NK125-500/546A2F2AE-SGQQE

Grundfos pump 98323933

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https://www.lenntech.com/grundfos/NKBASIS/98323933/NK-125-500-546-A2-F-A-E-GQQE.html

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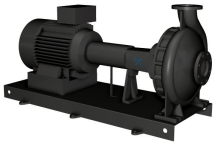
Position	Qty.	Description
	1	**NK 125-500/546 A2-F-A-E-GQQE**



Product No.: On request

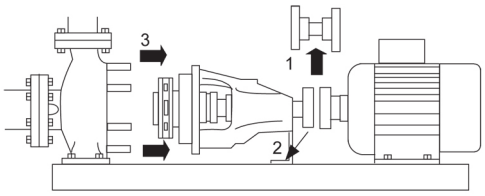
Non-self-priming, single-stage, centrifugal volute pump designed according to ISO 5199 with dimensions and rated performance according to EN 733. Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, a radial discharge port and horizontal shaft. It is of the back pull-out design enabling removal of the coupling, bearing bracket and impeller without disturbing the motor, pump housing or pipework.

The unbalanced rubber bellows shaft seal with reduced seal face is according to DIN EN 12756.
The pump is fitted with a foot-mounted, fan-cooled asynchronous motor. Pump and motor are mounted on a common base frame.

Further product details

Pump and motor are mounted on a common steel base frame in accordance with ISO 3661. The back pull-out design together with a spacer coupling makes it possible to make service on the pump without dismantling the pump housing and motor from the base frame. This saves realignment of pump and motor after service.

1) Remove coupling.
2) Remove the bolts in the bearing bracket support foot.
3) Remove the bearing bracket from the pump housing.



Cast-iron parts have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

1) Alkaline-based cleaning.
2) Zinc phosphating.
3) Cathodic electro-deposition.
4) Curing to a dry film thickness 18-22 my m.

The colour code for the finished product is NCS 9000/RAL 9005.

Pump

The pump housing has both a priming and a drain hole closed by plugs.
The impeller is a closed impeller with double-curved blades with smooth surfaces. The impeller is statically balanced according to ISO 1940-1 class G6.3 and hydraulically balanced to compensate for axial thrust.

Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron.

The shaft seal is an unbalanced rubber bellows seal with reduced seal face. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft. The narrow seal face makes the seal perform well in high-viscosity and anti-freezing liquids.

Primary seal:

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

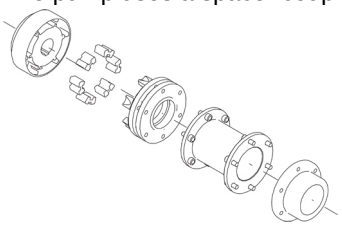
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

The shaft is made of stainless steel and has a diameter of 60 mm where the coupling is mounted.

Position	Qty.	Description

The pump uses a spacer coupling between the pump and motor shaft.



Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards and mounting designation B3 (IM 1001). Electrical tolerances comply with IEC 60034.

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:	-25 .. 60 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³

Technical:

Rated flow:	263 m³/h
Rated head:	40.8 m
Actual impeller diameter:	546 mm
Impeller nom:	500 mm
Primary shaft seal:	GQQE
Secondary shaft seal:	NONE
Curve tolerance:	ISO9906:2012 3B

Materials:

Pump housing:	Cast iron EN-GJL-250 ASTM A48-40 B
Impeller:	Cast iron EN-GJL-200 ASTM A48-30 B
Rubber:	EPDM
Wear ring mat.:	Bronze (CuSn10)

Installation:

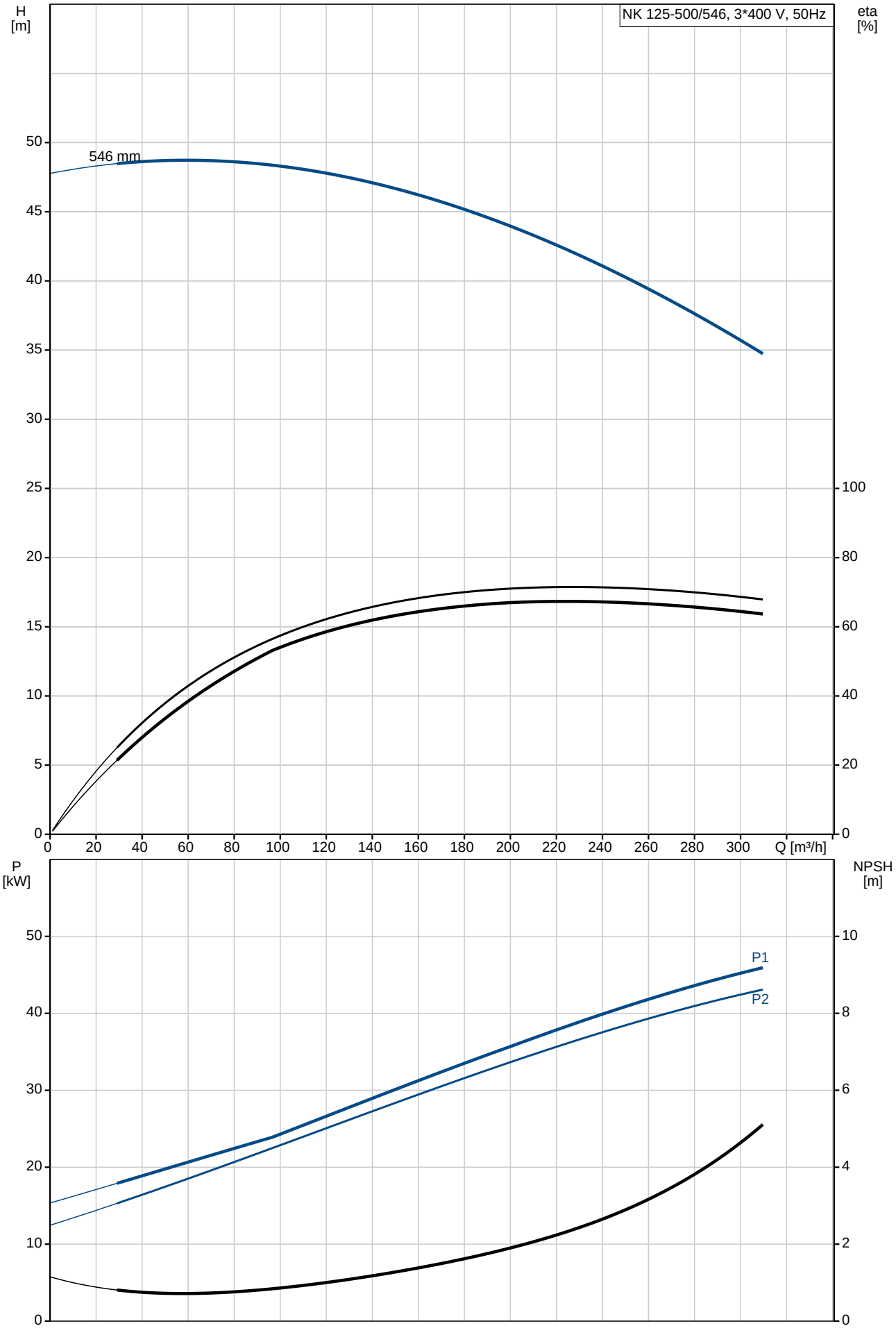
Maximum ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 150
Pump outlet:	DN 125
Pressure rating:	PN 16
Coupling type:	Spacer
Base frame:	EN / ISO

Electrical data:

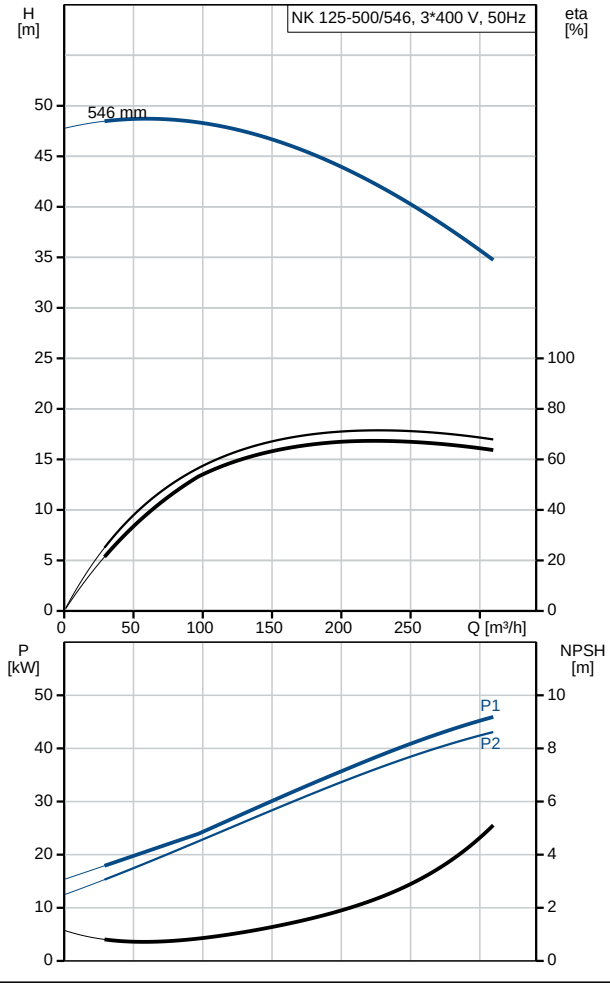
Motor type:	SIEMENS
IE Efficiency class:	IE3

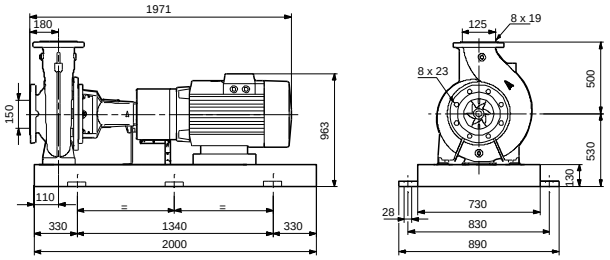
Position	Qty.	Description
		Rated power - P2: 45 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-420D/660-725Y V Rated current: 86,0-79,0/49,5-45,5 A Starting current: 680-680 % Cos phi - power factor: 0.85 Rated speed: 990 rpm Efficiency: IE3 93,7% Motor efficiency at full load: 93.7-93.7 % Motor efficiency at 3/4 load: 94.3-94.3 % Motor efficiency at 1/2 load: 94.1-94.1 % Number of poles: 6 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Lubricant type: Grease **Others:** Minimum efficiency index, MEI ≥: 0.46 ErP status: EuP Standalone/Prod. Net weight: 1280 kg Gross weight: 1380 kg Shipping volume: 3.33 m^3

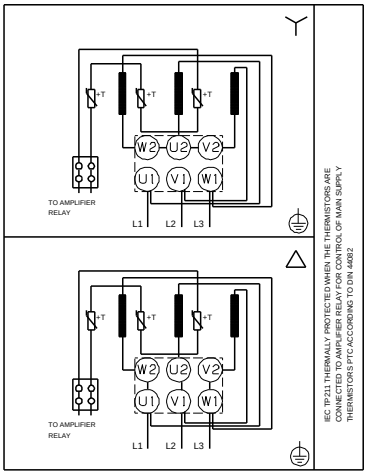
On request NK 125-500/546 A2-F-A-E-GQQE 50 Hz



Description	Value
General information:	
Product name:	NK 125-500/546 A2-F-A-E-GQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	263 m³/h
Rated head:	40.8 m
Actual impeller diameter:	546 mm
Impeller nom:	500 mm
Primary shaft seal:	GQQE
Secondary shaft seal:	NONE
Shaft diameter:	60 mm
Curve tolerance:	ISO9906:2012 3B
Pump version:	A2
Materials:	
Pump housing:	Cast iron
	EN-GJL-250
	ASTM A48-40 B
Impeller:	Cast iron
	EN-GJL-200
	ASTM A48-30 B
Material code:	A
Rubber:	EPDM
Code for rubber:	E
Wear ring mat.:	Bronze (CuSn10)
Installation:	
Maximum ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Flange standard:	EN 1092-2
Pump inlet:	DN 150
Pump outlet:	DN 125
Pressure rating:	PN 16
Coupling type:	Spacer
Wear ring(s):	neckring(s)
Base frame:	EN / ISO
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-25 .. 60 °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
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V
Rated current:	86,0-79,0/49,5-45,5 A
Starting current:	680-680 %
Cos phi - power factor:	0.85
Rated speed:	990 rpm
Efficiency:	IE3 93,7%
Motor efficiency at full load:	93.7-93.7 %
Motor efficiency at 3/4 load:	94.3-94.3 %
Motor efficiency at 1/2 load:	94.1-94.1 %
Number of poles:	6
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	98957468
Lubricant type:	Grease
Others:	
Minimum efficiency index, MEI ≥:	0.46

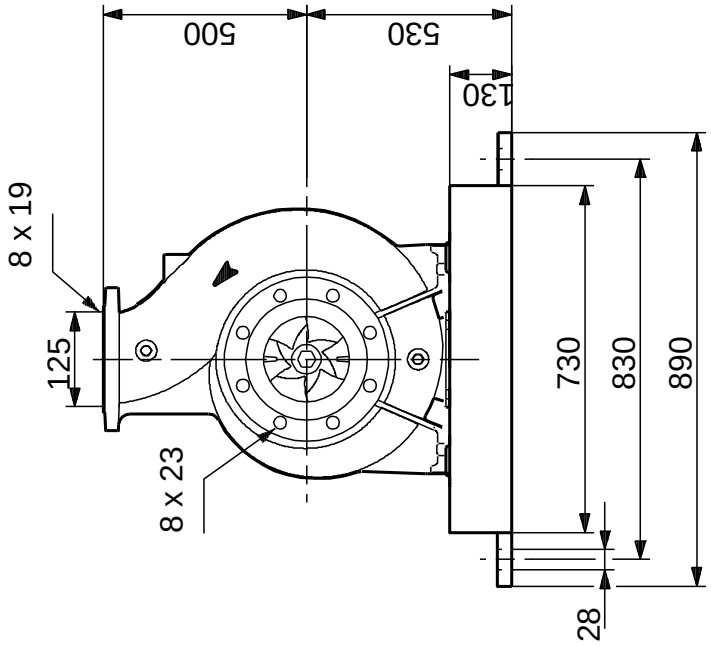


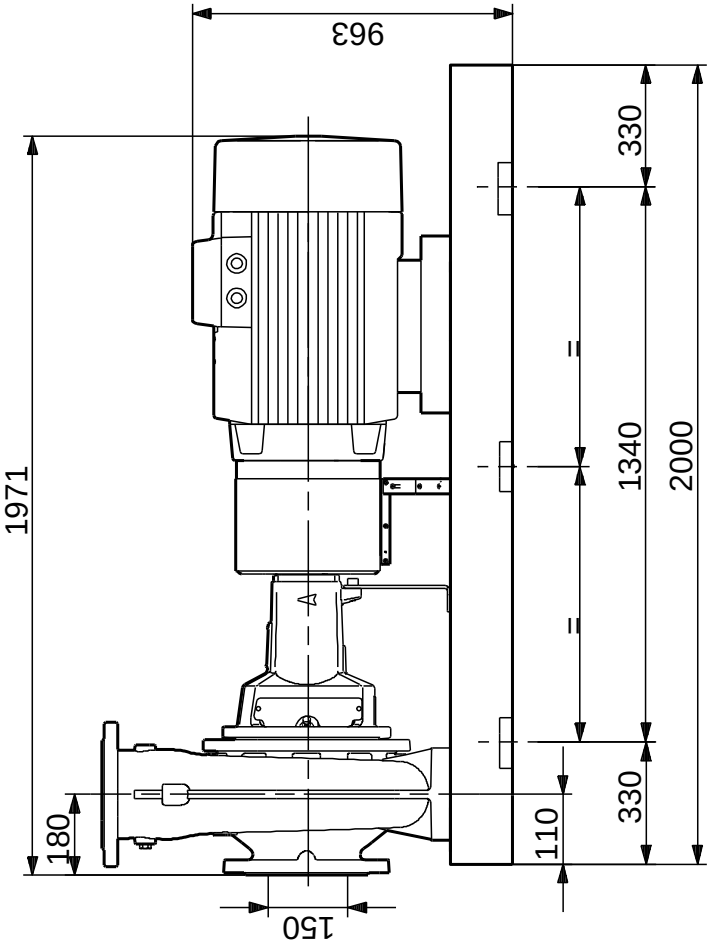




Description	Value
ErP status:	EuP Standalone/Prod.
Net weight:	1280 kg
Gross weight:	1380 kg
Shipping volume:	3.33 m^3

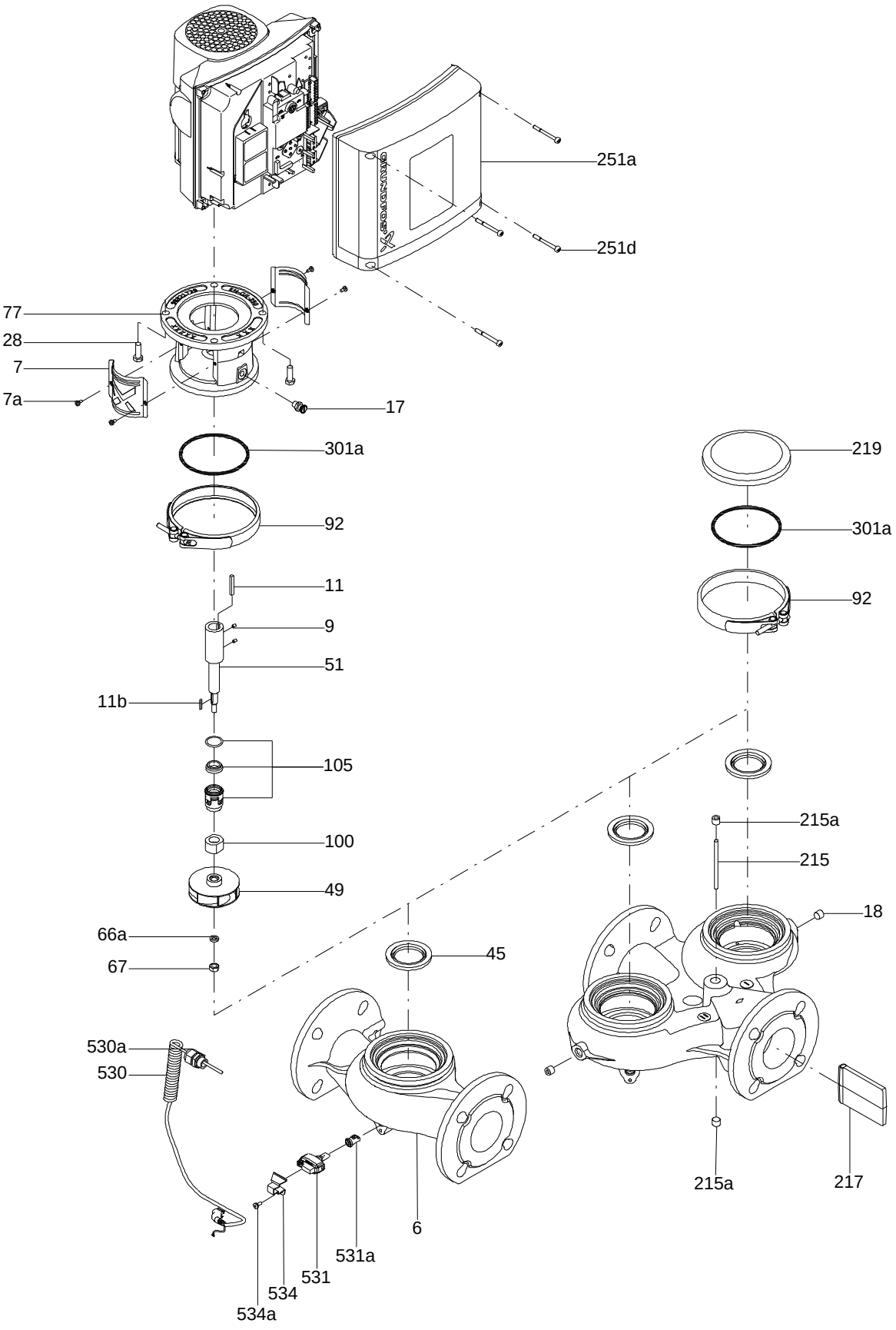
On request NK 125-500/546 A2-F-A-E-GQQE 50 Hz



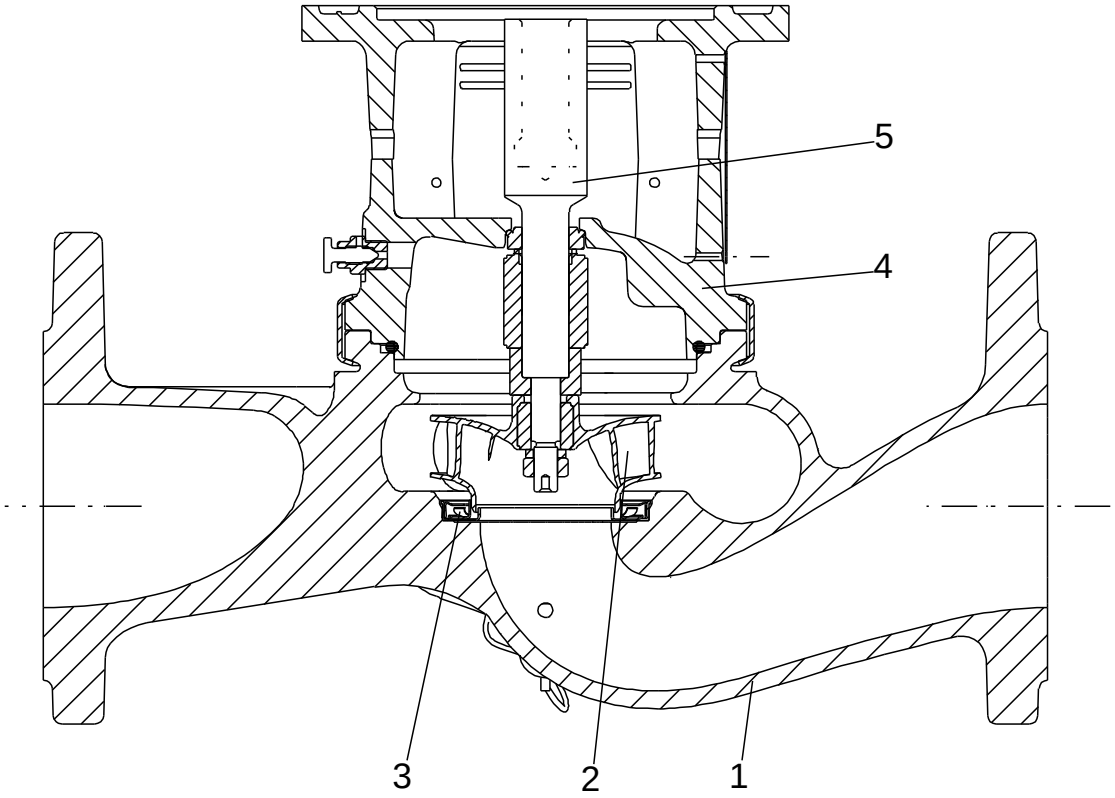


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

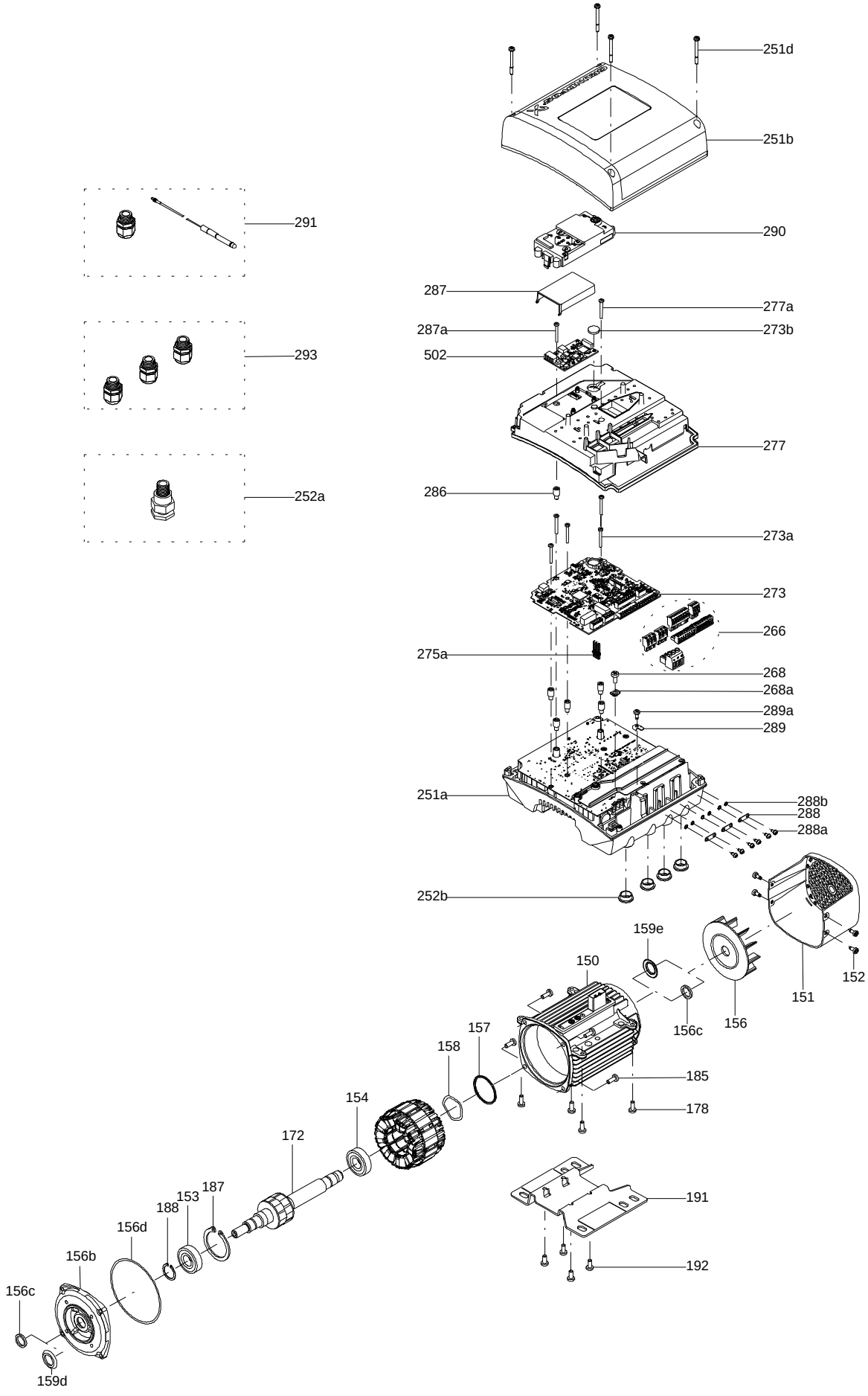


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list NK 125-500/546, Product No. On request
Valid from 1.3.2010 (1009)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+		Motor				1	pcs
-		Coupling cpl.				1	pcs
	89	Rubber blocks for coupling				8	
	89.c	Hex socket head cap screw				8	
	89.c	Socket set screw				1	
	89o	Coupling part spacer side				1	
	89p	Coupling female				1	
	89s	Spacer ring				1	
	89s	Spacer sleeve				1	
-		Nut				1	pcs
	66	Washer				1	
	66a	Spring lock washer				1	
	67	Nut				1	
-		Pump housing cpl.				1	pcs
	6	Pump housing				1	
	36a	Nut		Thread: M16		16	
-	7	Coupling guard cpl.				1	pcs
-	7	Coupling guard cpl.				1	
	7c	Spacer f/coupling guard				1	
	7e	Hex socket head cap screw				3	
	94	Lock nut		Thread: M6		2	
	7b	Retainer for coupling guard				1	
	7k	Hex socket head cap screw		Length (mm): 10		4	
				Thread: M6			
-	7.d	Foot for coupling guard				1	pcs
	7d	Foot for coupling guard				1	
	7h	Hex socket head cap screw				2	
	7l	Support f/coupling guard foot				1	
	66	Washer				2	
	49	Impeller				1	pcs
	53.b	Spacer ring				1	pcs
	72.a	O-ring		Material type: EPDM		1	pcs
-	77	Cover				1	pcs
	36	Hex nut		Thread: M16		14	
	77	Cover				1	
-	86	Bearing bracket				1	pcs
	9	Hex socket head cap screw		Length (mm): 25		2	
				Thread: M12			
	53.b	Spacer ring				1	
	54	Ball bearing				2	
	77a	Pan head screw				4	
	86	Bearing bracket				1	
	109	O-ring		Diameter: 119.5		2	
				Thickness: 3			
	156a	Bearing cover				2	
	159a	V-ring				2	
	159f	Lock washer				2	
-	90	Base plate				1	pcs
		Base plate				1	
		Support rail				2	
		Support block				2	
		Hex head bolt				4	
		Hex head bolt				4	
		Hex head bolt				4	
	7h	Hex head screw		Length (mm): 16		2	
				Thread: M8			
	28	Hex head screw				2	
	36a	Hex nut		Thread: M16		8	
	66	Washer				2	

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
66	Washer				4	
66	Washer				16	
66	Washer				2	
105	Shaft seal				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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