature during operation:	20 °C		
Density:	998.2 kg/m³		85
Electrical data:			Rp 1/4
Motor type:	90SC		
IE Efficiency class:	IE3		
Rated power - P2:	0.75 kW	65	
Power (P2) required by pump:	0.75 kW	142 1	24360
Mains frequency:	50 Hz		
Rated voltage:	3 x 220-240D/380-415Y V		M16
Rated current:	3.30/1.90 A		
Starting current:	620-670 %		= = = =
Cos phi - power factor:	0.71-0.64		180
Rated speed:	1455-1463 rpm		
Efficiency:	IE3 82,5%	<u> </u>	LOW VOLTAGE
Motor efficiency at full load:	82.5 %		DIRECTION OF ROTATION
Motor efficiency at 3/4 load:	83.6 %		
Motor efficiency at 1/2 load:	81.1 %		
Number of poles:	4		[[wz) (Uz) (Vz) [
Enclosure class (IEC 34-5):	55 Dust/Jetting		
Insulation class (IEC 85):	F	_	
Motor protec:	NONE		<u> </u>
Motor No:	87120313	_	HIGH VOLTAGE
Others:			DIRECTION OF ROTATION
Minimum efficiency index, MEI :	0.70	- 1@ L	
ErP status:	EuP Standalone/Prod.		
Net weight:	56 kg		
Gross weight:	70 kg		
Shipping volume:	0.18 m ³	- -	
Danish VVS No.:	382763091	-	
		_ '	L1 L2 L3 🖶

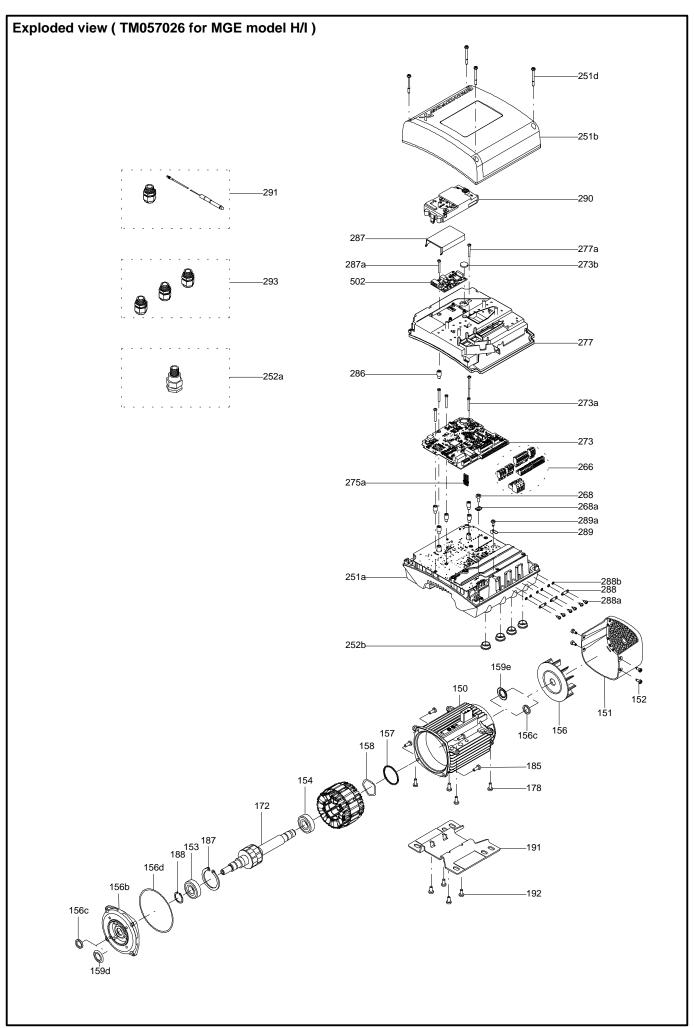
Description	Value
Description Swedish RSK No.:	Value 5732888
Norwegian NRF no.:	9044222
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Parts list TP 65-90/4, Product No. On request Valid from 1.1.2011 (1152)

Po	s Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Nut				1	pcs
66	Washer				1	
668	a Spring lock washer				1	
67	Nut		Thread: M14		1	
-	Motor stool cpl.				1	pcs
1a	Motor stool				1	
7	Coupling guard				2	
9	Hex socket head cap screw		Length (mm): 30		4	
			Thread: M10			
778	a Pan head screw				4	
-	Pump housing cpl.				1	pcs
6	Pump housing				1	
36	Nut		Thread: M10		6	
-	Shaft seal cpl.				1	pcs
728	a O-ring		Diameter: 177,39		1	
			Material type: EPDM			
			Thickness: 3,53			
10	5 Shaft seal		Material type: BAQE		1	
-	Stub shaft				1	pcs
9	Socket set screw		Length (mm): 6		2	
			Thread: M6			
11	,		Dimension: 6X6X35		1	
51	Pump shaft				1	
19	Plug				2	pcs
49	Impeller				1	pcs

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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