

TP 65-460/2-A-F-A-BAQE 400D 50HZ

Grundfos pump 96087506



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https://www.lenntech.com/grundfos/TP000/96087506/TP-65-460-2-A-F-A-BAQE.html

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Position | Qty. | Description

1

TP 65-460/2 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).

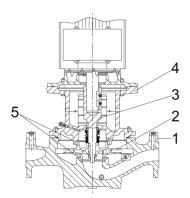
The pump is fitted with a fan-cooled asynchronous motor.

Further product details 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)

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.

Position | Qty. | Description

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.

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.

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: 56.9 m³/h
Rated head: 40.3 m
Actual impeller diameter: 185 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

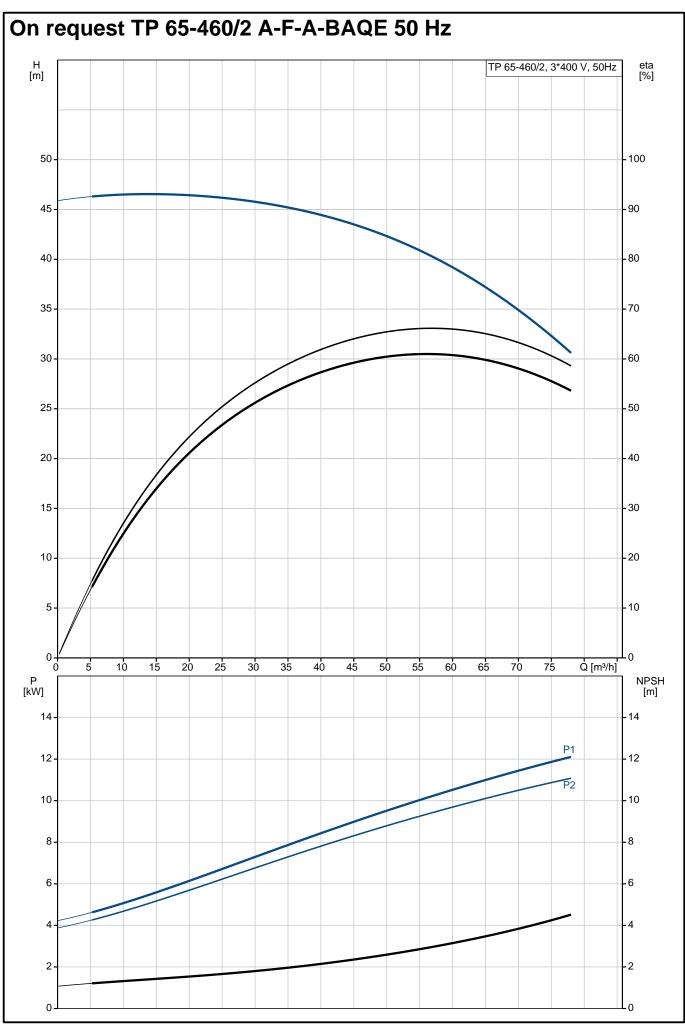
Installation:

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 (@): 475 mm Flange size for motor: FF300

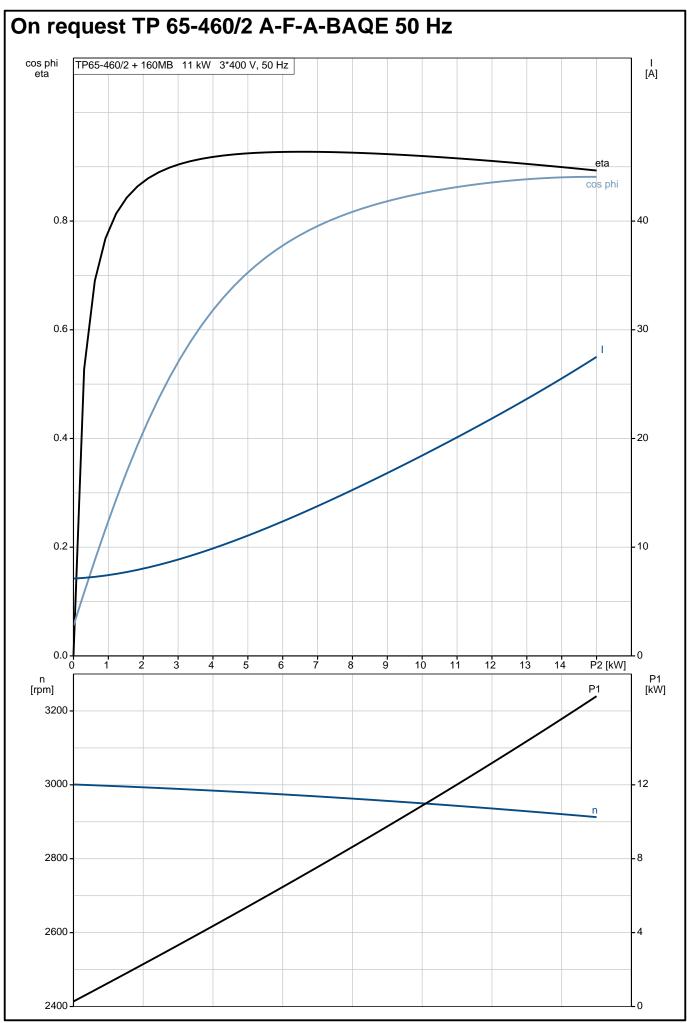
Electrical data:

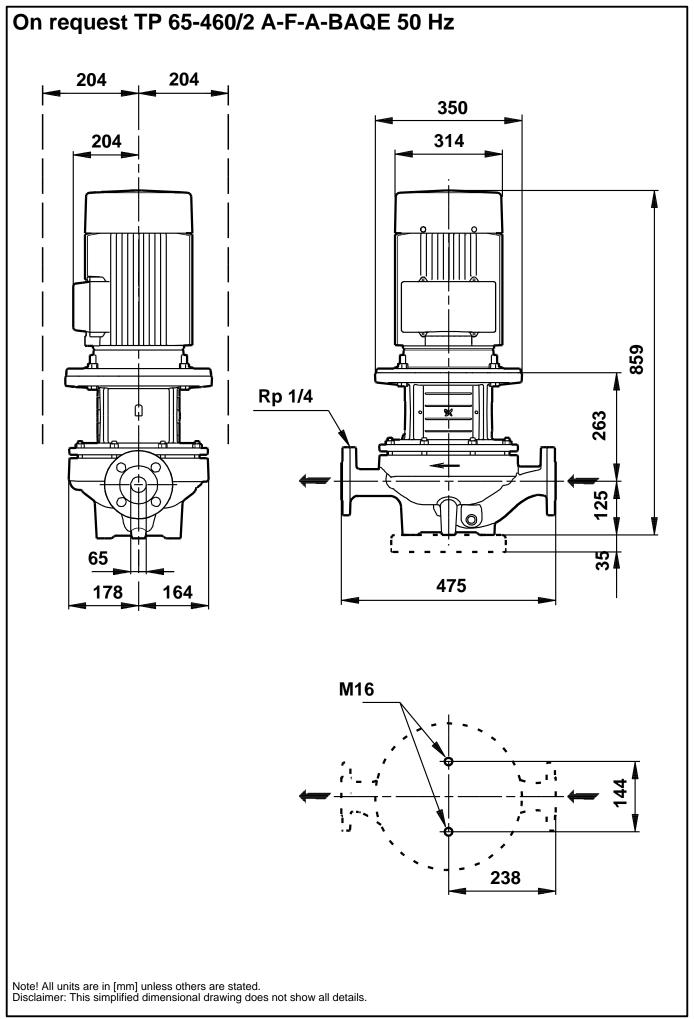
Motor type: 160MB IE Efficiency class: IE3

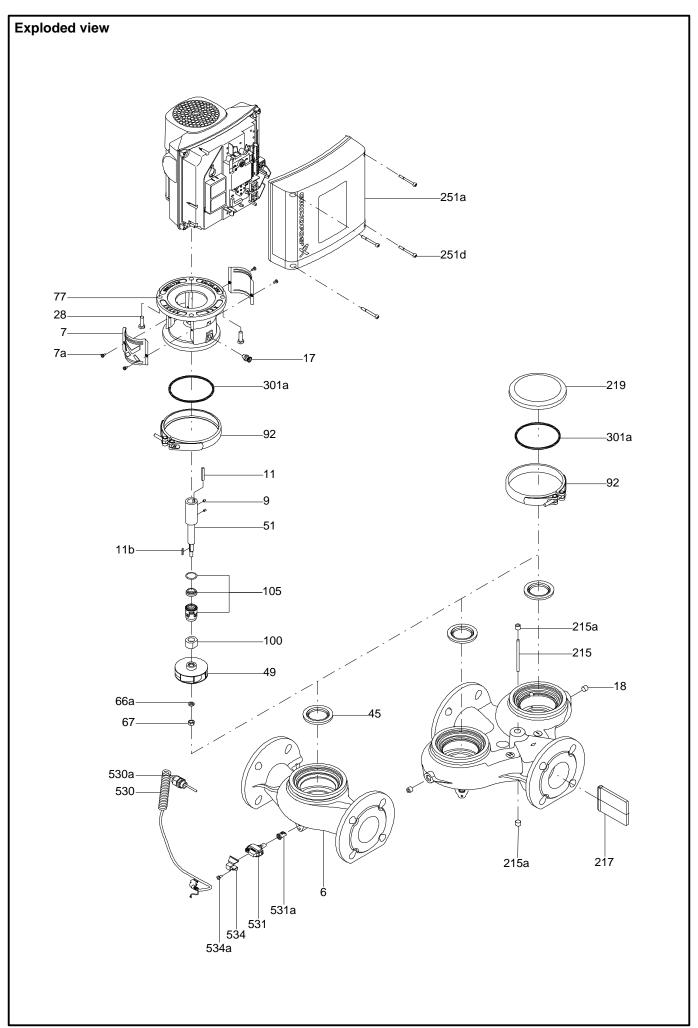
Position	Qtv.	Description	
	4.7.	Rated power - P2:	11 kW
		Power (P2) required by pump:	
		Mains frequency:	50 Hz
		Rated voltage:	3 x 380-415D/660-690Y V
		Rated current:	20,8-19,8/12,0-11,8 A
		Starting current: Cos phi - power factor:	660-780 % 0.88-0.84
		Rated speed:	2940-2950 rpm
		Efficiency:	IE3 91,2%
		Motor efficiency at full load:	91.2 %
		Motor efficiency at 3/4 load:	91.8 %
		Motor efficiency at 1/2 load: Number of poles:	91.3 % 2
		Enclosure class (IEC 34-5):	55 Dust/Jetting
		Insulation class (IEC 85):	F
		Others: Minimum efficiency index, MEI	. 0.53
		ErP status:	EuP Standalone/Prod.
		Net weight:	153 kg
		Gross weight:	182 kg
		Shipping volume:	1.12 m³
		Danish VVS No.:	382763461
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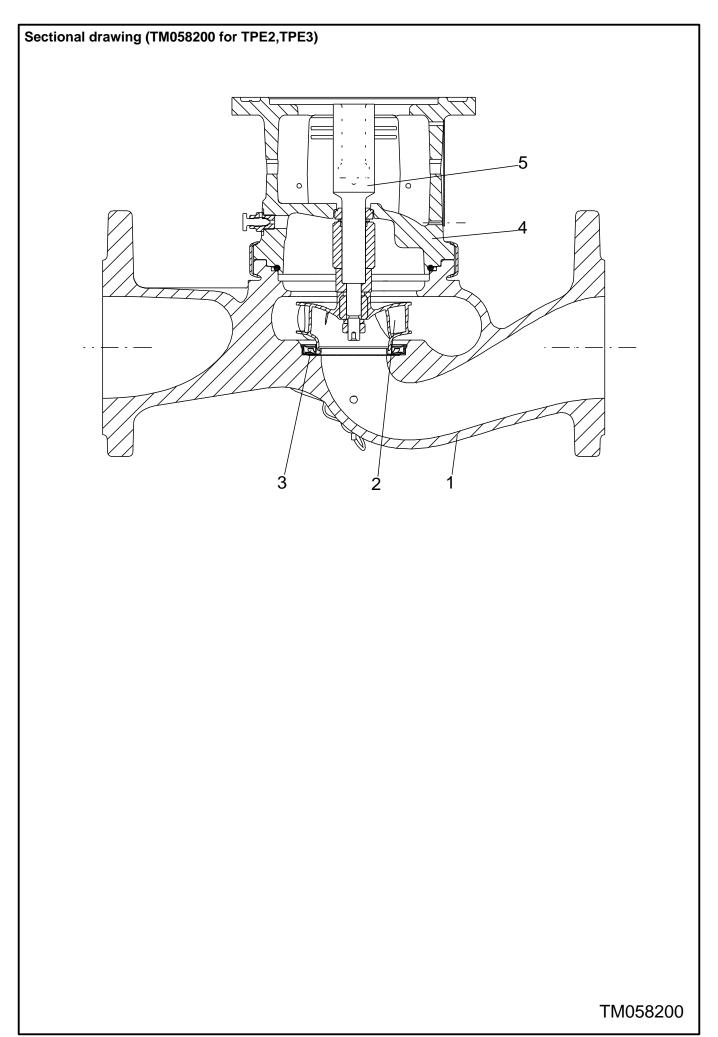


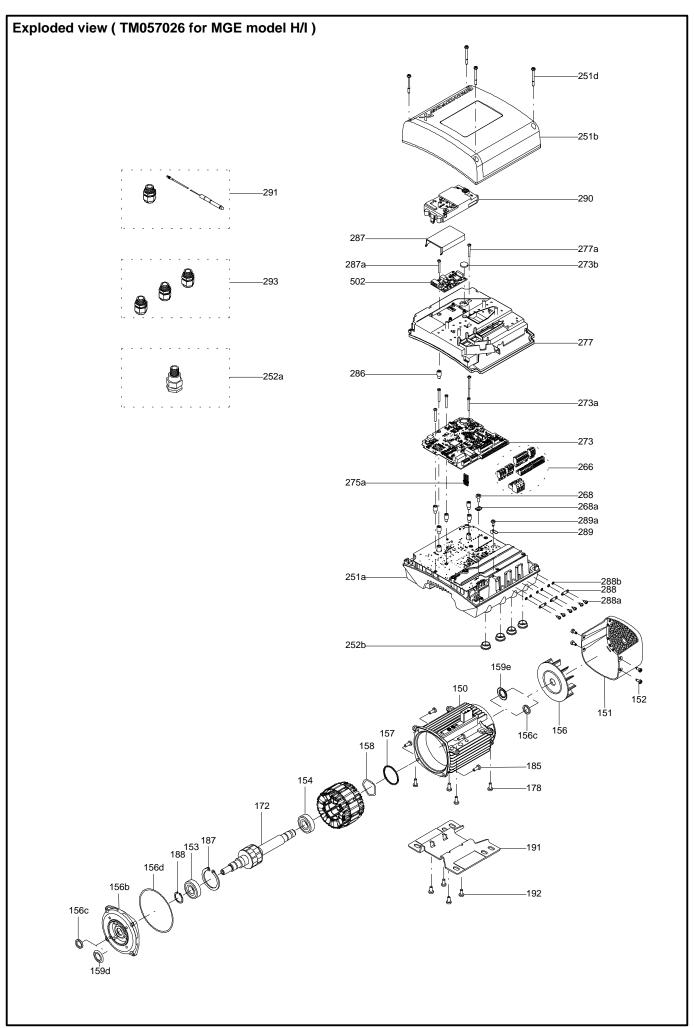
Description	Value	H [m] TP 65-460/2, 3*400 V, 50Hz eta [%]
General information:		_
Product name:	TP 65-460/2 A-F-A-BAQE	50 - 100
Product No:	On request	
EAN number:	On request	45 - 90
Technical:		
Rated flow:	56.9 m³/h	40 - 80
Rated head:	40.3 m	35 70
Head max:	460 dm	
Actual impeller diameter:	185 mm	30 60
Primary shaft seal:	BAQE	
Curve tolerance:	ISO9906:2012 3B	25 - 50
Pump version:	A	20 - 40
Model:	Α	
Materials:		15 - 30
Pump housing:	Cast iron	
	EN-JL1040	10 - 20
	ASTM A48-40 B	5 - 10
Impeller:	Cast iron	3]/
	EN-JL1030	0 /
	ASTM A48-30 B	0 10 20 30 40 50 60 70 Q [m³/h]
Material code:	A	[kW] NPSH [m]
Installation:		P1
Range of ambient temperature:	-30 60 °C	12 - 12
Maximum operating pressure:	16 bar	10 P2 10
Flange standard:	DIN	8
Pipe connection:	DN 65	°
Pump inlet:	DN 65	6
Pump outlet:	DN 65	4
Pressure rating:	PN 16	2
(@)	475 mm	
Flange size for motor:	FF300	01 0
Connect code:	F	204 - 204
Liquid:		350
Pumped liquid:	Water	
Liquid temperature range:	0 120 °C	
Liquid temperature during operation:	20 °C	╸╎┝╃╢╢║╏╎ ╶╶┈╎┟╨ ╨┸┧│
Density:	998.2 kg/m³	
Electrical data:		Rp 1/4
Motor type:	160MB	
IE Efficiency class:	IE3	
Rated power - P2:	11 kW	
Power (P2) required by pump:	11 kW	178 164 475
Mains frequency:	50 Hz	
Rated voltage:	3 x 380-415D/660-690Y V	M1 <u>6</u>
Rated current:	20,8-19,8/12,0-11,8 A	
Starting current:	660-780 %	$\leftarrow \frac{100}{604} - \sqrt{1 - \frac{604}{100}} \leftarrow \frac{2}{4}$
Cos phi - power factor:	0.88-0.84	
Rated speed:	2940-2950 rpm	238
Efficiency:	IE3 91,2%	
Motor efficiency at full load:	91.2 %	<u> </u>
Motor efficiency at 3/4 load:	91.8 %	
Motor efficiency at 1/2 load:	91.3 %	
Number of poles:	2	
Enclosure class (IEC 34-5):	55 Dust/Jetting	
Insulation class (IEC 85):	F	
Motor protec:	PTC	TO AMPLIFIER
Motor No:	87420021	- RELAY L1 L2 L3
Others:	J. 120021	EB THE COOKING COOKING
Minimum efficiency index, MEI :	0.53	TO DAY
ErP status:	EuP Standalone/Prod.	- β_{τ} β
		A MANUAL
Net weight:	153 kg	
Gross weight: Shipping volume:	182 kg	TO WHO REE
>pipping volume.	1.12 m ³	TO AMPLIFIER
Danish VVS No.:	382763461	RELAY L1 L2 L3











Parts list TP 65-460/2, Product No. On request Valid from 1.1.2011 (1152)

P	os		Annotation	Données de classification	Référence	Quantité	Unité
+		Motor				1	pcs
-		Nut				1	pcs
6	6	Washer				1	
6	6a	Spring lock washer				1	
6	67	Nut		Thread: M14		1	
	Motor stool cpl.				1	pcs	
2		Motor stool				1	
7	•	Coupling guard				2	
7a -	Pan head screw				4		
	Pump housing cpl.				1	pcs	
6	6	Pump housing				1	
3	86	Nut		Thread: M10		10	
-		Kit, Base plate				1	pcs
	28g	Hex head screw				2	
5	56	Base plate				1	
-		Shaft seal cpl.				1	pcs
7	72a	O-ring		Diameter: 253,6		1	
			Material type: EPDM				
			Thickness: 3,53				
105	Shaft seal		Material type: BAQE		1		
	Stub shaft				1	pcs	
9)	Socket set screw		Length (mm): 6		2	
				Thread: M8			
	1	Parallel key		Dimension: 6X6X35		1	
5	51	Pump shaft				1	
-		Base plate cpl.				1	pcs
2	28g	Hex head cap screw		Length (mm): 30 MM		2	
				Thread: M16			
	6	Base plate				1	
	9	Plug				2	pcs
4	9	Impeller		Outer diameter: 185		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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