

NBE80-160/167 A-F2-A-GQQE

Grundfos pump 96539191



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<https://www.lenntech.com/grundfos/NBE00/96539191/NBE-80-160-167-A-F-A-GQQE.html>

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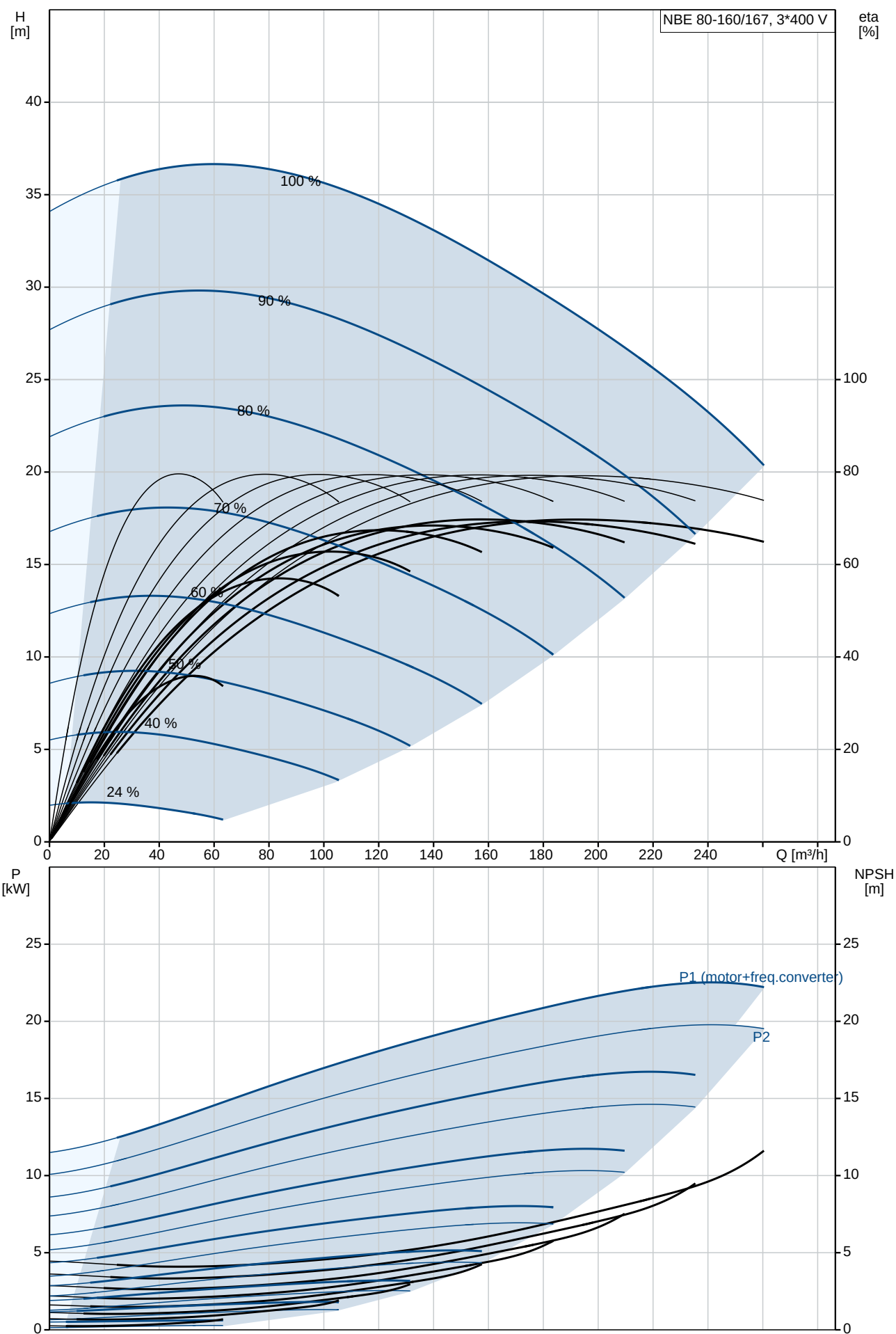
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Position	Qty.	Description
	1	NBE 80-160/167 A-F-A-GQQE  Note! Product picture may differ from actual product Product No.: On request Non-self priming, single-stage centrifugal pump according to DIN. The pump is for the pumping of thin, clean or slightly contaminated liquids without abrasive or long-fibred solids. The impeller is hydraulically as well as dynamically balanced. The pump has the following characteristics: - flange dimensions according to EN 1092-2, - Cast iron volute pump housing, - stainless steel shaft and Cast iron impeller and bronze wear rings, - unbalanced mechanical shaft seal according to EN 12756. The pump is fitted with an IEC-flanged three-phase MGE motor with frequency converter and PI-controller integrated in the motor terminal box. No additional motor protection is required, as both motor and electronics are protected by integrated overload and temperature protection. An external sensor can be connected if controlled pump operation based on for example flow, differential pressure or temperature is required. A control panel enables setting of required setpoint as well as setting of pump to MIN or MAX operation or to STOP. The control panel has indicator lights for "Operation" and "Fault". Communication with the pump is possible by means of Grundfos R100 Remote Control enabling further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". The terminal box holds terminals for the connection of: - pump start/stop (potential-free contact), - external remote setpoint setting via analog signal, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA, - 5 V voltage supply for setpoint potentiometer, I_{max} = 5 mA, - sensor, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA, - 24 V voltage supply for sensor, I_{max} = 40 mA,

Position	Qty.	Description
		- input for forced control to MIN or MAX (potential-free contact), - potential-free fault signal relay with changeover contact, - RS485 GENIbus. Liquid: Pumped liquid: Water Liquid temperature range: -25 .. 90 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Rated flow: 198 m³/h Rated head: 27.8 m Actual impeller diameter: 167 mm Impeller nom: 160 mm Primary shaft seal: GQQE Materials: Pump housing: Cast iron EN-JL1040 Impeller: Cast iron EN-JL1030 ASTM A48-30 B Installation: Maximum ambient temperature: 40 °C Maximum operating pressure: 16 bar Flange standard: DIN Pump inlet: DN 100 Pump outlet: DN 80 Pressure rating: PN 16 Electrical data: Motor type: 180M Rated power - P2: 22 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415 V Rated current: 42 A Cos phi - power factor: 0.94 Rated speed: 360-2910 rpm Number of poles: 2 Enclosure class (IEC 34-5): IP54 Insulation class (IEC 85): F Others: Net weight: 269 kg Gross weight: 291 kg Shipping volume: 0.96 m³

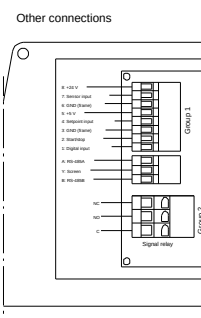
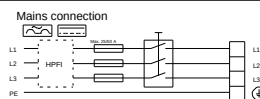
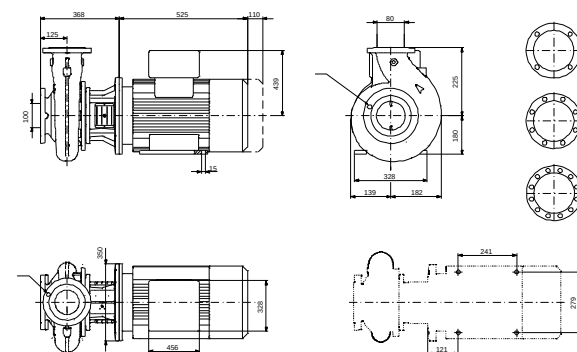
On request NBE 80-160/167 A-F-A-GQQE 50 Hz



The figure consists of two vertically stacked graphs sharing a common x-axis representing flow rate Q in m^3/h , ranging from 0 to 250.

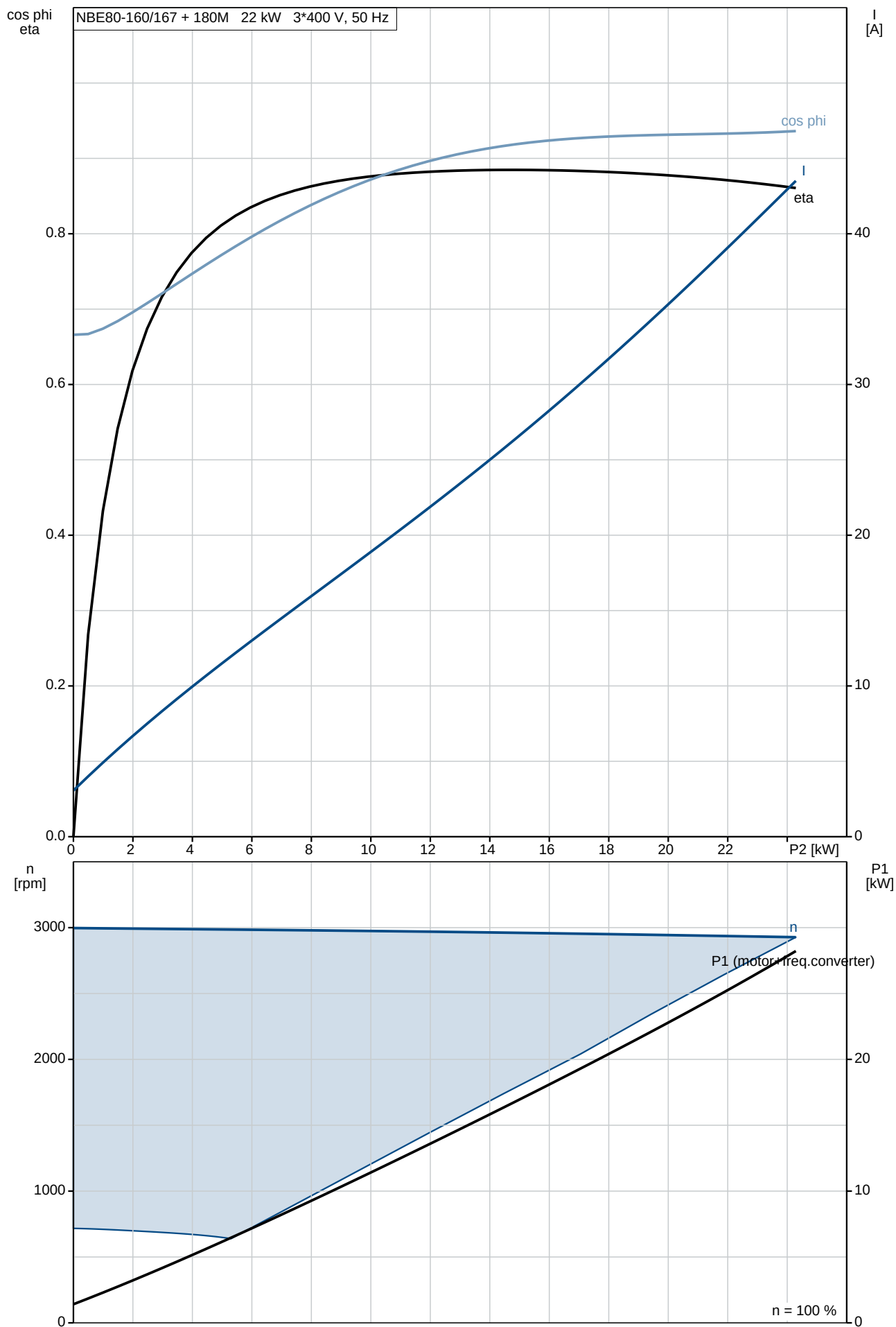
Top Graph: The left y-axis is head H in meters [m], ranging from 0 to 40. The right y-axis is efficiency η in percent [%], ranging from 0 to 100. The graph shows several performance curves for different power levels: 24%, 40%, 50%, 60%, 70%, 80%, 90%, and 100%. A light blue shaded region indicates the operational range. The curves generally show a peak head followed by a decline as flow rate increases.

Bottom Graph: The left y-axis is power P in kW [kW], ranging from 0 to 25. The right y-axis is NPSH in meters [m], ranging from 0 to 25. The graph shows two sets of curves: $P1$ (motor + freq. converter) and $P2$. A light blue shaded region indicates the operational range. The $P1$ curves are generally higher than the $P2$ curves, indicating higher power requirements for the motor and frequency converter combination.

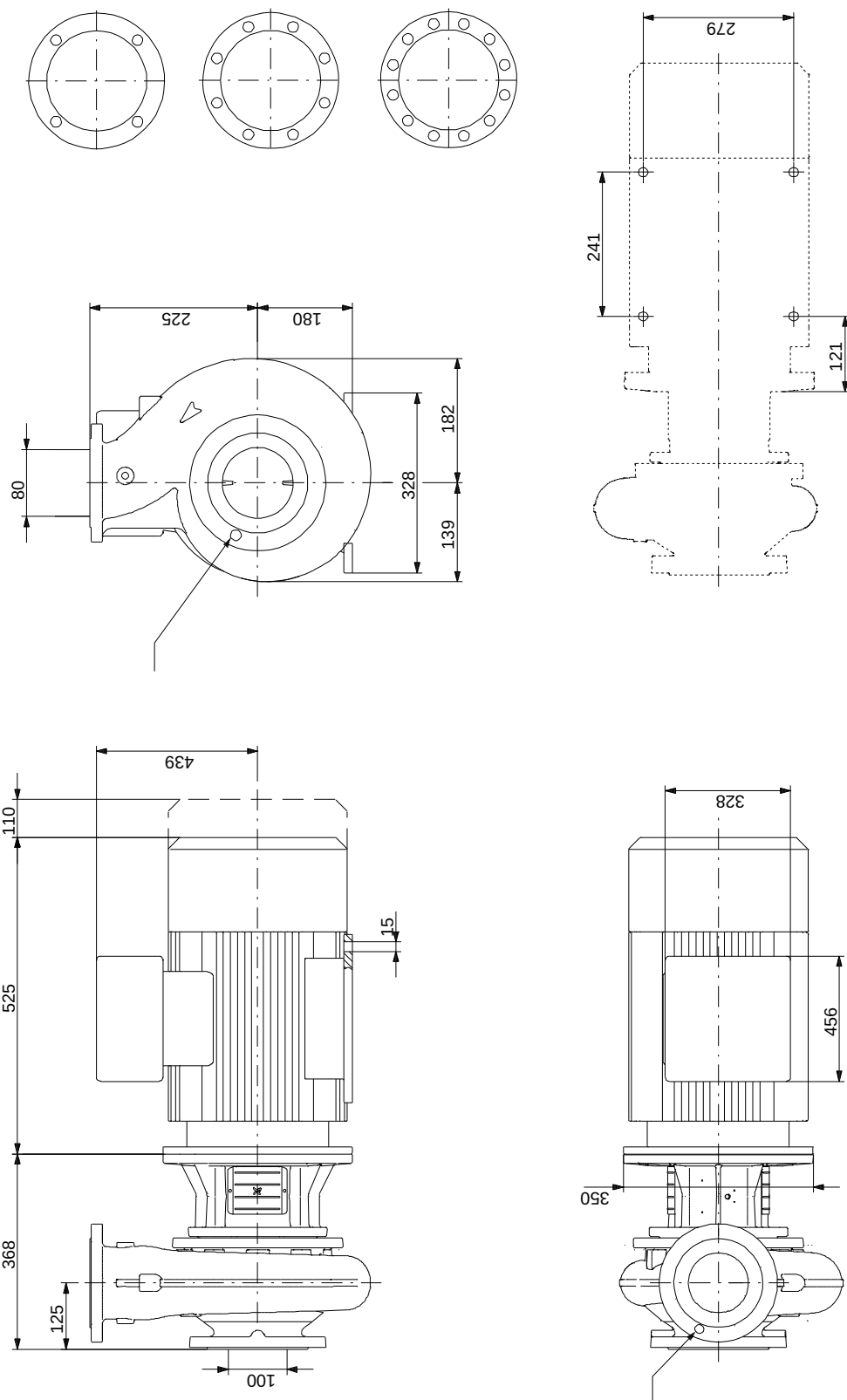


On request NBE 80-160/167 A-F-A-GQQE 50 Hz

NBE80-160/167 + 180M 22 kW 3*400 V, 50 Hz

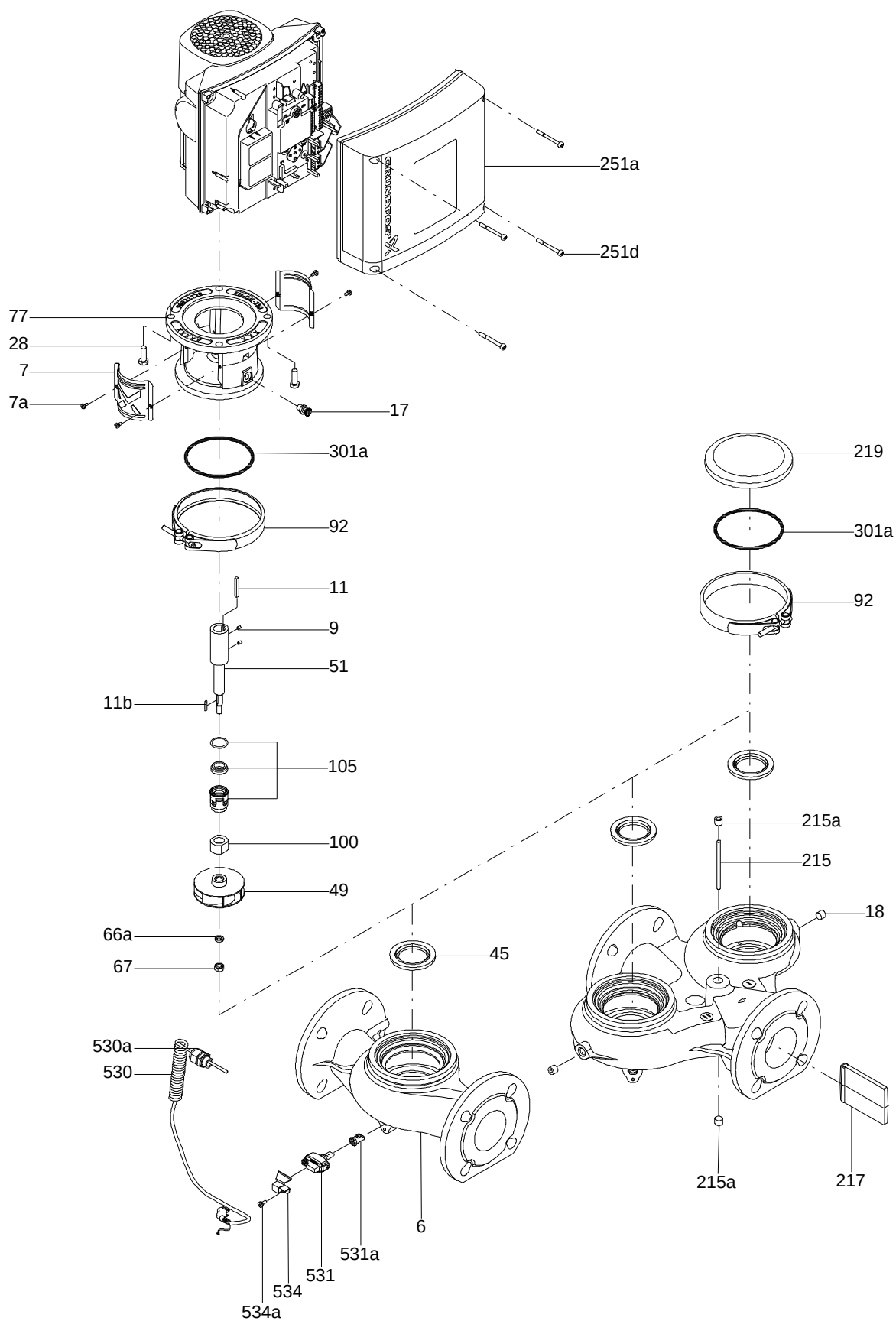


On request NBE 80-160/167 A-F-A-GQQE 50 Hz

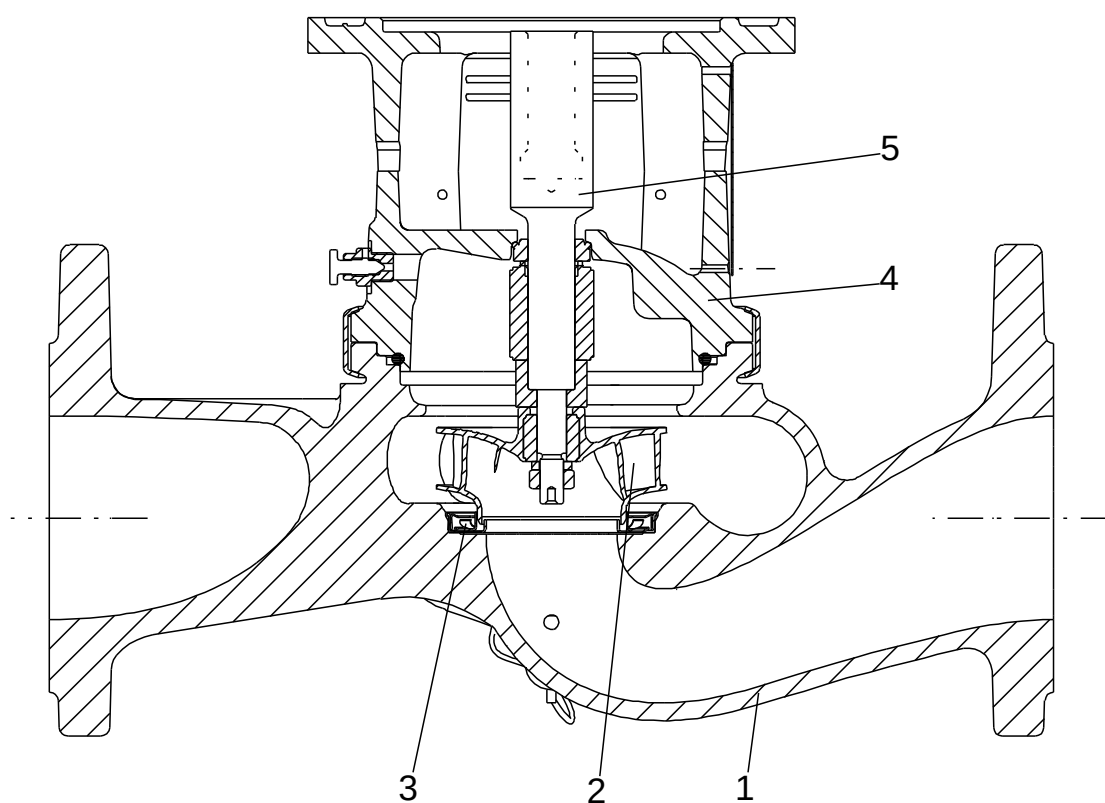


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

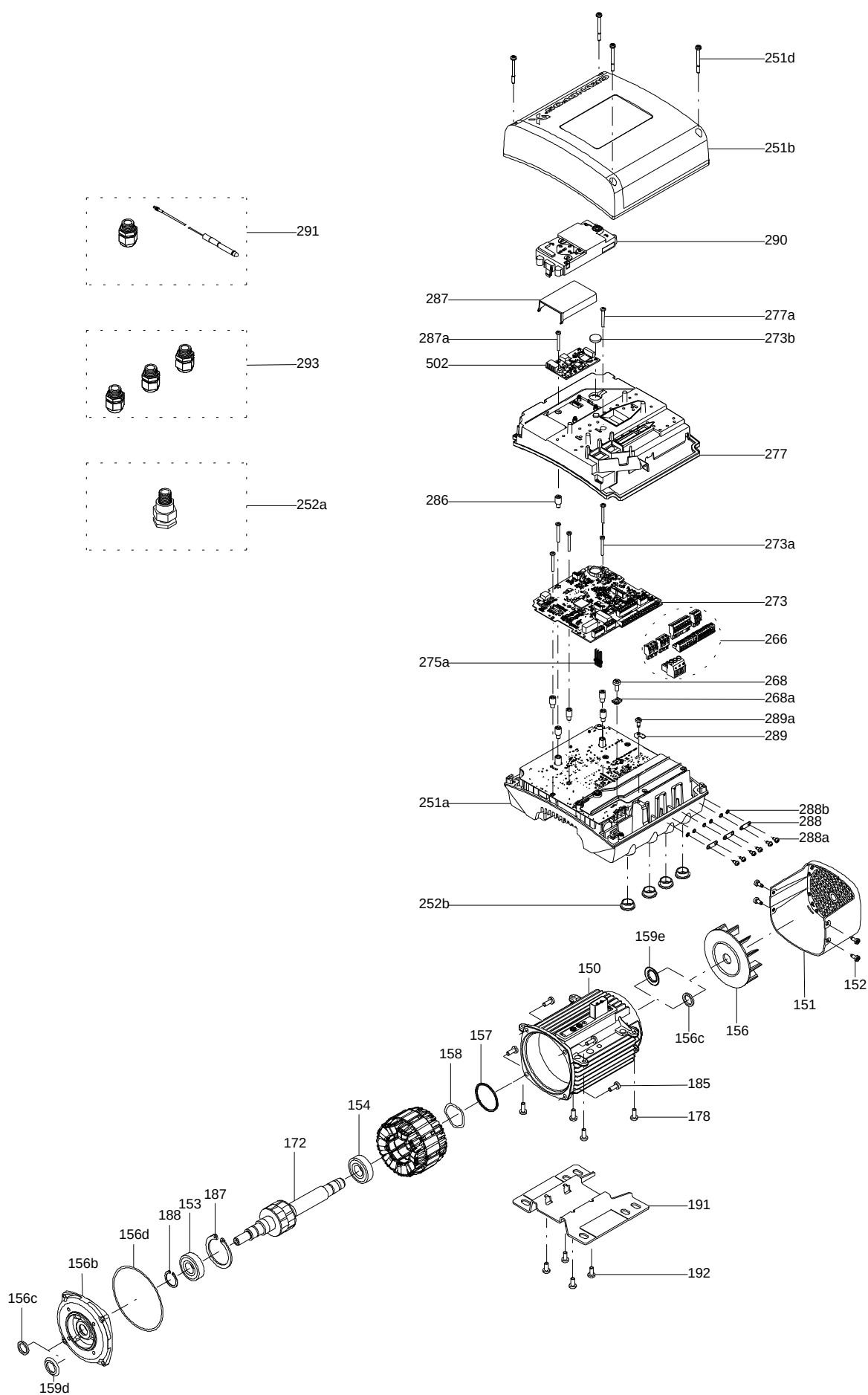


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list NBE 80-160/167, Product No. On request
Valid from 20.6.2008 (0825)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Nut				1	pcs
66	Washer				1	
66a	Spring lock washer				1	
67	Nut		Thread: M14		1	
-	Motor stool cpl.				1	pcs
1a	Motor stool				1	
7	Coupling guard				2	
77a	Pan head screw				4	
-	Pump housing cpl.				1	pcs
6	Pump housing				1	
36	Nut		Thread: M10		6	
-	Stub shaft				1	pcs
9	Socket set screw		Length (mm): 6		2	
			Thread: M8			
11	Parallel key		Dimension: 6X6X35		1	
51	Pump shaft				1	
49	Impeller				1	pcs
72a	O-ring		Diameter: 177,39		1	pcs
			Material type: EPDM			
			Thickness: 3,53			
105	Shaft seal		Material type: GQQE		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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