

SP160- 9 Rp6 8"3X380-415/50 110kW

Grundfos pump 20021909



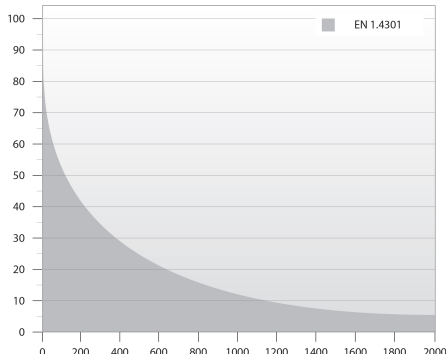
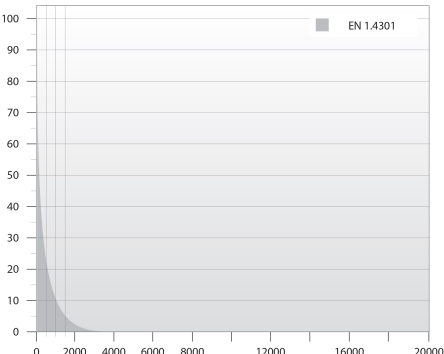
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<https://www.lenntech.com/grundfos/SPFAM/20021909/SP-160-9.html>

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Position	Qty.	Description
	1	SP 160-9  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 1.4301 (AISI 304), that ensures high corrosive resistance. This pump carries drinking water approval. 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. 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 are made of NBR (Nitrile-Butadiene Rubber) which ensures good wear resistance and long service intervals. 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 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: 30 °C
 Liquid temperature during operation: 20 °C
 Density: 998.2 kg/m³

Technical:

Rated flow: 160 m³/h
 Rated head: 183 m
 Curve tolerance: ISO9906:2012 3B

Materials:

Pump: Stainless steel
 EN 1.4301
 AISI 304
 Impeller: Stainless steel
 EN 1.4301
 AISI 304
 Motor: Stainless steel
 DIN W.-Nr. 1.4301
 AISI 304

Installation:

Pump outlet: RP6
 Motor diameter: 8 inch

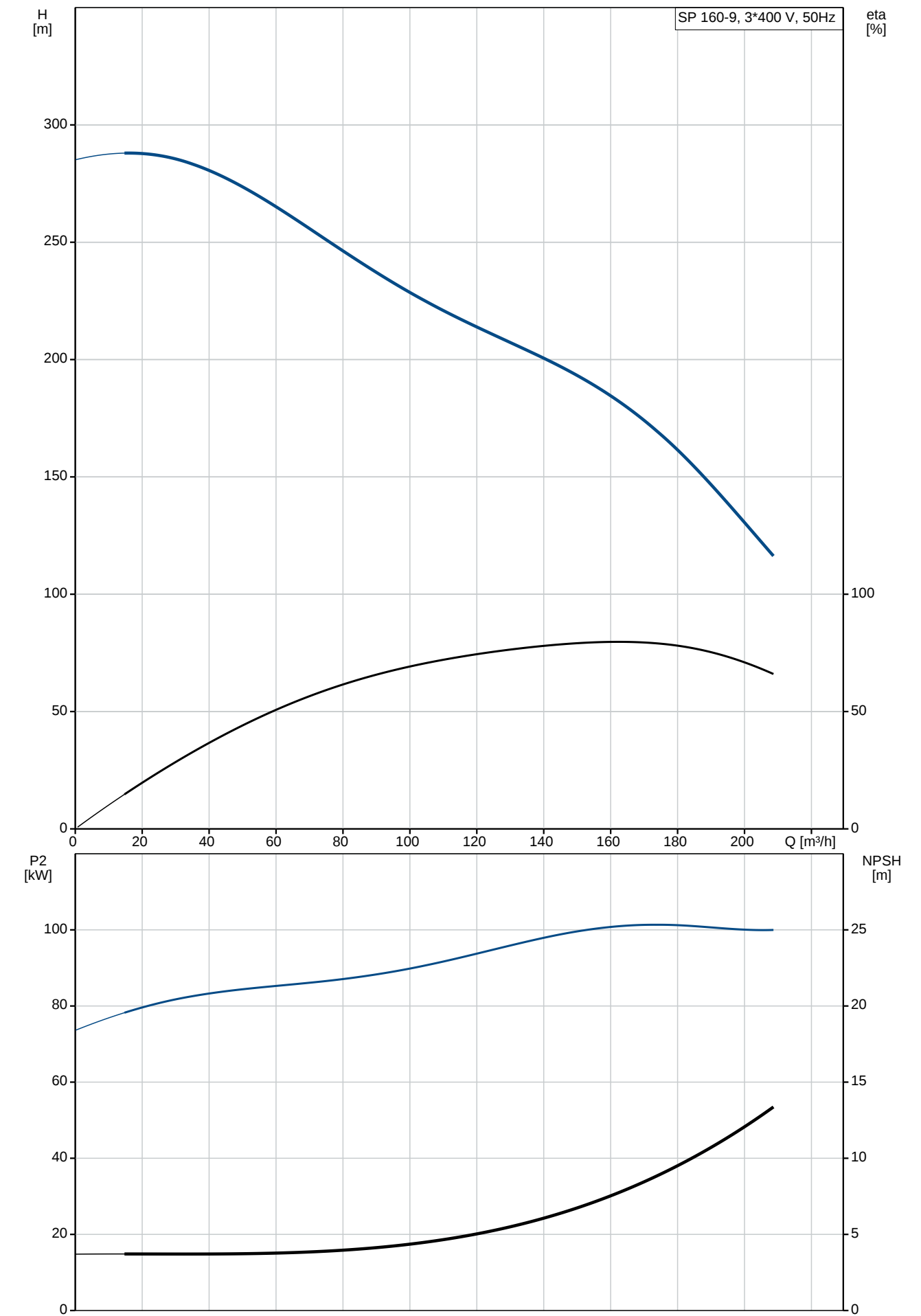
Electrical data:

Motor type: FRANKLIN
 Rated power - P2: 110 kW
 Power (P2) required by pump: 110 kW
 Mains frequency: 50 Hz
 Rated voltage: 3 x 380-400-415 V
 Rated current: 226-222-223 A
 Cos phi - power factor: 0.87-0.84-0.81
 Rated speed: 2920-2930-2935 rpm
 Start. method: direct-on-line
 Enclosure class (IEC 34-5): IP58
 Insulation class (IEC 85): F
 Built-in temp. transmitter: yes

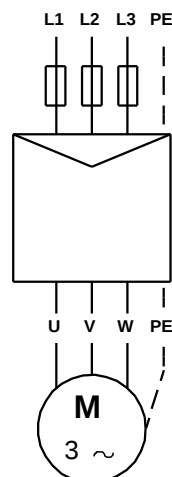
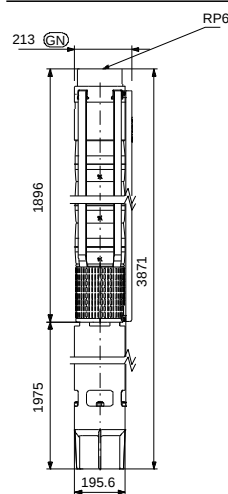
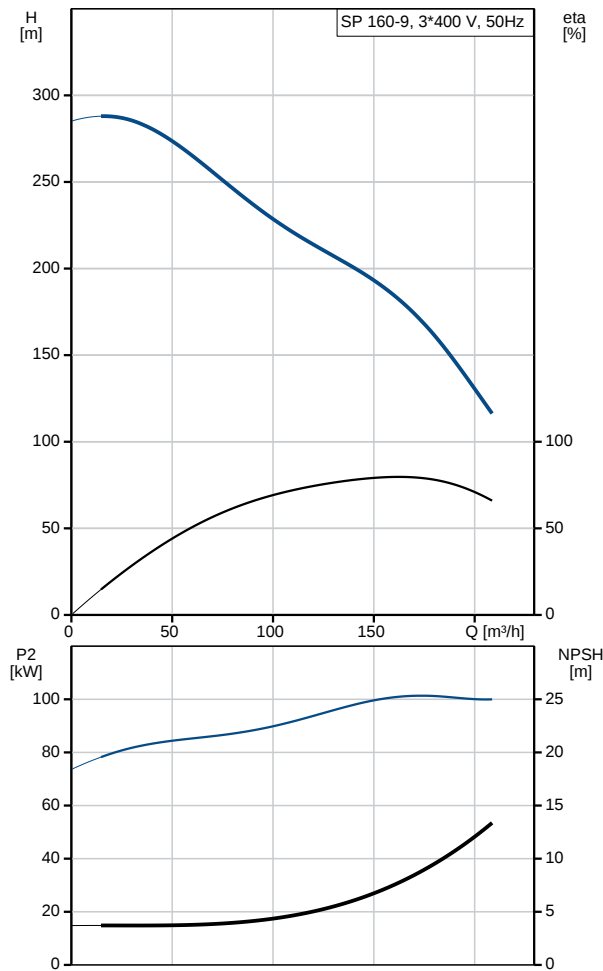
Others:

Minimum efficiency index, MEI ≥: ---
 ErP status: EuP Standalone/Prod.
 Net weight: 419 kg
 Gross weight: 495 kg
 Shipping volume: 0.643 m³

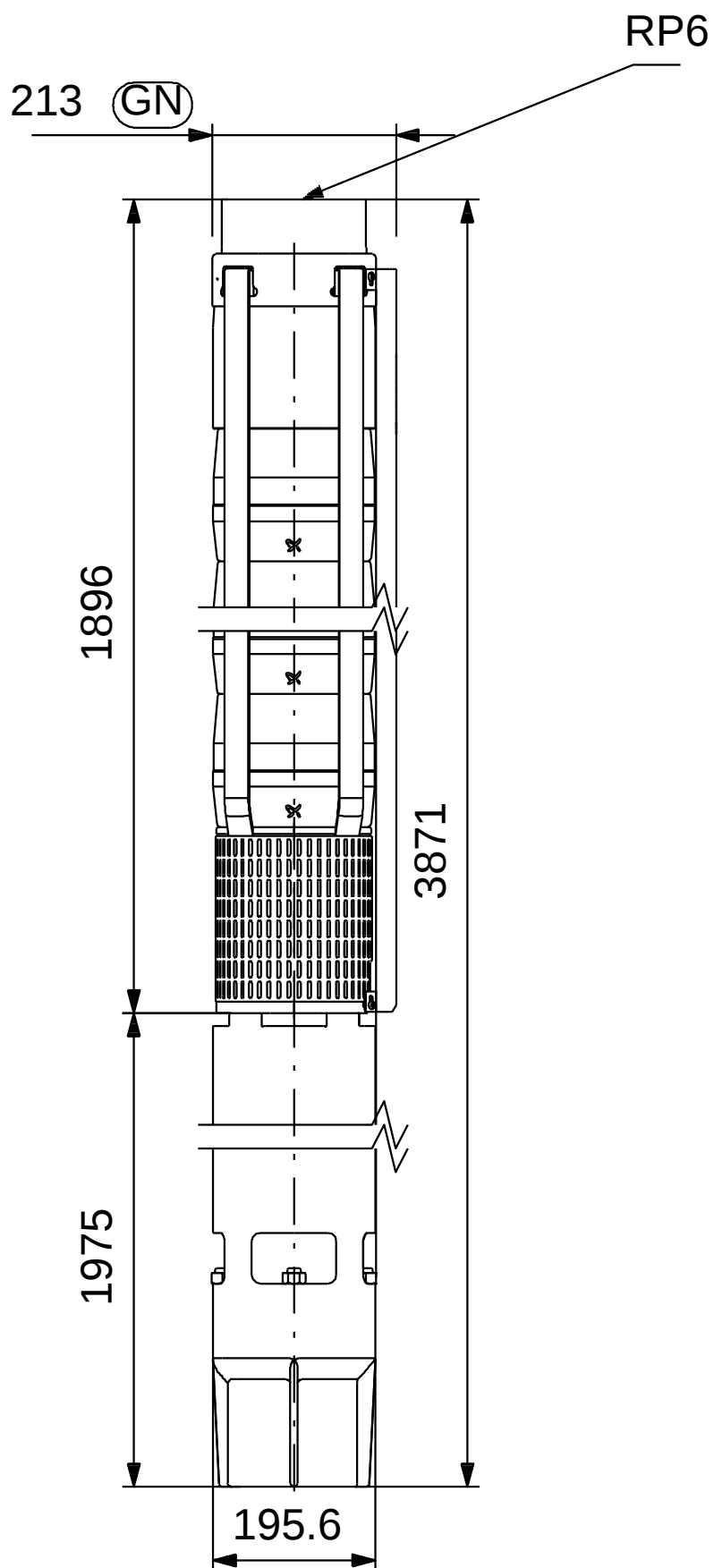
On request SP 160-9 50 Hz



Description	Value
General information:	
Product name:	SP 160-9
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	160 m³/h
Rated head:	183 m
Stages:	9
Impeller reduc.:	NONE
Curve tolerance:	ISO9906:2012 3B
Model:	B
Valve:	YES
Materials:	
Pump:	Stainless steel
	EN 1.4301
	AISI 304
Impeller:	Stainless steel
	EN 1.4301
	AISI 304
Motor:	Stainless steel
	DIN W.-Nr. 1.4301
	AISI 304
Installation:	
Pump outlet:	RP6
Motor diameter:	8 inch
Liquid:	
Pumped liquid:	Water
Maximum liquid temperature:	40 °C
Max liquid t at 0.15 m/sec:	30 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	FRANKLIN
Applic. motor:	GRUNDFOS
Rated power - P2:	110 kW
Power (P2) required by pump:	110 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-400-415 V
Rated current:	226-222-223 A
Cos phi - power factor:	0.87-0.84-0.81
Rated speed:	2920-2930-2935 rpm
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP58
Insulation class (IEC 85):	F
Built-in temp. transmitter:	yes
Motor No:	82193227
Others:	
Minimum efficiency index, MEI ≥:	---
ErP status:	EuP Standalone/Prod.
Net weight:	419 kg
Gross weight:	495 kg
Shipping volume:	0.643 m³



On request SP 160-9 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 SP 160-9, Product No. On request
Valid from 1.3.1998 (9809)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
-	Pump w/o motor				1	pcs
1	Valve casing				1	
1d	O-ring		Diameter: 164		1	
			Thickness: 3			
- 2	Valve				1	
	Shaft				1	
2	Valve flap				1	
3	Valve seat				1	
3a	Retainer for valve seat				1	
3b	Retainer for valve seat				1	
- 4	Chamber cpl.				1	
	Chamber				1	
5	Stop				1	
6	Bearing ring, upper				1	
7	Seal ring				1	
- 9	Chamber cpl.				8	
	Chamber				1	
7	Seal ring				1	
8	Bearing				1	
14	Suction interconnector				1	
15	Strainer				1	
- 16	Shaft cpl.		Diameter: 32		1	
			Length (mm): 1565.5			
-	Coupling cpl.				1	
	Washer					
	Coupling					
32	O-ring					
17	Strap				4	
- 18	Cable guard cpl.				1	
	Holder for cable guard				4	
	Holder for cable guard				2	
	Rail for cable guard				1	
19	Nut				4	
19a	Nut		Thread: M16		4	
22	Hex head bolt		Length (mm): 60		4	
			Thread: M16			
23	Rubber guard				1	
28	Lock				1	
39	Helical compression spring				1	
- 49d	Impeller cpl.				9	
48	Split cone nut				1	
- 49	Impeller cpl. reduced diameter				1	
72	Wear ring					
49.b	Split cone				1	
- 70	Valve guide				1	
	Valve guide				1	
	Valve guide				1	
	Valve guide				1	
	Valve guide				1	
	Cone				1	
71	Washer				4	
77	Cover plate				1	
77a	Cross recess Pan head screw				6	
78	Nameplate				2	
78a	Rivet				2	
	Motor				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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