

NBE100-200/178 A-F2-A-BAQE

Grundfos pump 99157291



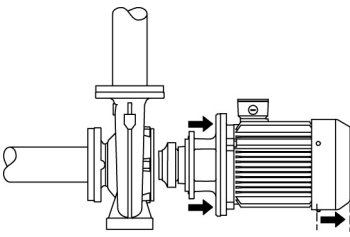
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<https://www.lenntech.com/grundfos/NBE00/99157291/NBE-100-200-178-A-F2-A-E-BAQE.html>

info@lenntech.com

tel. +31 152 610 900

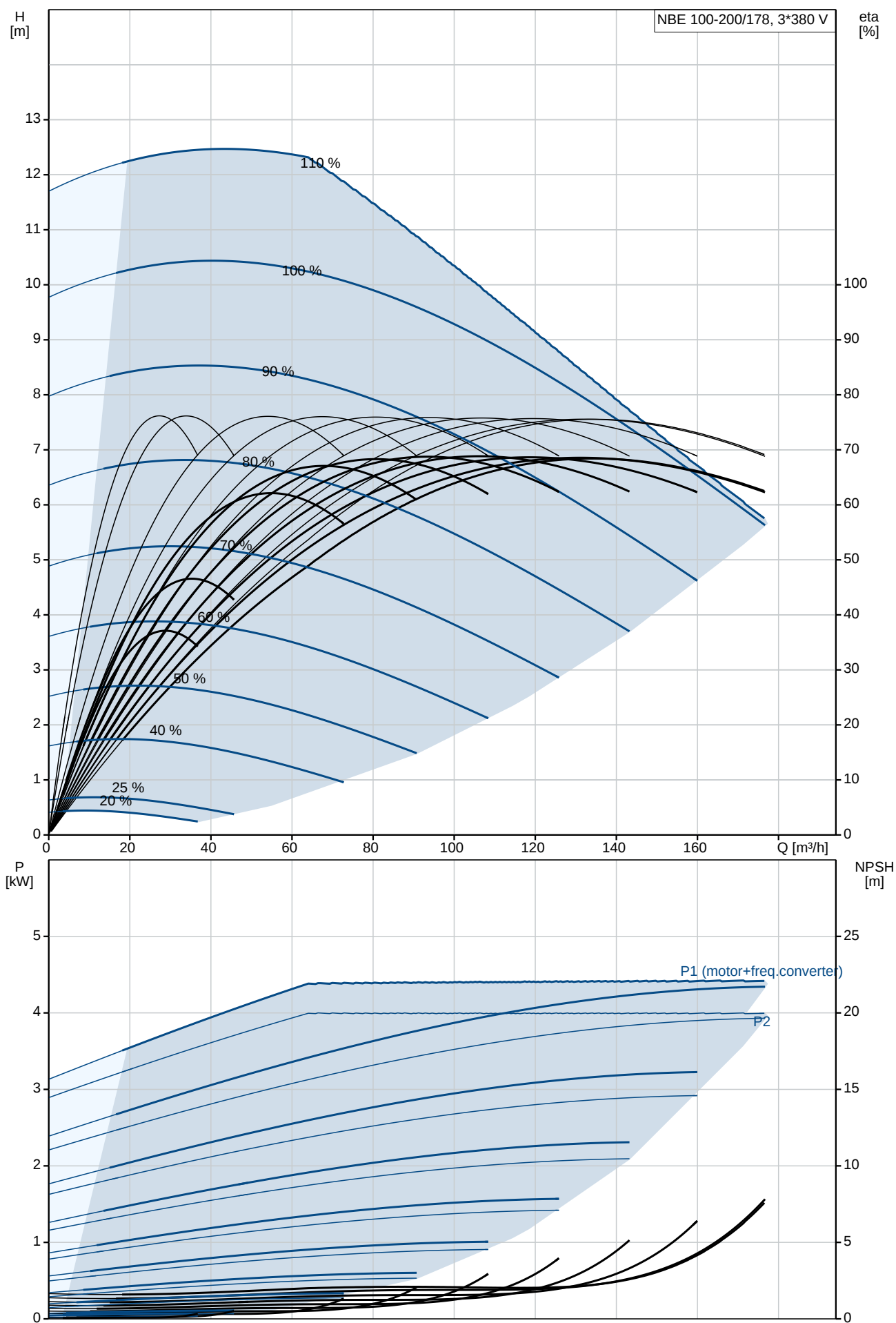
fax. +31 152 616 289

Position	Qty.	Description
	1	NBE 100-200/178 A-F2-A-E-BAQE  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 (10 bar). Flanges are PN 16 with dimensions according to EN 1092-2. The pump has an axial suction port, radial discharge port, horizontal shaft and a back pull-out design enabling removal of the motor, motor stool, cover and impeller without disturbing the pump housing or pipework. The unbalanced rubber bellows seal is according to DIN EN 12756. The pump is close-coupled to a fan-cooled, permanent-magnet synchronous motor. The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement. Further product details An external sensor can be connected if controlled pump operation is required for flow, differential pressure or temperature control. An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status: • "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights) • "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) • "Alarm": Motor has stopped (flashing red indicator lights). Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". The back pull-out design means that the pump can be serviced by a single person without disturbing the pump housing or pipe work.  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.

Position	Qty.	Description
		Wear rings used in pump housing and for impeller are made of bronze/brass or cast iron. Motor stool and pump cover are made of cast iron (EN-GJL-250). Coupling guards are fitted to the motor stool. The pump cover is provided with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft. Primary seal: - Rotating seal ring material: carbon graphite, metal-impregnated - Stationary seat material: silicon carbide (SiC) This material pairing has a very good corrosion resistance and is especially suitable for water up to 120 °C. However, seal life will be reduced at temperatures above 90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face. Secondary seal material: EPDM (ethylene-propylene rubber) EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils. 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 efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions. The terminal box holds terminals for these connections: - one dedicated digital input - two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V 5 V voltage supply to potentiometer and sensor - one configurable digital input or open-collector output - Grundfos Digital Sensor input and output 24 V voltage supply for sensors - two signal-relay outputs (potential-free contacts) - GENIbus connection - interface for Grundfos CIM fieldbus module. Technical data Liquid: Pumped liquid: Water Liquid temperature range: 0 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Rated flow: 135 m³/h Rated head: 7.9 m Actual impeller diameter: 178 mm Impeller nom: 200 mm Primary shaft seal: BAQE 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 Shaft: Stainless steel 1.4301 304

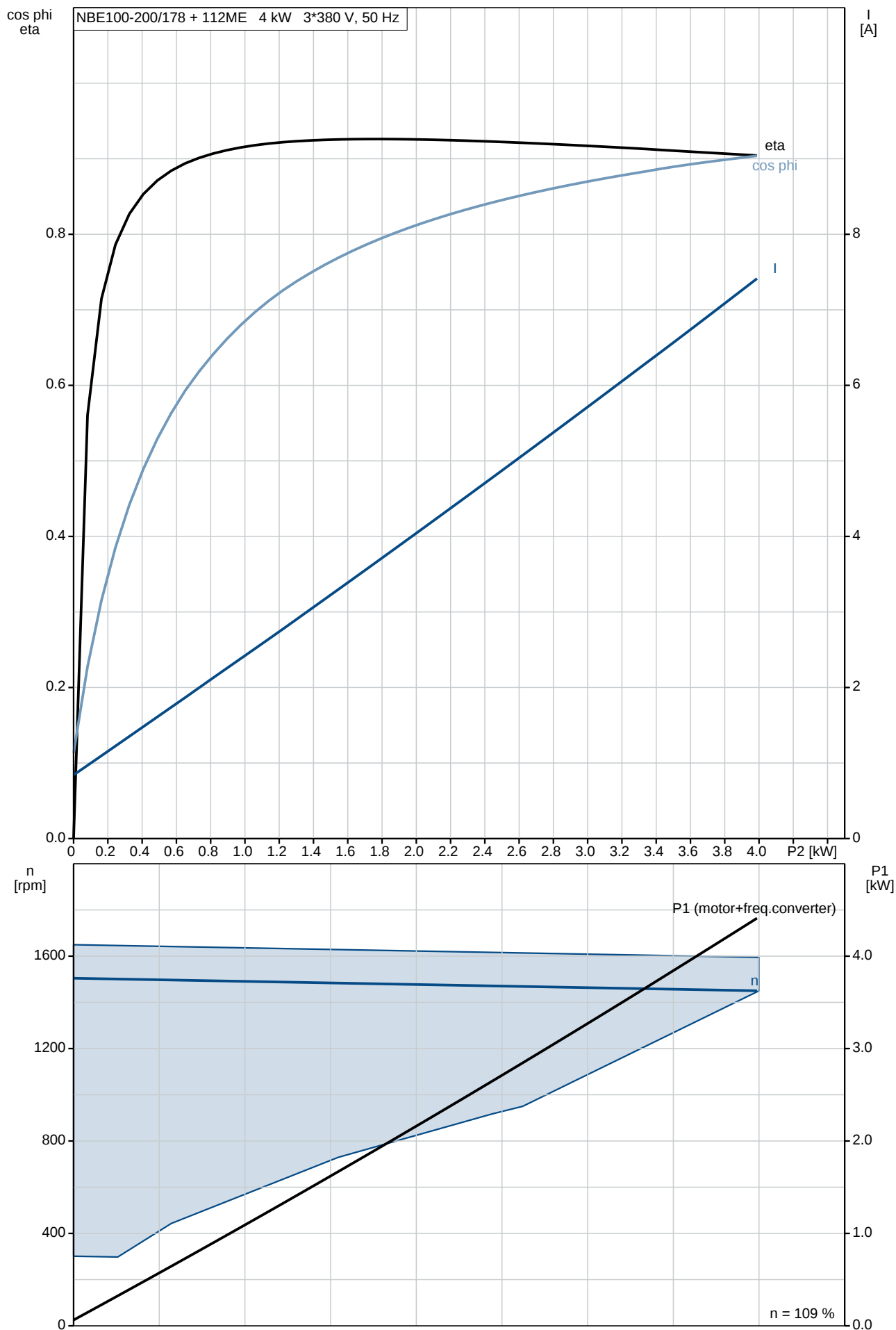
Position	Qty.	Description
		Rubber: EPDM Wear ring mat.: High alloy brass(CuZn34Mn3Al2 Installation: Maximum ambient temperature: 50 °C Maximum operating pressure: 16 bar Flange standard: EN 1092-2 Pump inlet: DN 125 Pump outlet: DN 100 Pressure rating: PN 16 Electrical data: Motor type: 112ME IE Efficiency class: IE5 Rated power - P2: 4 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 7.70-6.00 A Cos phi - power factor: 0.92-0.87 Rated speed: 180-2200 rpm Efficiency: 90.3% Number of poles: 4 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Lubricant type: Grease Others: Minimum efficiency index, MEI ≥: 0.65 ErP status: EuP Standalone/Prod. Net weight: 107 kg Gross weight: 124 kg Shipping volume: 0.315 m³

On request NBE 100-200/178 A-F2-A-E-BAQE 50 Hz

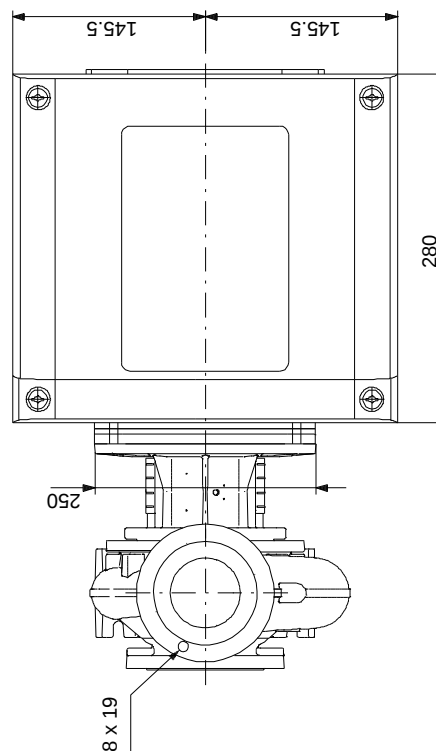
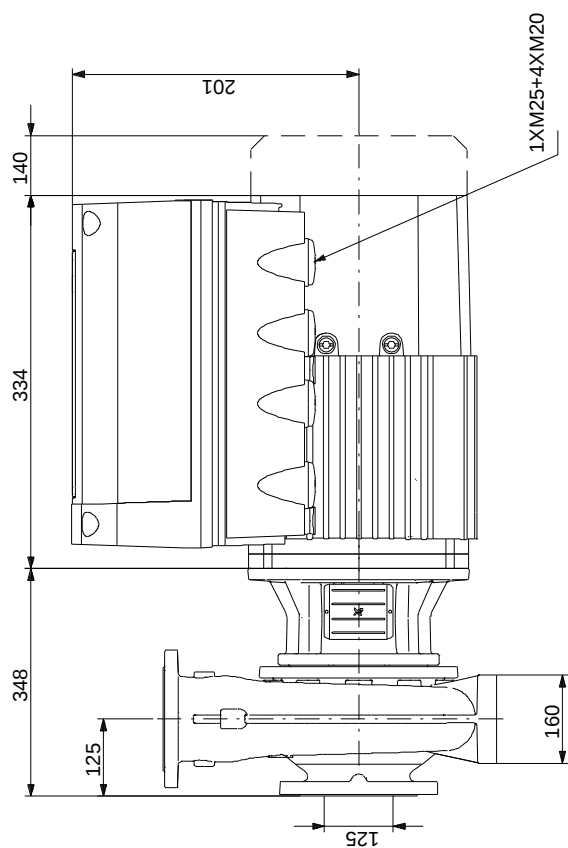
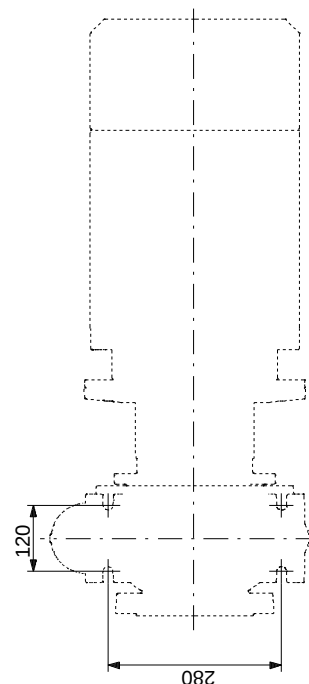
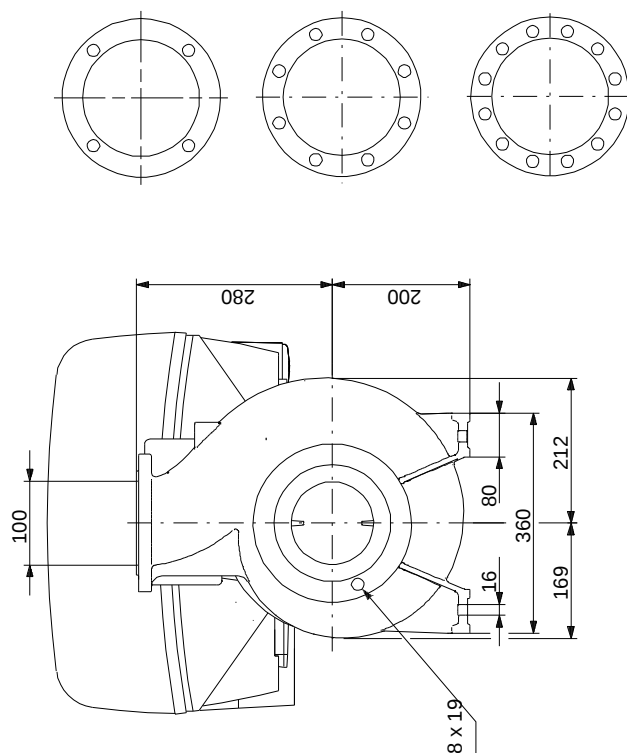


Description	Value
Others:	
Minimum efficiency index, MEI ≥:	0.65
ErP status:	EuP Standalone/Prod.
Net weight:	107 kg
Gross weight:	124 kg
Shipping volume:	0.315 m³
Config. file no:	99100731

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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 NBE 100-200/178, Product No. On request
Valid from 1.3.2010 (1009)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Nut				1	pcs
66	Washer		Designation: DIN 125 A2		1	
			Internal diameter: 19			
			Outer diameter: 34			
			Thickness: 3			
66a	Spring lock washer				1	
67	Nut		Thread: M18		1	
-	Motor stool cpl.				1	pcs
1a	Motor stool				1	
7	Coupling guard				2	
77a	Pan head screw				4	
-	Cover cpl.				1	pcs
77	Cover				1	
-	Pump housing cpl.				1	pcs
6	Pump housing				1	
36	Nut		Thread: M10		8	
-	Shaft cpl.				1	pcs
9	Socket set screw		Length (mm): 6		2	
			Thread: M8			
11	Parallel key				1	
51	Stub shaft				1	
17	Air vent screw				1	pcs
-	Plug				1	pcs
20	Plug				2	
49	Impeller				1	pcs
72.a	O-ring		Diameter: 221,84		1	pcs
			Material type: EPDM			
			Thickness: 3,53			
105	Shaft seal		Material type: BAQE		1	pcs
105b	Spacer				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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info@lenntech.com

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289