

TPD 100-60/4-AI-F-A-BUBE 400Y 50HZ

Grundfos pump 96402666



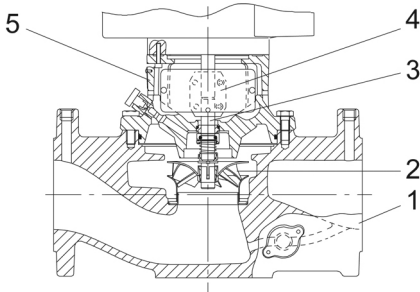
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<https://www.lenntech.com/grundfos/TPD00/96402666/TPD-100-60-4-AI-F-A-BUBE.html>

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Position	Qty.	Description
	1	TPD 100-60/4 AI-F-A-BUBE  Product No.: On request 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. 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. Each power head is fitted with an unbalanced rubber bellows seal. The shaft seal is according to EN 12756. Pipework connection is via PN 6 DIN flanges (EN 1092-2 and ISO 7005-2). Each power head is fitted with a fan-cooled asynchronous motor of identical size. 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: Shaft 4: Coupling 5: Pump head The twin-head pump is designed with two parallel power-heads. A 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. The pump housing is provided with a replaceable stainless steel/PTFE neck ring to reduce the amount of liquid running from the discharge side of the impeller to the suction side. The impeller is secured with a split cone with 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: tungsten carbide (WC) • Stationary seat material: carbon graphite, resin-impregnated

This is a widely used material pairing. If the pumped liquid contains particles, wear on the seal faces must be expected. 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 reduces seal life.

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 two Rp 1/8 tappings 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 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. Motor and pump shaft are connected via a shell coupling.

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 tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (Code II).

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

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 .. 140 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m ³

Technical:

Rated flow:	63 m ³ /h
Rated head:	5.04 m
Actual impeller diameter:	144 mm
Primary shaft seal:	BUBE
Curve tolerance:	ISO9906:2012 3B

Materials:

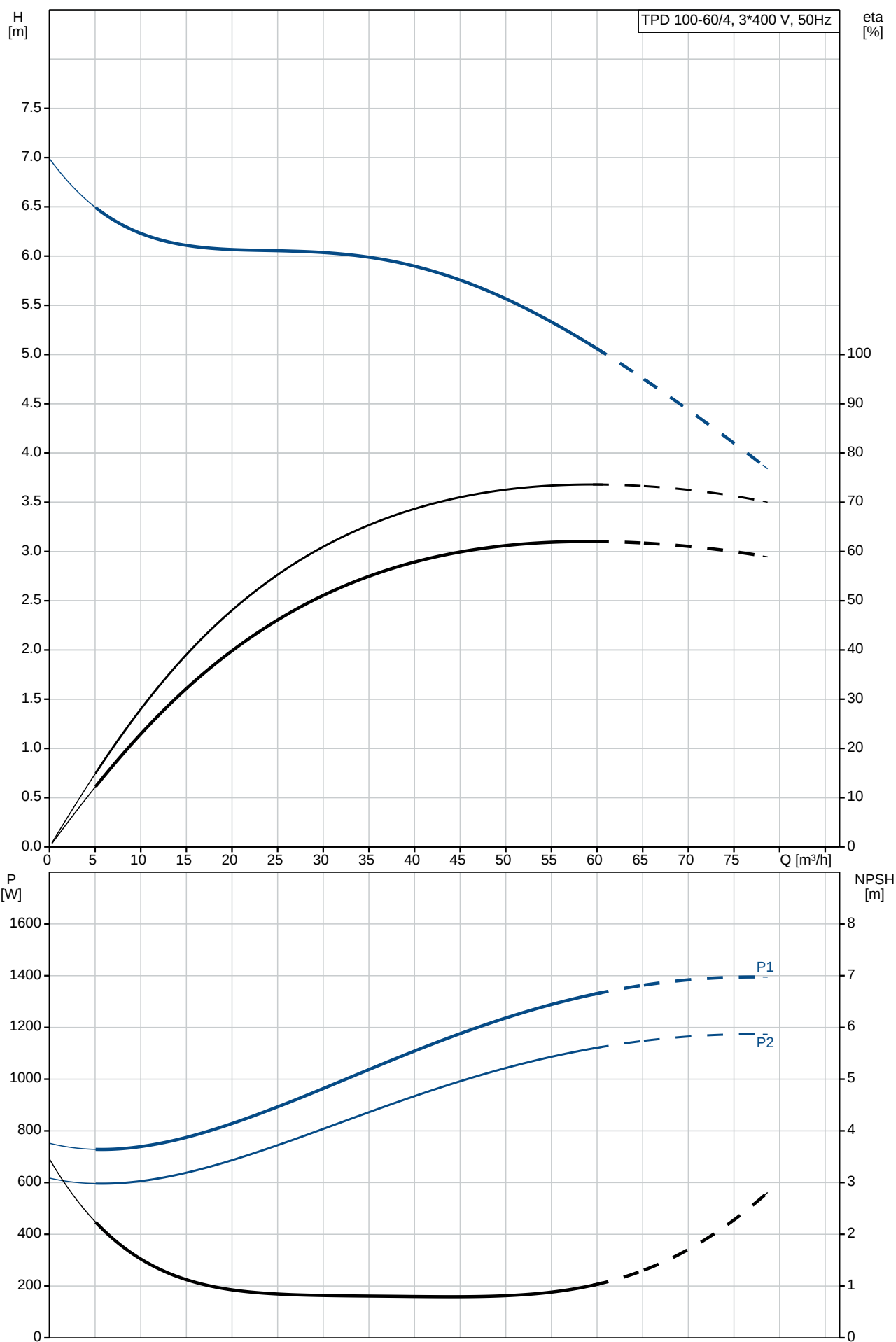
Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Stainless steel DIN W.-Nr. 1.4301 AISI 304

Installation:

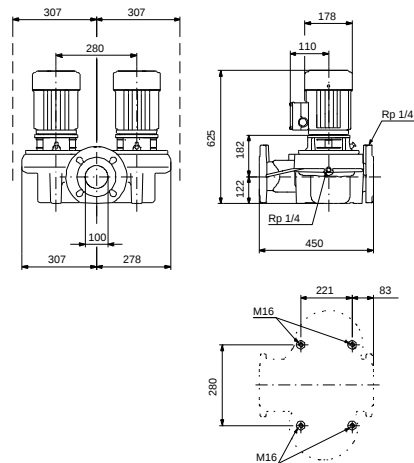
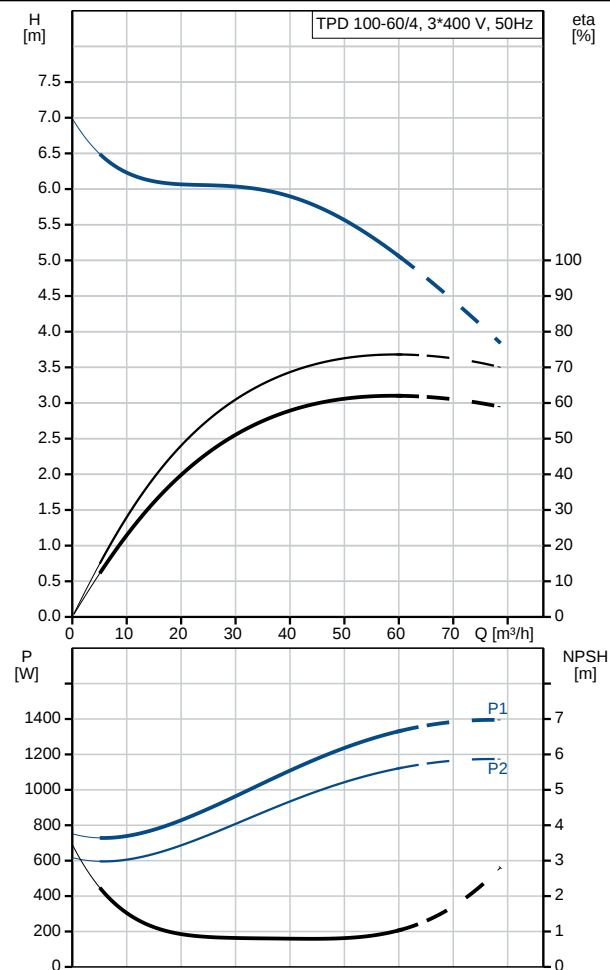
Range of ambient temperature: -30 .. 60 °C

Position	Qty.	Description
		Maximum operating pressure: 6 bar Flange standard: DIN Pipe connection: DN 100 Pump inlet: DN 100 Pump outlet: DN 100 Pressure rating: PN 6 (@): 450 mm Flange size for motor: FT115 Electrical data: Motor type: 90SB IE Efficiency class: IE3 Rated power - P2: 2 x 1.1 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-415Y V Rated current: 4.85/2.80 A Starting current: 820-900 % Cos phi - power factor: 0.71-0.64 Rated speed: 1450-1460 rpm Efficiency: IE3 84,1% Motor efficiency at full load: 84.1 % Motor efficiency at 3/4 load: 84.6 % Motor efficiency at 1/2 load: 82.9 % Number of poles: 4 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Others: Minimum efficiency index, MEI $\geq$ 0.70 ErP status: EuP Standalone/Prod. Net weight: 119 kg Gross weight: 138 kg Shipping volume: 0.46 m³

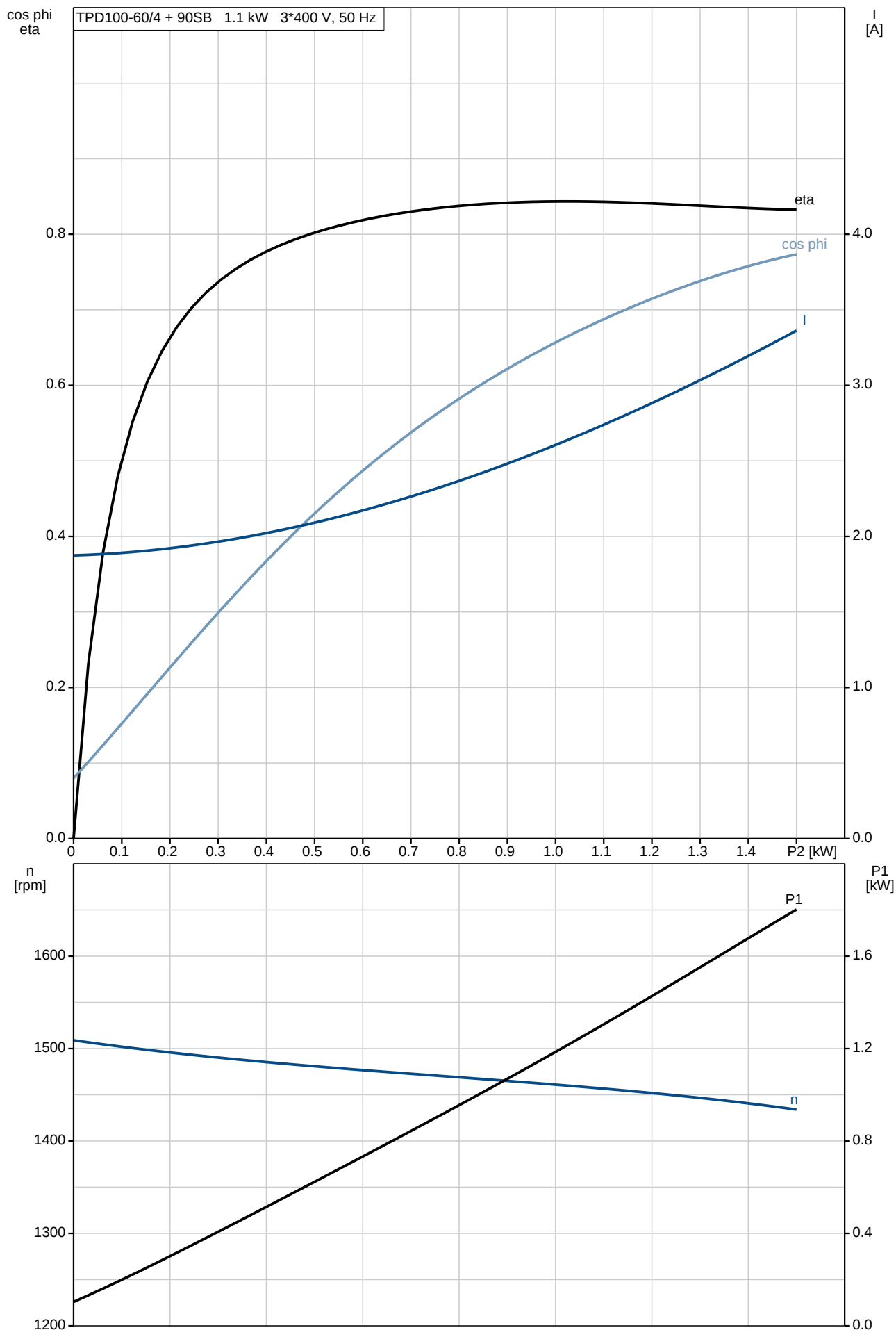
On request TPD 100-60/4 AI-F-A-BUBE 50 Hz



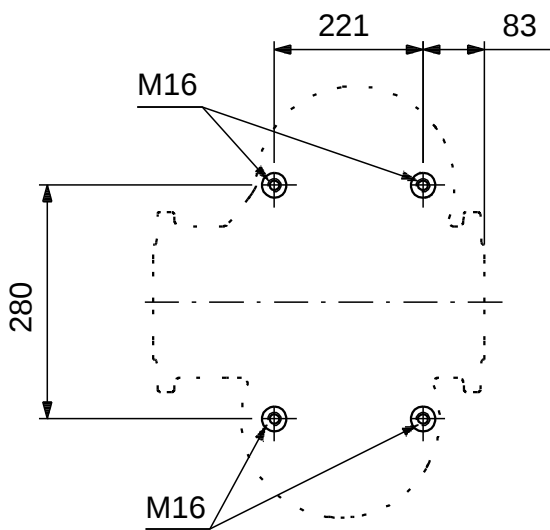
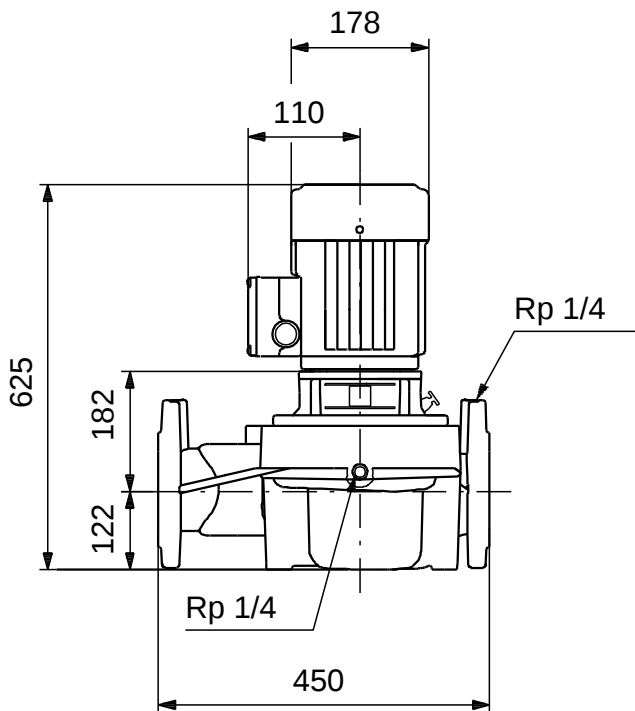
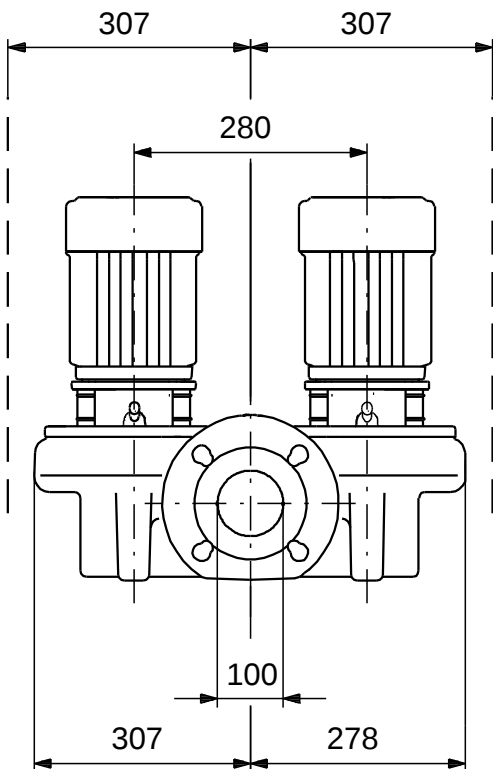
Description	Value
General information:	
Product name:	TPD 100-60/4 AI-F-A-BUBE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	63 m³/h
Rated head:	5.04 m
Head max:	60 dm
Actual impeller diameter:	144 mm
Primary shaft seal:	BUBE
Curve tolerance:	ISO9906:2012 3B
Pump version:	AI
Model:	A
Materials:	
Pump housing:	Cast iron EN-JL1040 ASTM A48-40 B
Impeller:	Stainless steel DIN W.-Nr. 1.4301 AISI 304
Material code:	A
Installation:	
Range of ambient temperature:	-30 .. 60 °C
Maximum operating pressure:	6 bar
Flange standard:	DIN
Pipe connection:	DN 100
Pump inlet:	DN 100
Pump outlet:	DN 100
Pressure rating:	PN 6
(@)	450 mm
Flange size for motor:	FT115
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 140 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	90SB
IE Efficiency class:	IE3
Rated power - P2:	2 x 1.1 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	4.85/2.80 A
Starting current:	820-900 %
Cos phi - power factor:	0.71-0.64
Rated speed:	1450-1460 rpm
Efficiency:	IE3 84,1%
Motor efficiency at full load:	84.1 %
Motor efficiency at 3/4 load:	84.6 %
Motor efficiency at 1/2 load:	82.9 %
Number of poles:	4
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTO
Motor No:	86U05905
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	119 kg
Gross weight:	138 kg
Shipping volume:	0.46 m³
Sales region:	GB



On request TPD 100-60/4 AI-F-A-BUBE 50 Hz



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

Exploded view



Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list TPD 100-60/4, Product No. On request
Valid from 1.1.2011 (1152)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				2	pcs
-	Coupling cpl.				2	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M8			
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
10a	Coupling half				2	
-	Motor stool cpl.				2	pcs
2	Motor stool				1	
26	Hex head screw		Length (mm): 25		8	
			Thread: M10			
28	Hex head screw		Length (mm): 20		4	
			Thread: M8			
-	Coupling guard cpl.				2	pcs
7	Coupling guard				2	
7a	Pan head screw				4	
-	Shaft w/impeller cpl.				2	pcs
49	Impeller				1	
49b	Split cone				1	
49b	Split cone nut				1	
51	Shaft				1	
-	Pump housing cpl.				1	pcs
-	Pump housing cpl.				1	
-	Pump housing				1	
+	Motor					
-	Base cpl.					
6	Base					
56	Base plate					
201.a	Flange					
203	Lock ring					
-	Sealing parts					
-	25	Drain plug w/bypass valve				
38	O-ring		Diameter: 16,3			
			Material type: EPDM			
			Thickness: 2,4			
37	O-ring					
100	O-ring		Diameter: 16,3			
			Material type: EPDM			
			Thickness: 2,4			
-	2	Pump head cpl.				
2	Pump head					
7	Coupling guard					
7.a	Combi Slot Torx screw					
-	18	Air vent screw				
	Plug					
	Spindle					
23a	Plug					
28	Hex head screw		Length (mm): 25			
			Thread: M8			
60	Formed wire spring					
77	Pump cover					
-	3	Chamber				
	Chamber					
	Seal ring					
45	Seal ring					
65	Neck ring retainer					
-	4	Chamber cpl.				
	Chamber					

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
45	Neck ring					
65	Neck ring retainer					
- 4a	Chamber w. bearing cpl.					
	Chamber					
45	Neck ring					
65	Neck ring retainer					
- 8	Coupling cpl.					
9	Hex socket head cap screw		Designation: DIN 912			
			Length (mm): 25			
			Thread: M8			
10	Shaft pin		Diameter: 5			
			Length (mm): 26			
10a	Coupling half					
26	Staybolt		Length (mm): 799			
			Thread: M12			
36	Nut		Thread: M12			
36	Lock nut		Thread: M8			
47a	Bearing ring, rotating					
+ 49	Impeller cpl.					
49	Impeller cpl.					
- 50a	Guide vane					
	Guide vane					
	Plate					
50b	Top plate					
51	Shaft, spline, cpl.					
55	Outer sleeve					
64a	Spacing pipe		Internal diameter: 12,7			
			Outer diameter: 15,0			
			Length (mm): 7,3			
64a	Spacing pipe		Length (mm): 13,00			
64c	Clamp, splined		Internal diameter: 8,5			
			Outer diameter: 15			
66	Wedge lock washer					
66a	Washer		Designation: DIN 125 A2			
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
69	Spacing pipe		Length (mm): 26,0			
69	Spacing pipe		Length (mm): 2,00			
69a	Spacing pipe		Internal diameter: 12,7			
			Outer diameter: 15,0			
			Length (mm): 10,0			
- 105	Shaft seal		Material type: HUBE			
	O-ring					
	O-ring					
	Seal driver, upper					
	Seal driver, lower					
	Spacer ring					
	Pipe					
	Plug					
	Plug					
	Compression spring					
	Socket set screw					
102	O-ring		Diameter: 22,00			
			Material type: EPDM			
			Thickness: 2,75			
103	Seal ring, stationary					
105	Seal ring, rotating					
107	O-ring					
113	Driver					
45	Neck ring				2	
215	Guide pin				1	
217	Valve flap				1	
18	Air vent screw		Thread: 1/4"		2	pcs

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
19	Plug				6	pcs
72a	O-ring		Diameter: 154		2	pcs
			Material type: EPDM			
			Thickness: 4			
105	Shaft seal		Material type: EPDM		2	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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