SEG.40.31.2.50B

Grundfos pump 96075915



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https://www.lenntech.com/grundfos/SEGFAM/96075915/SEG-40-31-2-50B.html

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Position	Qty.	Description
	1	**SEG.40.31.2.50B**



Product No.: On request

Non-self-priming, single-stage, centrifugal pump with horizontal discharge port, specifically designed for lift and pumping of wastewater containing discharge from toilets. The pump is equipped with a grinder system that grinds destructible solids into small pieces so that they can be led away through pipes of a relatively small diameter.

The surface of the pump is smooth to prevent dirt and impurities from sticking to the pump. A corrosion resistant stainless steel clamp is securing the motor to the pump housing and allow for ease of service of the pump.

For maintaining maximum pump efficiency during the pump life, a SmartTrim system allows easy adjustment of impeller clearance.

Further product details

This grinder pump is specially designed for pumping effluent and untreated domestic sewage in areas with no sewer system or where gravitation systems are unsuitable.

The pump is designed for transfer of domestic and municipal wastewater:

- in sparsely populated areas
- in small villages and farms
- in areas of difficult topography
- in areas with high groundwater

The pump can also remove industrial wastewater containing fibres in industrial applications, such as washing plants.

Pump

The pump is primarily made of cast iron with surface treatment of powder coating: black NCS9000N/RAL 9005, gloss 30, thickness 100 µ.

The pump features a patented grinder system, ensuring extremely high efficiency and reliable operation. Quick and easy dismantling for replacement of wear parts. No special tools are required.



A stainless-steel clamp connection between motor and pump housing ensures easy inspection and service of the impeller and shaft seal.

The shaft seal consists of a cartridge seal that ensures a reliable sealing between pumped liquid and motor.

- Primary seal: silicon carbide/silicon carbide (SiC/SiC) mechanical shaft seal
- Secondary seal: lip seal

In connection with service, the mechanical shaft seal and the lip seal are supplied as one unit ready for fitting.



This pump is equipped with the unique SmartTrim system that enables you to easily restore the factory-set impeller clearance and maintain peak pumping efficiency. To do this, remove the cutter head and adjust the SmartTrim nut on the impeller. This can be done on site without dismantling the pump and without using special tools.

The pump has been tested and approved by VDE.

Motor

The motor is a watertight, totally encapsulated motor, supplied with a 10 m power cable. The stainless-steel plug is fastened with a union nut. This nut and O-rings provide sealing against ingress of the liquid. The plug is polyurethane-embedded, ensuring a watertight and durable seal around the leads of the cable. This prevents the ingress of water into the motor through the cable in case of cable breakage or adverse handling in connection with installation or service.

The motor construction is compact with a short shaft. This reduces vibrations, resulting in an increased efficiency and life of the shaft seal and ball bearings. The motor has two thermal switches in the motor windings to protect the motor against overheating.

Controls:

Moisture sensor:	without moisture sensors
AUTOADAPT:	NO

Liquid:

Liquid temperature range:	0 .. 40 °C
Density:	998.2 kg/m³

Technical:

Type of impeller:	GRINDER SYSTEM
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	PA-I
Curve tolerance:	ISO9906:2012 3B2

Materials:

Pump housing:	Cast iron EN1561 EN-GJL-200
Impeller:	Cast iron EN1561 EN-GJL-200

Installation:

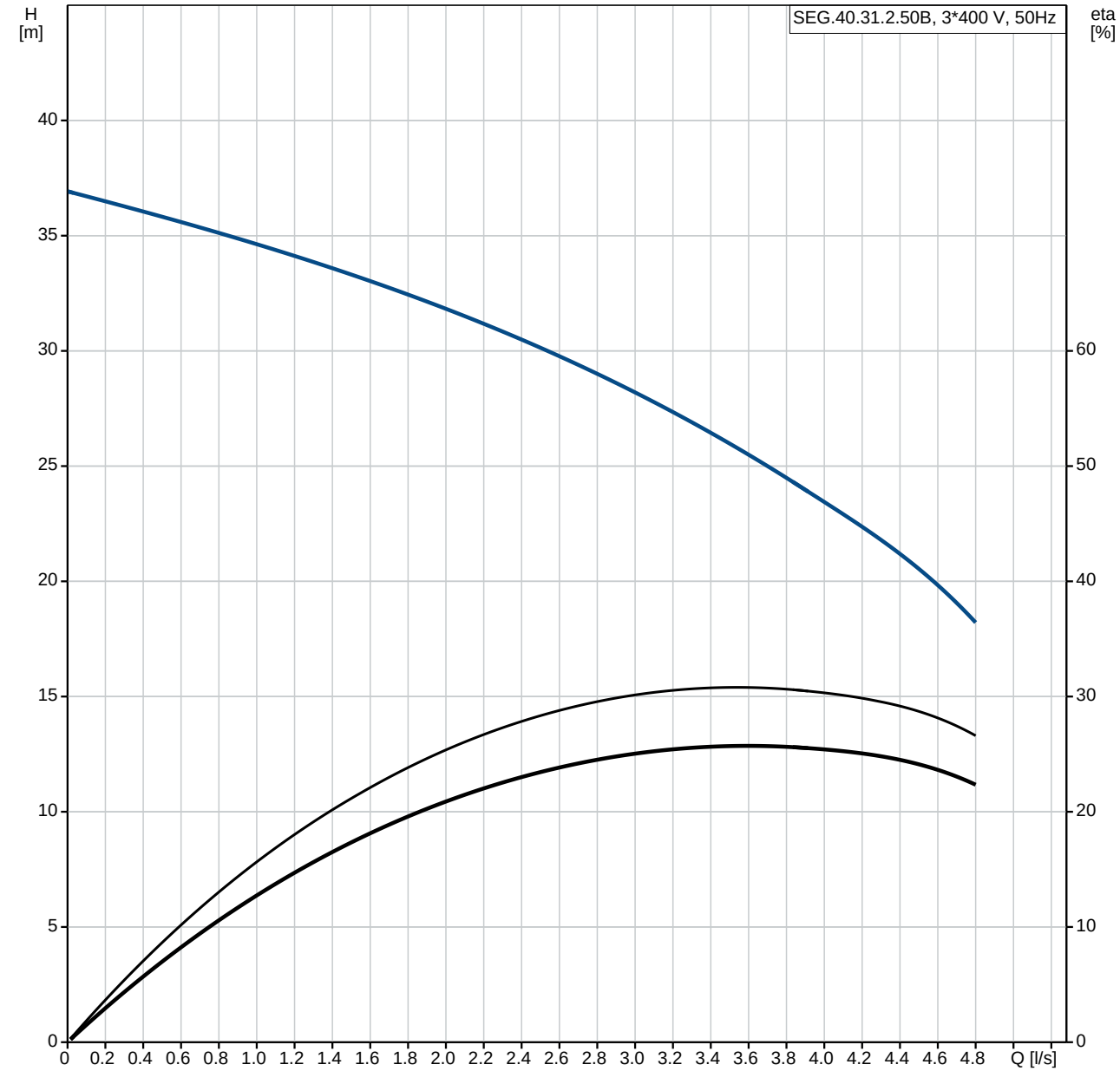
Maximum ambient temperature:	40 °C
Maximum operating pressure:	6 bar
Flange standard:	DIN
Pipework connection:	DN40/50
Pump outlet:	DN 40
Pressure rating:	PN 10
Maximum installation depth:	10 m
Auto-coupling:	96076063

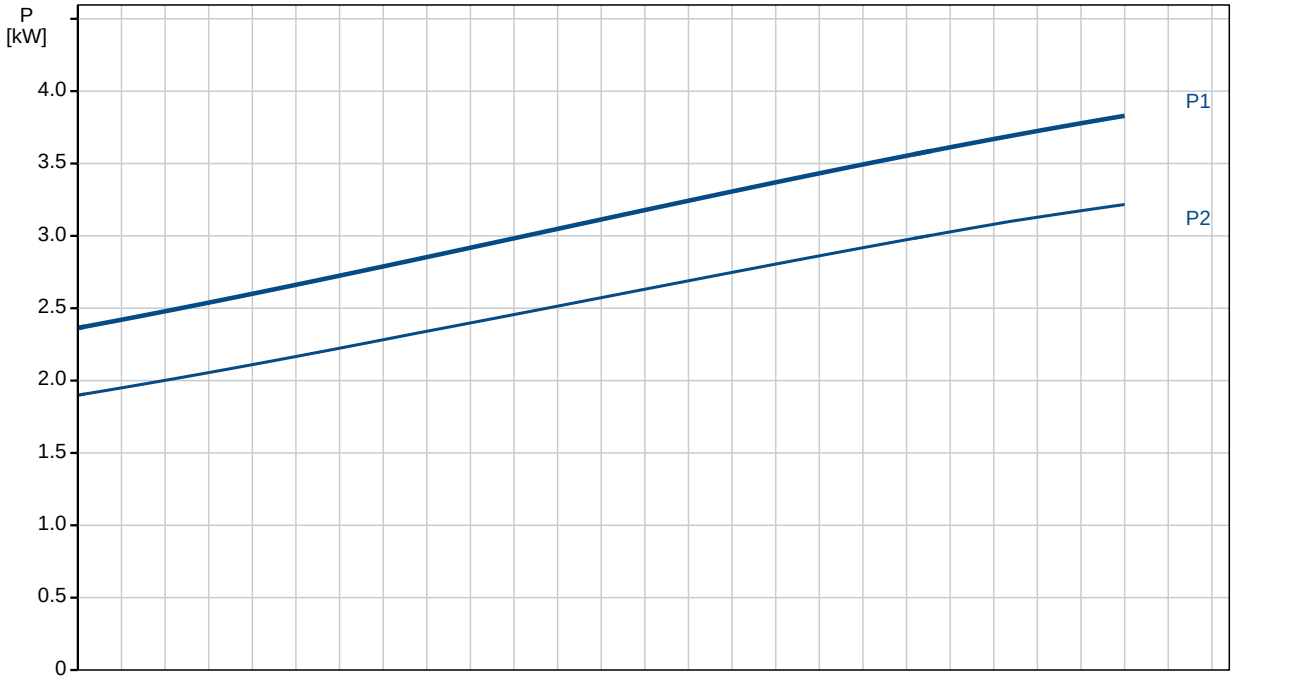
Electrical data:

Power input - P1:	3.7 kW
Rated power - P2:	3.1 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 400-415 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	7 A
Starting current:	43 A
Rated current at no load:	3.1 A
Cos phi - power factor:	0.86
Cos phi - p.f. at 3/4 load:	0.81
Cos phi - p.f. at 1/2 load:	0.71
Rated speed:	2900 rpm
Moment of inertia:	0.01 kg m²
Motor efficiency at full load:	84 %
Motor efficiency at 3/4 load:	82 %

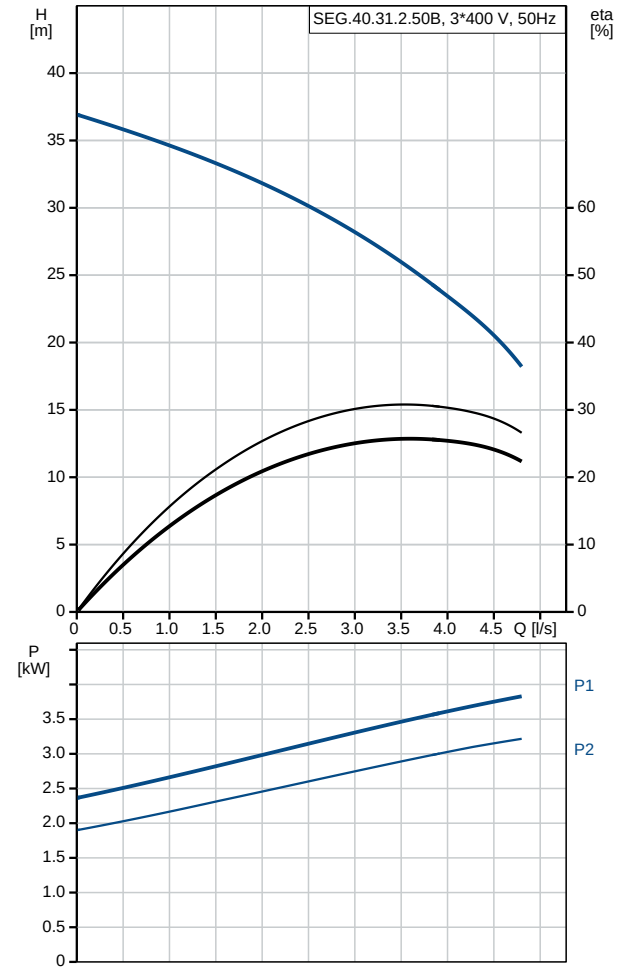
Position	Qty.	Description	
		Motor efficiency at 1/2 load:	79 %
		Number of poles:	2
		Start. method:	direct-on-line
		Enclosure class (IEC 34-5):	IP68
		Insulation class (IEC 85):	F
		Explosion proof:	no
		Length of cable:	10 m
		Cable type:	LYNIFLEX
		Type of cable plug:	NO PLUG
		Others:	
		Net weight:	75.6 kg
		Danish VVS No.:	391342181

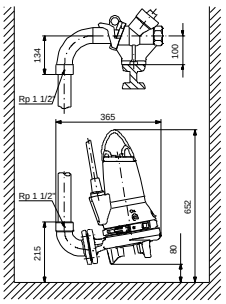
On request SEG.40.31.2.50B 50 Hz

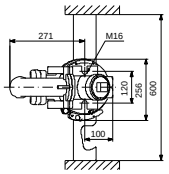


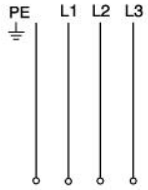


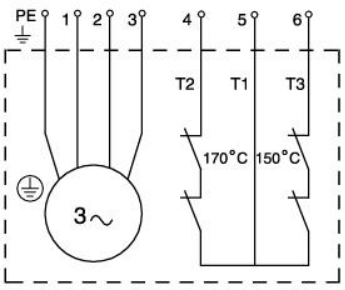
Description	Value
General information:	
Product name:	SEG.40.31.2.50B
Product No:	On request
EAN number:	On request
Technical:	
Max flow:	5 l/s
Head max:	37 m
Type of impeller:	GRINDER SYSTEM
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	PA-I
Curve tolerance:	ISO9906:2012 3B2
Materials:	
Pump housing:	Cast iron
	EN1561 EN-GJL-200
Impeller:	Cast iron
	EN1561 EN-GJL-200
Installation:	
Maximum ambient temperature:	40 °C
Maximum operating pressure:	6 bar
Flange standard:	DIN
Pipework connection:	DN40/50
Pump outlet:	DN 40
Pressure rating:	PN 10
Maximum installation depth:	10 m
Inst dry/wet:	SUBMERGED
Auto-coupling:	96076063
Liquid:	
Liquid temperature range:	0 .. 40 °C
Density:	998.2 kg/m³
Electrical data:	
Power input - P1:	3.7 kW
Rated power - P2:	3.1 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 400-415 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	7 A
Starting current:	43 A
Rated current at no load:	3.1 A
Cos phi - power factor:	0.86
Cos phi - p.f. at 3/4 load:	0.81
Cos phi - p.f. at 1/2 load:	0.71
Rated speed:	2900 rpm
Moment of inertia:	0.01 kg m²
Motor efficiency at full load:	84 %
Motor efficiency at 3/4 load:	82 %
Motor efficiency at 1/2 load:	79 %
Number of poles:	2
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Explosion proof:	no
Motor protec:	THERMAL SWITCH
Thermal protec:	external
Length of cable:	10 m
Cable type:	LYNIFLEX
Type of cable plug:	NO PLUG
Controls:	
Control box:	not included
Additional I/O:	External
Moisture sensor:	without moisture sensors
AUTOADAPT:	NO
Others:	





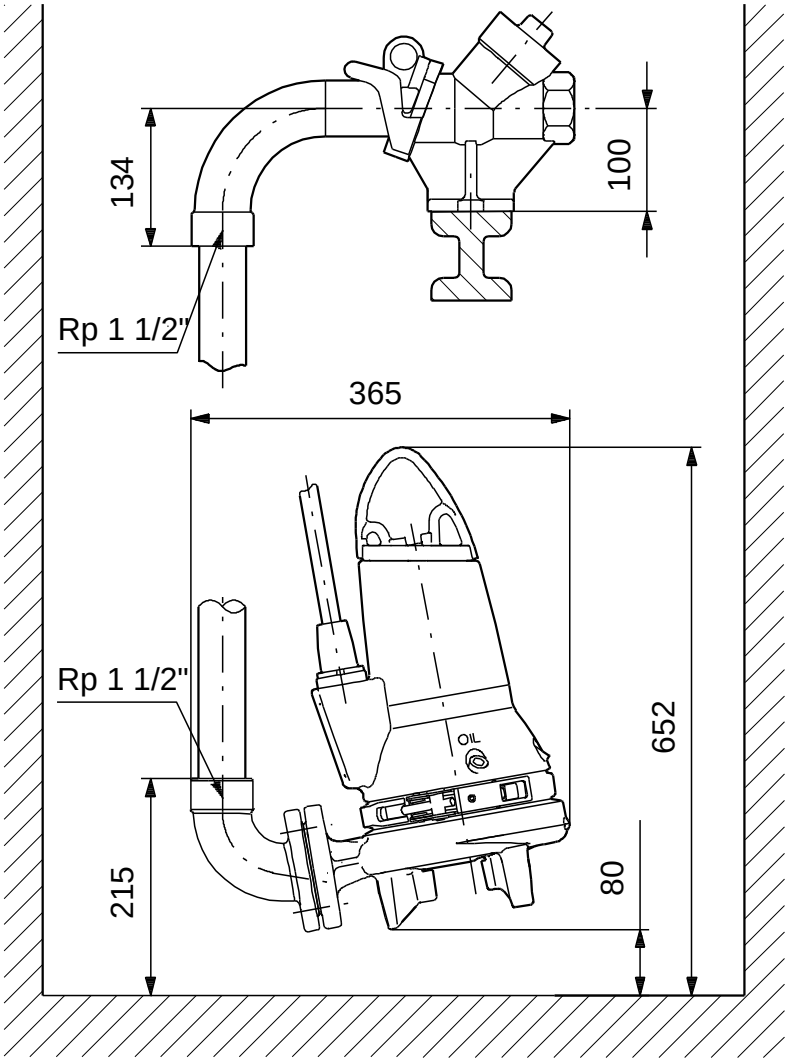


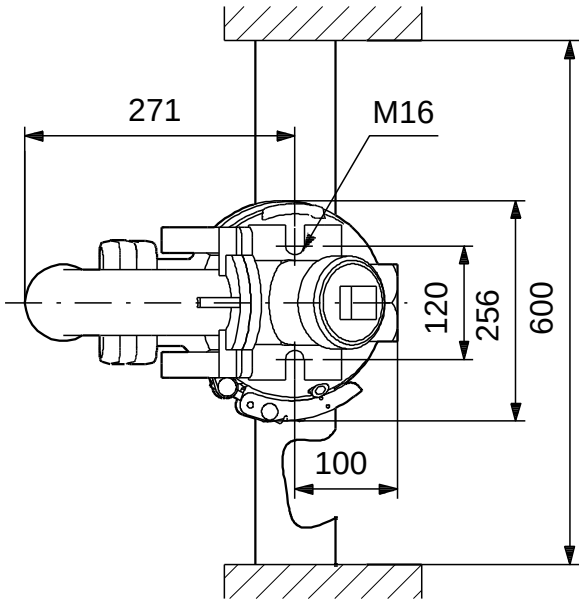




Description	Value
Net weight:	75.6 kg
Danish VVS No.:	391342181

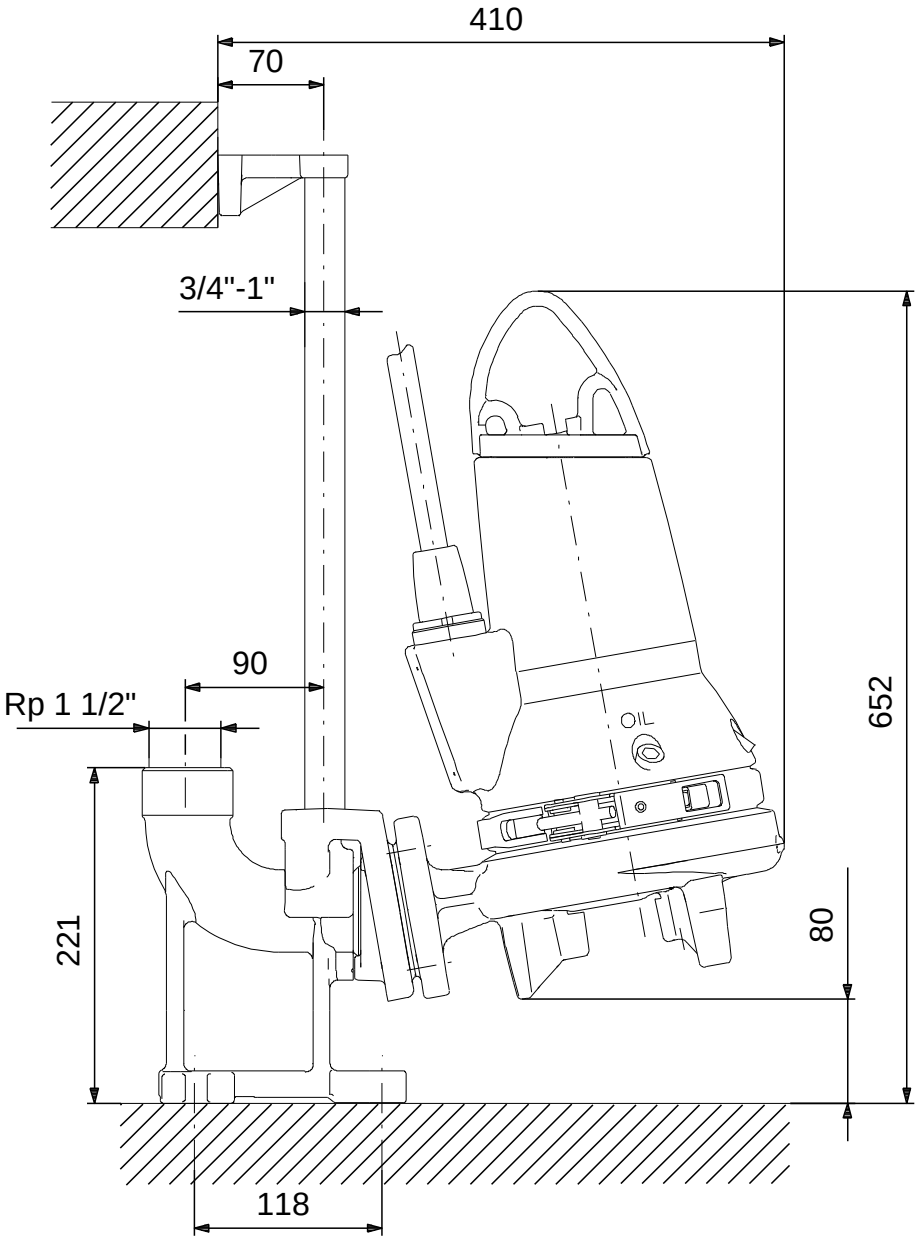
On request SEG.40.31.2.50B 50 Hz

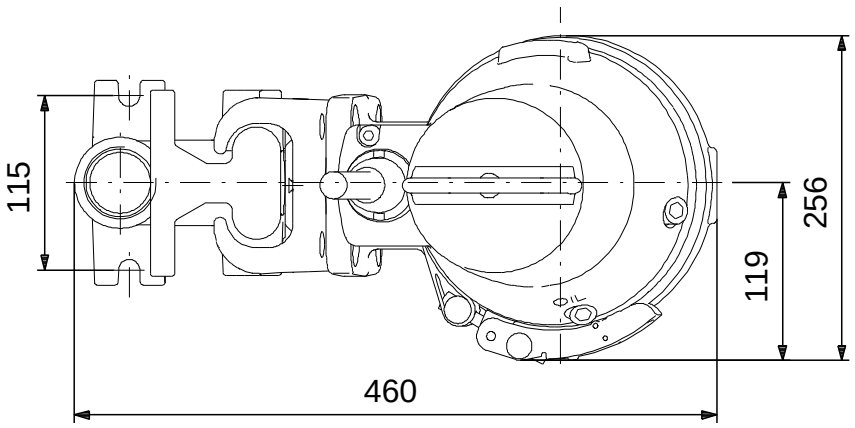




Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

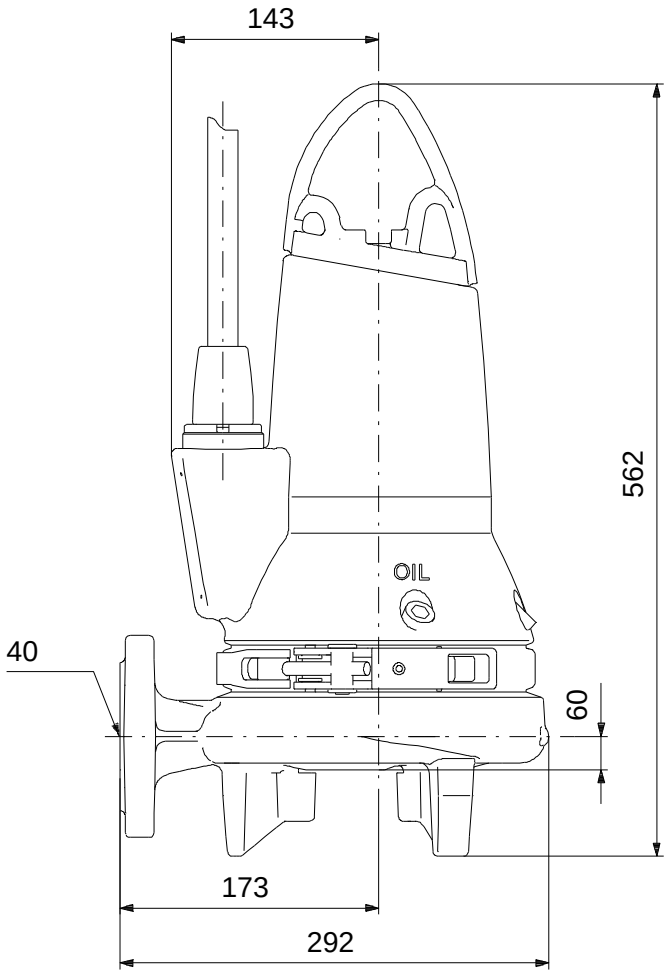
On request SEG.40.31.2.50B 50 Hz

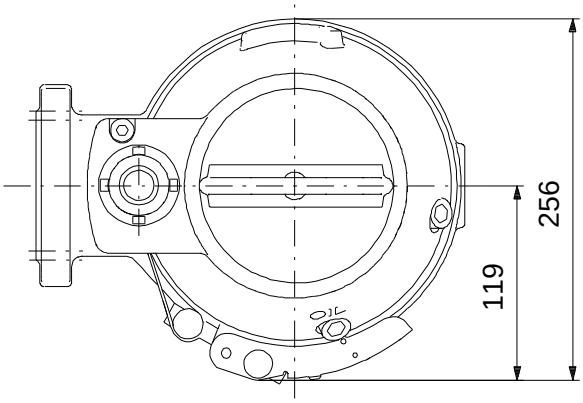




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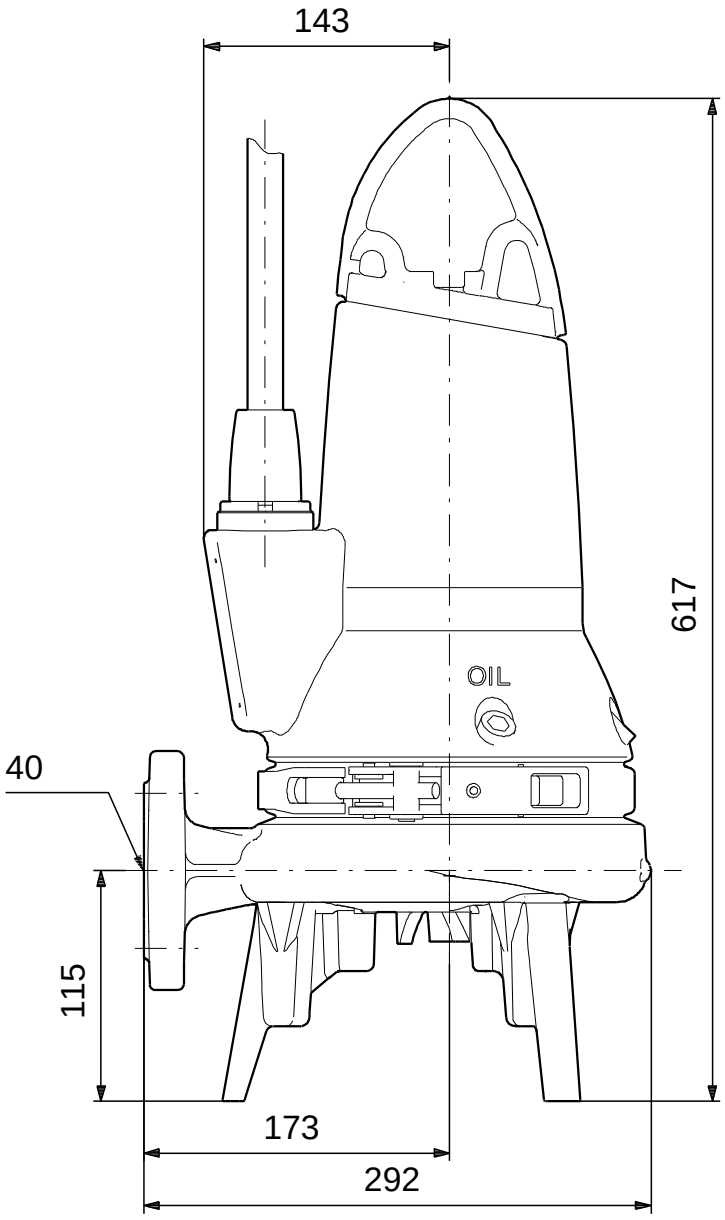
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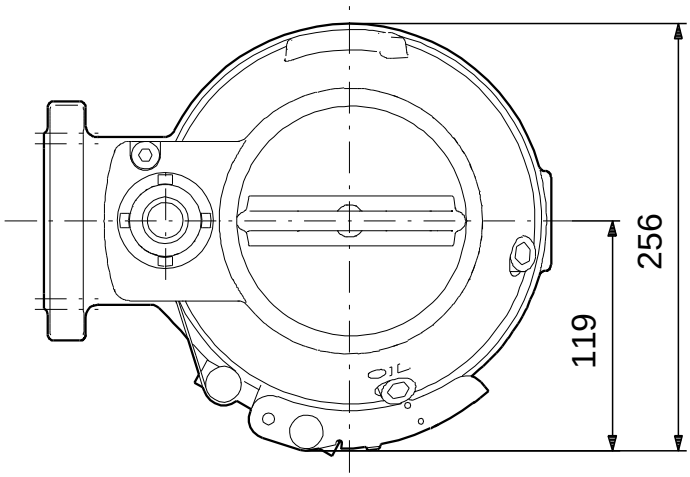




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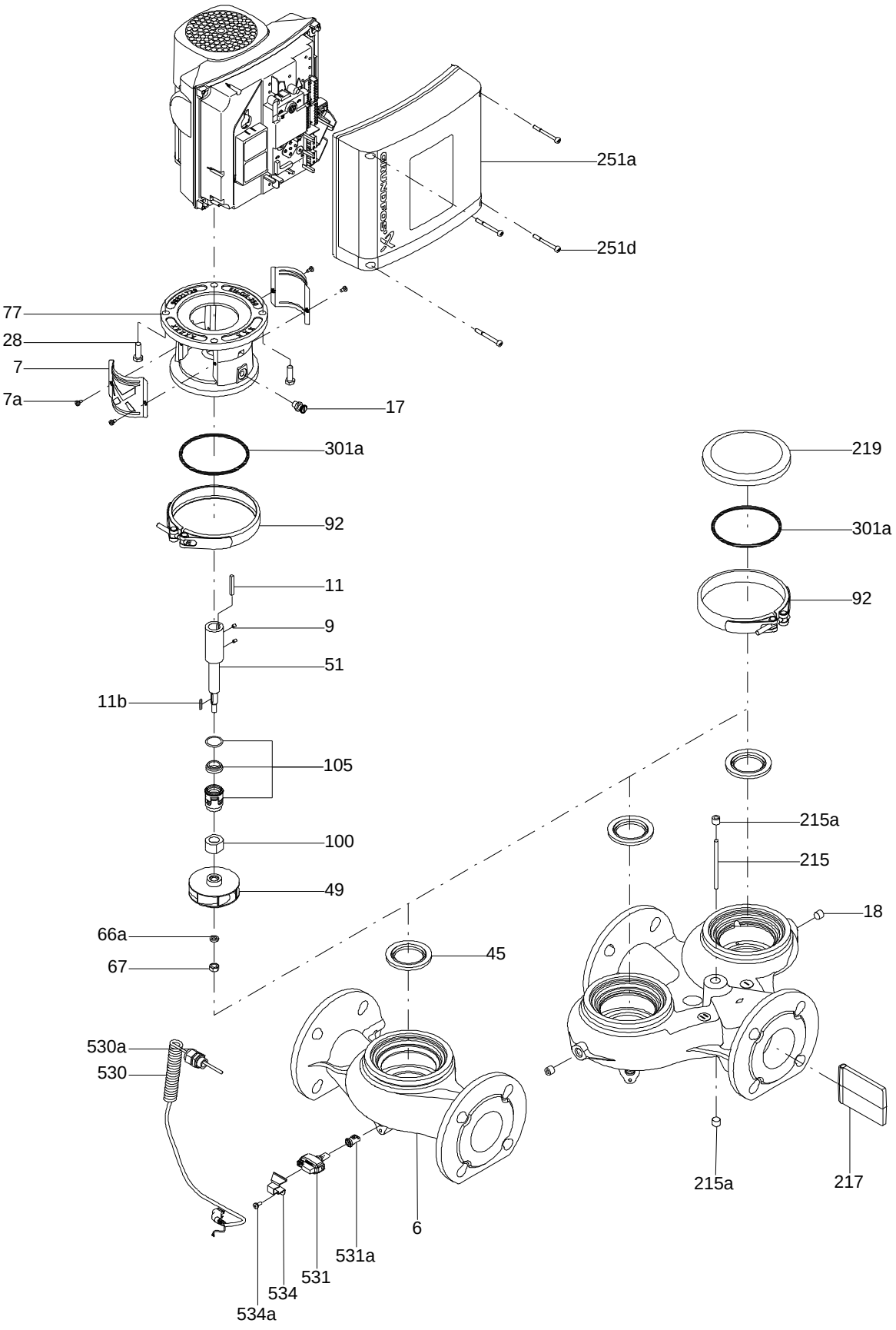
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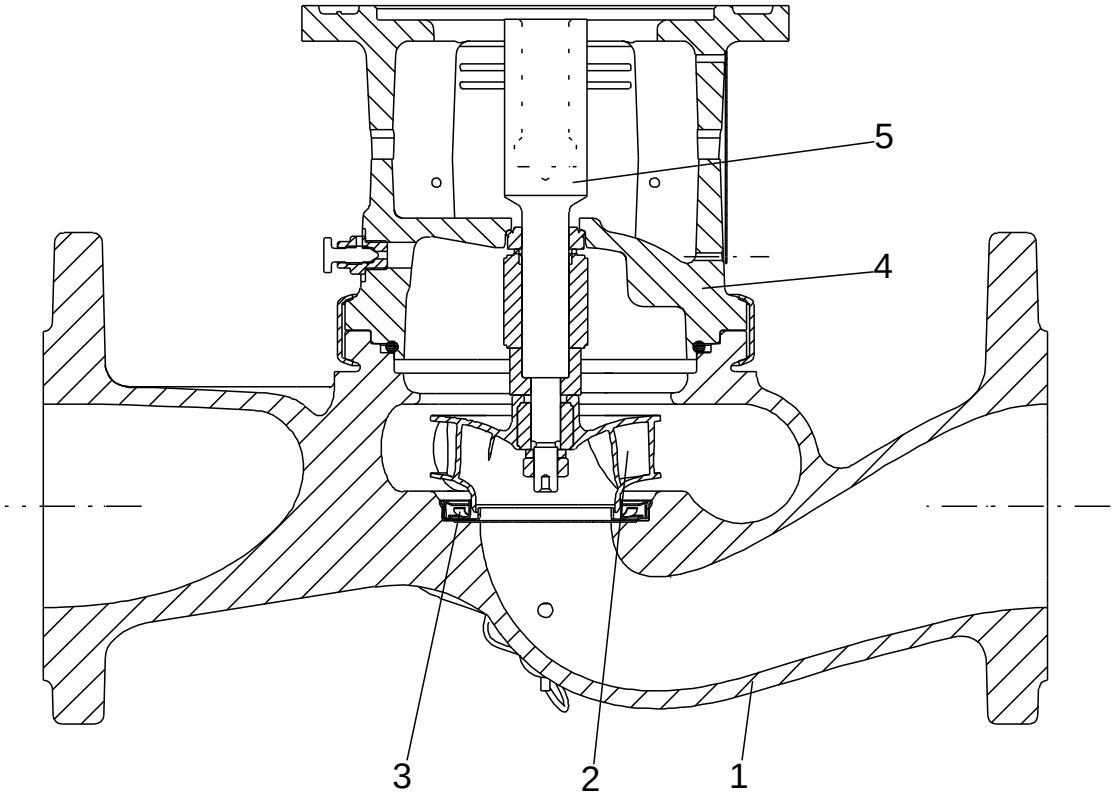


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Exploded view

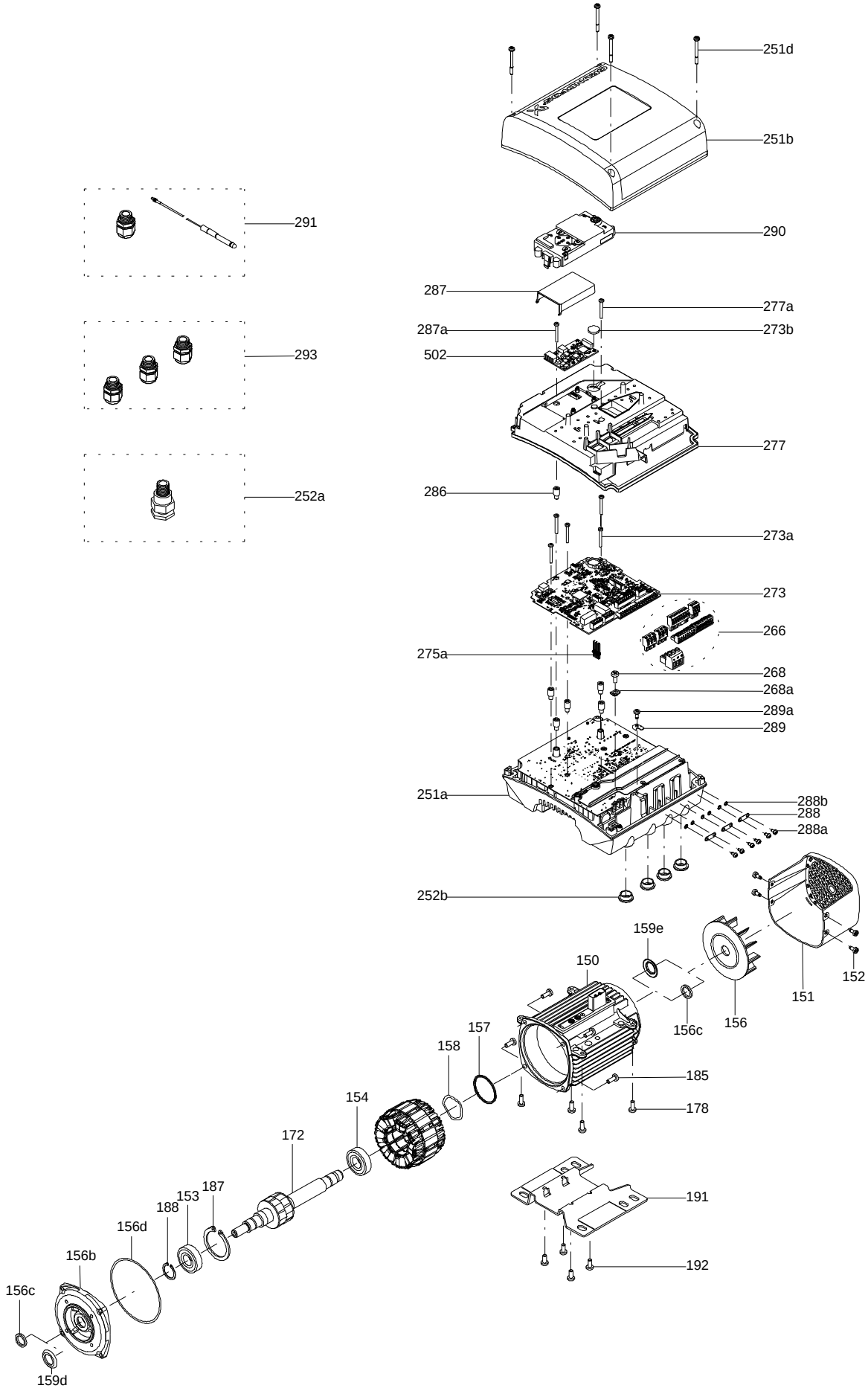


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list SEG.40.31.2.50B, Product No. On request
Valid from 1.12.2002 (0248)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
	6a	Pin				1	pcs
	9a	Key				1	pcs
	26.a	O-ring		Diameter: 32		1	pcs
				Material type: NBR			
				Thickness: 4			
	37	O-ring		Diameter: 204		1	pcs
				Material type: NBR			
				Thickness: 3			
	37a	O-ring		Diameter: 144.3		2	pcs
				Material type: NBR			
				Thickness: 5.7			
	44	Grinder ring				1	pcs
	45	Grinder head				1	pcs
	49	Impeller				1	pcs
	50	Pump housing				1	pcs
	58	Retainer for seal ring				1	pcs
	66	Wedge lock washer		Designation: M8 A4		1	pcs
	68	Adjustment nut				1	pcs
	76	Nameplate				1	pcs
	92	Strap cpl.				1	pcs
	102	O-ring		Diameter: 17.3		1	pcs
				Material type: NBR			
				Thickness: 2.4			
-	105	Shaft seal				1	pcs
		Shaft seal				1	
		Shaft seal				1	
		Shaft seal				1	
		Retaining ring				1	
		Shaft seal, rotating part				1	
		Shaft seal, rotating part				1	
		Shaft seal, stationary part				1	
		Shaft seal, stationary part				1	
	106	O-ring		Diameter: 50		2	
				Material type: NBR			
				Thickness: 3			
	107	O-ring		Diameter: 90		1	pcs
				Material type: NBR			
				Thickness: 4			
	112a	Retaining ring				1	pcs
-	150a	Stator w/housing cpl.				1	pcs
		Cover				1	
		Flex insulation				0	
	48	Stator		Winding resistance: 1,68		1	
	55	Stator housing				1	
	159	O-ring		Diameter: Â 52		1	
				Material type: NBR			
				Thickness: 3			
	173	Cross recess Pan head screw		Designation: CROSS-HEAD SCREW		1	
	173a	Lock washer				1	
-	176	Plug				1	
		Pin connector				1	
	1031	Connector pin				6	
	153	Ball bearing		Designation: 3205.2ZR		1	pcs
	153a	Lock washer				1	pcs
	153b	Retaining ring				1	pcs
	154	Ball bearing		Designation: 6205.2Z.C4.SYN		1	pcs
	155	Oil chamber				1	pcs
	158	Waved washer				1	pcs
	172	Shaft w/rotor				1	pcs

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
-	181	Cable cpl.				1	pcs
	198	O-ring		Diameter: 34.2		1	
				Material type: NBR			
				Thickness: 3			
	188.a	Hex socket head cap screw		Length (mm): 25		12	pcs
				Thread: M8			
	190	Lifting bracket				1	pcs
	193	Hex socket head cap screw		Designation: A2-70		2	pcs
				Length (mm): 20			
				Thread: M12			
	193a	Oil				0	L
	194	Washer		Internal diameter: 19		2	pcs
				Outer diameter: 12.2			
				Thickness: 4.4			

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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