

TP 250-270/4 A-F-A-DBUE 3x400D/690Y 50Hz

Grundfos pump 96162116



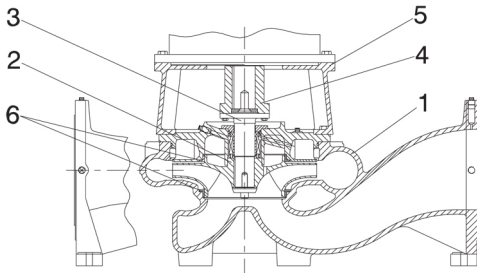
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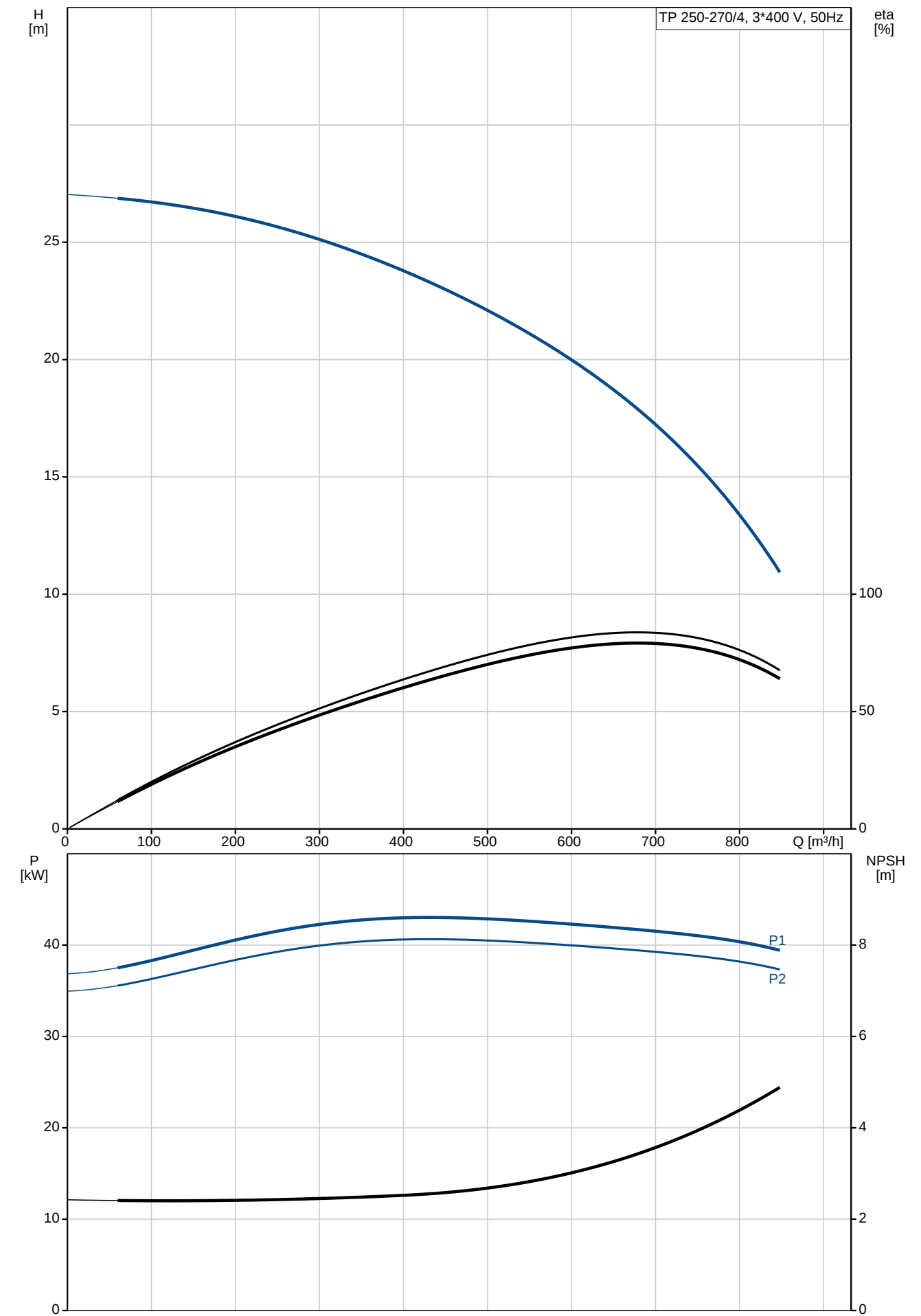
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Position	Qty.	Description
	1	TP 250-270/4 A-F-A-DBUE  Product No.: On request Single-stage, close-coupled, volute pump with in-line suction and discharge ports. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) 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. 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: Pump shaft 4: Coupling 5: Motor stool 6: 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. Primary seal: • Rotating seal ring material: carbon graphite, resin-impregnated • Stationary seat material: tungsten carbide (WC) 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.

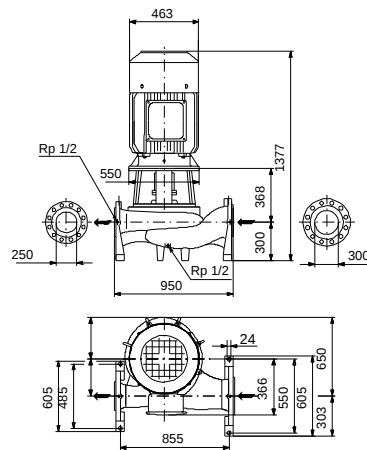
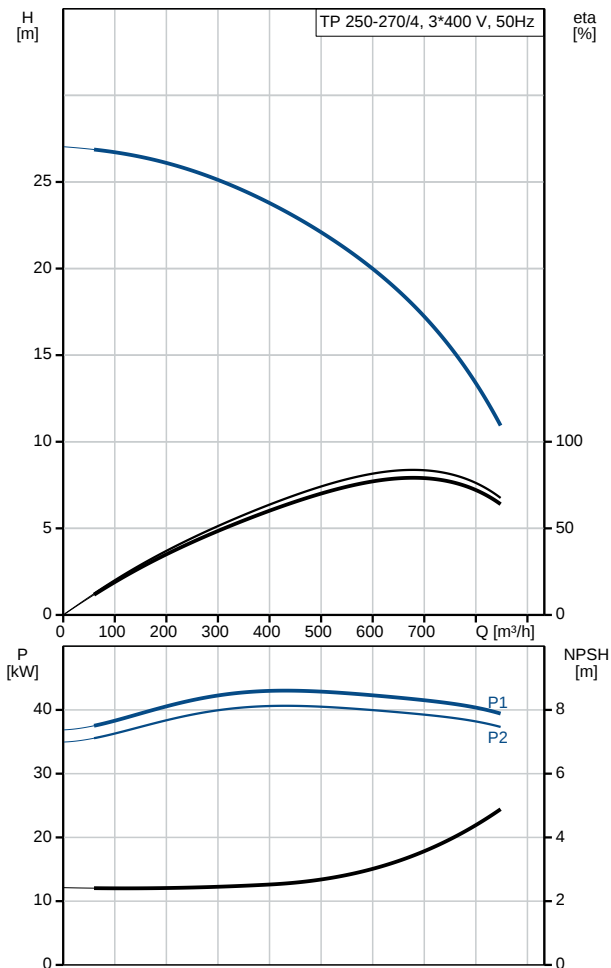
Position	Qty.	Description
		The flanges have tappings for mounting of pressure gauges. The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and 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. A variable speed drive makes adjustment of pump performance to any duty point possible. If the motor is to be connected to a variable speed drive, the pump must be ordered with an electrically insulated motor bearing. Technical data Liquid: Pumped liquid: Water Liquid temperature range: 0 .. 150 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Rated flow: 700 m³/h Rated head: 17 m Actual impeller diameter: 310/302 mm Primary shaft seal: DBUE Curve tolerance: ISO9906:2012 3B Materials: Pump housing: Ductile cast iron EN-JS1020 ASTM A 395 Impeller: Ductile cast iron EN-JS1030 ASTM A 536 60-40-18 Installation: Range of ambient temperature: -20 .. 55 °C Maximum operating pressure: 25 bar Flange standard: DIN Pipe connection: DN 300 / DN 250 Pump inlet: DN 300 Pump outlet: DN 250 Pressure rating: PN 25 (@): 950 mm Flange size for motor: FF400 Electrical data: Motor type: SIEMENS IE Efficiency class: IE3

Position	Qty.	Description
		Rated power - P2: 45 kW Power (P2) required by pump: 45 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 83,0-77,0/48,0-44,5 A Starting current: 640-640 % Cos phi - power factor: 0.86 Rated speed: 1480 rpm Efficiency: IE3 94,2% Motor efficiency at full load: 94.2-94.2 % Motor efficiency at 3/4 load: 94.9-94.9 % Motor efficiency at 1/2 load: 95.1-95.1 % Number of poles: 4 Enclosure class (IEC 34-5): 55 (Protect. water jets/dust) Insulation class (IEC 85): F Others: Net weight: 780 kg Gross weight: 965 kg Shipping volume: 3.14 m³

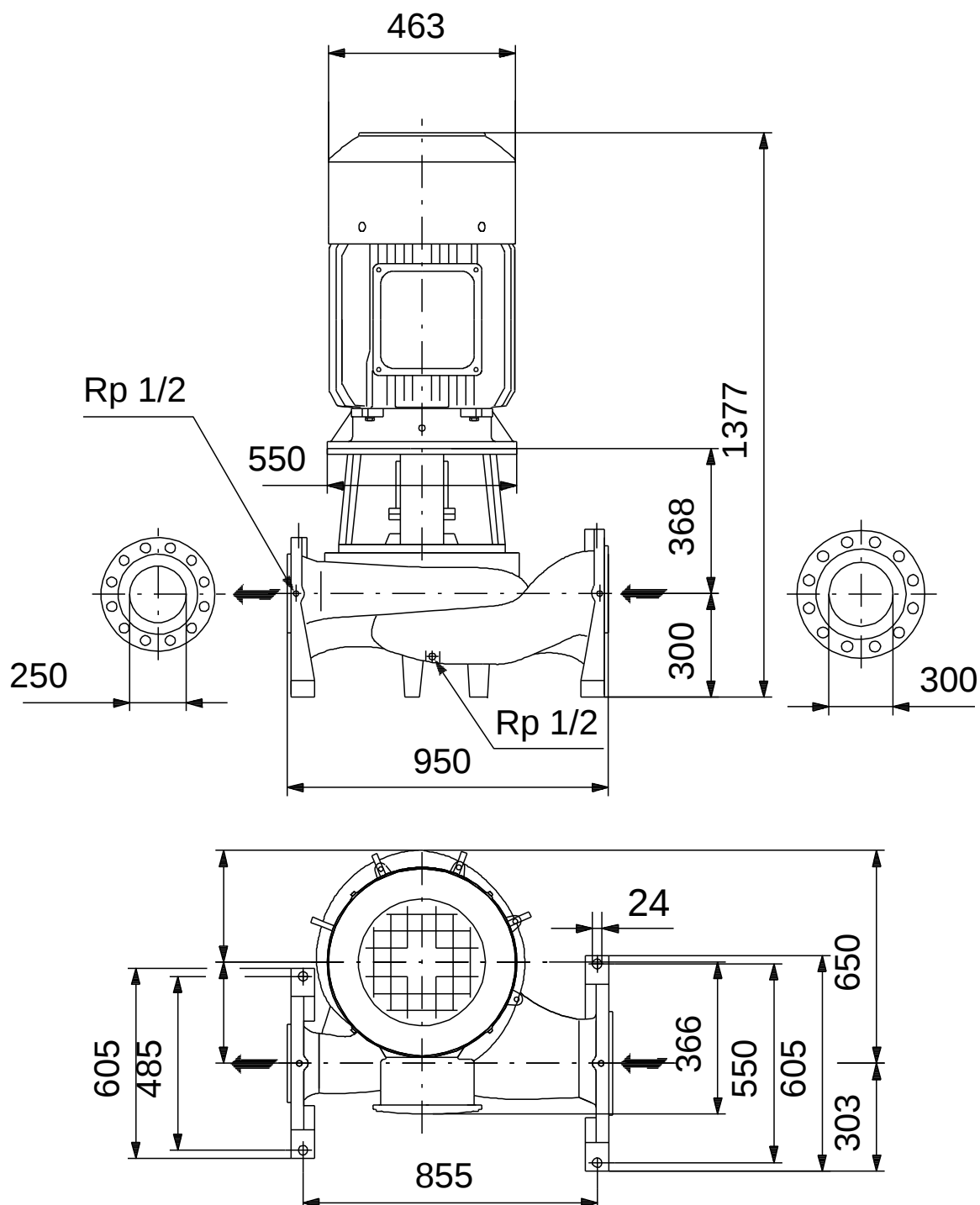
On request TP 250-270/4 A-F-A-DBUE 50 Hz



Description	Value
General information:	
Product name:	TP 250-270/4 A-F-A-DBUE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	700 m³/h
Rated head:	17 m
Head max:	270 dm
Actual impeller diameter:	310/302 mm
Primary shaft seal:	DBUE
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Ductile cast iron
	EN-JS1020
	ASTM A 395
Impeller:	Ductile cast iron
	EN-JS1030
	ASTM A 536 60-40-18
Material code:	A
Installation:	
Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	25 bar
Flange standard:	DIN
Pipe connection:	DN 300 / DN 250
Pump inlet:	DN 300
Pump outlet:	DN 250
Pressure rating:	PN 25
(@)	950 mm
Flange size for motor:	FF400
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 150 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	45 kW
Power (P2) required by pump:	45 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	83,0-77,0/48,0-44,5 A
Starting current:	640-640 %
Cos phi - power factor:	0.86
Rated speed:	1480 rpm
Efficiency:	IE3 94,2%
Motor efficiency at full load:	94.2-94.2 %
Motor efficiency at 3/4 load:	94.9-94.9 %
Motor efficiency at 1/2 load:	95.1-95.1 %
Number of poles:	4
Enclosure class (IEC 34-5):	55 (Protect. water jets/dust)
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	83V15236
Others:	
Net weight:	780 kg
Gross weight:	965 kg
Shipping volume:	3.14 m³



On request TP 250-270/4 A-F-A-DBUE 50 Hz



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 TP 250-270/4, Product No. On request
Valid from 1.1.2006 (0652)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Coupling cpl.				1	pcs
8a	Coupling half				1	
9	Socket set screw		Length (mm): 12		2	
			Thread: M8			
13	Hex socket countersunk screw		Length (mm): 30		1	
			Thread: M12			
14	Washer		Internal diameter: 13		1	
			Outer diameter: 79			
			Thickness: 10			
23	Hex head screw		Length (mm): 35MM		6	
			Thread: M10			
-	Cover cpl.				1	pcs
17	Air vent screw				1	
24	Cross recess countersunk screw				6	
25	Hex head cap screw		Length (mm): 35		4	
			Thread: M8			
45	Wear ring				1	
72a	O-ring		Diameter: 399.3		1	
			Thickness: 5.7			
77	Cover				1	
-	Shaft seal cpl.				1	pcs
	Pin				1	
17	Air vent screw				1	
58	Cover for shaft seal				1	
61	Bush				1	
62	O-ring		Diameter: 59.5		1	
			Thickness: 3			
105	Shaft seal		Material type: DBUE		1	
109	O-ring		Diameter: 129.5		1	
			Thickness: 3			
-	Shaft cpl.				1	pcs
11	Key				1	
51	Pump shaft				1	
68	Hex socket head cap screw				1	
-	2a Motor stool cpl.				1	pcs
2	Motor stool				1	
29	Hex head cap screw		Length (mm): 40		8	
			Thread: M16			
76	Plate				1	
76a	Cross recess countersunk screw				4	
7	Coupling guard				1	pcs
-	49a Impeller cpl.				1	pcs
49	Impeller				1	
66	Washer				1	
-	50 Pump housing cpl.				1	pcs
6	Pump housing				1	
20	Plug				7	
24	Cross recess countersunk screw				6	
26	Hex head bolt				8	
45	Wear ring				1	

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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