

SP9-93N R2 6"3X380-415/50 18.5kW

Grundfos pump 98901307



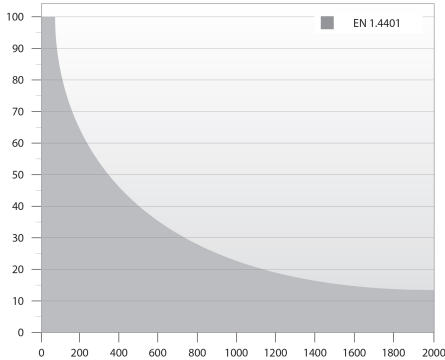
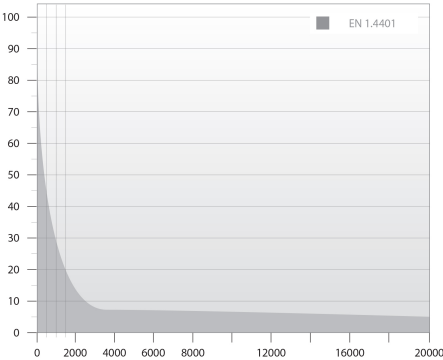
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<https://www.lenntech.com/grundfos/SPFAM/98901307/SP-9-93N.html>

info@lenntech.com

tel. +31 152 610 900

fax. +31 152 616 289

Position	Qty.	Description
	1	SP 9-93N  Note! Product picture may differ from actual product Product No.: On request Submersible borehole pump, suitable for pumping clean water. Can be installed vertically or horizontally. All steel components are made in stainless steel, EN 1.4401 (AISI 316), that ensures high corrosive resistance. The pump is fitted with a 18.5 kW MS6000 motor with sand shield, mechanical shaft seal, water-lubricated journal bearings and a volume compensating diaphragm. The motor is a canned type submersible motor offering good mechanical stability and high efficiency. Suitable for temperatures up to 40 °C. The motor is fitted with the Grundfos Tempcon sensor that, by use of powerline communication together with a MP204 control panel, enables temperature monitoring. The motor is for direct-on-line starting (DOL). Further product details The pump is suitable for applications similar to the following: - raw-water supply - irrigation - groundwater lowering - pressure boosting - fountain applications - mining applications - off-shore applications. The Grundfos SP pump is renowned for its high efficiency and already complies with the requirements of the Minimum Efficiency Index, and therefore Grundfos is amongst the best in class within submersible pumps.  Pump All pump surfaces that are in contact with pumped liquids are made in stainless steel which makes them corrosion- and wear-resistant. The corrosion diagram below shows the capabilities of the pump and motor in relation to the temperature in Celsius (y-axis) and the concentration of chloride in ppm (x-axis).  

The elastomer parts in the pump offer good wear resistance and long service intervals. The bearings are made of LSR (Liquid Silicone Rubber), sealing rings are made of TPU (Thermoplastic Poly-Urethane) and the non-return valve is made of NBR (Nitrile-Butadiene Rubber). The special elastomer material of the bearings offers increased resistance to sand and other abrasive particles (from 50 to 150 mg/l).

In case the pump is used for pumping water with high content of hydrocarbons or solvents, Grundfos offers FKM rubber parts (Fluorocarbon) which are oil and temperature-resistant up to 90 °C.

The pump is built with octagonal bearings with sand flush channels that minimise wear. As wear of the pump is inevitable, the pump design allows for easy replacement of all internal wear parts (bearings, impeller, wear rings and seal rings) to maintain high performance and a long lifetime.

The suction interconnector is fitted with a strainer to prevent large particles from entering the pump. The suction interconnector is designed to comply with NEMA standards for motor mounting/dimensions.

Motor

The stator is hermetically encapsulated in stainless steel and the windings are embedded in polymer compound. This results in high mechanical stability, optimum cooling and reduces the risk of short circuits in the windings.

The shaft seal faces are SiC/SiC. The material combination gives good performance when abrasive particles (sand) is present. Together with the shaft seal housing, the sand shield forms a labyrinth seal which during normal operating conditions prevents penetration of sand particles into the shaft seal.

The motor is fitted with the Grundfos Tempcon temperature sensor device that includes a NTC-resistor which senses the temperature. The resistor is built-in close to the winding. The temperature is converted into a high-frequency signal which is sent via the submersible drop cable and which can be converted into a temperature reading by means of Grundfos MP204.

The MP204 is an electronic motor protection device that also monitors the supply network quality to protect the submersible motor against supply network disturbances.



Liquid:

Pumped liquid:	Water
Maximum liquid temperature:	40 °C
Max liquid t at 0.15 m/sec:	40 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m ³

Technical:

Rated flow:	9 m ³ /h
Rated head:	494.5 m
Shaft seal for motor:	SIC/SICFKM
Approvals on nameplate:	CE,GOST2
Curve tolerance:	ISO9906:2012 3B
Motor version:	T40

Materials:

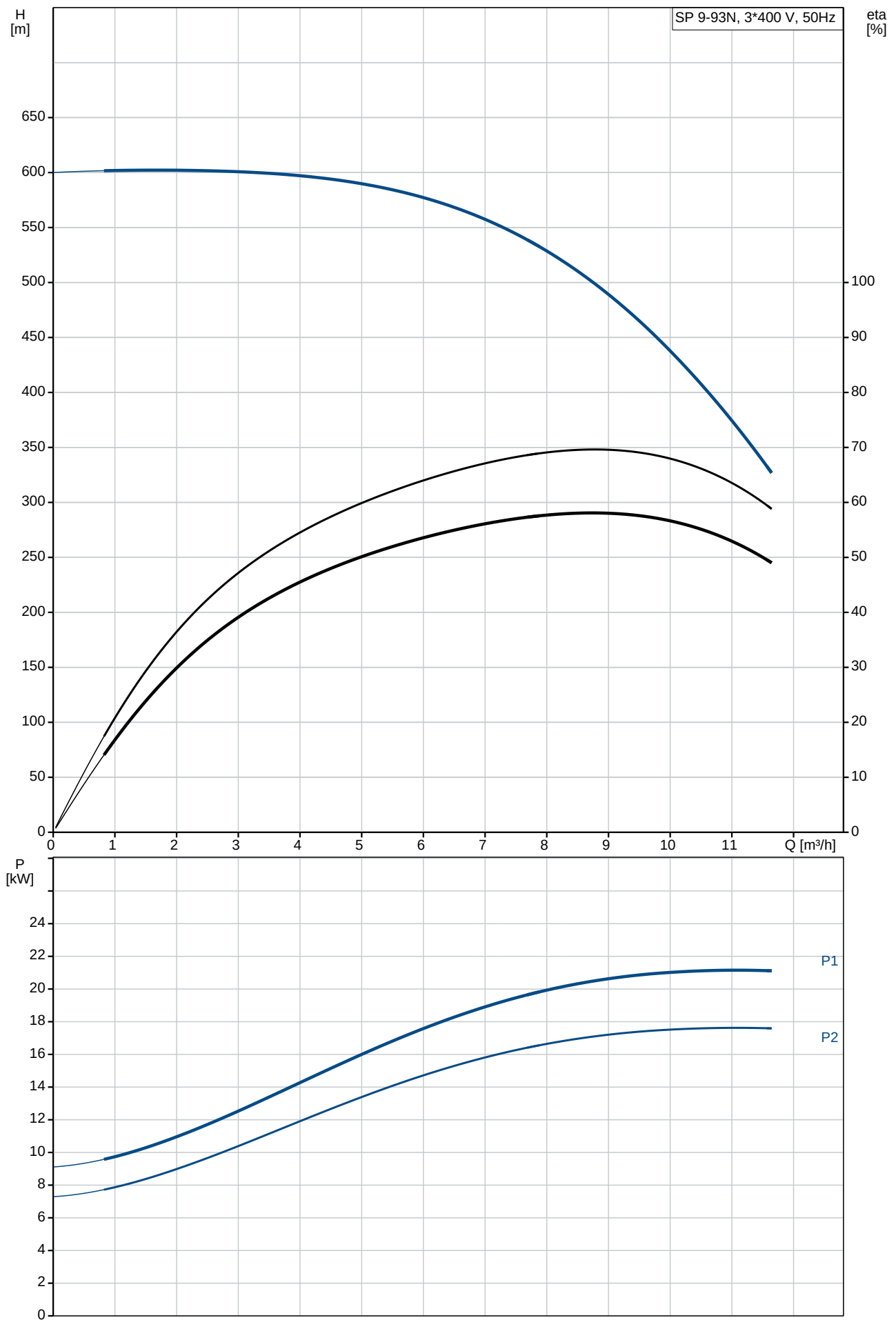
Pump:	Stainless steel EN 1.4401 AISI 316
Impeller:	Stainless steel EN 1.4401 AISI 316
Motor:	Stainless steel DIN W.-Nr. 1.4539 AISI 904 L

Installation:

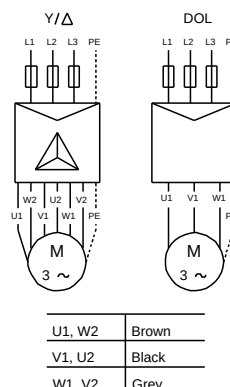
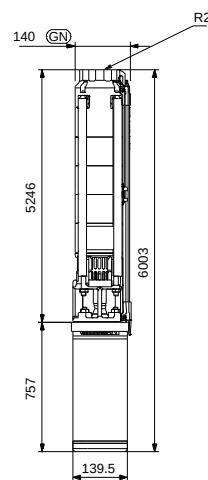
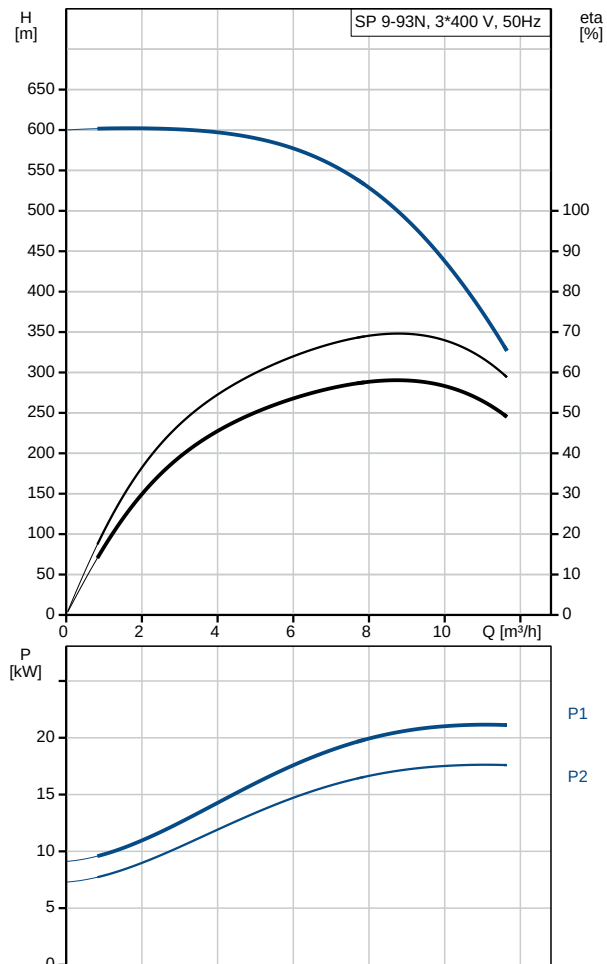
Pump outlet:	R2
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Position	Qty.	Description
		Motor diameter: 6 inch Electrical data: Motor type: MS6000 Rated power - P2: 18.5 kW Power (P2) required by pump: 18.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-400-415 V Rated current: 42.0-41.0-41.5 A Starting current: 510-560-580 % Cos phi - power factor: 0.85-0.82-0.79 Rated speed: 2860-2880-2890 rpm Start. method: direct-on-line Enclosure class (IEC 34-5): IP68 Insulation class (IEC 85): F Built-in temp. transmitter: yes Others: Minimum efficiency index, MEI $\geq$: 0.70 ErP status: EuP Standalone/Prod. Net weight: 158 kg Gross weight: 283 kg Shipping volume: 1.01 m³

On request SP 9-93N 50 Hz

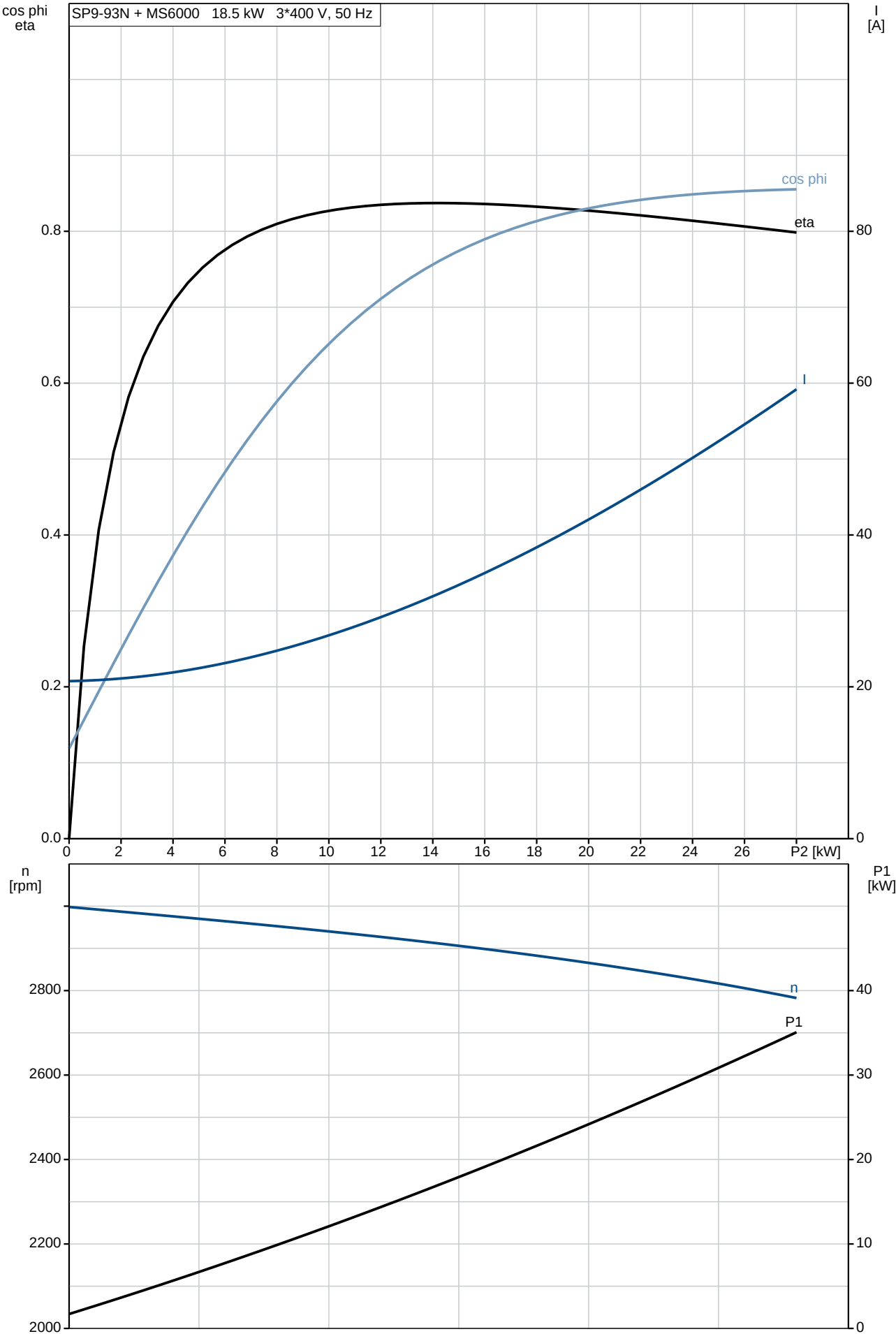


Description	Value
General information:	
Product name:	SP 9-93N
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	9 m³/h
Rated head:	494.5 m
Stages:	93
Impeller reduc.:	NONE
Shaft seal for motor:	SIC/SICFKM
Approvals on nameplate:	CE,GOST2
Curve tolerance:	ISO9906:2012 3B
Model:	A
Valve:	YES
Motor version:	T40
Materials:	
Pump:	Stainless steel
	EN 1.4401
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Motor:	Stainless steel
	DIN W.-Nr. 1.4539
	AISI 904 L
Installation:	
Pump outlet:	R2
Motor diameter:	6 inch
Liquid:	
Pumped liquid:	Water
Maximum liquid temperature:	40 °C
Max liquid t at 0.15 m/sec:	40 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	MS6000
Applic. motor:	NEMA
Rated power - P2:	18.5 kW
Power (P2) required by pump:	18.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-400-415 V
Rated current:	42.0-41.0-41.5 A
Starting current:	510-560-580 %
Cos phi - power factor:	0.85-0.82-0.79
Rated speed:	2860-2880-2890 rpm
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Motor protec:	NONE
Thermal protec:	external
Built-in temp. transmitter:	yes
Motor No:	78195617
Others:	
Minimum efficiency index, MEI ≥:	0.70
ErP status:	EuP Standalone/Prod.
Net weight:	158 kg
Gross weight:	283 kg
Shipping volume:	1.01 m³

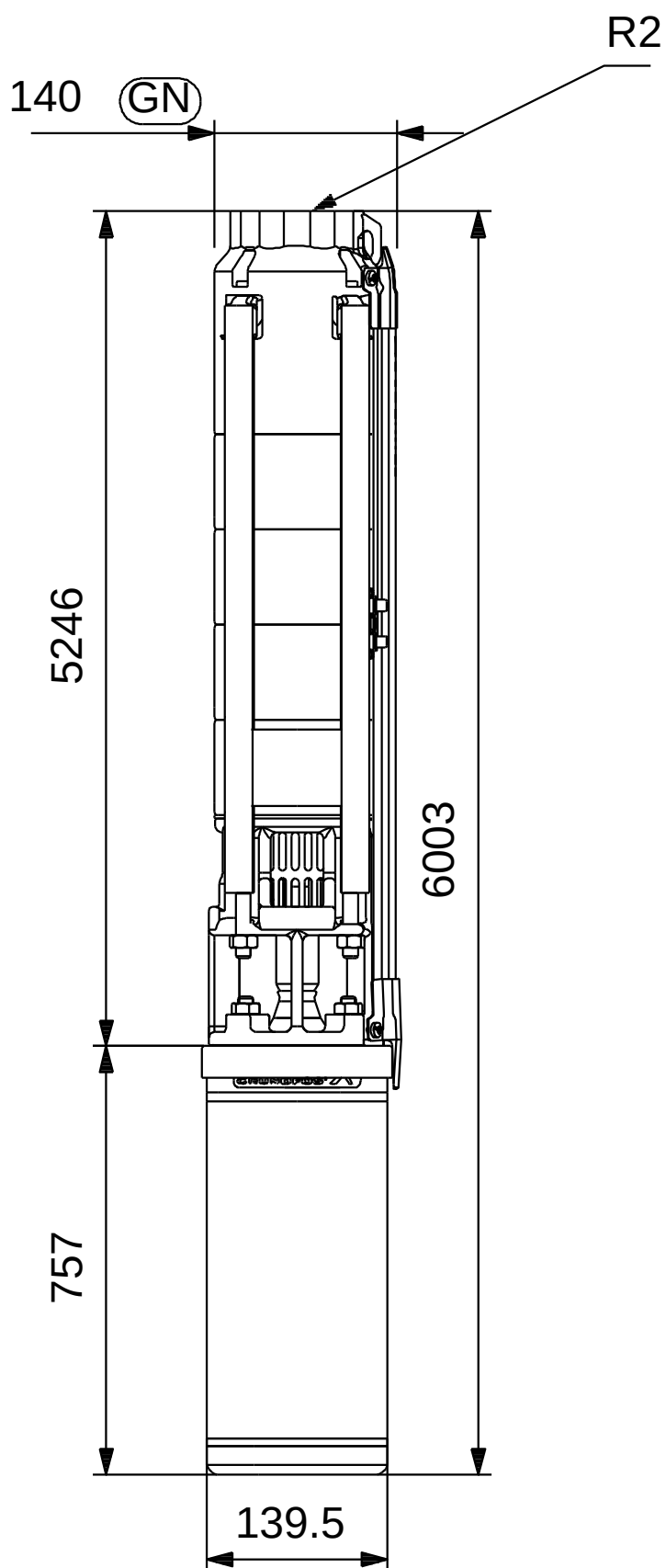


On request SP 9-93N 50 Hz

SP9-93N + MS6000 18.5 kW 3*400 V, 50 Hz

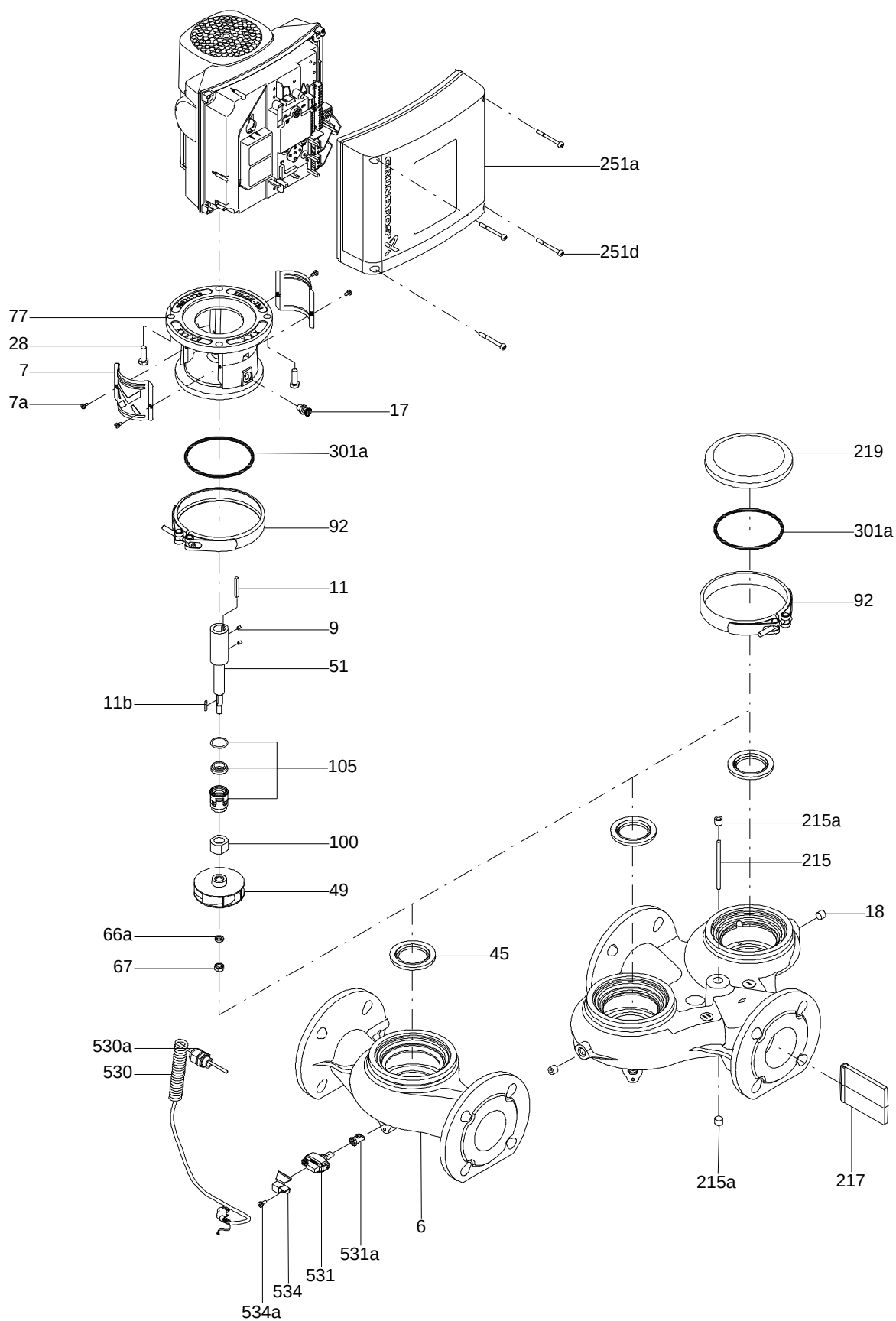


On request SP 9-93N 50 Hz

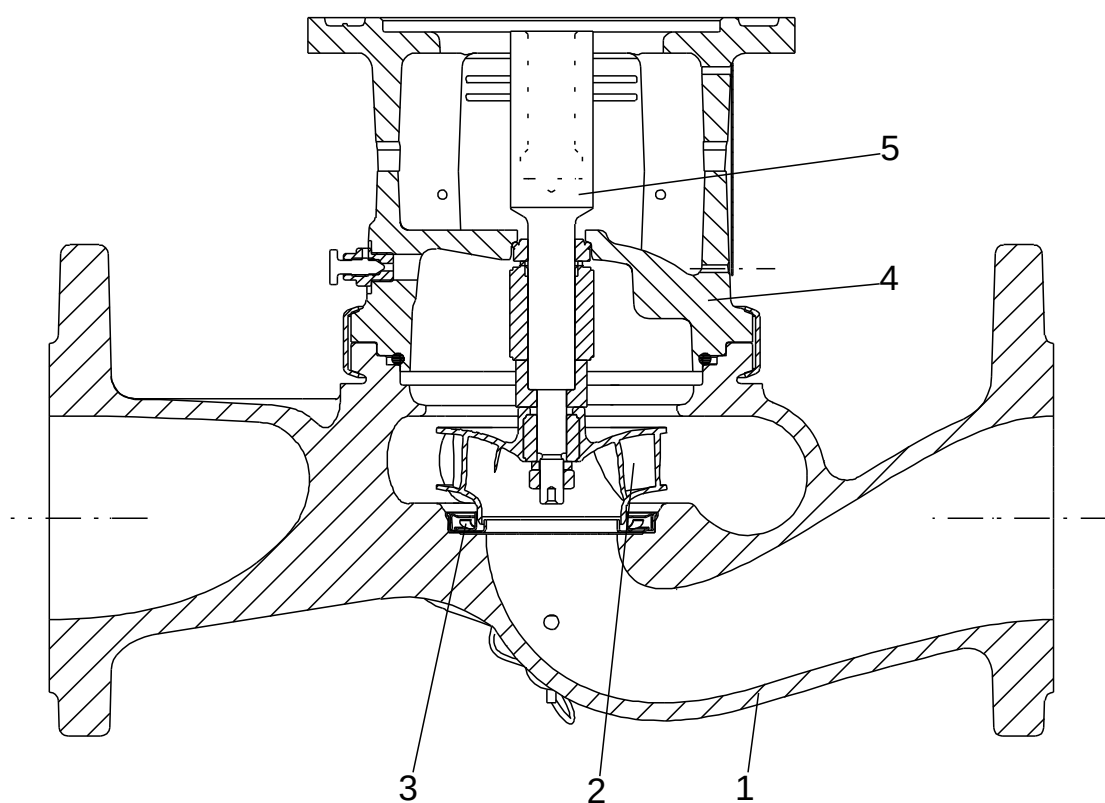


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

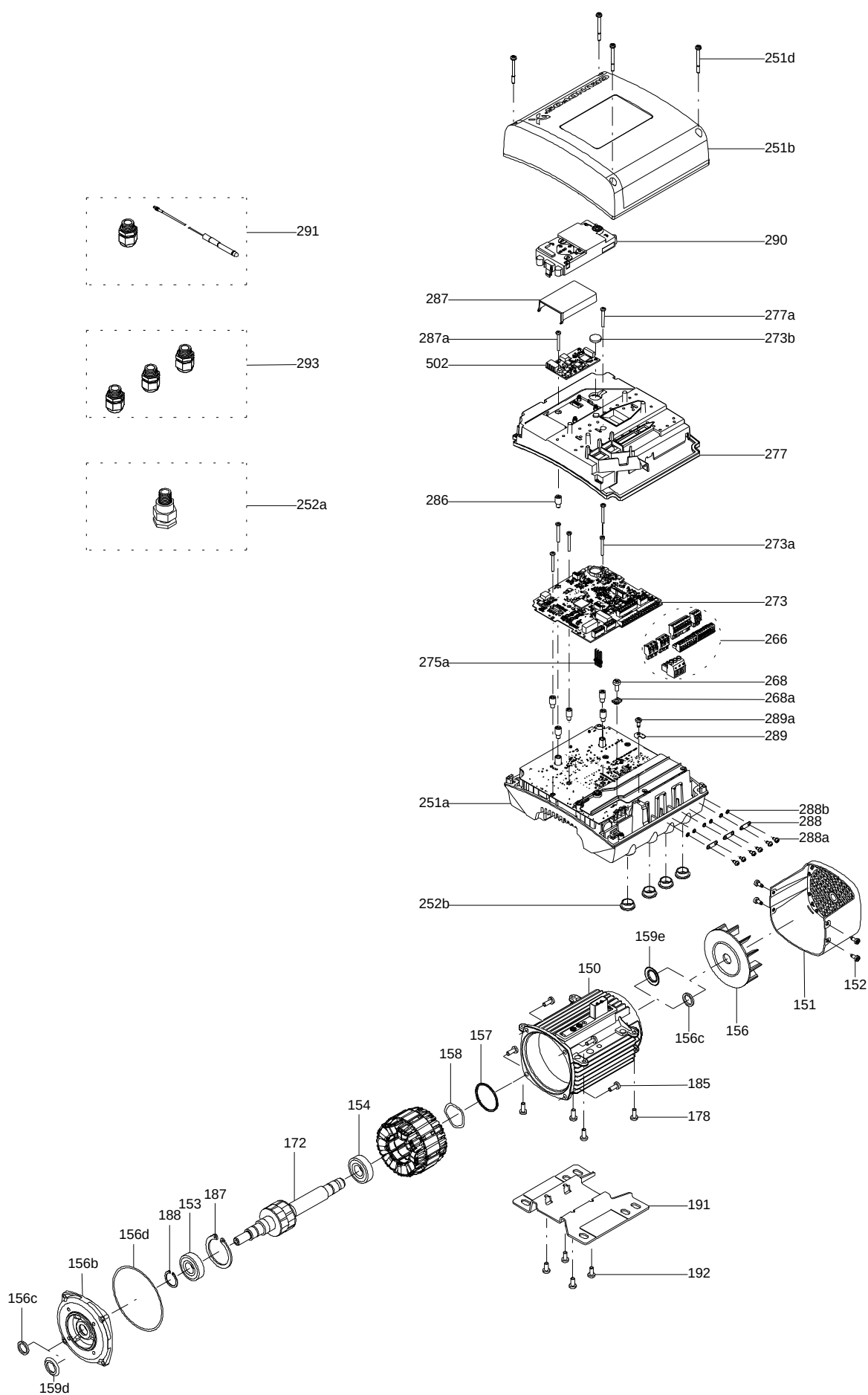


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



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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info@lenntech.com

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289