NBG, NBGE, NKG, NKGE

Single-stage end-suction pumps according to ISO 2858

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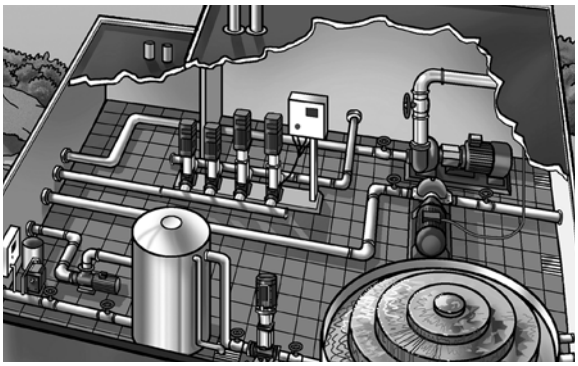
1. Applications

Introduction

NBG and NKG are multipurpose pumps suitable for a variety of different applications demanding reliable and cost-efficient supply.

NBG and NKG pumps are used in five main fields of application:

- water supply
- industrial pressure boosting
- industrial liquid transfer
- HVAC
- irrigation.



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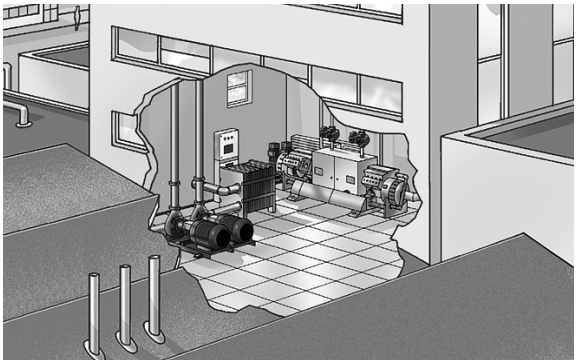
Water supply

Besides general water supply in municipal and industrial waterworks, the NBG and NKG pumps are used for these specific applications:

- filtration and transfer at waterworks
- pressure boosting in mains
- pressure boosting in high-rise buildings, hotels, etc.
- pressure boosting in industrial buildings
- various swimming bath applications.



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Industrial pressure boosting

Pressure boosting in these applications:

- industrial washing and cleaning systems
- industrial washdown systems
- vehicle washing tunnels
- firefighting systems.

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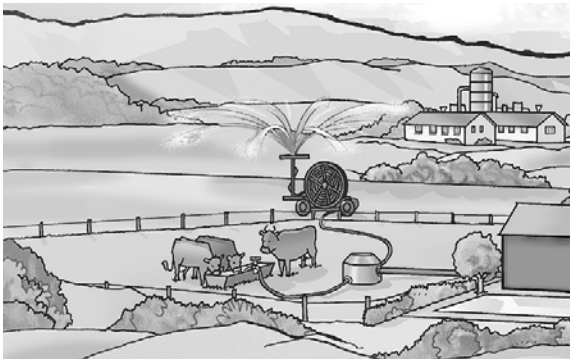
Industrial liquid transfer

Liquid transfer in these applications:

- cooling and air-conditioning systems, refrigerants
- boiler-feed and condensate systems
- aquafarming
- industrial heating systems
- district heating plants.



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HVAC

Liquid transfer in these applications:

- heating systems
- ventilation systems
- air-conditioning systems.

Irrigation

Irrigation covers these applications:

- field irrigation, flooding
- sprinkler irrigation
- drip-feed irrigation.

2. Features and benefits

NBG and NKG pumps offer the following features and benefits:

- The pumps are non-self-priming, single-stage, centrifugal volute pumps with axial inlet port, radial outlet port and horizontal shaft.
- All pumps are according to ISO 5199.
- Inlet and outlet flanges are according to EN 1092-2.
- Dimensions and rated performance are according to ISO 2858 (16 bar).
  However, the stainless steel product range is designed for PN 25.
- The mechanical shaft seal has dimensions according to EN 12756.
- NBG and NKG pumps offer flow rates from 2 to 1500 m^3/h and heads from 2 to 250 m.
- The pumps can be equipped with an MGE motor with integrated frequency converter or connected to a Grundfos CUE external frequency converter.
- All pumps are statically balanced according to ISO 1940-1 class 6.3.
  Impellers are hydraulically balanced.

GrA2519

Fig. 1 NBG pump

- For NBG pumps, the back pull-out design enables removal of the motor, motor stool and impeller without disturbing the pump housing or pipework. Even the largest pumps can thus be serviced by a single person with a crane.

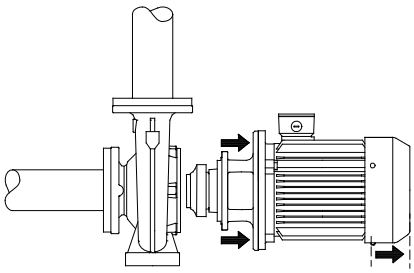

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Fig. 3 NBG back pull-out design

- The NBG pump is close-coupled with a totally enclosed fan-cooled standard motor with main dimensions to IEC and DIN standards.
- For most of the NB pumps, a Grundfos designed base frame is available. For more information, see section *NBG base frames* on page 164.

GrA2514

Fig. 2 NKG pump

- For NKG pumps, the back pull-out design enables removal of the motor, motor stool and impeller without disturbing the pump housing or pipework. Even the largest pumps can thus be serviced by a single person with a crane.

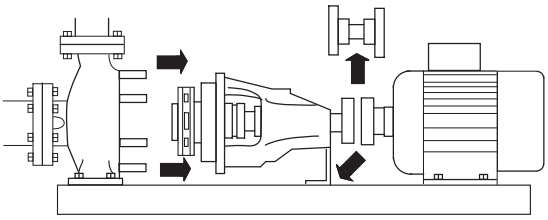

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Fig. 4 NKG back pull-out design

- The NKG pump is long-coupled with a totally enclosed fan-cooled standard motor with main dimensions to IEC and DIN standards and mounting designation B3 (IM 1001).

Pumps with standard motors

IE1 IE2 IE3

NBG and NKG pumps are fitted with standard motors with efficiency classes IE1, IE2 and IE3 for low-voltage three-phase motors.

The IE3 premium efficiency motors have a higher efficiency level than IE2 high efficiency and IE1 standard efficiency motors.

Pumps with electronic speed control

NBGE and NKEG pumps are NBG and NKG pumps equipped with a motor with built-in frequency converter and the necessary application software to achieve an all-in-one solution enabling electronic speed control.

Electronic speed control enables continuously variable control of motor speed which again enables adaptation of the performance to a given requirement.

If a sensor is installed, NBGE and NKGE pumps allow for any of these configurations and control methods:

- constant pressure
- temperature control
- constant flow.

NBGE, NKGE pumps with 2-pole motors up to 11 kW and 4-pole motors up to 7.5 kW are fitted with Grundfos permanent-magnet MGE motors that have motor efficiency class IE5 according to IEC 60034-30-2..

Why select an NBGE, NKGE pump?

A pump with electronic speed control offers these benefits:

- energy savings
- increased comfort
- control and monitoring of pump performance
- communication with the pump.

For further information on electronic speed control, see section *9. Speed-controlled pumps*.

Energy-optimised pumps

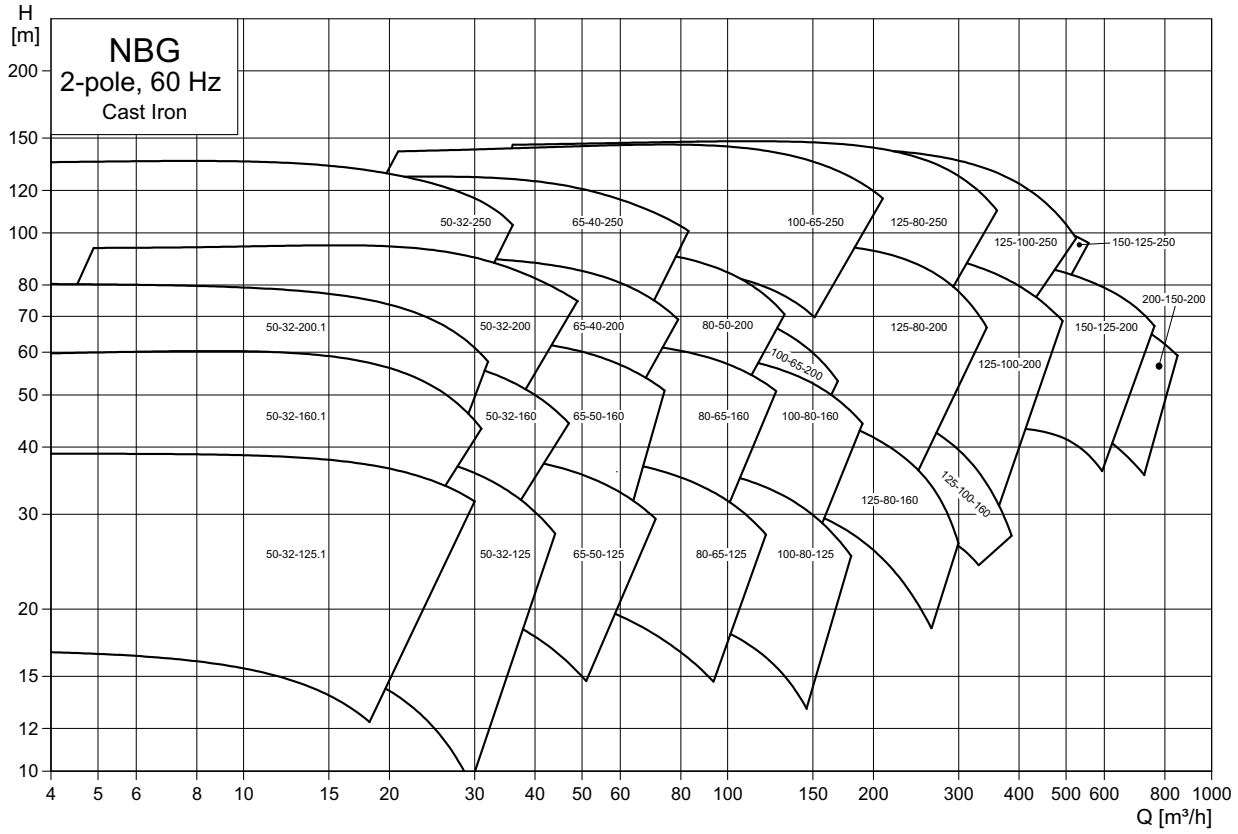
NB, NK pumps are energy-optimised and comply with the EuP Directive, Commission Regulation (EC) No 547/2012, in which most pumps are classified or graduated in an energy efficiency index (MEI). See also section *18. Minimum efficiency index*.

ATEX-approved pumps

On request, Grundfos offers NBG and NKG pumps with ATEX-approval in accordance with Directive 94/9/EC, group II, category 2G/D and 3G/D. For more information on ATEX-approved pumps, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858".

3. Performance range

NBG, 2-pole



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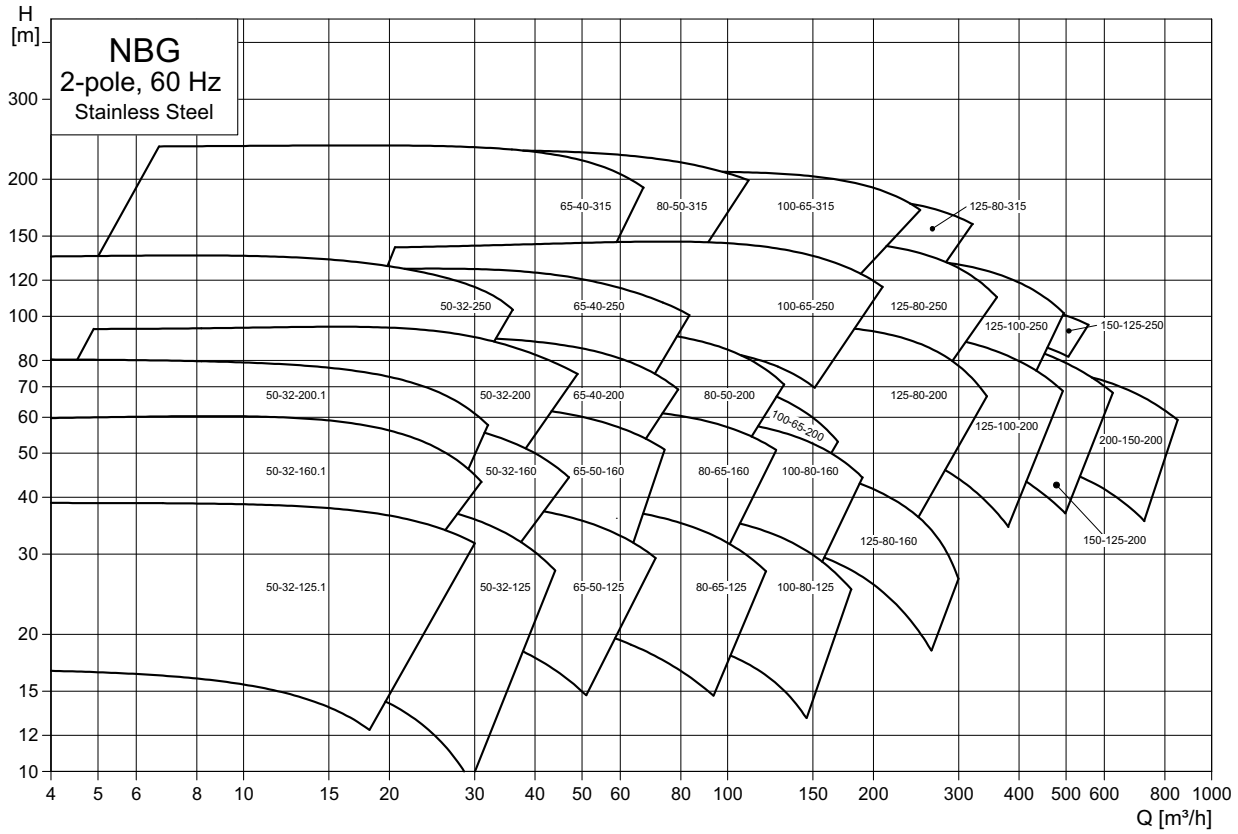

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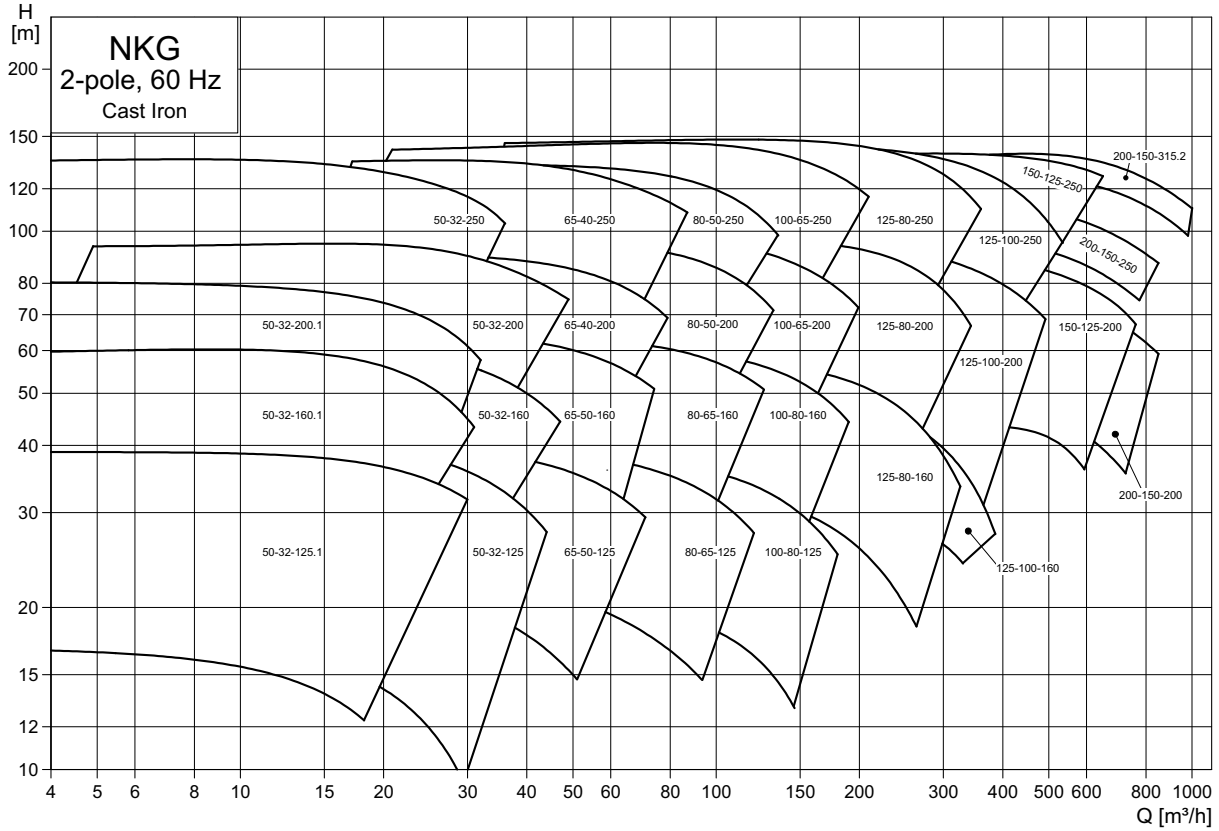
NKG, 2-pole



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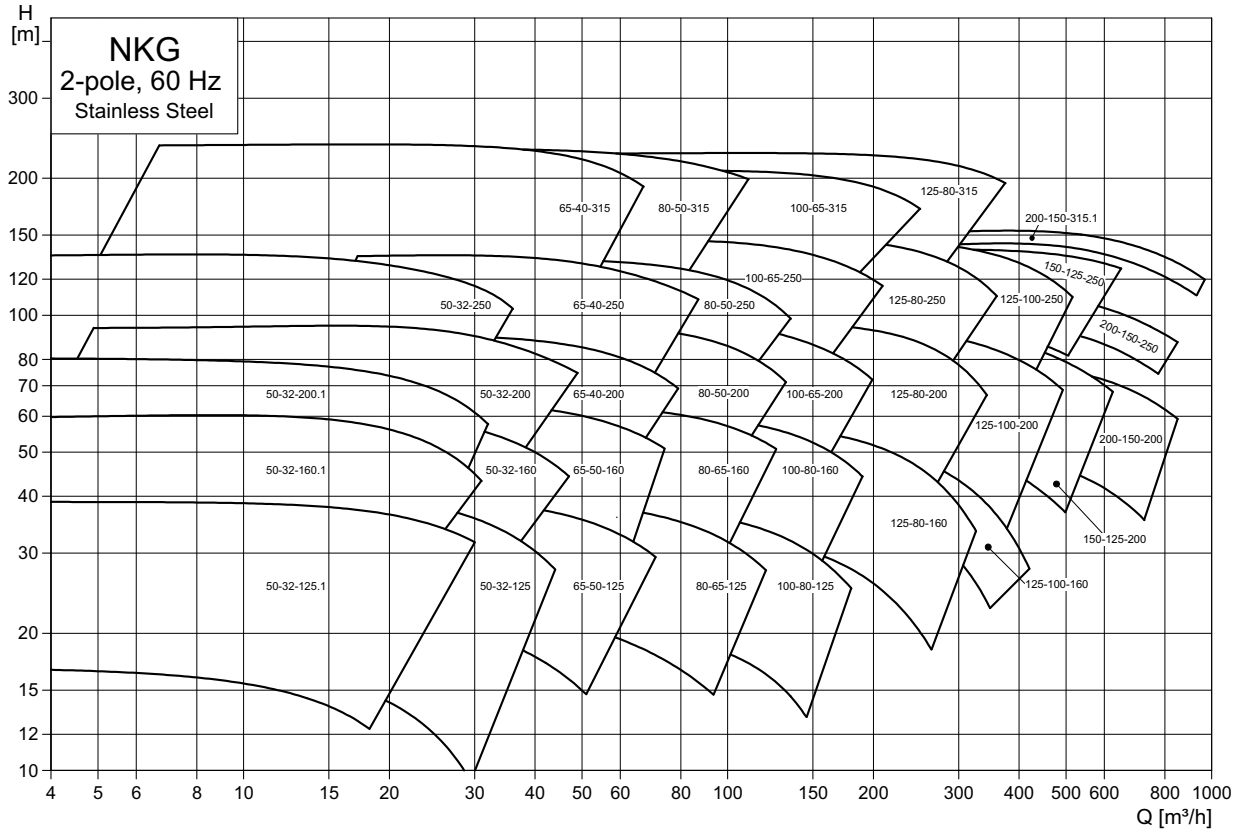

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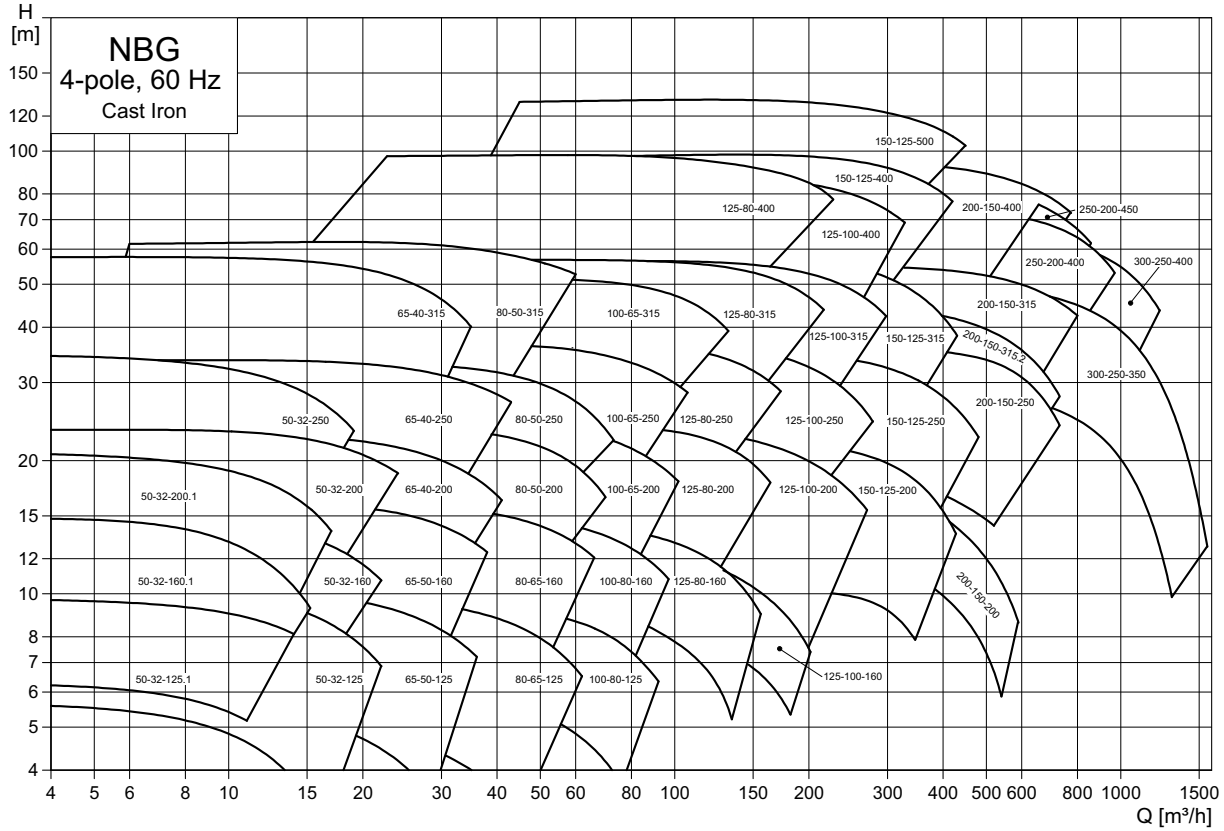
NBG, 4-pole



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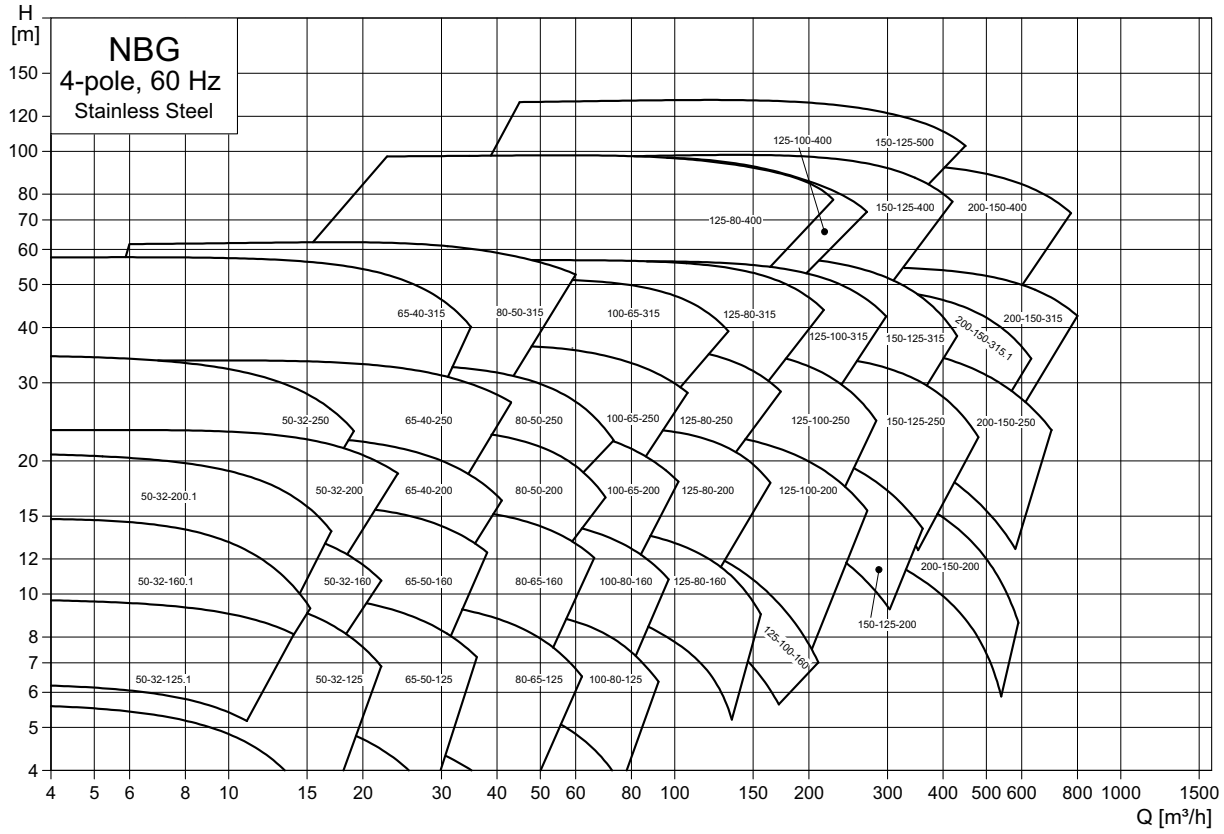

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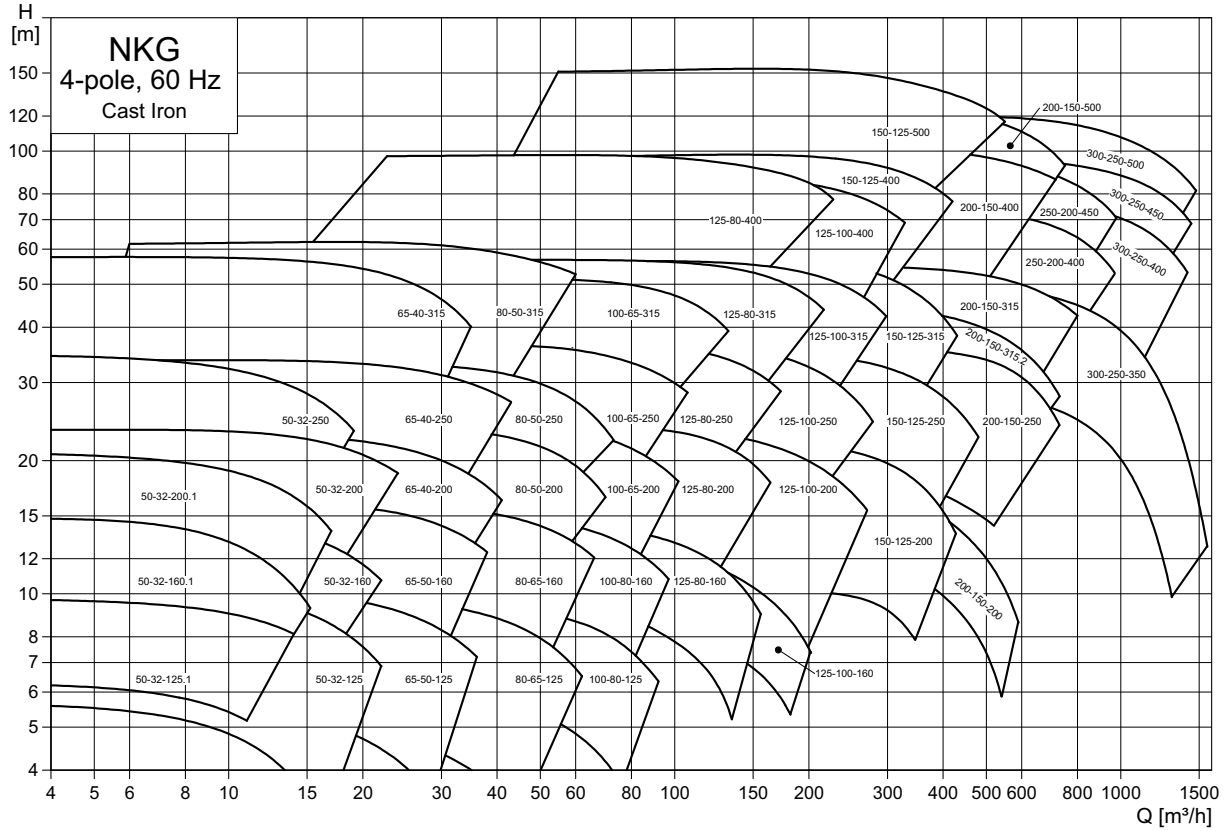
NKG, 4-pole



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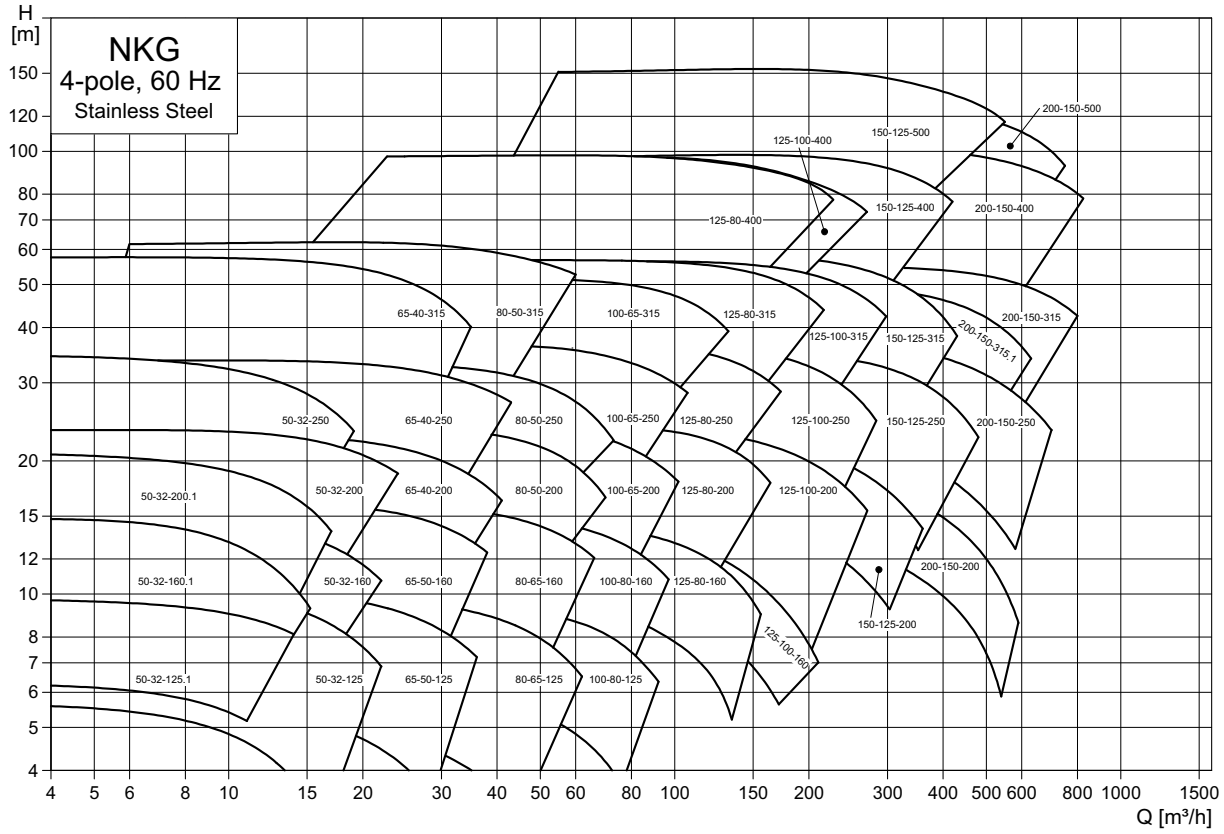

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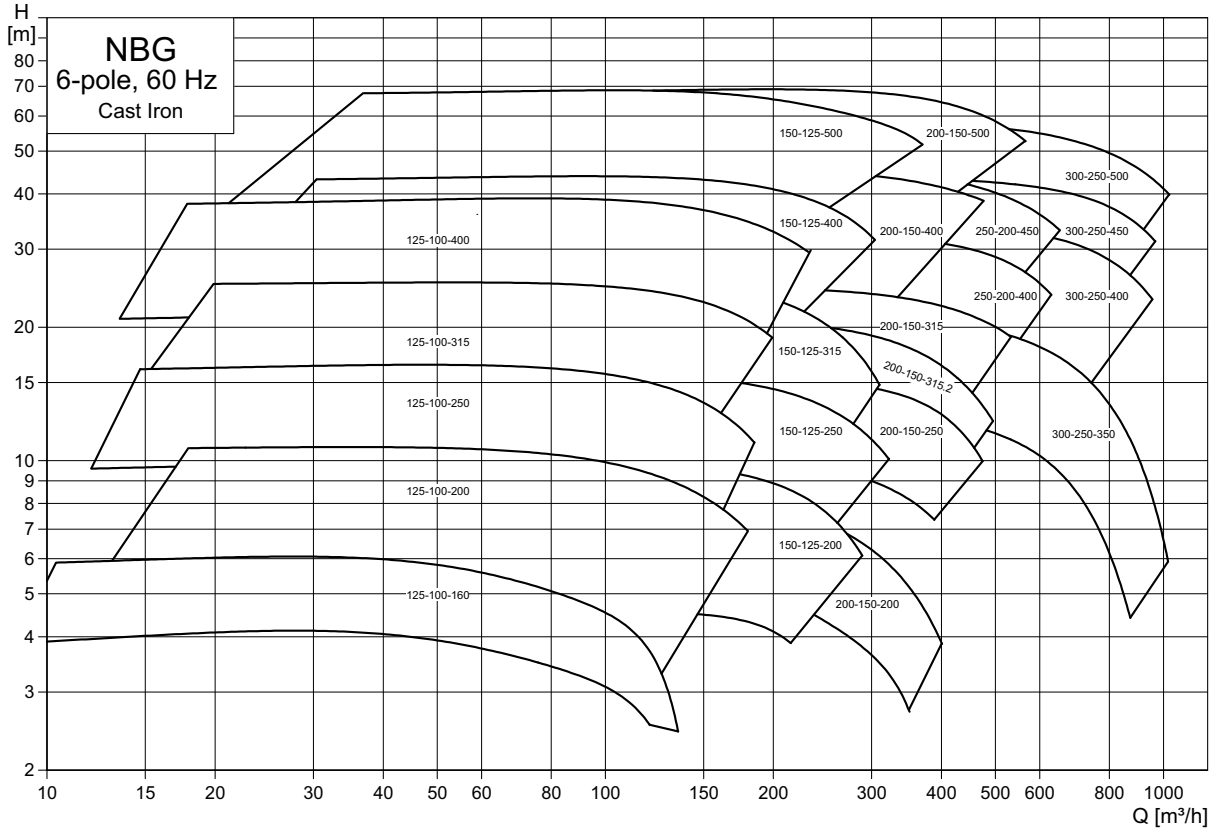
NBG, 6-pole



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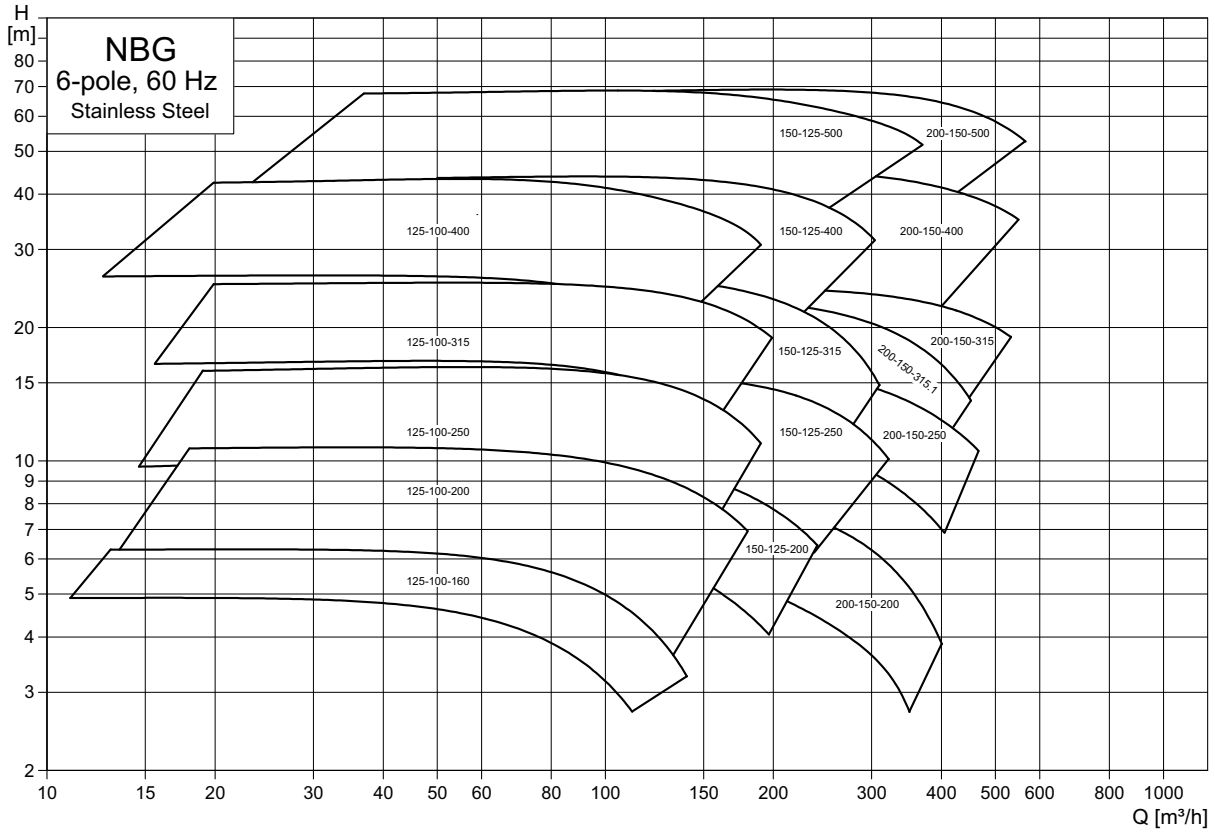

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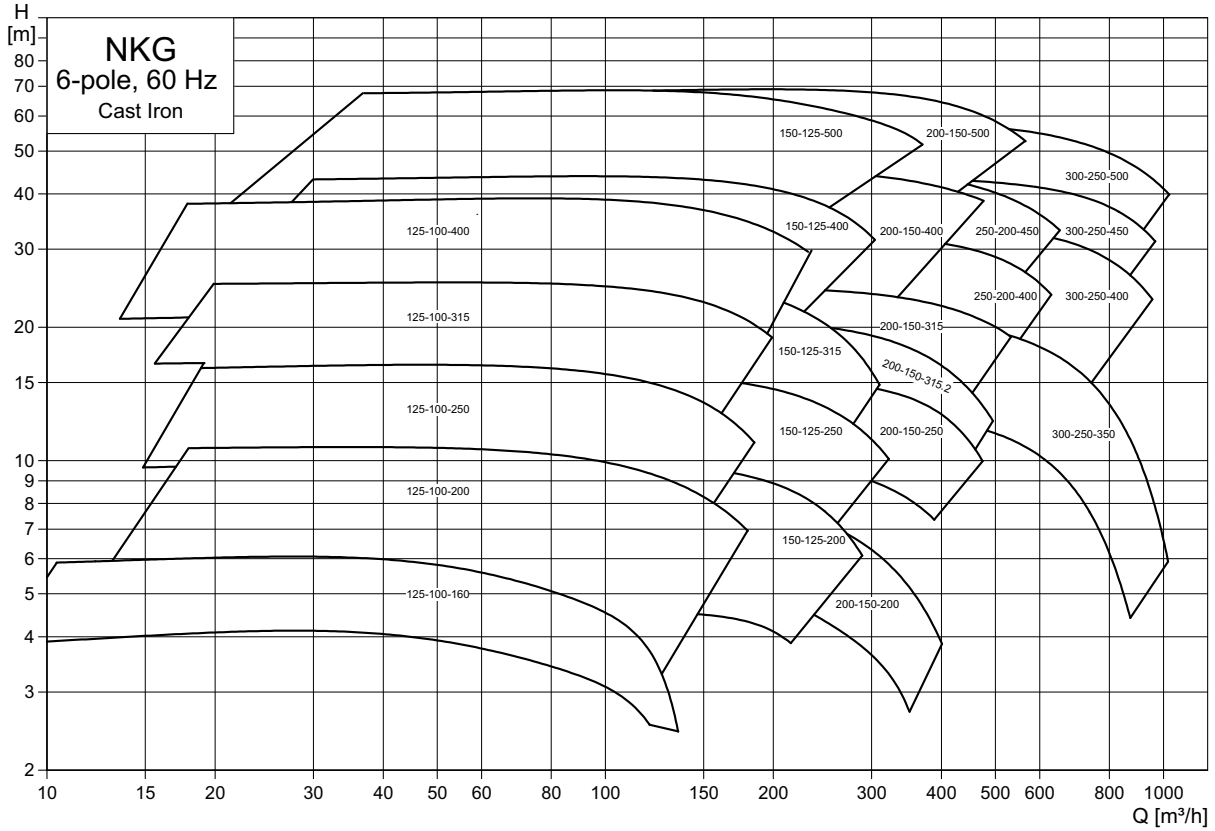
NKG, 6-pole



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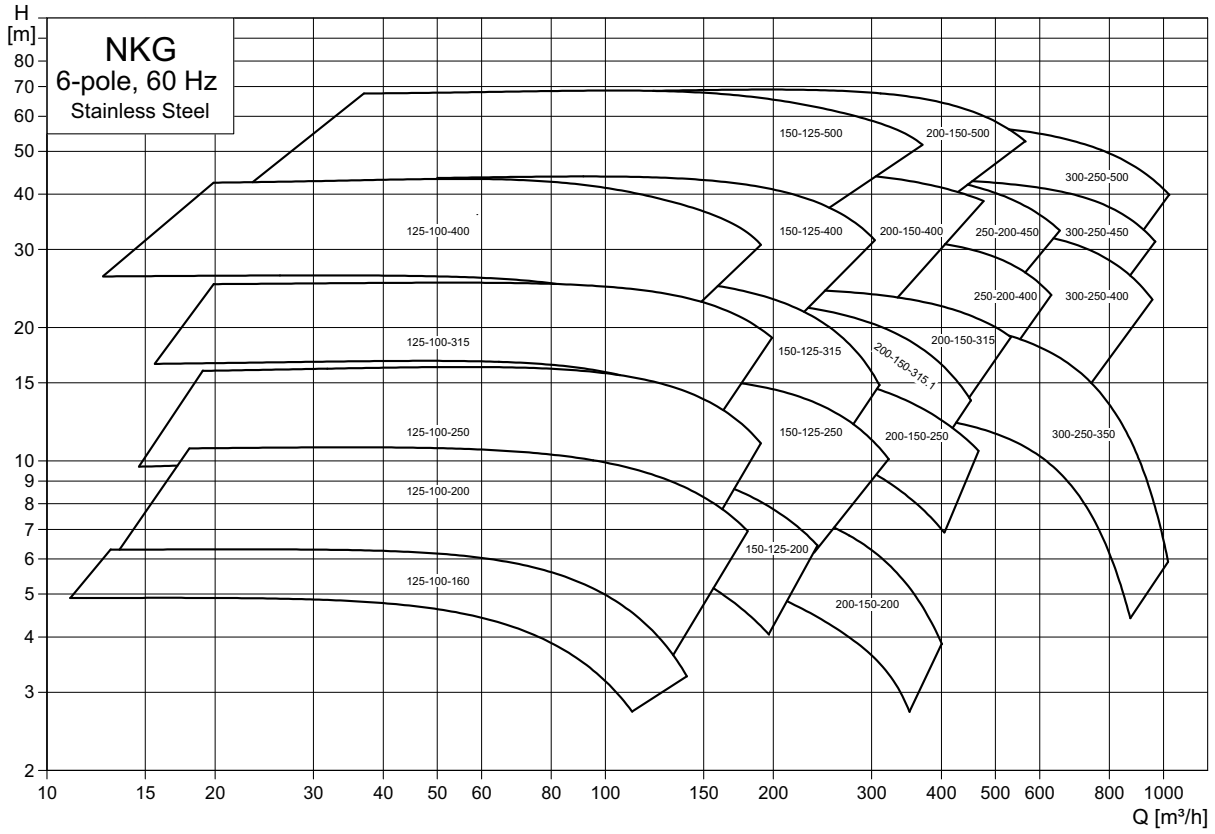

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4. Product range

The tables on the following pages show the complete product ranges of NBG, NBGE and NKG, NKGE pumps. The standard range has been combined on the basis of the following parameters:

Pump

- Pump housings have outlet flanges from DN 32 to DN 250.
- Some stainless steel pump sizes have loose flanges. All others have fixed flanges.
- NBG pumps are available in mounting design A, B, C and F. The base frame for C is available as accessory. F has base frame. For further information, see section *Mechanical construction* on page 40.
- Support blocks: NB, NBG pumps combine with many motor frame sizes. In some cases, support blocks or support rails are needed in order to level out the height difference between pump and motor. Also the size of the motor flange may necessitate the use of supports. See section *Support blocks (NBG)* on page 197. The Grundfos Product Configuration System makes it possible to configure the NB, NBG pump and the supports, if needed.

Motor

- Motors are for 60 Hz.
- NBG and NKG pumps are available with 2-, 4- and 6-pole motors; NBGE and NKGE with 2- and 4-pole motors.
- NBG and NKG pumps are available with IE2 and IE3 motors; for some regions also IE1 motors.
- Motors with power rating up to and including 4 kW are available for "low voltage"; motors as from 2.2 kW are available for "high voltage".
- Some pumps can be equipped with an MGE motor with integrated frequency converter.
- Some pumps can be connected to a Grundfos CUE external frequency converter.
- All pumps with non-E-motor can be connected to an external frequency converter.

Custom-built pumps

See the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858", or contact Grundfos.

NBG, NKG, 2-pole

60 Hz, 2-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
						Material code					Options				Material code					Options				Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
50-32-125.1	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-125	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-160.1	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-160	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28

60 Hz, 2-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
50-32-200.1	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-200	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-250	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	22	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
65-40-200	11	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	15	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
65-40-250	15	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	37	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
65-40-315	37	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
65-50-125	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
65-50-160	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
80-50-200	15	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	37	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
80-50-250	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	37	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
80-50-315	55	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38
	110	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	32	38

60 Hz, 2-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
80-65-125	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
80-65-160	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	11	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	15	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
100-65-200	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	37	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
100-65-250	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	●	-	●	-	●	-	-	-	-	●	-	●	-	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	110	CUE	-	C	●	-	-	-	●	-	-	-	-	●	-	-	-	●	●	●	●	●	●	F	F	●	-	-	-	-	-	-	-	-	32	38
100-65-315	90	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	110	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	132	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	160	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	200	CUE	-	C	-	-	-	●	●	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
100-80-125	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
100-80-160	11	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-160	22	MGE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	30	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	37	CUE	-	B	●	-	●	●	●	-	-	●	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-200	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-250	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	110	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	132	CUE	-	C	●	-	●	-	●	-	-	-	-	●	-	●	-	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	160	CUE	-	C	●	-	-	-	●	-	-	-	-	●	-	-	-	●	●	●	●	●	●	F	F	●	-	-	-	-	-	-	-	-	32	38
125-80-315	132	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	160	CUE	-	C	-	-	●	●	●	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	200	CUE	-	C	-	-	-	●	●	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48
	280	CUE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-	-	-	-	-	L	L	L	●	●	●	42	48

60 Hz, 2-pole				NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code				Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
125-100-160	30[3]	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	37	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	45	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	55[4]	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	75[4]	CUE	-	-	-	-	-	-	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-200	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	110	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	132	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-250	110	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	132	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	160	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	200	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	280[4]	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	●	●	●	F	F	●	-	-	-	-	-	-	-	-	42	48
150-125-200[4]	90	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	110	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	132	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	160	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	200	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
150-125-250	160	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	200	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	280	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	-	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	353	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	●	●	●	F	F	●	-	-	-	-	-	-	-	-	42	48
200-150-200	110	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	132	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	160	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	200	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
200-150-250	280	CUE	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	353	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
200-150-315.2	353	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	398	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55

1 For information about mounting designs, see page 40.
2 F = fixed flange. L = loose flange.
3 For cast iron pump only.
4 For stainless steel pump only.

NBG, NKG, 4-pole

60 Hz, 4-pole				NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code				Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
50-32-125.1	0.25	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.37	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-125	0.25	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.37	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-160.1	0.37	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-160	0.37	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-200.1	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-200	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	24	28
50-32-250	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	F	F	F	●	●	●	32	38
65-40-200	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
65-40-250	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
65-40-315	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
65-50-125	0.37	-	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
65-50-160	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
80-50-200	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28

60 Hz, 4-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
						Material code					Options				Material code				Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
80-50-250	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
80-50-315	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
80-65-125	0.55	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	0.75	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
80-65-160	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
100-65-200	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
100-65-250	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
100-65-315	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
100-80-125	1.1	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	24	28
100-80-160	1.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	2.2	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-160	3	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-200	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-250	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-80-315	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48

60 Hz, 4-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
125-80-400	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	55	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
125-100-160	4	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-200	5.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	MGE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-250	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
125-100-315	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	55	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
125-100-400	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-200	11	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
150-125-250	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-315	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	55	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-400	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	90	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	110	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	132	CUE	-	C	●	-	●	-	●	-	-	-	-	●	-	●	-	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-500	110	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	132	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	160	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	200	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	288	-	-	-	-	-	-	-	-	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	362	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60

60 Hz, 4-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
200-150-200	15	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	18.5	MGE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
200-150-250	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	55	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
200-150-315.2	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
200-150-315	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	90	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	110	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	132	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
200-150-400	90	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	110	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	132	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	160	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	200	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	-	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	288	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	●	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
200-150-500	200	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	288	CUE	-	-	-	-	-	-	-	-	-	-	●	●	-	-	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	362	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	●	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
250-200-400	55	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	160	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	200	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
250-200-450	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	160	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	200	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	288	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
300-250-350	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
300-250-400	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	160	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	200	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	288	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55

60 Hz, 4-pole				NBG pumps									NKG pumps									Cast iron pump					Stainless steel pump							
					Material code					Options				Material code				Options				Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
300-250-450	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	160	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	200	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	288	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	362	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
300-250-500	288	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	362	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	408	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	460	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60

1 For information about mounting designs, see page 40.

2 F = fixed flange. L = loose flange.

NBG, NKG, 6-pole

60 Hz, 6-pole					NBG pumps									NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options				Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
125-100-160	1.1	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	1.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	2.2	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-200	1.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	2.2	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	3	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
125-100-250	4	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	5.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	11[3]	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
125-100-315	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
125-100-400	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-200	3	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	4	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	32	38
150-125-250	5.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-315	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-400	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	30	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
	45	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	42	48
150-125-500	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	F	F	●	-	-	L	L	L	●	●	●	60	60
200-150-200	4	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	5.5	CUE	-	A	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
	7.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	32	38
200-150-250	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
200-150-315.2	11	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	15	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	42	48

60 Hz, 6-pole					NBG pumps										NKG pumps										Cast iron pump					Stainless steel pump							
					Material code					Options					Material code					Options					Flange rating[2]		Flange standard			Flange rating[2]			Flange standard				
Pump type	P2 [kW]	E-solution	Oversize shaft	Mounting design[1]	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Double seal arrangement	Cartridge seal, single or double	Pump housing with feet	Pump with base frame	A, B, C, D, S, T	E, F, G, H	K, M	N, P	I, J, L, R, U, W	Stuffing box	Double seal arrangement	Cartridge seal, single or double	Standard bearing bracket	Heavy duty bearing bracket	PN 10	PN 16	DIN, code F	ANSI, code G	JIS, code J	PN 16	PN 25	PN 40	DIN, code F	ANSI, code G	JIS, code J	d5 [mm]	Shaft seal diameter [mm]
200-150-315	18.5	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	30	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	37	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
200-150-400	22	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	30	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	37	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	45	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	55	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
	75	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	48	55
200-150-500	55	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	75	CUE	-	C	●	-	●	●	●	-	-	-	●	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	90	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	110	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
	132	CUE	-	C	●	-	●	●	●	-	-	-	-	●	-	●	●	●	●	●	●	●	●	-	F	●	-	-	L	L	L	●	●	●	60	60
250-200-400	22	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	30	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	37	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	45	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	55	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
250-200-450	37	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	45	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	55	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
300-250-350	22	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	30	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	37	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	45	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
300-250-400	30	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	37	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	45	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	55	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	48	55
300-250-450	37	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	45	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	55	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
300-250-500	75	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	90	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	110	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	132	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60
	160	CUE	-	C	●	●	-	-	-	-	-	-	●	●	●	-	-	-	●	-	-	●	●	-	F	●	-	-	-	-	-	-	-	-	60	60

1 For information about mounting designs, see page 40.

2 F = fixed flange. L = loose flange.

3 For stainless steel pump only.

5. Identification

Nameplate

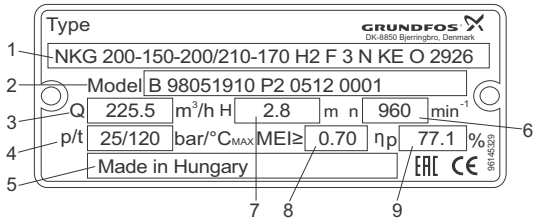


Fig. 5 Example of nameplate

Pos.	Description	
1	Type designation	
2	Model	
	B	Model design
	98051910	Product number
	P2	Place of production
	0512	Production year and week
	0001	Serial number
3	Rated flow	
4	Pressure rating or maximum temperature	
5	Country of origin	
6	Rated speed	
7	Pump head	
8	Minimum efficiency index	
9	Hydraulic pump efficiency at optimum efficiency point	

Type key, NBG, NBGE

Example 1 - Pump design according to EN 733	**NB**	**32**	**-125**	**.1**	**/142**	**AE**	**F**	**1**	**A**	**E**	**S**	**BAQE**
Example 2 - Pump design according to ISO 2858	**NBG 125**	**-100**	**-160**		**/160-142**	**A**	**F**	**2**	**N**	**K**	**S**	**DQQK**

Type range

Nominal diameter of inlet port (DN)

Nominal diameter of outlet port (DN)

Nominal impeller diameter [mm]

Reduced performance equal to .1

Actual impeller diameter [mm]

Code for pump version; the codes may be combined.

- A Basic version
- B Oversize motor
- C Without motor
- D Pump housing with feet
- E With ATEX approval, certificate or test report, the second character of the code for pump version is an E.
- F With base frame
- S With support blocks
- X Special version, in case of further customisation than already listed

Pipe connection

- E Table E flange
- F DIN flange
- G ANSI flange
- J JIS flange

Flange pressure rating (PN - nominal pressure)

- 1 10 bar
- 2 16 bar
- 3 25 bar
- 4 40 bar
- 5 Other pressure rating

Materials

	Pump housing	Impeller	Wear ring	Shaft
A	EN-GJL-250	EN-GJL-200	Bronze/brass	1.4301
B	EN-GJL-250	Bronze CuSn10	Bronze/brass	1.4301
C	EN-GJL-250	EN-GJL-200	Bronze/brass	1.4401
D	EN-GJL-250	Bronze CuSn10	Bronze/brass	1.4401
E	EN-GJL-250	EN-GJL-200	EN-GJL-250	1.4301
F	EN-GJL-250	Bronze CuSn10	EN-GJL-250	1.4301
G	EN-GJL-250	EN-GJL-200	EN-GJL-250	1.4401
H	EN-GJL-250	Bronze CuSn10	EN-GJL-250	1.4401

Example 1 - Pump design according to EN 733						**NB**	**32**	**-125**	**.1**	**/142**	**AE**	**F**	**1**	**A**	**E**	**S** **BAQE**
Example 2 - Pump design according to ISO 2858						**NBG**	**125**	**-100**	**-160**	**/160-142**	**A**	**F**	**2**	**N**	**K**	**S** **DQQK**
I	1.4408	1.4408	1.4517	1.4462												
J	1.4408	1.4408	Carbon-graphite-filled PTFE (Graflon®)	1.4462												
K	1.4408	1.4408	1.4517	1.4401												
L	1.4517	1.4517	1.4517	1.4462												
M	1.4408	1.4517	1.4517	1.4401												
N	1.4408	1.4408	Carbon-graphite-filled PTFE (Graflon®)	1.4401												
P	1.4408	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4401												
R	1.4517	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4462												
S	EN-GJL-250	1.4408	Bronze/brass	1.4401												
T	EN-GJL-250	1.4517	Bronze/brass	1.4462												
U	1.4408	1.4517	1.4517	1.4462												
W	1.4408	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4462												
X	Special version															
Rubber parts in pump																
The letter indicates material of pump cover O-ring																
E	EPDM															
F	FXM (Fluoraz®)															
K	FFKM (Kalrez®)															
M	FEPS (PTFE-sheathed silicone O-ring)															
X	HNBR															
V	FKM (Viton®)															
Shaft seal arrangement																
S	Single seal															
Code for mechanical shaft seal and shaft seal rubber parts																

Example 1 - Pump design according to EN 733						**NB**	**32**	**-125**	**.1**	**/142**	**AE**	**F**	**1**	**A**	**E**	**S** **BAQE**
Example 2 - Pump design according to ISO 2858						**NBG**	**125**	**-100**	**-160**	**/160-142**	**A**	**F**	**2**	**N**	**K**	**S** **DQQK**

Example 1 shows an NB 32-125.1 pump with these features:

- reduced performance
- 142 mm impeller
- basic version
- report or certificate
- DIN flange to EN 1092-2 pipework connection
- 10 bar flange pressure rating
- cast iron pump housing, EN-GJL-250
- cast iron impeller, EN-GJL-200
- bronze/brass wear ring
- stainless steel shaft, EN 1.4301
- EPDM pump cover O-ring
- single shaft seal arrangement
- BAQE shaft seal.

Example 2 shows an NBG 125-100-160 pump with these features:

- 160-142 mm conical impeller
- basic version
- DIN flange to EN 1092-2 pipework connection
- 16 bar flange pressure rating
- stainless steel pump housing, EN 1.4408
- stainless steel impeller, EN 1.4408
- carbon-graphite-filled wear ring, PTFE (Graflon®)
- stainless steel shaft, EN 1.4401
- FFKM pump cover O-ring
- single shaft seal arrangement
- DQQK shaft seal.

Type key, NKG, NKGE

Model B

Example 1 - Pump design according to EN 733	**NK**	**32**	**-125**	**.1**	**/142**	**A1**	**F**	**1**	**A**	**E**	**S**	**BAQE**
Example 2 - Pump design according to ISO 2858	**NKG**	**125**	**-100**	**-160**	**/160-142**	**H2**	**F**	**3**	**N**	**KE**	**O**	**2926**

Type range

Nominal diameter of inlet port (DN)

Nominal diameter of outlet port (DN)

Nominal impeller diameter [mm]

Reduced performance equal to .1

Actual impeller diameter [mm]

Code for pump version; the codes may be combined.

- A1 Basic version, grease-lubricated standard bearing design, standard coupling
- A2 Basic version, grease-lubricated standard bearing design, spacer coupling
- B Oversize motor
- E With ATEX approval, certificate or test report, the second character of the code for pump version is an E.
- G1 Grease-lubricated heavy-duty bearing design, standard coupling
- G2 Grease-lubricated heavy-duty bearing design, spacer coupling
- H1 Oil-lubricated heavy-duty bearing design, standard coupling
- H2 Oil-lubricated heavy-duty bearing design, spacer coupling
- I1 Pump without motor, with grease-lubricated standard bearing design, standard coupling
- I2 Pump without motor, with grease-lubricated standard bearing design, spacer coupling
- J1 Pump without motor, with grease-lubricated heavy-duty bearing design, standard coupling
- J2 Pump without motor, with grease-lubricated heavy-duty bearing design, spacer coupling
- K1 Pump without motor, with oil-lubricated heavy-duty bearing design, standard coupling
- K2 Pump without motor, with oil-lubricated heavy-duty bearing design, spacer coupling
- Y1 Bare shaft pump, with grease-lubricated standard bearing design
- W1 Bare shaft pump, with grease-lubricated heavy-duty bearing design
- Z1 Bare shaft pump, with oil-lubricated heavy-duty bearing design
- X Special version, if further customisation than already listed

Pipe connection

- E Table E flange
- F DIN flange
- G ANSI flange
- J JIS flange

Flange pressure rating (PN - nominal pressure)

- 1 10 bar
- 2 16 bar
- 3 25 bar
- 4 40 bar
- 5 Other pressure rating

Materials

	Pump housing	Impeller	Wear ring	Shaft
A	EN-GJL-250	EN-GJL-200	Bronze/brass	1.4021/1.4034
B	EN-GJL-250	Bronze CuSn10	Bronze/brass	1.4021/1.4034
C	EN-GJL-250	EN-GJL-200	Bronze/brass	1.4401
D	EN-GJL-250	Bronze CuSn10	Bronze/brass	1.4401
E	EN-GJL-250	EN-GJL-200	EN-GJL-250	1.4021/1.4034
F	EN-GJL-250	Bronze CuSn10	EN-GJL-250	1.4021/1.4034
G	EN-GJL-250	EN-GJL-200	EN-GJL-250	1.4401
H	EN-GJL-250	Bronze CuSn10	EN-GJL-250	1.4401
I	1.4408	1.4408	1.4517	1.4462
J	1.4408	1.4408	Carbon-graphite-filled PTFE (Graflon®)	1.4462
K	1.4408	1.4408	1.4517	1.4401
L	1.4517	1.4517	1.4517	1.4462
M	1.4408	1.4517	1.4517	1.4401
N	1.4408	1.4408	Carbon-graphite-filled PTFE (Graflon®)	1.4401

Example 1 - Pump design according to EN 733								**NK**	**32**	**-125**	**.1**	**/142**	**A1**	**F**	**1**	**A**	**E**	**S**	**BAQE**
Example 2 - Pump design according to ISO 2858								**NKG**	**125**	**-100**	**-160**	**/160-142**	**H2**	**F**	**3**	**N**	**KE**	**O**	**2926**

P	1.4408	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4401
R	1.4517	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4462
S	EN-GJL-250	1.4408	Bronze/brass	1.4401
T	EN-GJL-250	1.4517	Bronze/brass	1.4462
U	1.4408	1.4517	1.4517	1.4462
W	1.4408	1.4517	Carbon-graphite-filled PTFE (Graflon®)	1.4462
X	Special version			

Rubber parts in pump

First letter indicates material of pump cover O-ring and seal cover O-ring. The seal cover O-ring is only for double seal arrangements.

Second letter indicates material of seal housing O-ring

- E EPDM
- F FXM (Fluoraz®)
- K FFKM (Kalrez®)
- M FEPS (PTFE-sheathed silicone O-ring)
- V FKM (Viton®)
- X HNBR

Shaft seal arrangement

- B Stuffing box
- C Cartridge seal, single
- D Cartridge seal, double
- O Back-to-back, double seal
- P Tandem, double seal
- S Single seal

Shaft seal(s) in pump

Letter or digit code for mechanical shaft seal and shaft seal rubber parts

4 letters: Single mechanical shaft seal, such as BQQE, or single cartridge seal, such as HBQV.

4 digits: Double seal solution, such as 2716, where 27 is equal to DQQV (primary seal), and 16 is equal to BQQV (secondary seal) or double cartridge seal, such as 5150, where 51 is equal to HQQU (primary seal), and 50 is equal to HBQV (secondary seal).

The relation between letters and digits of the shaft seals is described on page 29.

Example 1 - Pump design according to EN 733								**NK**	**32**	**-125**	**.1**	**/142**	**A1**	**F**	**1**	**A**	**E**	**S**	**BAQE**
Example 2 - Pump design according to ISO 2858								**NKG**	**125**	**-100**	**-160**	**/160-142**	**H2**	**F**	**3**	**N**	**KE**	**O**	**2926**

Example 1 shows an NK 32-125.1 pump with these features:

- reduced performance
- 142 mm impeller
- grease-lubricated standard bearing design
- standard coupling
- DIN flange to EN 1092-2 pipework connection
- PN 10 flange
- cast iron pump housing, EN-GJL-250
- cast iron impeller, EN-GJL-200
- bronze/brass wear ring
- stainless steel shaft, EN 1.4021/1.4034
- EPDM pump cover O-ring
- single shaft seal arrangement
- BAQE shaft seal.

Example 2 shows an NKG 125-100-160 pump with these features:

- 160-142 mm conical impeller
- grease-lubricated heavy-duty bearing design
- spacer coupling
- DIN flange to EN 1092-2 pipework connection
- PN 25 flange
- stainless steel pump housing, EN 1.4408
- stainless steel impeller, EN 1.4408
- carbon-graphite-filled wea.r ring, PTFE (Graflon®)
- stainless steel shaft, EN 1.4401
- FFKM pump cover and seal cover O-rings
- EPDM seal housing O-ring
- back-to-back double shaft seal arrangement
- primary shaft seal: DQQK
- secondary shaft seal: DQQE.

Relation between letter and digit code of shaft seal and stuffing box description

Digits	Letters	Description
10	BAQE	Single mechanical shaft seal
11	BAQV	Single mechanical shaft seal
12	BBQE	Single mechanical shaft seal
13	BBQV	Single mechanical shaft seal
15	BQQE	Single mechanical shaft seal
16	BQQV	Single mechanical shaft seal
19	AQAE	Single mechanical shaft seal
20	AQAV	Single mechanical shaft seal
21	AQQE	Single mechanical shaft seal
22	AQQV	Single mechanical shaft seal
23	AQQX	Single mechanical shaft seal
24	AQQK	Single mechanical shaft seal
25	DAQF	Single mechanical shaft seal
26	DQQE	Single mechanical shaft seal
27	DQQV	Single mechanical shaft seal
28	DQQX	Single mechanical shaft seal
29	DQQK	Single mechanical shaft seal
50	HBQV	Cartridge seal
51	HQQU	Cartridge seal
52	HAQK	Cartridge seal
	SNEA	Stuffing box, internal barrier liquid, Buraflon® packing rings[1], EPDM O-rings in the pump housing
	SNEB	Stuffing box, internal barrier liquid, Thermoflon® packing rings[2], EPDM O-rings in the pump housing
	SNEC	Stuffing box, internal barrier liquid, Buraflon® packing rings[1], FKM O-rings in the pump housing
	SNED	Stuffing box, internal barrier liquid, Thermoflon® packing rings[2], FKM O-rings in the pump housing
	SNOA	Stuffing box, without barrier liquid, Buraflon® packing rings[1], EPDM O-rings in the pump housing
	SNOB	Stuffing box, without barrier liquid, Thermoflon® packing rings[2], EPDM O-rings in the pump housing
	SNOC	Stuffing box, without barrier liquid, Buraflon® packing rings[1], FKM O-rings in the pump housing
	SNOD	Stuffing box, without barrier liquid, Thermoflon® packing rings[2], FKM O-rings in the pump housing
	SNFA	Stuffing box, external barrier liquid, Buraflon® packing rings[1], EPDM O-rings in the pump housing
	SNFB	Stuffing box, external barrier liquid, Thermoflon® packing rings[2], EPDM O-rings in the pump housing
	SNFC	Stuffing box, external barrier liquid, Buraflon® packing rings[1], FKM O-rings in the pump housing
	SNFD	Stuffing box, external barrier liquid, Thermoflon® packing rings[2], FKM O-rings in the pump housing

[1] Buraflon® packing rings are PTFE-impregnated fibre packing rings.
[2] Thermoflon® packing rings are graphite-PTFE compound packing rings.

Shaft seals

Codes for shaft seals

Positions (1) to (4) cover four pieces of information about the shaft seal:

Example	(1)	(2)	(3)	(4)
Grundfos type designation				
Material, rotating seal face				
Material, stationary seat				
Material, secondary seal and other rubber and composite parts, except the wear ring				

The following table explains positions (1), (2), (3) and (4).

Pos.	Type	Short description of seal
(1)	A	O-ring seal with fixed driver
	B	Rubber bellows seal
	D	O-ring seal, balanced
	G	Bellows seal, type B, with reduced seal faces
	H	Cartridge seal, balanced
Pos.	**Type**	**Material**
(2) (3)		Synthetic carbons:
	A	Carbon, metal-impregnated (antimony, not approved for potable water)
	B	Carbon, resin-impregnated
		Carbides:
	Q	Silicon carbide
Pos.	**Type**	**Material**
(4)	E	EPDM
	V	FKM (Viton®)
	F	FXM (Fluoraz®)
	K	FFKM (Kalrez®)
	X	HNBR
	U	Dynamic O-rings in FFKM and static O-rings in PTFE

For a thorough description of shaft seal types and materials, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858".

Stuffing boxes, NKG

Various types of stuffing box are available as an alternative to shaft seals. Stuffing boxes are not quite as sensitive as shaft seals and therefore suitable for many different applications.

Three types of stuffing box are available for NKG pumps: SNE(x), SNO(x) and SNF(x).

Codes for stuffing boxes

Positions (1) to (4) cover information about the stuffing box:

Pos.	Code	Short description of stuffing box
(1)	S	Packing type stuffing box
Pos.	**Code**	**Cooling method**
(2)	N	Uncooled stuffing box
Pos.	**Code**	**Barrier liquid**
(3)	E	With internal barrier liquid
	F	With external barrier liquid
	O	Without barrier liquid
Pos.	**Code**	**Materials**
(4)	A	PTFE-impregnated fibre packing rings and EPDM O-rings in the pump housing
	B	Graphite-PTFE compound packing rings and EPDM O-ring in the pump housing
	C	PTFE-impregnated fibre packing rings and FKM O-ring in the pump housing
	D	Graphite-PTFE compound packing rings and FKM O-ring in the pump housing

6. Construction

NBG, centre-line outlet

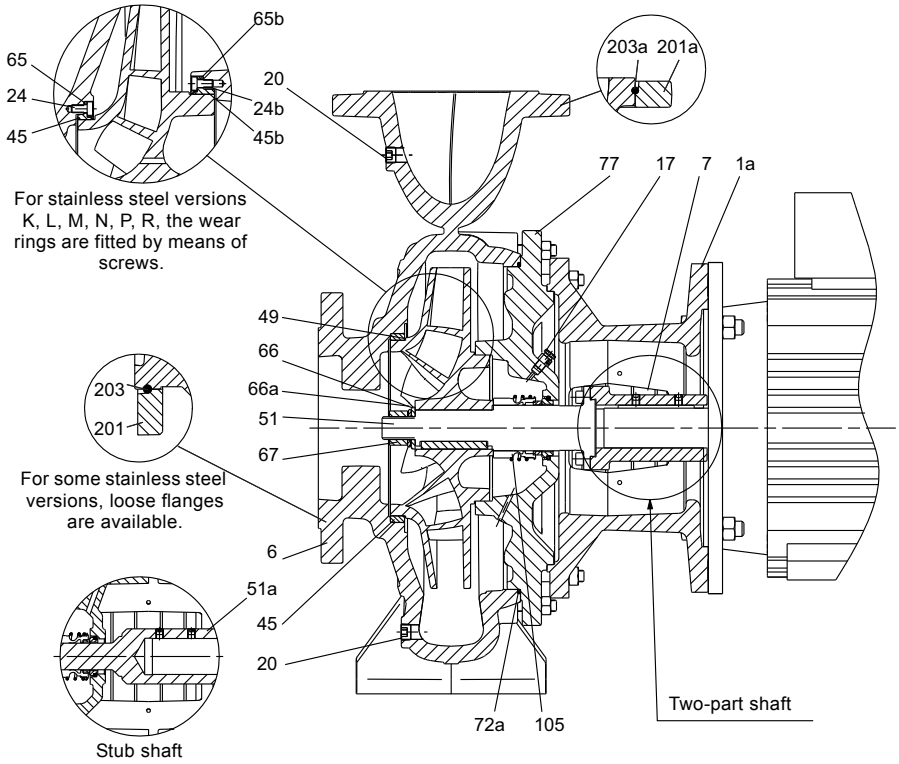


Fig. 6 Sectional drawing, centre-line outlet

NBG, tangential outlet

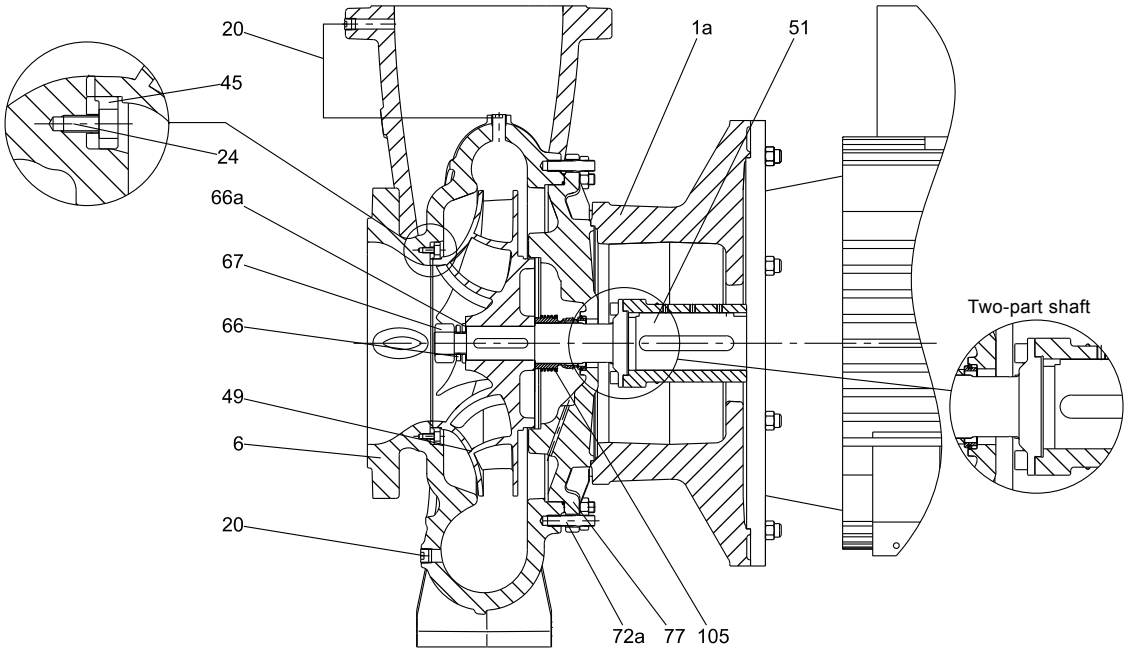


Fig. 7 Sectional drawing, tangential outlet, DN 200 and DN 250

Material specification, NBG

Pos.	Description	Materials	Material code																			
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	U	W
1a	Motor stool	EN-GJL-250	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
6	Pump housing	EN-GJL-250	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
7	Coupling guard	1.4301/AISI 304	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
17	Air vent plug	2.0401/CuZn44Pb2	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
20	Plug	ISO 898 8.8 carbon steel	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
24	Hexagon socket head cap screw	1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
24b	Hexagon socket head cap screw	1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
45	Wear ring	CuSn10	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-
		CuZn34Mn3Al2Fe1-C	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-
		EN-GJL-250	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	●	-	●	●	●	-	-	-	-	-	●	-
		Carbon-graphite filled PTFE (Graflon®)	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
45b	Wear ring	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	●	-	●	●	●	-	-	-	-	-	●	-
		Carbon-graphite-filled PTFE (Graflon®)	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
49	Impeller	EN-GJL-200	●	-	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-
		CuSn10	-	●	-	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	-	●	-	-	●	-	-	-
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●	-	●	●	●
51	2-part shaft	1.4301 + 1.0569/AISI 304 + carbon steel	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401 + 1.0569/AISI 316 + carbon steel	-	-	●	●	-	-	●	●	-	-	●	-	●	●	●	-	●	-	-	-
		1.4462 + 1.0569/ASTM J92205 + carbon steel	-	-	-	-	-	-	-	-	●	●	-	●	-	-	-	●	-	●	●	●
51a	Stub shaft	1.4301/AISI 304	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	-	-	●	●	●	-	-	●	-	-	●	●	-	-
65	Wear ring retainer	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
65b	Wear ring retainer	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
66	Washer	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	-	●	-	-	●	-	-	-
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●	-	●	●	●
66a	Spring lock washer	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	-	●	-	-	●	-	-	-
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●	-	●	●	●
67	Impeller nut	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	-	●	-	-	●	-	-	-
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●	-	●	●	●
72a	O-ring	E / F / K / M / V / X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
77	Cover	EN-GJL-250	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
105	Shaft seal	Burgmann 1.4401/AISI 316	●	●	●	●	●	●	●	●	●	●	●	-	●	●	●	-	●	●	●	●
		Burgmann 2.4610/Hastelloy C-4	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
201	Loose flange, inlet	GGG50/1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
201a	Loose flange, outlet	GGG50/1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
203	Retainer, inlet	1.4310	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
203a	Retainer, outlet	1.4310	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●

NKG, centre-line outlet

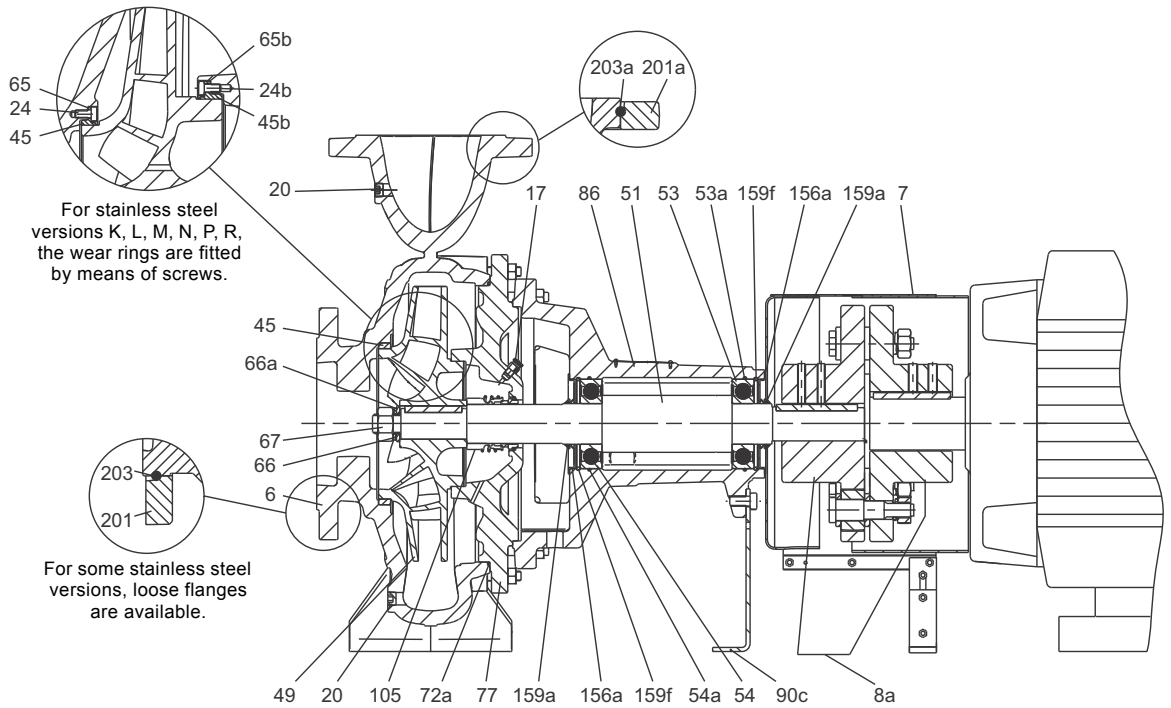


Fig. 8 Sectional drawing, centre-line outlet

NKG, tangential outlet

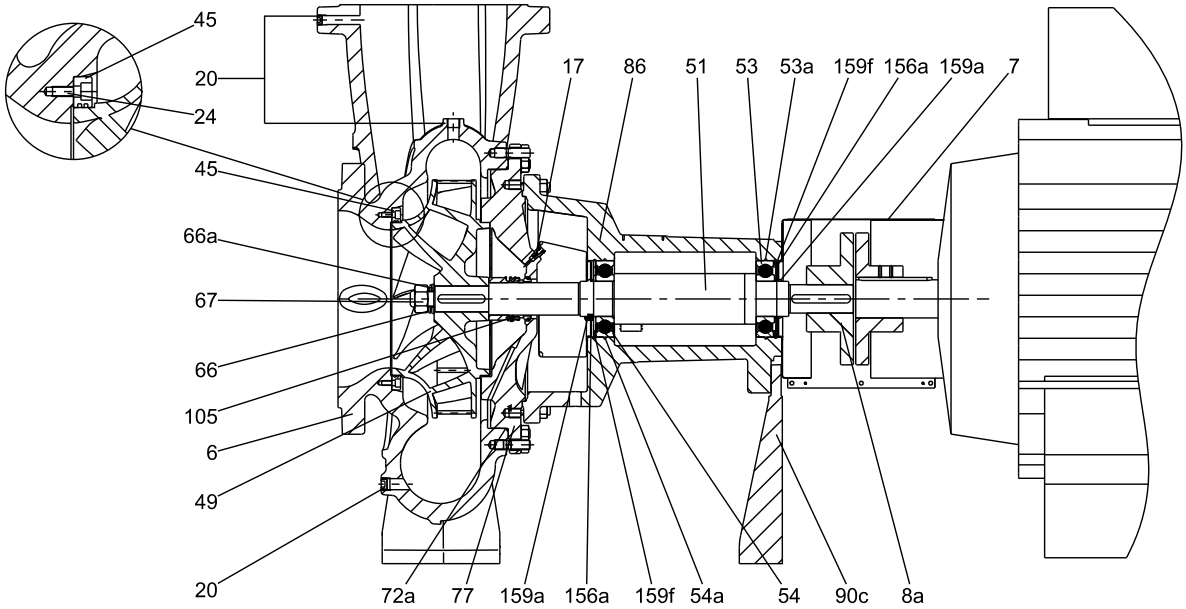


Fig. 9 Sectional drawing, with tangential outlet, DN 200 and DN 250

NKG, bearing bracket, oil-lubricated

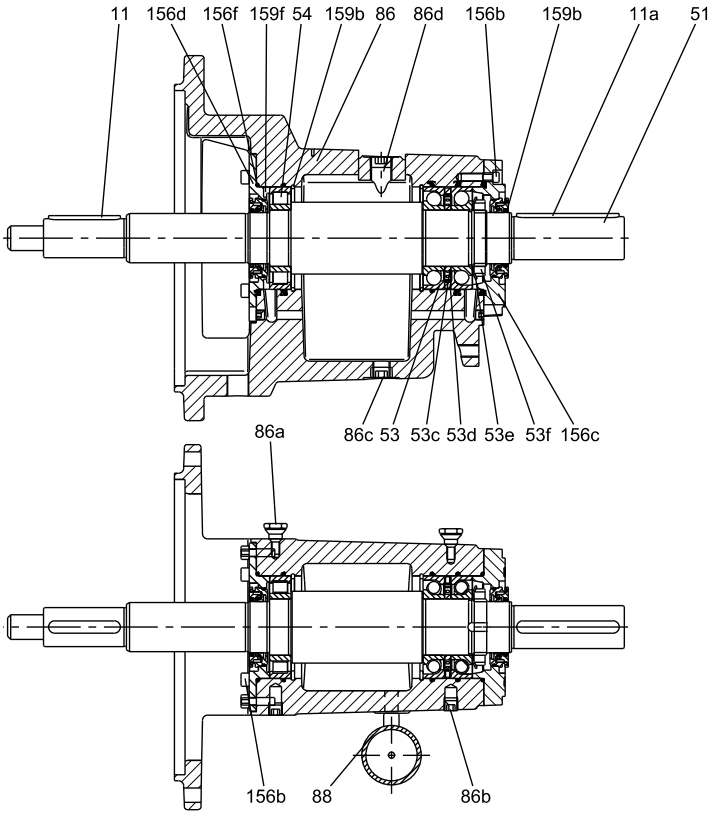


Fig. 10 Sectional drawing, bearing bracket, oil-lubricated

NKG, bearing bracket, grease-lubricated

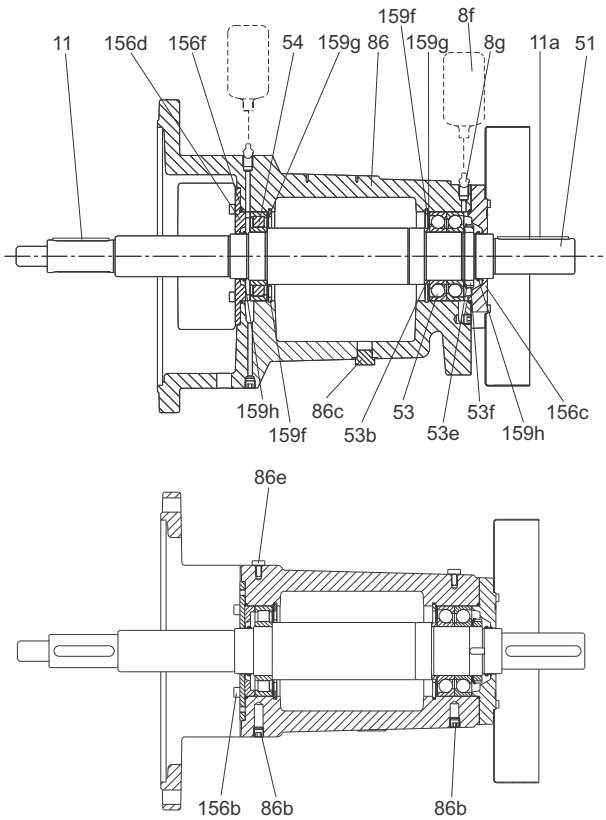


Fig. 11 Sectional drawing, bearing bracket, grease-lubricated

NKG, double seal, tandem

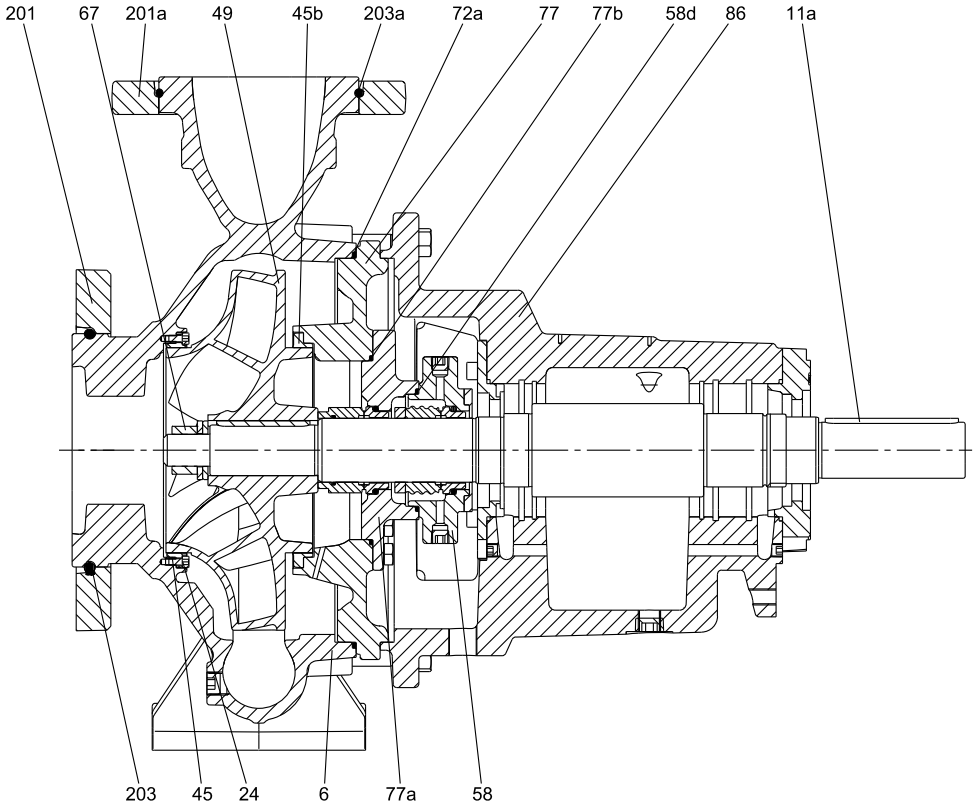


Fig. 12 Sectional drawing, double tandem seal arrangement

NKG, double seal, back to back

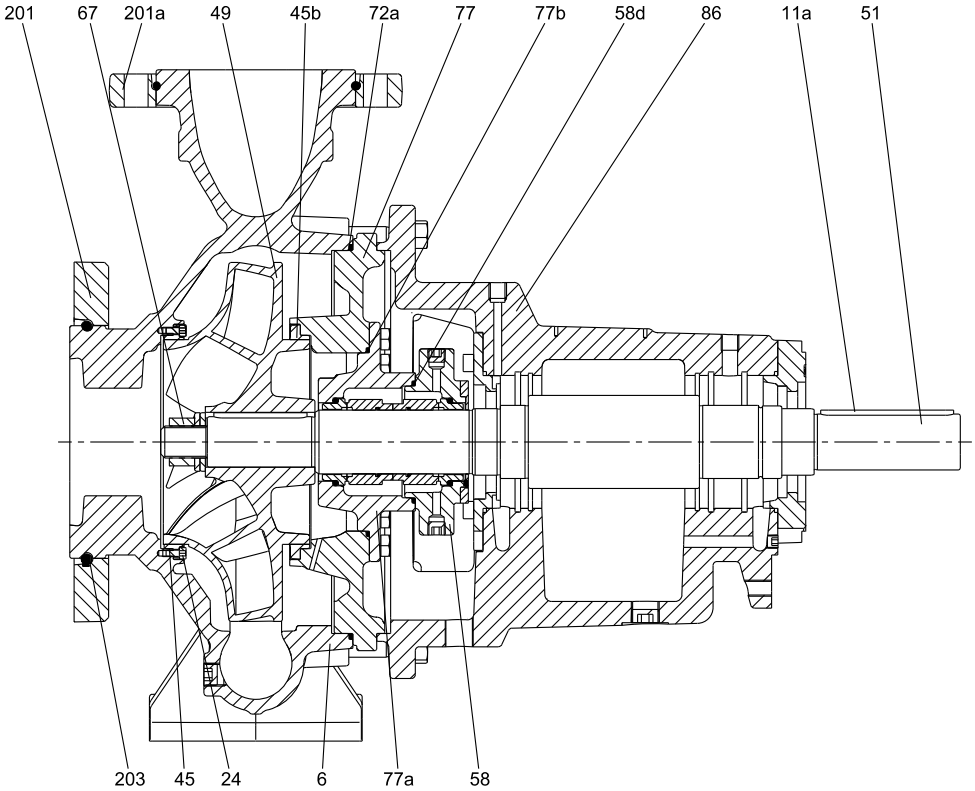


Fig. 13 Sectional drawing, double seal, back-to-back seal arrangement

NKG, cartridge solution

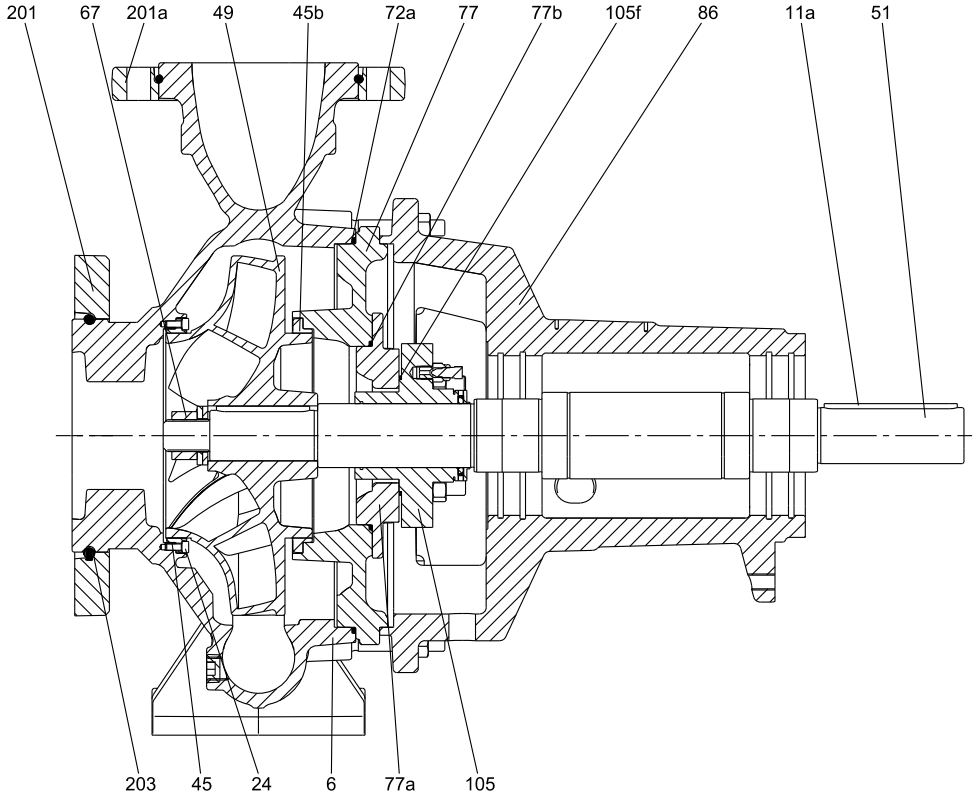


Fig. 14 Sectional drawing, cartridge solution

NKG, single seal, split cover

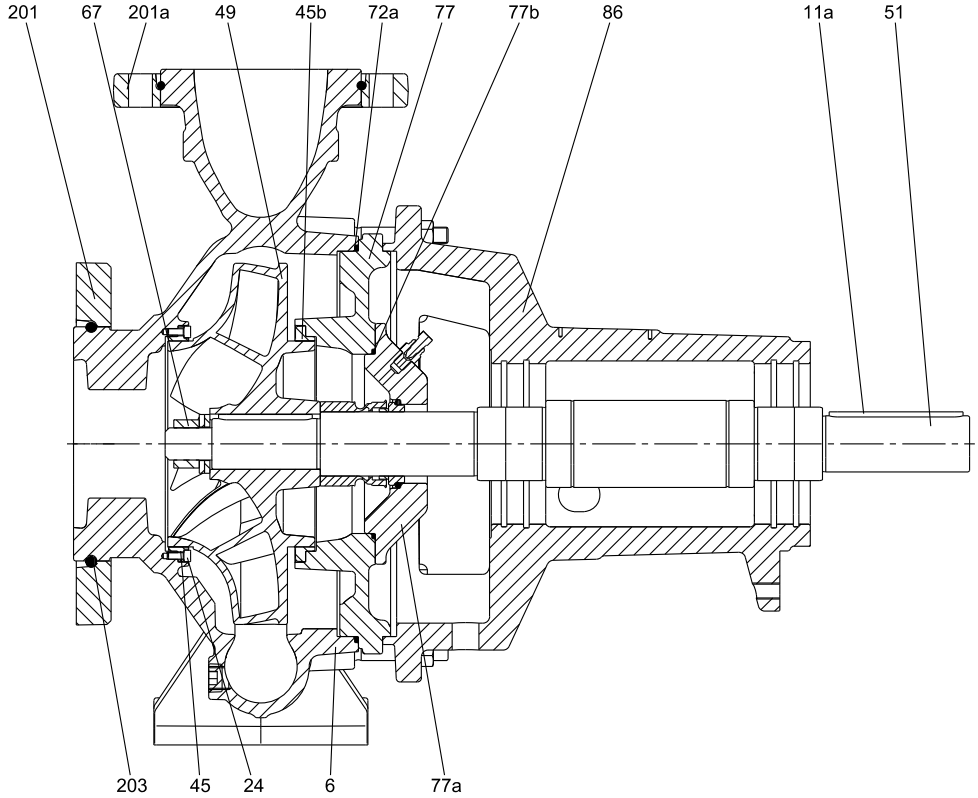


Fig. 15 Sectional drawing, single seal, split cover

NKG, stuffing box

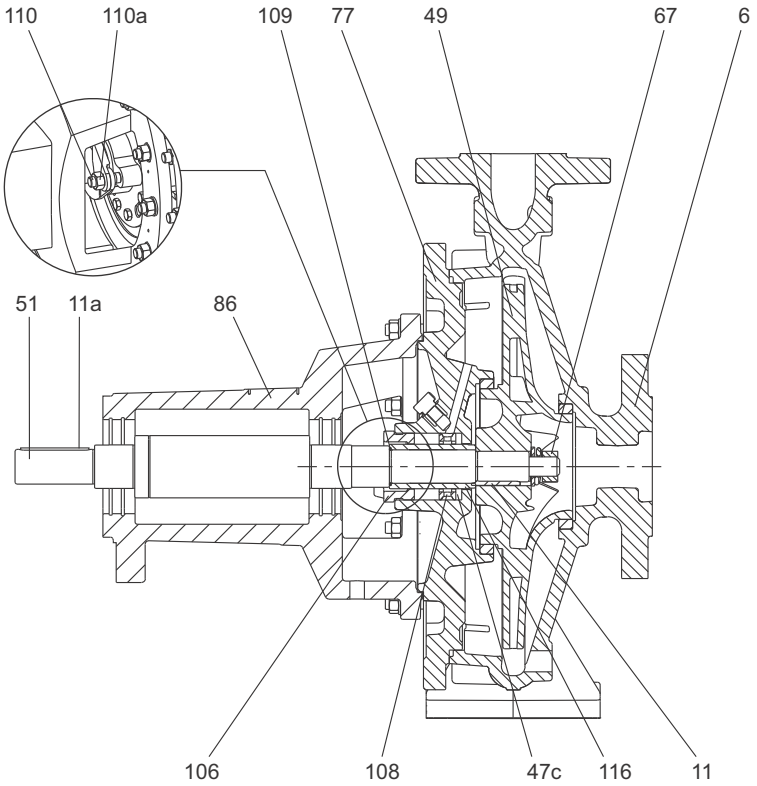


Fig. 16 Sectional drawing, stuffing box, single cover

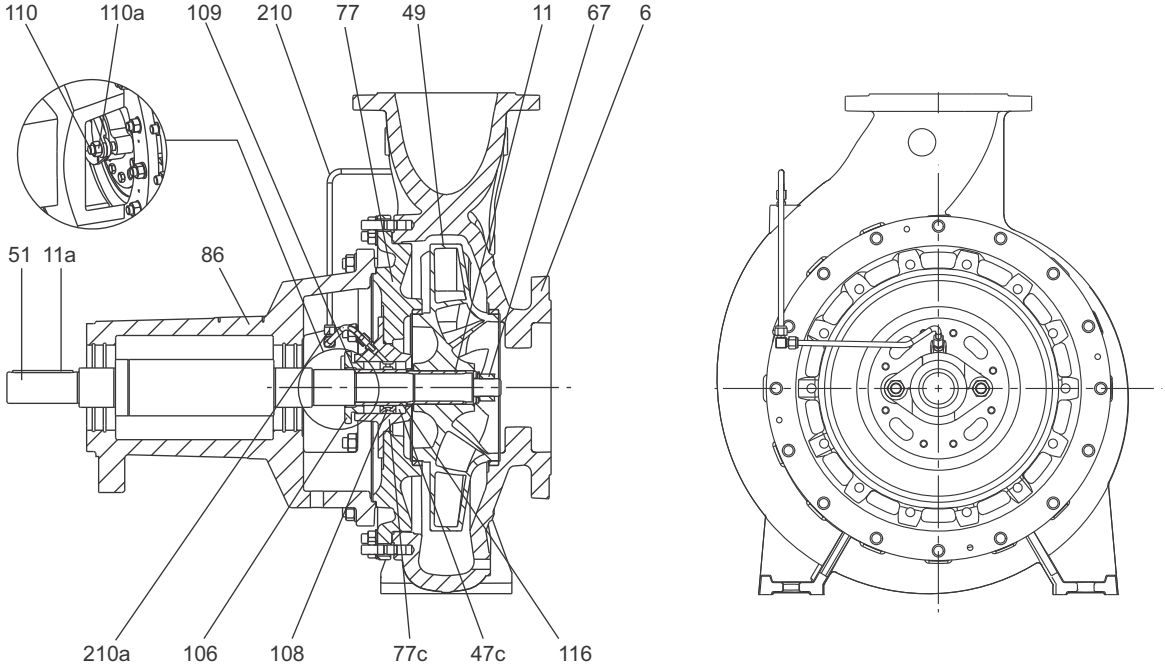


Fig. 17 Sectional drawing, stuffing box, split cover

Material specification, NKG

Pos.	Description	Materials	Material code																			
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	U	W
6	Pump housing	EN-GJL-250	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
7	Coupling guard	1.4301/AISI 304	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8a	Coupling	See table below.	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8f	Grease cartridge	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
8g	Grease nipple	Copper	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11	Key	1.4401/AISI 316	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
11a	Key	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
17	Air vent plug	2.0401/CuZn44Pb2	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
20	Plug	ISO 898 8.8 carbon steel	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
24	Hexagon socket head cap screw	1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
24b	Hexagon socket head cap screw	1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
45	Wear ring	CuSn10	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-
		CuZn34Mn3Al2Fe1-C	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-
		EN-GJL-250	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	●	-	●	●	●	-	-	-	-	-	●	-
		Carbon-graphite filled PTFE (Graflon®)	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
45b	Wear ring	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	●	-	●	●	●	-	-	-	-	-	●	-
		Carbon-graphite-filled PTFE (Graflon®)	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
47c	Packing ring	Buraflon®/Thermoflon®	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
49	Impeller	EN-GJL-200	●	-	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-
		CuSn10	-	●	-	●	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	-	●	-	-	●	-	-	-
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	●	-	●	●	-	●	●	●
51	Shaft[1]	1.4034	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401 + (1.4034)	-	-	●	●	-	-	●	●	-	-	●	-	●	●	●	-	●	-	-	-
		1.4462 + (1.4401)	-	-	-	-	-	-	-	-	●	●	-	●	-	-	-	●	-	●	●	●
53	Deep-groove ball bearings	2ZR.C3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Angular contact bearing	BECBJ (SKF)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53a	O-ring	EPDM/FKM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53b	Spacer ring	1.4301	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53c	Spacer ring, inner	1.4301	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53d	Spacer ring, outer	1.4301	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53e	Lock washer	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
53f	Lock nut	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
54	Deep-groove ball bearings	2ZR.C3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Roller bearing	ECJ (SKF)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
54a	O-ring	EPDM/FKM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
58	Seal housing	1.4517/CD4MCuN	●	●	●	●	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●
58d	O-ring	E / F / K / M / V / X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
65	Wear ring retainer	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
65b	Wear ring retainer	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	-	●
66	Washer	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	●	●	●	-	●	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	●	-	-
66a	Spring lock washer	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	●	●	●	-	●	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	●	-	-
67	Impeller nut	1.4301/AISI 304	●	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1.4401/AISI 316	-	-	●	●	-	-	●	●	●	●	●	-	●	●	●	-	●	-	●	●
		1.4539/AISI 904L	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	●	-	-
72a	O-ring	E / F / K / M / V / X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
77	Cover	EN-GJL-250	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408/CF8M	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-

Pos.	Description	Materials	Material code																			
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	U	W
77a	Seal cover	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
		1.4408	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
77b	O-ring	E / F / K / M / V / X	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
77c	Packing housing	1.4517/CD4MCuN	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
		Cast iron	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
86	Bearing bracket	EN-GJL-250	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
86a	SPM fitting	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
86b	Plug	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
86c	Plug	Composite	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
86d	Venting plug	Composite	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
86e	Screw	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
88	Constant-level oiler	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
90c	Foot	EN-GJL-250/1.0338/carbon steel DC04	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
105	Shaft seal	Burgmann 1.4401/AISI 316	●	●	●	●	●	●	●	●	●	●	●	-	●	●	●	-	●	●	●	●
		Burgmann 2.4610/Hastelloy C-4	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
105f	Gasket for cartridge seal	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
106	Gland	Cu42Si10	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4408	●	●	●	●	●	●	●	●	●	●	●	-	●	●	●	-	●	●	●	●
		1.4517	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
108	Distribution ring	1.4301	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4462	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
109	O-ring	EPDM/FKM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
110	Bolt	A2-70	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
110a	Nut	A2-70	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
116	Shaft sleeve	1.4034/1.4021	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	-	-
		1.4404/1.4401	-	-	-	-	-	-	-	-	●	●	●	-	●	●	●	-	-	-	●	●
		1.4462	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
156a	Cover, bearing	1.0338/carbon steel DC04	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
156b	Screw	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
156c	Cover end, bearing bracket	EN-GJL-250	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
156d	Cover front, bearing bracket	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
156f	O-ring for cover, bearing bracket	FKM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159a	Thrower	EPDM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159b	Oil seal	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159f	Lock ring, circlip	DIN 472 (C75 DIN17 222)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159g	Sealing spacer	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
159h	Bearing bracket seal	FKM	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
201	Loose flange, inlet	GGG50/1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
201a	Loose flange, outlet	GGG50/1.4401/AISI 316	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
203	Retainer, inlet	1.4310	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
203a	Retainer, outlet	1.4310	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	-	-	●	●
210	Flushing pipe	1.4401	●	●	●	●	●	●	●	●	●	●	●	-	●	●	●	-	●	●	●	●
		1.4462	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-
210a	Compression fitting	1.4401	●	●	●	●	●	●	●	●	●	●	●	-	●	●	●	-	●	●	●	●
		1.4462	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	-	-	-	-

[1] Depending on the models, the shaft may be friction welded.

Material of coupling (8a)

Coupling type	Pole	Motor size	Material
Standard coupling	2	Up to 22 kW	EN-GJL-250
		From 30 kW	EN-GJS-450-10
	4	Up to 30 kW	EN-GJL-250
		From 37 kW	EN-GJS-450-10
	6	Up to 37 kW	EN-GJL-250
		From 45 kW	EN-GJS-450-10
Spacer coupling	All	All	EN-GJL-250

Note: Other configurations are available on request. Please contact Grundfos.

Mechanical construction

Mounting design, NBG

NBG pumps come in these mounting designs:

Mounting design A: pump housing with feet

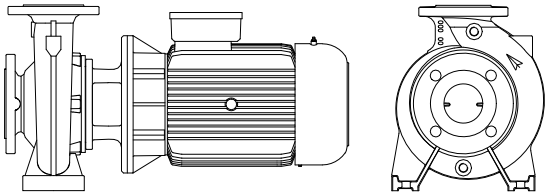


Fig. 18 Mounting design A

Mounting design B: motor with feet

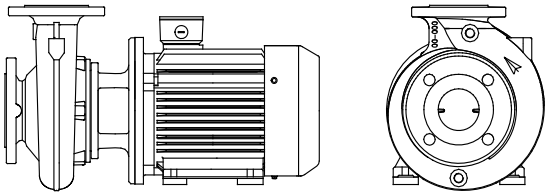


Fig. 19 Mounting design B

Mounting design C: pump housing and motor with feet

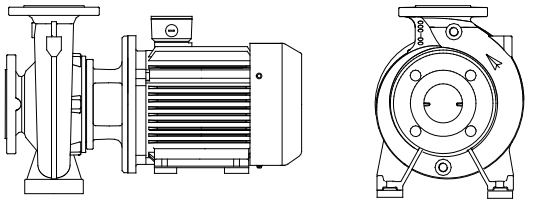


Fig. 20 Mounting design C

Mounting design F: design C with base frame

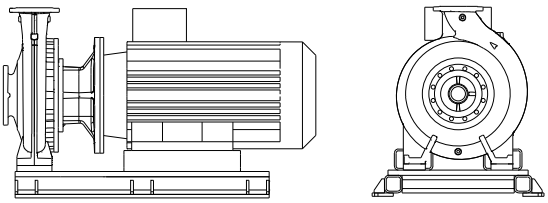


Fig. 21 Mounting design F

Pump housing

The volute pump housing has an axial inlet port and a radial outlet (centre-line) port. Flange dimensions are in accordance with EN 1092-2.

For DN 200 outlet and above, the outlet port is tangential.

The pump houses have both a priming and a drain hole closed by plugs.

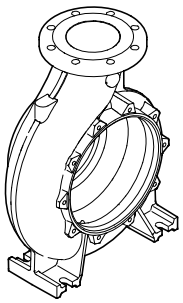


Fig. 22 NBG and NKG pump housing with centre-line outlet

Bearing bracket and shaft, NKG

The bearing bracket has two sturdy anti-friction, lubricated-for-life bearings.

The bearing bracket is made of cast iron EN-GJL-250.

The shaft is made of stainless steel. Shaft diameter d5 is either ∅24, ∅32, ∅42, ∅48 or ∅60 where the coupling is mounted.

A thrower on the shaft prevents liquid from entering the bearing bracket. In stuffing box versions, the shaft is protected by a stainless steel sleeve.

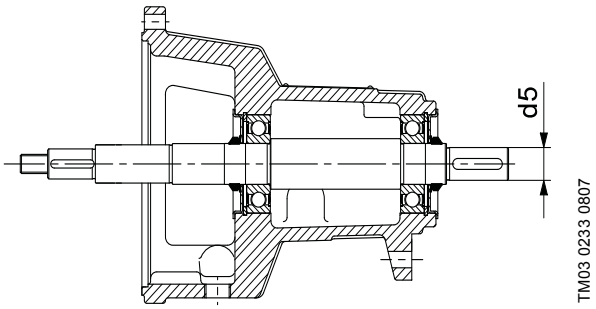


Fig. 23 Bearing bracket and shaft

All NKG pumps are fitted with one of five shaft, shaft seal and bearing sizes. As the bearings and shafts are large, the NKG pumps can be driven by a belt drive or a diesel engine, if required.

For prolonged lifetime and to suit high inlet pressure, heavy duty bearing brackets are available. See the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858", or contact Grundfos.

Stuffing boxes, NKG

Stuffing boxes are available as pure packing rings or as packing rings with graphite seals. Stuffing box packing rings with graphite seals have proven their qualities in a wide range of applications, especially under extreme conditions, such as high pressure or high temperature, or operation with oils or aggressive liquids.

Braided material is effective for ensuring long service life for packing rings while protecting the shaft (sleeve) when used in pumps. When fitted, these packing rings are symmetrical, having parallel facings that rule out tilting.

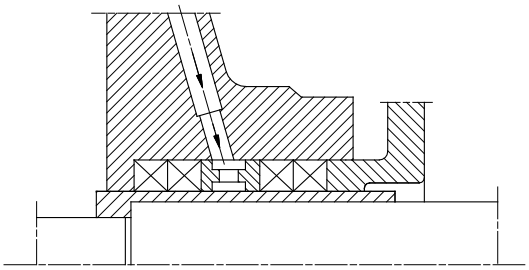


Fig. 24 Uncooled stuffing box, type SNE(x), with internal barrier liquid for the pumping of clean liquids in suction operation or at inlet pressures up to 4 bar

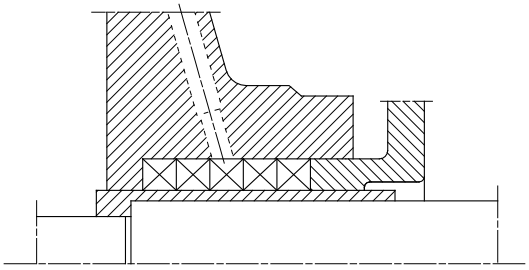


Fig. 25 Uncooled stuffing box, type SNO(x), without internal barrier liquid for the pumping of clean liquids in suction operation or at inlet pressures over 4 bar

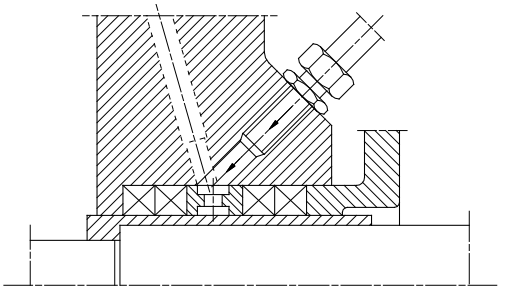


Fig. 26 Uncooled stuffing box, type SNF(x), with external barrier liquid for the pumping of contaminated and malodorous liquids and for applications with continuous vacuum on the inlet (constant inlet pressure below atmosphere pressure)

Pump cover design

Material code	A/B/C/D/E/F/G/H/S/T	I/J/K/L/M/N/P/R/U/W
Pump shaft diameter d5 [mm]	Pump cover design	
24	Single[1]	Split[2]
32	Single[1]	Split[2]
42	Single[1]	Split[2]
48	Split[2]	Split[2]
60	Split[2]	Split[2]

1 See fig. 16.
2 See fig. 17.

Motor stool and cover, NBG

The cover is provided with a manual air vent screw for the venting of the pump housing and the shaft seal chamber. An O-ring forms the seal between cover and pump housing.

Coupling guards are fitted to the motor stool.

The mounting designations of motors for NBG, NBGE are as follows:

- IM B5: up to and including frame size 132.
- IM B35: as from frame size 160 and upwards.

The flange size of the motor stool is according to IEC 60034.

Shaft, NBG

The stainless steel shaft is ∅28, ∅38, ∅48, ∅55 or ∅60 where the shaft seal is mounted.

The coupling end of the shaft is cylindrical and has two drilled holes for the set screws of the coupling.

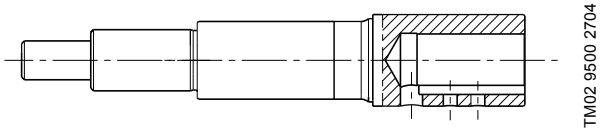


Fig. 27 Stub shaft, NBG pump

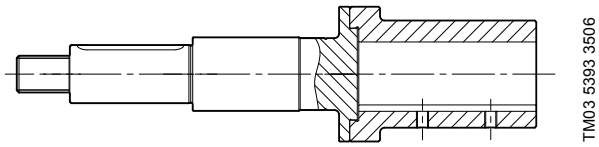
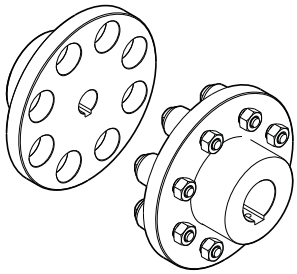


Fig. 28 2-part stub shaft, NBG pump

Coupling, NKG

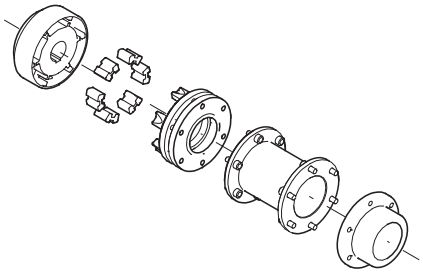
NKG pumps are available with two types of coupling:

- standard coupling
- spacer coupling.



TM03 5394 3506

Fig. 29 Standard coupling



TM03 0234 4504

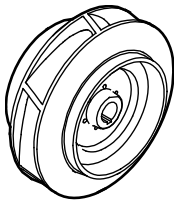
Fig. 30 Spacer coupling

Pumps fitted with a spacer coupling can be serviced without dismantling the motor from the base frame and without removing the pump housing from the pipework. This saves realignment of pump and motor after service.

For couplings for ATEX-approved pumps, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858".

Impeller

The impeller is a closed impeller with double-curved blades with smooth surfaces. This ensures high efficiency.



TM03 0231 4504

Fig. 31 Impeller, NBG and NKG pumps

All impellers are statically and hydraulically balanced. The hydraulic balancing compensates for axial thrust.

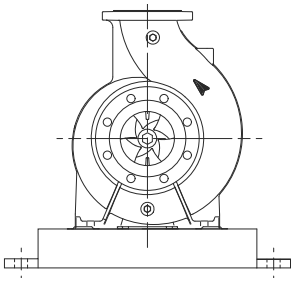
The direction of rotation of the impeller is clockwise when viewed from the motor.

All impellers can be adapted to the duty point as requested by the customer.

Base frame, NKG

NKG pumps are available with two types of base frame.

EN/ISO base frame



TM05 1513 2711

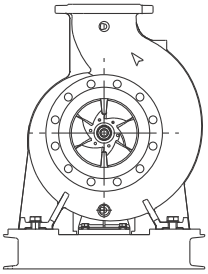
Fig. 32 Schematic view of NKG pump mounted on an EN/ISO base frame

Pump and motor are mounted on a common steel base frame in accordance with EN 23661. The largest base frames, larger than size 9, are not described in any standard and therefore not in accordance with EN 23661.

The base frame may be longer than the pump and motor.

An EN/ISO base frame prepared for grouting is available as an option. See fig. 50 on page 53.

C-channel base frame



TM05 9293 3713

Fig. 33 Schematic view of NKG pump mounted on a C-channel base frame

Pump and motor are mounted on a common steel base frame optimised for the length of the pump and motor.

Dimensions are not in accordance with EN 23661. All C-channel base frames can be grouted.

Surface treatment

NBG and NKG

The cast iron parts of NBG and NKG pumps 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 of 18-22 µm.

The colour code for the finished product is NCS 9000/AL 9005.

For low-temperature applications at high humidity, Grundfos offers NBG and NKG pumps with extra surface treatment to avoid corrosion. These pumps are available on request.

Test pressure

Pressure testing was made with +20 °C water containing corrosion inhibitor.

Pressure stage	Operating pressure		Test pressure	
	[bar]	[MPa]	[bar]	[MPa]
PN 10	10	1.0	15	1.5
PN 16	16	1.6	24	2.4
PN 25	25	2.5	37.5	3.75

Motors and drives

For NBG, NBGE, NKG, NKGE pumps, Grundfos can provide a wide range of motors and drives within these two main categories:

- standard motors
- speed-controlled motors.

Standard motors are mains-operated whereas the speed-controlled motors can be started and operated in various ways.

The speed-controlled NBG, NKG pumps can be driven in two ways:

- by a standard motor with an external frequency converter. The frequency converter can be a Grundfos CUE solution or another make.
- by a motor with an integrated frequency converter, a Grundfos MGE motor.

Standard motors

The motor is a totally enclosed, fan-cooled standard motor with main dimensions according to IEC and DIN standards. Electrical tolerances are to IEC 60034.

Motor protection

Three-phase motors must be connected to a motor-protective circuit breaker according to local regulations.

Three-phase Grundfos MG motors as from 3 kW have a built-in PTC thermistor according to DIN 44082 (IEC 34-11: TP 211).

Energy efficiency classification

IE1 IE2 IE3

Along with the international discussion on energy efficiency a worldwide harmonised energy efficiency classification system has been established for low-voltage, three-phase asynchronous motors. The International Electrotechnical Commission, IEC, has developed and issued a new standard for the determination of motor efficiencies worldwide. The new standard IEC 60034-30 defines and harmonises the efficiency classes IE1, IE2 and IE3 for low-voltage, three-phase motors from 0.25 to 375 kW for 2-, 4- and 6-pole motors.

Standard motor ranges

The table shows the range of standard motors currently used for NBG, NKG pumps. The motors stated in section *17. Dimensional drawings and technical data* are MG and Siemens motors.

IE class	Make	Pole	P2 [kW]																																			
			0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	200	224	230	250	280	288	298	315	353	355	362	400	408	460	500
IE1	MMG-G	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	-	-	-	-	-	-
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IE2	MG	4	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-E	2	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	●	-	-	●
		6	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-G	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	-	-	-	-	-	●
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-H2	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IE3	MG	2	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	●	-	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Siemens	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	●	●	-	-	●	●	-	●	-	-	-
		4	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	●	●	-	-	-	●	-	●	●	-
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-H3	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Grey background = Outside definition of IE class.

Note: Not all motor makes are available worldwide. For specific information about the motor makes available in your region, contact your Grundfos Customer Service Unit (CSU).

Speed-controlled standard motors

General considerations

If you connect an external frequency converter to your standard motor, the motor insulation is exposed to higher voltage peaks due to the operation of the frequency converter. This causes the motor to be more noisy than in normal operation. In addition, large motors are exposed to bearing currents caused by the frequency converter.

If you operate the motor via a frequency converter, consider the following:

- In 2-, 4- and 6-pole motors, frame size 225 and up, isolate one of the motor bearings electrically to prevent damaging currents from passing through the motor bearings.
- In noise-sensitive applications, you can reduce the motor noise by fitting a dU/dt filter between the motor and the frequency converter. For particularly noise-sensitive applications, we recommend a sinusoidal filter.
- The length of the cable between motor and frequency converter affects the motor load. Therefore, check that the cable length meets the specifications laid down by the frequency converter supplier.
- For supply voltages between 500 and 690 V, fit a dU/dt filter to reduce voltage peaks, or use a motor with reinforced insulation.
- For supply voltages of 690 V, use a motor with reinforced insulation, and fit a dU/dt filter.

Grundfos CUE

NBG, NKG pumps connected to Grundfos CUE external frequency converters

GrA4404

Fig. 34 Grundfos CUE frequency converters

Grundfos CUE is a complete range of wall-mounted frequency converters for pump control in a wide range of applications.

Grundfos CUE provides a variety of benefits to the end-user, such as:

- Grundfos E-pump functionality and user interface
- application- and pump family-related functions
- increased comfort compared to fixed-speed pump solutions
- simple installation and commissioning compared to standard frequency converters
- speed control of pumps up to 250 kW.

Intuitive startup guide

The startup guide enables easy installation and commissioning as well as plug-and-pump convenience. Few settings need to be made by the installer as the rest is done automatically or preset from the factory.

Smart user interface

TM04 3283 4108

Fig. 35 Grundfos CUE user interface

Grundfos CUE features a unique user-friendly operating panel with graphic display and easy-to-use buttons.

Controlling the selected parameter

Grundfos CUE has a built-in PI controller offering closed-loop control of these parameters:

- constant differential pressure
- proportional pressure
- constant temperature
- constant flow rate.

Wide product range

The CUE product range is quite comprehensive, covering five different voltage ranges, enclosure classes IP20/21 (NEMA 1) and IP54/55 (NEMA 12), and a wide range of output powers.

The table below provides a general overview.

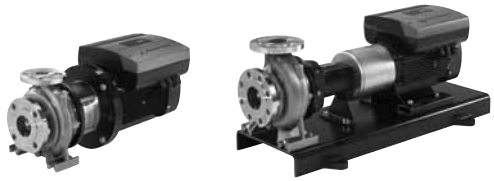
Input voltage [V]	Output voltage [V]	Motor [kW]
1 x 200-240	3 x 200-240	1.1 - 7.5
3 x 200-240	3 x 200-240	0.75 - 45
3 x 380-500	3 x 380-500	0.55 - 250
3 x 525-600	3 x 525-600	0.75 - 7.5
3 x 525-690	3 x 525-690	11-250

External communication

Grundfos CUE can communicate by means of LON, PROFIBUS, Modbus or BACnet via Grundfos CIU.

Grundfos MGE motors

NBGE, NKGE pumps with a motor with an integrated frequency converter



TM04 59374409
TM04 5939 4409

Fig. 36 NBGE and NKGE pumps

The MGE motor is a totally enclosed, fan-cooled, frequency-controlled motor with dimensions according to IEC and DIN standards. Electrical tolerances are to IEC 60034.

Motor protection

The motor requires no external motor protection. MGE motors incorporate thermal protection against steady overload and stalled condition (IEC 34-11: TP 211).

Benefits

Grundfos MGE motors provide a variety of benefits to the end-user, such as:

- Grundfos E-pump functionality and user interface
- a perfect match between pump and frequency drive
- application- and pump family-related functions
- increased comfort compared to fixed-speed pump solutions
- simple installation and commissioning compared to standard frequency converters.

Smart user interface

TM03 0302 4704

Fig. 37 MGE user interface

Grundfos MGE motors feature a user-friendly operating panel with easy-to-use buttons.

Controlling the selected parameter

Grundfos MGE has a built-in PI controller offering closed-loop control of these parameters:

- constant differential pressure
- proportional pressure
- constant temperature
- constant flow rate.

MGE motor range

Pole	IE class	P2 [kW]												
		0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22
2	IE2	-	-	-	-	-	-	-	-	-	-	-	-	-
	IE3	-	-	-	-	-	-	-	-	-	-	●	●	●
	IE5	-	-	●	●	●	●	●	●	●	●	-	-	-
4	IE2	-	-	-	-	-	-	-	-	-	-	-	●	-
	IE3	-	-	-	-	-	-	-	-	-	●	●	-	-
	IE5	●	●	●	●	●	●	●	●	●	-	-	-	-

Outside definition of IE class

External communication

Grundfos MGE can communicate by means of LON, PROFIBUS, Modbus or BACnet as described in section *Communication with E-pumps*, see page 60.

Optional motors

The Grundfos standard range of motors covers a wide variety of application requirements. However, for special applications or operating conditions, custom-built motor solutions can be provided.

For special applications or operating conditions, Grundfos offers custom-built motors such as:

- ATEX-approved motors
- MG motors with anti-condensation heating unit
- motors with thermal protection.

7. Operating conditions

Pump location

The pump is designed for installation in a non-aggressive and non-explosive atmosphere.

The relative air humidity must not exceed 95 %.

Ambient temperature and altitude

The ambient temperature and the installation altitude are important factors for the motor life, as they affect the life of the bearings and the insulation system.

Installation altitude is the height of the installation site above sea level.

If the ambient temperature exceeds the recommended maximum ambient temperature or maximum altitude above sea level, see fig. 38, the motor must not be fully loaded due to the low density and consequently low cooling effect of the air. In such cases, it may be necessary to use a motor with a higher output.

Pump with standard motor

Ambient temperature

Motor make	Motor P2	Permissible ambient temperature
MG	0.25 - 0.55 kW	-20 to +40 °C
	0.75 - 22 kW	-20 to +60 °C
Siemens	0.75 - 462 kW	-20 to +55 °C
MMG-H2	0.75 - 450 kW	-20 to +60 °C
MMG-H3	0.75 - 200 kW	-30 to +60 °C

Maximum motor output in relation to ambient temperature and altitude

Motor make	Motor P2	Derating curve
MG	0.25 - 0.55 kW	Fig. 38, curve 1
	0.75 - 22 kW	Fig. 38, curve 2
Siemens	0.75 - 462 kW	Fig. 38, curve 3
MMG-H2	0.75 - 450 kW	Fig. 38, curve 2
MMG-H3	0.75 - 200 kW	Fig. 38, curve 2

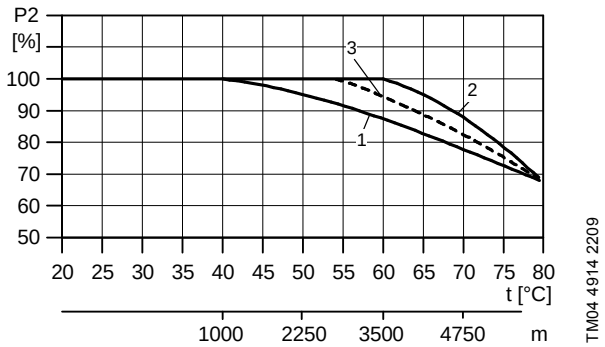


Fig. 38 Maximum motor output in relation to ambient temperature and altitude

Example with a pump with a 1.1 kW IE3 MG motor: If the pump is installed 4750 m above sea level, the motor must not be loaded more than 88 % of rated output. At an ambient temperature of 75 °C, the motor must not be loaded more that 78 % of rated output. If the pump is installed 4750 m above sea level at an ambient temperature of 75 °C, the motor must not be loaded more than 88 % x 78 % equal to 68.6 % of the rated output.

Pump with Grundfos MGE motor

Ambient temperature

Motor make	Motor P2	Permissible ambient temperature
Grundfos MGE	1.1 - 11 kW, 2-pole	-20 to +50 °C
	15-22 kW, 2-pole	-20 to +40 °C
	0.55 - 7.5 kW, 4-pole	-20 to +50 °C
	11 - 18.5 kW, 4-pole	-20 to +40 °C

The motor can operate with the rated power output, P2, at 50 °C, but continuous operation at higher temperatures reduces the expected product life. If the motor is to operate at ambient temperatures between 50 and 60 °C, select an oversize motor.

Contact Grundfos for further information.

Installation altitude

Motors installed up to 1000 metres above sea level can be loaded 100 %.

Motors installed more than 1000 metres above sea level must not be fully loaded due to the low density and consequent low cooling effect of the air.

See fig. 39.

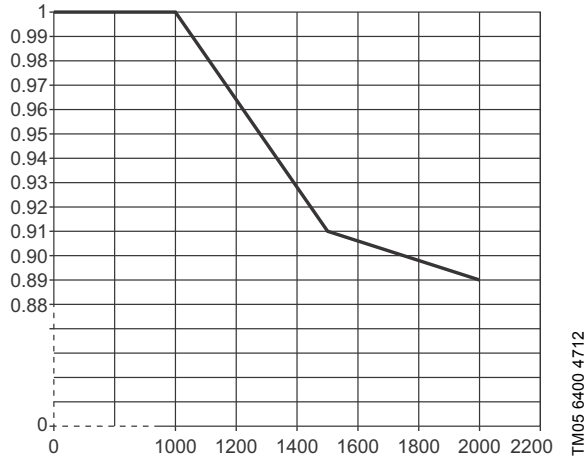


Fig. 39 Maximum motor output in relation to altitude

Flow rates

Minimum flow rate

The pump must not run against a closed discharge valve as this will cause an increase in temperature/formation of steam in the pump. This may cause shaft damage, impeller erosion, short life of bearings, damage to stuffing boxes or mechanical shaft seals due to stress or vibration.

The continuous flow rate must be at least 10 % of the maximum flow rate.

Maximum flow rate

The maximum flow rate must not be exceeded as otherwise there is a risk of for instance cavitation and overload.

The maximum flow rate can be read either from the performance curve pages or it can be read from a curve on a specific pump when selecting it in Grundfos Product Center.

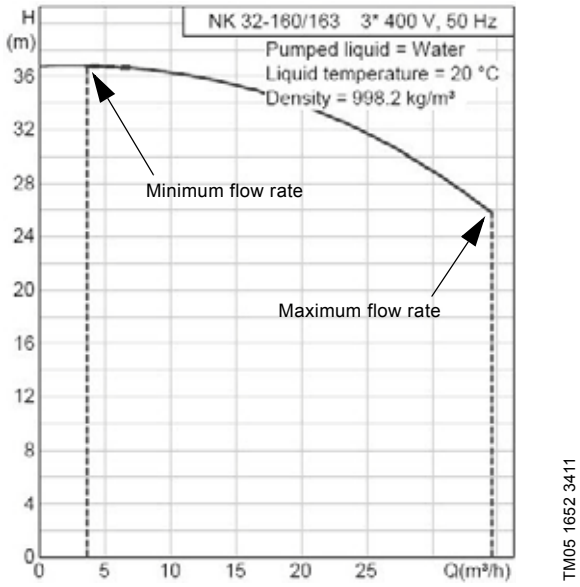


Fig. 40 Example from Grundfos Product Center showing minimum and maximum flow rate

Sound pressure level

Data in this table applies to pump including motor.

Motor [kW]	Maximum sound pressure level [dB(A)] - ISO 3743		
	Three-phase motor		
	2-pole	4-pole	6-pole
0.25	-	-	-
0.37	-	-	-
0.55	-	-	-
0.75	-	-	-
1.1	64	51	43
1.5	64	52	47
2.2	65	55	52
3	71	62	67
4	73	62	67
5.5	72	68	67
7.5	72	68	70
11	77	69	70
15	77	69	57
18.5	77	60	57
22	72	60	59
30	72	60	59
37	72	60	61
45	72	60	64
55	75	60	64
75	77	69	63
90	77	73	63
110	77	69	62
132	77	70	62
160	81	70	66
200	81	70	70
280	86	-	-
288	83	78	72
353	86	-	-
362	87	78	75
398	81	-	-
408	81	79	75
460	-	79	-

Liquid temperatures

Liquids with temperatures ranging from -25 °C to +140 °C are covered in this booklet.

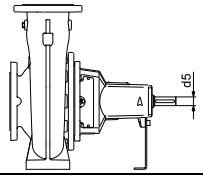
For liquids from -40 °C to +220 °C, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858", or contact Grundfos. In that data booklet, you will also find information about the seals being used for other liquids than water and glycols, i.e. oils, chemicals and silicone oil. Further seal types are also described to support more application types and pumped liquids.

The maximum liquid temperature is stamped on the nameplate.

Note that the maximum liquid temperature limits stated by Grundfos may be overruled by local regulations and various laws.

Operating range of mechanical shaft seals

The temperature range applies to water and coolants. Seals with a temperature range of 0 °C and up are mainly used for pumping water, while seals for temperatures below 0 °C are mainly intended for coolants.



Shaft seal diameter [mm]	**NBG, NKG**		**28, 38**	**48**	**55**	**60**		
d5 [mm]	**NKG**		**24, 32**	**42**	**48**	**60**		
Shaft seal type	**Code**	**Temperature range**	**Maximum pressure [bar]**				**Seal faces**	**Rubber**
Bellows seal, type B, unbalanced	BAQE	0-120 °C	16	16	16	16	AQ_1	EPDM
	BAQV	0-90 °C	16	16	16	16	AQ_1	FKM
	BBQE	0-120 °C	16	16	16	16	BQ_1	EPDM
	BBQV	0-90 °C	16	16	16	16	BQ_1	FKM
	BQQE	-25 to +120 °C	16	16	16	16	Q_7Q_7	EPDM
	BQQV	-10 to +90 °C	16	16	16	16	Q_7Q_7	FKM
O-ring seal, type A, unbalanced	AQAE	0-120 °C	16	16	16	16	Q_1A	EPDM
	AQAV	0-90 °C	16	16	16	16	Q_1A	FKM
	AQQE	-25 to +90 °C	16	16	16	16	Q_1Q_1	EPDM
	AQQV	-10 to +90 °C	16	16	16	16	Q_1Q_1	FKM
	AQQX	-15 to +90 °C	16	16	16	16	Q_1Q_1	HNBR
	AQQK	0-90 °C	16	16	16	16	Q_1Q_1	FFKM
O-ring seal, type D, balanced	DAQF	0-140 °C	25	25	25	25	AQ_1	FXM
	DQQE	-20 to +120 °C	25	25	25	25	Q_6Q_6	EPDM
	DQQV	-10 to +90 °C	25	25	25	25	Q_6Q_6	FKM
	DQQX	-15 to +120 °C	25	25	25	25	Q_6Q_6	HNBR
	DQQK	0-120 °C	25	25	25	25	Q_6Q_6	FFKM

Recommended shaft seal for water-glycol mixture

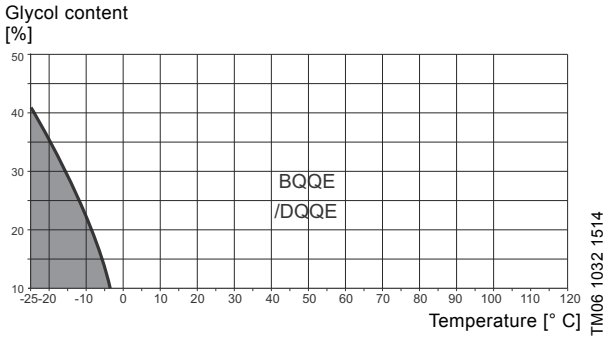


Fig. 41 Operating range of EPDM shaft seals

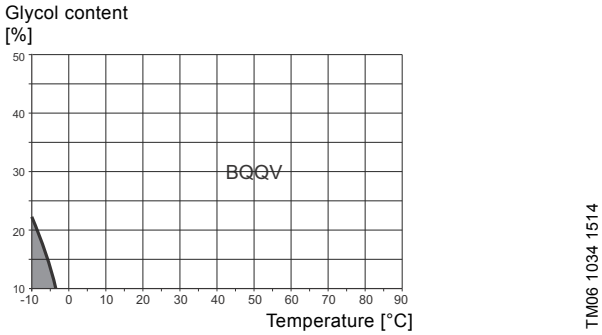


Fig. 42 Operating range of FKM shaft seals

Carbon-silicon carbide (xAQx), (xBQx), (xQBx)

Mechanical shaft seals with carbon-silicon carbide seal faces have a wide range of applications and are especially suitable if there is risk of dry running and/or if the temperature is high. These mechanical shaft seals are not suitable for liquids containing abrasive particles as the carbon parts will be worn. At temperatures below 0 °C, corrosion inhibitors containing abrasive particles are usually added to the pumped liquid, and these seals will thus not be suitable.

Note: The antimony impregnation (A) is not approved for potable water applications.

Silicon carbide-silicon carbide (xQQx)

Mechanical shaft seals with silicon carbide-silicon carbide seal faces also have a very wide range of applications. These seals are very resistant to abrasive particles and well suited at liquid temperatures up to +90 °C for Q_1 types, and up to +120 °C for Q_6 types. At higher temperatures, the reduced lubricating properties of the pumped liquid may cause noise problems and limit the life of the seal faces.

EPDM (xxxE)

Mechanical shaft seals with EPDM (xxxE) rubber are primarily suitable for water.

If the water contains oil or if chemicals or other liquids than water are pumped, you may have to replace the rubber parts of the mechanical shaft seal.

FKM (xxxV)

Mechanical shaft seals with FKM (xxxV) rubber have excellent resistance against oil and a number of chemicals.

Note: For detailed information about properties of all shaft seal components, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858".

Operating range of a stuffing box

	Stuffing box type	Code for stuffing box	Code for packing material[1]	O-rings in pump	Temperature range[2] [°C]	Max. p [bar]	Pumps	
							NBG	NKG
	Internal barrier liquid	SNEA	B	EPDM	-30 to +140	16	-	●
		SNEB	T	EPDM	-30 to +140	16	-	●
		SNEC	B	FKM	-30 to +90	16	-	●
		SNED	T	FKM	-30 to +90	16	-	●
	Without barrier liquid	SNOA	B	EPDM	-30 to +140	16	-	●
		SNOB	T	EPDM	-30 to +140	16	-	●
		SNOC	B	FKM	-30 to +90	16	-	●
		SNOD	T	FKM	-30 to +90	16	-	●
	External barrier liquid	SNFA	B	EPDM	-30 to +140	16	-	●
		SNFB	T	EPDM	-30 to +140	16	-	●
		SNFC	B	FKM	-30 to +90	16	-	●
		SNFD	T	FKM	-30 to +90	16	-	●

1 B: Buraflon®, PTFE-impregnated fibre packing rings.
T: Thermoflon®, graphite-PTFE compound packing rings.
2 The temperature range applies to water and coolants.

Pressures in the pump

Maximum operating pressure

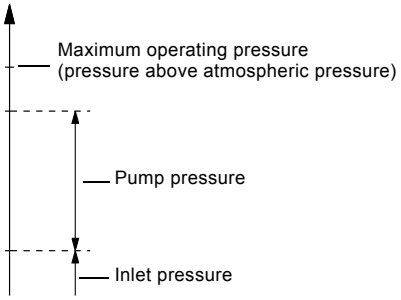


Fig. 43 Pressures in the pump

The inlet pressure + pump pressure must be lower than the maximum operating pressure (p) stated on the pump nameplate. The maximum operating pressure can be checked by closing the outlet valve briefly for maximum 30 seconds.

Minimum inlet pressure

The minimum inlet pressure must be according to the NPSH curve + correction for vapour pressure. We do, however, recommend that you calculate the inlet pressure in these cases:

- The liquid temperature is high.
- The flow rate is considerably higher than the pump's rated flow rate.
- The pump is operating in an open system with suction lift.
- The liquid is sucked through long pipes.
- The inlet conditions are poor.
- The operating pressure is low.

Maximum inlet pressure

The inlet pressure + pump pressure must be lower than the maximum operating pressure (p) stated on the pump nameplate. The maximum operating pressure can be checked by closing the outlet valve briefly for maximum 30 seconds.

Suction lift in open systems

Calculation of suction lift in open systems (water)

The suction lift "H" in metres head required during operation to avoid cavitation in the pump, can be calculated by means of the following formula:

$H = p_b \times 10.2 - NPSH - H_f - H_v$

H	Suction lift
p_b	Barometric pressure in bar. The barometric pressure can be taken as equal to 1 bar.) In closed systems, p_b indicates system pressure in bar.
NPSH	Net Positive Suction Head in metres head. The NPSH value can be read from the NPSH curve at the highest flow rate the pump will be delivering. The maximum flow rate must not exceed the maximum flow rate shown on the QH curve. The NPSH curve and QH curve for the individual pump can be found in Grundfos Product Center and in the relevant data booklet.
H_f	Friction loss in inlet pipe in metres head at the highest flow the pump will be delivering.
H_v	Vapour pressure in metres head. See fig. 44.

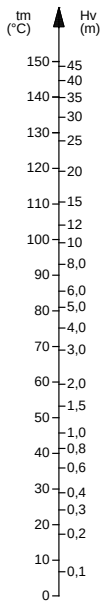


Fig. 44 Relation between liquid temperature and vapour pressure

Positive H value

Example:

Liquid temperature: 20 °C
Pump type: NKG 80-50-200/219, 2-pole, 50 Hz
Flow rate: 70 m^3/h
p_b: 1 bar
NPSH: 2.8 m head
H_f: 3.0 m head
H_v: 0.24 m head
$H = p_b \times 10.2 - NPSH - H_f - H_v$ [m head]
H = 1 x 10.2 - 2.8 - 3.0 - 0.24 **= 4.16 m head**

If the calculated value of H is positive, the pump can operate with a maximum suction lift of H metres.

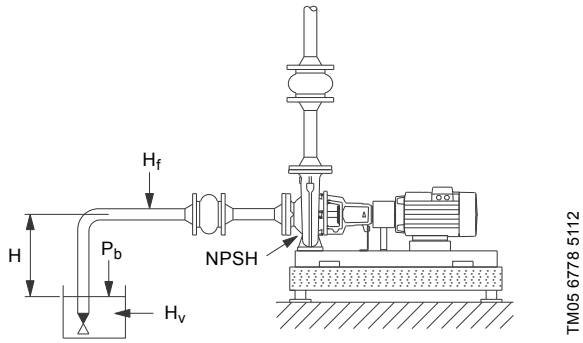


Fig. 45 Suction lift with positive H

Negative H value

Example:

Liquid temperature: 90 °C
Pump type: NKG 80-50-200/219, 2-pole, 50 Hz
Flow rate: 70 m^3/h
p_b: 1 bar
NPSH: 2.8 m head
H_f: 3.0 m head
H_v: 7.2 m head
$H = p_b \times 10.2 - NPSH - H_f - H_v$ [m head]
H = 1 x 10.2 - 2.8 - 3.0 - 7.2 **= -2.8 m head**

If the calculated value of H is negative, a minimum suction head of H metres is required. The calculated H must be present during operation.

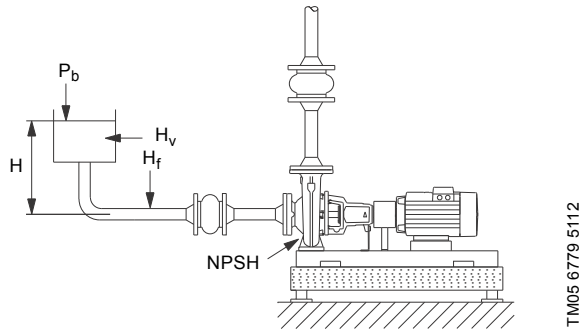


Fig. 46 Suction lift with negative H

8. Mechanical installation

Foundation and grouting

Foundation

We recommend that you install the pump on a plane and rigid concrete foundation which is heavy enough to provide permanent support for the entire pump. The foundation must be capable of absorbing any vibration, normal strain or shock. As a rule of thumb, the weight of the concrete foundation must be 1.5 times the weight of the pump.

The foundation must be 100 mm larger than the base frame on all four sides. See fig. 47.

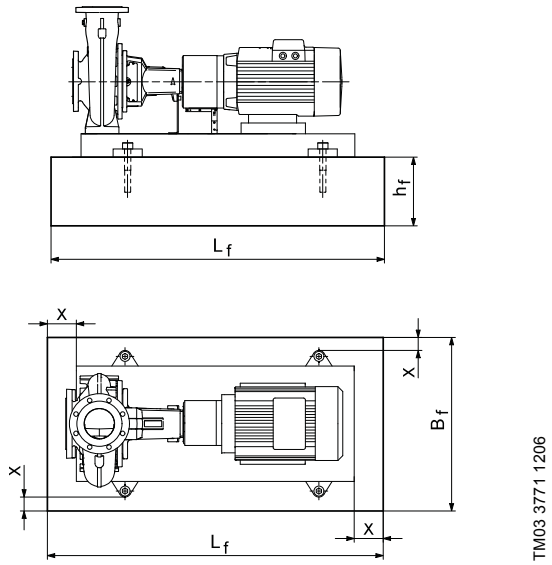


Fig. 47 Foundation, X = minimum 100 mm

The minimum height of the foundation (h_f) can then be calculated:

$$h_f = \frac{m_{pump} \times 1.5}{L_f \times B_f \times \delta_{concrete}}$$

The density (δ) of concrete is usually taken as 2200 kg/m^3.

Place the pump on the foundation, and fasten it. The base frame must be supported under its entire area. See fig. 48.

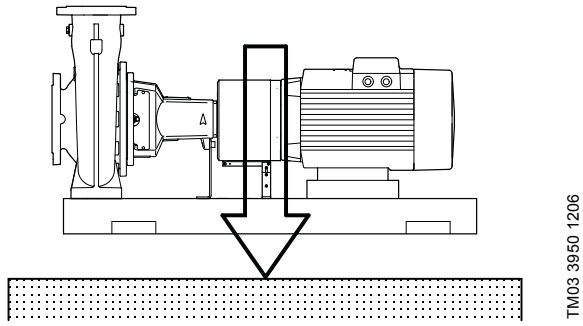


Fig. 48 Correct foundation

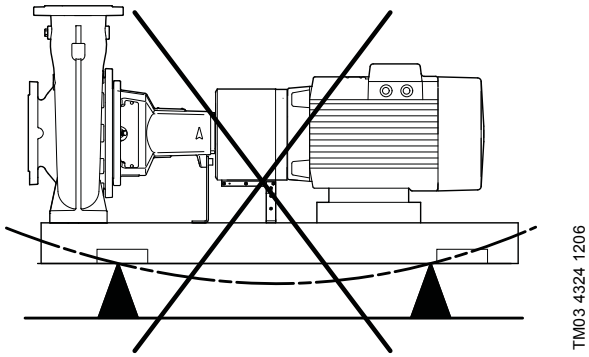


Fig. 49 Incorrect foundation

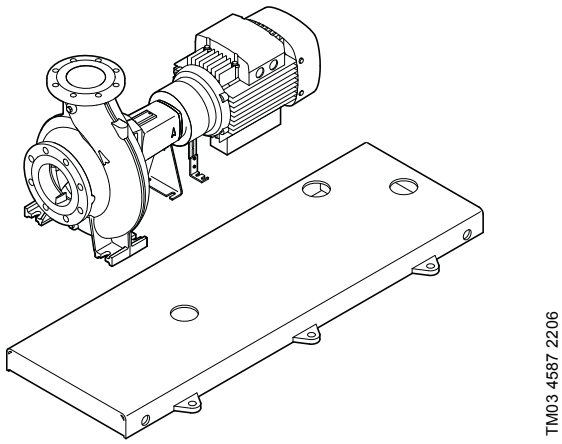


Fig. 50 Base frame prepared for grouting

Grouting

Grouting compensates for uneven foundation, distributes the weight of the unit, dampens vibrations and prevents shifting.

All NKG pumps can be delivered with base frames prepared for grouting as an option. NBG pumps with base frames are always prepared for grouting.

For 2-pole NKG and NBG pumps with motors as from 55 kW, grouting of the base frame is mandatory in order to prevent vibration energy from the rotating motor and the liquid flow.

Use an approved, non-shrinking grout. If in doubt, contact your grout supplier.

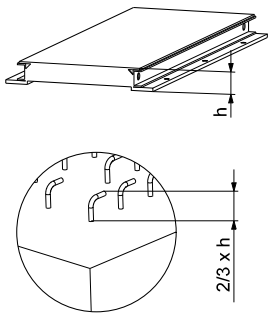


Fig. 51 Reinforcing steel bars embedded in foundation

Use reinforcing steel bars embedded in the foundation to ensure proper grouting.

Build a strong formwork around the foundation.

Soak the top of the concrete foundation thoroughly, and remove surface water.

Fill the formwork with grout up to the base frame top level. See fig. 52. Allow the grout to dry thoroughly before attaching pipes to the pump. 24 hours is sufficient time with approved grouting procedure.

When the grout has thoroughly hardened, check the anchor bolt nuts and tighten, if necessary.

Approximately two weeks after the grout has been poured, or when the grout has thoroughly dried, apply an oil-based paint to the exposed edges of the grout to prevent air and moisture from getting into contact with the grout.

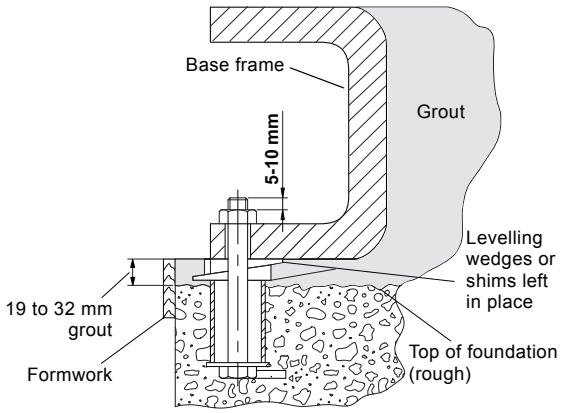


Fig. 52 Sectional view of foundation with anchor bolt, grouting and base frame

Pipework

Piping

When installing the pipes, make sure that the pump housing is not stressed by the pipework.

The inlet and outlet pipes must be of an adequate size, taking the pump inlet pressure into account.

Install the pipes so that air locks are avoided, especially on the inlet side of the pump. See fig. 53.

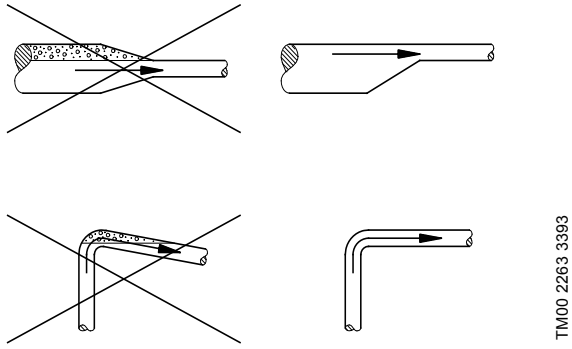


Fig. 53 Pipelines

Fit isolating valves on either side of the pump to avoid having to drain the system if the pump needs to be cleaned or repaired.

Make sure the pipes are adequately supported as close to the pump as possible, both on the inlet and the outlet side. The counterflanges must lie true against the pump flanges without being stressed as this would cause damage to the pump.

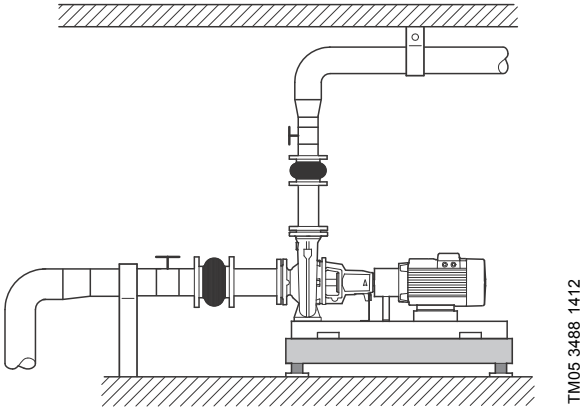


Fig. 54 Pipeline mounting

Direct mounting in pipework

NBG pumps of mounting design A are suitable for direct mounting in supported pipework.

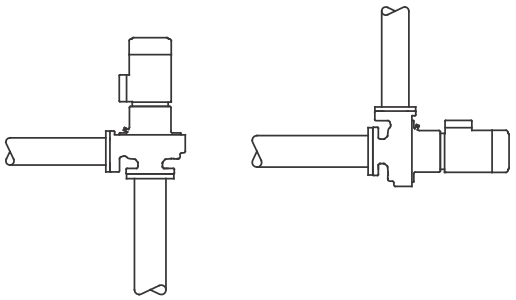


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Fig. 55 Direct mounting in pipework

This type of installation does not allow the use of expansion joints.

Note: To ensure quiet operation, the pipes must be suspended from suitable pipe hangers.

Condensation cover

When installing NBG, NBGE, NKG, NKGE pumps outdoors, pump and motor must be provided with a suitable cover to avoid condensation on the electric components and to protect the pump and motor against direct sunlight.

When mounting the condensation cover on top of the motor, make sure to leave enough space for the air to cool the motor.

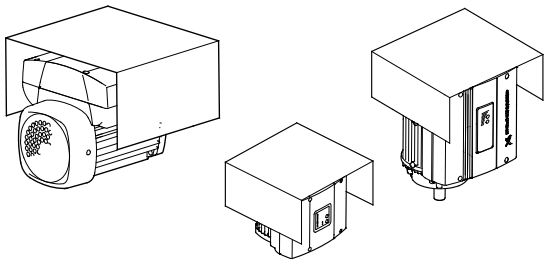

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Fig. 56 Speed-controlled motors with condensation cover

Elimination of noise and vibrations

In order to achieve optimum operation and minimum noise and vibration, consider vibration dampening of the pump. Generally, always consider this for pumps with motors above 11 kW. Smaller motor sizes, however, may also cause undesirable noise and vibration.

Noise and vibration are generated by the revolutions of the motor and pump and by the flow in pipes and fittings. The effect on the environment is subjective and depends on correct installation and the state of the remaining system.

Elimination of noise and vibrations is best achieved by means of vibration dampers and expansion joints. See fig. 54.

Vibration dampers

To prevent the transmission of vibrations to buildings, we recommend that you isolate the pump foundation from building parts by means of vibration dampers.

The selection of the right vibration damper requires the following data:

- forces transmitted through the damper
- motor speed considering speed control, if any
- required dampening in %; the suggested value is 70 %.

The selection of vibration damper differs from installation to installation. In certain cases, a wrong damper may increase the vibration level. Vibration dampers must therefore be sized by the supplier of the vibration dampers.

If you install the pump on a foundation with vibration dampers, always fit expansion joints on the pump flanges. This is important to prevent the pump from "hanging" in the flanges.

Expansion joints

Install expansion joints for these purposes:

- to absorb expansions or contractions in the pipework caused by changing liquid temperature
- to reduce mechanical strains in connection with pressure surges in the pipework
- to isolate mechanical structure-borne noise in the pipework; this applies only to rubber bellows expansion joints.

Note: Do not install expansion joints to make up for inaccuracies in the pipework, such as centre displacement or misalignment of flanges.

Fit the expansion joints at a minimum distance of 1 to 1 1/2 pipe diameters (DN) away from the pump on the inlet and the outlet side. This prevents turbulence in the joints, thus ensuring optimum suction conditions and minimum pressure loss on the outlet side. At flow velocities above 5 m/s, we recommend that you fit larger expansion joints matching the pipework.

The illustration below shows examples of rubber bellows expansion joints with or without limiting rods.

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TM02 4981 1902

Fig. 57 Rubber bellows expansion joints with and without limiting rods

Expansion joints with limiting rods can be used to reduce the effects of the expansion or contraction forces on the pipework. We always recommend expansion joints with limiting rods for flanges larger than DN 100.

Anchor the pipes in such a way that they do not stress the expansion joints and the pump. Follow the supplier's instructions and pass them on to advisers or pipe installers.

The illustration below shows an example of a metal bellows expansion joint with limiting rods.

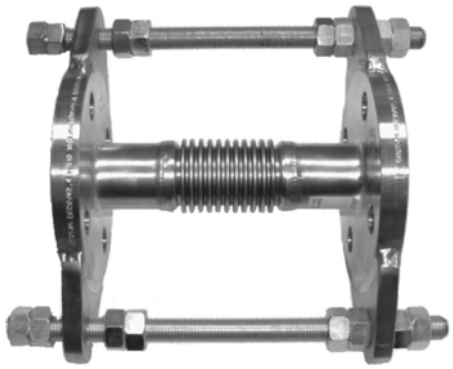

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Fig. 58 Metal bellows expansion joint with limiting rods

Due to the risk of rupture of the rubber bellows, metal bellows expansion joints may be preferred at temperatures above +100 °C combined with high pressure.

Alignment

Alignment applies only to NKG/NKGE pumps.

In a complete pump unit assembled and supplied from factory, the coupling halves have been accurately aligned. Alignment is made by inserting shims under the pump and motor mounting surfaces as required.

The pump-motor alignment may be affected during transport. Always check alignment after the pump has been installed.

If misalignment has occurred due to radial or angular shifting, realign by inserting or removing shims under the feet of the pump or the motor.

Take care to align carefully, as this increases the lives of the coupling, bearings and shaft seal considerably.

Note: Check the final alignment when the pump has obtained its operating temperature under normal operating conditions.

9. Speed-controlled pumps

Most NBG and NKG pumps are available with motors with integrated speed control. These pumps are called NBGE and NKGE.

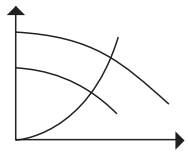
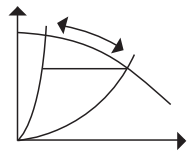
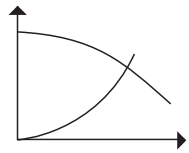
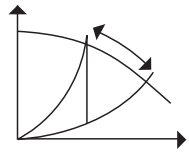
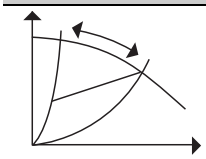
Alternatively, all NBG and NKG pumps with three-phase motors can be connected to an external frequency converter.

NBGE and NKGE pump applications

NBGE and NKGE pumps with integrated speed control enable automatic adaptation of performance to actual conditions. This keeps the energy consumption at a minimum.

Depending on the nature of the application, NBGE and NKGE pumps offer energy savings, increased comfort or improved processing.

The charts below show possible control modes of NBGE and NKGE pumps in different applications.

Control mode	Applications
Constant curve	
	Single-pipe heating systems Systems with three-way valves Heating and cooling surfaces Chiller pumps Sensor is not required.
Constant pressure	
	Pressure boosting systems Sensor is required.
Temperature control	
	Single-pipe heating systems Systems with three-way valves Cooling towers Chiller pumps Domestic hot-water recirculation systems Sensor is required.
Constant flow	
	Heating and cooling surfaces Cooling towers Flow filters Sensor is required.
Proportional differential pressure (measured)	
	System with two-way valves Differential pressure sensor is located in the system.

Constant curve

In constant-curve mode, the pump adjusts its speed to meet the required flow rate without using throttle valves.

In this control mode, the pump can be set to operate within 12-100 % of the maximum performance range.

A sensor is not required for this control mode.

Constant pressure

In constant-pressure mode, the pump adjusts its speed to keep a constant pressure where the sensor is fitted.

We recommend constant-pressure control in pressure-holding systems.

A pressure sensor with a suitable operating range is required.

Temperature control

In temperature mode, the pump adjusts its speed to keep a constant temperature or a differential temperature.

We recommend this control mode in systems with three-way valves and systems without control valves.

A temperature sensor or a differential temperature sensor is required for this control mode.

Example

In an industrial cooling system, an NKGE pump continuously adapts its performance to the changing demands reflected in the differences in temperature of the liquid circulating in the cooling system. The lower the demand for cooling, the smaller the quantity of liquid circulated in the system and vice versa.

Constant flow

In constant-flow mode, the pump adjusts its speed to keep a constant flow irrespective of variations of the system characteristics.

We recommend this control mode in systems where a constant flow is required.

This control mode requires an electronic flowmeter or a differential pressure sensor.

Proportional differential pressure (measured)

In proportional differential pressure (measured) mode, the pump adjusts its speed to keep the differential pressure at a reference point in the system.

We recommend this control mode in large circulation systems where the NBGE or NKGE pump functions as a secondary pump. A differential pressure sensor is required for this control mode.

Example

In a two-pipe heating system or an air-conditioning system with variable flow, the pressure sensor can be fitted at a reference point away from the NKGE pump.

As the flow rate increases, the NKGE pump continuously adapts its speed to maintain the same differential pressure at the reference point.

Extended performance range

E-pumps are able to operate in a range above the range covered by pumps with standard motors. See fig. 59.

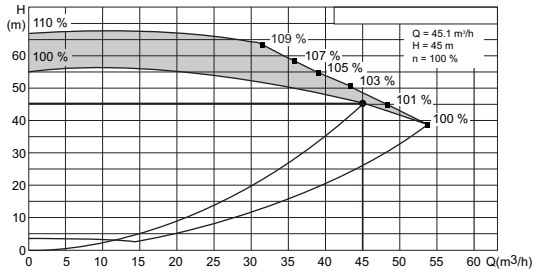


Fig. 59 Extended performance range of E-pumps

The extended range is provided by means of optimised software which utilises the MGE motor in an optimum way, The result is that the E-pump is able to deliver higher head and flow rate with the same motor size. The curve sheets in this data booklet only show the nominal 100 % Q-H curve of pumps with standard motor. Grundfos Product Center show the extended performance range of the E-pumps.

Maximum speed of the impeller

The table below shows the relationship between pump speed and impeller material and size.

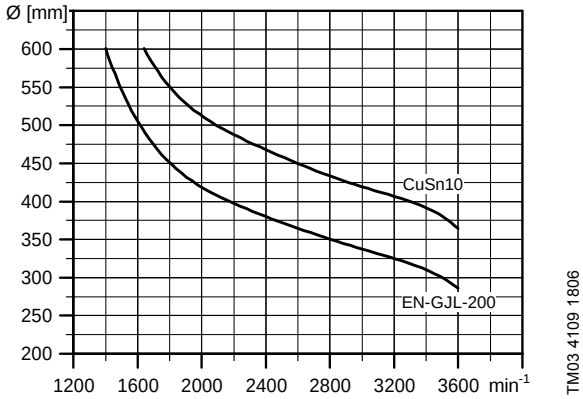


Fig. 60 Maximum permissible speed

For stainless steel impellers (1.4408/1.4517), the limit is 3600 min^{-1} regardless of impeller size.

Affinity equations

Normally, NBGE and NKGE pumps are used in applications characterised by a variable flow. Consequently, it is not possible to select a pump that is constantly operating at its optimum efficiency.

To achieve optimum operating economy, select the pump on the basis of the following criteria:

- The maximum duty point required must be as close as possible to the QH curve of the pump.
- The flow rate at the duty point required must be close to the optimum efficiency (eta) for most operating hours.

Between the minimum and maximum performance curve, NBGE and NKGE pumps have an infinite number of performance curves each representing a specific speed. It may therefore not be possible to select a duty point close to the maximum curve.

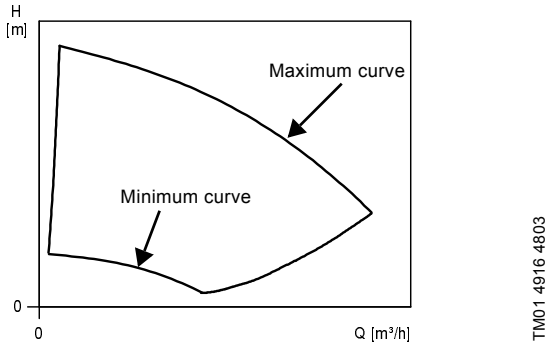


Fig. 61 Minimum and maximum performance curves

In situations where it is not possible to select a duty point close to the maximum curve, use the affinity equations below. The head (H), the flow rate (Q) and the input power (P) are the appropriate variables you need to be able to calculate the motor speed (n).

Note: The approximated formulas apply on condition that the system characteristic remains unchanged for n_n and n_x and that it is based on the formula H = k x Q2, where k is a constant.

The power equation implies that the pump efficiency is unchanged at the two speeds. In practice, this is not quite correct.

Finally, it is worth noting that the efficiencies of the frequency converter and the motor must be taken into account if a precise calculation of the power saving resulting from a reduction of the pump speed is wanted.

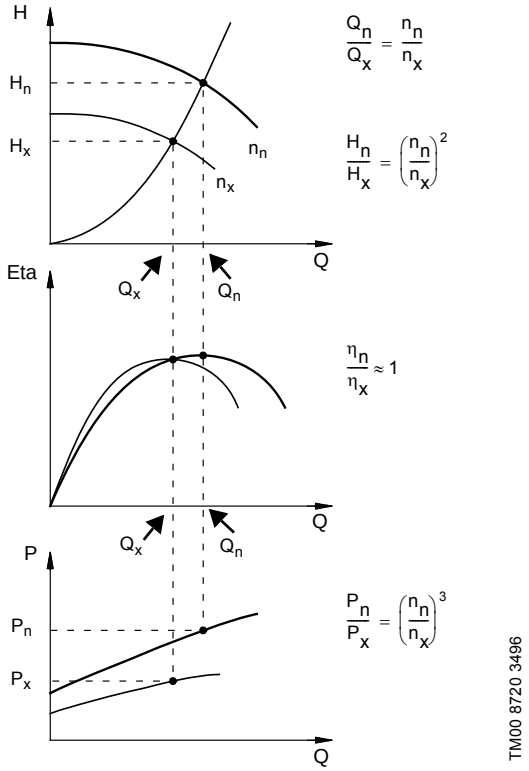


Fig. 62 Affinity equations

Legend

H_n	Rated head in metre
H_x	Actual head in metre
Q_n	Rated flow rate in m^3/h
Q_x	Actual flow rate in m^3/h
P_n	Rated input power in kW
P_x	Actual input power in kW
n_n	Rated motor speed in min^{-1}
n_x	Actual motor speed in min^{-1}
η_n	Rated efficiency in %
η_x	Actual efficiency in %

Grundfos Product Center

Grundfos Product Center are selection programs offered by Grundfos.

The two programs make it possible to calculate the specific duty point and energy consumption of an NBGE or NKGE pump.

When you enter the pump data, Grundfos Product Center can calculate the exact duty point and energy consumption. For further information, see page 208.

Communication with the E-solution

	E-solution	
	MGE	CUE
Operating panel on unit	x	x
Grundfos GO control	x	-
Central building management system	x	x

Operating panel

Operating panel for 1.1 - 11 kW, 2-pole and 0.55 - 7.5 kW 4-pole motors

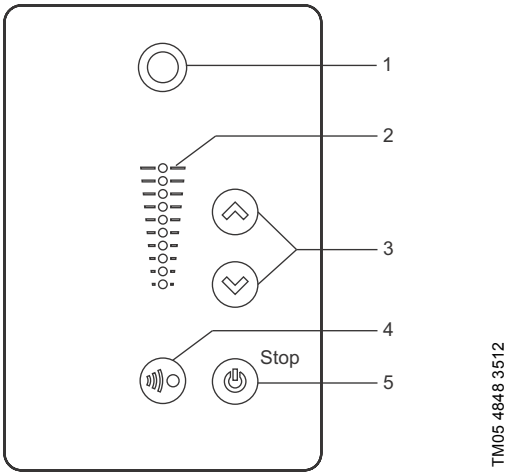


Fig. 63 Operating panel for 1.1 - 11 kW, 2-pole and 0.55 - 7.5 kW 4-pole motors

Pos.	Symbol	Description
1		Grundfos Eye showing the operating status of the pump.
2	-	Light fields indicating the setpoint.
3		Up and down. Changes the setpoint.
4		Allows radio communication with Grundfos GO and other products of the same type. When you try to establish radio communication between the pump and Grundfos GO or another pump, the green indicator light in Grundfos Eye on the pump flashes continuously. Press on the pump control panel to allow radio communication with Grundfos GO and other products of the same type.
5		Start-stop button making the pump ready for operation and starting or stopping the pump. **Start:** If you press the button when the pump is stopped, the pump only starts if no other functions with higher priority have been enabled. **Stop:** If you press the button when the pump is running, the pump always stops. The "Stop" text next to the button is on.

Operating panel for 15-22 kW, 2-pole and 11 - 18.5 kW, 4-pole motors

The operator can change the setpoint settings manually on the operating panel on the terminal box of the speed-controlled pump.

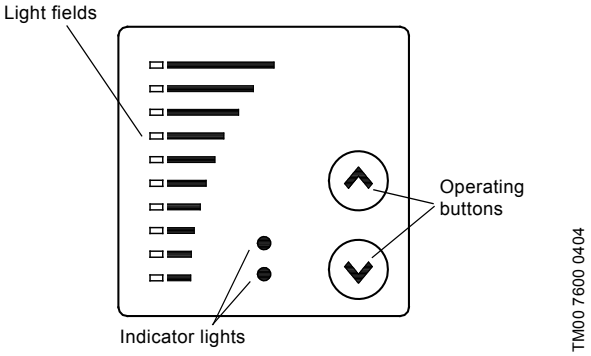


Fig. 64 Operating panel for 15-22 kW, 2-pole and 11 - 18.5 kW, 4-pole motors

Remote control

Grundfos GO

The pump is designed for wireless radio or infrared communication with the Grundfos GO.

Grundfos GO enables setting of functions and gives access to status overviews, technical product information and actual operating parameters.

Grundfos GO offers the following mobile interfaces (MI). See fig. 65.

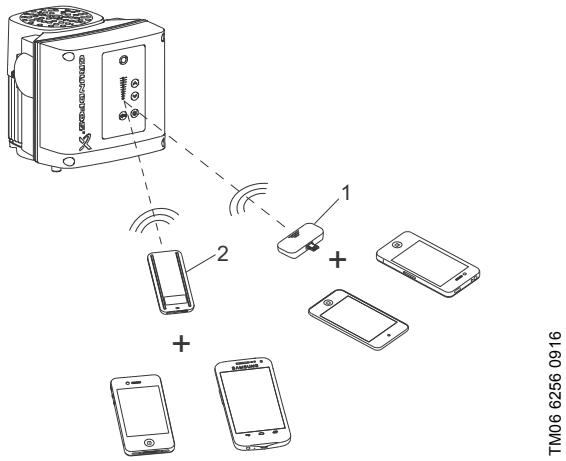


Fig. 65 Grundfos GO communicating with the pump via radio or infrared connection, IR

Pos.	Description
1	Grundfos MI 204: Add-on module enabling radio or infrared communication. You can use MI 204 in conjunction with an Apple iPhone or iPod with Lightning connector, for example fifth generation or later iPhone or iPod. MI 204 is also available together with an Apple iPod touch and a cover.
2	Grundfos MI 301: Separate module enabling radio or infrared communication. You can use the module in conjunction with an Android or iOS-based smart device with Bluetooth connection.

Communication

When Grundfos GO initiates communication with the pump, the indicator light in the middle of Grundfos Eye flashes green.

Radio communication

Radio communication can take place at distances up to 30 metres. The first time Grundfos GO communicates with the pump, you must enable communication by pressing or OK on the pump control panel. Later when communication takes place, the pump is recognised by Grundfos GO, and you can select the pump from the "List" menu.

Infrared communication

When communicating via infrared light, Grundfos GO must be pointed at the pump control panel.

Communication with E-pumps

Communication with E-pumps is possible via a central building management system, remote control (Grundfos GO) or operating panel.

Central building management system

The operator can communicate with an E-pump at a distance. Communication can take place via a central building management system allowing the operator to monitor and change control modes and setpoint settings.

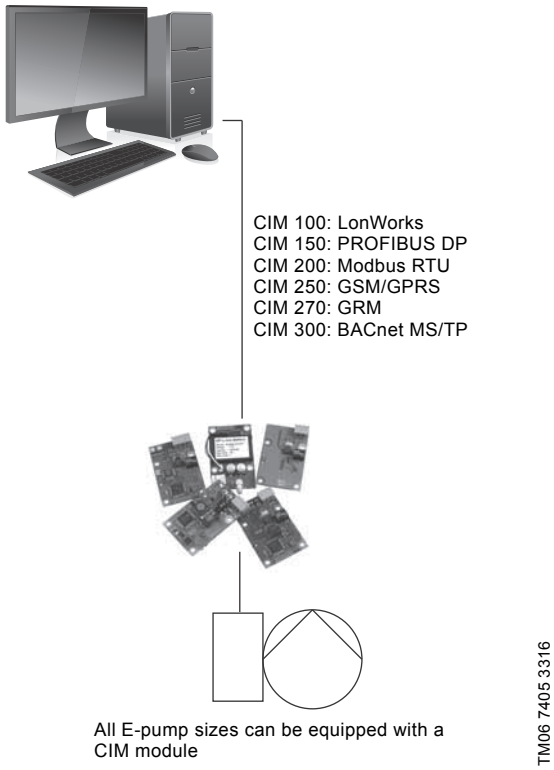


Fig. 66 Structure of a central building management system

10. Pumps connected in parallel

Control of pumps connected in parallel

In some applications, parallel pump operation is required for one or more of the following reasons:

- One pump cannot achieve the required performance or flow rate.
- Standby capacity is required to ensure reliability of supply.
- Overall efficiency needs to be improved in case of big variations in the flow rate demand.

NBG, NBGE, NKG, NKGE pumps connected in parallel can be controlled by Control MPC.

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Fig. 67 Control MPC

Pumps connected to Control MPC

NBG, NBGE, NKG, NKGE pumps can be connected directly to Grundfos Control MPC.

Control MPC incorporates, among others, a CU 352 controller that can control up to six pumps.

By means of an external sensor, Control MPC can ensure optimum adaptation of the performance to the demand by closed-loop control of these parameters:

- proportional differential pressure
- constant differential pressure
- differential pressure (remote)
- flow rate
- temperature.

CU 352 incorporates features such as those below:

Startup wizard

Correct installation and commissioning is a prerequisite for attaining optimum performance of the system and trouble-free operation year in and year out.

During commissioning of the system a startup wizard is shown on the display of the CU 352. The wizard guides the operator through the various steps via a series of dialogue boxes to ensure that all settings are done in the correct sequence.

Application-optimised software

CU 352 incorporates application-optimised software which helps you set your system to the application in question.

Furthermore, you can easily navigate through the menus of the controller. You do not need any training to be able to set and monitor the system.

Ethernet connection

CU 352 incorporates an Ethernet connection which makes it possible to get full and unlimited access to the setting and monitoring of the system via a remote PC.

Service port, GENI TTL

The service port of the CU 352 enables easy access to updating software and data logging in service situations.

External communication

Control MPC enables communication with other fieldbus protocols. In order to communicate with other fieldbus protocols, a GENIbus module and a gateway is needed.

Control MPC can communicate with LON, PROFIBUS, Modbus or BACnet via Grundfos CIU.

Note: For further information about Control MPC, see the "Control MPC" data booklet. The data booklet is available in Grundfos Product Center on www.grundfos.com. For further information on Grundfos Product Center, see page 208.

11. Selection of product

Key application data sheet

Our "Key application data sheet" can be used to gather the information typically needed in order to make the most suitable pump configuration.

Consider the following aspects when configuring a pump:

- the pumped liquid
- viscosity and density
- solids in the liquid
- operating temperatures and pressures
- customer-specific requirements.

These and other operating conditions listed in the data sheet are important for choosing the right pump material, shaft seal, and shaft seal arrangement.

The data sheet can be seen as a check list, and can be filled in by the customer alone or together with a Grundfos representative.

We recommend that you always fill in this data sheet, as it saves a lot of time for the customer and for Grundfos.

The "Key application data sheet" can be found in Grundfos Product Center.

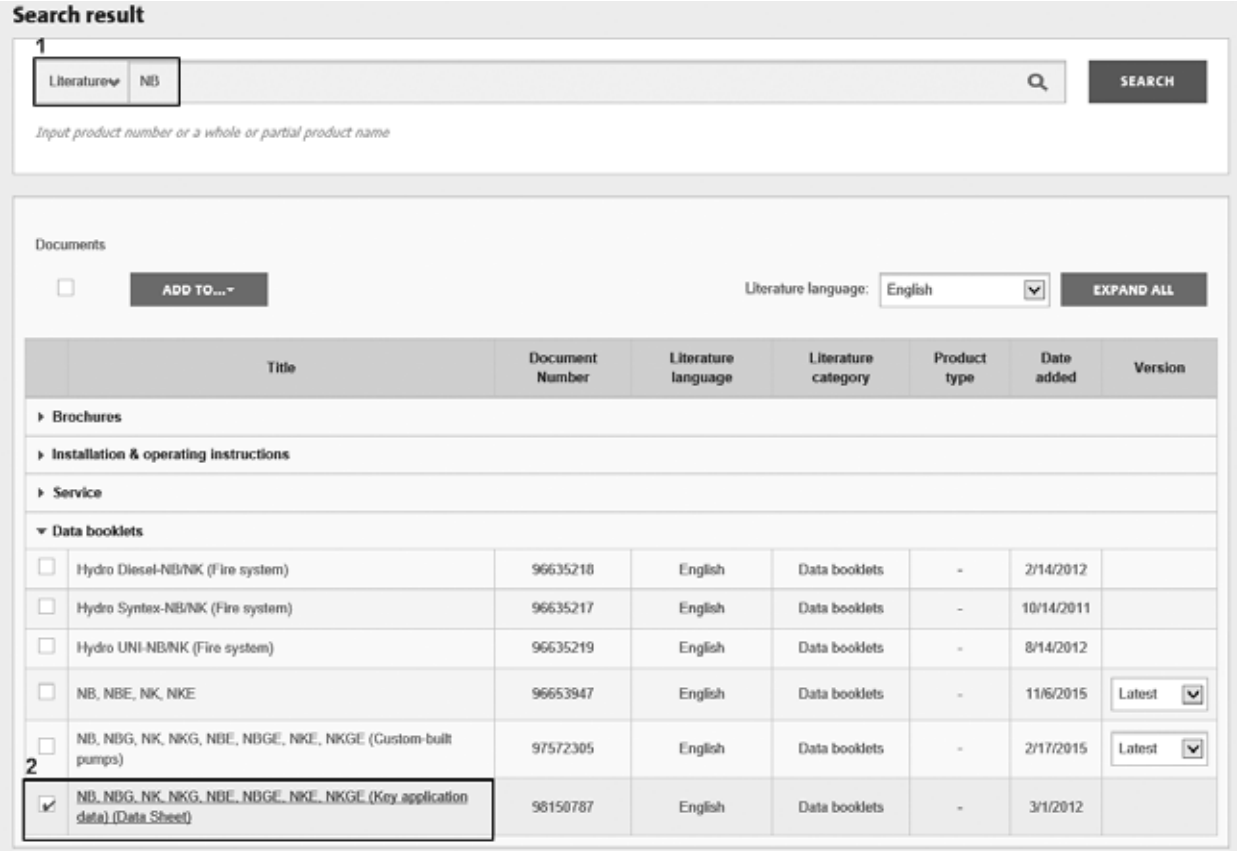

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Fig. 68 How to find the "Key application data sheet" in Grundfos Product Center

Pump size

Select the pump size on the basis of these conditions:

- required flow rate and pressure at the draw-off point
- pressure loss as a result of height differences
- friction loss in the pipework. It may be necessary to account for pressure loss in connection with long pipes, bends or valves, etc.
- optimum efficiency at the estimated duty point.

Efficiency

If you expect the pump to always operate at the same duty point, select a pump which is operating at a duty point corresponding to the optimum efficiency of the pump.

In case of controlled operation or varying consumption, select a pump whose optimum efficiency falls within the duty range covering the greater part of the duty time.

Material

Select the material variant on the basis of the liquid to be pumped. See section *12. Pumped liquids*.

Motor size

Select the motor size on the basis of the power required to achieve the duty point of the chosen pump. This information can be found in the power chart below each performance chart. See performance curves on pages 72 to 130. When a pump is fitted with a stuffing box, select the motor size according to ISO 5199.

Find the power curve corresponding to the required QH-value or interpolate between curves.

To select the motor size, read the value of the P2 curve at the duty point and add a 5 % safety margin.

If the motor size must be selected according to ISO 5199, see the table below.

Safety margins according to ISO 5199

Required pump power up to [kW]	Motor power P2 [kW]
0.18	0.25
0.27	0.37
0.40	0.55
0.55	0.75
0.81	1.1
1.1	1.5
1.7	2.2
2.3	3
3.2	4
4.3	5.5
6.1	7.5
9.1	11
12.8	15
15.9	18.5
19	22
26	30
32.5	37
40	45
49	55
68	75
81	90
100	110
120	132
145	160
181	200
227	250
286	315
322	355
364	400
409	450
455	500

12. Pumped liquids

General recommendations

We recommend NBG and NKG pumps for thin, clean and non-explosive liquids not containing solid particles or fibres.

Liquids with temperatures ranging from -25 °C to +140 °C are covered in this data booklet.

For liquids ranging from -40 °C to +220 °C, see the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps according to EN 733 and ISO 2858", or contact Grundfos.

Water in heating and ventilating systems often contains additives to prevent negative effects, such as system corrosion or calcareous deposits. In these cases, we recommend special shaft seals to avoid crystallisation/precipitation between the seal faces.

For heating systems, the water quality must meet VDI2035.

"Liquids" in Grundfos Product Center

The Grundfos product selection tool Grundfos Product Center contains a "Liquids" module which is based on the type and properties of the pumped liquid and which gives recommendations with regard to materials for the wetted parts of the pump, i.e. recommend suitable and durable materials for pump housing, impeller, shaft, mechanical shaft seal and O-rings.

The "Liquids" module covers more than 170 widely used liquids.

Please note that other factors also affect the chemical resistance of the pump materials.

- solids
- contaminants
- pressure
- cleaning procedures.

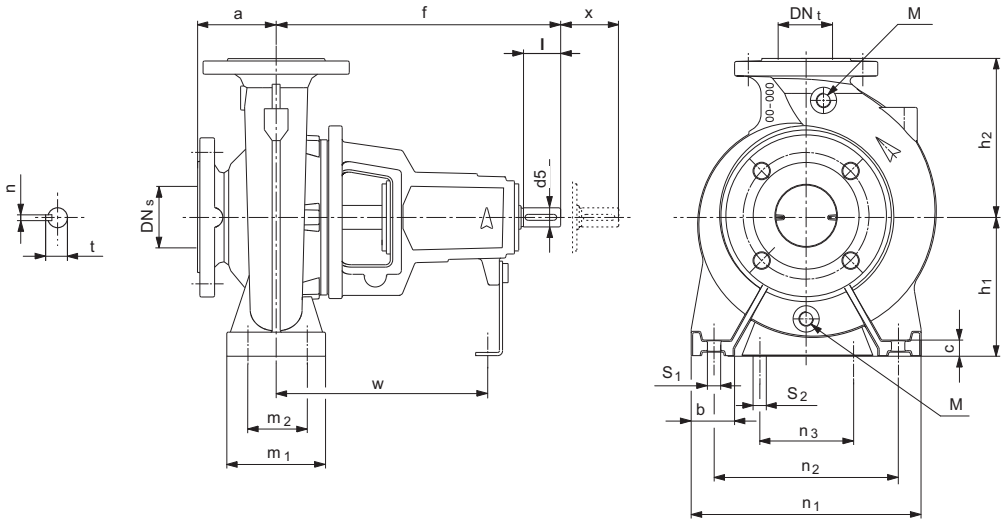
These factors are NOT considered in this tool, and the suitability of the pump material configuration can only be proven through a test.

When selecting the shaft seal and the shaft seal arrangement, we recommend that you consult the data booklet "NB, NBG, NK, NKG, NBE, NBGE, NKE, NKGE - Custom-built pumps" for further information.

For pumped liquids with a density and/or viscosity higher than those of water, use motors with correspondingly higher outputs.

13. NKG bare shaft pumps

NKG, centre-line outlet



M	Drain plug or priming plug

Type	Pump [mm]							Supporting feet [mm]										Shaft [mm]					Weight [kg]	
	DN_s	DN_t	a	f	h_1	h_2	M	b	m_1	m_2	n_1	n_2	n_3	w	S_1	S_2	c	d5	l	X	t	n	CI[1]	SS[2]
NKG 50-32-125.1	50	32	80	385	112	140	3/8"	50	100	70	190	140	110	285	M12	M12	14	24	50	100	27	8	44	47
NKG 50-32-125	50	32	80	385	112	140	3/8"	50	100	70	190	140	110	285	M12	M12	14	24	50	100	27	8	44	47
NKG 50-32-160.1	50	32	80	385	132	160	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	45	48
NKG 50-32-160	50	32	80	385	132	160	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	46	49
NKG 50-32-200.1	50	32	80	385	160	180	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	54	57
NKG 50-32-200	50	32	80	385	160	180	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	54	57
NKG 50-32-250	50	32	100	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	12	32	80	100	35	10	83	85
NKG 65-50-125	65	50	80	385	112	140	3/8"	50	100	70	210	160	110	285	M12	M12	18	24	50	100	27	8	47	49
NKG 65-50-160	65	50	80	385	132	160	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	48	48
NKG 65-40-200	65	40	100	385	160	180	3/8"	50	100	70	265	212	110	285	M12	M12	18	24	50	100	27	8	55	57
NKG 65-40-250	65	40	100	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	18	32	80	100	35	10	81	85
NKG 65-40-315	65	40	125	500	200	250	1/2"	65	125	95	345	280	110	370	M12	M12	16	32	80	100	35	10	124	116
NKG 80-65-125	80	65	100	385	132	160	3/8"	50	100	70	240	190	110	285	M12	M12	18	24	50	100	27	8	50	51
NKG 80-65-160	80	65	100	385	160	180	3/8"	50	100	70	265	212	110	285	M12	M12	18	24	50	100	27	8	52	54
NKG 80-50-200	80	50	100	385	160	200	3/8"	50	100	70	265	212	110	285	M12	M12	17	24	50	100	27	8	58	59
NKG 80-50-250	80	50	125	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	18	32	80	100	35	10	86	88
NKG 80-50-315	80	50	125	500	225	280	1/2"	65	125	95	345	280	110	370	M12	M12	17	32	80	100	35	10	130	119
NKG 100-80-125	100	80	100	385	160	180	3/8"	65	125	95	280	212	110	285	M12	M12	18	24	50	100	27	8	55	55
NKG 100-80-160	100	80	100	500	160	200	3/8"	65	125	95	280	212	110	370	M12	M12	18	32	80	100	35	10	72	71
NKG 100-65-200	100	65	100	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	18	32	80	140	35	10	81	82
NKG 100-65-250	100	65	125	500	200	250	1/2"	80	160	120	360	280	110	370	M16	M12	22	32	80	140	35	10	111	110
NKG 100-65-315	100	65	125	530	225	280	3/8"	80	160	120	400	315	110	370	M16	M12	22	42	110	140	45	12	141	145
NKG 125-80-160	125	80	125	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	18	32	80	140	35	10	81	83
NKG 125-80-200	125	80	125	500	180	250	3/8"	65	125	95	345	280	110	370	M12	M12	18	32	80	140	35	10	95	100
NKG 125-80-250	125	80	125	500	225	280	3/8"	80	160	120	400	315	110	370	M16	M12	23	32	80	140	35	10	115	119
NKG 125-80-315	125	80	125	530	250	315	3/8"	80	160	120	400	315	110	370	M16	M12	22	42	110	140	45	12	152	158
NKG 125-80-400	125	80	125	530	280	355	1/2"	80	160	120	435	355	110	370	M16	M12	22	42	110	140	45	12	225	201
NKG 125-80-400*	125	80	125	530	280	355	1/2"	80	160	120	435	355	110	370	M16	M12	22	42	110	140	45	12	225	201
NKG 125-100-160	125	100	125	500	200	280	3/8"	80	160	120	360	280	110	370	M16	M12	17	32	80	140	35	10	100	110
NKG 125-100-200	125	100	125	500	200	280	1/2"	80	160	120	360	280	110	370	M16	M12	23	32	80	140	35	10	107	110
NKG 125-100-250	125	100	140	530	225	280	1/2"	80	160	120	400	315	110	370	M16	M12	24	42	110	140	45	12	137	143
NKG 125-100-315	125	100	140	530	250	315	1/2"	80	160	120	400	315	110	370	M16	M12	22	42	110	140	45	12	161	167
NKG 125-100-400	125	100	140	530	280	355	1/2"	100	200	150	500	400	110	370	M20	M12	22	42	110	140	45	12	236	233
NKG 150-125-200	150	125	140	500	250	315	1/2"	80	160	120	400	315	110	370	M16	M12	19	32	80	140	35	10	141	139
NKG 150-125-250	150	125	140	530	250	355	1/2"	80	160	120	400	315	110	370	M16	M12	22	42	110	140	45	12	158	158
NKG 150-125-315	150	125	140	530	280	355	1/2"	100	200	150	500	400	110	370	M20	M12	17	42	110	140	45	12	190	194
NKG 150-125-400	150	125	140	530	315	400	1/2"	100	200	150	500	400	110	370	M20	M12	22	42	110	140	45	12	254	247
NKG 150-125-500	150	125	180	670	400	500	1/2"	125	200	150	625	500	140	500	M20	M16	28	60	110	180	64	18	503	494

Type	Pump [mm]							Supporting feet [mm]										Shaft [mm]					Weight [kg]	
	DN_s	DN_t	a	f	h_1	h_2	M	b	m_1	m_2	n_1	n_2	n_3	w	S_1	S_2	c	d5	l	X	t	n	CI[1]	SS[2]
NKG 200-150-200	200	150	160	500	280	400	1/2"	100	200	150	550	450	110	370	M20	M12	26	32	80	180	35	10	190	185
NKG 200-150-250	200	150	160	530	280	375	1/2"	100	200	150	500	400	110	370	M20	M12	20	42	110	180	45	12	199	208
NKG 200-150-315.2	200	150	160	670	315	400	1/2"	100	200	150	550	450	140	500	M20	M16	21	48	110	180	51.5	14	326	330
NKG 200-150-315	200	150	160	670	315	400	1/2"	100	200	150	550	450	140	500	M20	M16	21	48	110	180	51.5	14	324	327
NKG 200-150-400	200	150	160	670	315	450	1/2"	100	200	150	550	450	140	500	M20	M16	19	48	110	180	51.5	14	366	369
NKG 200-150-500	200	150	180	670	400	500	1/2"	125	200	150	625	500	140	500	M20	M16	29	60	110	180	64	18	523	535

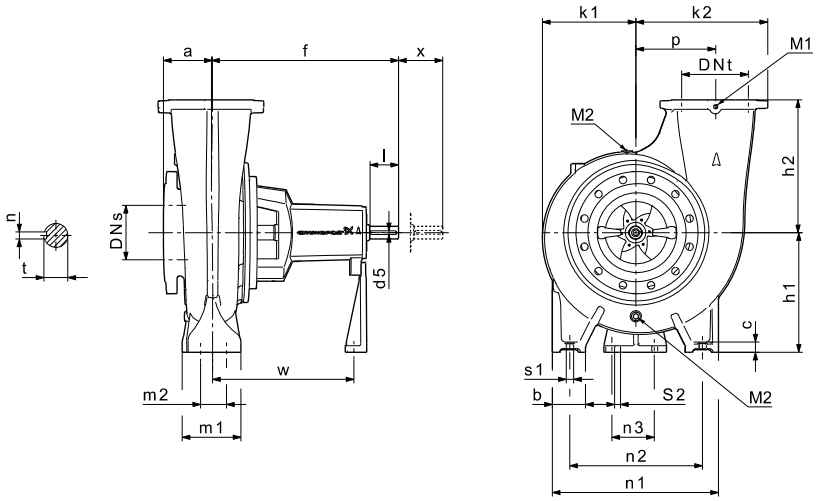
1 CI: Cast iron version

2 SS: Stainless steel version

* Oversize shaft

X is the minimum pull-back length of the bearing bracket required for service of impeller and shaft seal.

NKG, tangential outlet



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M1 / M2	Drain plug or priming plug

Type	Pump [mm]											Supporting feet [mm]										Shaft [mm]					Weight [kg]
	DN_s	DN_t	a	f	h_1	h_2	M1	M2	k_1	k_2	p	b	m_1	m_2	n_1	n_2	n_3	w	S_1	S_2	c	d5	l	X	t	n	CI[1]
NKG 250-200-400	250	200	170	698	400	400	1/2"	3/8"	331	485	315	125	200	150	625	500	140	519	M20	M16	33	48	110	180	51.5	14	428
NKG 250-200-450	250	200	150	691	400	450	1/2"	3/8"	355	525	355	125	200	150	625	500	140	519	M20	M16	33	48	110	180	51.5	14	443
NKG 300-250-350	300	250	175	739	450	400	1/2"	3/8"	379	523	320	125	200	150	625	500	140	559	M20	M16	33	48	110	180	51.5	14	528
NKG 300-250-400	300	250	160	714	450	500	1/2"	3/8"	350	498	295	125	200	150	625	500	140	532	M20	M16	33	48	110	180	51.5	14	479
NKG 300-250-450	300	250	165	704	450	500	1/2"	3/8"	374	563	360	125	200	150	625	500	140	515	M20	M16	33	60	110	180	64	18	557

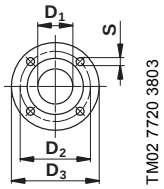
1 CI: Cast iron version

X is the minimum pull-back length of the bearing bracket required for service of impeller and shaft seal.

14. Pump flange dimensions

Fixed pump flanges, EN 1092-2

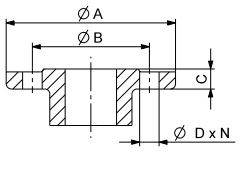
EN 1092-2 is the standard used for cast iron pump flanges. The flange dimensions are stated in mm.



		EN 1092-2										
		Nominal diameter										
		DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
	D_1	32	40	50	65	80	100	125	150	200	250	300
PN 10	D_2	100	110	125	145	160	180	210	240	295	350	400
	D_3	140	150	165	185	200	220	250	285	340	395	445
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅23	12 x ∅23	12 x ∅23
PN 16	D_2	100	110	125	145	160	180	210	240	295	355	410
	D_3	140	150	165	185	200	220	250	285	340	405	460
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	12 x ∅23	12 x ∅28	12 x ∅28

Fixed pump flanges, AS2129 table E

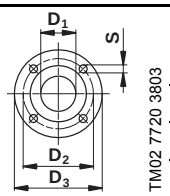
AS2129 table E is the Australian standard for cast iron pump flanges. The flanges are available on request.
The flange dimensions are stated in mm.



Nominal flange size		32	40	50	65	80	100	125	150	200
Flange diameter	A	140	150	165	185	200	220	250	285	340
Hole PCD	B	87	98	114	127	146	178	210	235	292
Flange thickness	C	18	18	20	20	22	24	26	26	30
Hole diameter	D	14	14	18	18	18	18	18	22	22
Number of holes	N	4	4	4	4	4	8	8	8	8

Fixed pump flanges, EN 1092-1

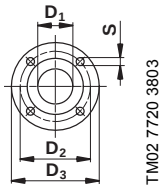
EN 1092-1 is the standard used for stainless steel pump flanges. The flange dimensions are stated in mm.



		EN 1092-1								
		Nominal diameter								
		DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
	D_1	32	40	50	65	80	100	125	150	200
PN 10	D_2	100	110	125	145	160	180	210	240	295
	D_3	140	150	165	185	200	220	250	285	340
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅23
PN 16	D_2	100	110	125	145	160	180	210	240	295
	D_3	140	150	165	185	200	220	250	285	340
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	12 x ∅23
PN 25	D_2	100	110	125	145	160	190	220	250	310
	D_3	140	150	165	185	200	235	270	300	360
	S	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅28	8 x ∅28	12 x ∅28
PN 40	D_2	100	110	125	145	160	190	220	250	320
	D_3	140	150	165	185	200	235	270	300	375
	S	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅28	8 x ∅28	12 x ∅31

Loose pump flanges, EN 1092-1

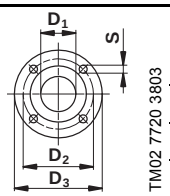
EN 1092-1 is the standard used for stainless steel pump flanges. The flange dimensions are stated in mm.



		EN 1092-1								
		Nominal diameter								
		DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
	D_1	32	40	50	65	80	100	125	150	200
PN 10	D_2	100	110	125	145	160	180	210	240	295
	D_3	140	150	165	185	200	220	250	285	340
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅23
PN 16	D_2	100	110	125	145	160	180	210	240	295
	D_3	140	150	165	185	200	220	250	285	340
	S	4 x ∅19	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	12 x ∅23
PN 25	D_2	100	110	125	145	160	190	220	250	310
	D_3	140	150	165	185	200	235	270	300	360
	S	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅28	8 x ∅28	12 x ∅28
PN 40	D_2	100	110	125	145	160	190	220	250	320
	D_3	140	150	165	185	200	235	270	300	375
	S	4 x ∅19	4 x ∅19	4 x ∅19	8 x ∅19	8 x ∅19	8 x ∅23	8 x ∅28	8 x ∅28	12 x ∅31

Loose pump flanges, ASME B16.5

ASME B16.5 is the standard used for stainless steel pump flanges.
Material of flange: AISI 316/A105.

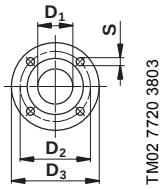


		ASME B16.5								
		Nominal diameter								
		1 1/4"[1]	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
	D_1 [mm]	32.0	76.2	90.2	107.2	125.2	150.2	175.2	205.2	260.2
Class 300	D_2 [mm]	98.4	114.3	127.0	149.2	168.3	200.0	235.0	269.9	330.2
	D_3 [mm]	135.0	155.0	165.0	190.0	210.0	255.0	280.0	320.0	380.0
	S [inch]	4 x ∅3/4"	4 x ∅7/8"	8 x ∅3/4"	8 x ∅7/8"	8 x ∅7/8"	8 x ∅7/8"	8 x ∅7/8"	12 x ∅7/8"	12 x ∅1"

[1] 1 1/4" is only available as fixed flange.

Loose pump flanges, JIS B 2220

JIS B 2220 is the standard used for stainless steel pump flanges. The flange dimensions are stated in mm.
Material of flange: EN 1.4408/GGG50.

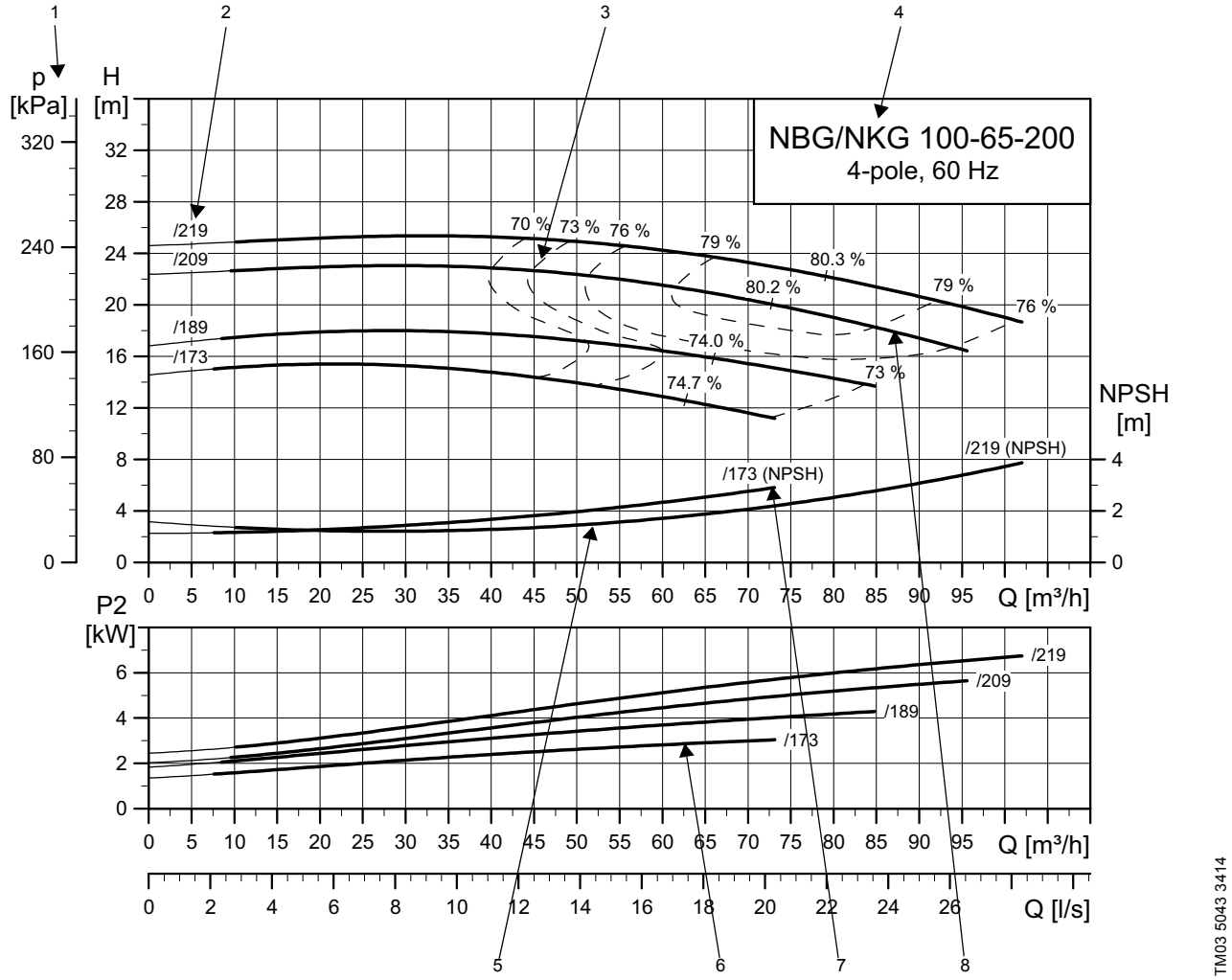


		JIS B 2220								
		Nominal diameter								
		DN 32[1]	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
	D_1	32.0	76.2	90.2	107.2	125.2	150.2	175.2	205.2	260.2
20K	D_2	100.0	105.0	120.0	140.0	160.0	185.0	225.0	260.0	305.0
	D_3	135.0	150.0	165.0	178.0	200.0	225.0	270.0	305.0	350.0
	S	4 x ∅19.0	4 x ∅18.5	8 x ∅18.5	8 x ∅19.0	8 x ∅23.0	8 x ∅23.0	8 x ∅25.0	12 x ∅25.0	12 x ∅25.0

[1] DN 32 is only available as fixed flange.

15. Introduction to curves and technical data

How to read the curve charts



Pos.	Description
1	Total pump head, p [kPa] or H [m] = H_{total}
2	Impeller diameter [mm]
3	Hydraulic efficiency curves are shown as dashed lines, eta [%]
4	Pump type, pole number and frequency
5	The NPSH curve is shown for maximum impeller size.
6	The NPSH curve is shown for minimum impeller size.
7	The power curve indicates pump input power P2 [kW]
8	QH curve for the individual pump. The **bold** curve indicates the **recommended** performance range.

Curve conditions

The guidelines below apply to the curves shown in the performance charts on pages 72 to 130:

- Tolerances are according to ISO 9906:2012 Grade 3B.
- The curves show pump performance with different impeller diameters at the nominal speed.
- The **bold** part of the curves show the **recommended** operating range.
- We do not recommend the thin parts as the possible operating range here might suggest the selection of a smaller or larger pump type.
- Do not use the pumps at minimum flow rates below 0.1 x Q_{max} because of the danger of overheating the pump.
- The curves apply to the pumping of water at a temperature of +20 °C and a kinematic viscosity of 1 mm^2/s (1 cSt).
- **Eta:** The dashed lines show values of the hydraulic efficiency of the pump.
- **NPSH:** The curves show maximum values measured under the same conditions as the performance curves. When sizing the pump, add a safety margin of at least 0.5 m.
- In case of other densities than 1000 kg/m^3, the outlet pressure is proportional to the density.
- When pumping liquids with a density higher than 1000 kg/m^3, motors with correspondingly higher outputs must be used.
- When stuffing box shaft seal is selected for a pump, select the motor size according to ISO 5199.

Calculation of total head

The total pump head consists of the height difference between the measuring points + the differential head + the dynamic head.

$$H_{total} = H_{geo} + H_{stat} + H_{dyn}$$

H_{geo}	Height difference between measuring points.
H_{stat}	Differential head between the inlet and outlet sides of the pump.
H_{dyn}	Calculated values based on the velocity of the pumped liquid on the inlet and outlet sides of the pump.

Performance tests

For every pump in this data booklet, the requested duty point is tested according to ISO 9906:2012 Grade 3B, without certification. No test report is supplied with the pump.

If the customer requires either more points on the curve to be checked or certain minimum performances or certificates, individual measurements must be made.

If the customer requires performance testing according to Grade 1B or Grade 2B, he must make a request to the local customer service unit (CSU).

The CSU clarifies whether testing according to Grade 1B or Grade 2B can be made.

If so, the Grade 1B or Grade 2B performance test is verified in a standard report.

Technical data

The pump dimensions on the following pages are based on these date:

- NBG, NKG:
  Data based on the NB, NK pumps with standard motors. The motors used are MG and Siemens motors.
- NBGE, NKGE:
  Data on pumps fitted with motors with built-in frequency converter, type MGE.

16. Performance curves

Overview

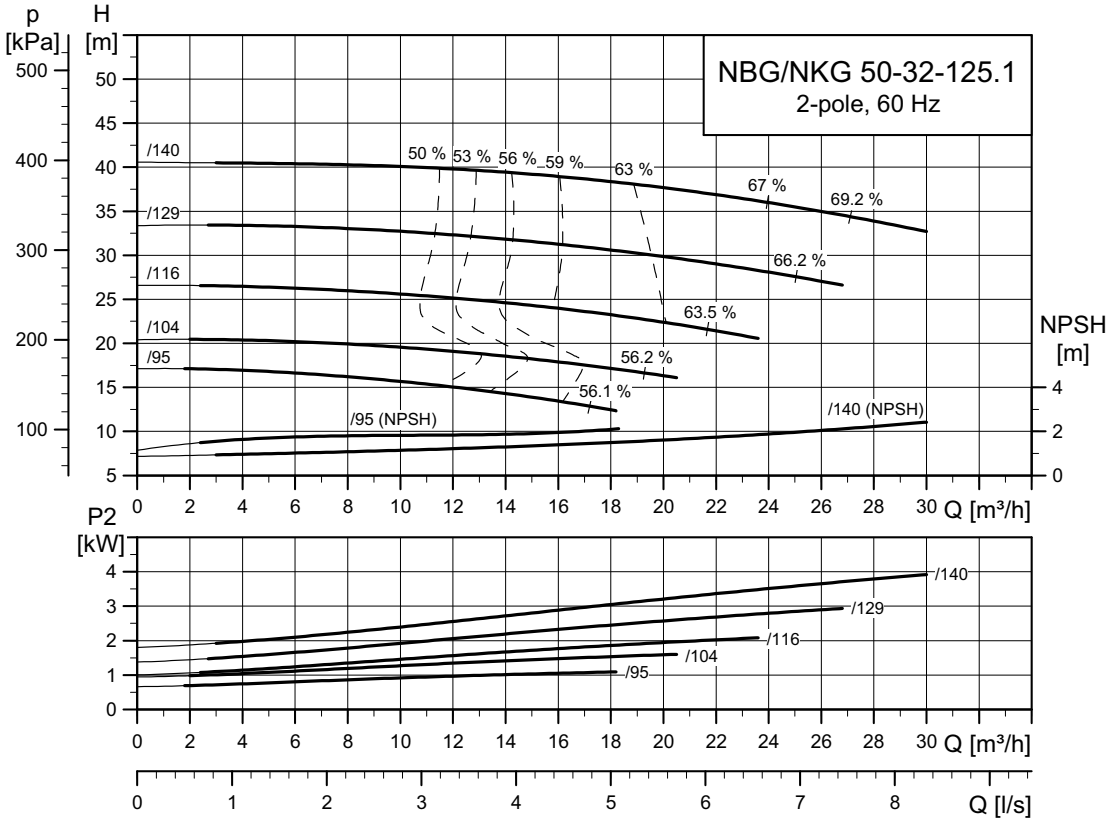
2-pole	
Pump type	**See page**
NBG, NKG 50-32-125.1	72
NBG, NKG 50-32-125	72
NBG, NKG 50-32-160.1	73
NBG, NKG 50-32-160	73
NBG, NKG 50-32-200.1	74
NBG, NKG 50-32-200	74
NBG, NKG 50-32-250	75
NBG, NKG 65-50-125	75
NBG, NKG 65-50-160	76
NBG, NKG 65-40-200	76
NBG, NKG 65-40-250	77
NBG, NKG 65-40-315	77
NBG, NKG 80-65-125	78
NBG, NKG 80-65-160	78
NBG, NKG 80-50-200	79
NBG, NKG 80-50-250	79
NBG, NKG 80-50-315	80
NBG, NKG 100-80-125	80
NBG, NKG 100-80-160	81
NBG, NKG 100-65-200	81
NBG, NKG 100-65-250	82
NBG, NKG 100-65-315	82
NBG, NKG 125-80-160	83
NBG, NKG 125-80-200	83
NBG, NKG 125-80-250	84
NBG, NKG 125-100-160	84
NBG, NKG 125-100-200	85
NBG, NKG 125-100-250	86
NBG, NKG 125-80-315	87
NBG, NKG 150-125-200	87
NBG, NKG 150-125-250	88
NBG, NKG 200-150-200	88
NKG 200-150-250	89
NBG, NKG 200-150-315.2	89

4-pole	
Pump type	**See page**
NBG, NKG 50-32-125.1	90
NBG, NKG 50-32-125	90
NBG, NKG 50-32-160.1	91
NBG, NKG 50-32-160	91
NBG, NKG 50-32-200.1	92
NBG, NKG 50-32-200	92
NBG, NKG 50-32-250	93
NBG, NKG 65-50-125	93
NBG, NKG 65-50-160	94
NBG, NKG 65-40-200	94
NBG, NKG 65-40-250	95
NBG, NKG 65-40-315	95
NBG, NKG 80-65-125	96
NBG, NKG 80-65-160	96
NBG, NKG 80-50-200	97
NBG, NKG 80-50-250	97
NBG, NKG 80-50-315	98
NBG, NKG 100-80-125	98
NBG, NKG 100-80-160	99
NBG, NKG 100-65-200	99
NBG, NKG 100-65-250	100
NBG, NKG 100-65-315	100
NBG, NKG 125-80-160	101
NBG, NKG 125-80-200	101
NBG, NKG 125-80-250	102
NBG, NKG 125-80-315	102
NBG, NKG 125-80-400	103
NBG, NKG 125-100-160	103
NBG, NKG 125-100-200	104
NBG, NKG 125-100-250	105
NBG, NKG 125-100-315	106
NBG, NKG 125-100-400	106
NBG, NKG 150-125-200	107
NBG, NKG 150-125-250	108
NBG, NKG 150-125-315	109
NBG, NKG 150-125-400	109
NBG, NKG 150-125-500	110
NBG, NKG 200-150-200	110
NBG, NKG 200-150-250	111
NBG, NKG 200-150-315.2	112
NBG, NKG 200-150-315	112
NBG, NKG 200-150-400	113
NBG, NKG 200-150-500	113
NBG, NKG 250-200-400	114
NBG, NKG 250-200-450	114
NBG, NKG 300-250-350	115
NBG, NKG 300-250-400	115
NBG, NKG 300-250-450	116
NBG, NKG 300-250-500	116

6-pole	
Pump type	**See page**
NBG, NKG 125-100-160	117
NBG, NKG 125-100-200	118
NBG, NKG 125-100-250	118
NBG, NKG 125-100-315	119
NBG, NKG 125-100-400	120
NBG, NKG 150-125-200	121
NBG, NKG 150-125-250	122
NBG, NKG 150-125-315	122
NBG, NKG 150-125-400	123
NBG, NKG 150-125-500	123
NBG, NKG 200-150-200	124
NBG, NKG 200-150-250	124
NBG, NKG 200-150-315.2	125
NBG, NKG 200-150-315	126
NBG, NKG 200-150-400	126
NBG, NKG 200-150-500	127
NBG, NKG 250-200-400	127
NBG, NKG 250-200-450	128
NBG, NKG 300-250-350	128
NBG, NKG 300-250-400	129
NBG, NKG 300-250-450	129
NBG, NKG 300-250-500	130

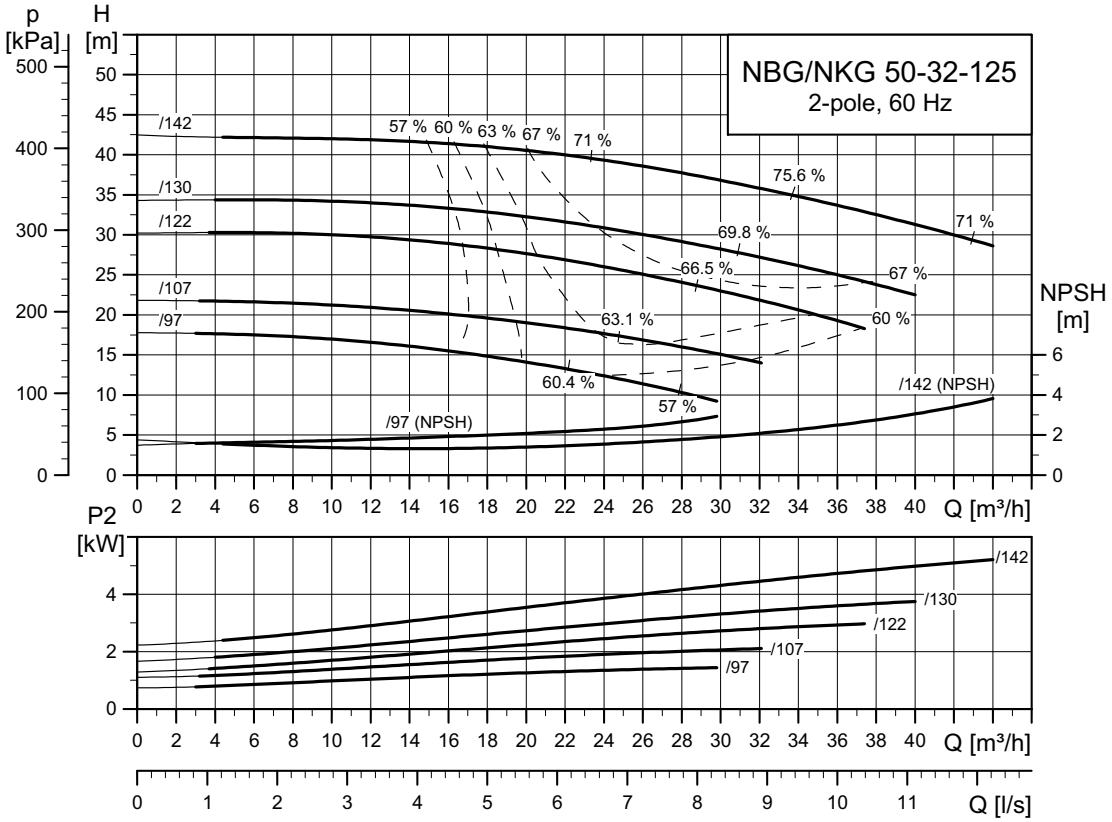
2-pole

NBG, NKG 50-32-125.1



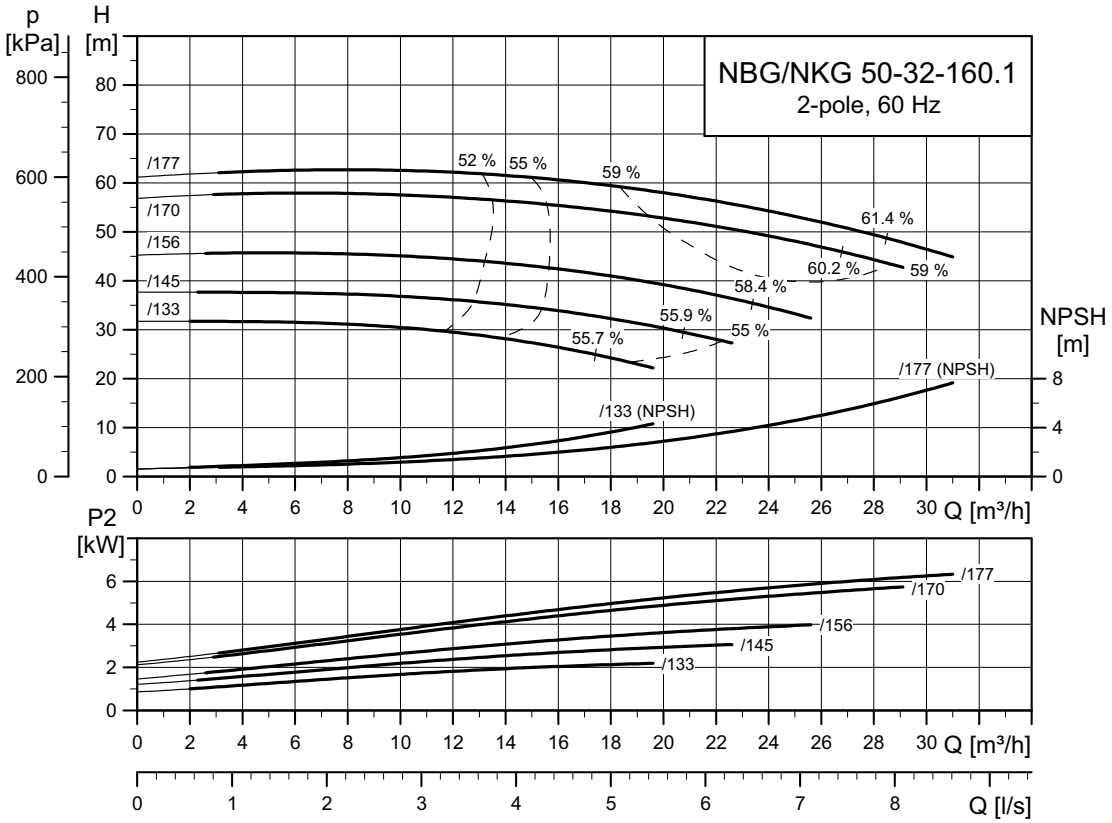
TM03 4996 3414

NBG, NKG 50-32-125



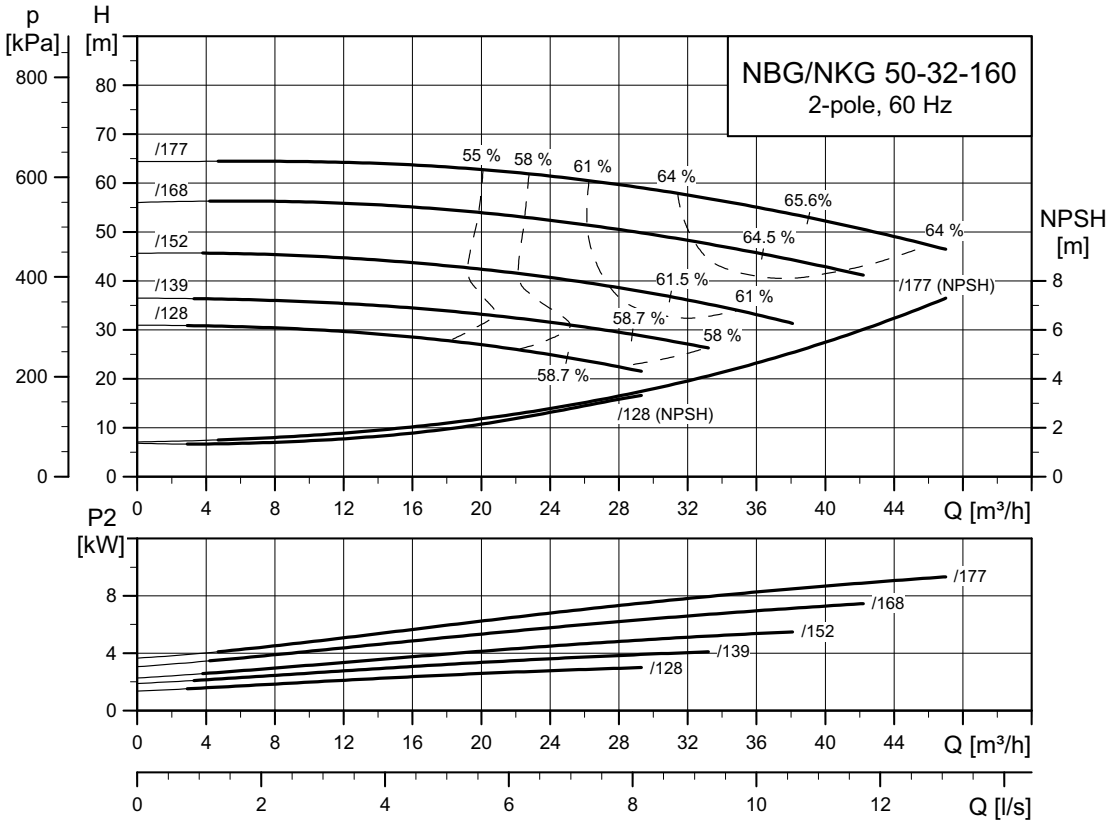
TM03 4995 3414

NBG, NKG 50-32-160.1



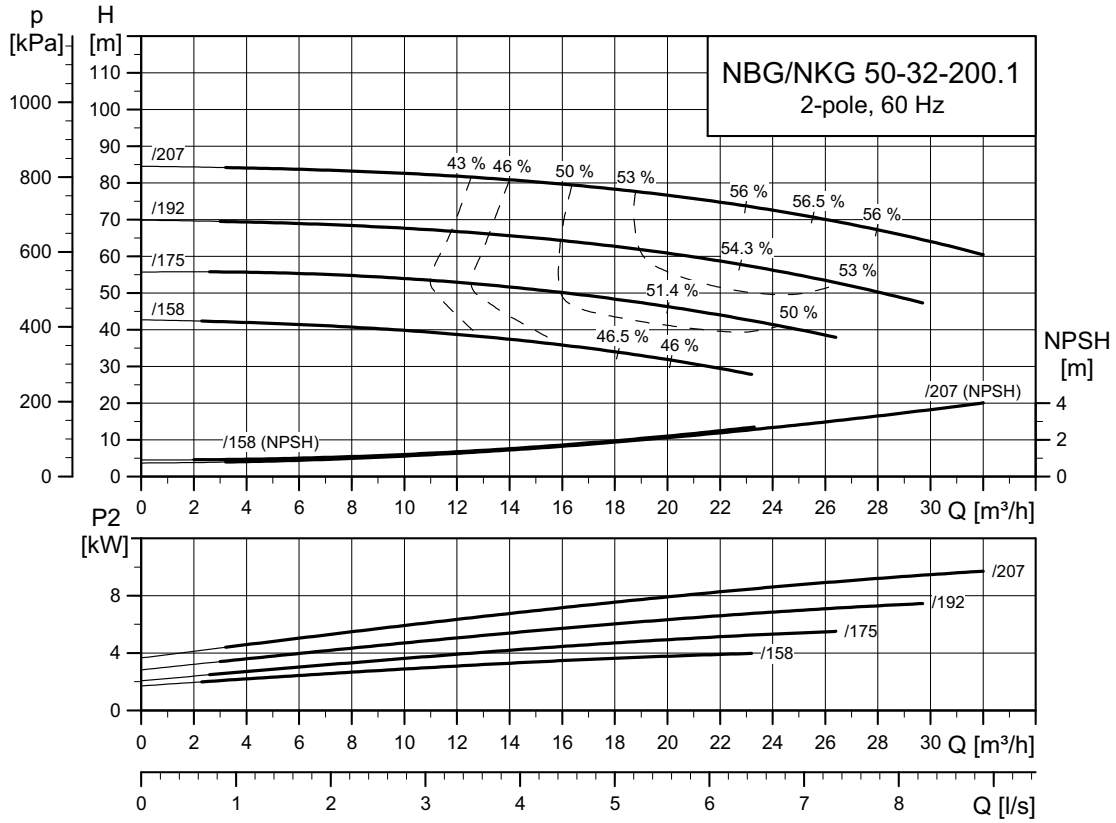
TM03 4998 3414

NBG, NKG 50-32-160



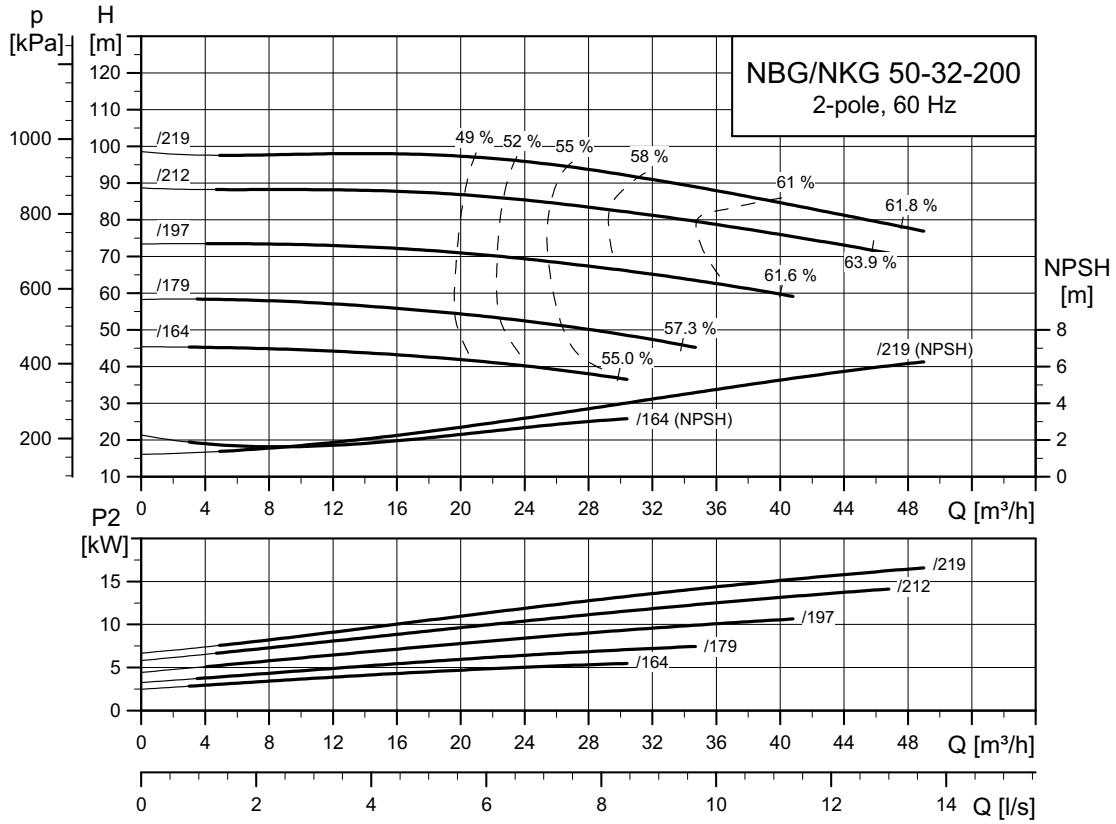
TM03 4997 3414

NBG, NKG 50-32-200.1



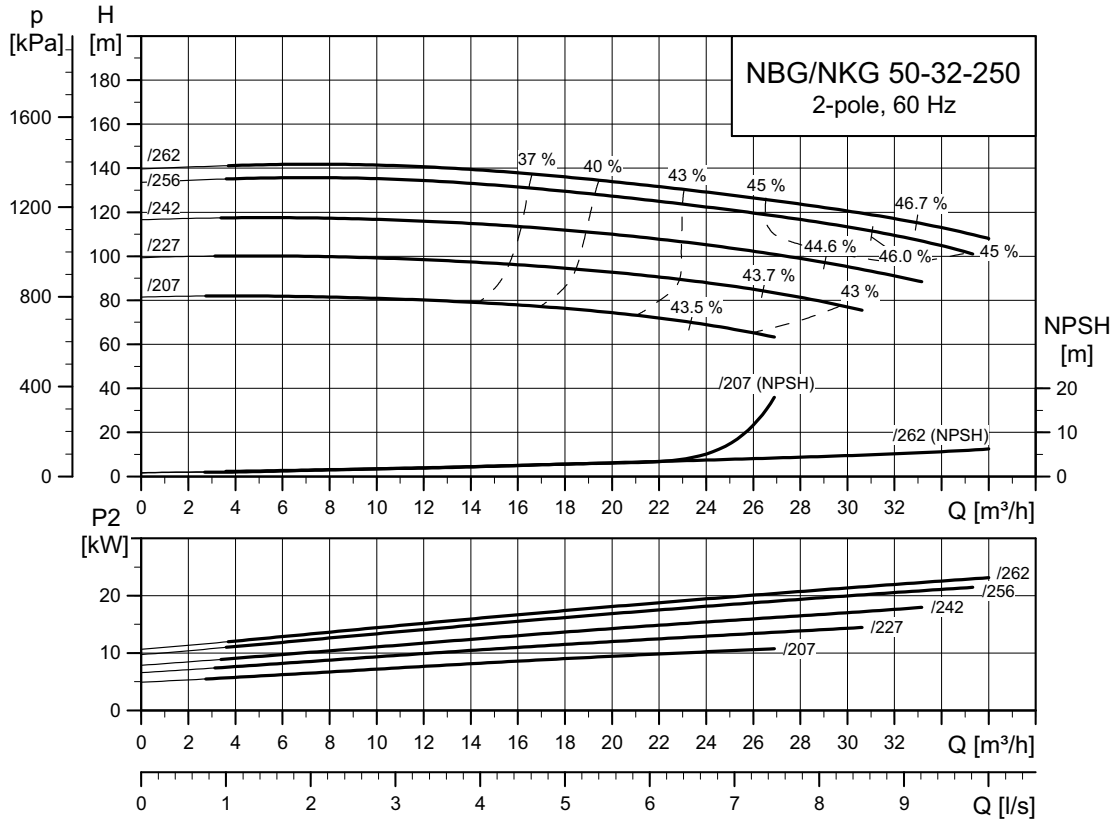
TM03 5000 3414

NBG, NKG 50-32-200



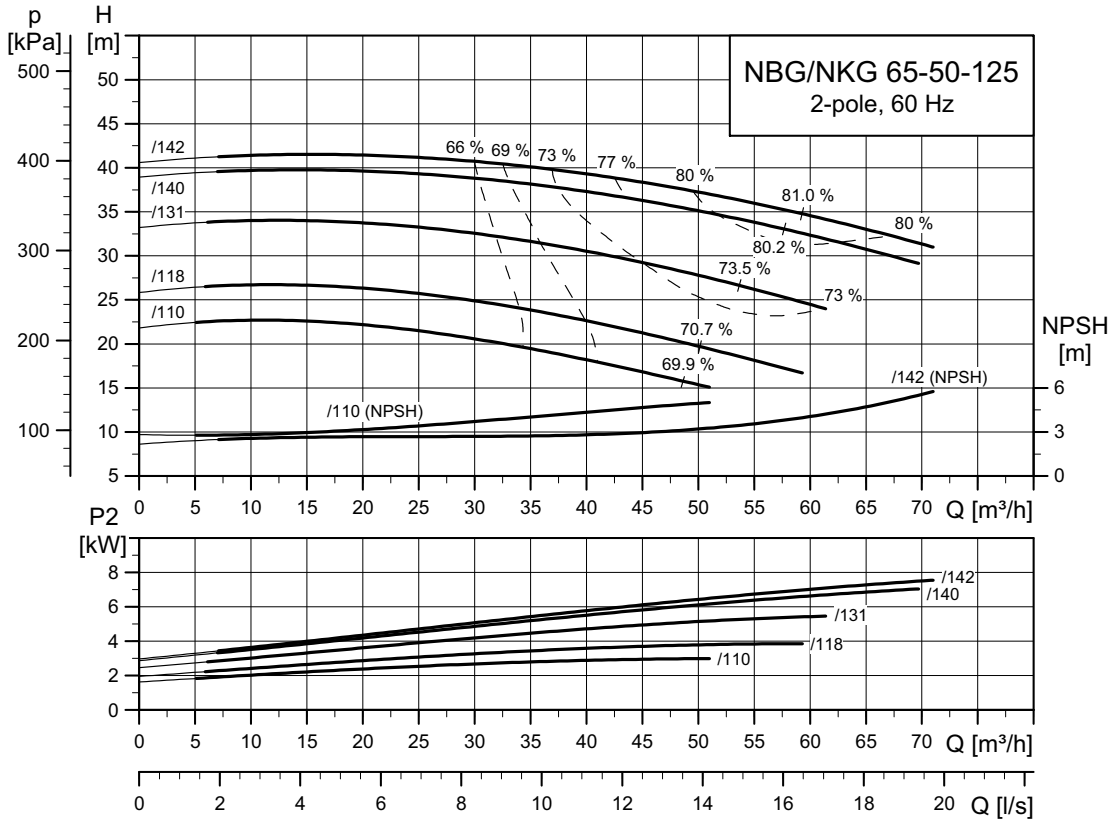
TM03 4999 3414

NBG, NKG 50-32-250



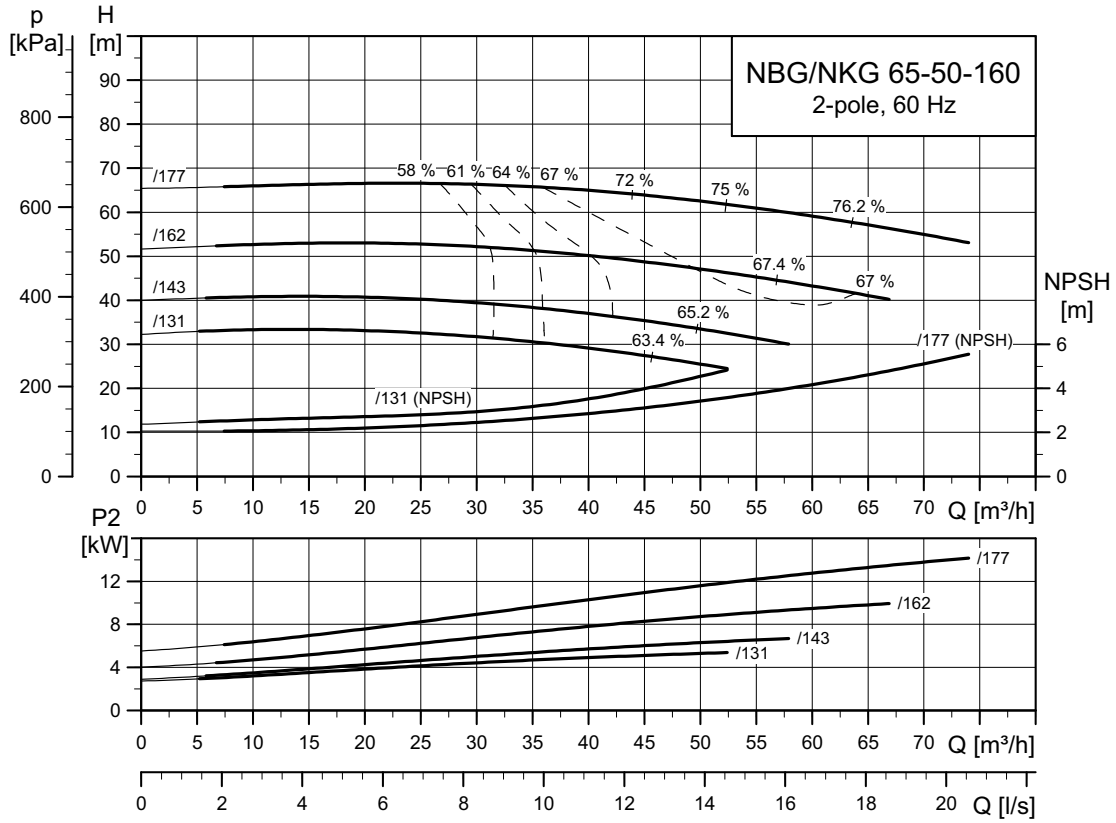
TM03 5001 3414

NBG, NKG 65-50-125



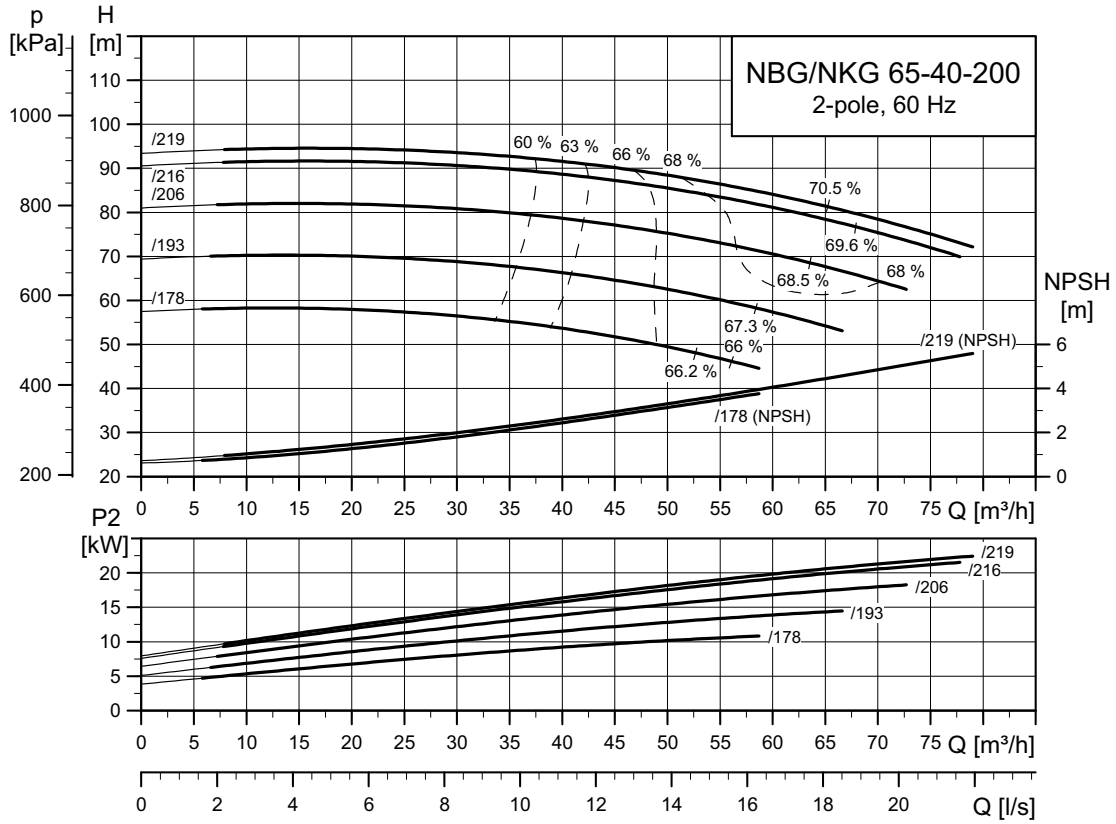
TM03 5002 3414

NBG, NKG 65-50-160



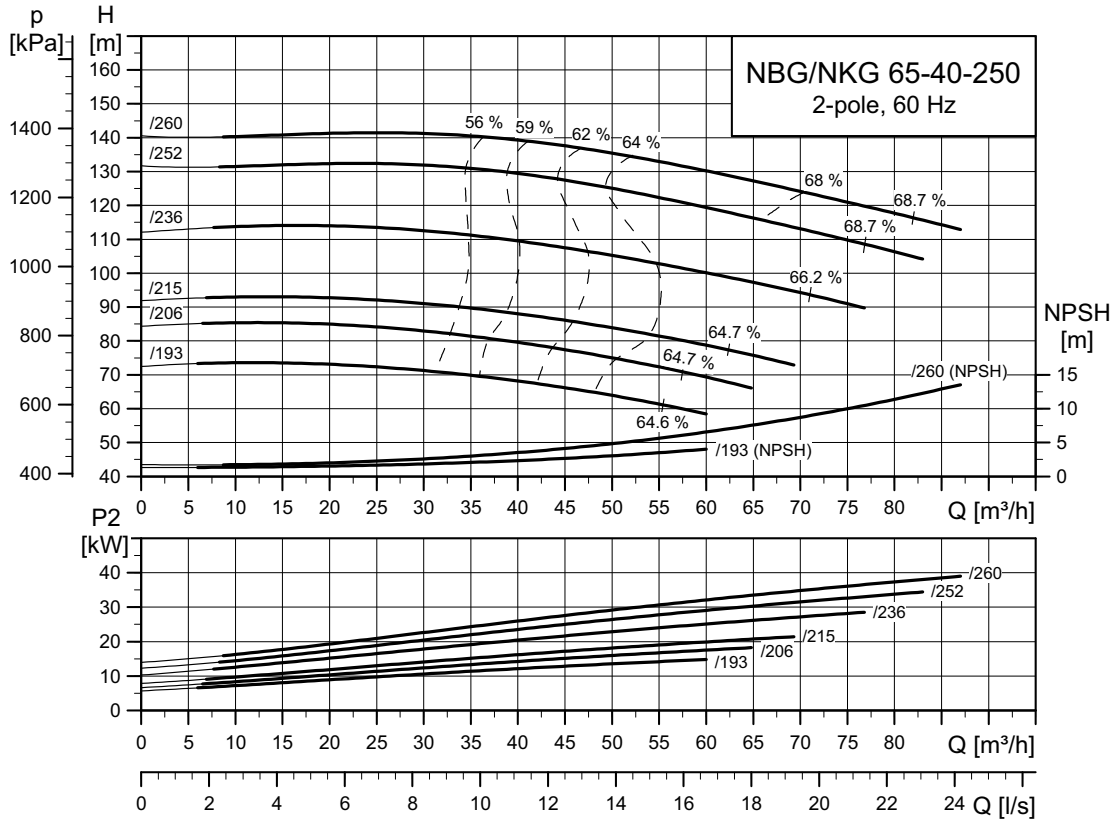
TM03 5003 3414

NBG, NKG 65-40-200



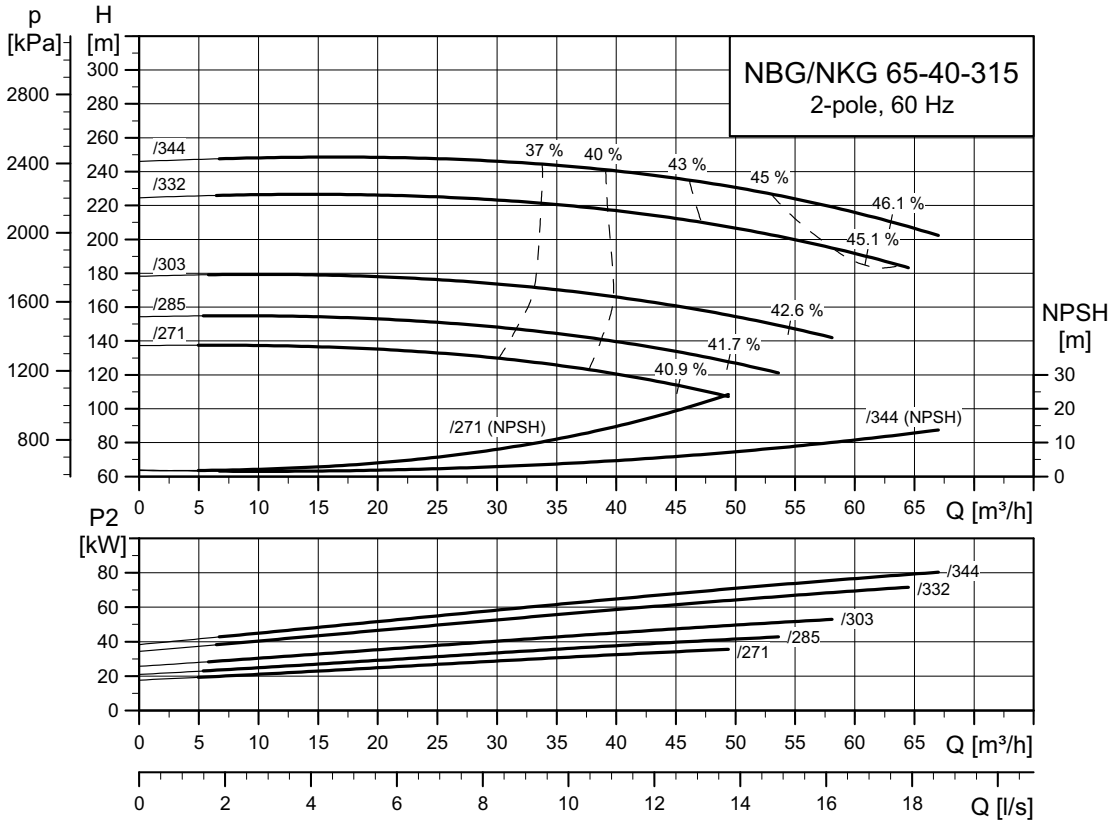
TM03 5004 3414

NBG, NKG 65-40-250



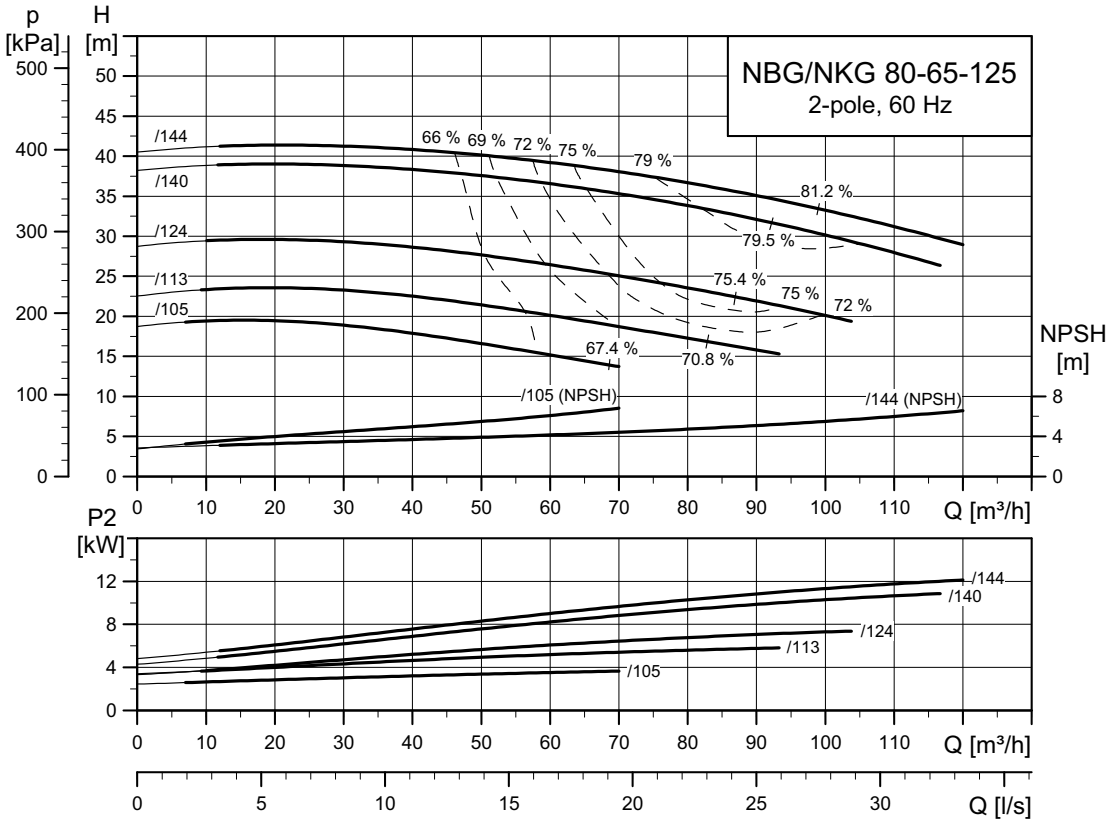
TM03 5005 3414

NBG, NKG 65-40-315



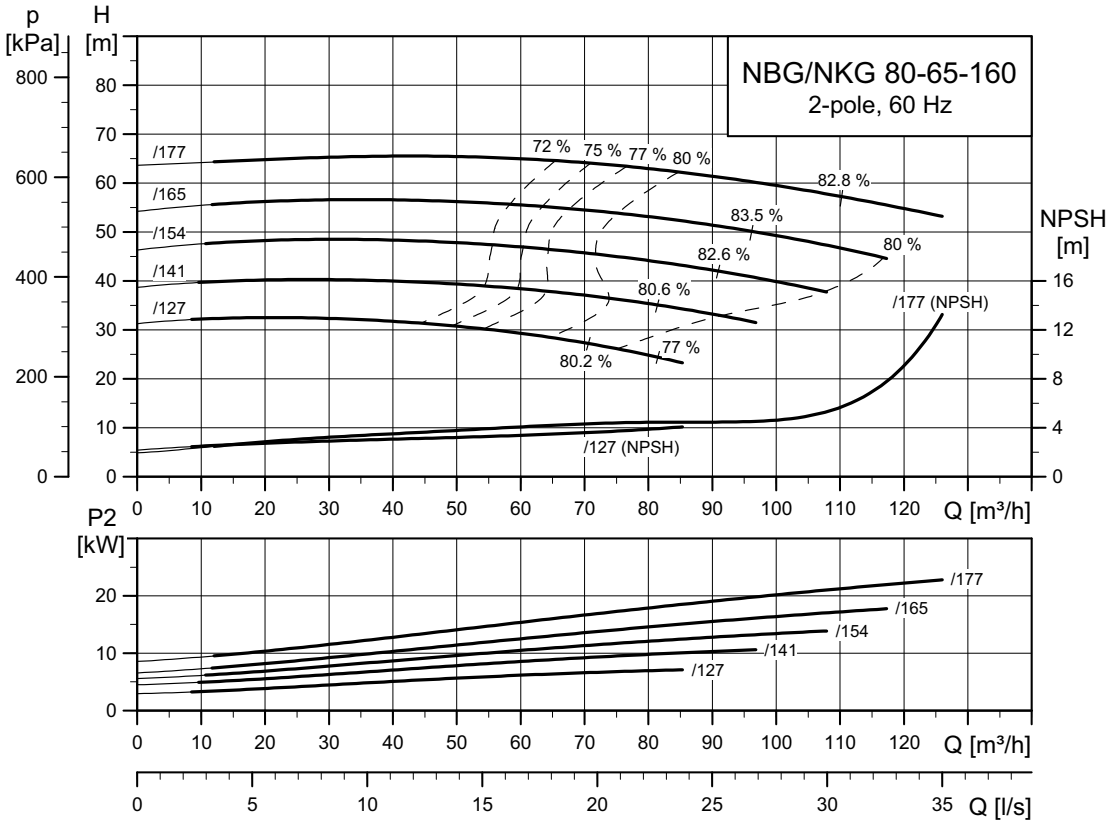
TM05 6045 3414

NBG, NKG 80-65-125



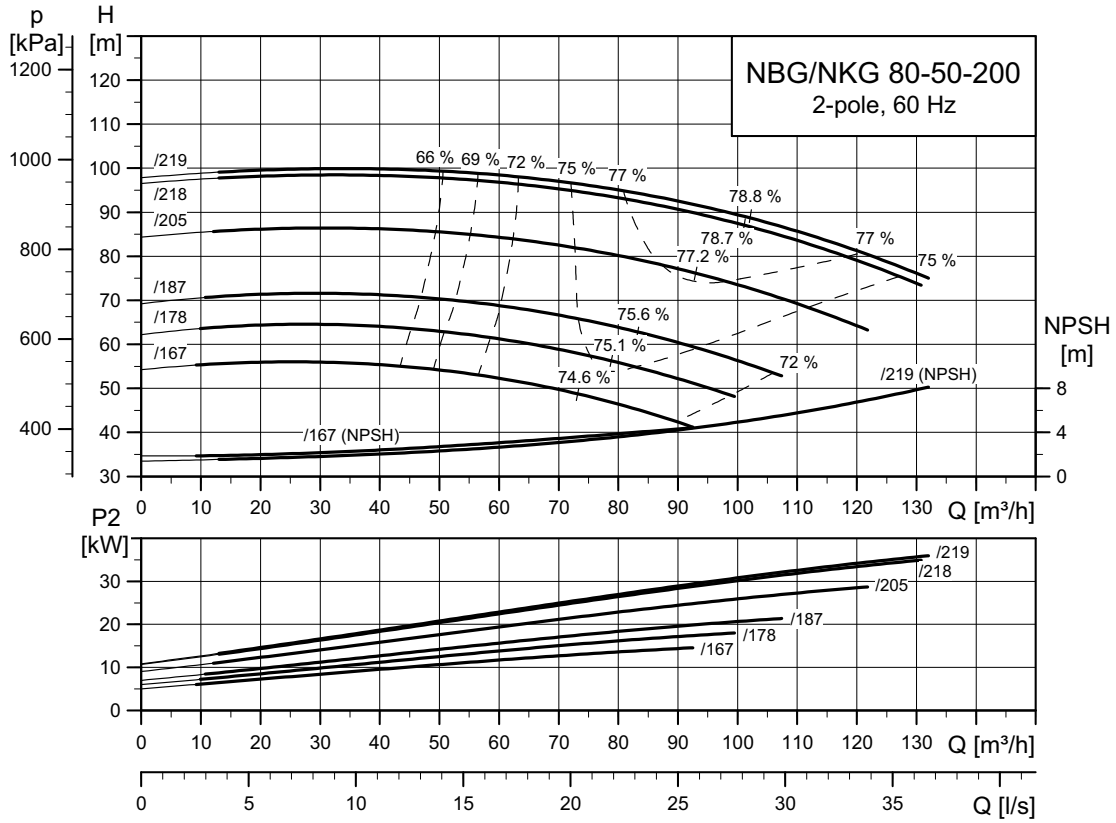
TM03 5006 3414

NBG, NKG 80-65-160



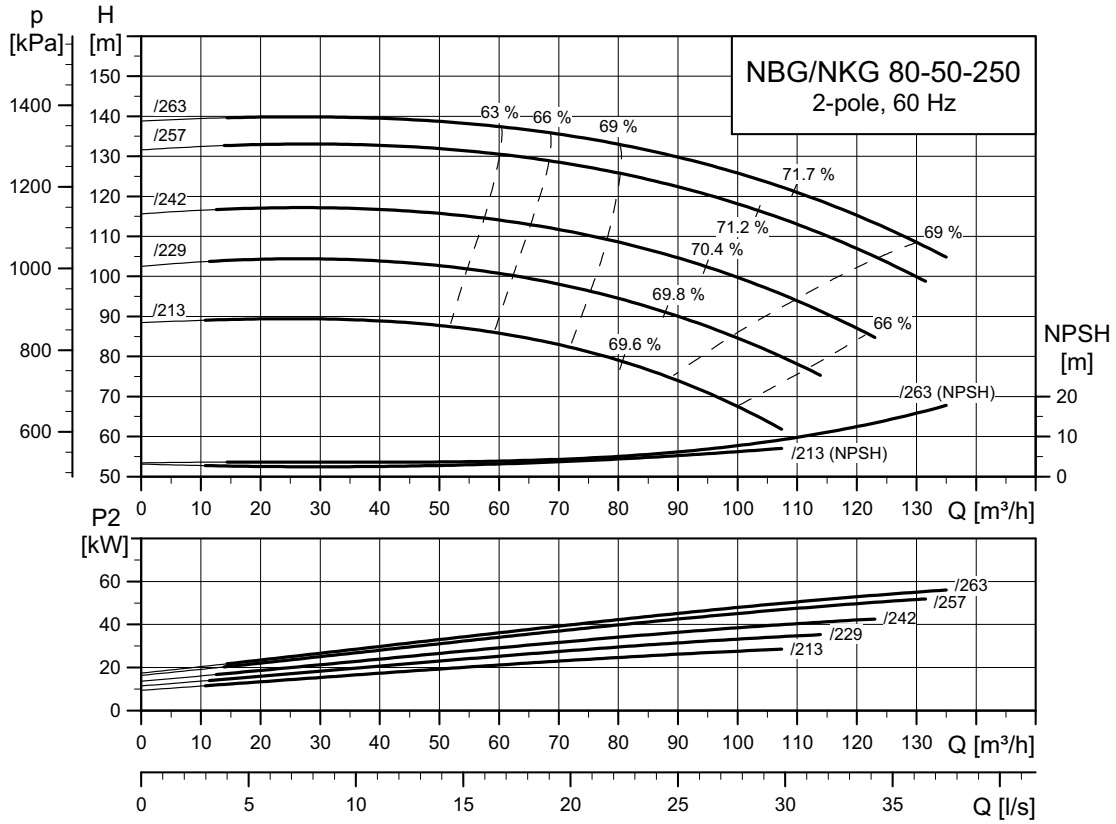
TM03 5007 3414

NBG, NKG 80-50-200



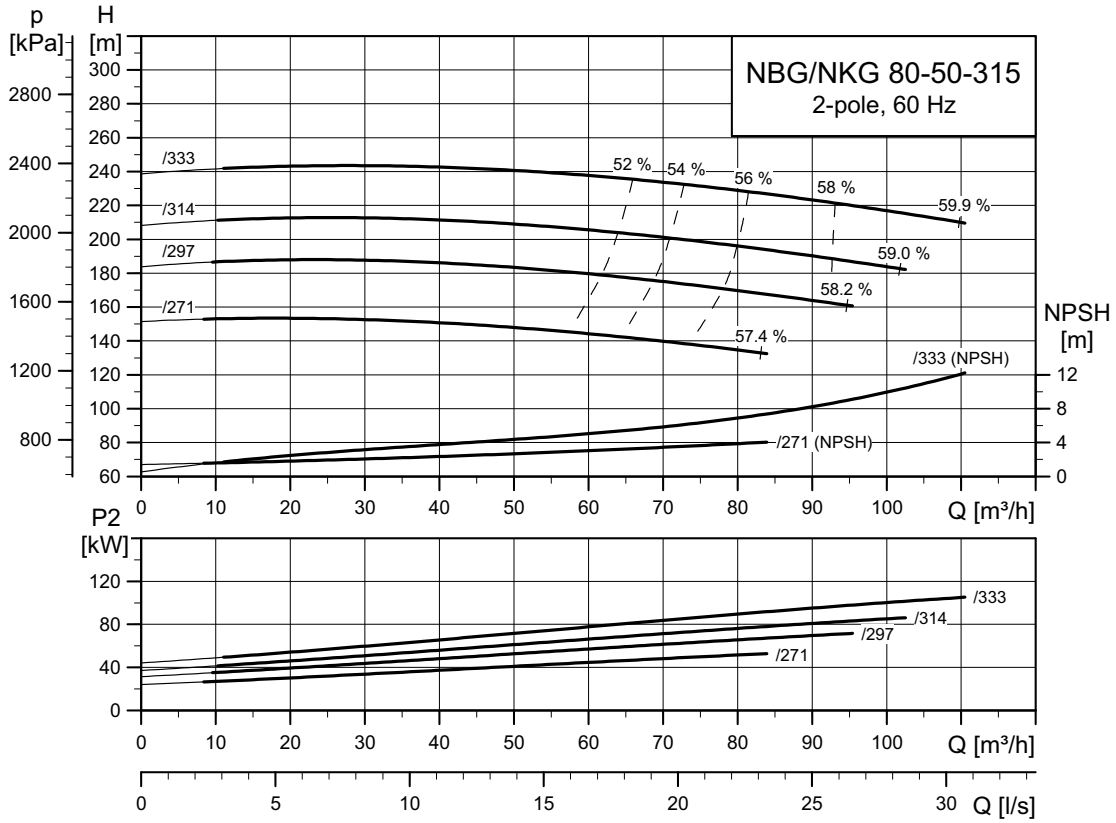
TM03 5008 3414

NBG, NKG 80-50-250



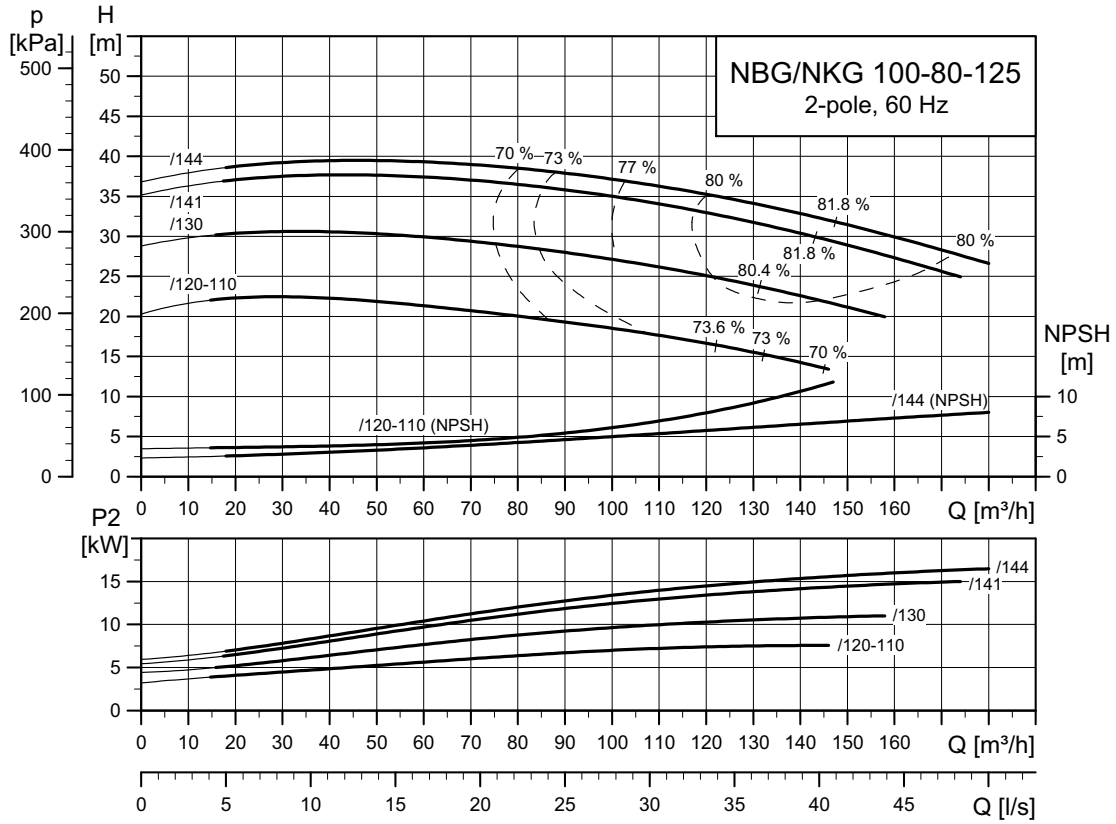
TM03 5009 3414

NBG, NKG 80-50-315



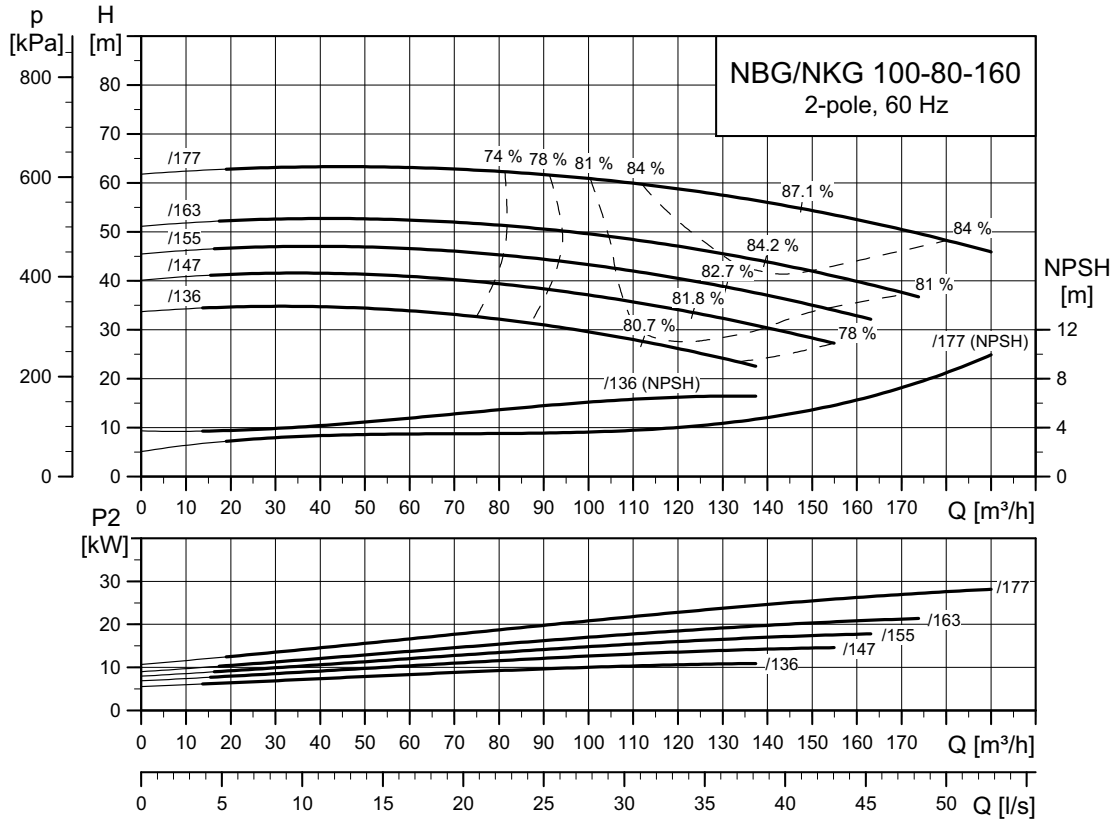
TM05 6047 3414

NBG, NKG 100-80-125



TM03 5010 3414

NBG, NKG 100-80-160



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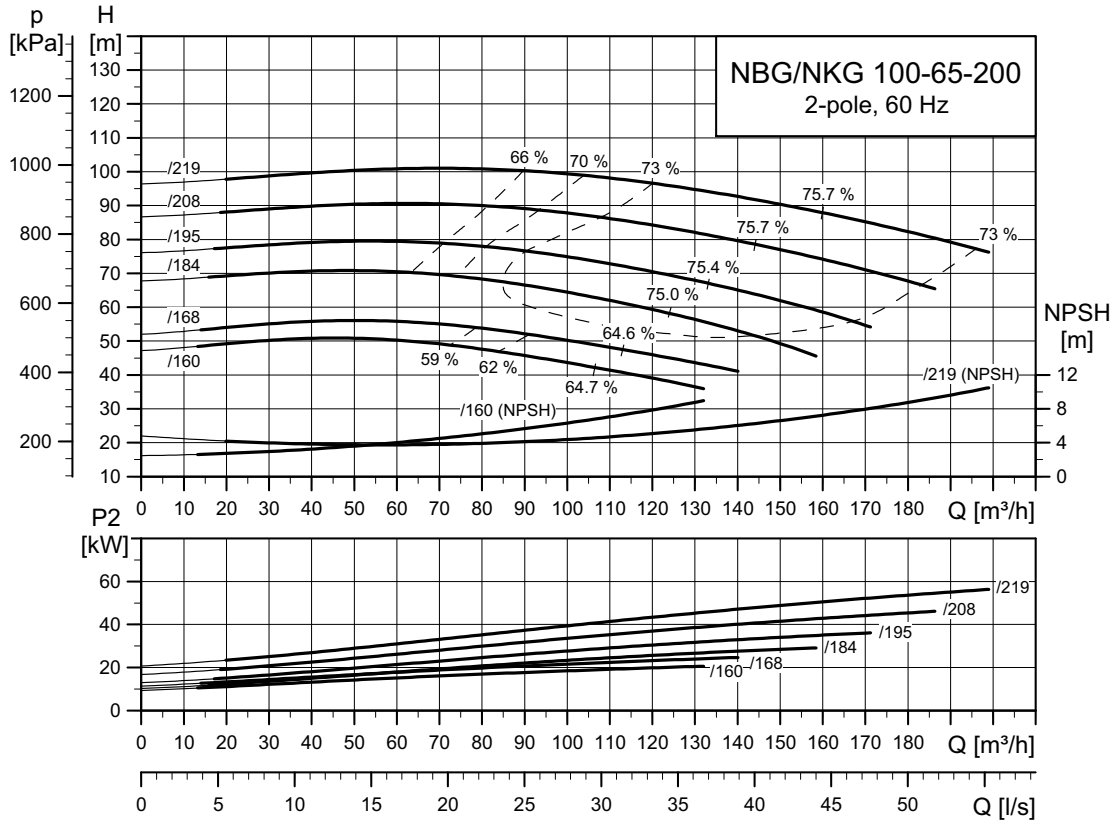

TM03 5012 3414

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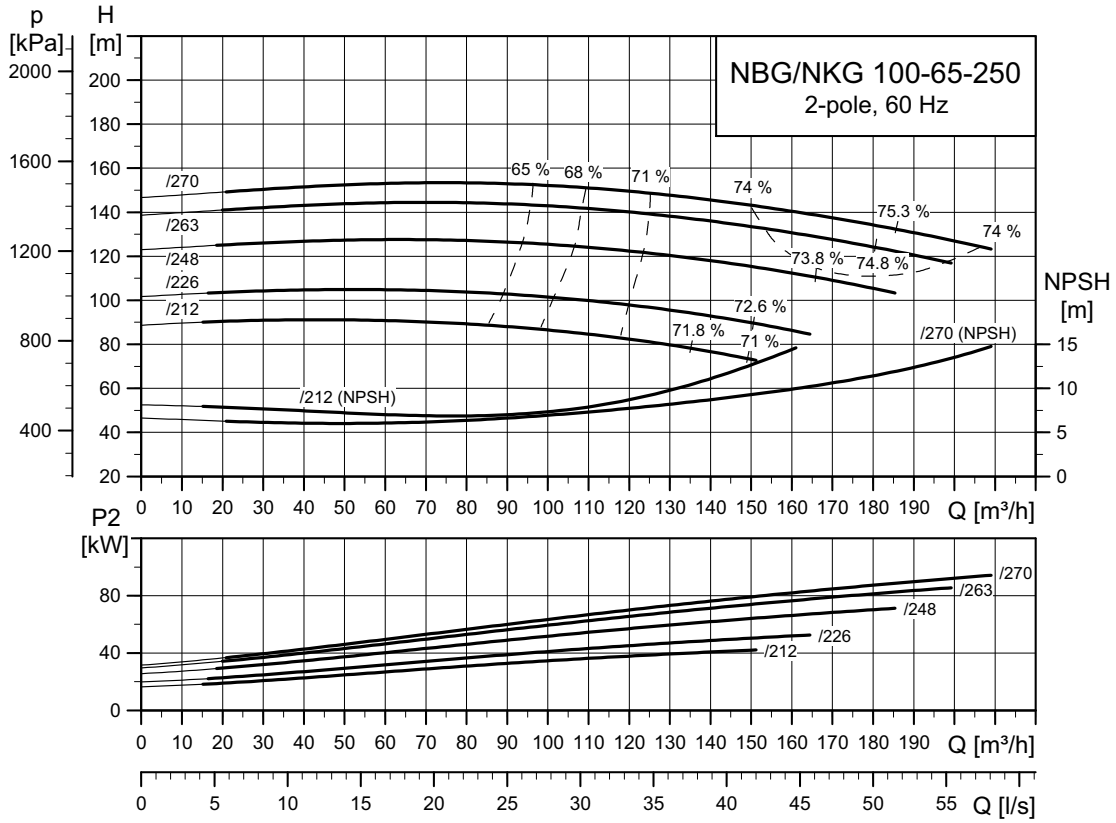

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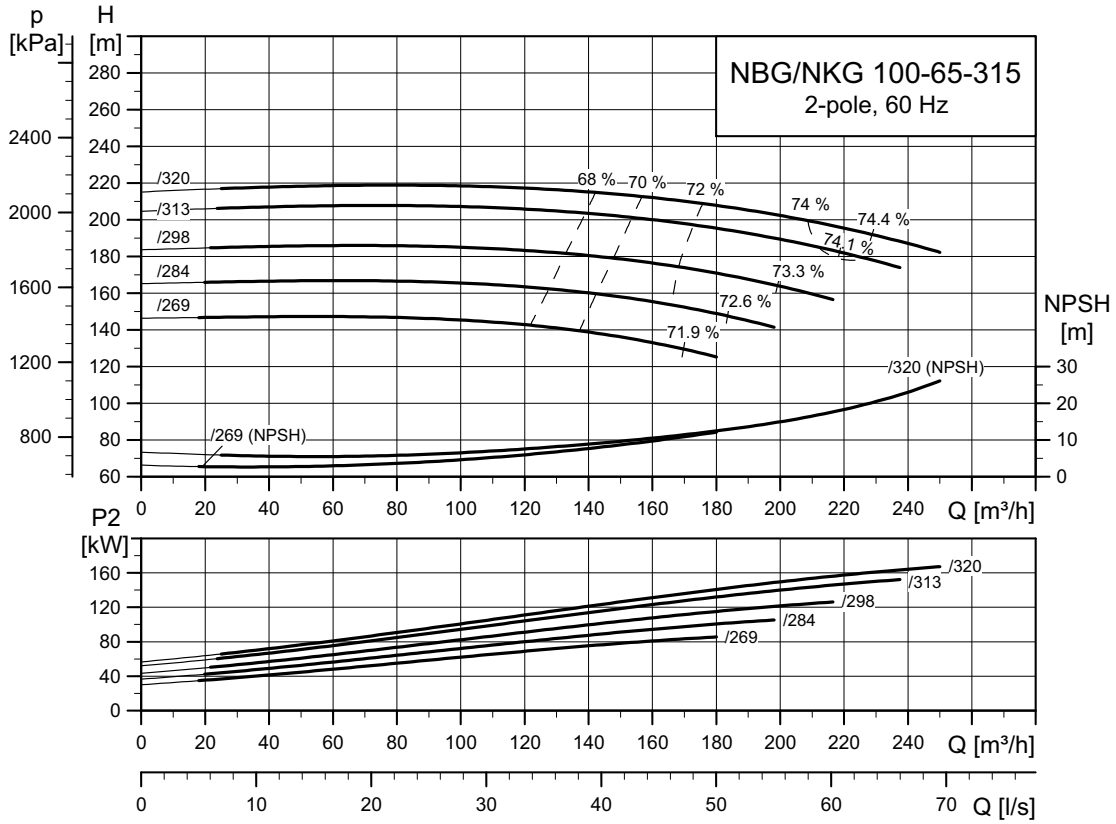
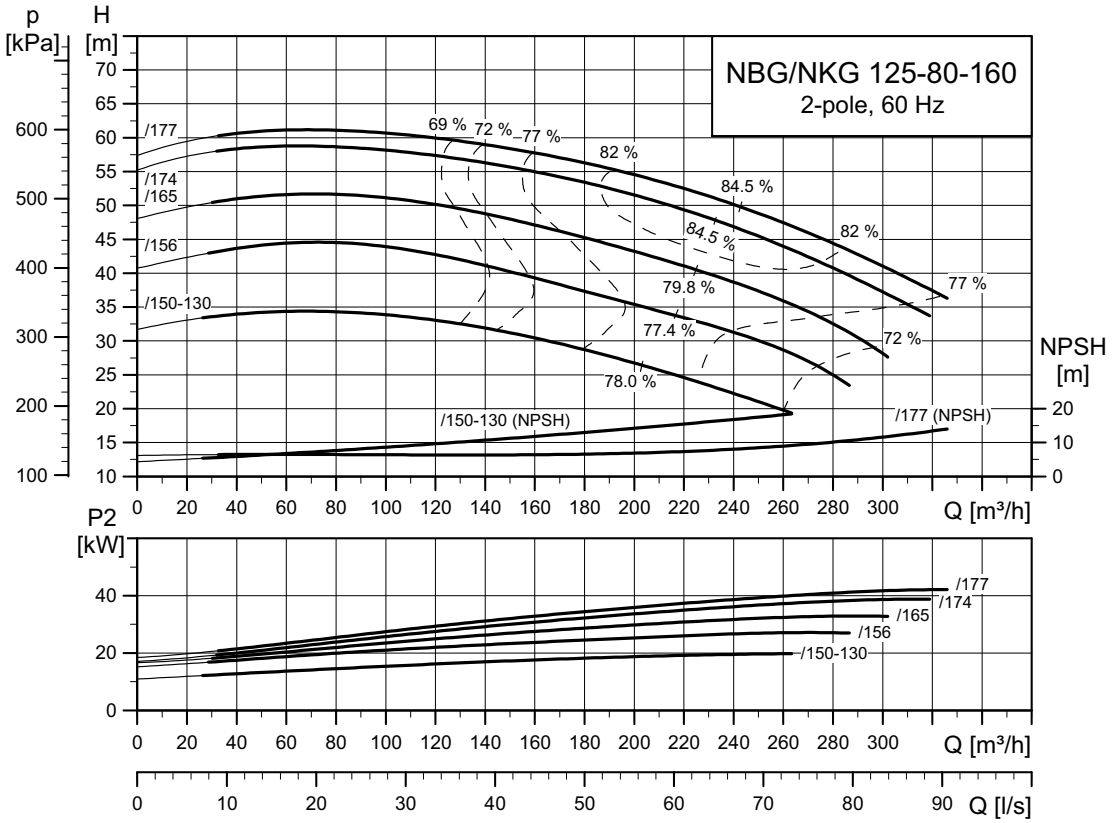


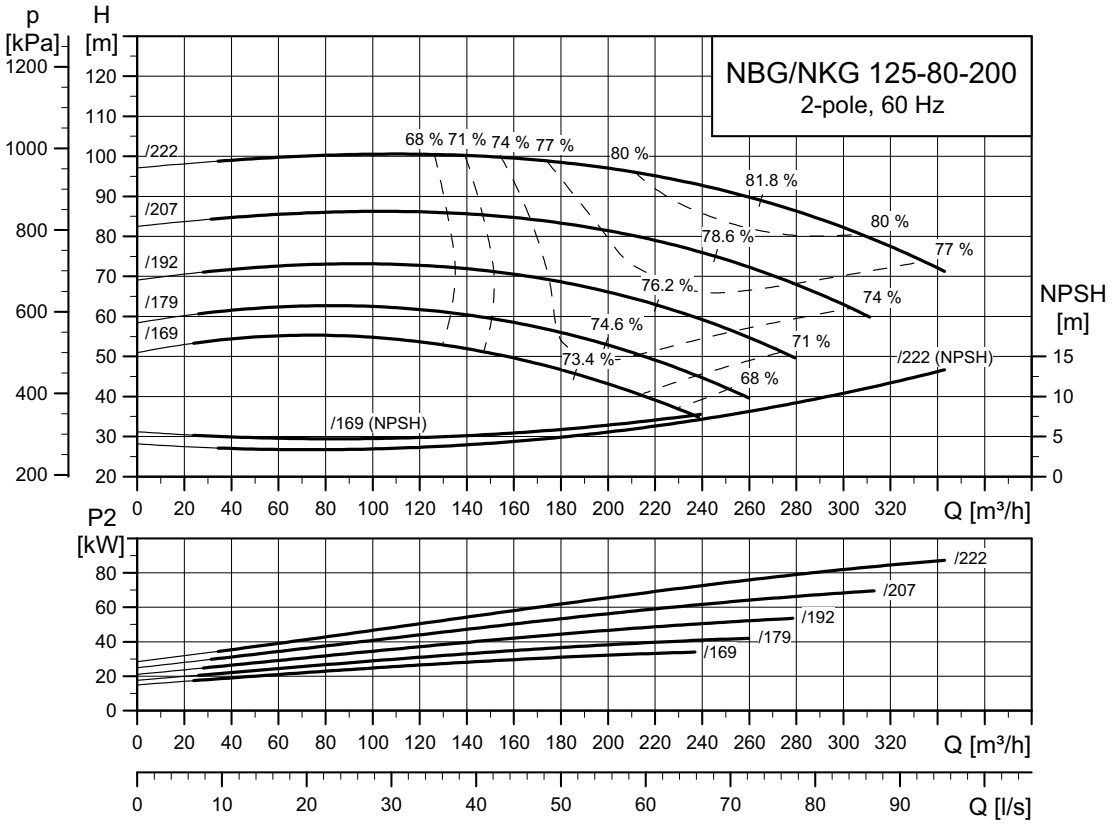
TM05 6049 3414

NBG, NKG 125-80-160



TM03 5014 3414

NBG, NKG 125-80-200



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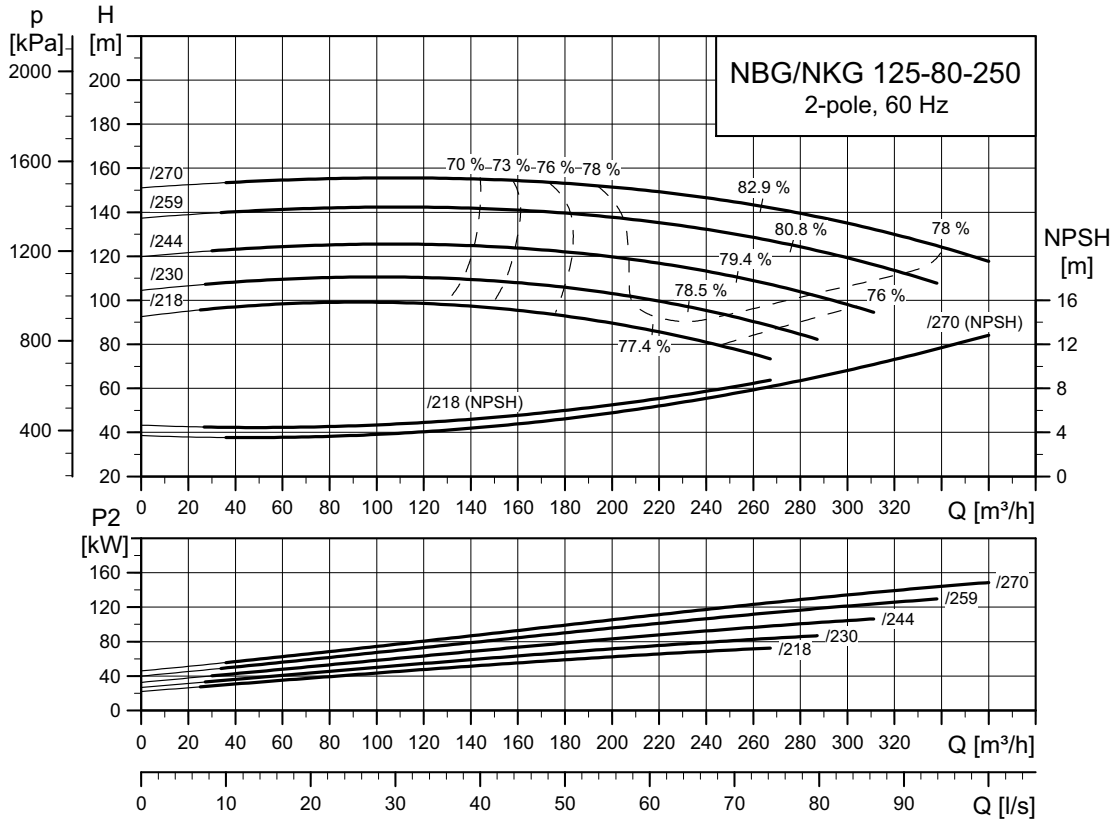

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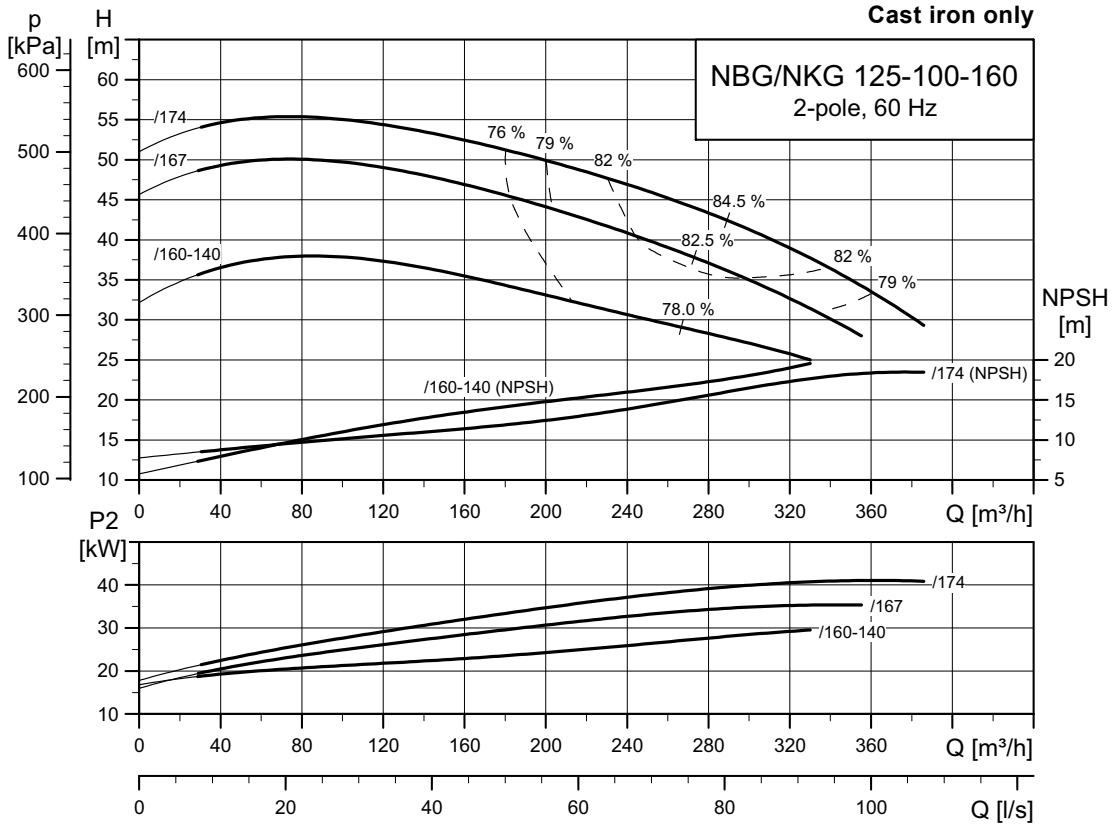
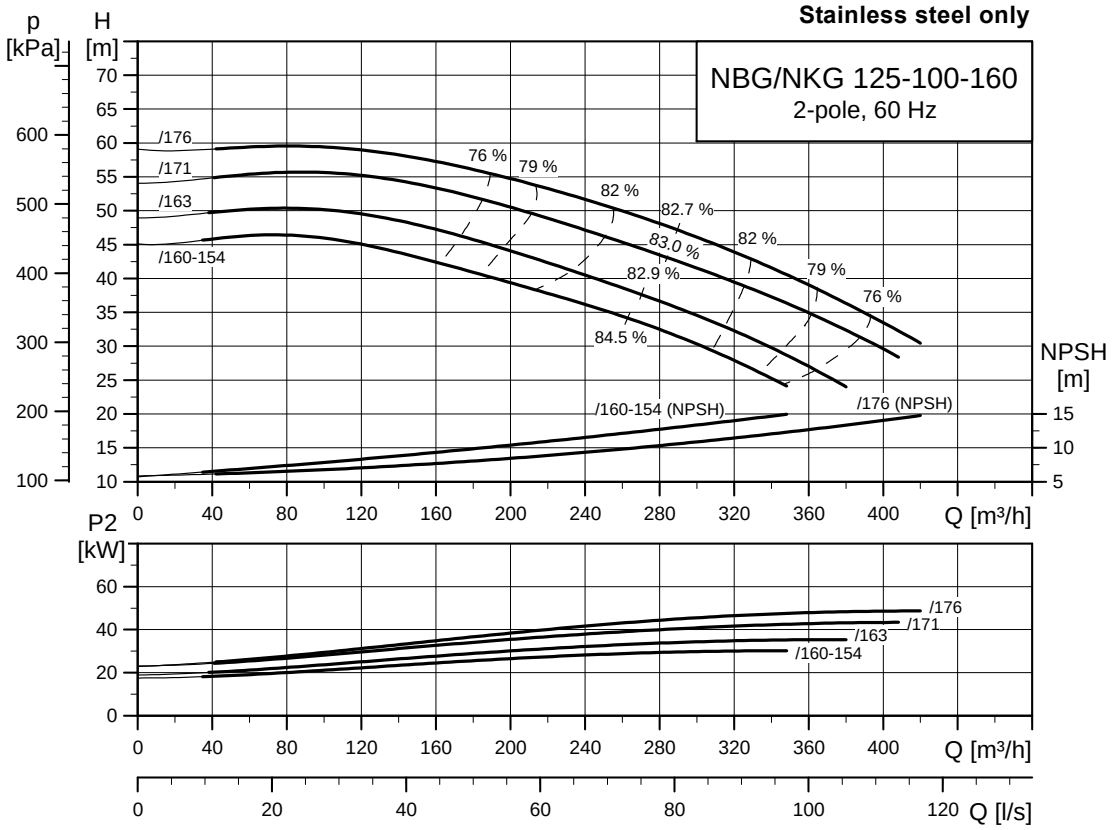


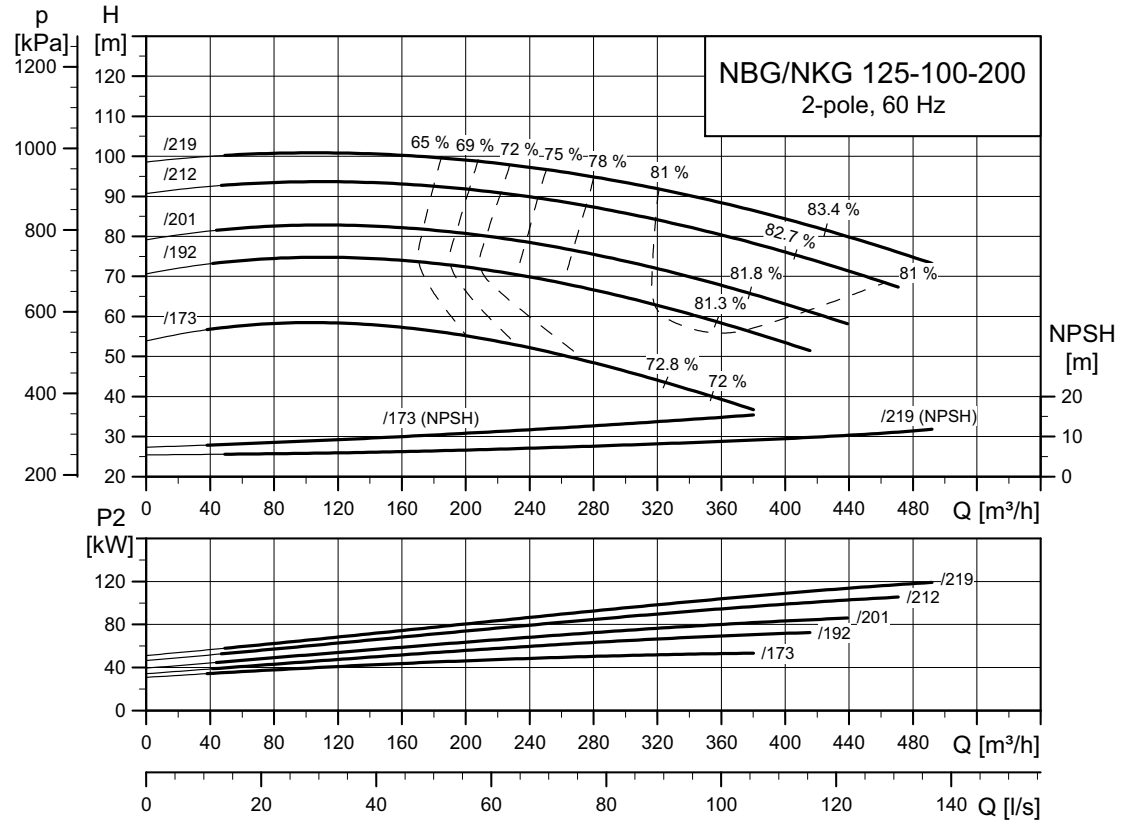
TM03 5017 2316

NBG, NKG 125-100-160



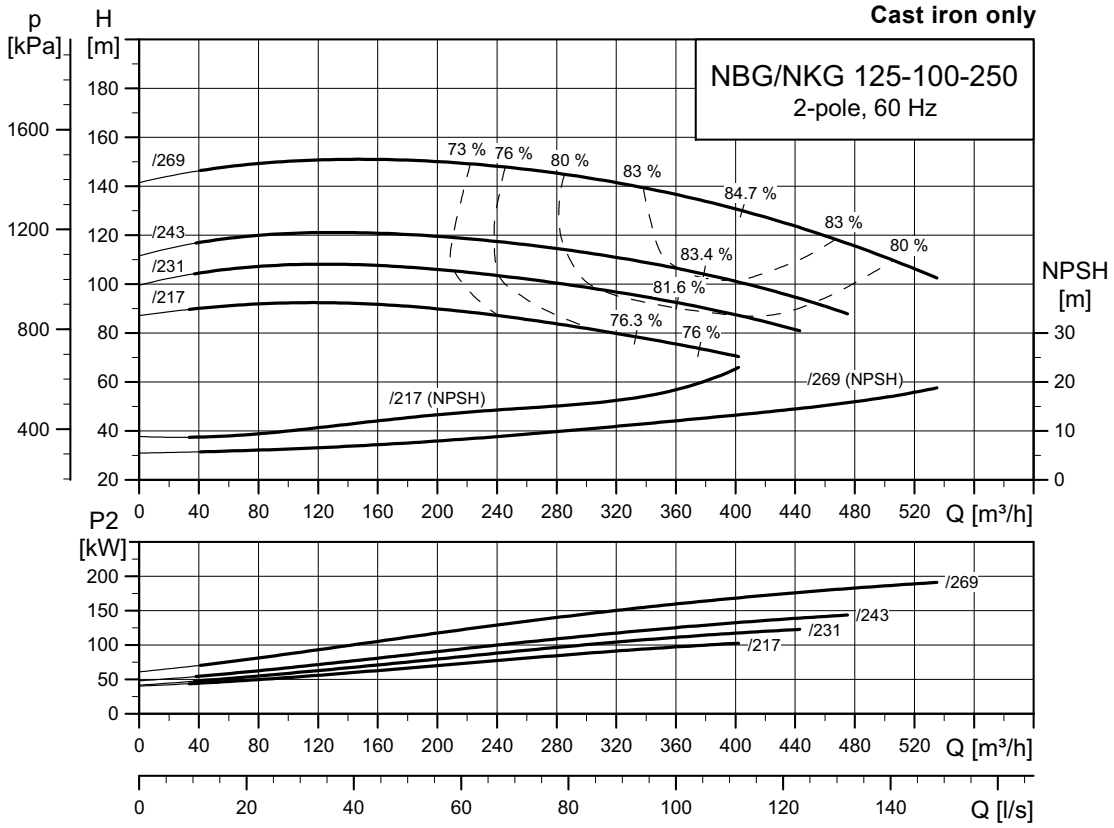
TM06 2723 4614

NBG, NKG 125-100-200



TM03 5018 3414

NBG, NKG 125-100-250



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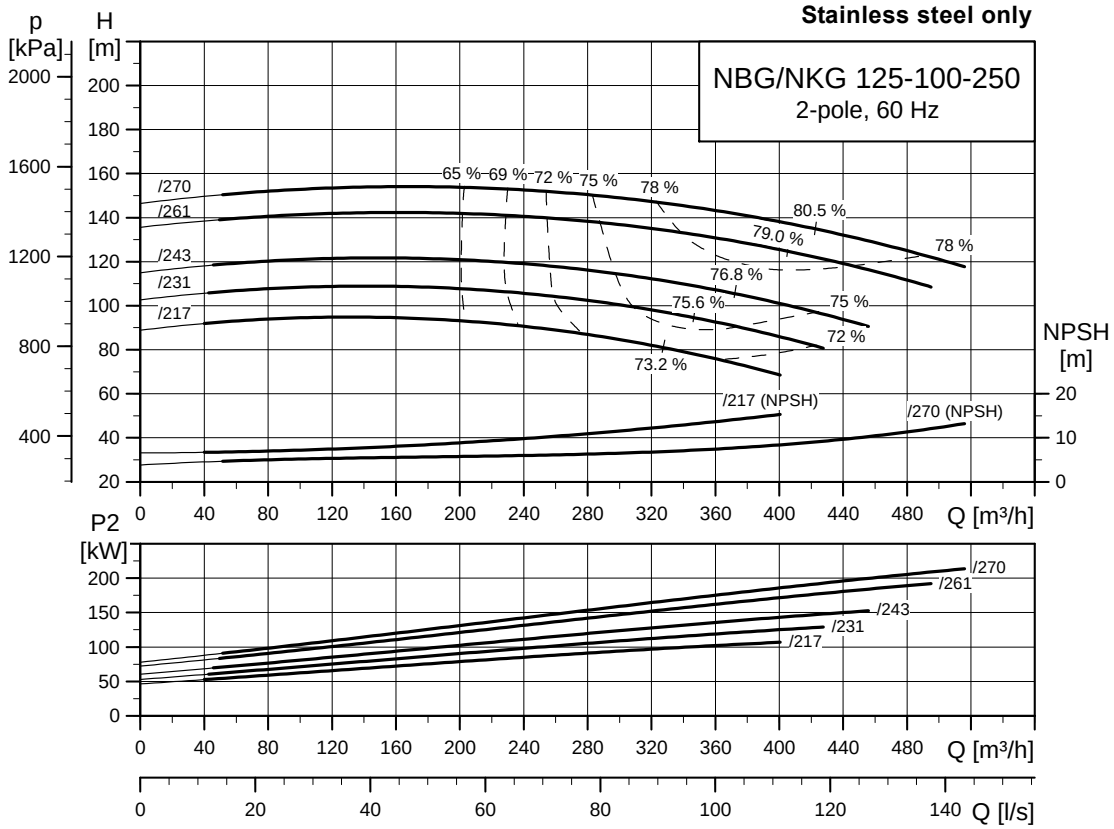
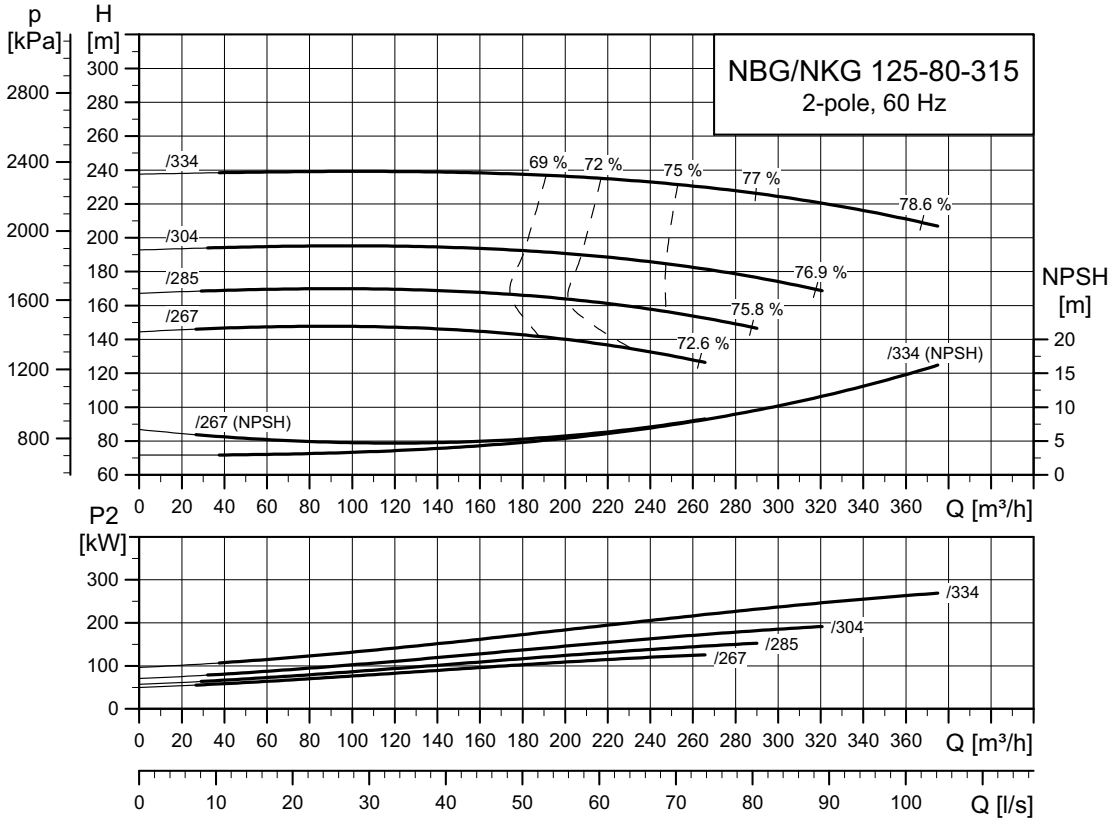


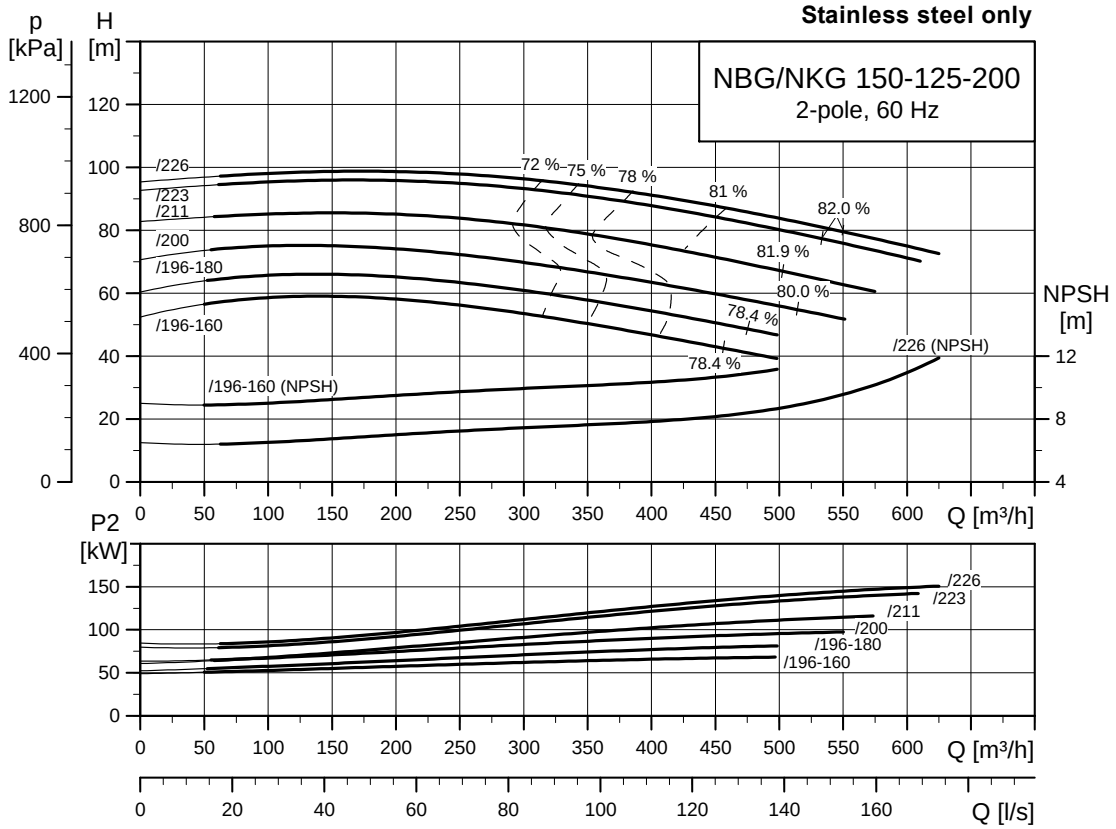
TM06 2724 4614

NBG, NKG 125-80-315



TM05 6051 3414

NBG, NKG 150-125-200



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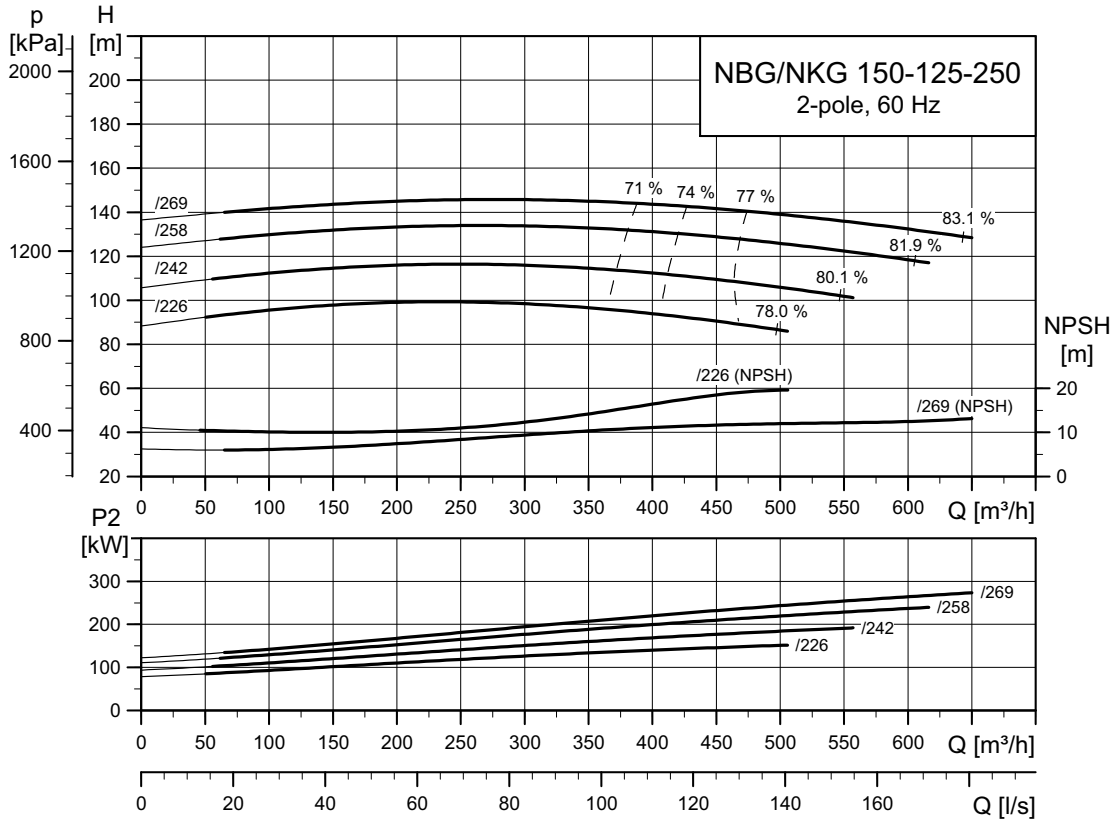
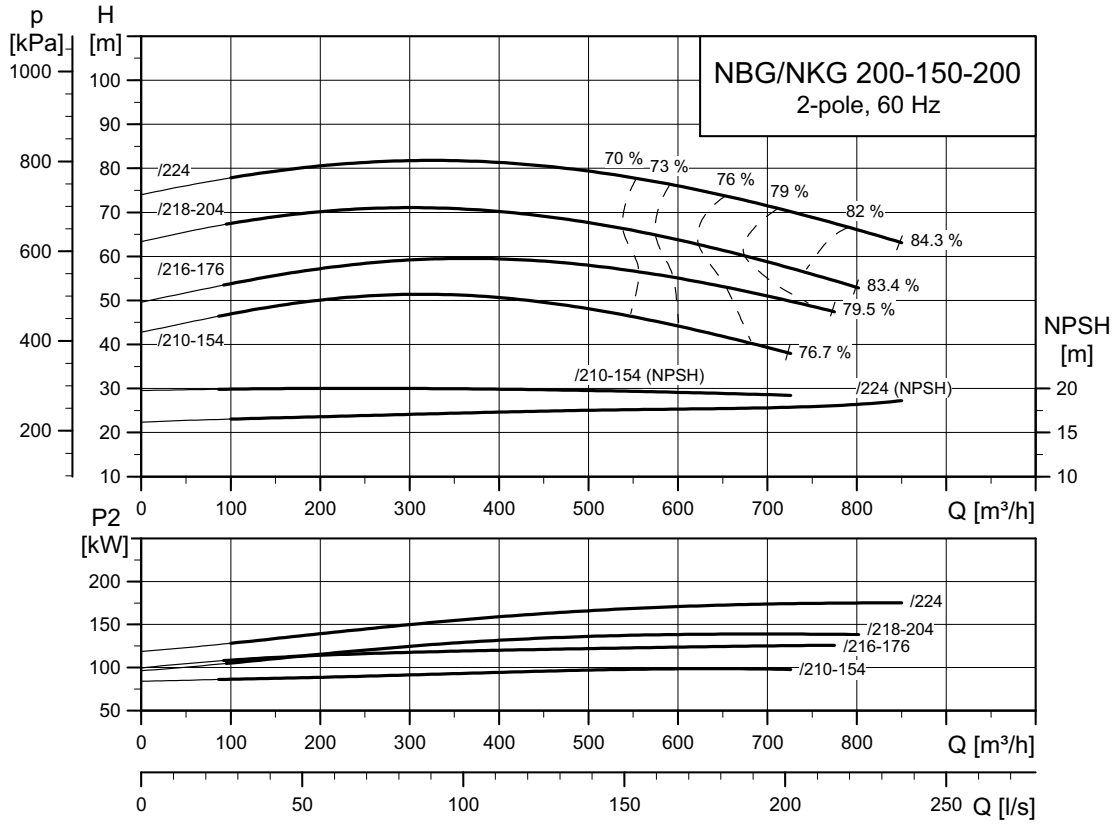
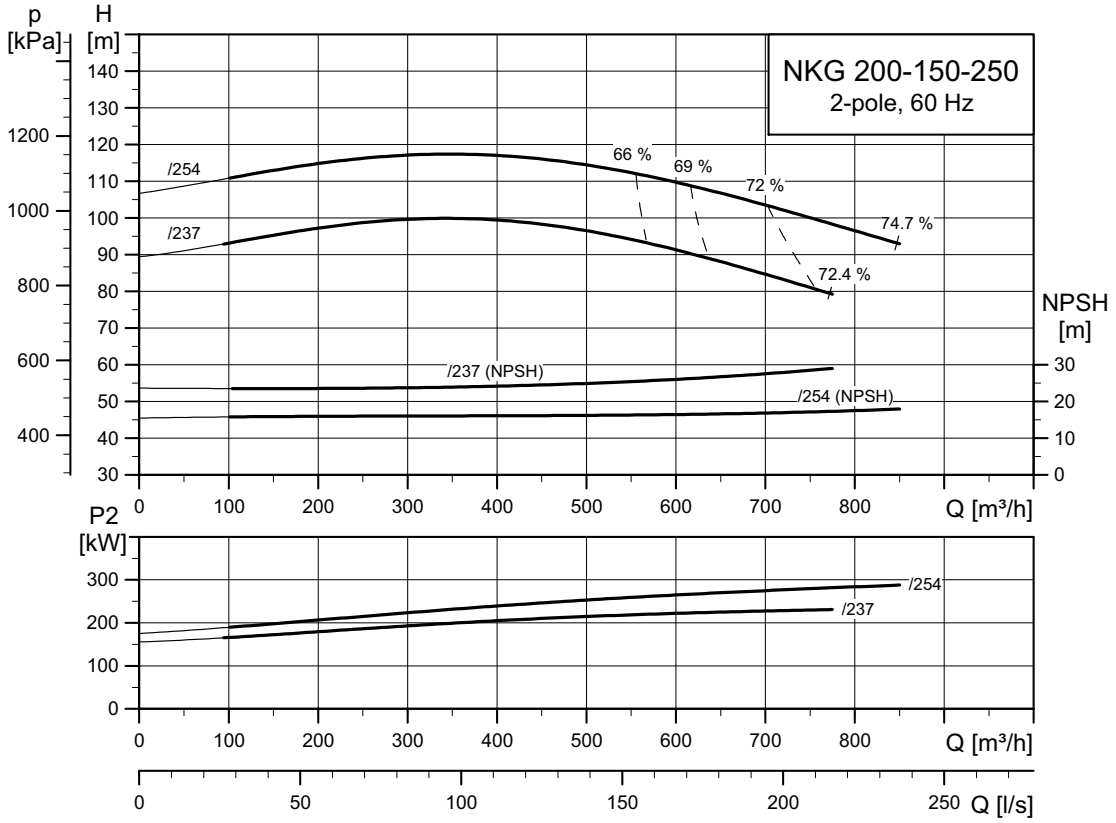


NBG, NKG 200-150-200



NKG 200-150-250



TM03 5023 3414

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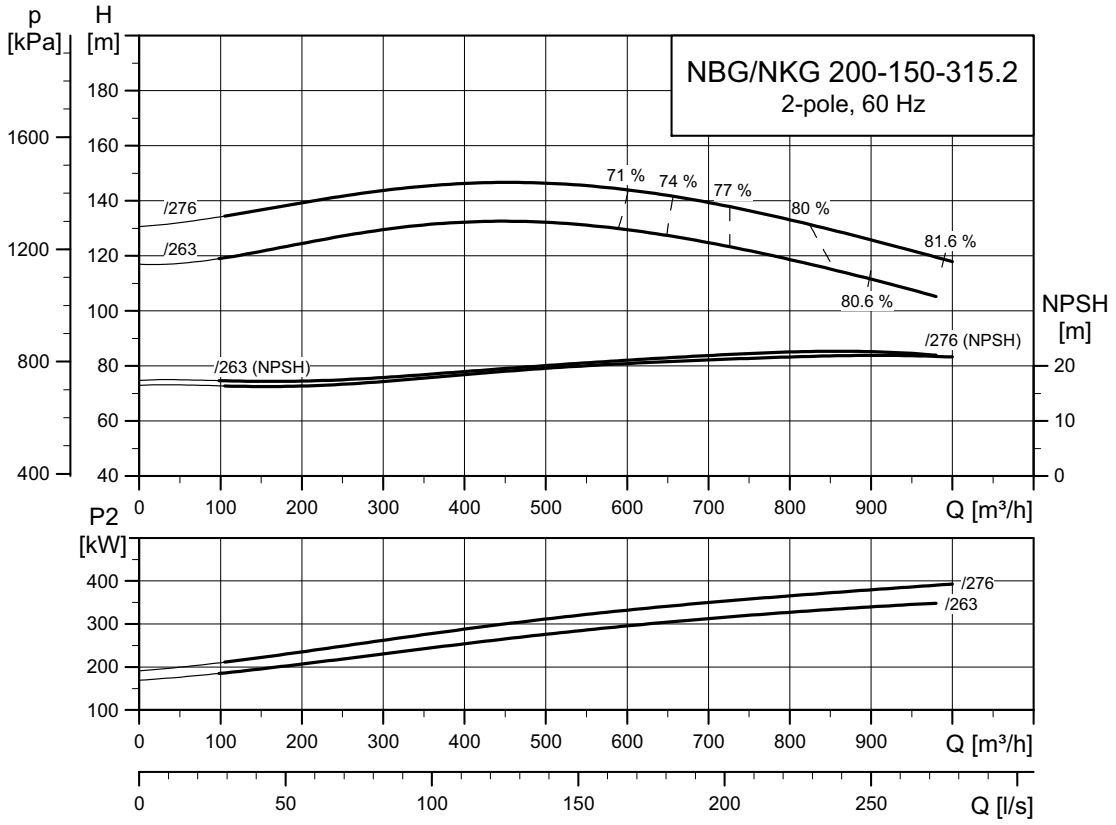
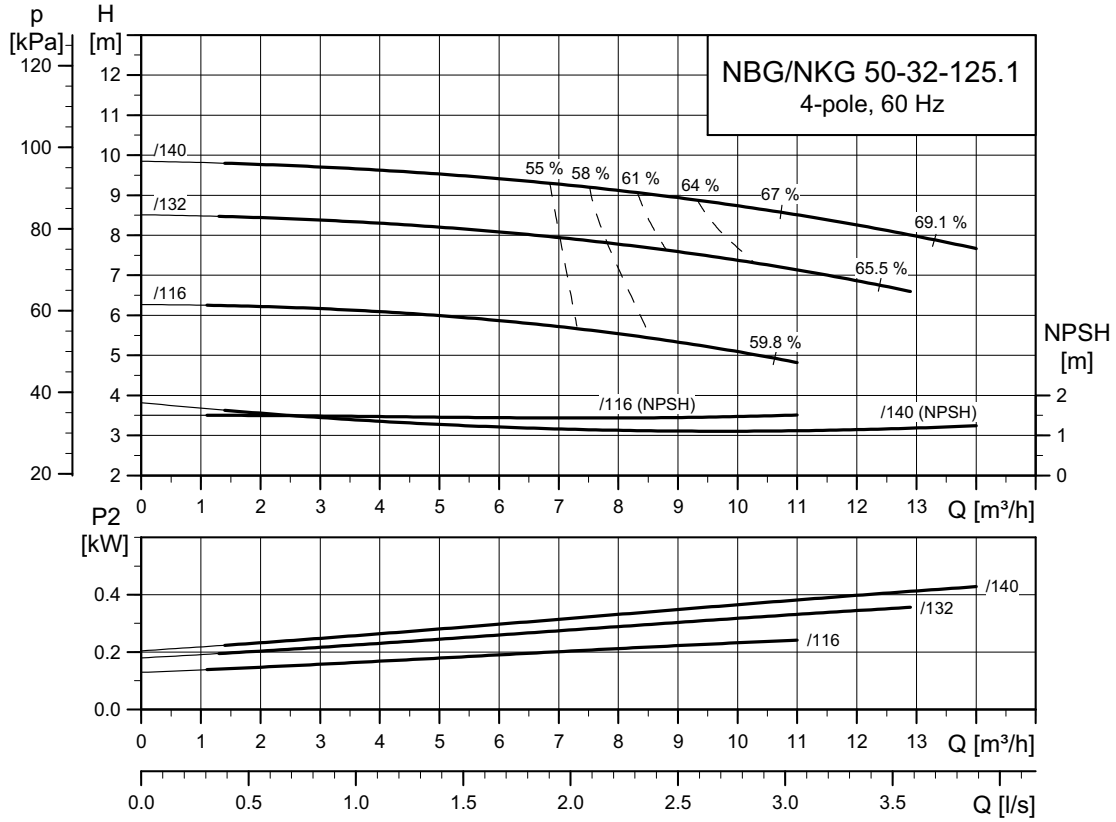


TM06 4758 3315

4-pole

NBG, NKG 50-32-125.1



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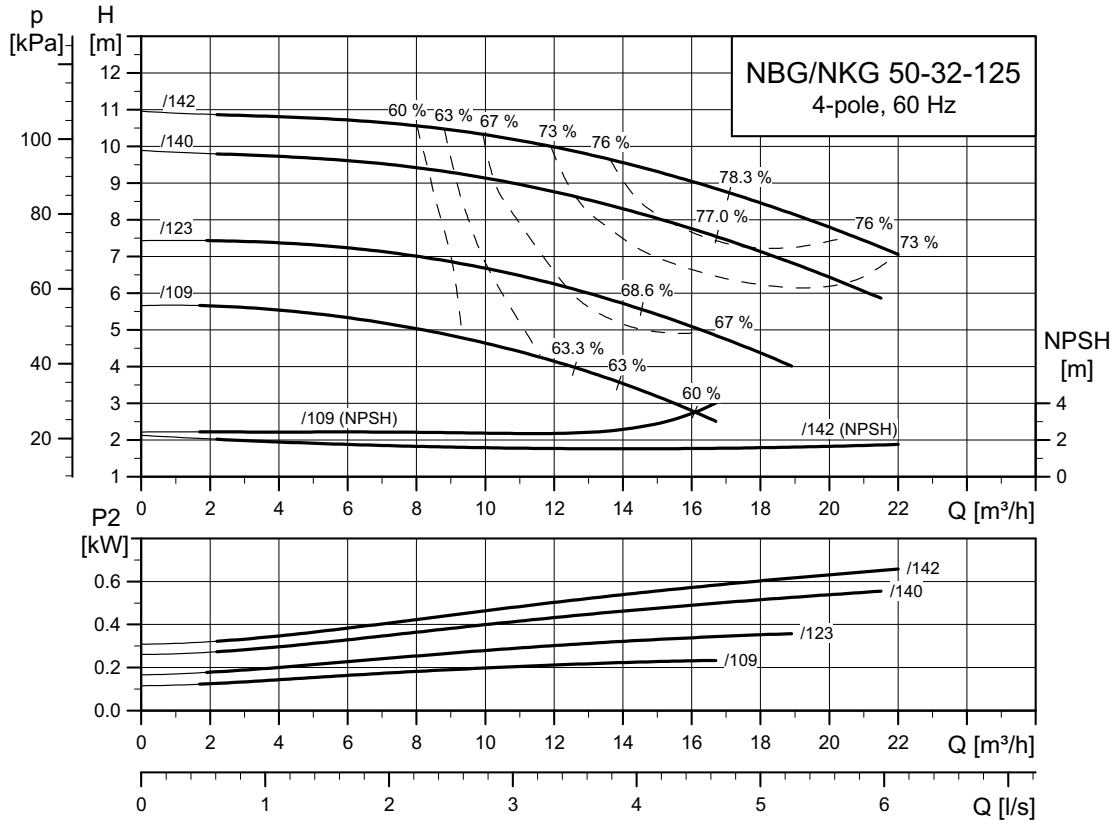
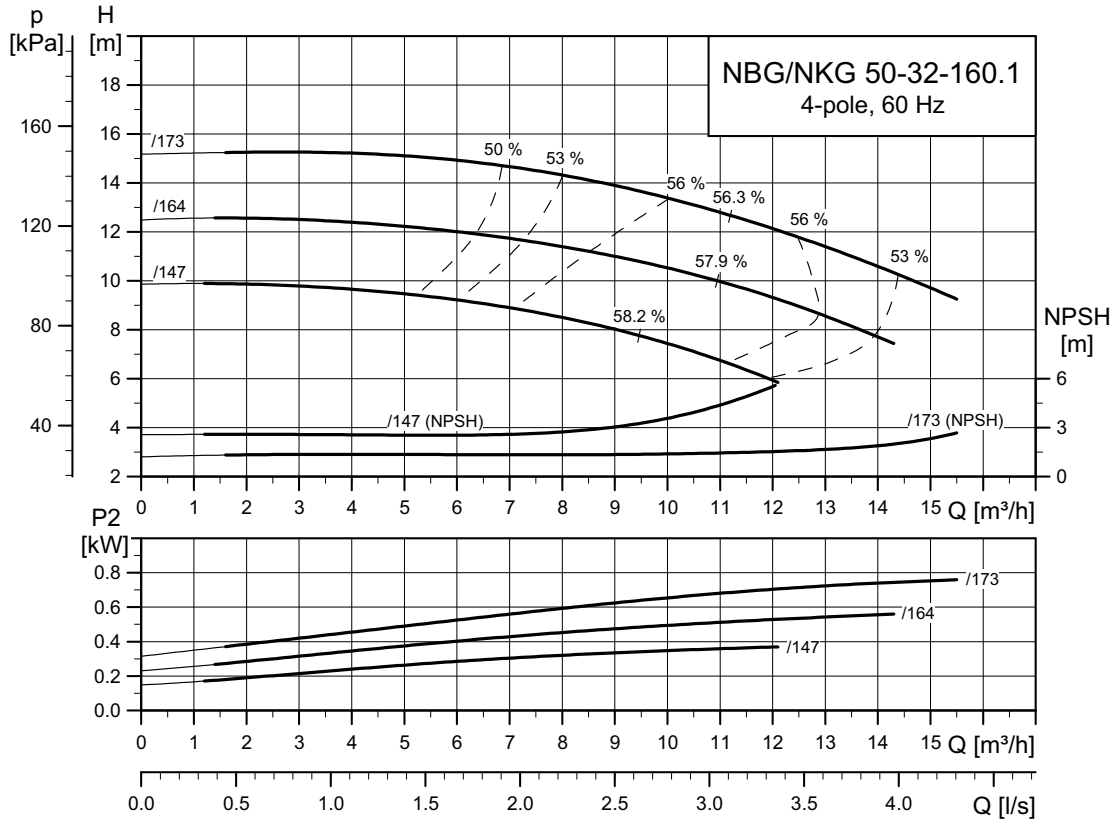


TM03 5027 3414

NBG, NKG 50-32-160.1



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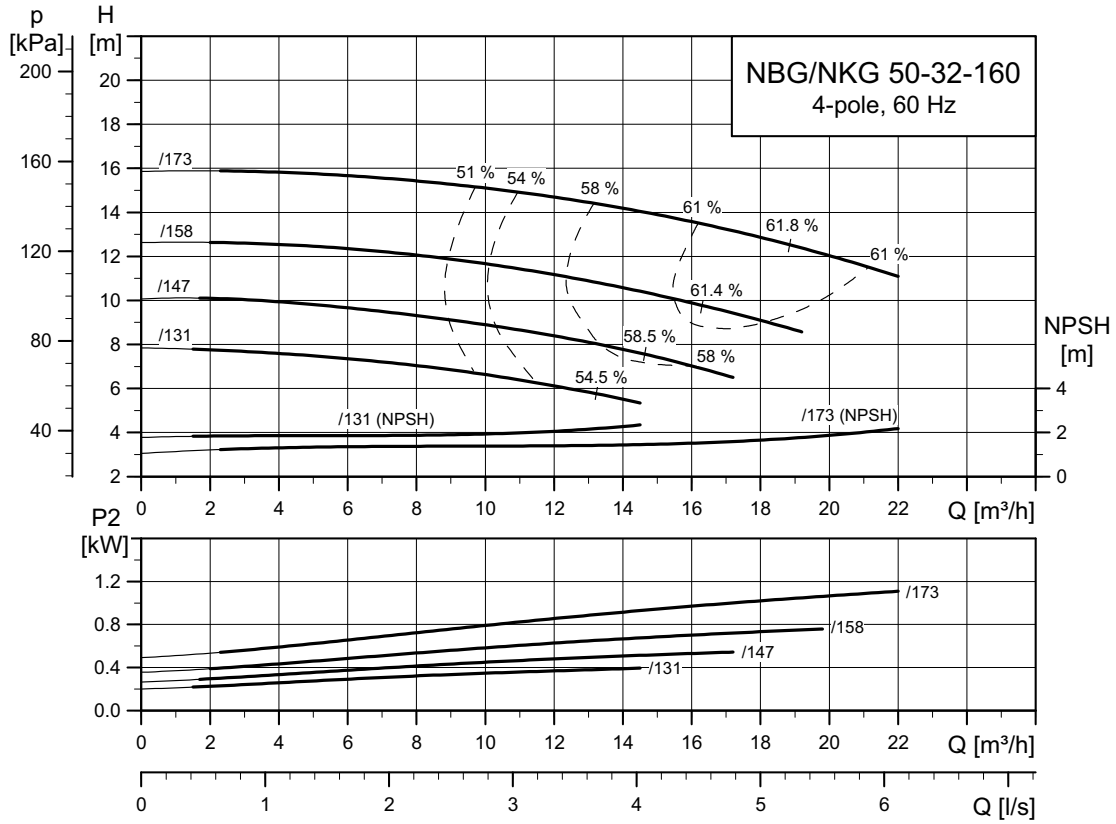

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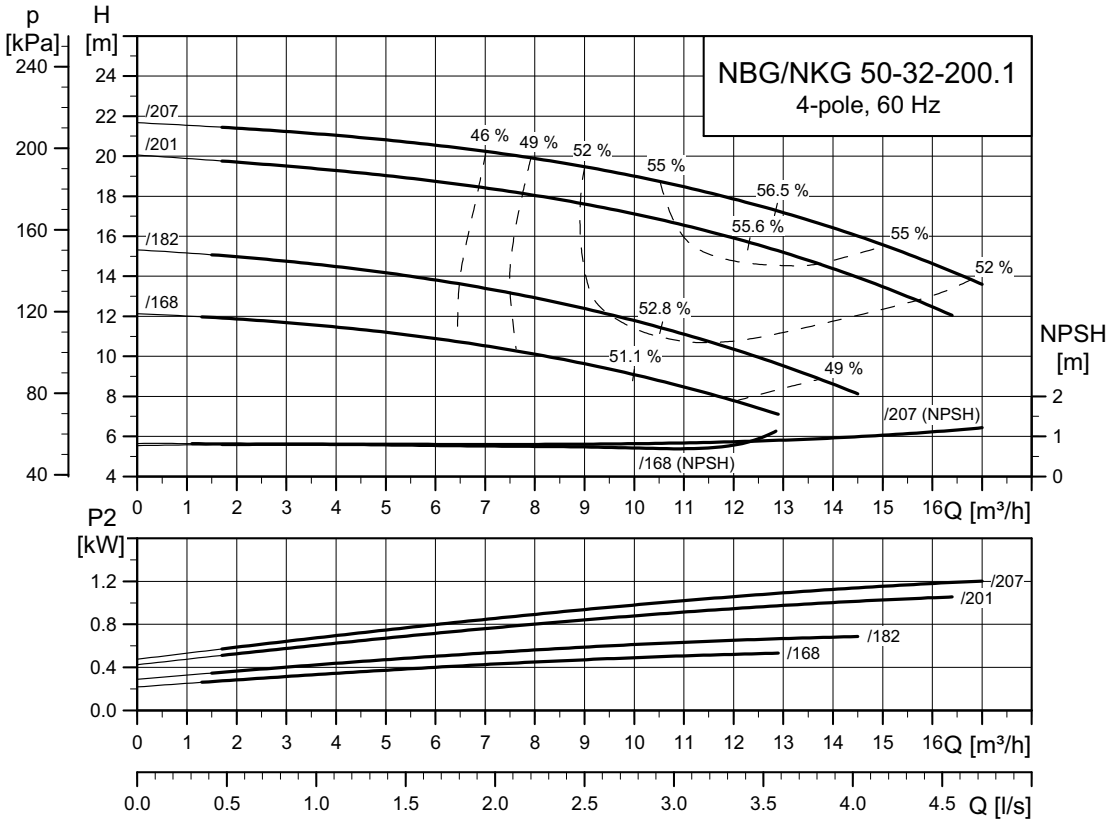

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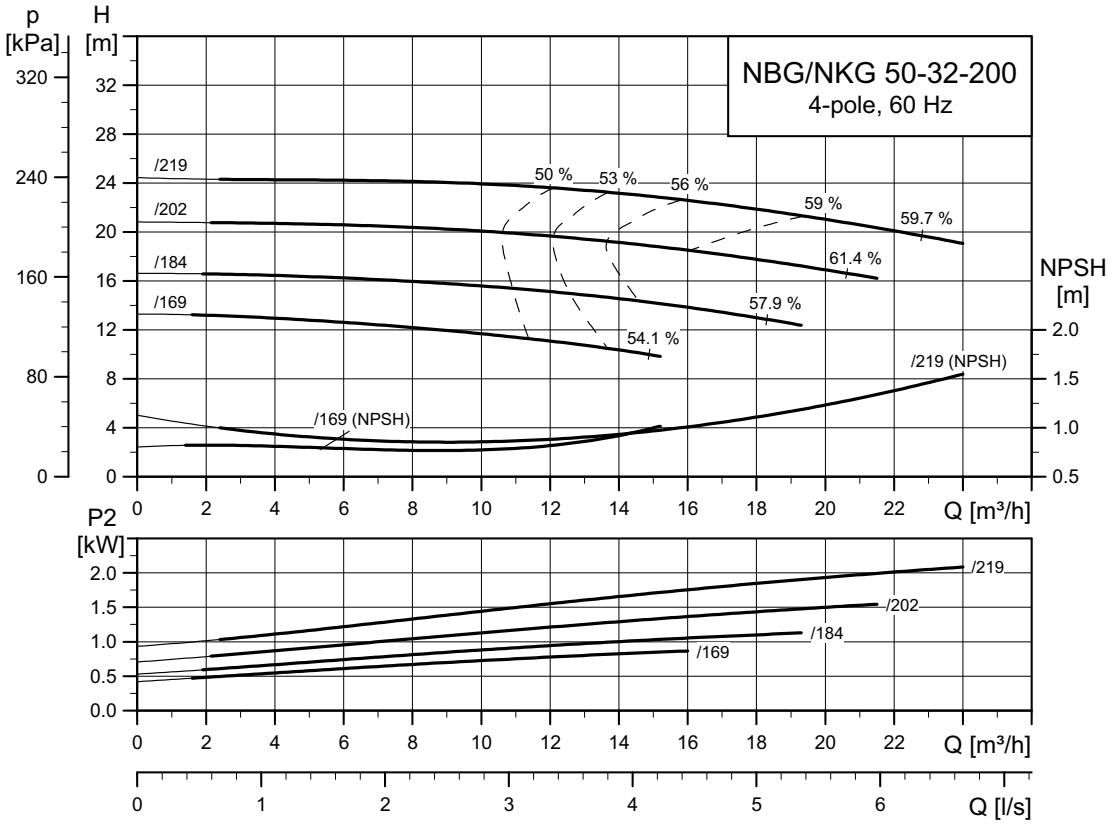
NBG, NKG 50-32-200



TM03 5029 3414

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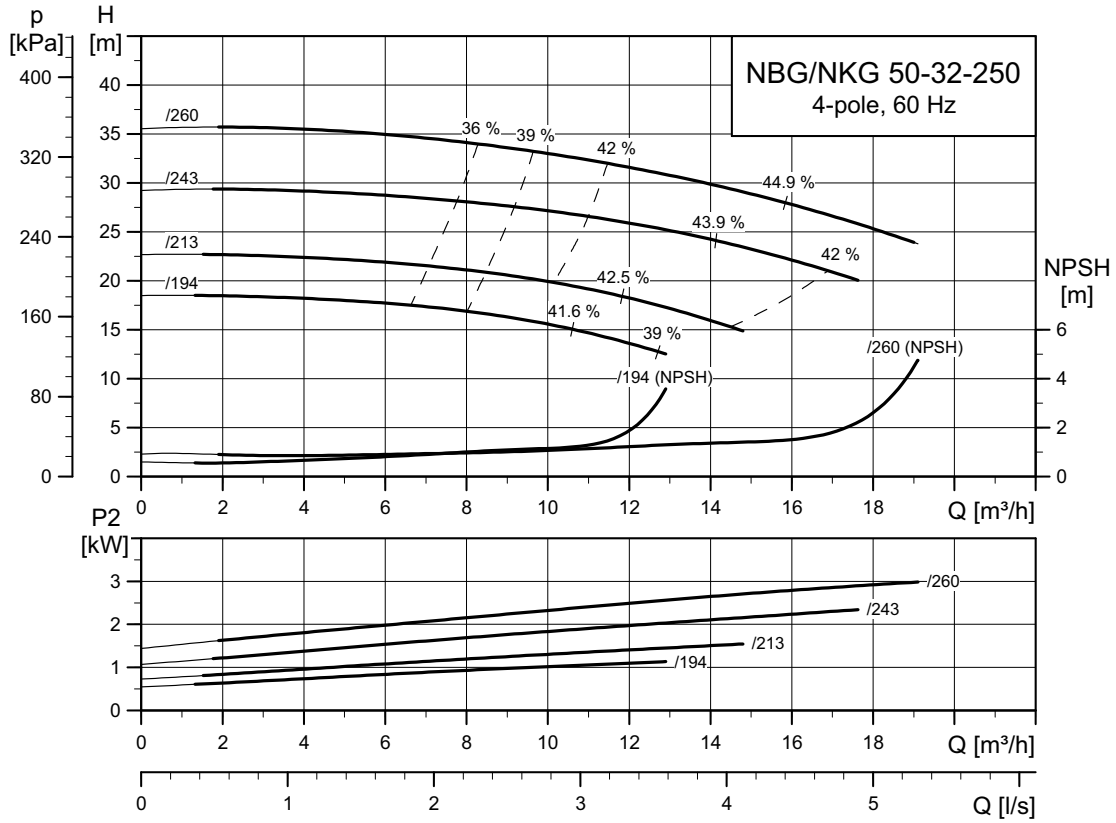

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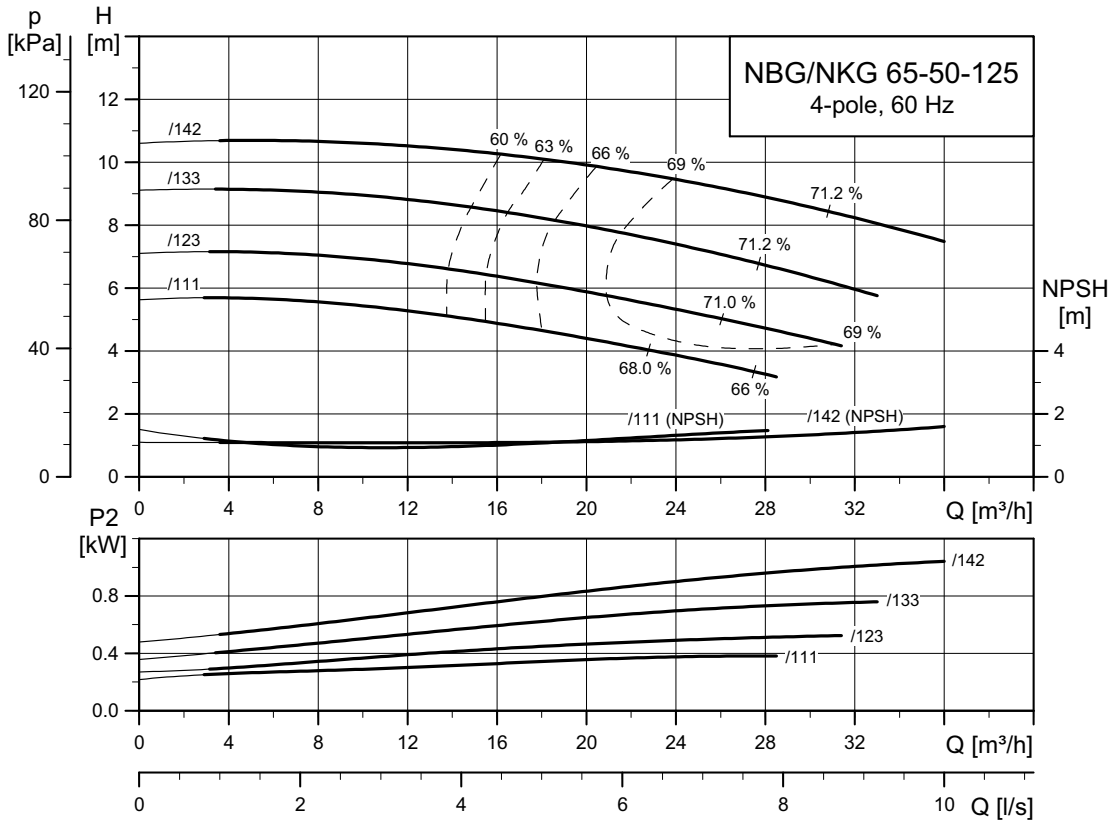
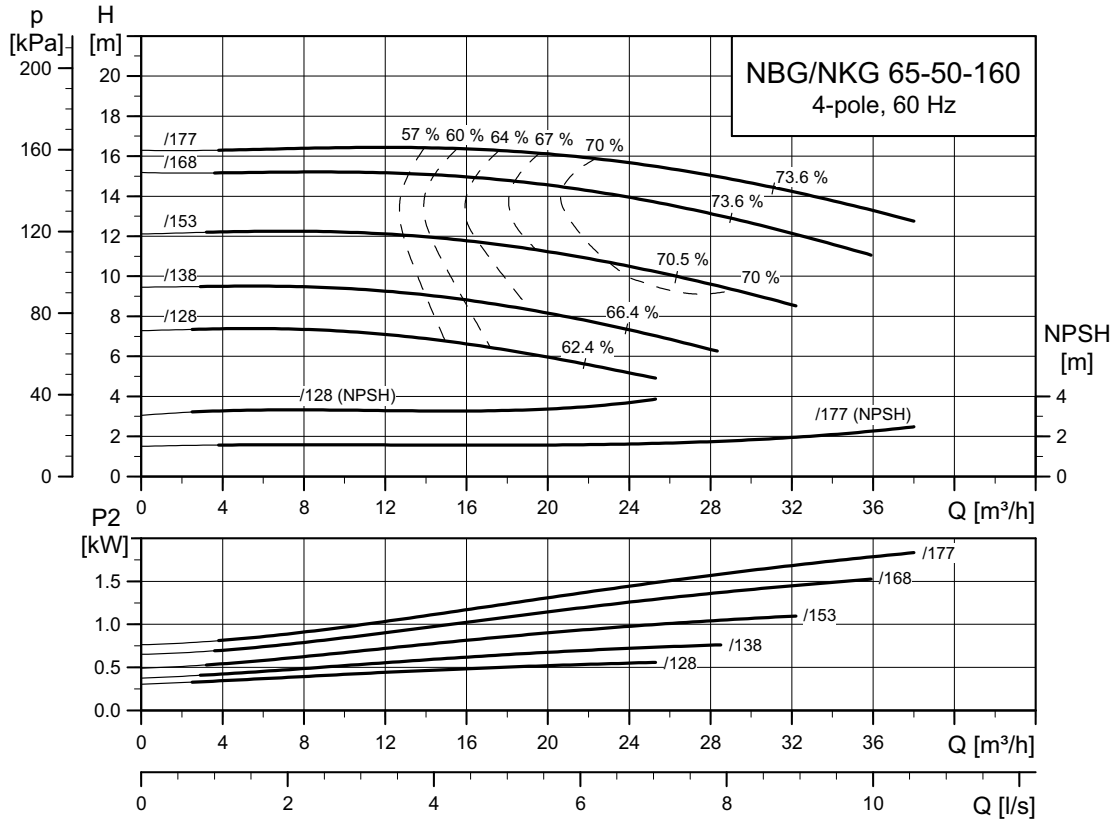
NBG, NKG 65-50-125



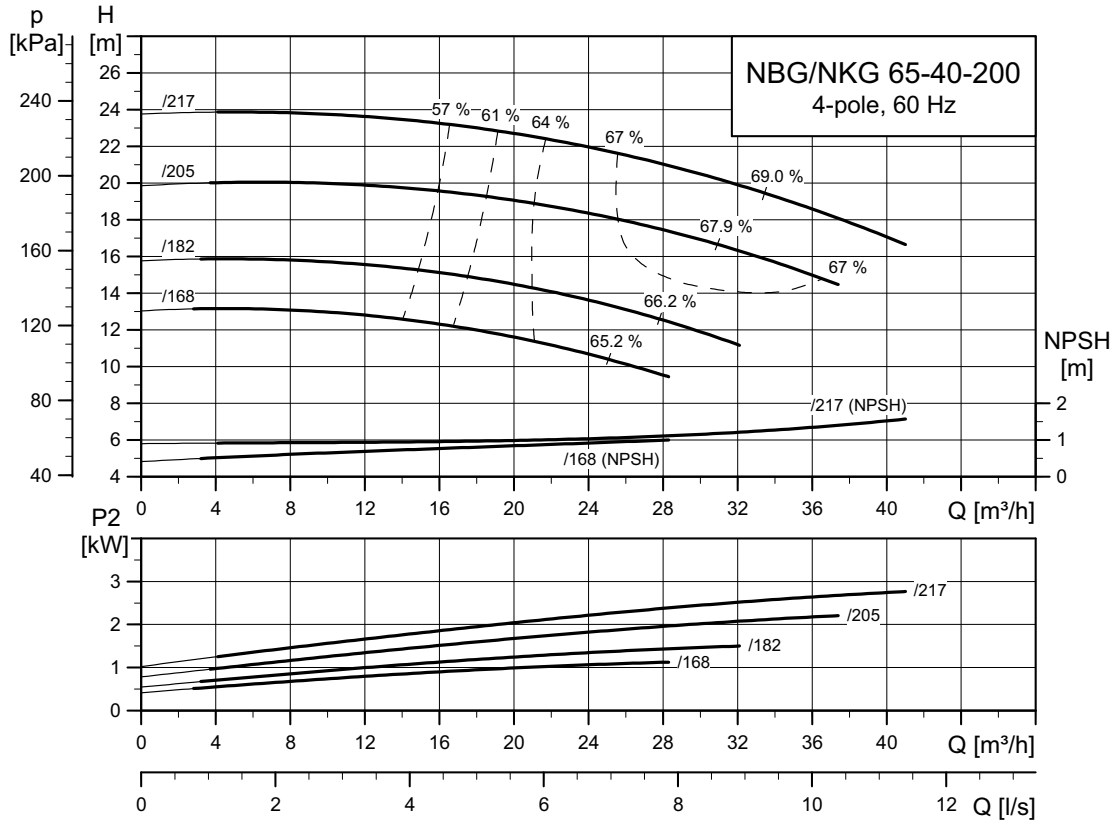
TM03 5031 3414

NBG, NKG 65-50-160



TM03 5032 3414

NBG, NKG 65-40-200



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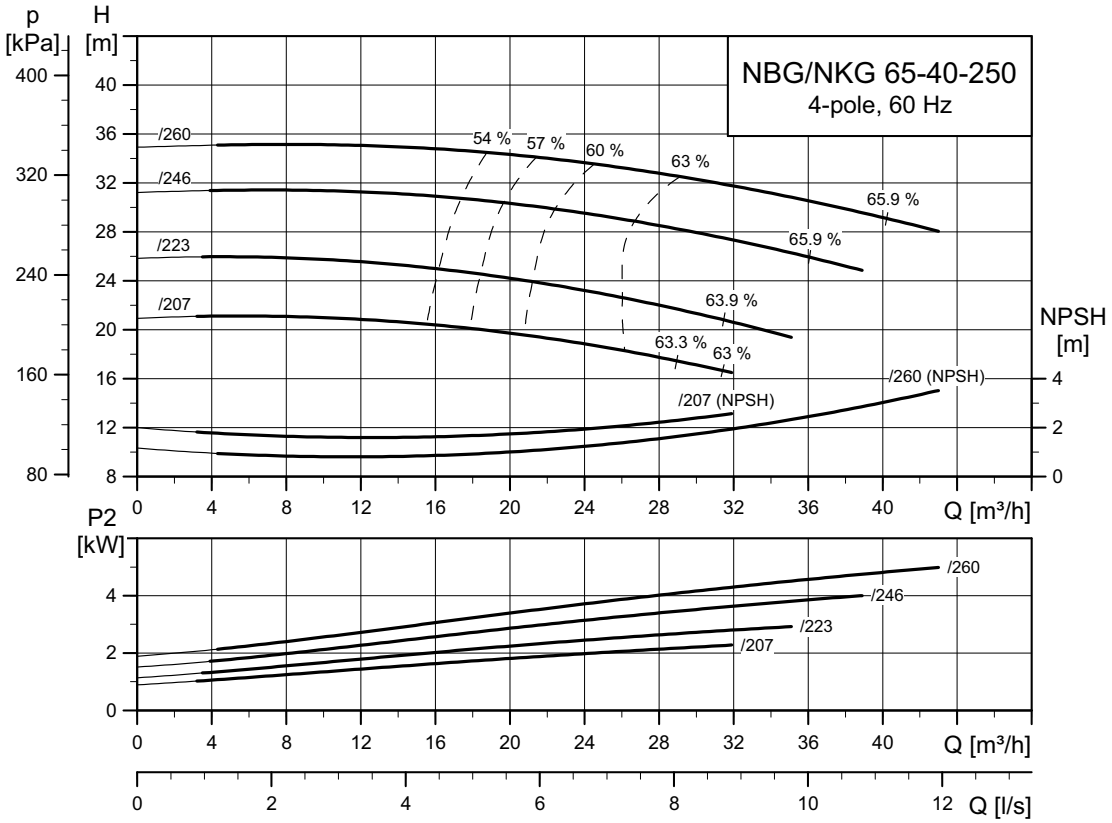
NBG, NKG 65-40-250



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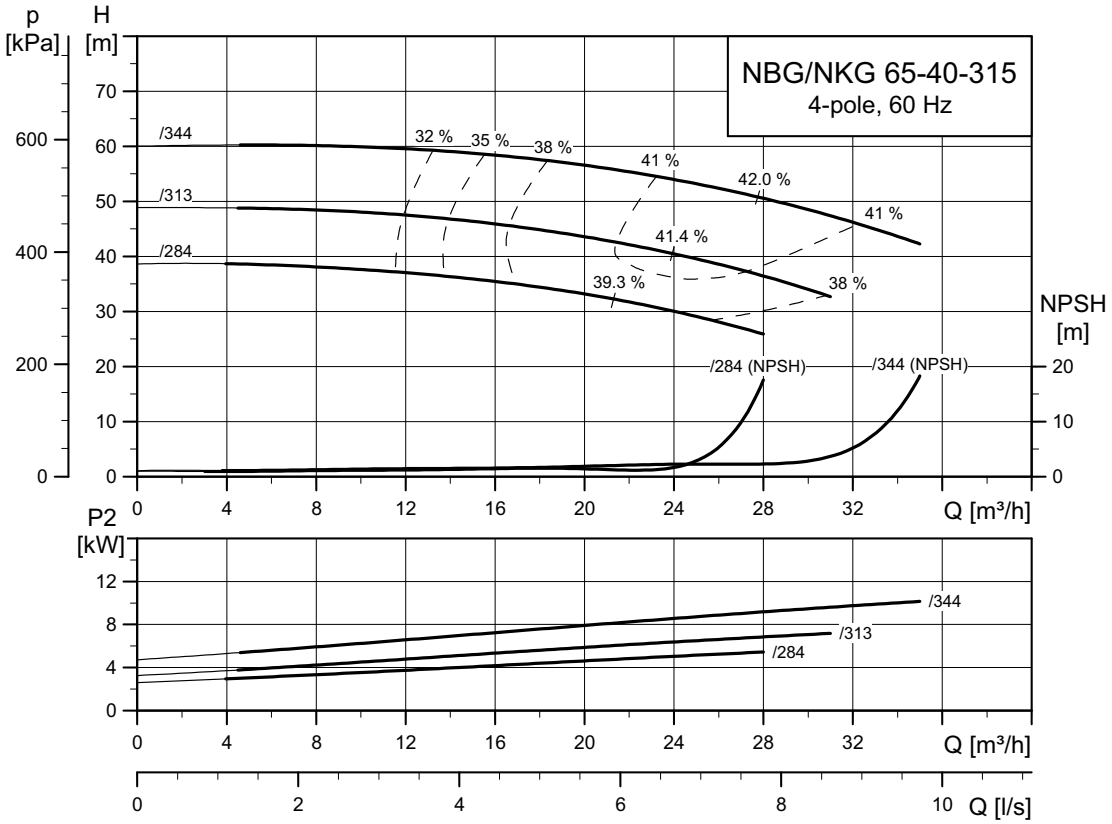
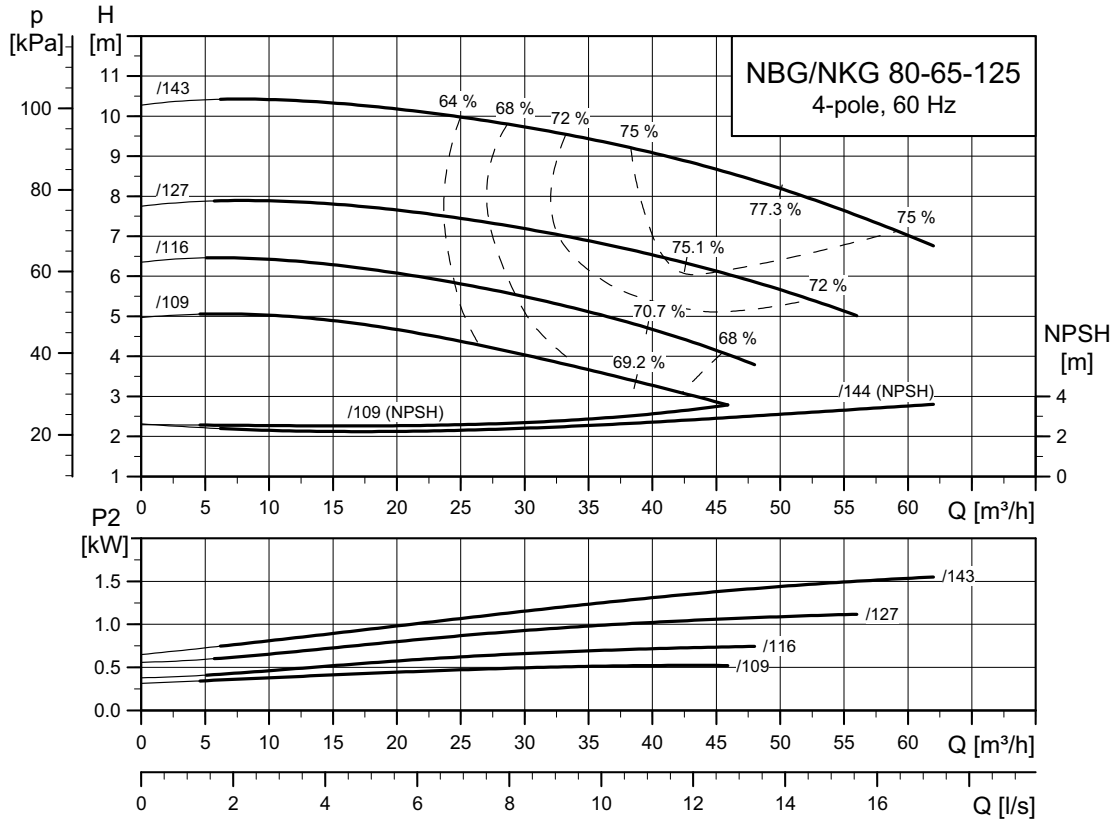
NBG, NKG 65-40-315

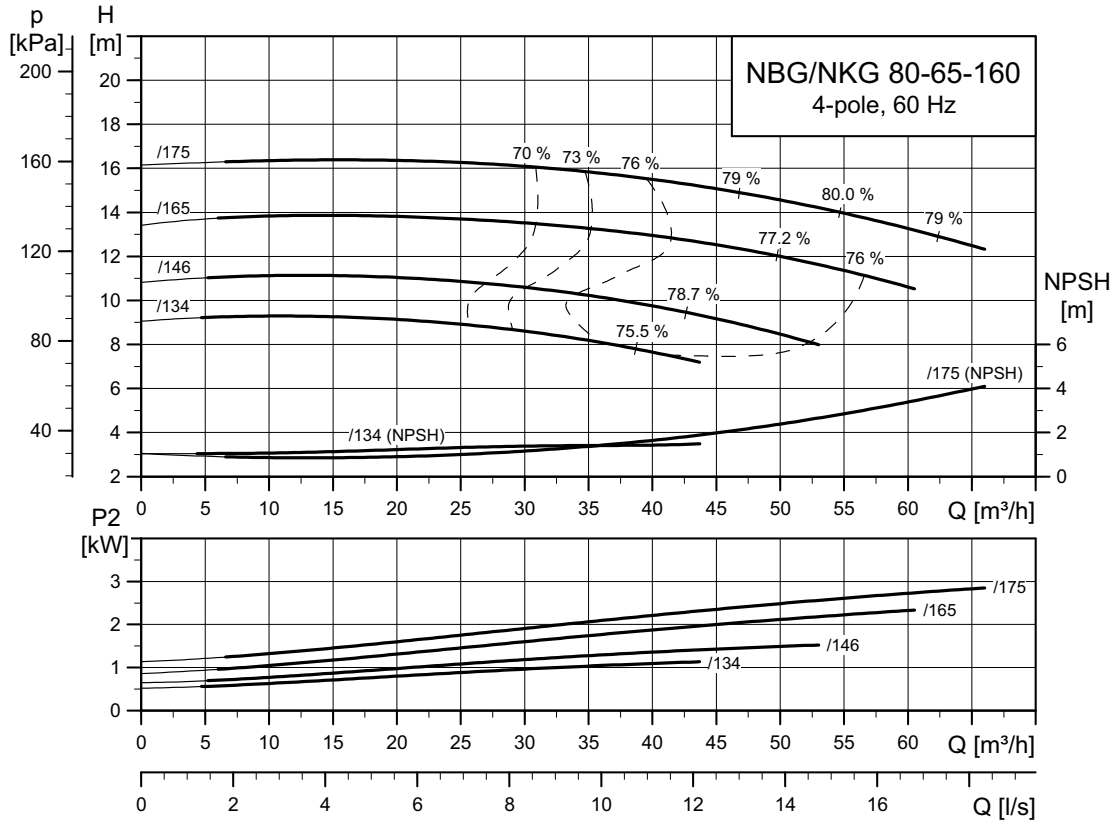


TM03 5035 3414

NBG, NKG 80-65-125



NBG, NKG 80-65-160



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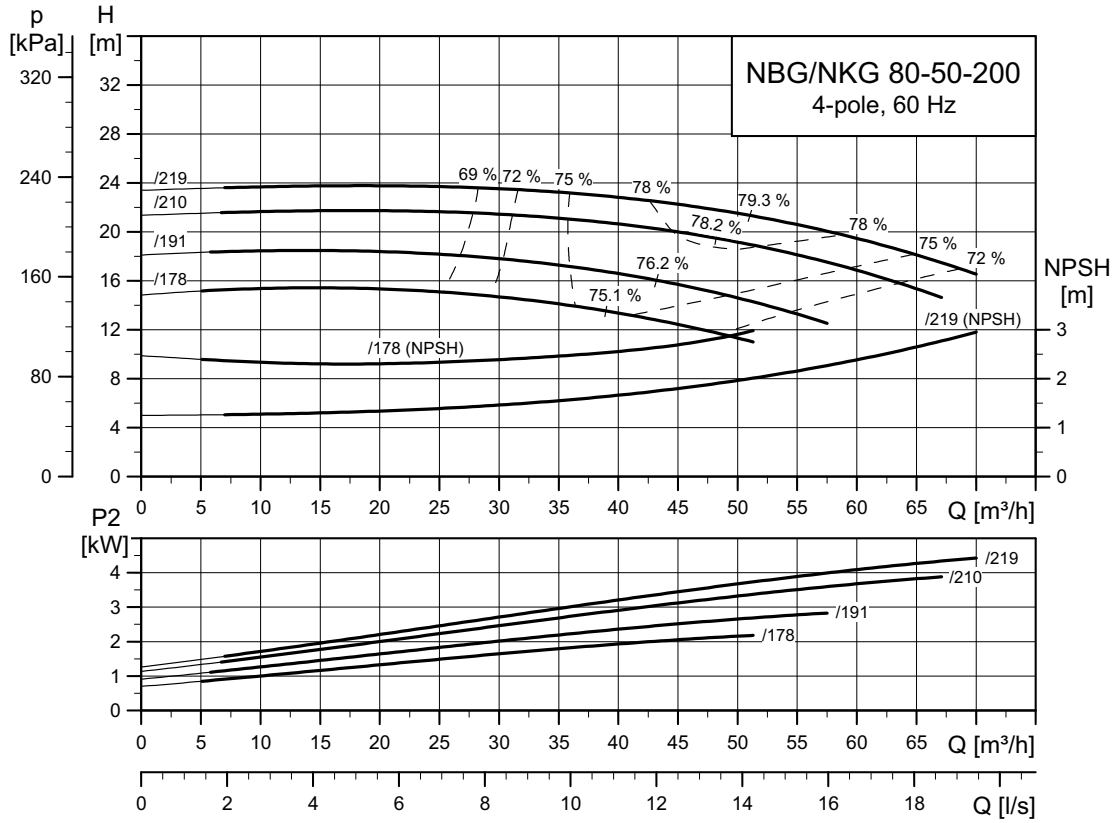

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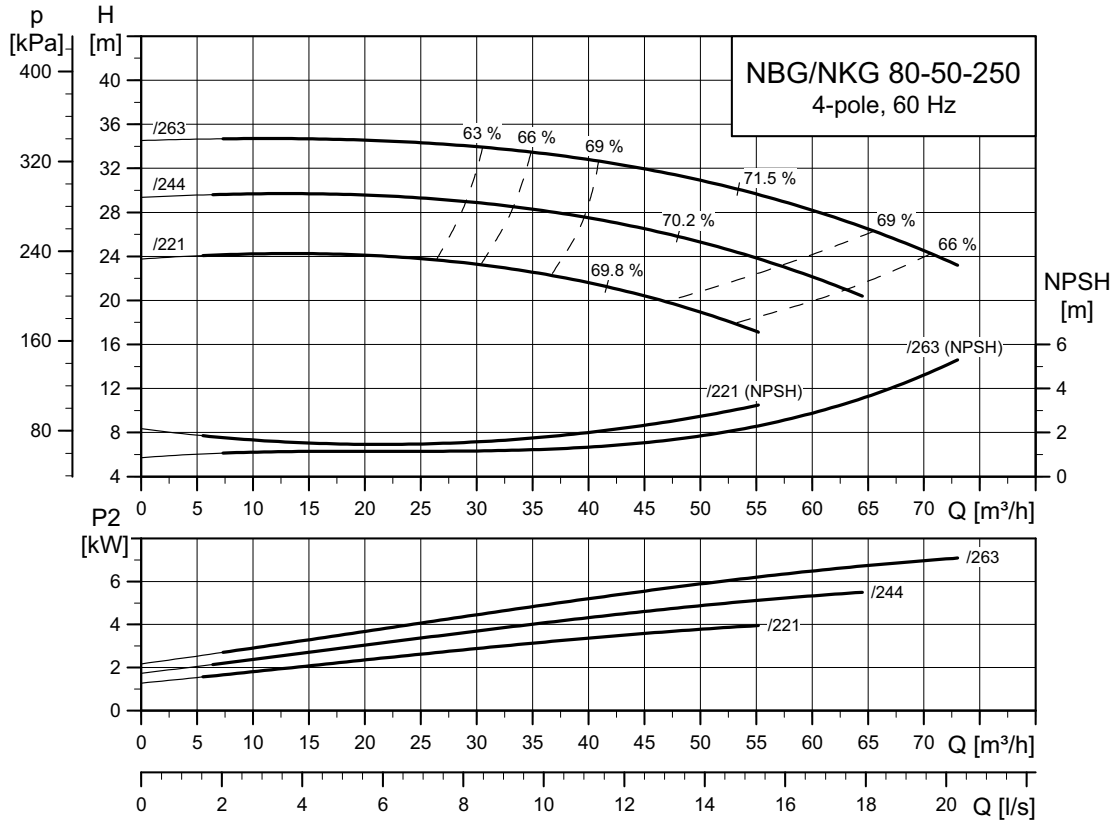

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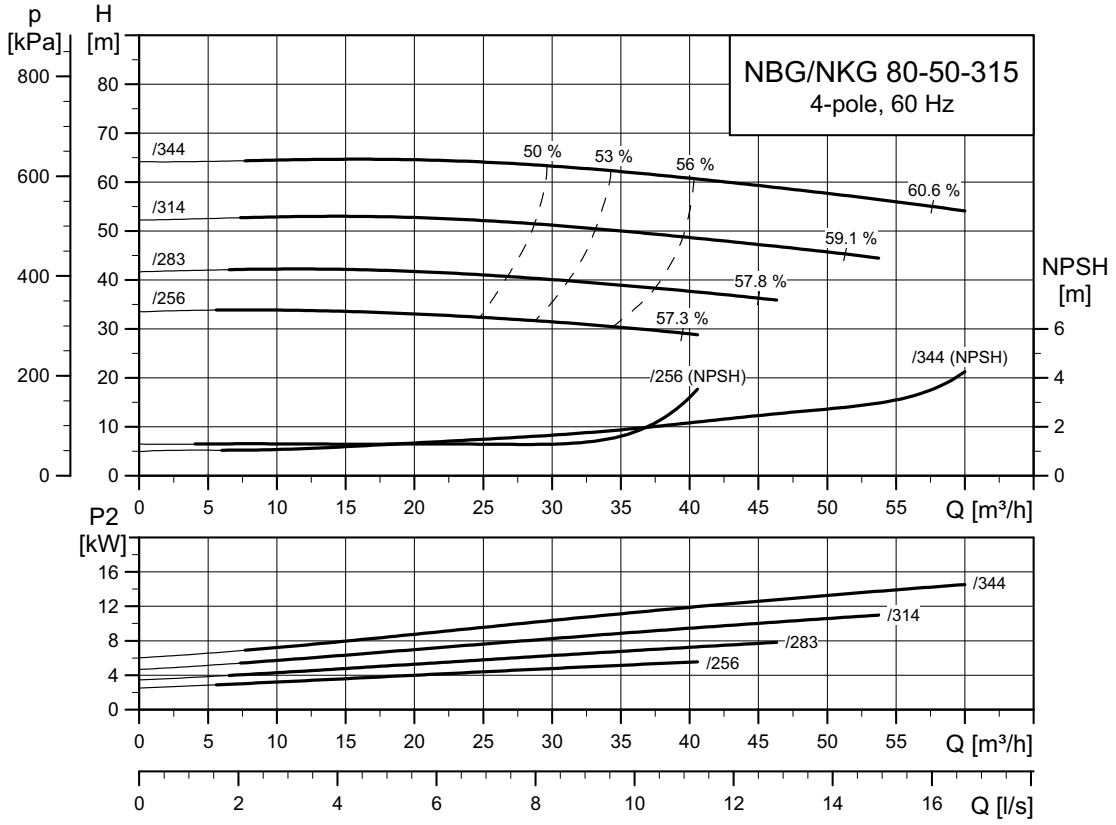
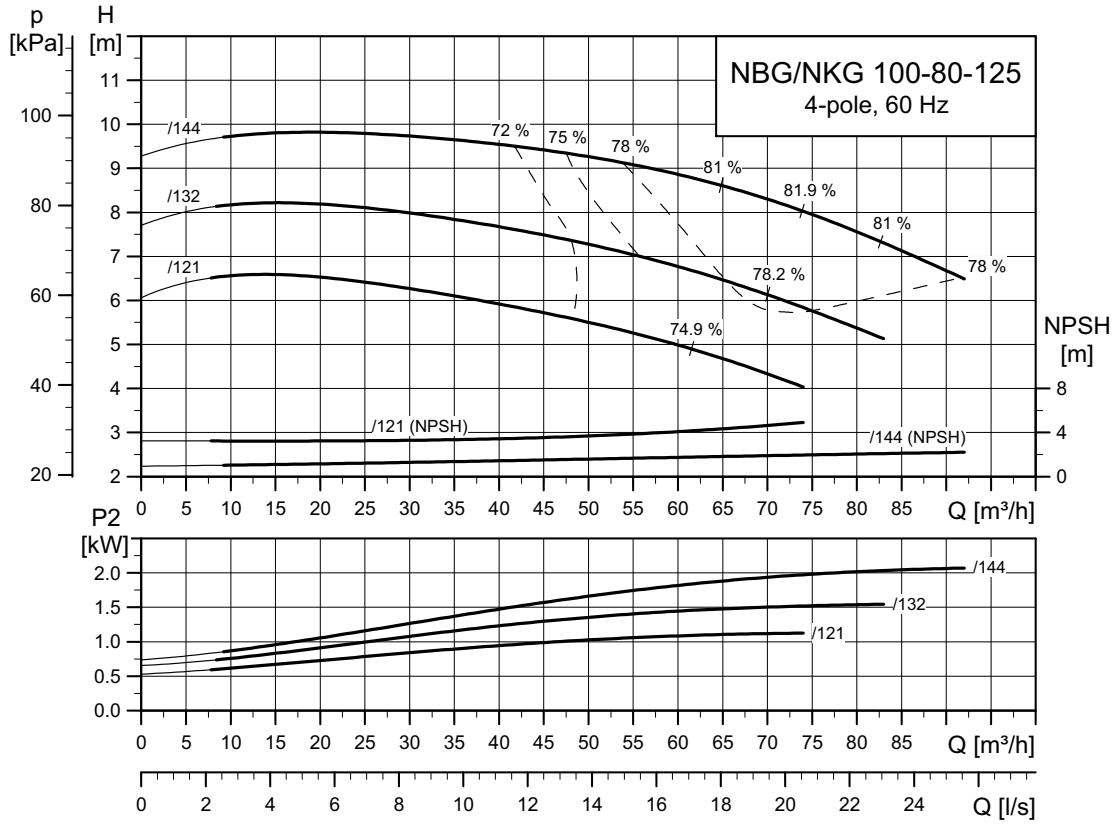


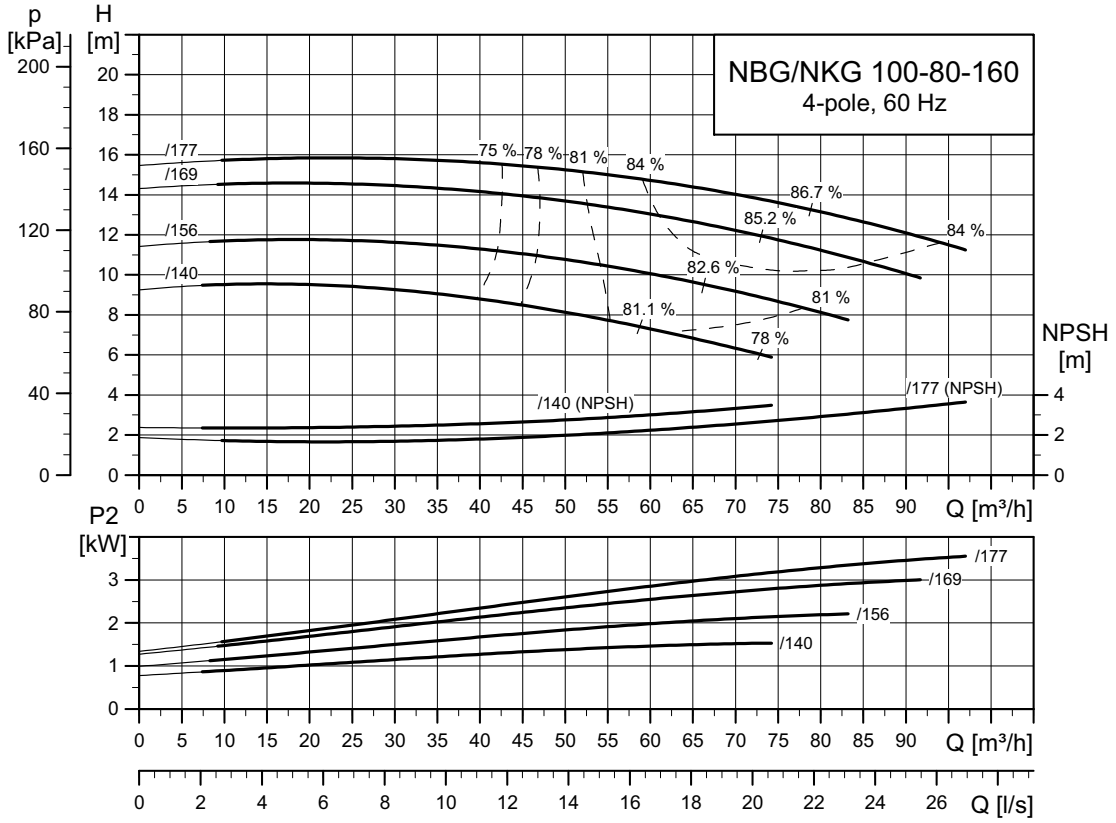
TM03 5040 3414

NBG, NKG 100-80-125



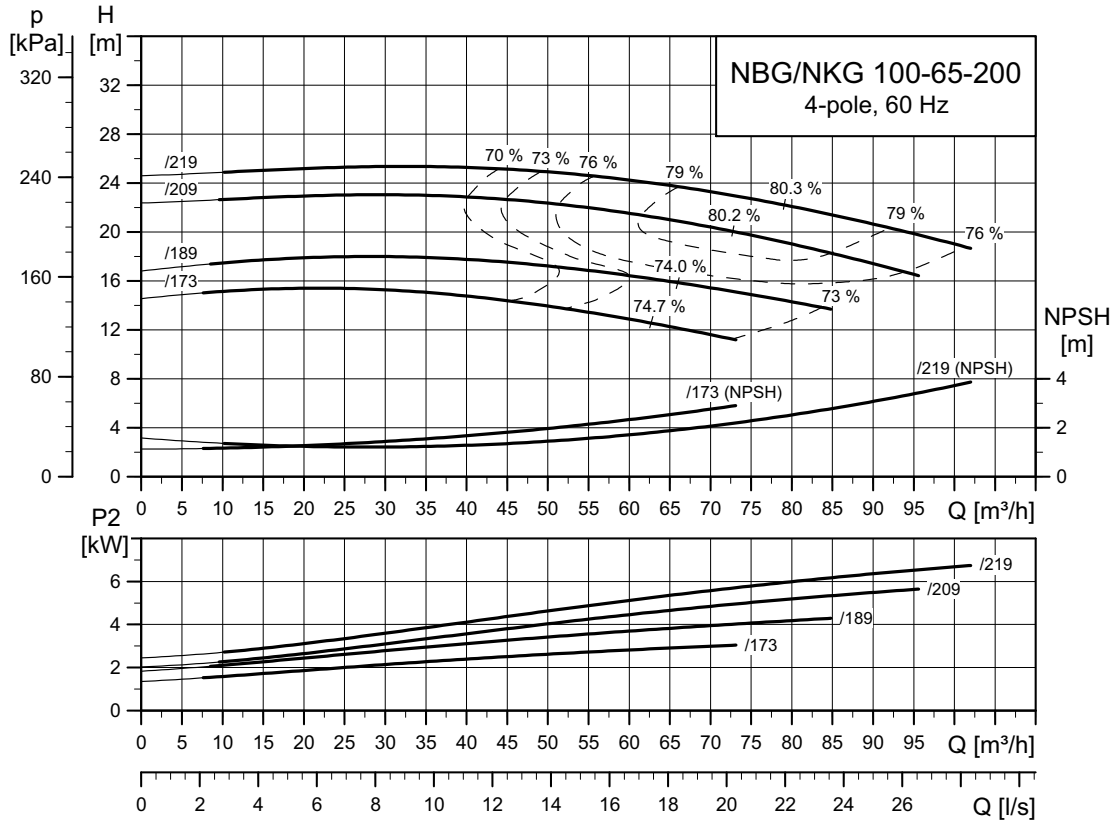
TM03 5041 3414

NBG, NKG 100-80-160



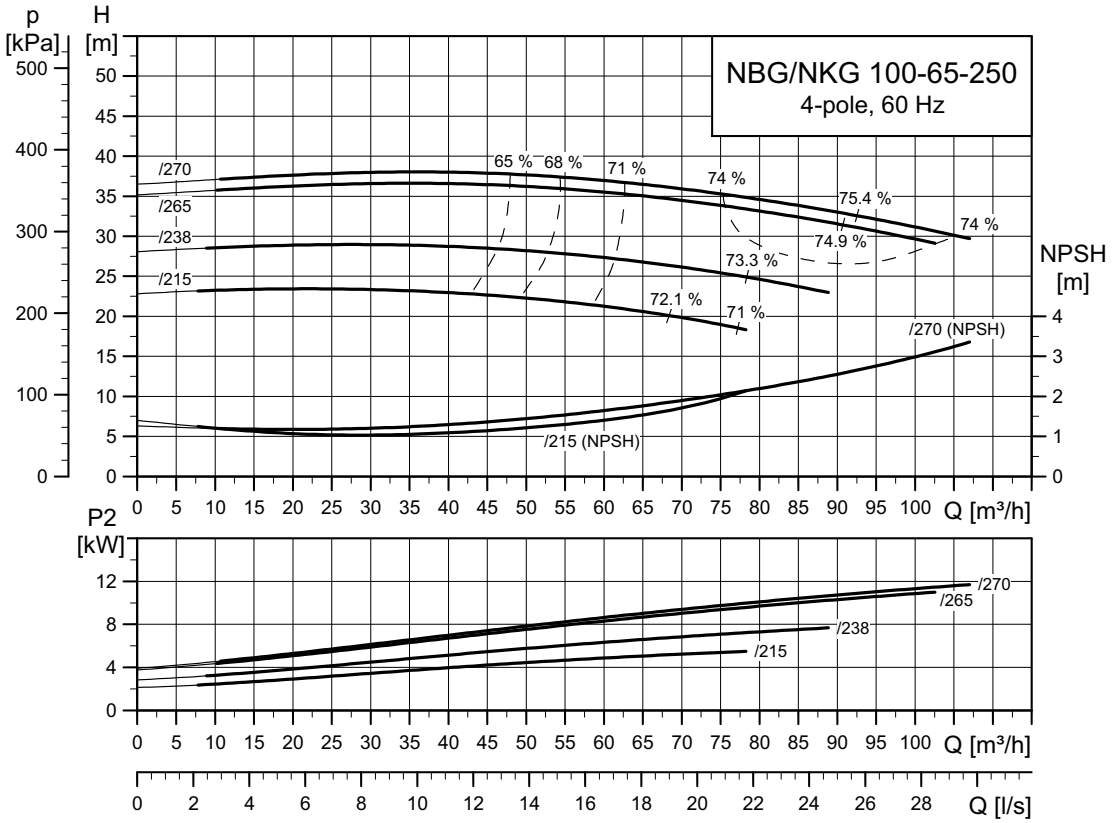
TM03 5042 3414

NBG, NKG 100-65-200



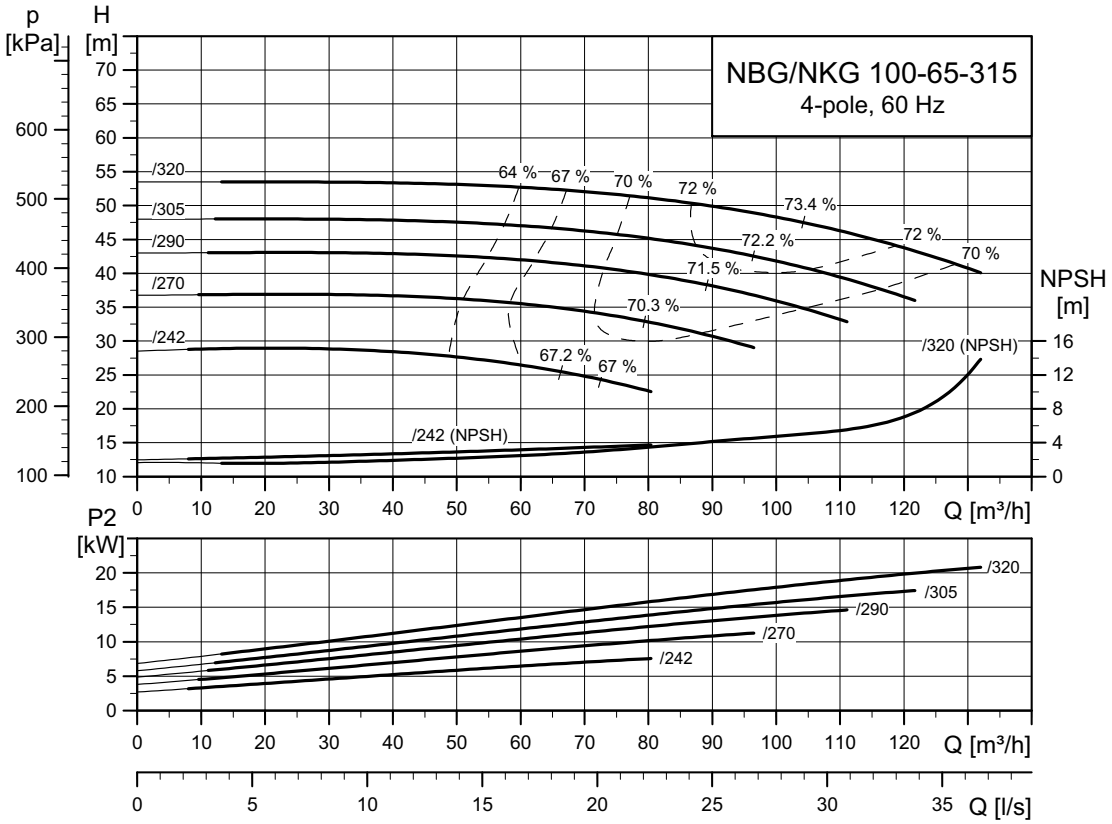
TM03 5043 3414

NBG, NKG 100-65-250



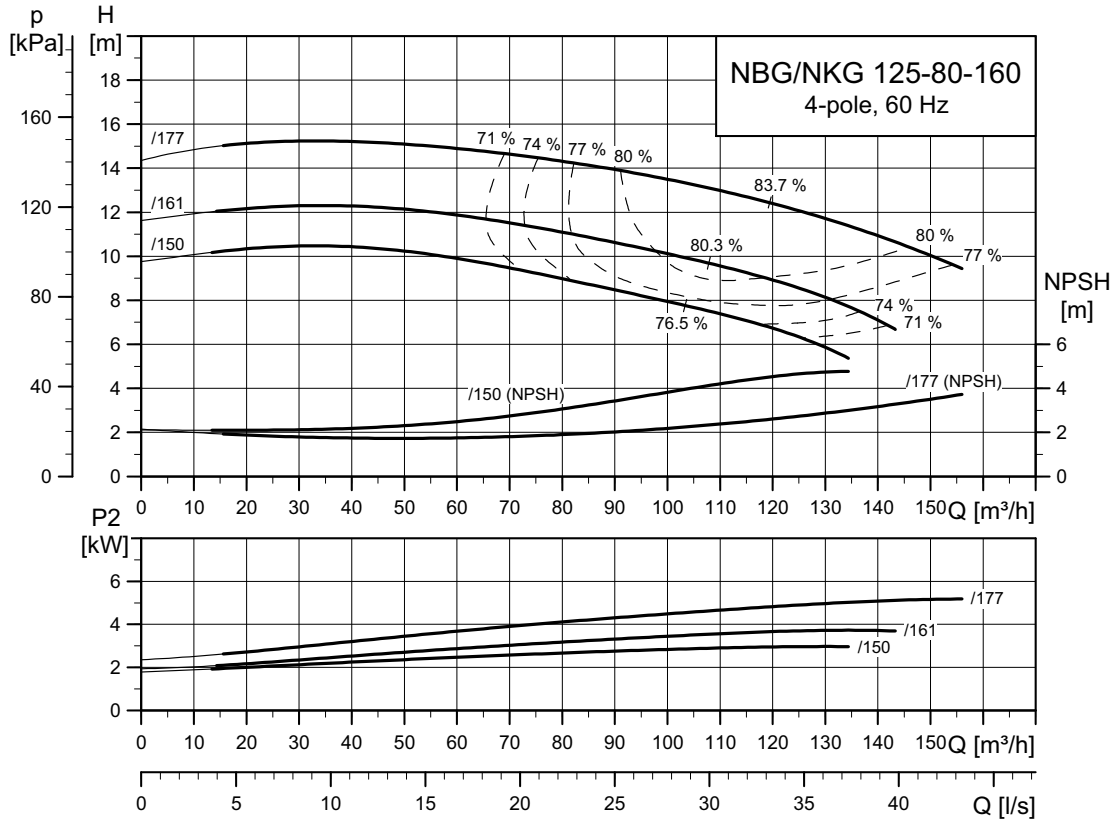
TM03 5044 3414

NBG, NKG 100-65-315



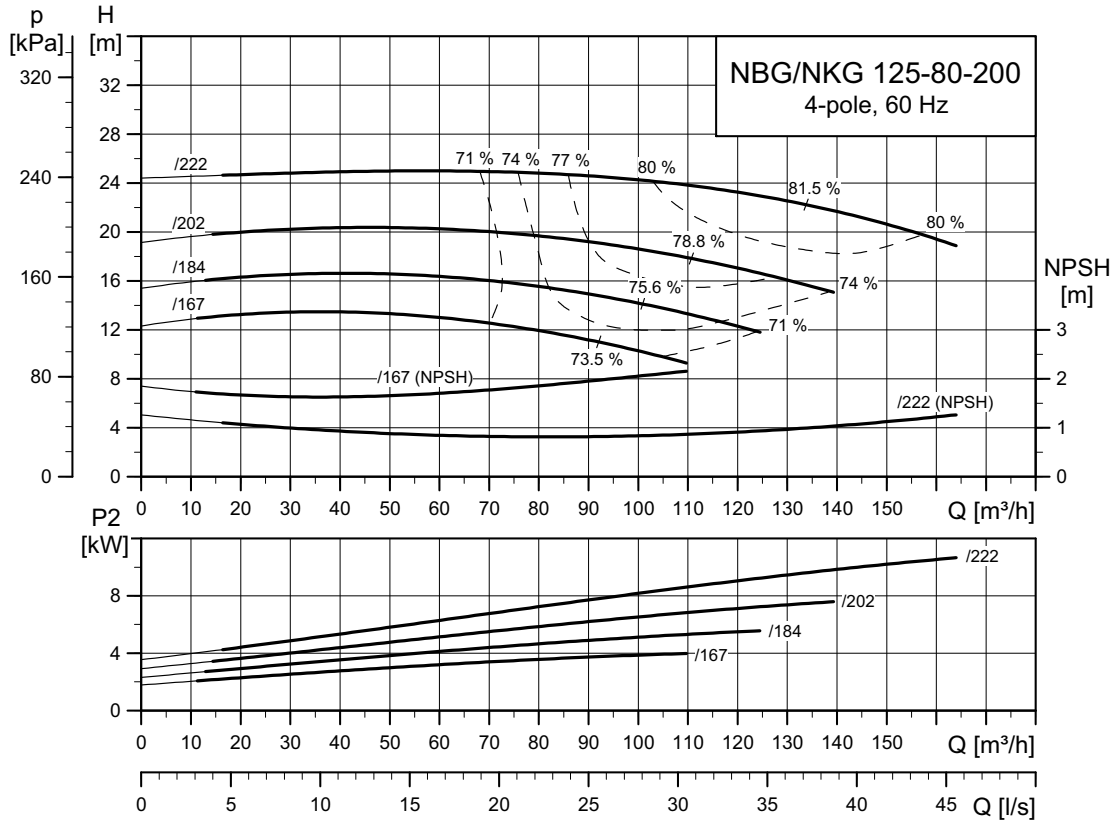
TM03 5045 3414

NBG, NKG 125-80-160



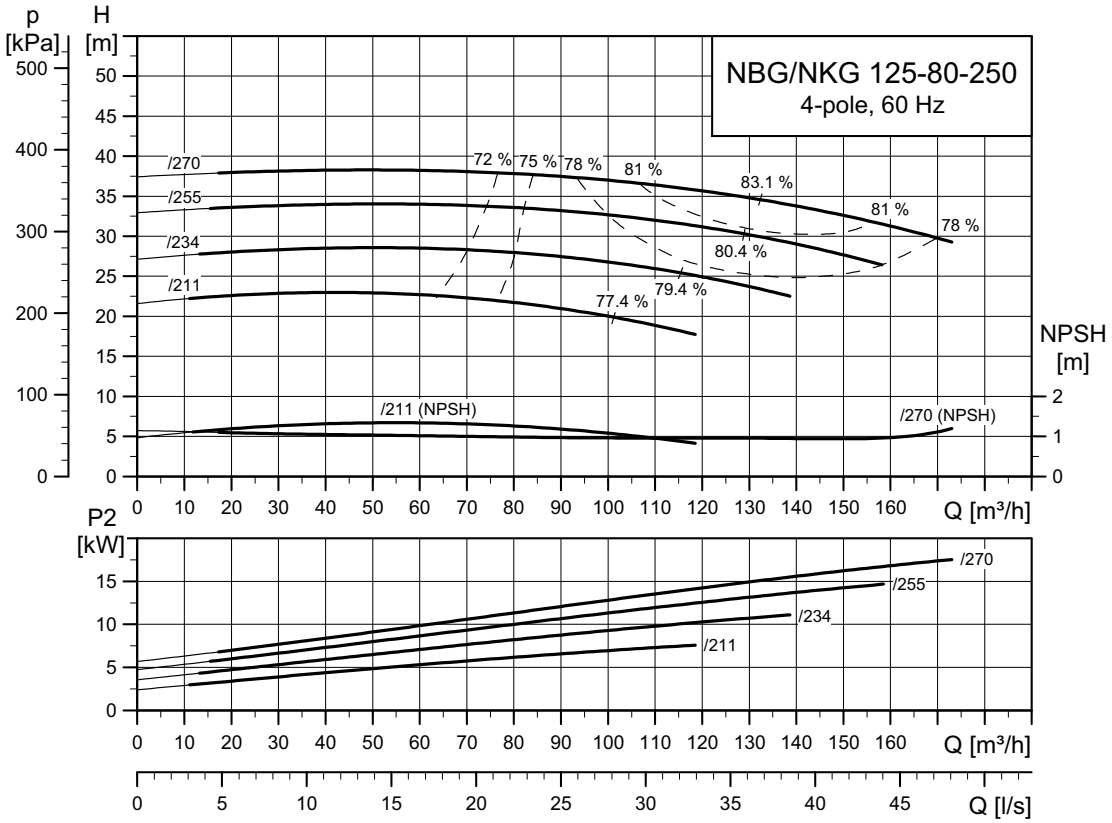
TM03 5046 3414

NBG, NKG 125-80-200



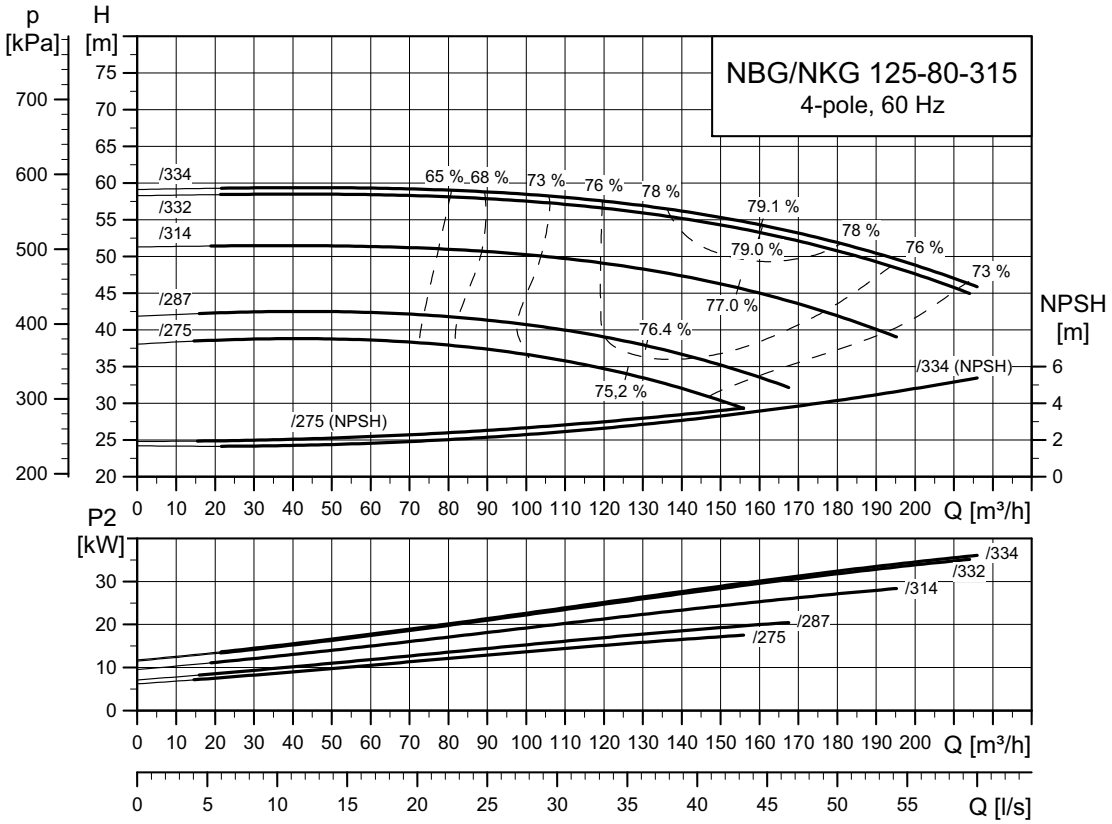
TM03 5047 3414

NBG, NKG 125-80-250



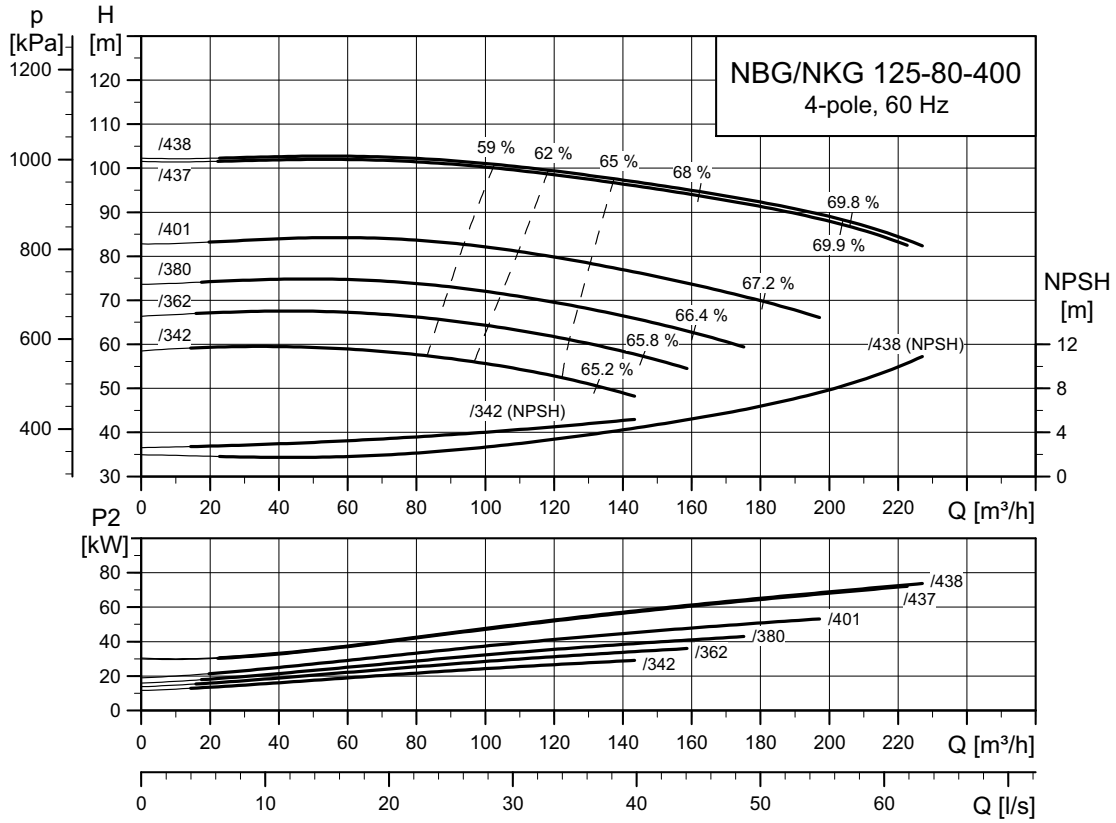
TM03 5048 3414

NBG, NKG 125-80-315



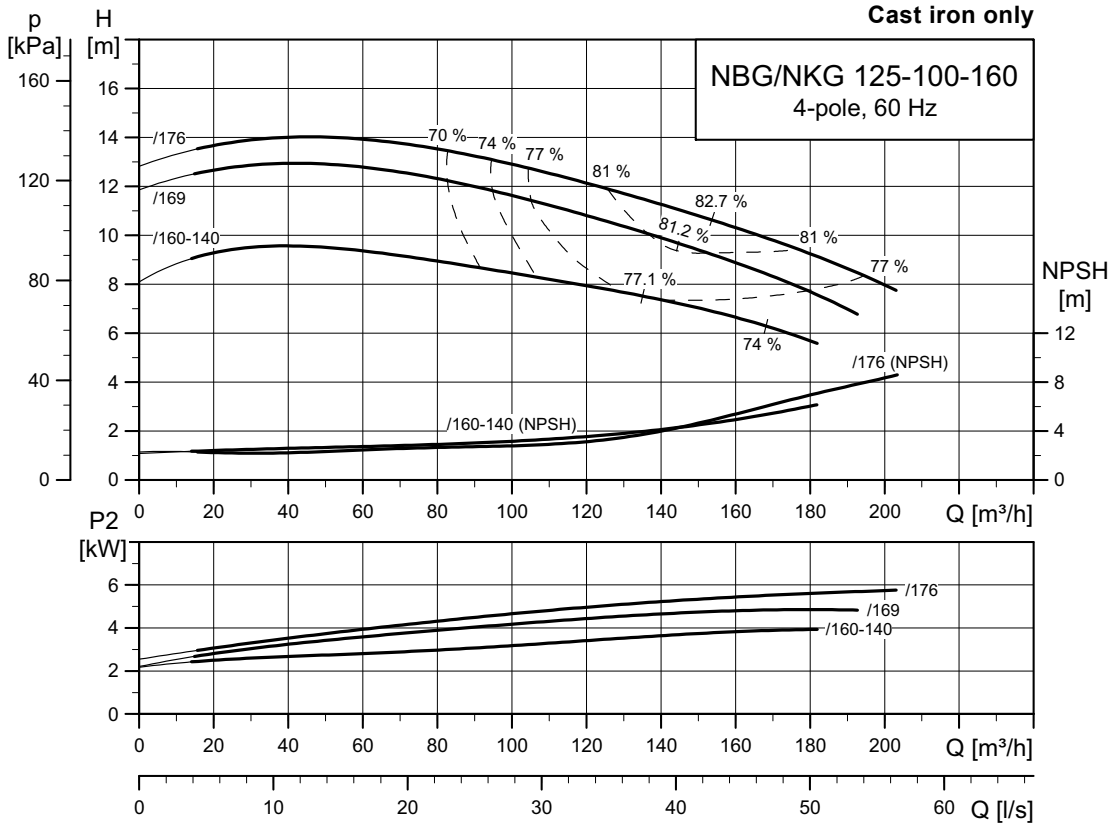
TM03 5049 3414

NBG, NKG 125-80-400



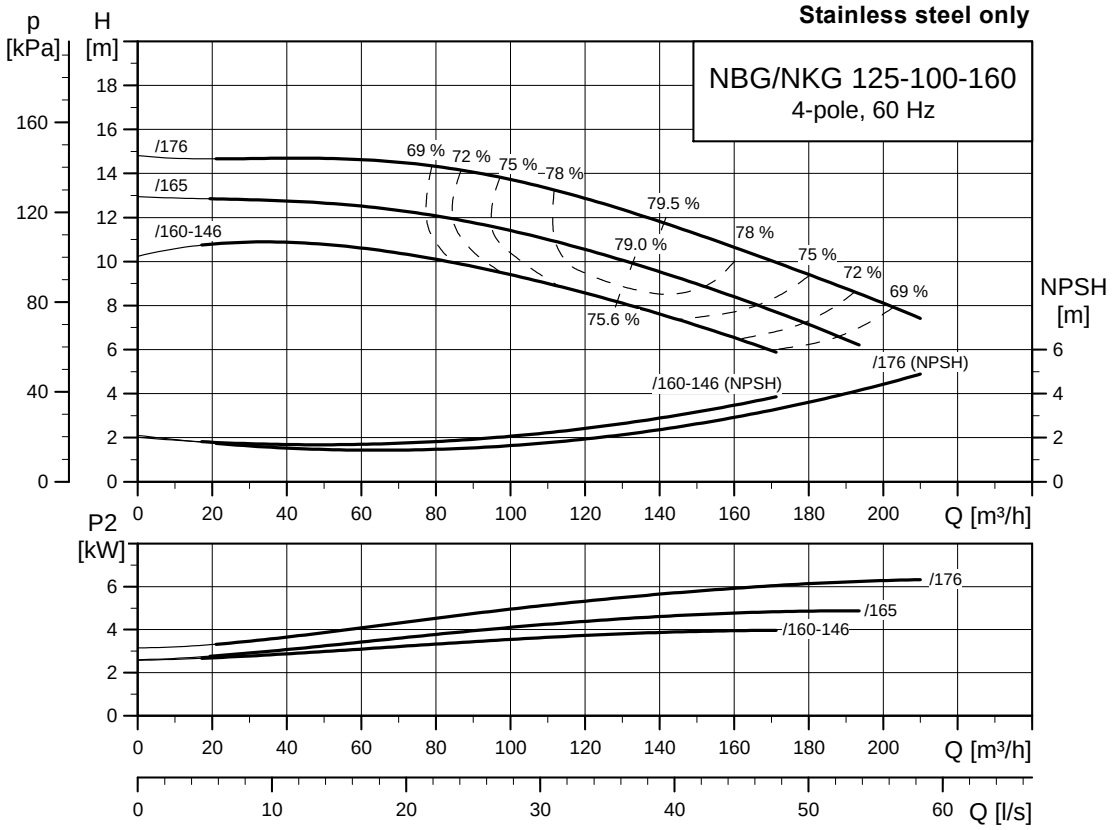
TM03 5050 3414

NBG, NKG 125-100-160



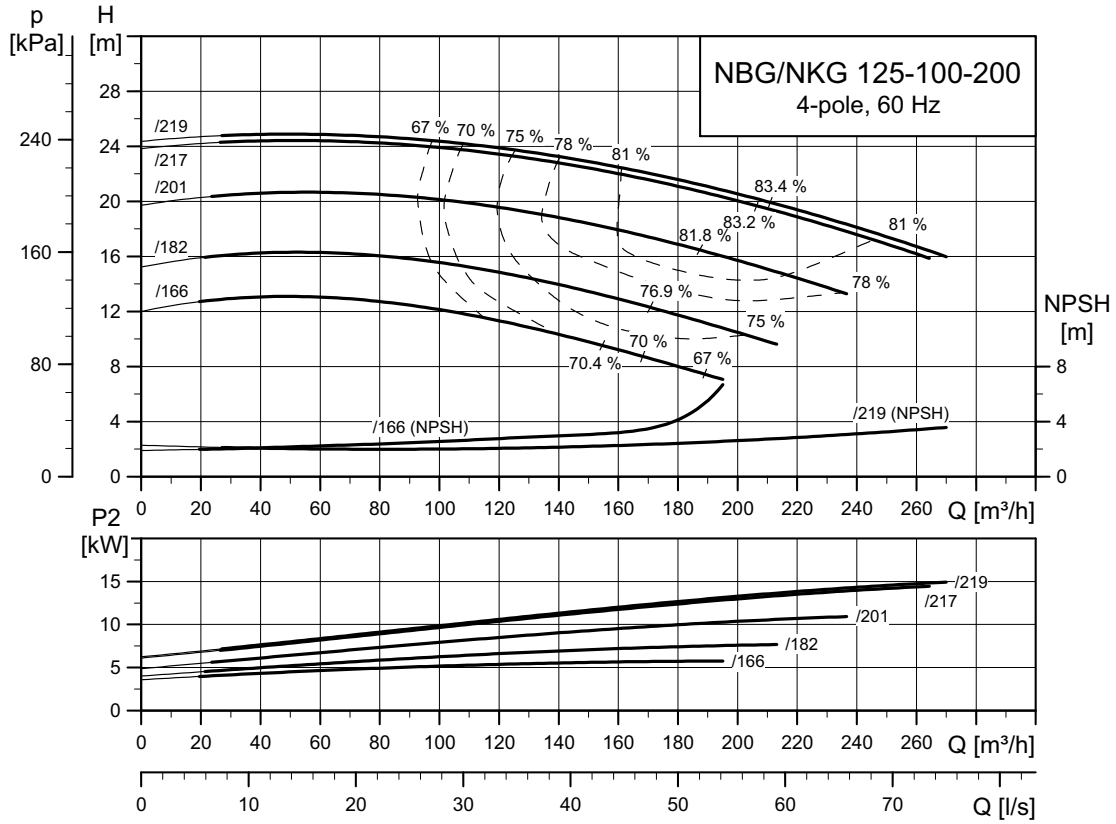
TM03 5051 2316

NBG, NKG 125-100-160



TM06 2727 4614

NBG, NKG 125-100-200



TM03 5052 3414

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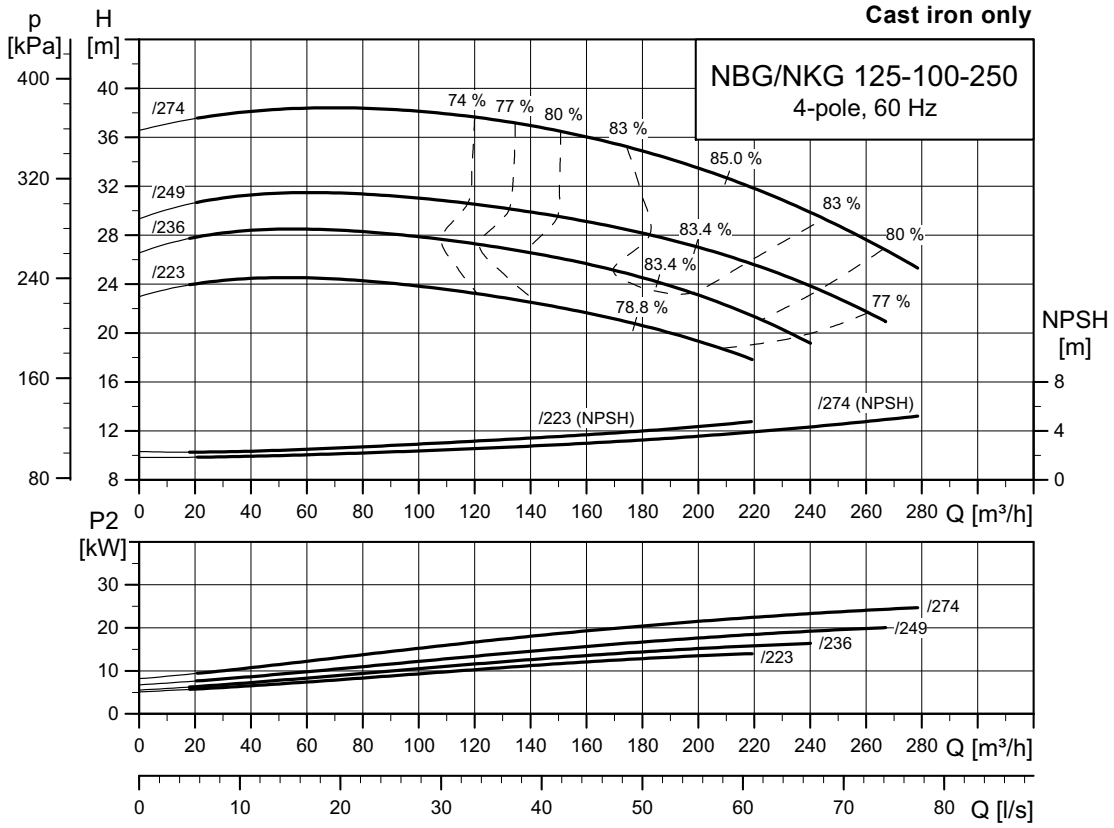

TM03 5053 2316

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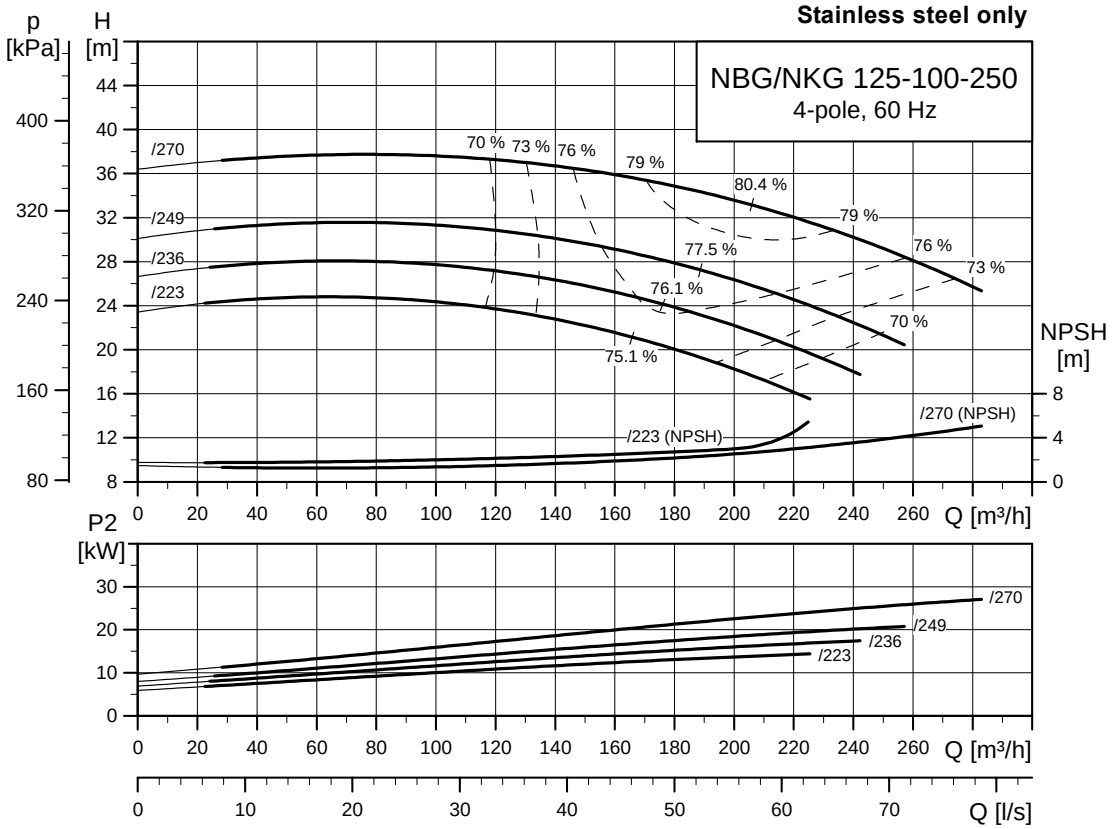
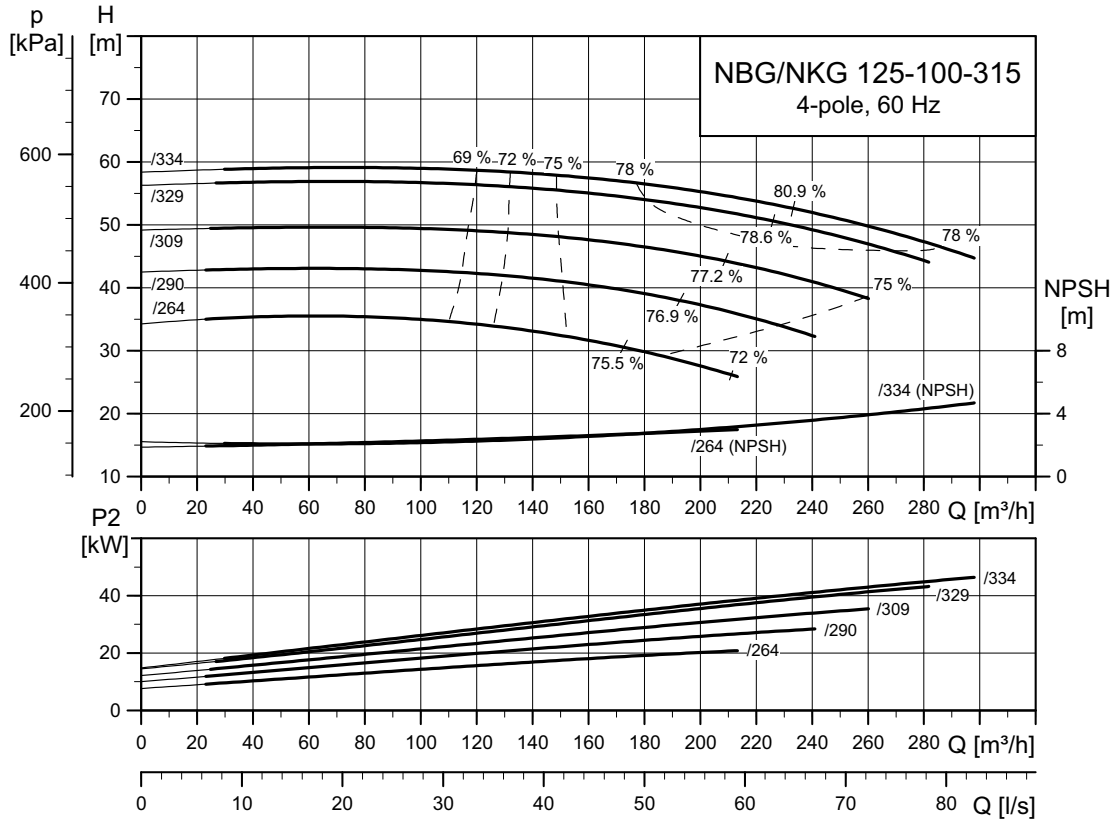


TM06 2728 4614

NBG, NKG 125-100-315



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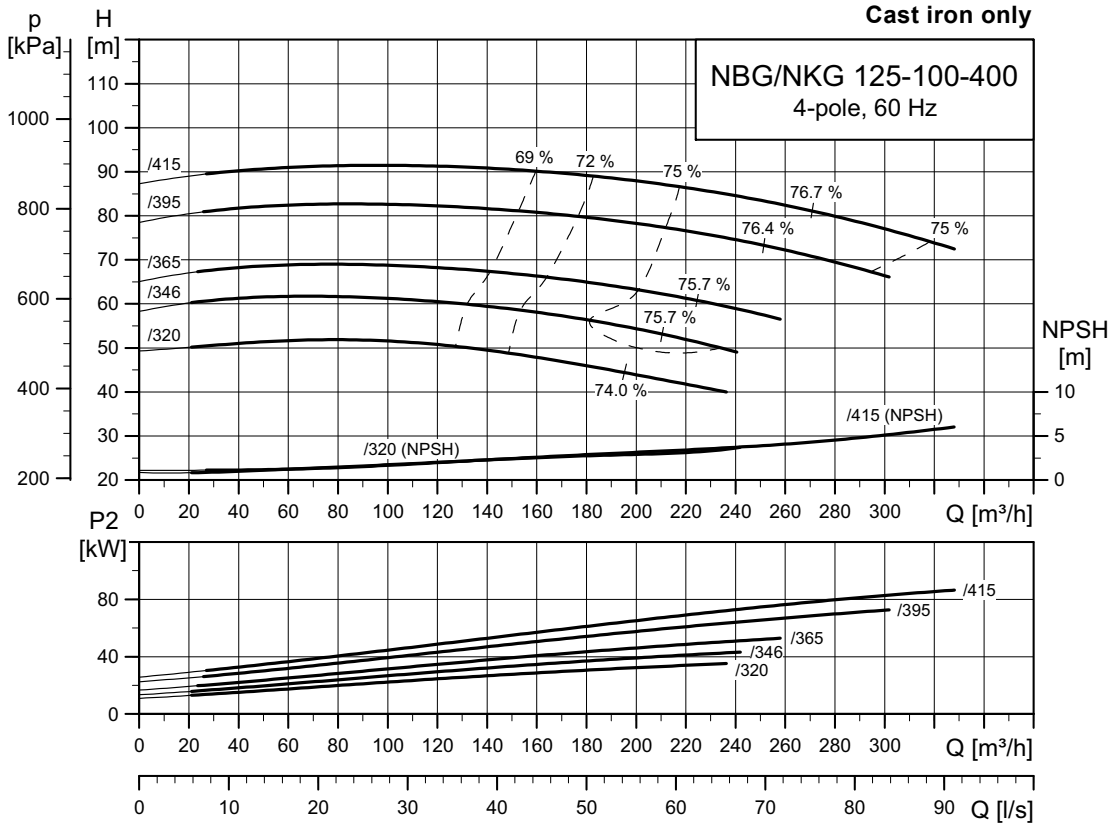
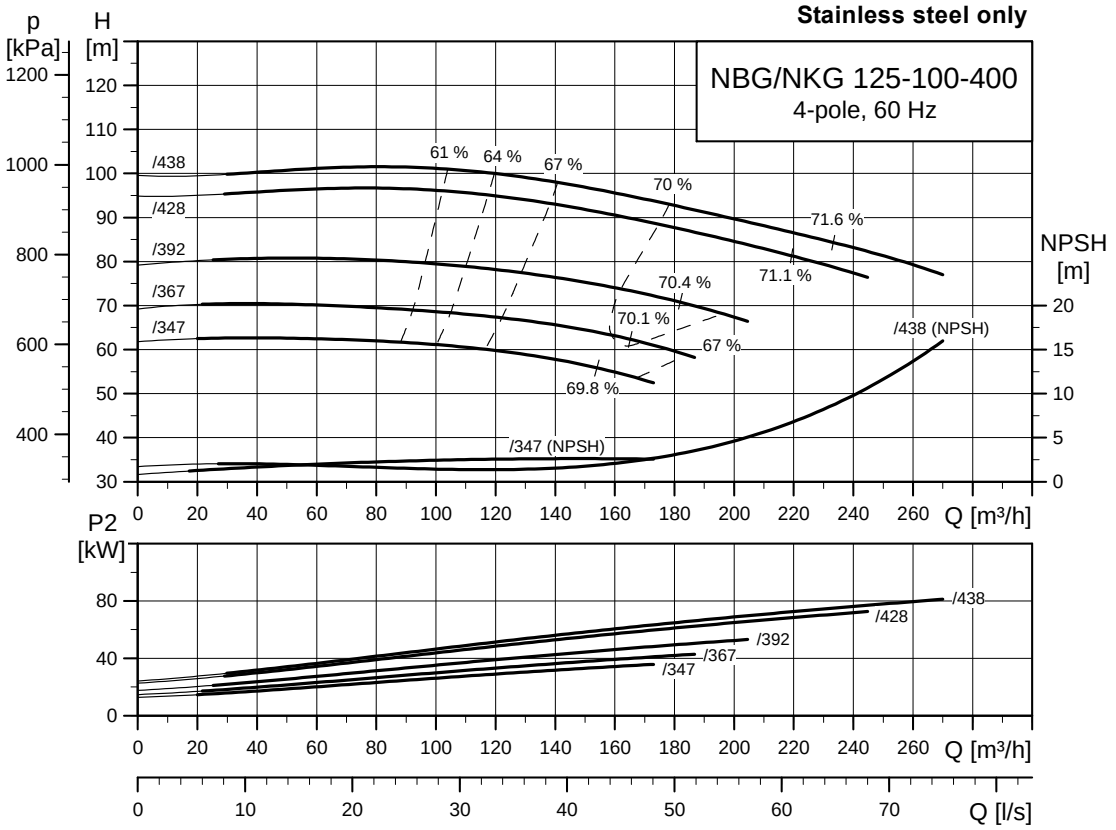


NBG, NKG 125-100-400



TM06 2729 4614

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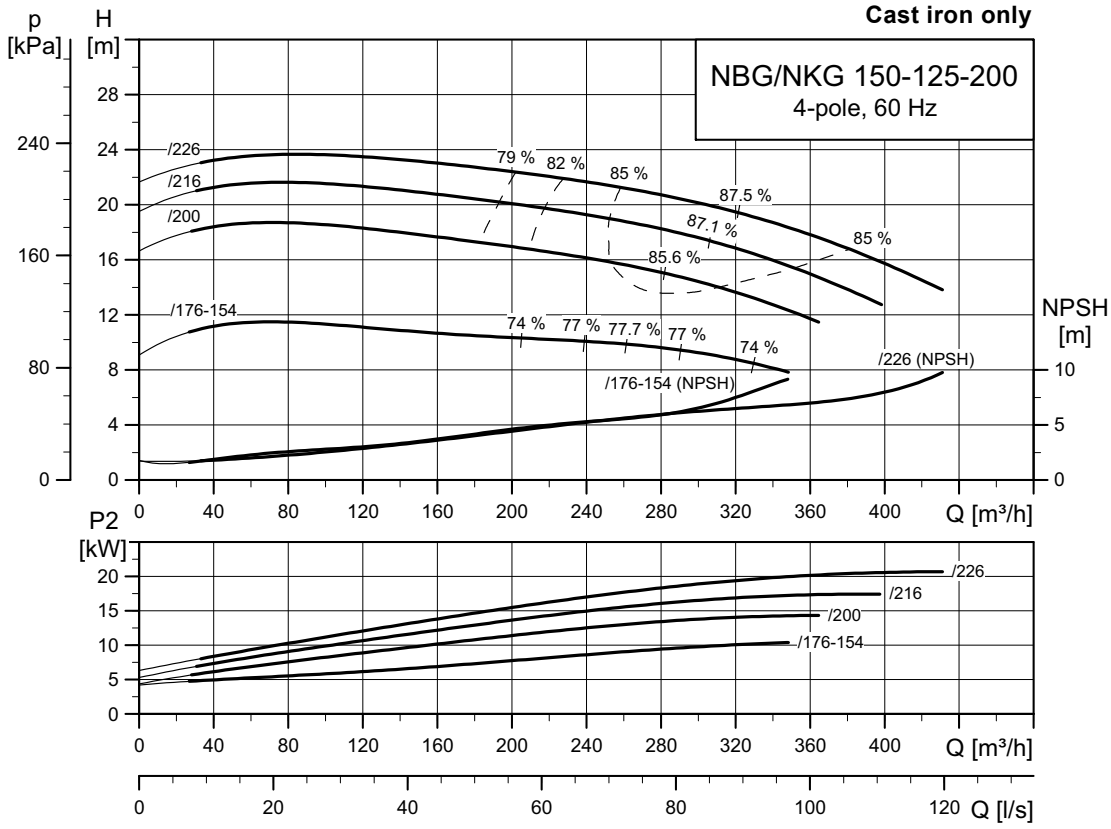

TM03 5056 2316

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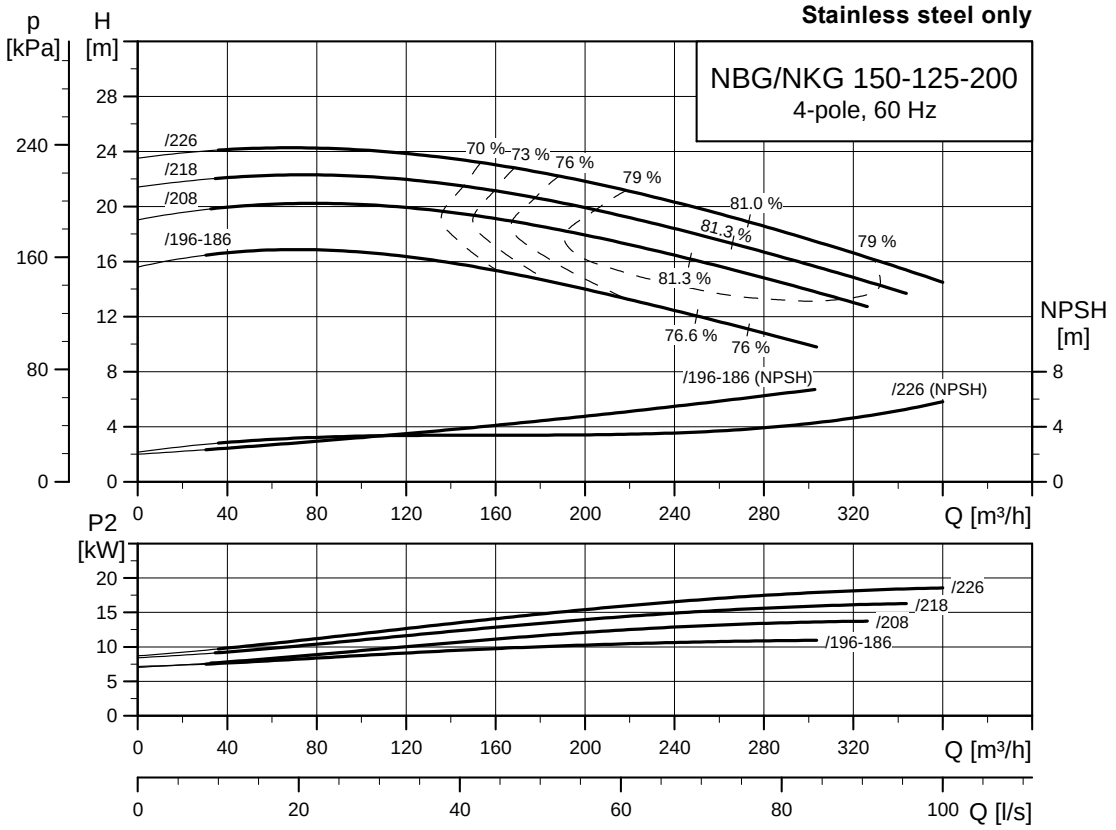
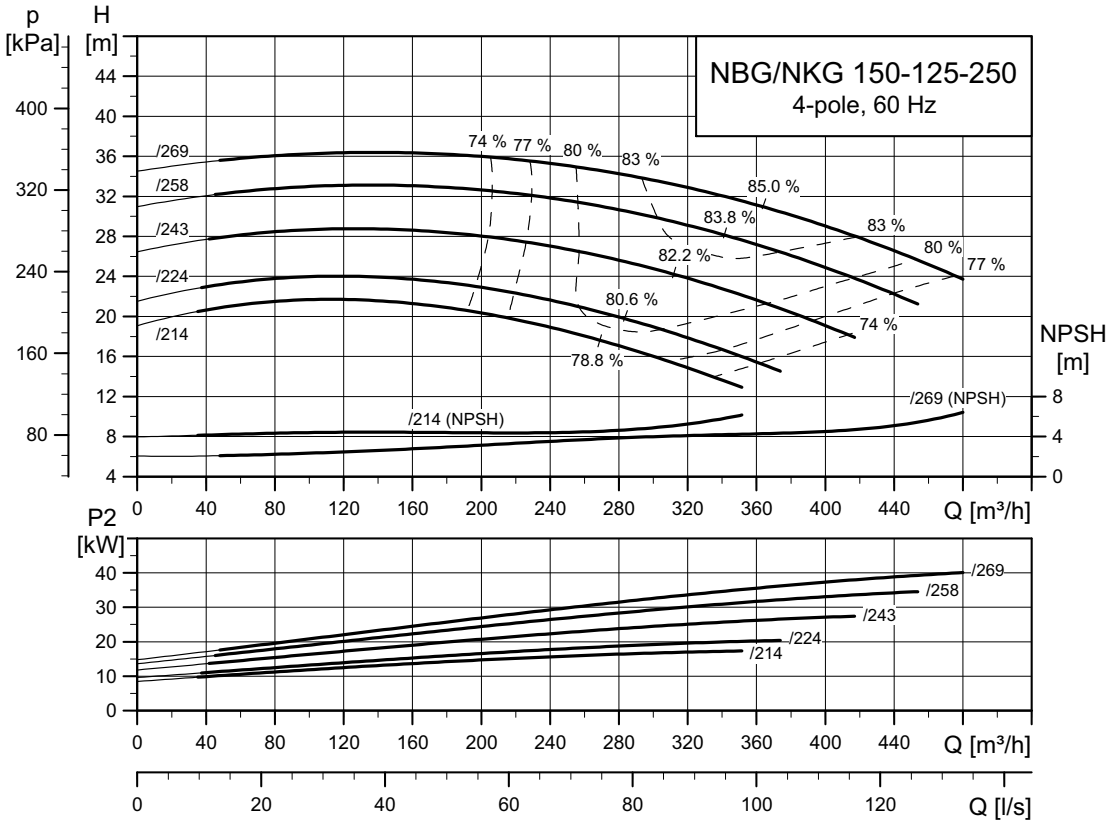


TM06 2730 4614

NBG, NKG 150-125-250



TM03 5057 3414

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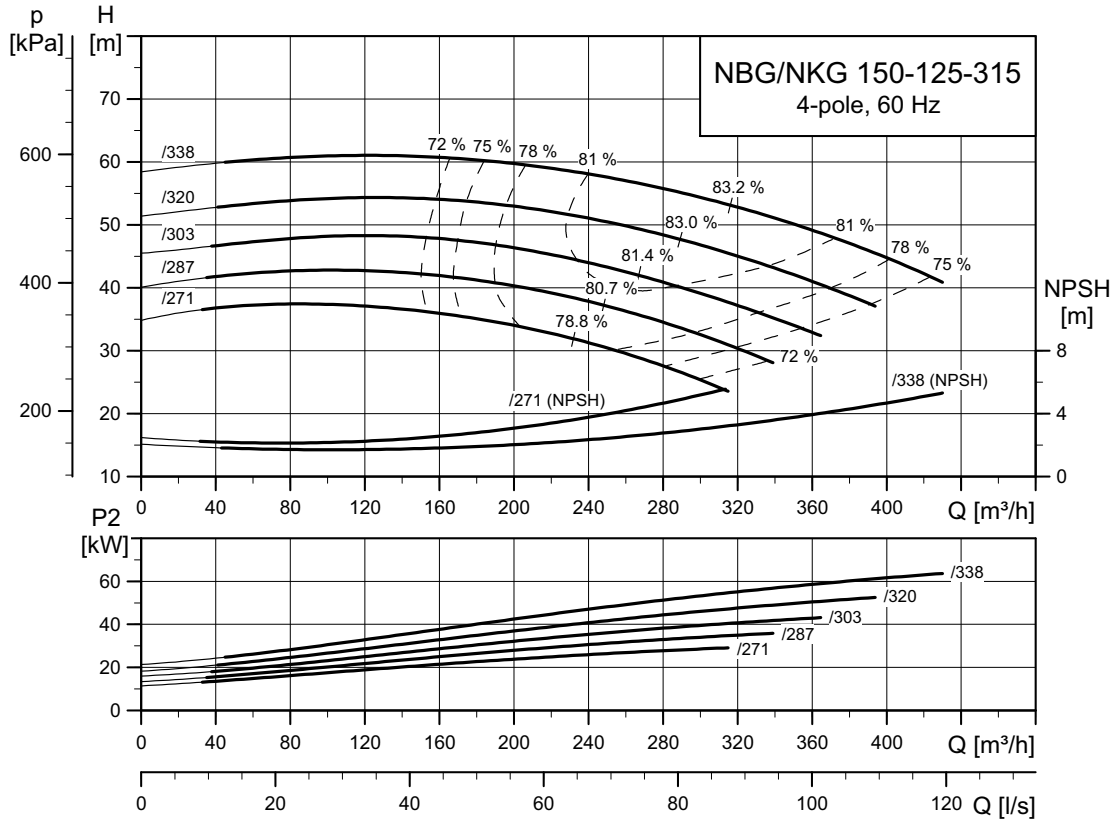

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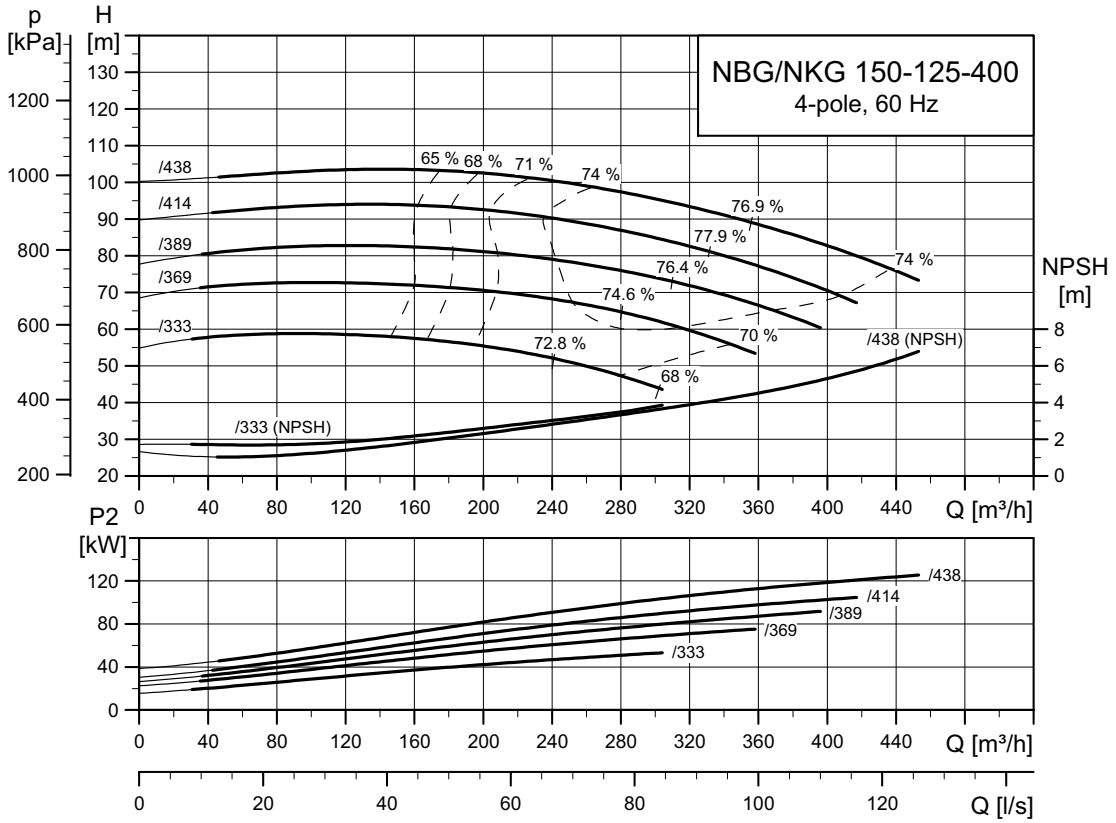

TM05 2345 3414

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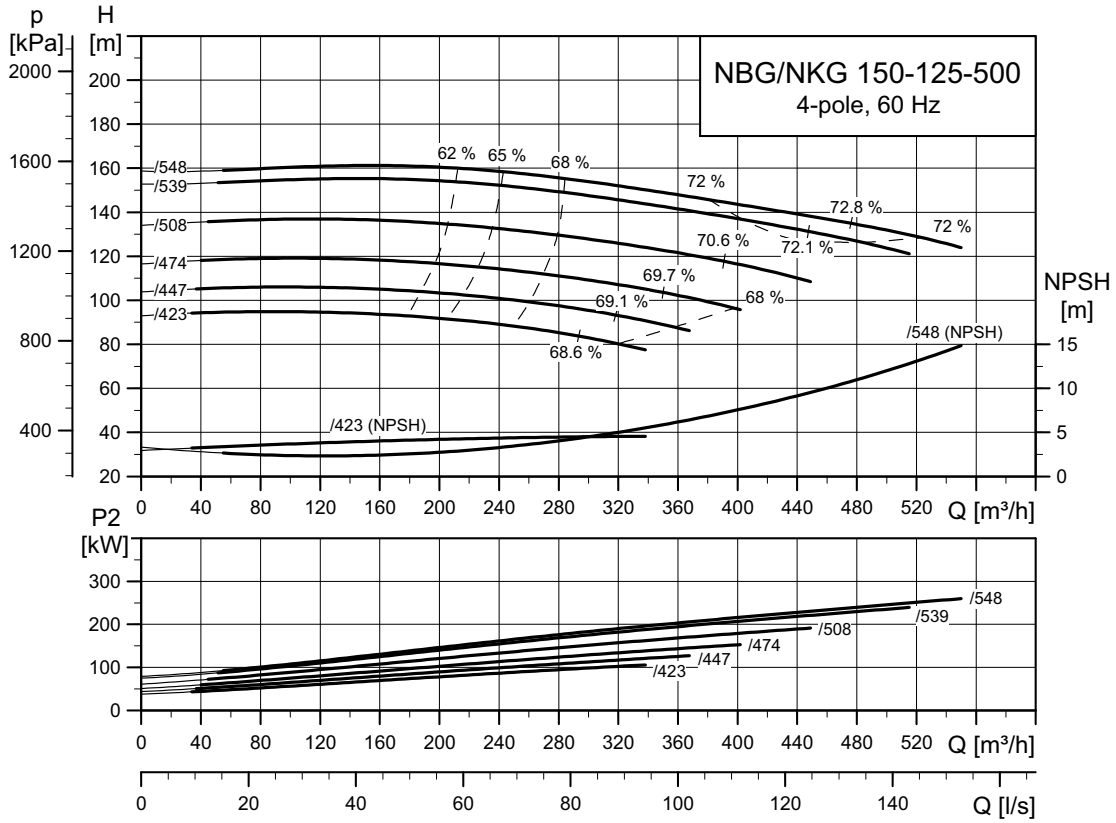
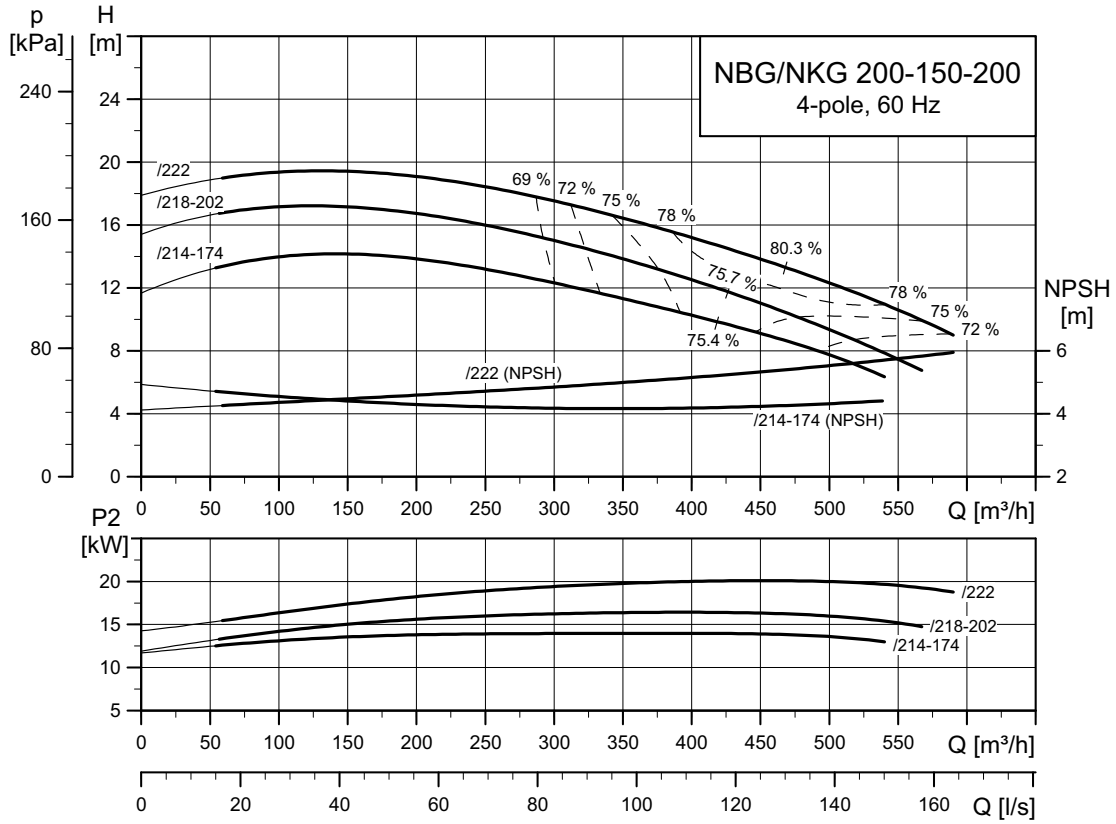


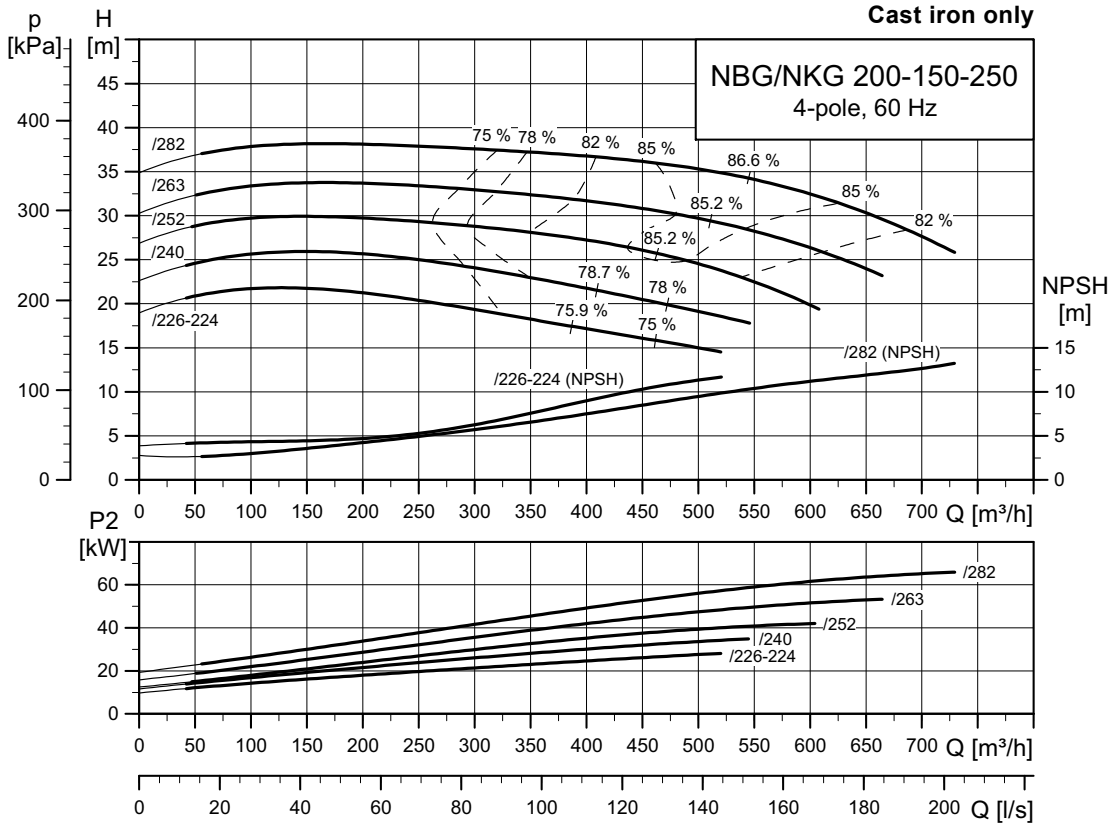
TM03 5060 3414

NBG, NKG 200-150-200



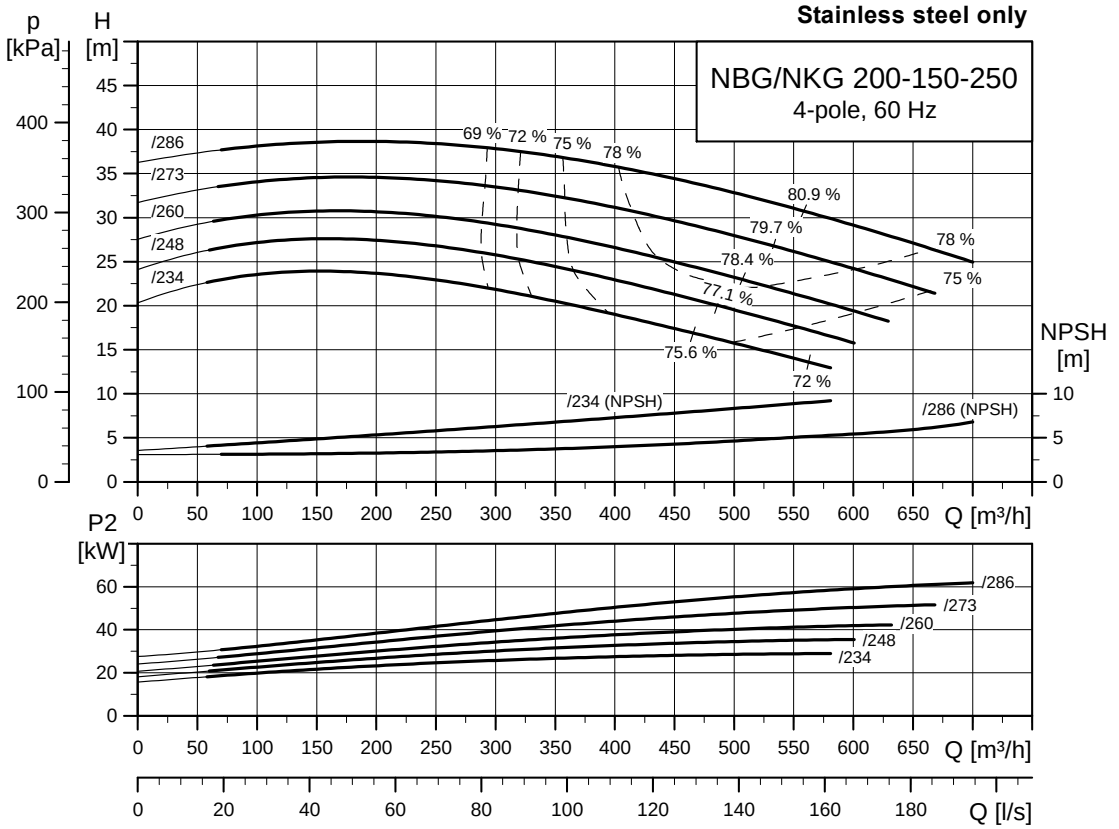
TM03 5061 3414

NBG, NKG 200-150-250



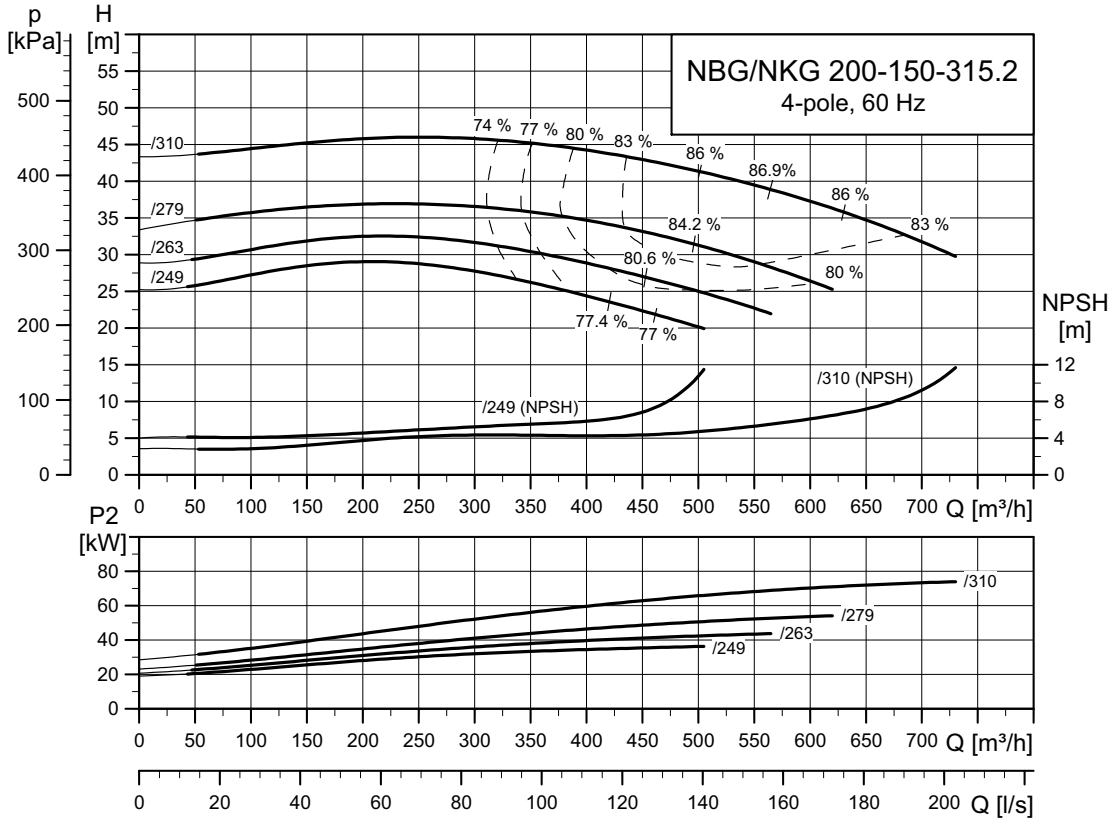
TM03 5062 2316

NBG, NKG 200-150-250



TM06 2731 4614

NBG, NKG 200-150-315.2



TM06 4759 3315

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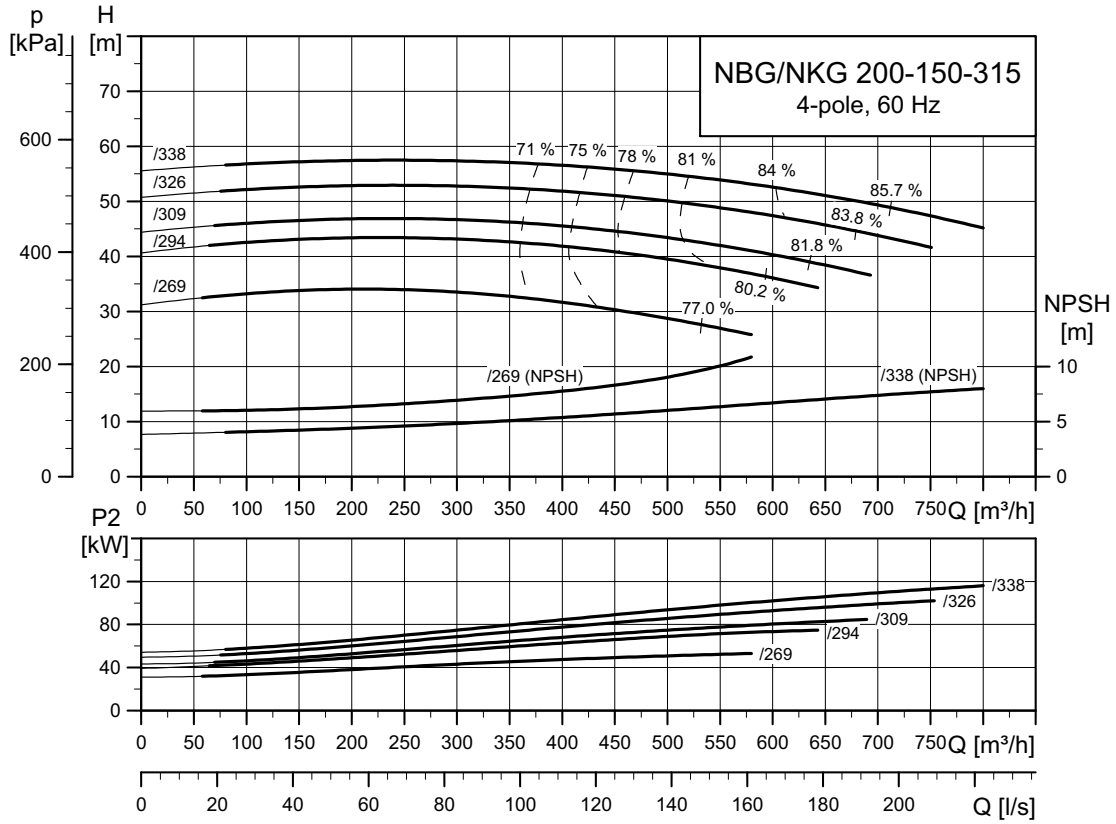

TM03 5063 3414

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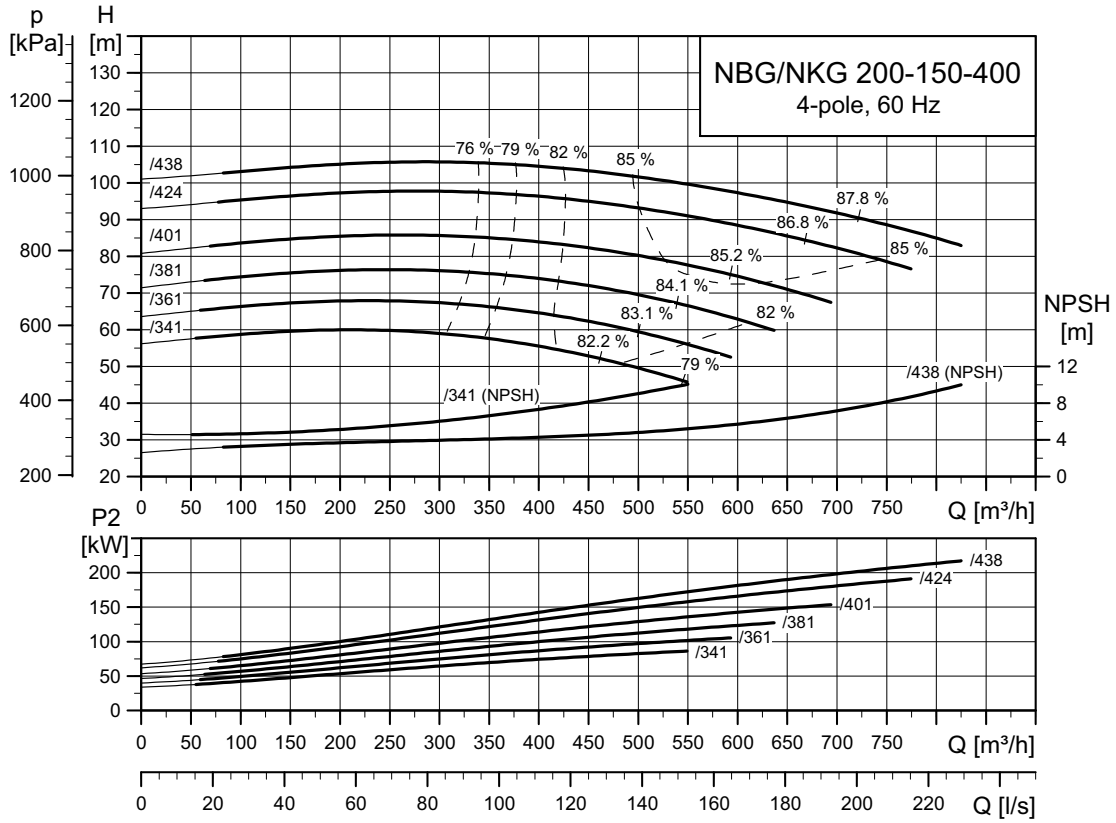

TM03 5064 3414

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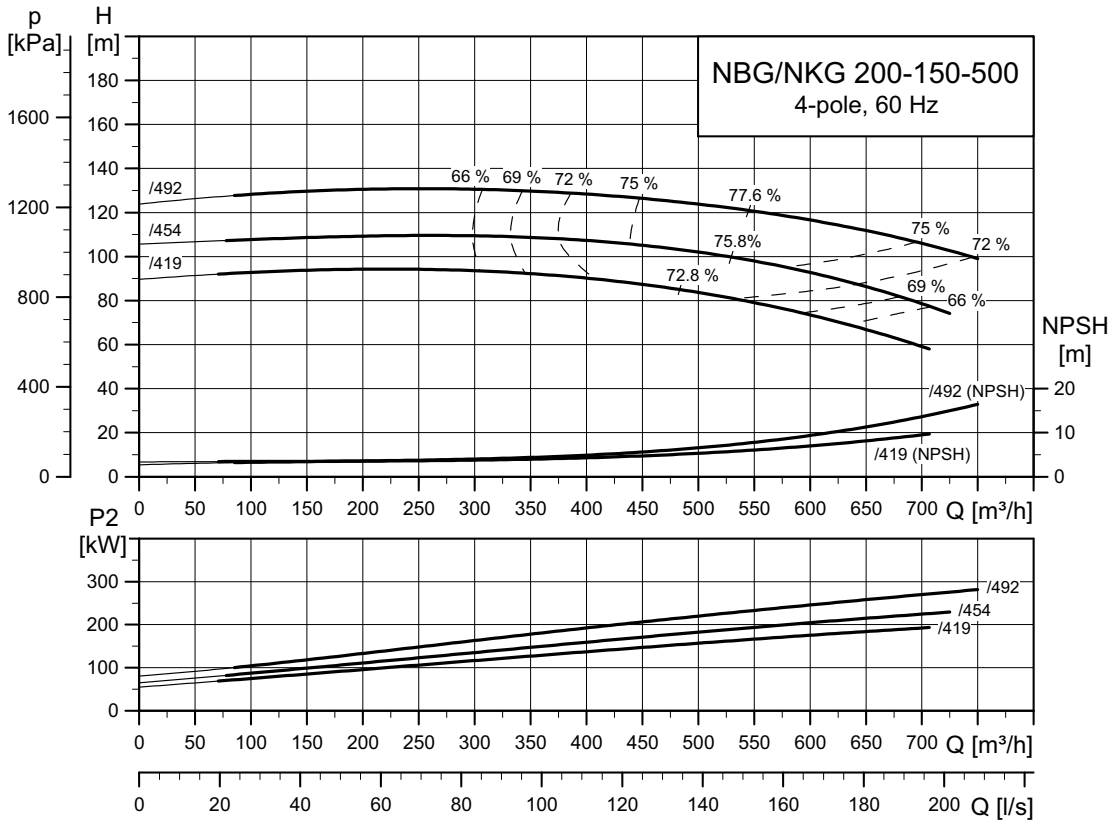
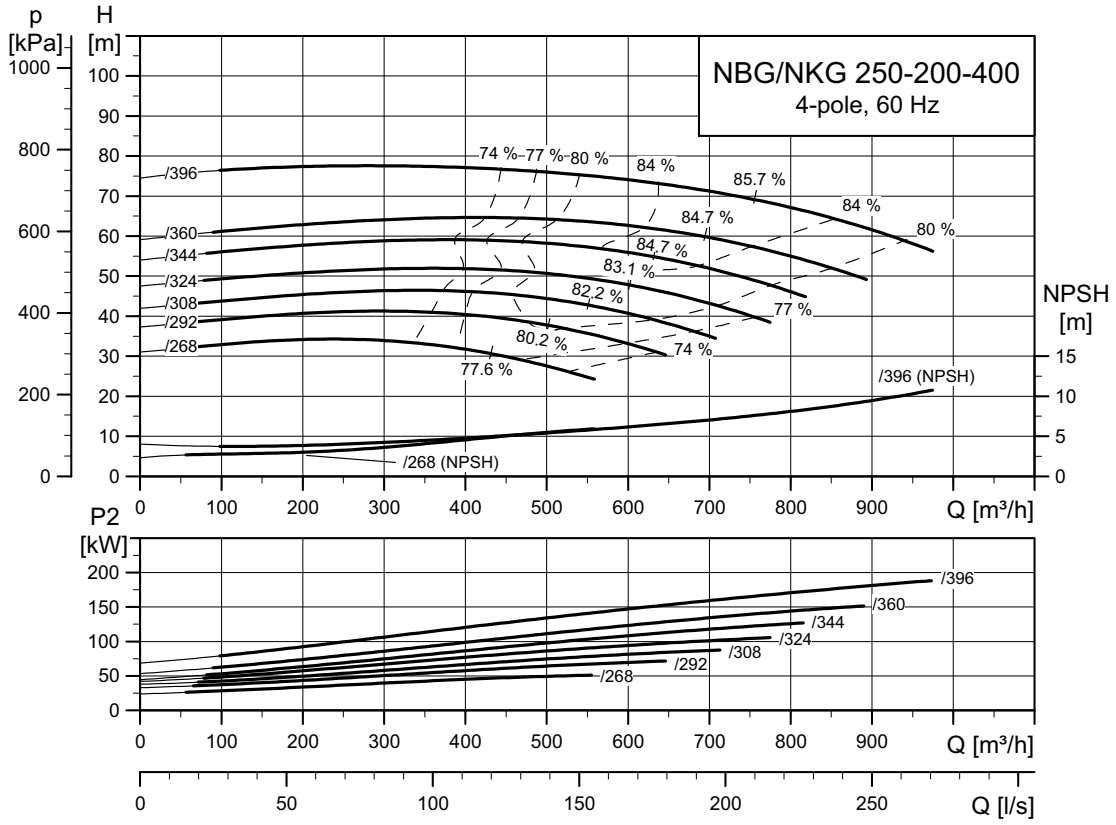


TM03 5065 3414

NBG, NKG 250-200-400



TM04 4945 3414

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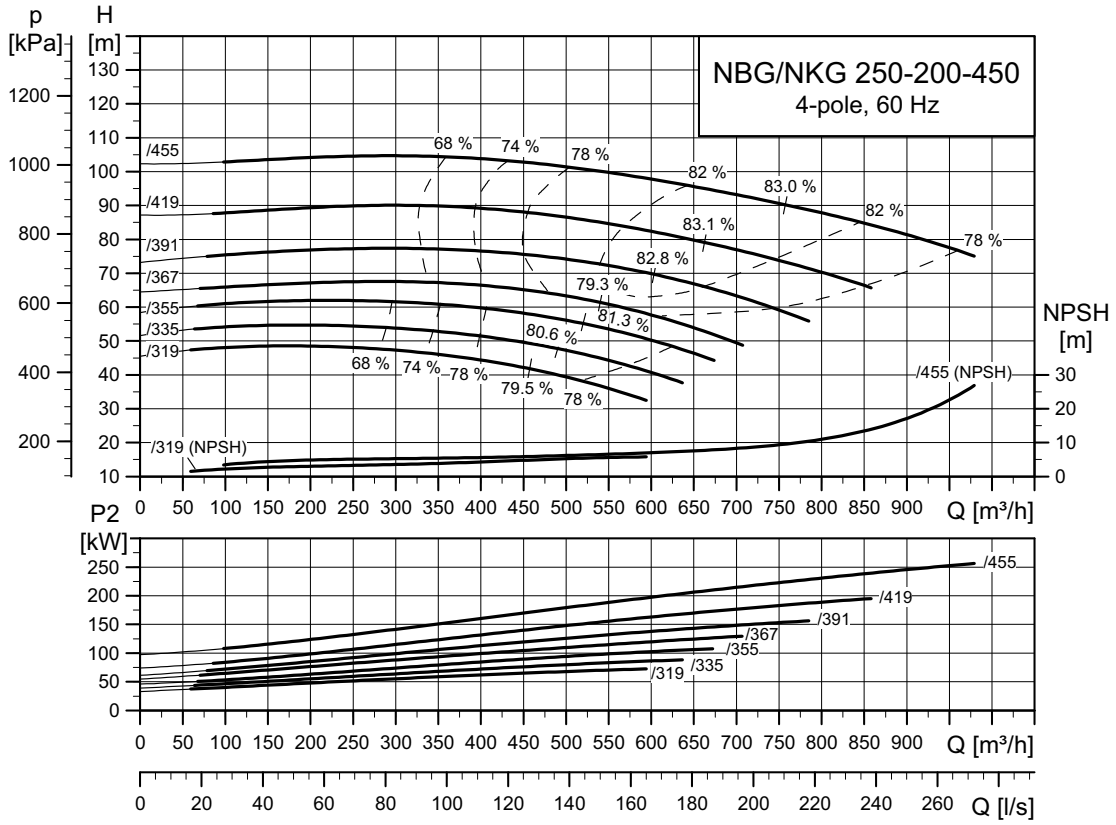
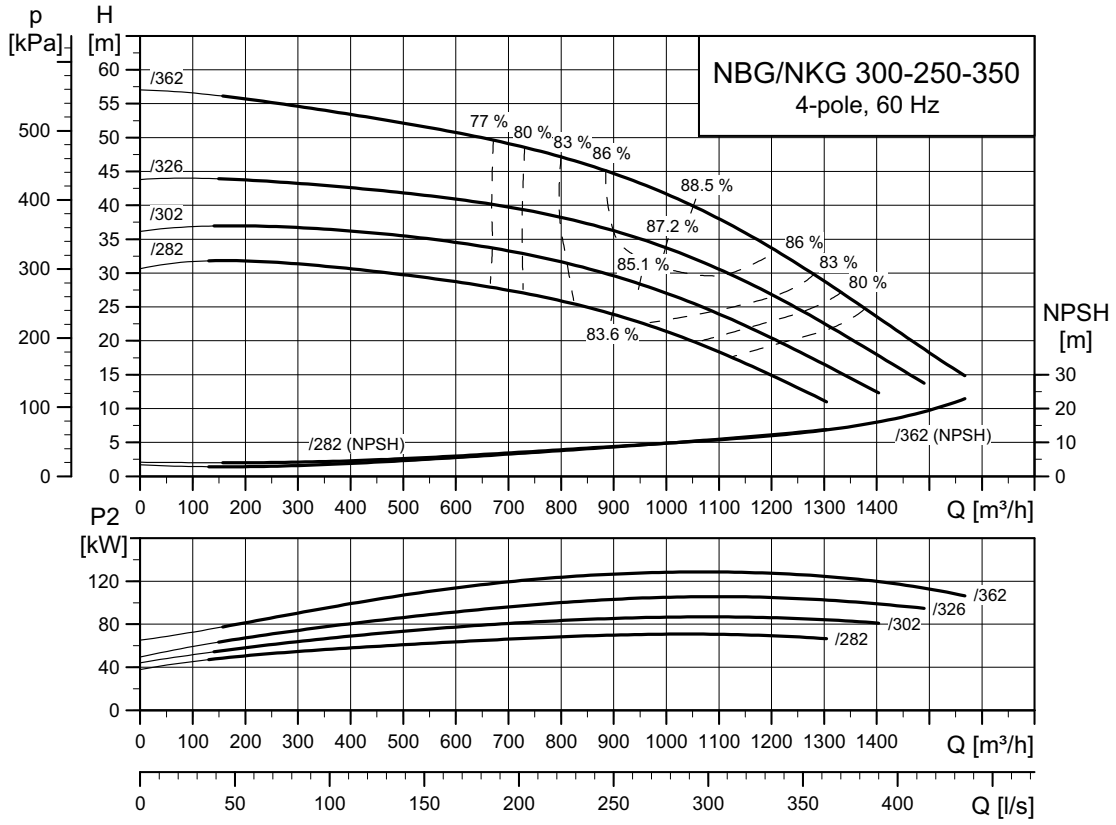


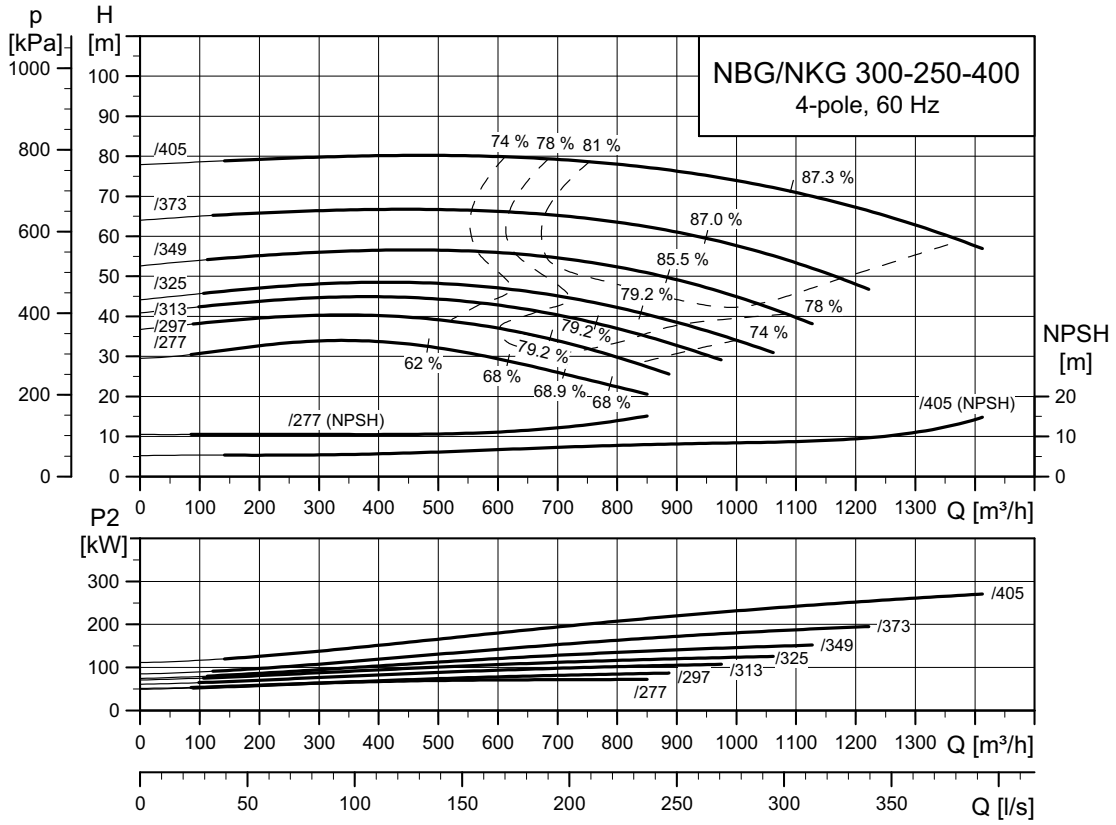
TM04 3965 3414

NBG, NKG 300-250-350



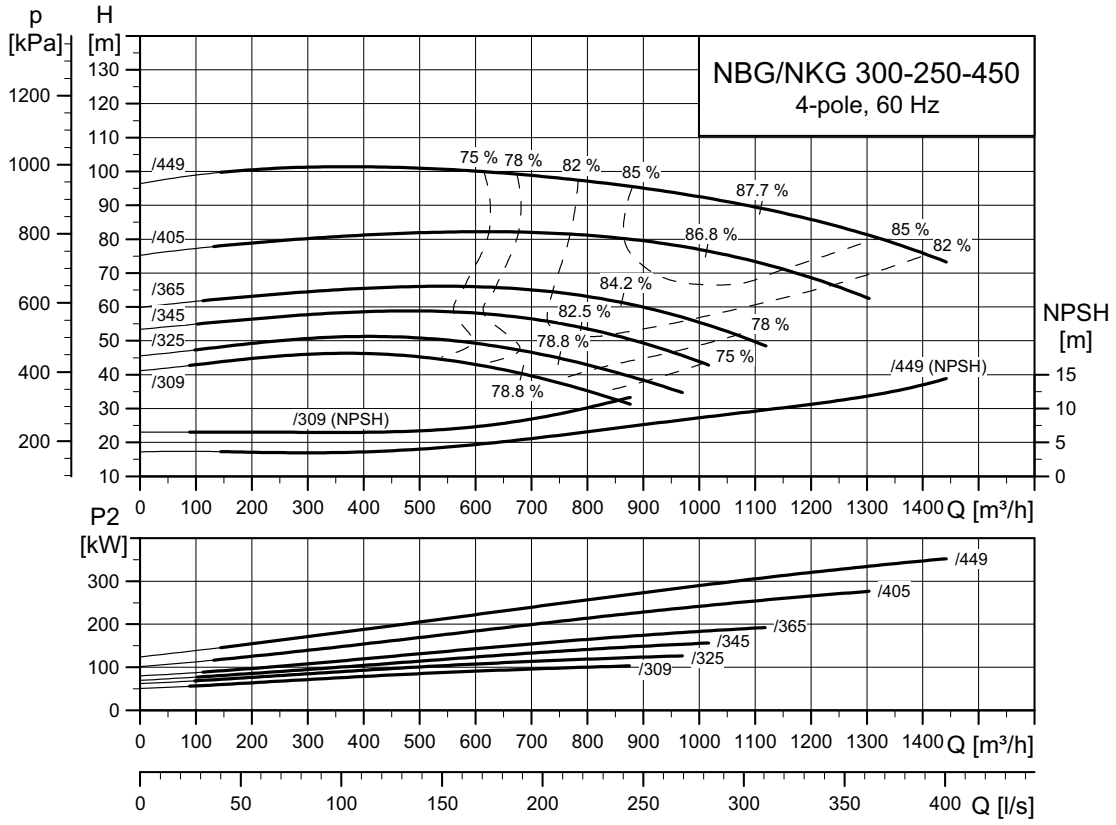
TM04 5964 3414

NBG, NKG 300-250-400



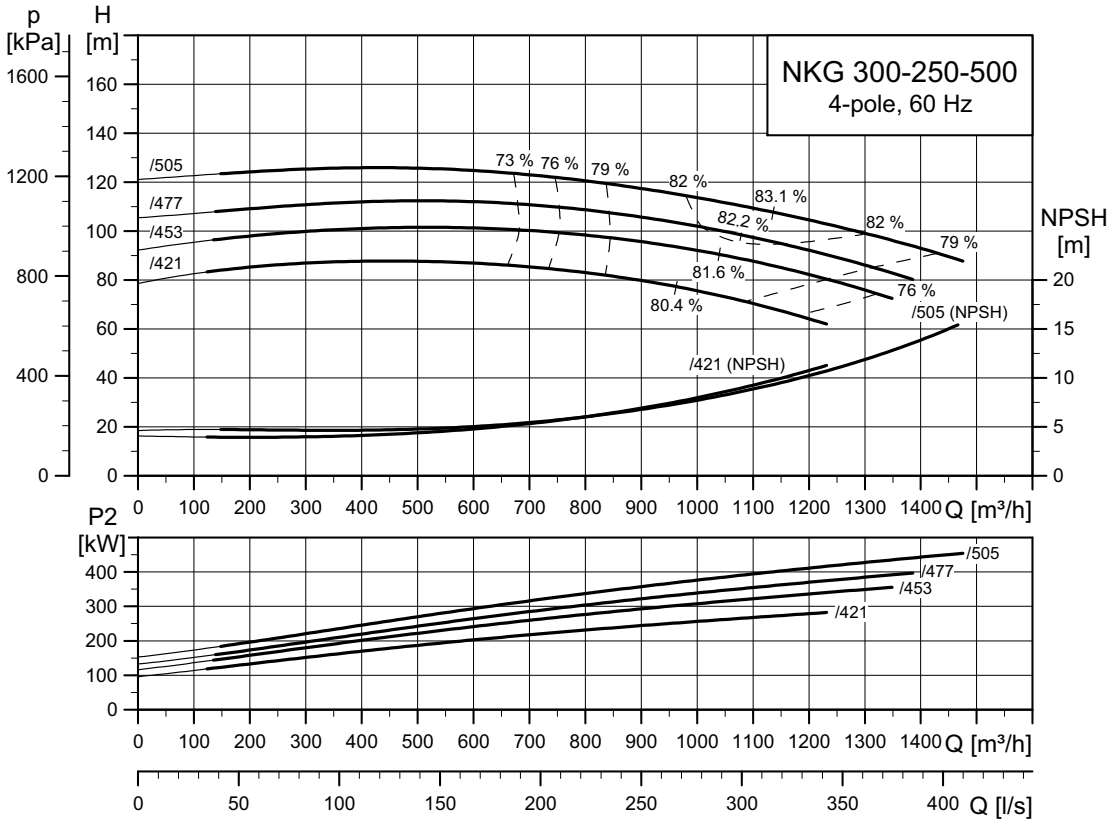
TM04 4020 3414

NBG, NKG 300-250-450



TM04 4949 3414

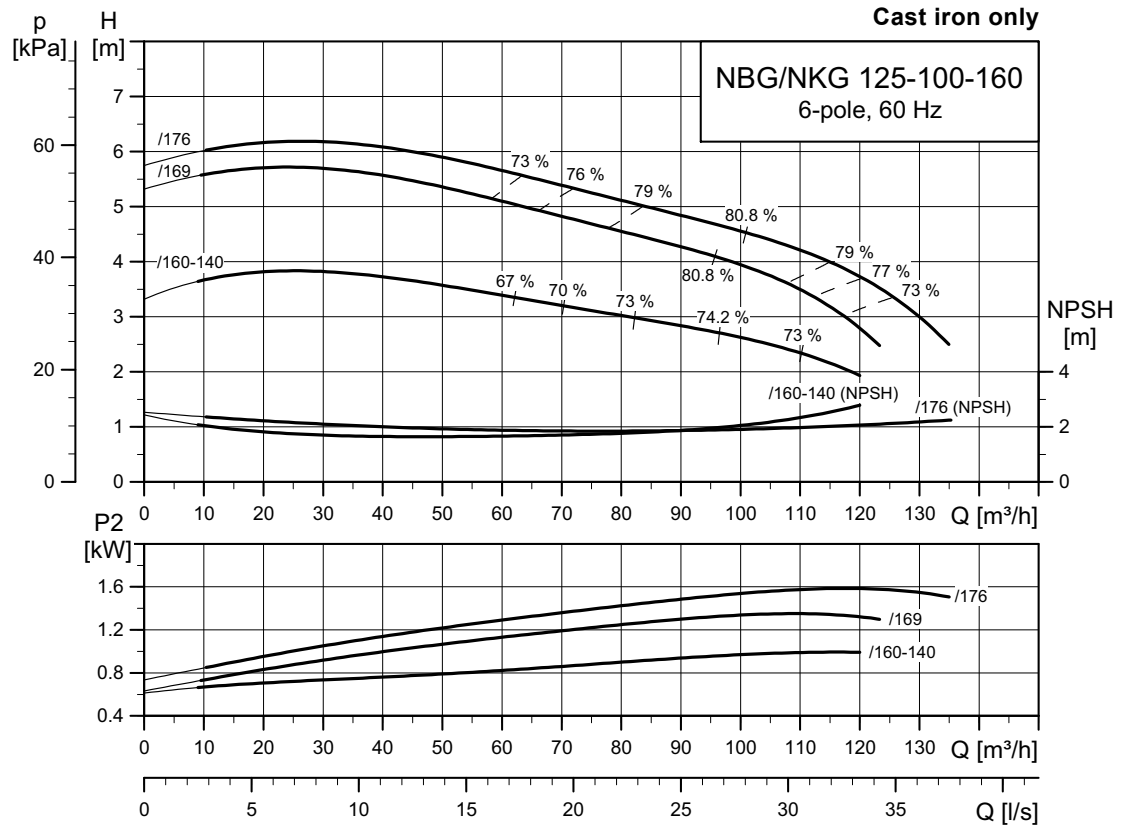
NBG, NKG 300-250-500



TM04 5968 3414

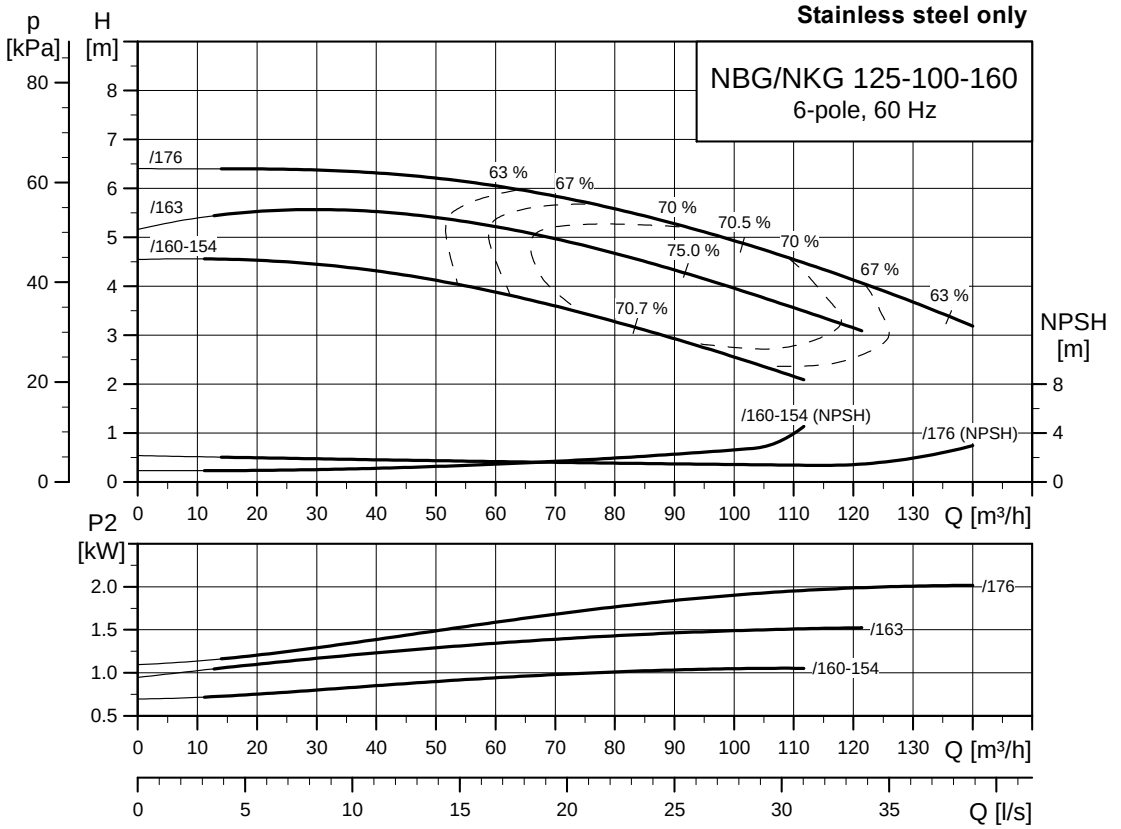
6-pole

NBG, NKG 125-100-160



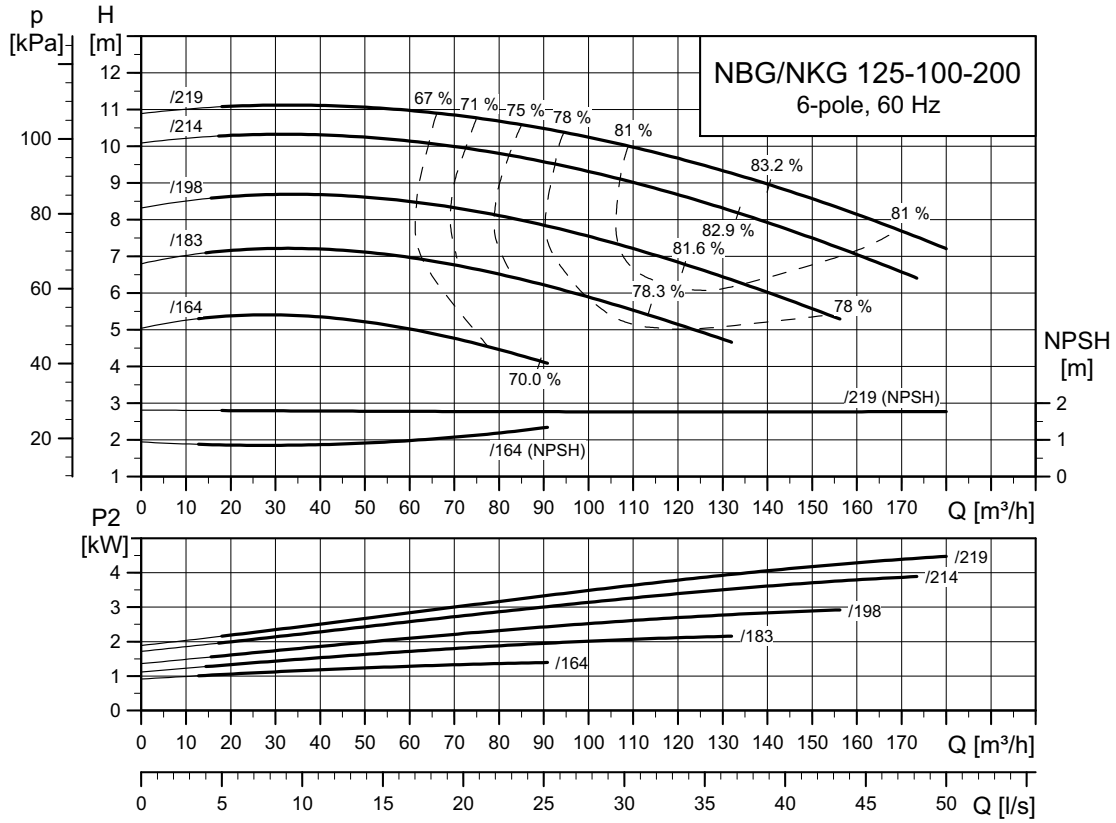
TM03 5066 2316

NBG, NKG 125-100-160



TM06 2732 4614

NBG, NKG 125-100-200



TM03 5067 3414

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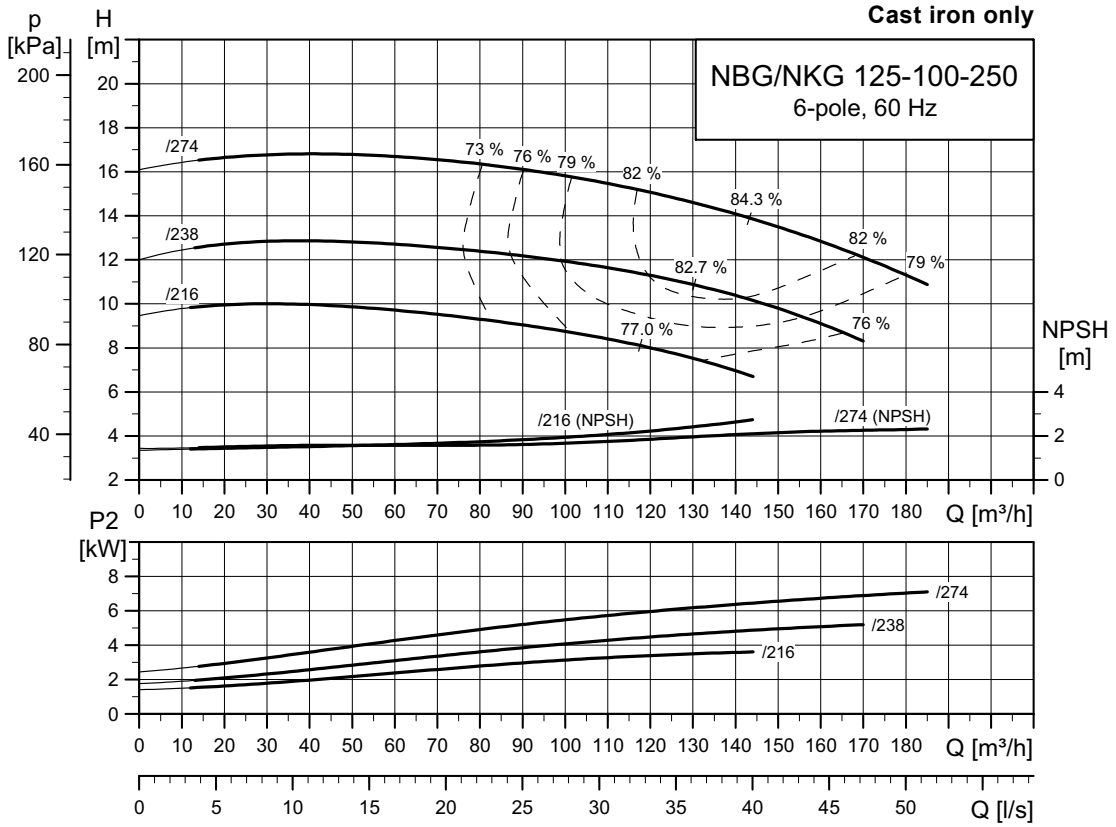
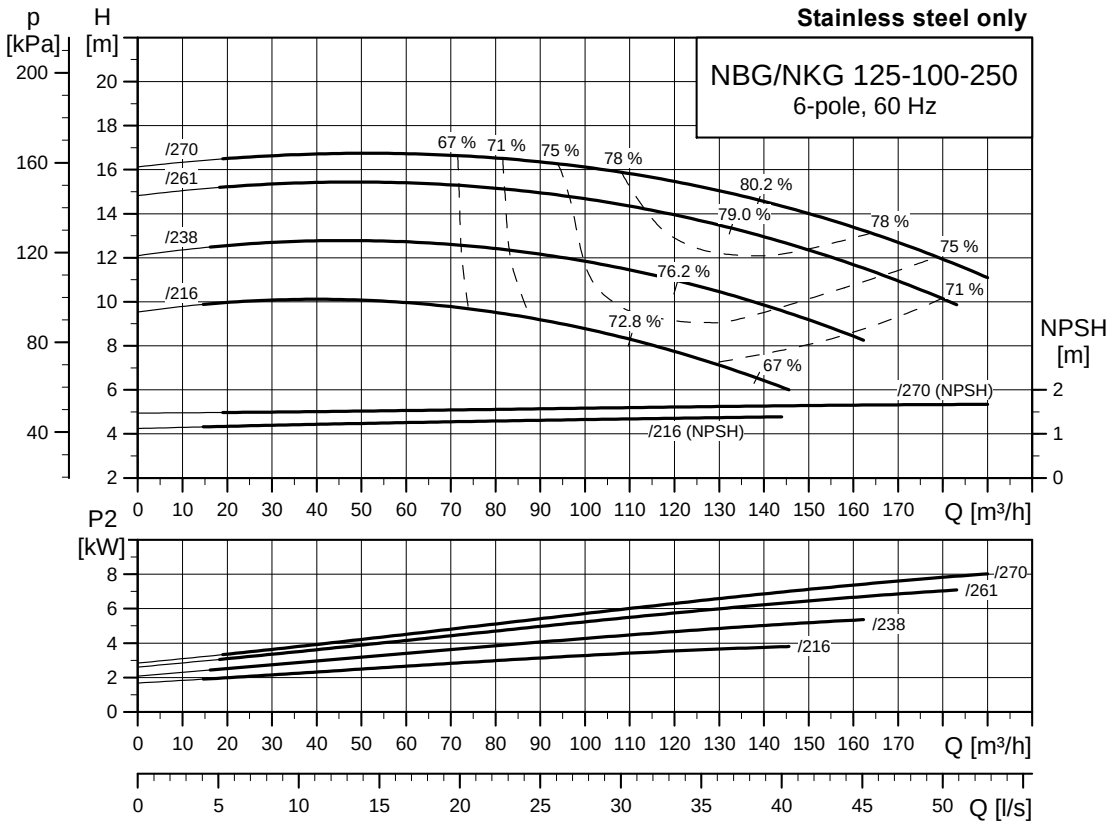


TM03 5068 2316

NBG, NKG 125-100-250



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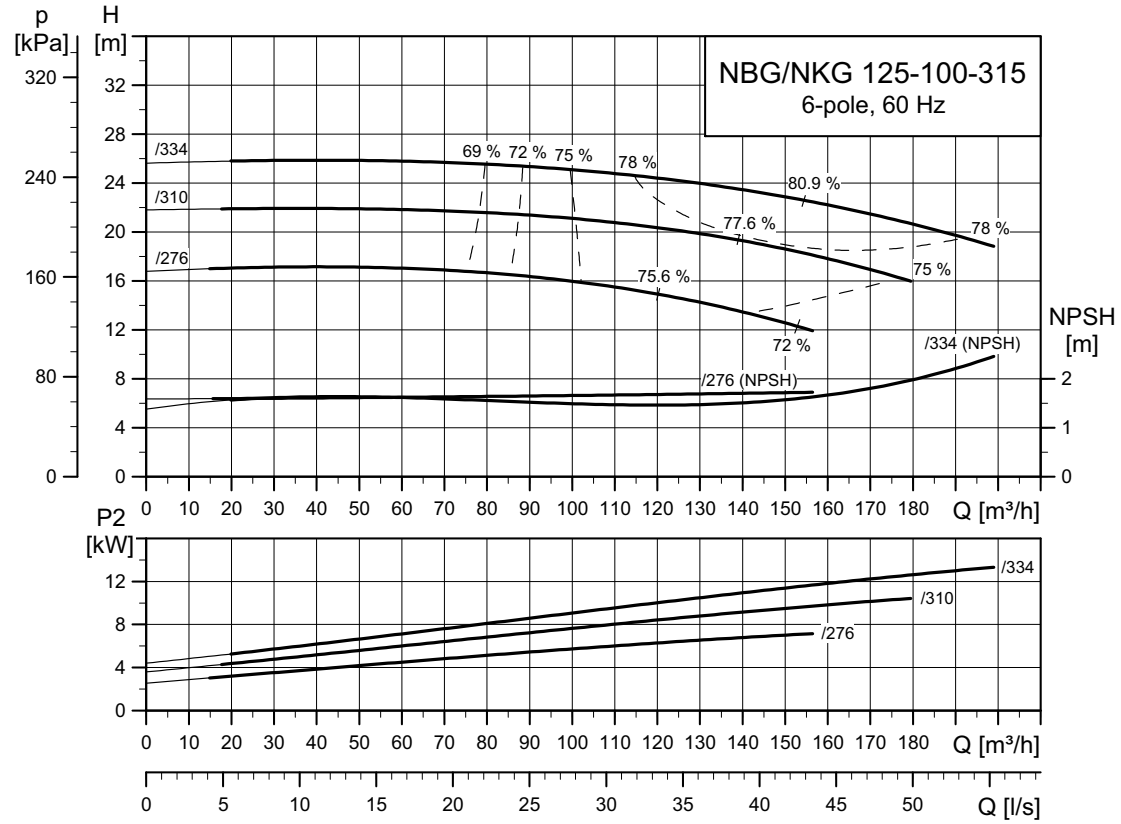

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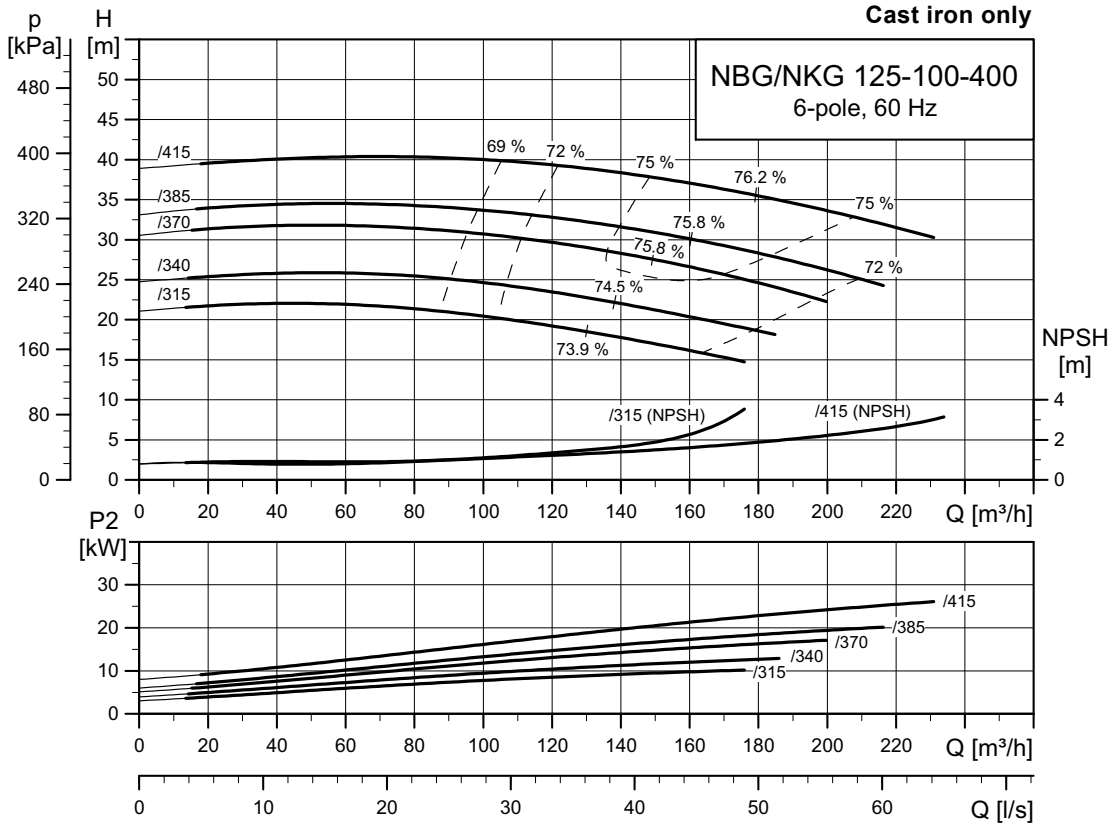

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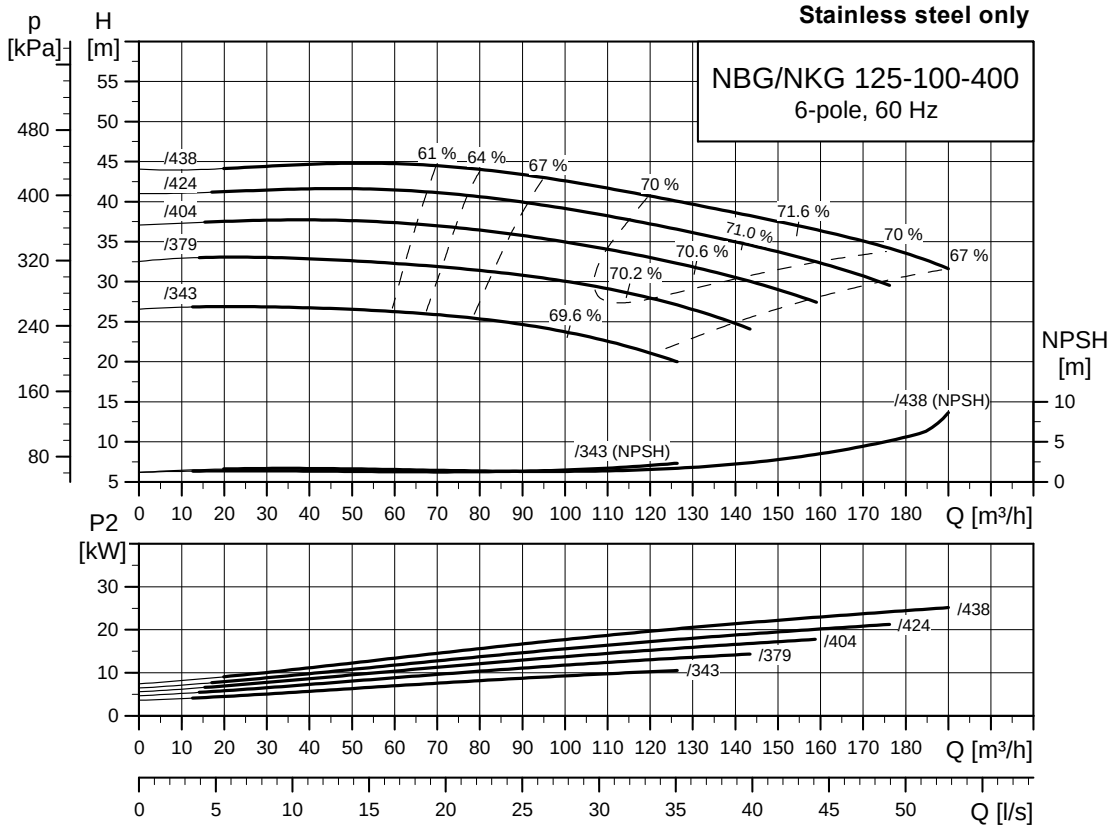

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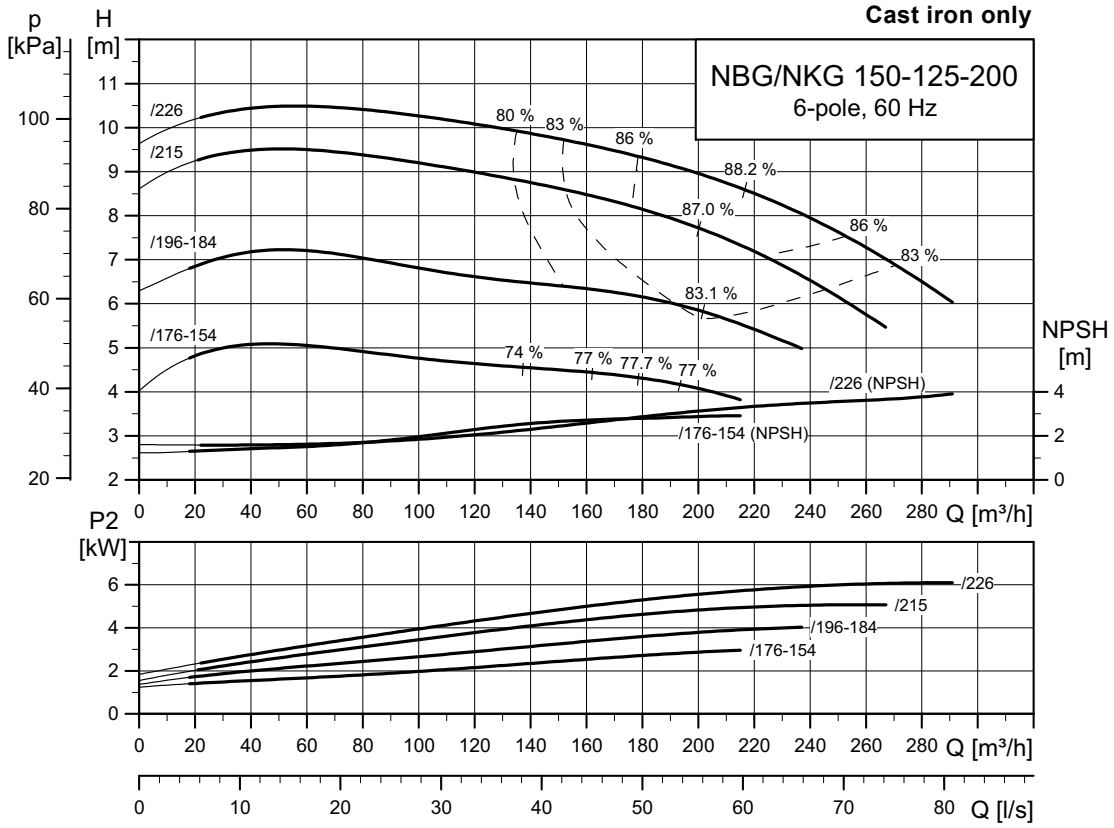
NBG, NKG 150-125-200



TM03 5071 2316

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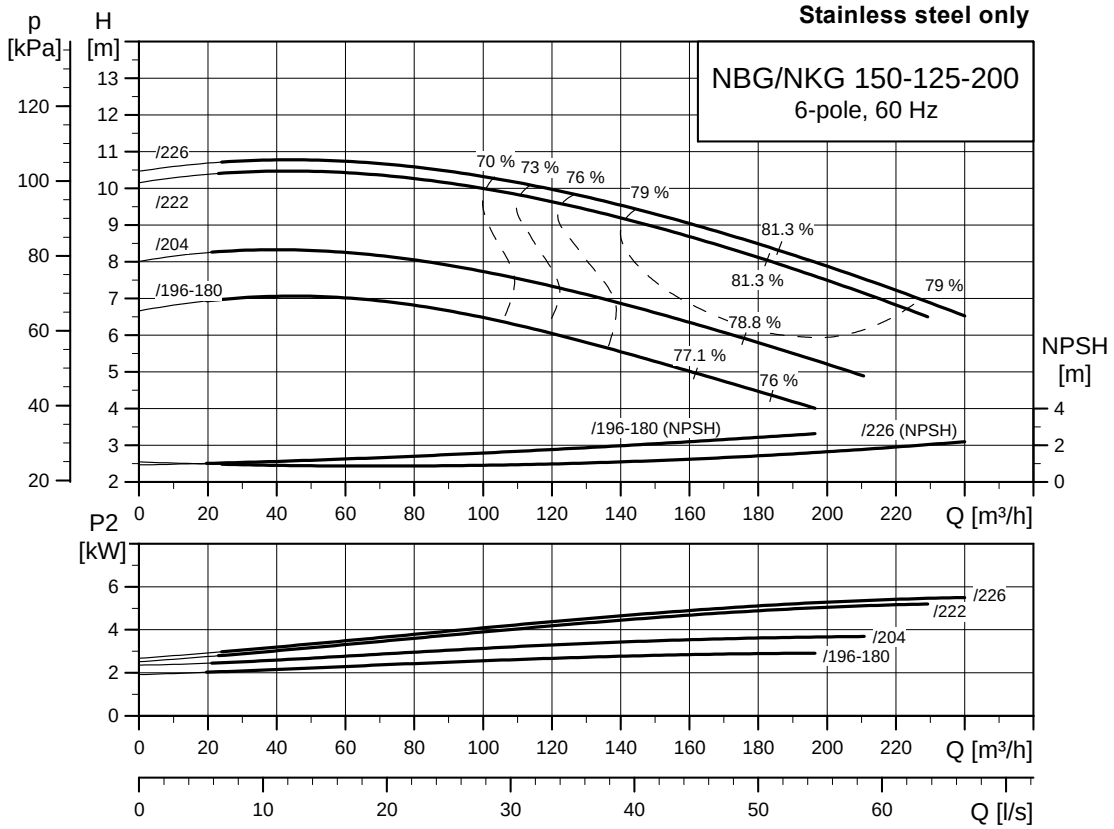

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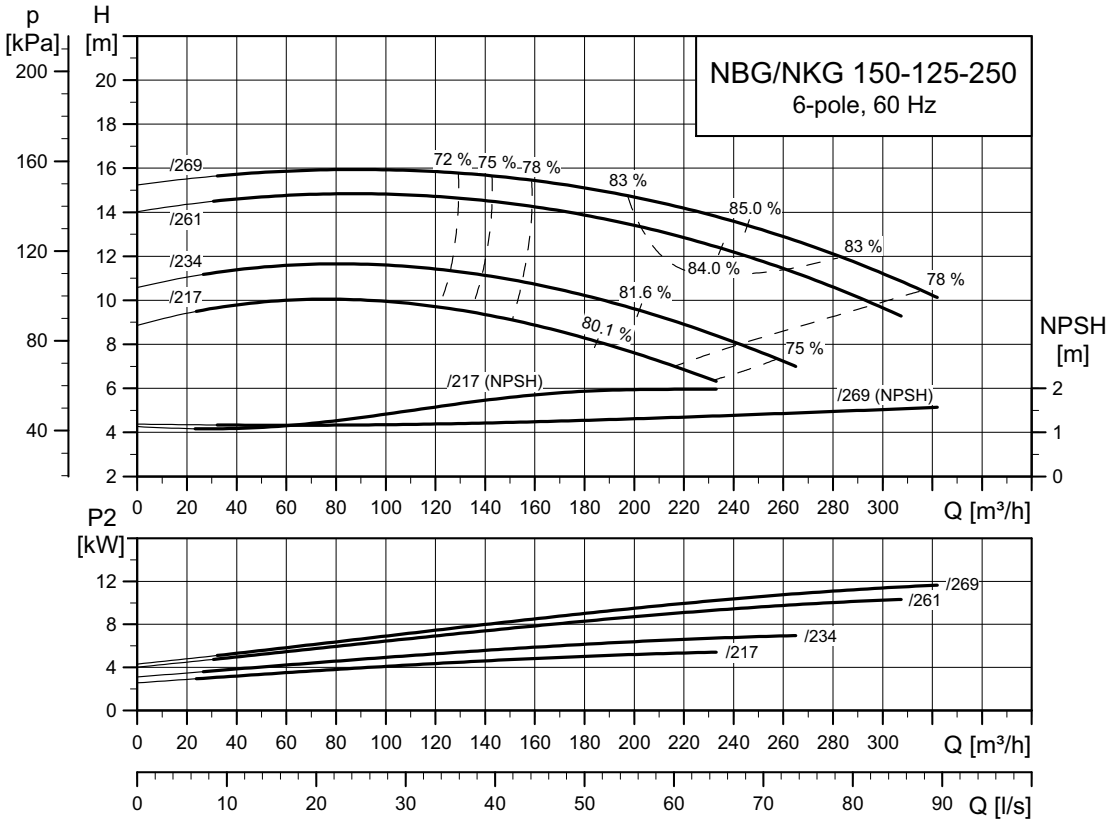

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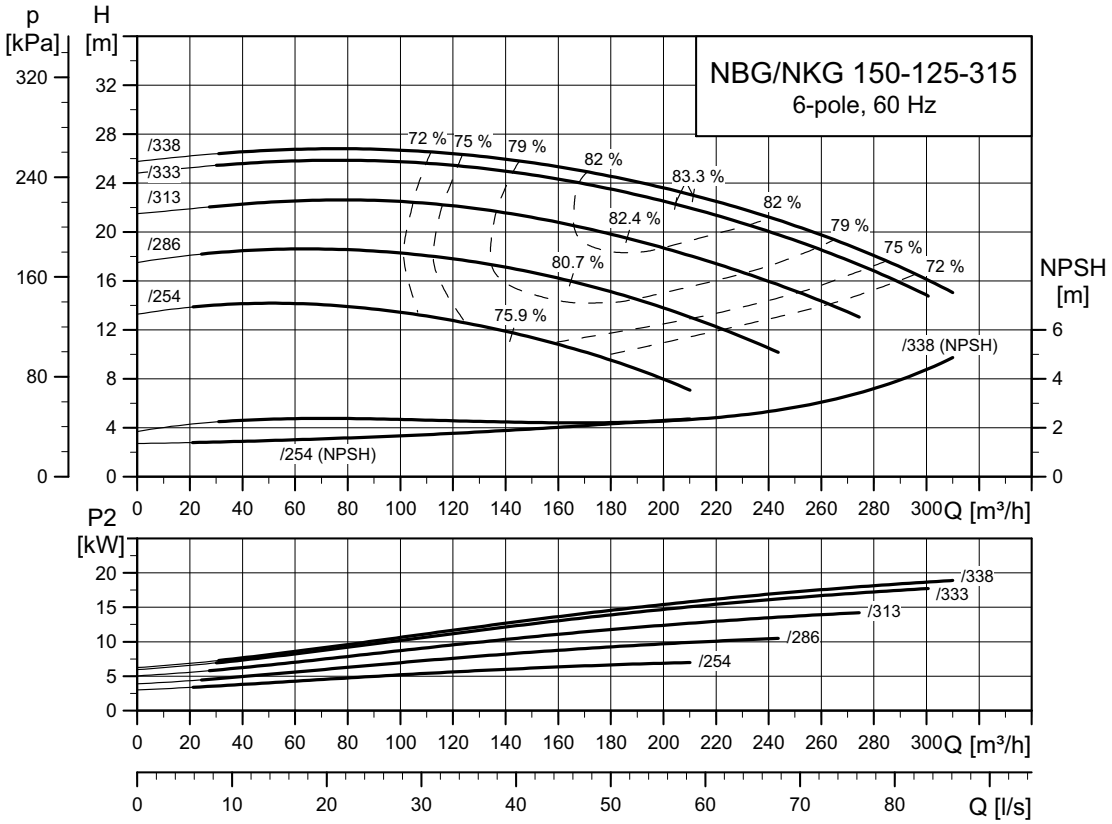

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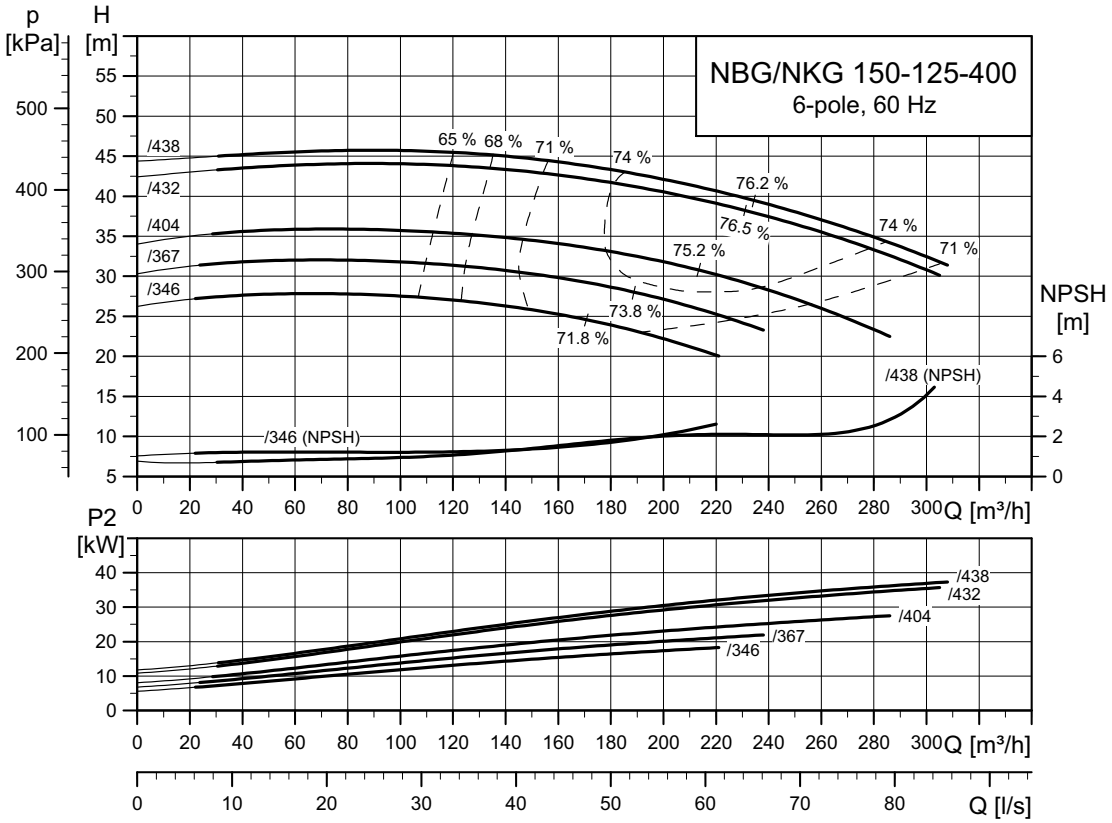

TM05 2346 3414

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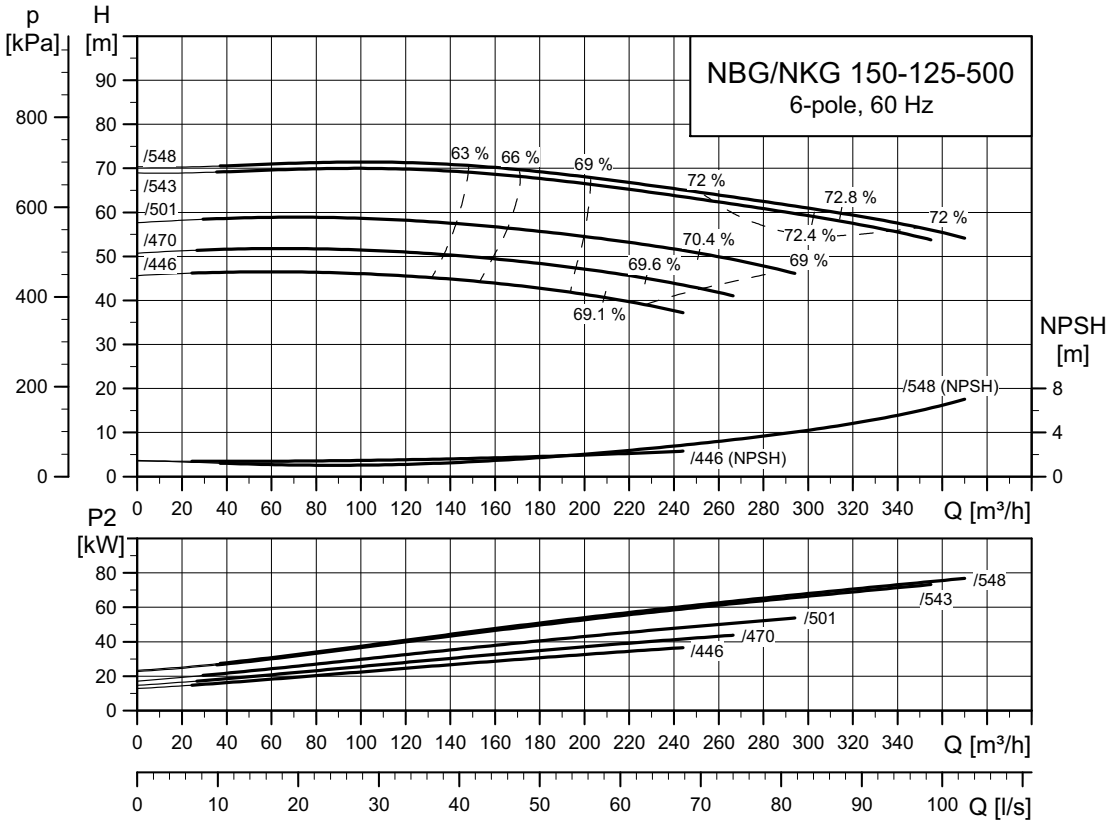
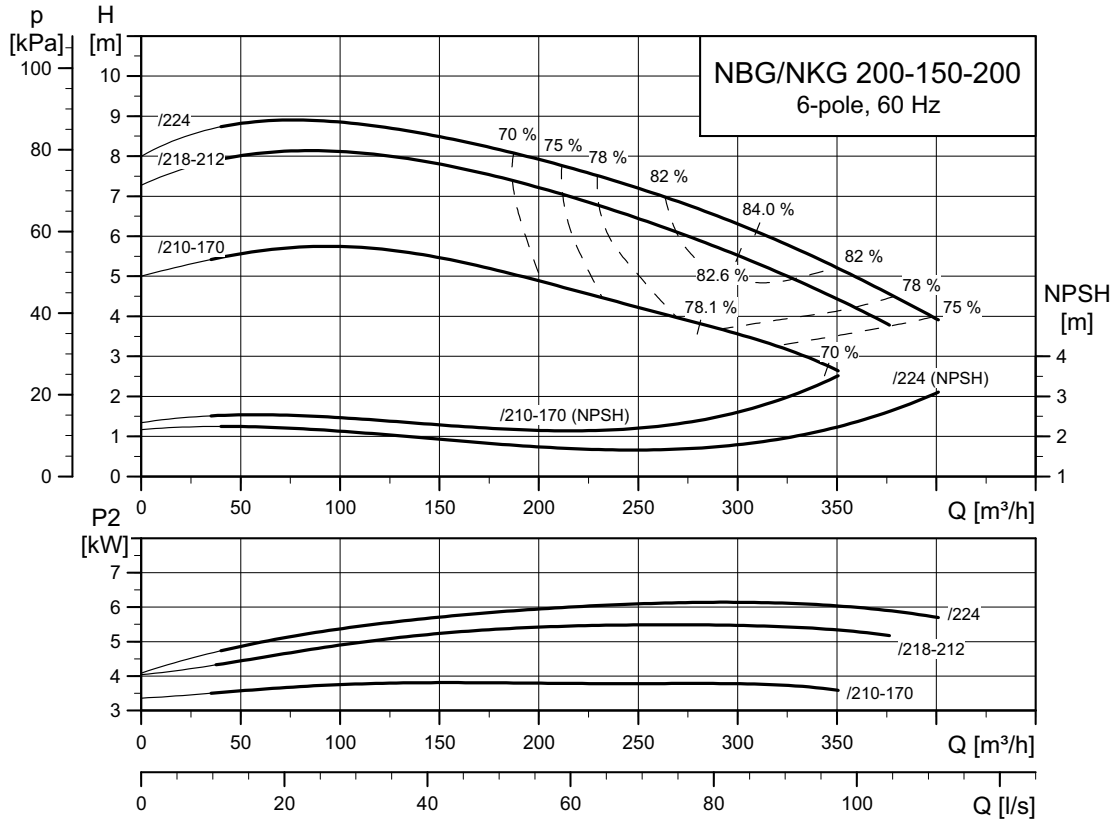


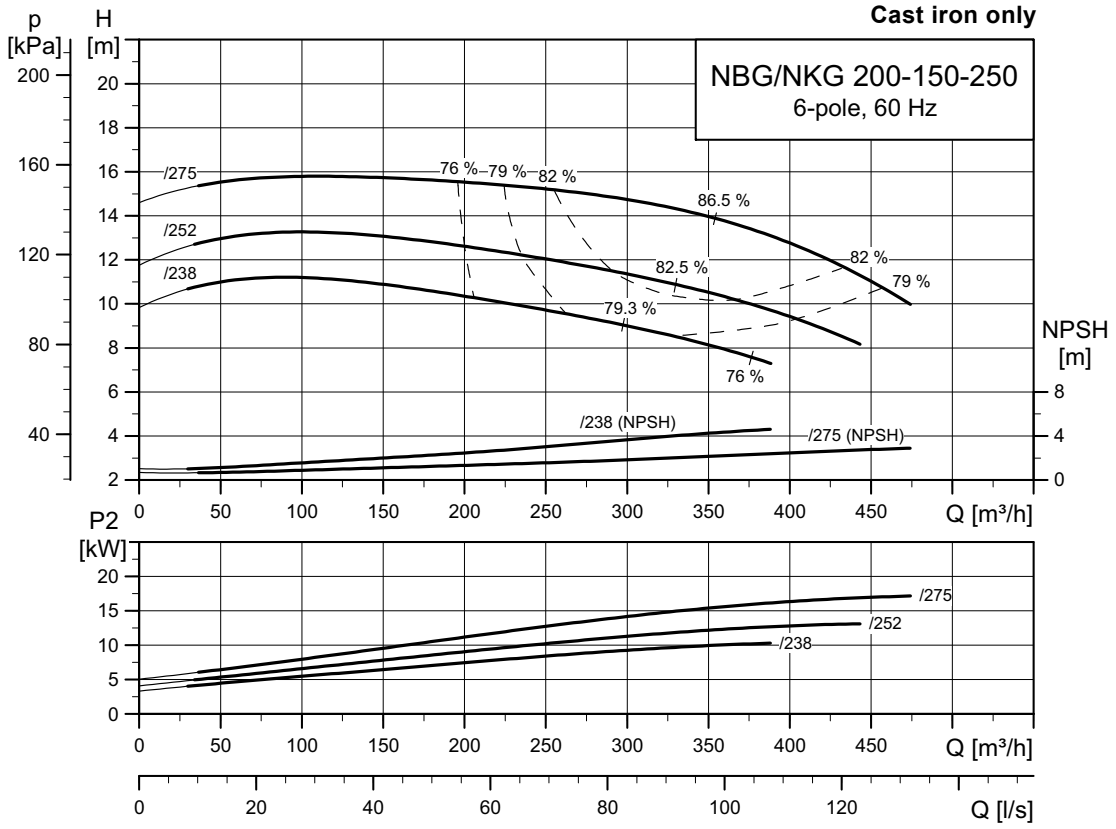
TM03 5075 3414

NBG, NKG 200-150-200



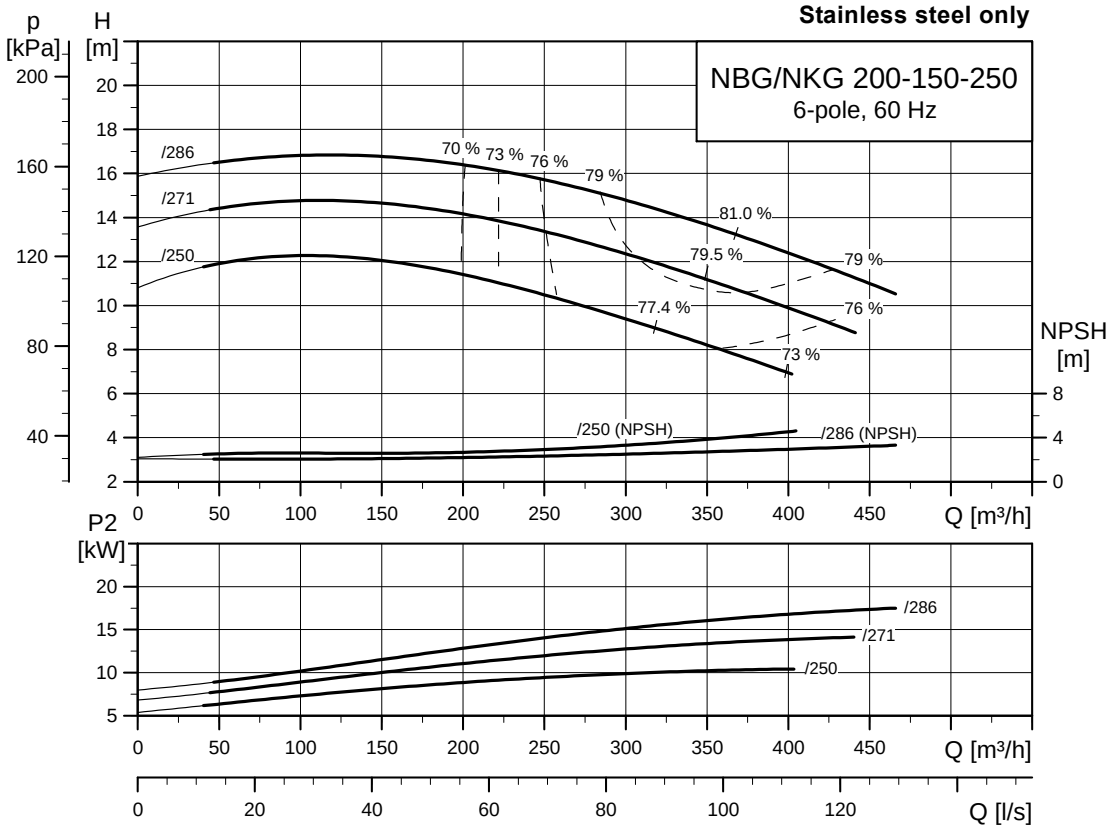
TM03 5076 3414

NBG, NKG 200-150-250



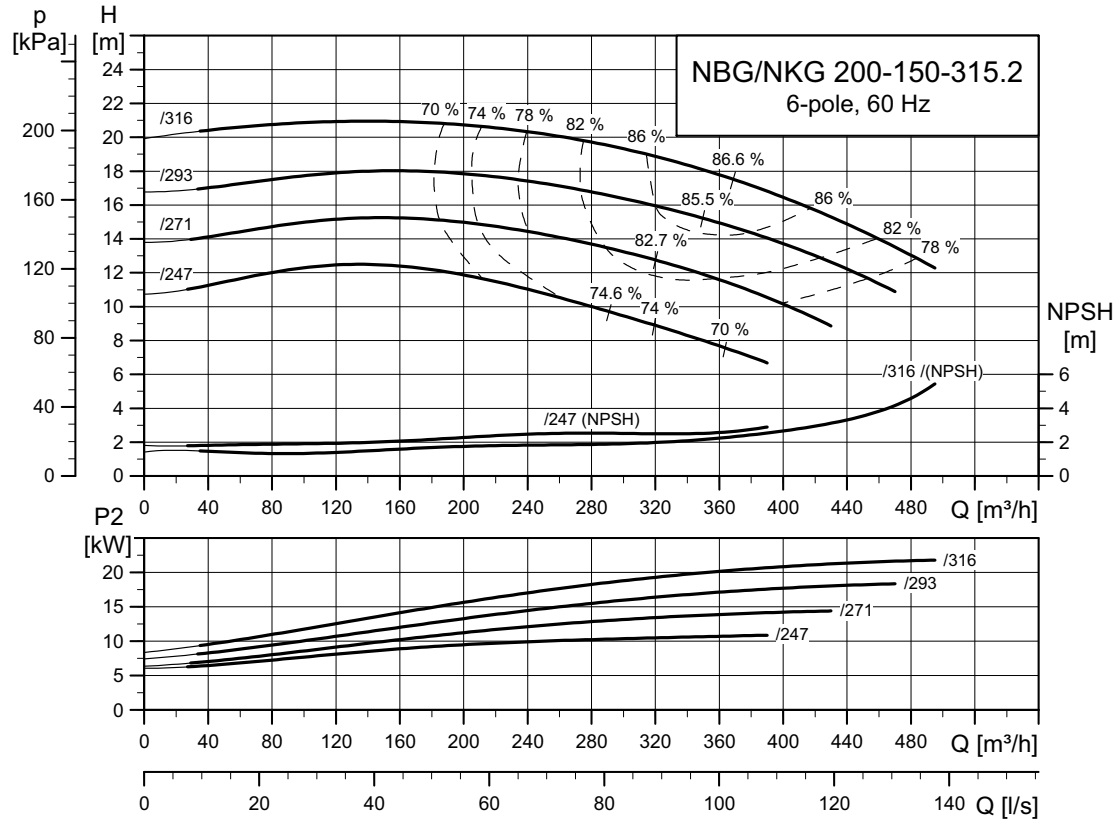
TM03 5077 2316

NBG, NKG 200-150-250



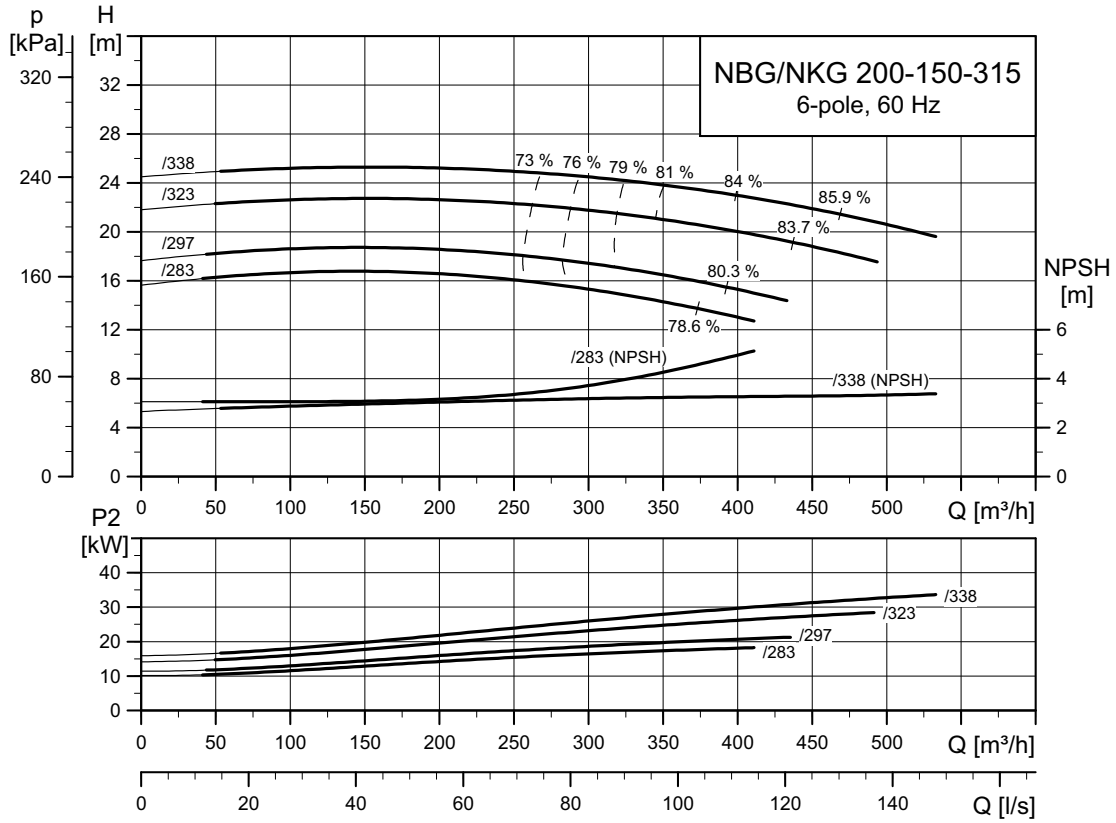
TM06 2736 4614

NBG, NKG 200-150-315.2



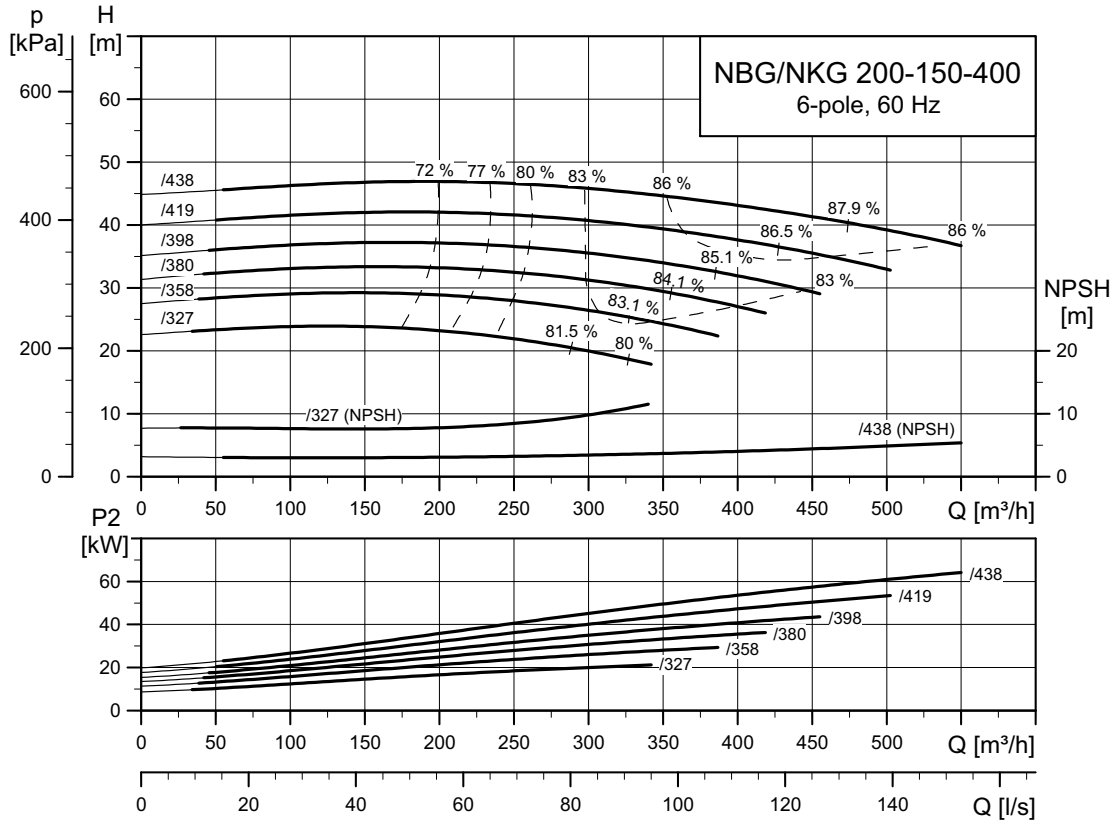
TM06 4760 3315

NBG, NKG 200-150-315



TM03 5078 3414

NBG, NKG 200-150-400



TM03 5079 3414

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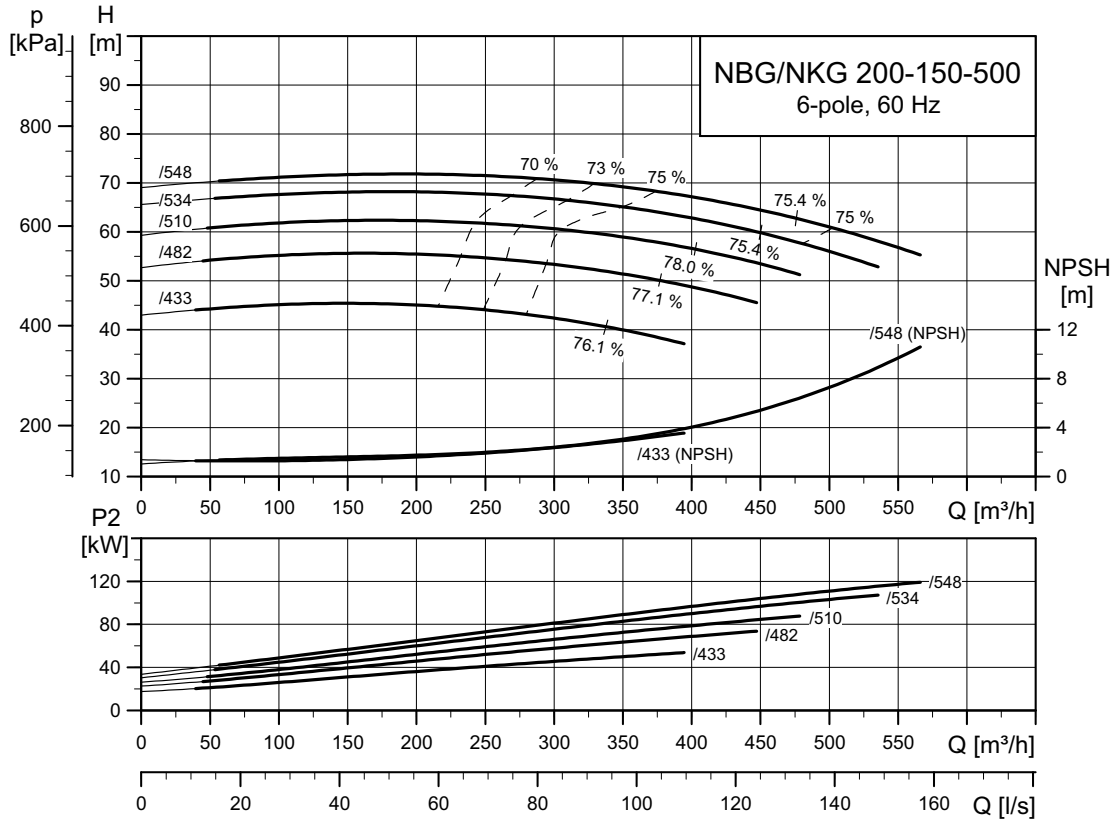
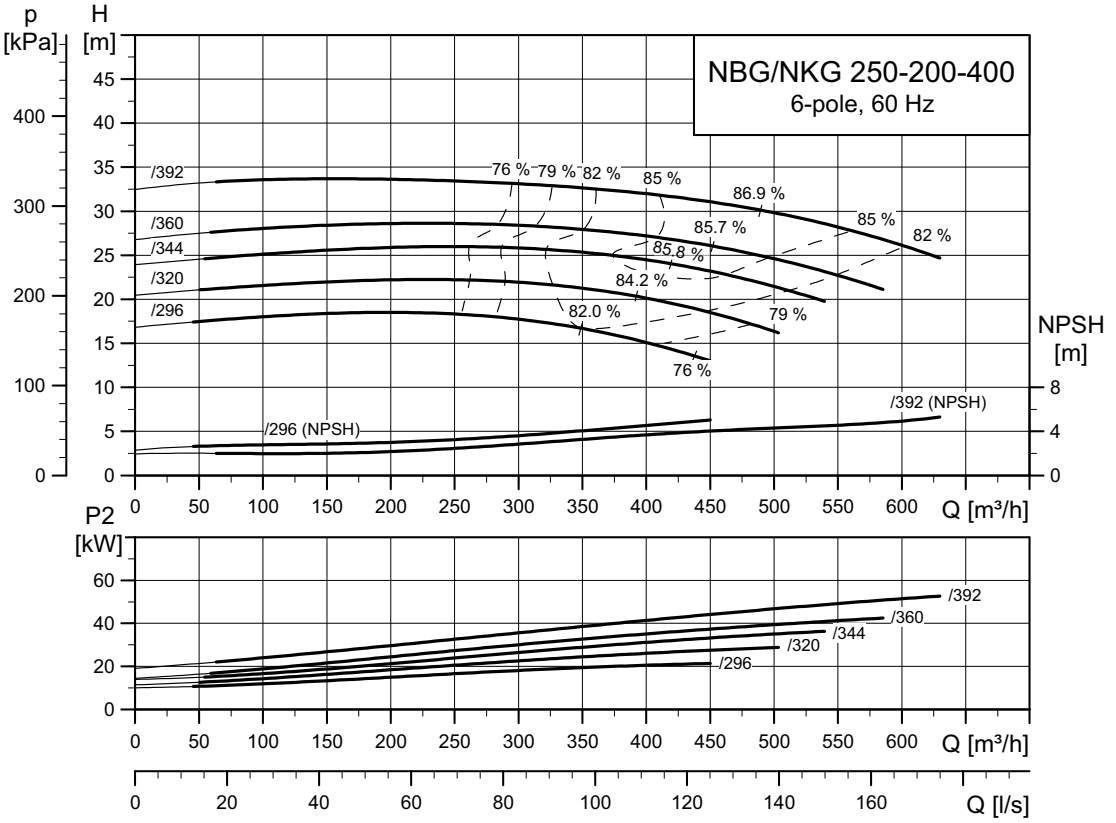


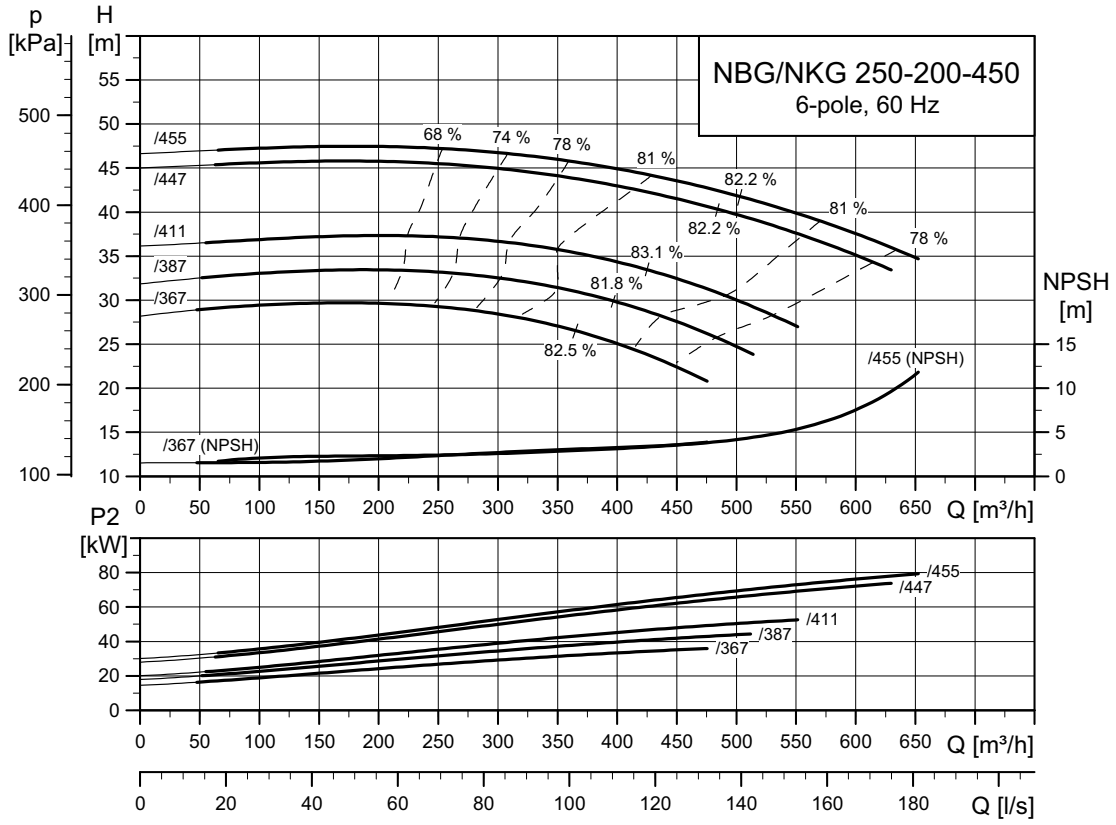
TM03 5080 3414

NBG, NKG 250-200-400



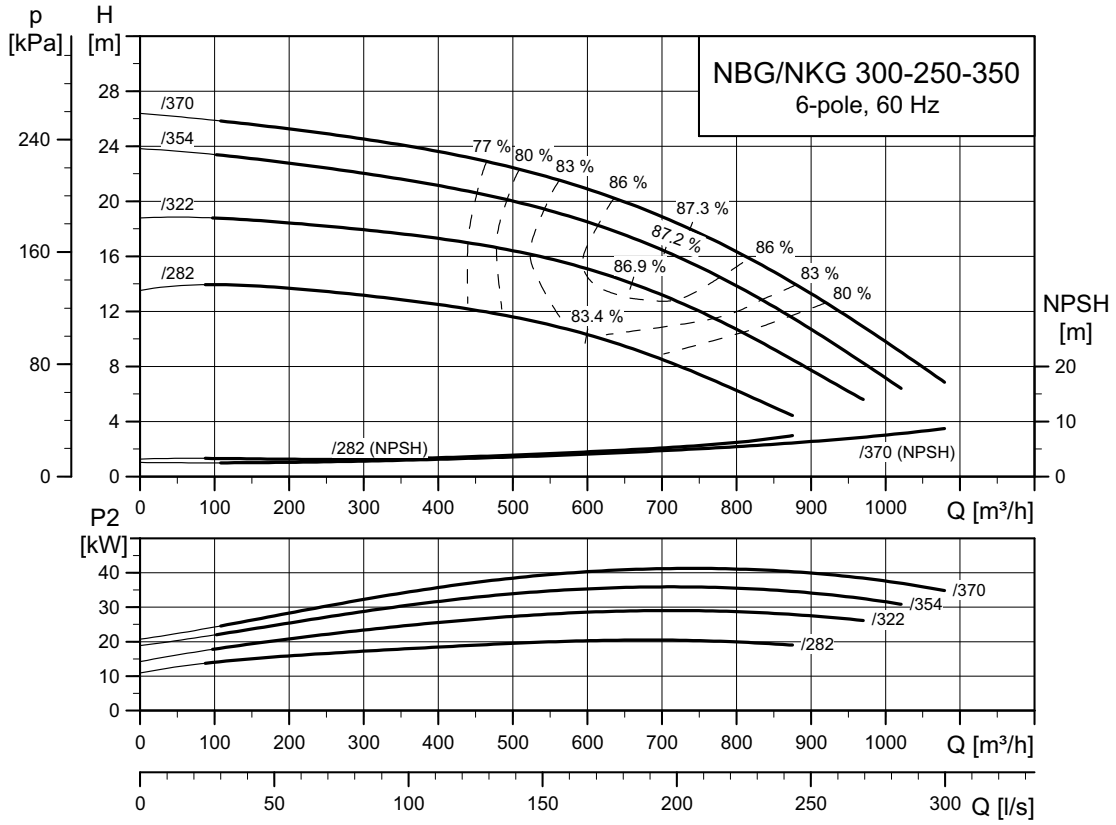
TM04 4946 3414

NBG, NKG 250-200-450



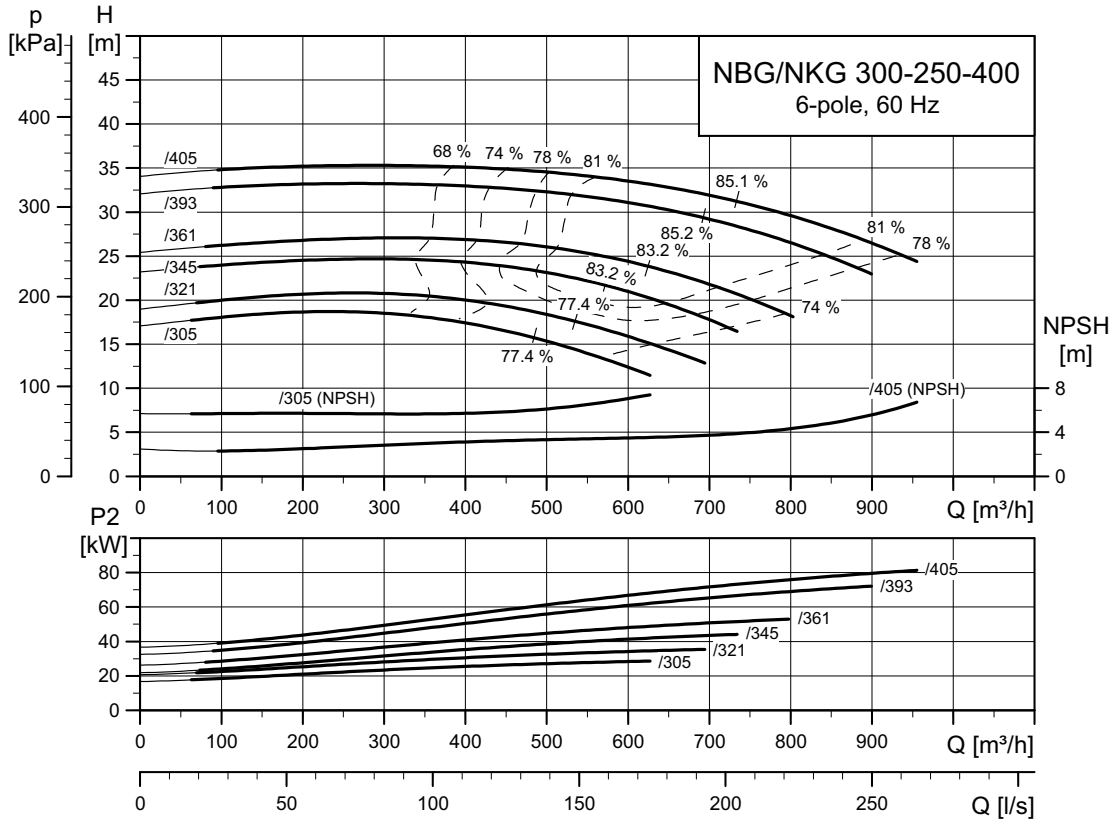
TM04 3966 3414

NBG, NKG 300-250-350



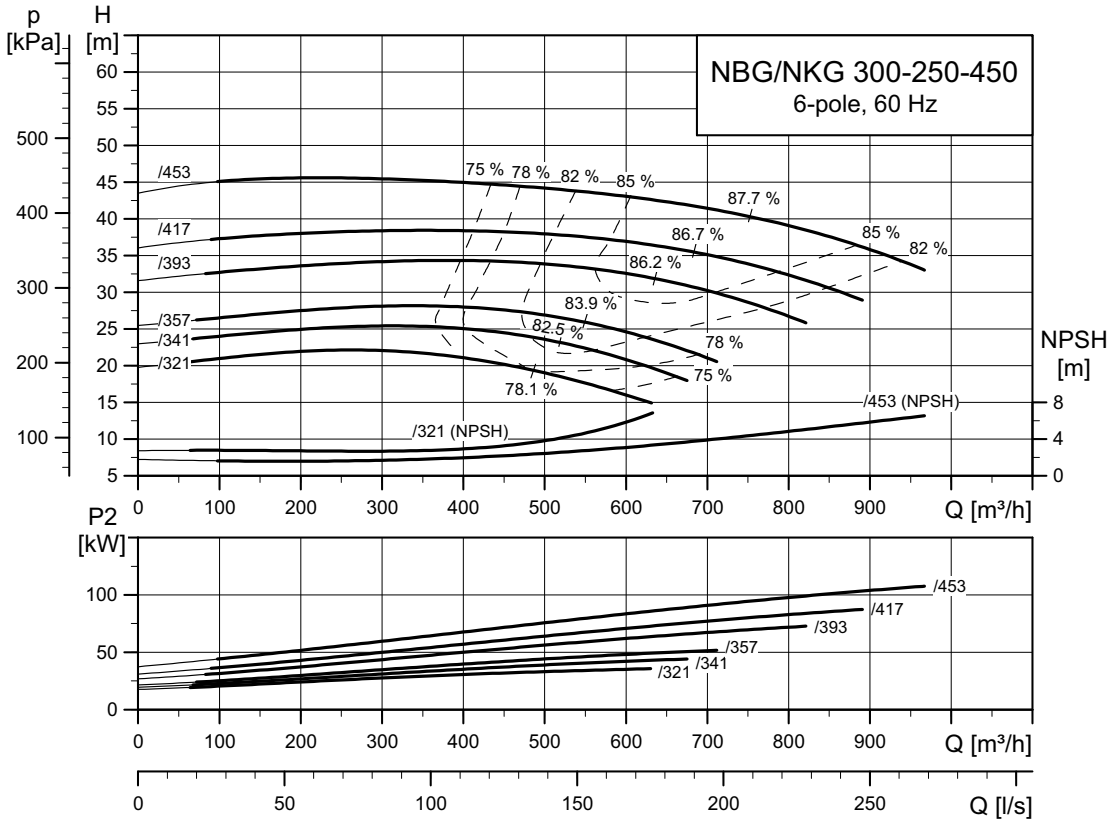
TM04 5965 3414

NBG, NKG 300-250-400



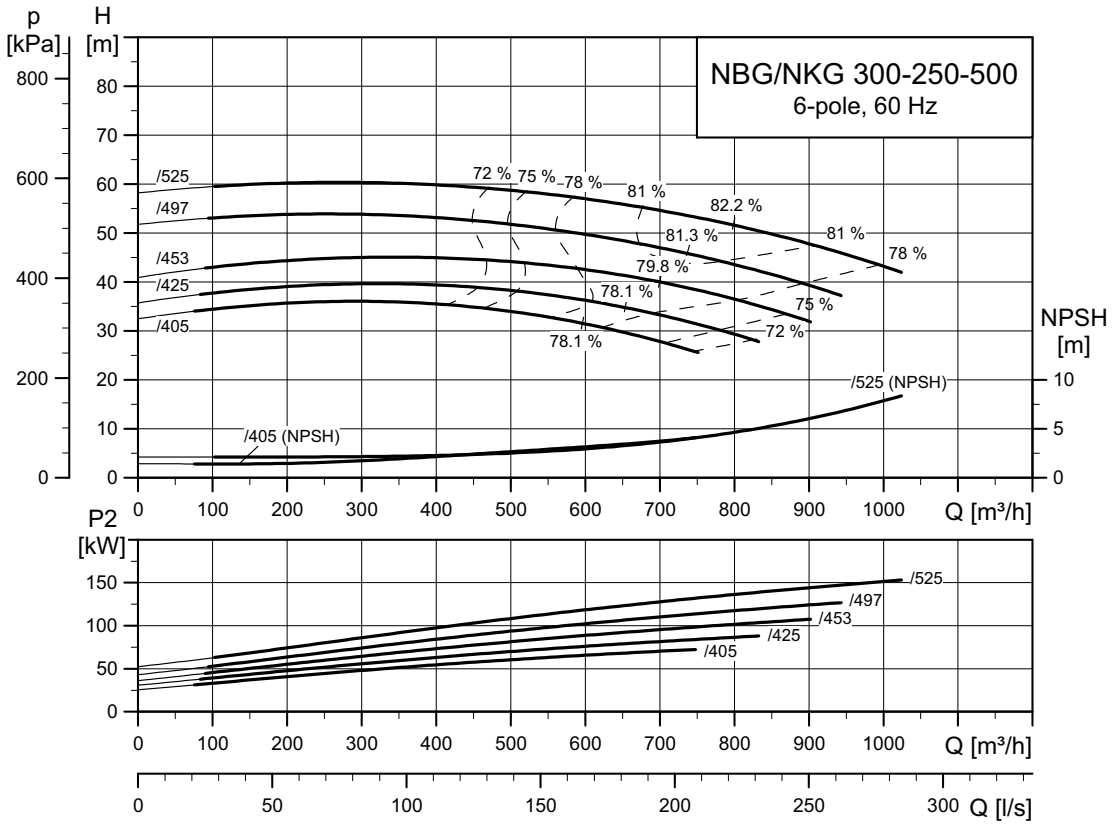
TM04 4021 3414

NBG, NKG 300-250-450



TM04 4950 3414

NBG, NKG 300-250-500

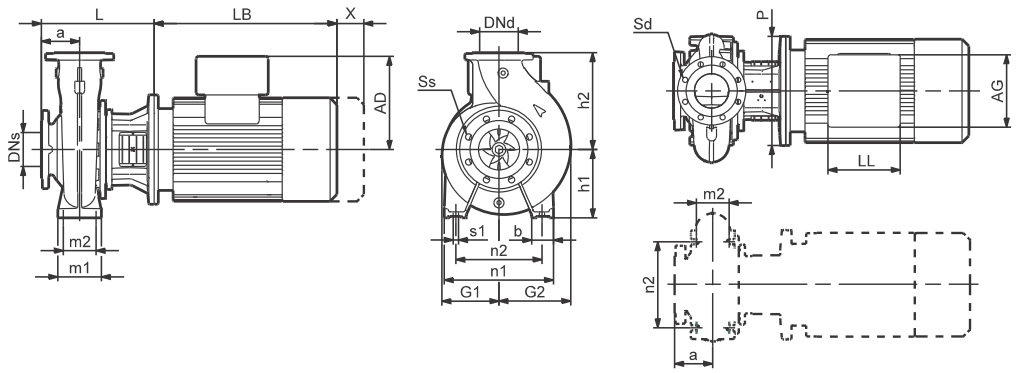


TM04 5969 3414

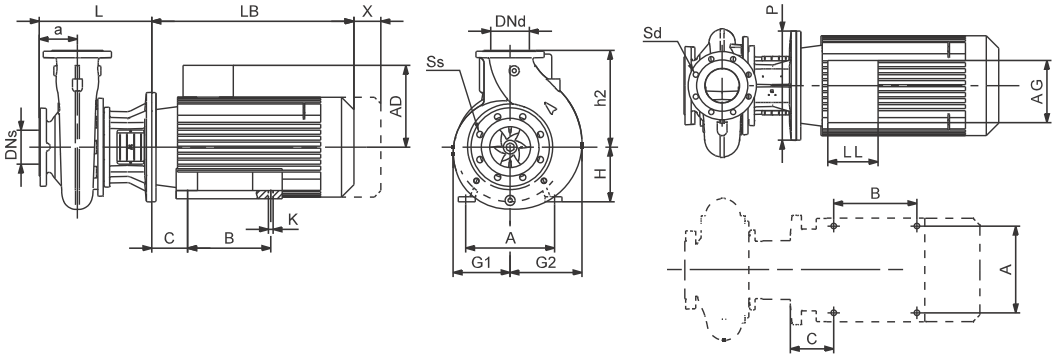
17. Dimensional drawings and technical data

Dimensional drawings, NBG

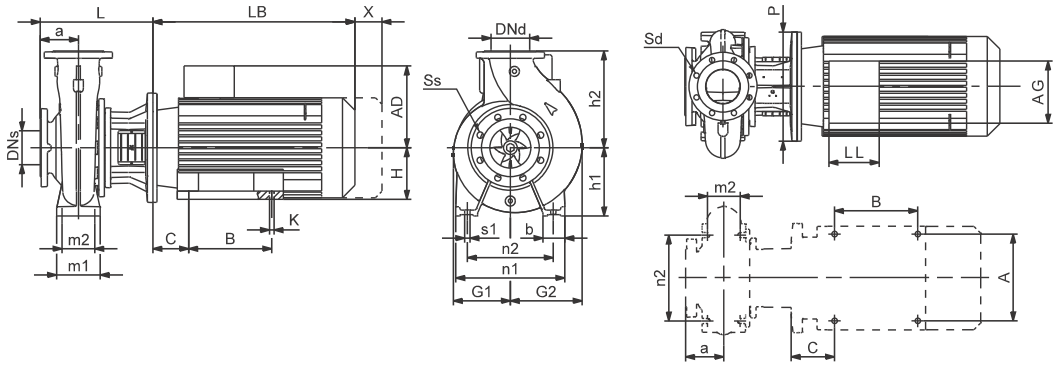
Mounting design A



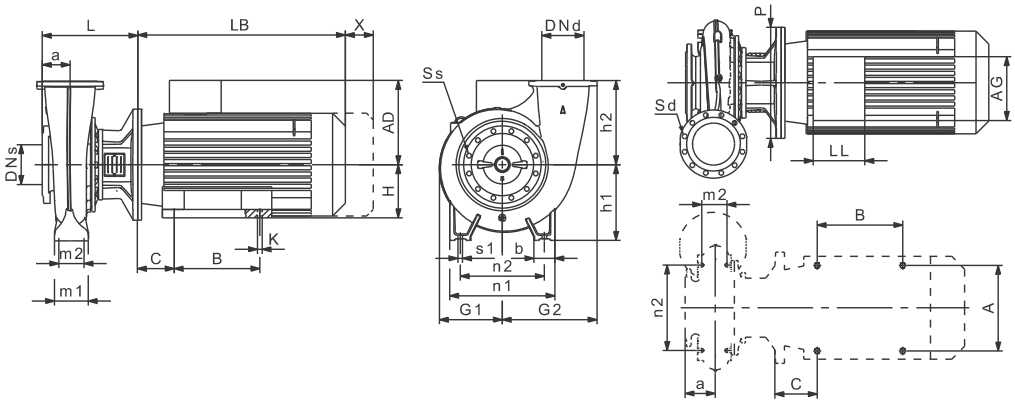
Mounting design B



Mounting design C1, center outlet



Mounting design C2, tangential outlet



Technical data, NBG

Standard motors in this table are IE3 motors:

- 2-pole: P2 less than or equal to 22 kW, pump with MG motor; P2 greater than or equal to 30 kW, pump with Siemens motor.
- 4-pole: P2 less than or equal to 15 kW, pump with MG motor; P2 greater than or equal to 18.5 kW, pump with Siemens motor.
- 6-pole: Pump with Siemens motor.

E-motors in this table:

- 2-pole: P2 less than or equal to 22 kW, pump with MGE motor.
- 4-pole: P2 less than or equal to 18.5 kW, pump with MGE motor.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges					NBG dimensions [mm]																							
					PN	DNs	DNd	Ss	Sd	a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L Cl	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
50-32-125.1	2	1.1	95	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	112	140	-	117	117	-	226	226	251/274	82/232	100	70	190	140	200	12	100
		1.5	104	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	112	140	-	117	117	-	226	226	234/274	131/260	100	70	190	140	200	12	100
		2.2	116	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	112	140	-	117	117	-	226	226	274/261	131/260	100	70	190	140	200	12	100
		3	129	A	16	50	32	4x19	4x19	80	-	120/201	162/222	50	-	-	112	140	-	117	117	-	254	254	335/334	103/280	100	70	190	140	250	12	100
		4	140	A	16	50	32	4x19	4x19	80	-	134/201	202/208	50	-	-	112	140	-	117	117	-	254	254	372/334	103/280	100	70	190	140	250	12	100
	4	0.25	116	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	112	140	-	117	117	-	201	201	191/-	82/-	100	70	190	140	160	12	100
		0.37	132	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	112	140	-	117	117	-	201	201	191/-	82/-	100	70	190	140	160	12	100
		0.55	140	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	112	140	-	117	117	-	226	226	231/274	82/232	100	70	190	140	200	12	100
50-32-125	2	1.5	97	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	112	140	-	117	117	-	226	226	234/274	131/260	100	70	190	140	200	12	100
		2.2	107	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	112	140	-	117	117	-	226	226	274/261	131/260	100	70	190	140	200	12	100
		3	122	A	16	50	32	4x19	4x19	80	-	120/201	162/222	50	-	-	112	140	-	117	117	-	254	254	335/334	103/280	100	70	190	140	250	12	100
		4	130	A	16	50	32	4x19	4x19	80	-	134/201	202/208	50	-	-	112	140	-	117	117	-	254	254	372/334	103/280	100	70	190	140	250	12	100
		5.5	142	A	16	50	32	4x19	4x19	80	-	134/201	202/228	50	-	-	112	140	-	117	117	-	293	293	391/365	103/280	100	70	190	140	300	12	100
	4	0.25	109	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	112	140	-	117	117	-	201	201	191/-	82/-	100	70	190	140	160	12	100
		0.37	123	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	112	140	-	117	117	-	201	201	191/-	82/-	100	70	190	140	160	12	100
		0.55	140	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	112	140	-	117	117	-	226	226	231/274	82/232	100	70	190	140	200	12	100
		0.75	142	A	16	50	32	4x19	4x19	80	-	106/174	166/261	50	-	-	112	140	-	117	117	-	226	226	234/312	131/281	100	70	190	140	200	12	100
50-32-160.1	2	2.2	133	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	132	160	-	117	123	-	226	226	274/261	131/260	100	70	240	190	200	12	100
		3	145	A	16	50	32	4x19	4x19	80	-	120/201	162/222	50	-	-	132	160	-	117	123	-	254	254	335/334	103/280	100	70	240	190	250	12	100
		4	156	A	16	50	32	4x19	4x19	80	-	134/201	202/208	50	-	-	132	160	-	117	123	-	254	254	372/334	103/280	100	70	240	190	250	12	100
		5.5	170	A	16	50	32	4x19	4x19	80	-	134/201	202/228	50	-	-	132	160	-	117	123	-	293	293	391/365	103/280	100	70	240	190	300	12	100
		7.5	177	A	16	50	32	4x19	4x19	80	-	159/237	203/227	50	-	-	132	160	-	117	123	-	293	293	379/389	135/317	100	70	240	190	300	12	100
	4	0.37	147	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	132	160	-	117	123	-	201	201	191/-	82/-	100	70	240	190	160	12	100
		0.55	164	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	132	160	-	117	123	-	226	226	231/274	82/232	100	70	240	190	200	12	100
		0.75	173	A	16	50	32	4x19	4x19	80	-	106/174	166/261	50	-	-	132	160	-	117	123	-	226	226	234/312	131/281	100	70	240	190	200	12	100
50-32-160	2	3	128	A	16	50	32	4x19	4x19	80	-	120/201	162/222	50	-	-	132	160	-	117	125	-	254	254	335/334	103/280	100	70	240	190	250	12	100
		4	139	A	16	50	32	4x19	4x19	80	-	134/201	202/208	50	-	-	132	160	-	117	125	-	254	254	372/334	103/280	100	70	240	190	250	12	100
		5.5	152	A	16	50	32	4x19	4x19	80	-	134/201	202/228	50	-	-	132	160	-	117	125	-	293	293	391/365	103/280	100	70	240	190	300	12	100
		7.5	168	A	16	50	32	4x19	4x19	80	-	159/237	203/227	50	-	-	132	160	-	117	125	-	293	293	379/389	135/317	100	70	240	190	300	12	100
		11	177	C1	16	50	32	4x19	4x19	80	254	204/237	243/420	50	210	108	132	160	160	117	125	15	323	323	471/406	213/317	100	70	240	190	350	12	100
	4	0.37	131	A	16	50	32	4x19	4x19	80	-	109/-	82/-	50	-	-	132	160	-	117	125	-	201	201	191/-	82/-	100	70	240	190	160	12	100
		0.55	147	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	132	160	-	117	125	-	226	226	231/274	82/232	100	70	240	190	200	12	100
		0.75	158	A	16	50	32	4x19	4x19	80	-	106/174	166/261	50	-	-	132	160	-	117	125	-	226	226	234/312	131/281	100	70	240	190	200	12	100
		1.1	173	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	132	160	-	117	125	-	226	226	234/274	131/260	100	70	240	190	200	12	100
50-32-200.1	2	4	158	A	16	50	32	4x19	4x19	80	-	134/201	202/208	50	-	-	160	180	-	135	137	-	254	254	372/334	103/280	100	70	240	190	250	12	100
		5.5	175	A	16	50	32	4x19	4x19	80	-	134/201	202/228	50	-	-	160	180	-	135	137	-	293	293	391/365	103/280	100	70	240	190	300	12	100
		7.5	192	A	16	50	32	4x19	4x19	80	-	159/237	203/227	50	-	-	160	180	-	135	137	-	293	293	379/389	135/317	100	70	240	190	300	12	100
		11	207	C1	16	50	32	4x19	4x19	80	254	204/237	243/420	50	210	108	160	180	160	135	137	15	323	323	471/406	213/317	100	70	240	190	350	12	100
	4	0.55	168	A	16	50	32	4x19	4x19	80	-	109/158	82/268	50	-	-	160	180	-	135	137	-	226	226	231/274	82/232	100	70	240	190	200	12	100
		0.75	182	A	16	50	32	4x19	4x19	80	-	106/174	166/261	50	-	-	160	180	-	135	137	-	226	226	234/312	131/281	100	70	240	190	200	12	100
		1.1	201	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	160	180	-	135	137	-	226	226	234/274	131/260	100	70	240	190	200	12	100
		1.5	207	A	16	50	32	4x19	4x19	80	-	110/158	162/177	50	-	-	160	180	-	135	137	-	226	226	321/274	103/232	100	70	240	190	200	12	100
50-32-200	2	5.5	164	A	16	50	32	4x19	4x19	80	-	134/201	202/228	50	-	-	160	180	-	124	145	-	293	293	391/365	103/280	100	70	240	190	300	12	100
		7.5	179	A	16	50	32	4x19	4x19	80	-	159/237	203/227	50	-	-	160	180	-	124	145	-	293	293	379/389	135/317	100	70	240	190	300	12	100
		11	197	C1	16	50	32	4x19	4x19	80	254	204/237	243/420	50	210	108	160	180	160	124	145	15	323	323	471/406	213/317	100	70	240	190	350	12	100
		15	212	C1	16	50	32	4x19	4x19	80	254	204/308	243/420	50	210	108	160	180	160	124	145	15	323	323	471/471	213/400	100	70	240	190	350	12	100
		18.5	219	C1	16	50	32	4x19	4x19	80	254	204/308	243/420	50	254	108	160	180	160	124	145	15	323	323	515/515	213/400	100	70	240	190	350	12	100
	4	0.75	169	A	16	50	32	4x19	4x19	80	-	106/174	166/261	50	-	-	160	180	-	124	145	-	226	226	234/312	131/281	100	70	240	190	200	12	100
		1.1	184	A	16	50	32	4x19	4x19	80	-	106/181	166/181	50	-	-	160	180	-	124	145	-	226	226	234/274	131/260	100	70	240	190	200	12	100
		1.5	202	A	16	50	32	4x19	4x19	80	-	110/158	162/177	50	-	-	160	180	-	124	145	-	226	226	321/274	103/232	100	70	240	190	200	12	100
		2.2	219	A	16	50	32	4x19	4x19	80	-	120/201	162/222	50	-	-	160	180	-	124	145	-	254	254	335/334	103/280	100	70	240	190	250	12	100

[1] Pump with standard motor or pump with E-motor.
[2] X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges PN	DNs	DNd	Ss	Sd	NBG dimensions [mm] a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L CI	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
50-32-250	2	11	207	C1	16	50	32	4x19	4x19	100	254	204/237	243/420	65	210	108	180	225	160	162	164	15	343	343	471/406	213/317	125	95	320	250	350	12	100
		15	227	C1	16	50	32	4x19	4x19	100	254	204/308	243/420	65	210	108	180	225	160	162	164	15	343	343	471/471	213/400	125	95	320	250	350	12	100
		18.5	242	C1	16	50	32	4x19	4x19	100	254	204/308	243/420	65	254	108	180	225	160	162	164	15	343	343	515/515	213/400	125	95	320	250	350	12	100
		22	256	C1	16	50	32	4x19	4x19	100	279	204/308	243/420	65	241	121	180	225	180	162	164	15	343	343	541/541	213/400	125	95	320	250	350	12	100
		30	262	C1	16	50	32	4x19	4x19	100	318	315/-	265/-	65	305	133	180	225	200	162	164	19	343	343	611/-	197/-	125	95	320	250	400	12	100
	4	1.1	194	A	16	50	32	4x19	4x19	100	-	106/181	166/181	65	-	-	180	225	-	162	164	-	273	273	234/274	131/260	125	95	320	250	200	12	100
		1.5	213	A	16	50	32	4x19	4x19	100	-	110/158	162/177	65	-	-	180	225	-	162	164	-	273	273	321/274	103/232	125	95	320	250	200	12	100
		2.2	243	A	16	50	32	4x19	4x19	100	-	120/201	162/222	65	-	-	180	225	-	162	164	-	293	293	335/334	103/280	125	95	320	250	250	12	100
		3	260	A	16	50	32	4x19	4x19	100	-	120/201	162/222	65	-	-	180	225	-	162	164	-	293	293	335/334	103/280	125	95	320	250	250	12	100
65-40-200	2	11	178	B	16	65	40	4x19	4x19	100	254	204/237	243/420	-	210	108	-	180	160	140	157	15	343	343	471/406	213/317	-	-	-	-	350	-	100
		15	193	B	16	65	40	4x19	4x19	100	254	204/308	243/420	-	210	108	-	180	160	140	157	15	343	343	471/471	213/400	-	-	-	-	350	-	100
		18.5	206	B	16	65	40	4x19	4x19	100	254	204/308	243/420	-	254	108	-	180	160	140	157	15	343	343	515/515	213/400	-	-	-	-	350	-	100
		22	216	B	16	65	40	4x19	4x19	100	279	204/308	243/420	-	241	121	-	180	180	140	157	15	343	343	541/541	213/400	-	-	-	-	350	-	100
		30	219	B	16	65	40	4x19	4x19	100	318	315/-	265/-	-	305	133	-	180	200	140	157	19	343	343	611/-	197/-	-	-	-	-	400	-	100
	4	1.1	168	A	16	65	40	4x19	4x19	100	-	106/181	166/181	50	-	-	160	180	-	140	157	-	246	273	234/274	131/260	100	70	265	212	200	12	100
		1.5	182	A	16	65	40	4x19	4x19	100	-	110/158	162/177	50	-	-	160	180	-	140	157	-	246	273	321/274	103/232	100	70	265	212	200	12	100
		2.2	205	A	16	65	40	4x19	4x19	100	-	120/201	162/222	50	-	-	160	180	-	140	157	-	274	293	335/334	103/280	100	70	265	212	250	12	100
		3	217	A	16	65	40	4x19	4x19	100	-	120/201	162/222	50	-	-	160	180	-	140	157	-	274	293	335/334	103/280	100	70	265	212	250	12	100
65-40-250	2	15	193	B	16	65	40	4x19	4x19	100	254	204/308	243/420	-	210	108	-	225	160	164	172	15	343	343	471/471	213/400	-	-	-	-	350	-	100
		18.5	206	B	16	65	40	4x19	4x19	100	254	204/308	243/420	-	254	108	-	225	160	164	172	15	343	343	515/515	213/400	-	-	-	-	350	-	100
		22	215	B	16	65	40	4x19	4x19	100	279	204/308	243/420	-	241	121	-	225	180	164	172	15	343	343	541/541	213/400	-	-	-	-	350	-	100
		30	236	B	16	65	40	4x19	4x19	100	318	315/-	265/-	-	305	133	-	225	200	164	172	19	343	343	611/-	197/-	-	-	-	-	400	-	100
		37	252	B	16	65	40	4x19	4x19	100	318	315/-	265/-	-	305	133	-	225	200	164	172	19	343	343	636/-	197/-	-	-	-	-	400	-	100
		45	260	-	16	65	40	4x19	4x19	100	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	100
	4	2.2	207	A	16	65	40	4x19	4x19	100	-	120/201	162/222	65	-	-	180	225	-	164	172	-	293	293	335/334	103/280	125	95	320	250	250	12	100
		3	223	A	16	65	40	4x19	4x19	100	-	120/201	162/222	65	-	-	180	225	-	164	172	-	293	293	335/334	103/280	125	95	320	250	250	12	100
		4	246	A	16	65	40	4x19	4x19	100	-	134/201	202/208	65	-	-	180	225	-	164	172	-	293	293	372/334	103/280	125	95	320	250	250	12	100
		5.5	260	A	16	65	40	4x19	4x19	100	-	159/237	203/227	65	-	-	180	225	-	164	172	-	313	313	379/389	135/317	125	95	320	250	300	12	100
65-40-315	2	37	271	C1	16	65	40	4x19	4x19	125	318	315/-	265/-	65	305	133	200	250	200	200	206	19	398	398	636/-	197/-	125	95	345	280	400	12	100
		45	285	C1	16	65	40	4x19	4x19	125	356	338/-	266/-	65	286	149	200	250	225	200	206	19	398	398	708/-	197/-	125	95	345	280	450	12	100
		55	303	C1	25	65	40	4x19	4x19	125	406	410/-	319/-	65	349	168	200	250	250	200	206	24	428	428	747/-	233/-	125	95	345	280	550	12	100
		75	332	C1	25	65	40	4x19	4x19	125	457	433/-	319/-	65	368	190	200	250	280	200	206	24	428	428	820/-	233/-	125	95	345	280	550	12	100
		90	344	C1	25	65	40	4x19	4x19	125	457	433/-	319/-	65	368	190	200	250	280	200	206	24	428	428	930/-	233/-	125	95	345	280	550	12	100
	4	5.5	284	A	16	65	40	4x19	4x19	125	-	159/237	203/227	65	-	-	200	250	-	200	206	-	368	368	379/389	135/317	125	95	345	280	300	12	100
		7.5	313	A	16	65	40	4x19	4x19	125	-	159/237	203/227	65	-	-	200	250	-	200	206	-	368	368	429/389	135/317	125	95	345	280	300	12	100
		11	344	C1	16	65	40	4x19	4x19	125	254	204/308	243/420	65	210	108	200	250	160	200	206	15	398	398	545/471	213/400	125	95	345	280	350	12	100
65-50-125	2	3	110	A	16	65	50	4x19	4x19	80	-	120/201	162/222	50	-	-	112	140	-	117	118	-	254	273	335/334	103/280	100	70	210	160	250	12	100
		4	118	A	16	65	50	4x19	4x19	80	-	134/201	202/208	50	-	-	112	140	-	117	118	-	254	273	372/334	103/280	100	70	210	160	250	12	100
		5.5	131	A	16	65	50	4x19	4x19	80	-	134/201	202/228	50	-	-	112	140	-	117	118	-	293	293	391/365	103/280	100	70	210	160	300	12	100
		7.5	140	A	16	65	50	4x19	4x19	80	-	159/237	203/227	50	-	-	112	140	-	117	118	-	293	293	379/389	135/317	100	70	210	160	300	12	100
		11	142	C1	16	65	50	4x19	4x19	80	254	204/237	243/420	50	210	108	112	140	160	117	118	15	325	325	471/406	213/317	100	70	210	160	350	12	100
	4	0.37	111	A	16	65	50	4x19	4x19	80	-	109/-	82/-	50	-	-	112	140	-	117	118	-	201	243	191/-	82/-	100	70	210	160	160	12	100
		0.55	123	A	16	65	50	4x19	4x19	80	-	109/158	82/268	50	-	-	112	140	-	117	118	-	226	253	231/274	82/232	100	70	210	160	200	12	100
		0.75	133	A	16	65	50	4x19	4x19	80	-	106/174	166/261	50	-	-	112	140	-	117	118	-	226	253	234/312	131/281	100	70	210	160	200	12	100
		1.1	142	A	16	65	50	4x19	4x19	80	-	106/181	166/181	50	-	-	112	140	-	117	118	-	226	253	234/274	131/260	100	70	210	160	200	12	100
65-50-160	2	5.5	131	A	16	65	50	4x19	4x19	80	-	134/201	202/228	50	-	-	132	160	-	117	134	-	293	293	391/365	103/280	100	70	240	190	300	12	100
		7.5	143	A	16	65	50	4x19	4x19	80	-	159/237	203/227	50	-	-	132	160	-	117	134	-	293	293	379/389	135/317	100	70	240	190	300	12	100
		11	162	C1	16	65	50	4x19	4x19	80	254	204/237	243/420	50	210	108	132	160	160	117	134	15	323	323	471/406	213/317	100	70	240	190	350	12	100
		15	177	C1	16	65	50	4x19	4x19	80	254	204/308	243/420	50	210	108	132	160	160	117	134	15	323	323	471/471	213/400	100	70	240	190	350	12	100
	4	0.55	128	A	16	65	50	4x19	4x19	80	-	109/158	82/268	50	-	-	132	160	-	117	134	-	226	253	231/274	82/232	100	70	240	190	200	12	100
		0.75	138	A	16	65	50	4x19	4x19	80	-	106/174	166/261	50	-	-	132	160	-	117	134	-	226	253	234/312	131/281	100	70	240	190	200	12	100
		1.1	153	A	16	65	50	4x19	4x19	80	-	106/181	166/181	50	-	-	132	160	-	117	134	-	226	253	234/274	131/260	100	70	240	190	200	12	100
		1.5	168	A	16	65	50	4x19	4x19	80	-	110/158	162/177	50	-	-	132	160	-	117	134	-	226	253	321/274	103/232	100	70	240	190	200	12	100
		2.2	177	A	16	65	50	4x19	4x19	80	-	120/201	162/222	50	-	-	132	160	-	117	134	-	254	273	335/334	103/280	100	70	240	190	250	12	100
65-50-200	2	15	167	B	16	80	50	8x19	4x19	100	254	204/308	243/420	-	210	108	-	200	160	142	163	15	343	343	471/471	213/400	-	-	-	-	350	-	100
		18.5	178	B	16	80	50	8x19	4x19	100	254	204/308	243/420	-	254	108	-	200	160	142	163	15	343	343	515/515	213/400	-	-	-	-	350	-	100
		22	187	B	16	80	50	8x19	4x19	100	279	204/308	243/420	-	241	121	-	200	180	142	163	15	343	343	541/541	213/400	-	-	-	-	350	-	100
		30	205	B	16	80	50	8x19	4x19	100	318	315/-	265/-	-	305	133	-	200	200	142	163	19	343	343	611/-	197/-	-	-	-	-	400	-	100
		37	218	B	16	80	50	8x19	4x19	100	318	315/-	265/-	-	305	133	-	200	200	142	163	19	343	343	636/-	197/-	-	-	-	-	400	-	100
		45	219	-	16	80	50	8x19	4x19	100	-	-/-	-/-	-	-	-	-	200	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	100
	4	2.2	178	A	16	80	50	8x19	4x19	100	-	120/201	162/222	50	-	-	160	200	-	142	163	-	274	293	335/334	103/280	100	70	265	212	250	12	100
		3	191	A	16	80	50	8x19	4x19	100	-	120/201	162/222	50	-	-	160	200	-	142	163	-	274	293	335/334	103/280	100	70	265	212	250	12	100
		4	210	A	16	80	50	8x19	4x19	100	-	134/201	202/208	50	-	-	160	200	-	142	163	-	274	293	372/334	103/280	100	70	265	212	250	12	100
		5.5	219	A	16	80	50	8x19	4x19	100	-	159/237	203/227	50	-	-	160	200	-	142	163	-	313	313	379/389	135/317	100	70	265	212	300	12	100

[1] Pump with standard motor or pump with E-motor.

[2] X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges					NBG dimensions [mm]																							
					PN	DNs	DNd	Ss	Sd	a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L CI	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
80-50-250	2	30	213	B	16	80	50	8x19	4x19	125	318	315/-	265/-	-	305	133	-	225	200	164	180	19	368	368	611/-	197/-	-	-	-	-	400	-	100
		37	229	B	16	80	50	8x19	4x19	125	318	315/-	265/-	-	305	133	-	225	200	164	180	19	368	368	636/-	197/-	-	-	-	-	400	-	100
		45	242	-	16	80	50	8x19	4x19	125	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	100
		55	257	-	16	80	50	8x19	4x19	125	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	100
		75	263	-	16	80	50	8x19	4x19	125	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	100
	4	4	221	A	16	80	50	8x19	4x19	125	-	134/201	202/208	65	-	-	180	225	-	164	180	-	318	318	372/334	103/280	125	95	320	250	250	12	100
		5.5	244	A	16	80	50	8x19	4x19	125	-	159/237	203/227	65	-	-	180	225	-	164	180	-	338	338	379/389	135/317	125	95	320	250	300	12	100
		7.5	263	A	16	80	50	8x19	4x19	125	-	159/237	203/227	65	-	-	180	225	-	164	180	-	338	338	429/389	135/317	125	95	320	250	300	12	100
80-50-315	2	55	271	C1	16	80	50	8x19	8x19	125	406	410/-	319/-	65	349	168	225	280	250	203	214	24	428	428	747/-	233/-	125	95	345	280	550	12	100
		75	297	C1	25	80	50	8x19	8x19	125	457	433/-	319/-	65	368	190	225	280	280	203	214	24	428	428	820/-	233/-	125	95	345	280	550	12	100
		90	314	C1	25	80	50	8x19	8x19	125	457	433/-	319/-	65	368	190	225	280	280	203	214	24	428	428	930/-	233/-	125	95	345	280	550	12	100
		110	333	C1	25	80	50	8x19	8x19	125	508	515/-	374/-	65	406	216	225	280	315	203	214	28	458	458	912/-	299/-	125	95	345	280	660	12	100
	4	5.5	256	A	16	80	50	8x19	4x19	125	-	159/237	203/227	65	-	-	225	280	-	203	214	-	368	368	379/389	135/317	125	95	345	280	300	12	100
		7.5	283	A	16	80	50	8x19	4x19	125	-	159/237	203/227	65	-	-	225	280	-	203	214	-	368	368	429/389	135/317	125	95	345	280	300	12	100
		11	314	C1	16	80	50	8x19	4x19	125	254	204/308	243/420	65	210	108	225	280	160	203	214	15	398	398	545/471	213/400	125	95	345	280	350	12	100
		15	344	C1	16	80	50	8x19	4x19	125	254	204/308	243/420	65	254	108	225	280	160	203	214	15	398	398	575/515	213/400	125	95	345	280	350	12	100
80-65-125	2	4	105	A	16	80	65	8x19	4x19	100	-	134/201	202/208	50	-	-	132	160	-	117	131	-	274	293	372/334	103/280	100	70	240	190	250	12	100
		5.5	113	A	16	80	65	8x19	4x19	100	-	134/201	202/228	50	-	-	132	160	-	117	131	-	313	313	391/365	103/280	100	70	240	190	300	12	100
		7.5	124	A	16	80	65	8x19	4x19	100	-	159/237	203/227	50	-	-	132	160	-	117	131	-	313	313	379/389	135/317	100	70	240	190	300	12	100
		11	140	C1	16	80	65	8x19	4x19	100	254	204/237	243/420	50	210	108	132	160	160	117	131	15	343	343	471/406	213/317	100	70	240	190	350	12	100
		15	144	C1	16	80	65	8x19	4x19	100	254	204/308	243/420	50	210	108	132	160	160	117	131	15	343	343	471/471	213/400	100	70	240	190	350	12	100
	4	0.55	109	A	16	80	65	8x19	4x19	100	-	109/158	82/268	50	-	-	132	160	-	117	131	-	246	273	231/274	82/232	100	70	240	190	200	12	100
		0.75	116	A	16	80	65	8x19	4x19	100	-	106/174	166/261	50	-	-	132	160	-	117	131	-	246	273	234/312	131/281	100	70	240	190	200	12	100
		1.1	127	A	16	80	65	8x19	4x19	100	-	106/181	166/181	50	-	-	132	160	-	117	131	-	246	273	234/274	131/260	100	70	240	190	200	12	100
		1.5	143	A	16	80	65	8x19	4x19	100	-	110/158	162/177	50	-	-	132	160	-	117	131	-	246	273	321/274	103/232	100	70	240	190	200	12	100
80-65-160	2	7.5	127	A	16	80	65	8x19	4x19	100	-	159/237	203/227	50	-	-	160	180	-	125	151	-	313	313	379/389	135/317	100	70	264	212	300	12	100
		11	141	B	16	80	65	8x19	4x19	100	254	204/237	243/420	-	210	108	-	180	160	125	151	15	343	343	471/406	213/317	-	-	-	-	350	-	100
		15	154	B	16	80	65	8x19	4x19	100	254	204/308	243/420	-	210	108	-	180	160	125	151	15	343	343	471/471	213/400	-	-	-	-	350	-	100
		18.5	165	B	16	80	65	8x19	4x19	100	254	204/308	243/420	-	254	108	-	180	160	125	151	15	343	343	515/515	213/400	-	-	-	-	350	-	100
		22	177	B	16	80	65	8x19	4x19	100	279	204/308	243/420	-	241	121	-	180	180	125	151	15	343	343	541/541	213/400	-	-	-	-	350	-	100
	4	1.1	134	A	16	80	65	8x19	4x19	100	-	106/181	166/181	50	-	-	160	180	-	125	151	-	246	273	234/274	131/260	100	70	264	212	200	12	100
		1.5	146	A	16	80	65	8x19	4x19	100	-	110/158	162/177	50	-	-	160	180	-	125	151	-	246	273	321/274	103/232	100	70	264	212	200	12	100
		2.2	165	A	16	80	65	8x19	4x19	100	-	120/201	162/222	50	-	-	160	180	-	125	151	-	274	293	335/334	103/280	100	70	264	212	250	12	100
		3	175	A	16	80	65	8x19	4x19	100	-	120/201	162/222	50	-	-	160	180	-	125	151	-	274	293	335/334	103/280	100	70	264	212	250	12	100
100-65-200	2	18.5	160	B	16	100	65	8x19	4x19	100	254	204/308	243/420	-	254	108	-	225	160	149	173	15	343	343	515/515	213/400	-	-	-	-	350	-	140
		22	168	B	16	100	65	8x19	4x19	100	279	204/308	243/420	-	241	121	-	225	180	149	173	15	343	343	541/541	213/400	-	-	-	-	350	-	140
		30	184	B	16	100	65	8x19	4x19	100	318	315/-	265/-	-	305	133	-	225	200	149	173	19	343	343	611/-	197/-	-	-	-	-	400	-	140
		37	195	B	16	100	65	8x19	4x19	100	318	315/-	265/-	-	305	133	-	225	200	149	173	19	343	343	636/-	197/-	-	-	-	-	400	-	140
		45	208	-	16	100	65	8x19	4x19	100	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
		55	219	-	16	100	65	8x19	4x19	100	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
	4	3	173	A	16	100	65	8x19	4x19	100	-	120/201	162/222	65	-	-	180	225	-	149	173	-	293	293	335/334	103/280	125	95	320	250	250	12	140
		4	189	A	16	100	65	8x19	4x19	100	-	134/201	202/208	65	-	-	180	225	-	149	173	-	293	293	372/334	103/280	125	95	320	250	250	12	140
		5.5	209	A	16	100	65	8x19	4x19	100	-	159/237	203/227	65	-	-	180	225	-	149	173	-	313	313	379/389	135/317	125	95	320	250	300	12	140
		7.5	219	A	16	100	65	8x19	4x19	100	-	159/237	203/227	65	-	-	180	225	-	149	173	-	313	313	429/389	135/317	125	95	320	250	300	12	140
100-65-250	2	45	212	C1	16	100	65	8x19	4x19	125	356	338/-	266/-	80	286	149	200	250	225	183	200	19	428	428	708/-	197/-	160	120	360	280	450	16	140
		55	226	C1	16	100	65	8x19	4x19	125	406	410/-	319/-	80	349	168	200	250	250	183	200	24	428	428	747/-	233/-	160	120	360	280	550	16	140
		75	248	C1	16	100	65	8x19	4x19	125	457	433/-	319/-	80	368	190	200	250	280	183	200	24	428	428	820/-	233/-	160	120	360	280	550	16	140
		90	263	C1	16	100	65	8x19	4x19	125	457	433/-	319/-	80	368	190	200	250	280	183	200	24	428	428	930/-	233/-	160	120	360	280	550	16	140
		110	270	C1	16	100	65	8x19	4x19	125	508	515/-	374/-	80	406	216	200	250	315	183	200	28	458	458	912/-	299/-	160	120	360	280	660	16	140
	4	5.5	215	A	16	100	65	8x19	4x19	125	-	159/237	203/227	80	-	-	200	250	-	183	200	-	368	368	379/389	135/317	160	120	360	280	300	16	140
		7.5	238	A	16	100	65	8x19	4x19	125	-	159/237	203/227	80	-	-	200	250	-	183	200	-	368	368	429/389	135/317	160	120	360	280	300	16	140
		11	265	C1	16	100	65	8x19	4x19	125	254	204/308	243/420	80	210	108	200	250	160	183	200	15	398	398	545/471	213/400	160	120	360	280	350	16	140
		15	270	C1	16	100	65	8x19	4x19	125	254	204/308	243/420	80	254	108	200	250	160	183	200	15	398	398	575/515	213/400	160	120	360	280	350	16	140
100-65-315	2	90	269	C1	25	100	65	8x19	4x19	125	457	433/-	319/-	80	368	190	225	280	280	211	219	24	426	426	930/-	233/-	160	120	400	315	550	16	140
		110	284	C1	25	100	65	8x19	4x19	125	508	515/-	374/-	80	406	216	225	280	315	211	219	28	456	456	912/-	299/-	160	120	400	315	660	16	140
		132	298	C1	25	100	65	8x19	4x19	125	508	515/-	374/-	80	457	216	225	280	315	211	219	28	460	460	1077/-	299/-	160	120	400	315	660	16	140
		160	313	C1	25	100	65	8x19	4x19	125	508	515/-	374/-	80	457	216	225	280	315	211	219	28	460	460	1077/-	299/-	160	120	400	315	660	16	140
		200	320	C1	25	100	65	8x19	4x19	125	508	515/-	374/-	80	457	216	225	280	315	211	219	28	460	460	1232/-	299/-	160	120	400	315	660	16	140
	4	7.5	242	A	16	100	65	8x19	4x19	125	-	159/237	203/227	80	-	-	225	280	-	211	219	-	366	366	429/389	135/317	160	120	400	315	300	16	140
		11	270	C1	16	100	65	8x19	4x19	125	254	204/308	243/420	80	210	108	225	280	160	211	219	15	396	396	545/471	213/400	160	120	400	315	350	16	140
		15	290	C1	16	100	65	8x19	4x19	125	254	204/308	243/420	80	254	108	225	280	160	211	219	15	396	396	575/515	213/400	160	120	400	315	350	16	140
		18.5	305	C1	16	100	65	8x19	4x19	125	279	286/308	189/420	80	241	121	225	280	180	211	219	15	396	396	558/541	164/400	160	120	400	315	350	16	140
		22	320	C1	16	100	65	8x19	4x19	125	279	286/-	189/-	80	241	121	225	280	180	211	219	15	396	396	588/-	164/-	160	120	400	315	350	16	140

[1] Pump with standard motor or pump with E-motor.

[2] X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges					NBG dimensions [mm]																						
					PN	DNs	DNd	Ss	Sd	a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L CI	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
100-80-125	2	7.5	120-110	A	16	100	80	8x19	8x19	100	-	159/237	203/227	65	-	-	160	180	-	117	146	-	313	313	379/389	135/317	125	95	280	212	300	12	100
		11	130	C1	16	100	80	8x19	8x19	100	254	204/237	243/420	65	210	108	160	180	160	117	146	15	343	343	471/406	213/317	125	95	280	212	350	12	100
		15	141	C1	16	100	80	8x19	8x19	100	254	204/308	243/420	65	210	108	160	180	160	117	146	15	343	343	471/471	213/400	125	95	280	212	350	12	100
		18.5	144	C1	16	100	80	8x19	8x19	100	254	204/308	243/420	65	254	108	160	180	160	117	146	15	343	343	515/515	213/400	125	95	280	212	350	12	100
	4	1.1	121	A	16	100	80	8x19	8x19	100	-	106/181	166/181	65	-	-	160	180	-	117	146	-	246	273	234/274	131/260	125	95	280	212	200	12	100
		1.5	132	A	16	100	80	8x19	8x19	100	-	110/158	162/177	65	-	-	160	180	-	117	146	-	246	273	321/274	103/232	125	95	280	212	200	12	100
		2.2	144	A	16	100	80	8x19	8x19	100	-	120/201	162/222	65	-	-	160	180	-	117	146	-	274	293	335/334	103/280	125	95	280	212	250	12	100
100-80-160	2	11	136	B	16	100	80	8x19	8x19	100	254	204/237	243/420	-	210	108	-	200	160	127	161	15	343	343	471/406	213/317	-	-	-	-	350	-	100
		15	147	B	16	100	80	8x19	8x19	100	254	204/308	243/420	-	210	108	-	200	160	127	161	15	343	343	471/471	213/400	-	-	-	-	350	-	100
		18.5	155	B	16	100	80	8x19	8x19	100	254	204/308	243/420	-	254	108	-	200	160	127	161	15	343	343	515/515	213/400	-	-	-	-	350	-	100
		22	163	B	16	100	80	8x19	8x19	100	279	204/308	243/420	-	241	121	-	200	180	127	161	15	343	343	541/541	213/400	-	-	-	-	350	-	100
		30	177	B	16	100	80	8x19	8x19	100	318	315/-	265/-	-	305	133	-	200	200	127	161	19	343	343	611/-	197/-	-	-	-	-	400	-	100
	4	1.5	140	A	16	100	80	8x19	8x19	100	-	110/158	162/177	65	-	-	160	200	-	127	161	-	273	273	321/274	103/232	125	95	280	212	200	12	100
		2.2	156	A	16	100	80	8x19	8x19	100	-	120/201	162/222	65	-	-	160	200	-	127	161	-	293	293	335/334	103/280	125	95	280	212	250	12	100
		3	169	A	16	100	80	8x19	8x19	100	-	120/201	162/222	65	-	-	160	200	-	127	161	-	293	293	335/334	103/280	125	95	280	212	250	12	100
		4	177	A	16	100	80	8x19	8x19	100	-	134/201	202/208	65	-	-	160	200	-	127	161	-	293	293	372/334	103/280	125	95	280	212	250	12	100
125-80-160	2	22	150-130	B	16	125	80	8x19	8x19	125	279	204/308	243/420	-	241	121	-	225	180	139	182	15	368	368	541/541	213/400	-	-	-	-	350	-	140
		30	156	B	16	125	80	8x19	8x19	125	318	315/-	265/-	-	305	133	-	225	200	139	182	19	368	368	611/-	197/-	-	-	-	-	400	-	140
		37	165	B	16	125	80	8x19	8x19	125	318	315/-	265/-	-	305	133	-	225	200	139	182	19	368	368	636/-	197/-	-	-	-	-	400	-	140
		45	174	-	16	125	80	8x19	8x19	125	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
		55	177	-	16	125	80	8x19	8x19	125	-	-/-	-/-	-	-	-	-	225	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
	4	3	150	A	16	125	80	8x19	8x19	125	-	120/201	162/222	65	-	-	180	225	-	139	182	-	318	318	335/334	103/280	125	95	320	250	250	12	140
		4	161	A	16	125	80	8x19	8x19	125	-	134/201	202/208	65	-	-	180	225	-	139	182	-	318	318	372/334	103/280	125	95	320	250	250	12	140
		5.5	177	A	16	125	80	8x19	8x19	125	-	159/237	203/227	65	-	-	180	225	-	139	182	-	338	338	379/389	135/317	125	95	320	250	300	12	140
125-80-200	2	37	169	C1	16	125	80	8x19	8x19	125	318	315/-	265/-	65	305	133	180	250	200	161	193	19	398	398	636/-	197/-	125	95	345	280	400	12	140
		45	179	C1	16	125	80	8x19	8x19	125	356	338/-	266/-	65	286	149	180	250	225	161	193	19	428	428	708/-	197/-	125	95	345	280	450	12	140
		55	192	C1	16	125	80	8x19	8x19	125	406	410/-	319/-	65	349	168	180	250	250	161	193	24	428	428	747/-	233/-	125	95	345	280	550	12	140
		75	207	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	65	368	190	180	250	280	161	193	24	428	428	820/-	233/-	125	95	345	280	550	12	140
		90	222	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	65	368	190	180	250	280	161	193	24	428	428	930/-	233/-	125	95	345	280	550	12	140
	4	4	167	A	16	125	80	8x19	8x19	125	-	134/201	202/208	65	-	-	180	250	-	161	193	-	348	348	372/334	103/280	125	95	345	280	250	12	140
		5.5	184	A	16	125	80	8x19	8x19	125	-	159/237	203/227	65	-	-	180	250	-	161	193	-	368	368	379/389	135/317	125	95	345	280	300	12	140
		7.5	202	A	16	125	80	8x19	8x19	125	-	159/237	203/227	65	-	-	180	250	-	161	193	-	368	368	429/389	135/317	125	95	345	280	300	12	140
		11	222	C1	16	125	80	8x19	8x19	125	254	204/308	243/420	65	210	108	180	250	160	161	193	15	398	398	545/471	213/400	125	95	345	280	350	12	140
125-80-250	2	75	218	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	80	368	190	225	280	280	182	210	24	428	428	820/-	233/-	160	120	400	315	550	16	140
		90	230	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	80	368	190	225	280	280	182	210	24	428	428	930/-	233/-	160	120	400	315	550	16	140
		110	244	C1	16	125	80	8x19	8x19	125	508	515/-	374/-	80	406	216	225	280	315	182	210	28	458	458	912/-	299/-	160	120	400	315	660	16	140
		132	259	C1	16	125	80	8x19	8x19	125	508	515/-	374/-	80	457	216	225	280	315	182	210	28	458	458	1077/-	299/-	160	120	400	315	660	16	140
		160	270	C1	16	125	80	8x19	8x19	125	508	515/-	374/-	80	457	216	225	280	315	182	210	28	458	458	1077/-	299/-	160	120	400	315	660	16	140
	4	7.5	211	A	16	125	80	8x19	8x19	125	-	159/237	203/227	80	-	-	225	280	-	182	210	-	368	368	429/389	135/317	160	120	400	315	300	16	140
		11	234	C1	16	125	80	8x19	8x19	125	254	204/308	243/420	80	210	108	225	280	160	182	210	15	398	398	545/471	213/400	160	120	400	315	350	16	140
		15	255	C1	16	125	80	8x19	8x19	125	254	204/308	243/420	80	254	108	225	280	160	182	210	15	398	398	575/515	213/400	160	120	400	315	350	16	140
		18.5	270	C1	16	125	80	8x19	8x19	125	279	286/308	189/420	80	241	121	225	280	180	182	210	15	398	398	558/541	164/400	160	120	400	315	350	16	140
125-80-315	2	132	267	C1	16	125	80	8x19	8x19	125	508	515/-	374/-	80	457	216	250	315	315	217	243	28	456	456	1077/-	299/-	160	120	400	315	660	16	140
		160	285	C1	16	125	80	8x19	8x19	125	508	515/-	374/-	80	457	216	250	315	315	217	243	28	456	456	1077/-	299/-	160	120	400	315	660	16	140
		200	304	C1	25	125	80	8x19	8x19	125	508	515/-	374/-	80	457	216	250	315	315	217	243	28	460	460	1232/-	299/-	160	120	400	315	660	16	140
	4	18.5	275	C1	16	125	80	8x19	8x19	125	279	286/308	189/420	80	241	121	250	315	180	217	243	15	396	396	558/541	164/400	160	120	400	315	350	16	140
		22	287	C1	16	125	80	8x19	8x19	125	279	286/-	189/-	80	241	121	250	315	180	217	243	15	396	396	588/-	164/-	160	120	400	315	350	16	140
		30	314	C1	16	125	80	8x19	8x19	125	318	315/-	265/-	80	305	133	250	315	200	217	243	19	396	396	636/-	197/-	160	120	400	315	400	16	140
		37	332	C1	16	125	80	8x19	8x19	125	356	338/-	266/-	80	286	149	250	315	225	217	243	19	426	426	648/-	197/-	160	120	400	315	450	16	140
		45	334	C1	16	125	80	8x19	8x19	125	356	338/-	266/-	80	286	149	250	315	225	217	243	19	426	426	708/-	197/-	160	120	400	315	450	16	140
125-80-400	4	30	342	C1	16	125	80	8x19	8x19	125	318	315/-	265/-	80	305	133	280	355	200	266	288	19	396	398	636/-	197/-	160	120	435	355	400	16	140
		37	362	C1	16	125	80	8x19	8x19	125	356	338/-	266/-	80	286	149	280	355	225	266	288	19	426	428	648/-	197/-	160	120	435	355	450	16	140
		45	380	C1	16	125	80	8x19	8x19	125	356	338/-	266/-	80	286	149	280	355	225	266	288	19	426	428	708/-	197/-	160	120	435	355	450	16	140
		55	401	C1	16	125	80	8x19	8x19	125	406	410/-	319/-	80	349	168	280	355	250	266	288	24	426	428	747/-	233/-	160	120	435	355	550	16	140
		75	437	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	80	368	190	280	355	280	266	288	24	426	428	820/-	233/-	160	120	435	355	550	16	140
		90	438	C1	16	125	80	8x19	8x19	125	457	433/-	319/-	80	368	190	280	355	280	266	288	24	426	428	930/-	233/-	160	120	435	355	550	16	140
125-100-160 CI	2	30	160-140	C1	16	125	100	8x19	8x19	125	318	315/-	265/-	80	305	133	200	280	200	146	187	19	368	368	611/-	197/-	160	120	360	280	400	16	140
		37	167	C1	16	125	100	8x19	8x19	125	318	315/-	265/-	80	305	133	200	280	200	146	187	19	368	368	636/-	197/-	160	120	360	280	400	16	140
		45	174	-	16	125	100	8x19	8x19	125	-	-/-	-/-	-	-	-	-	280	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
	4	4	160-140	A	16	125	100	8x19	8x19	125	-	134/201	202/208	80	-	-	200	280	-	146	187	-	318	318	372/334	103/280	160	120	360	280	250	16	140
		5.5	169	A	16	125	100	8x19	8x19	125	-	159/237	203/227	80	-	-	200	280	-	146	187	-	338	338	379/389	135/317	160	120	360	280	300	16	140
		7.5	176	A	16	125	100	8x19	8x19	125	-	159/237	203/227	80	-	-	200	280	-	146	187	-	338	338	429/389	135/317	160	120	360	280	300	16	140
	6	1.1	160-140	A	16	125	100	8x19	8x19	125	-	128/-	75/-	80	-	-	200	280	-	146	187	-	298	298	326/-	75/-	160	120	360	280	200	16	140
		1.5	169	A	16	125	100	8x19	8x19	125	-	166/-	135/-	80	-	-	200	280	-	146	187	-	318	318	336/-	112/-	160	120	360	280	250	16	140
		2.2	176	A	16	125	100	8x19	8x19	125	-	177/-	135/-	80	-	-	200	280	-	146	187	-	318	318	354/-	112/-	160	120	360	280	250	16	140

[1] Pump with standard motor or pump with E-motor.

[2] X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges PN	DNs	DNd	Ss	Sd	NBG dimensions [mm] a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L Cl	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
125-100-160 SS	2	37	160-154	C1	16	125	100	8x19	8x19	125	318	315/-	265/-	80	305	133	200	280	200	179	202	19	368	368	636/-	197/-	160	120	360	280	400	16	140
		45	163	-	16	125	100	8x19	8x19	125	-	-/-	-/-	-	-	-	-	280	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
		55	171	-	16	125	100	8x19	8x19	125	-	-/-	-/-	-	-	-	-	280	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
		75	176	-	16	125	100	8x19	8x19	125	-	-/-	-/-	-	-	-	-	280	-	-	-	-	-	-	-/-	-/-	-	-	-	-	-	-	140
	4	4	160-146	A	16	125	100	8x19	8x19	125	-	134/-	202/-	80	-	-	200	280	-	179	202	-	318	318	372/-	103/-	160	120	360	280	250	16	140
		5.5	165	A	16	125	100	8x19	8x19	125	-	159/-	203/-	80	-	-	200	280	-	179	202	-	338	338	379/-	135/-	160	120	360	280	300	16	140
		7.5	176	A	16	125	100	8x19	8x19	125	-	159/-	203/-	80	-	-	200	280	-	179	202	-	338	338	429/-	135/-	160	120	360	280	300	16	140
	6	1.1	160-154	A	16	125	100	8x19	8x19	125	-	128/-	75/-	80	-	-	200	280	-	179	202	-	298	298	326/-	75/-	160	120	360	280	200	16	140
		1.5	163	A	16	125	100	8x19	8x19	125	-	166/-	135/-	80	-	-	200	280	-	179	202	-	318	318	336/-	112/-	160	120	360	280	250	16	140
		2.2	176	A	16	125	100	8x19	8x19	125	-	177/-	135/-	80	-	-	200	280	-	179	202	-	318	318	354/-	112/-	160	120	360	280	250	16	140
125-100-200	2	55	173	C1	16	125	100	8x19	8x19	125	406	410/-	319/-	80	349	168	200	280	250	169	212	24	428	428	747/-	233/-	160	120	360	280	550	16	140
		75	192	C1	16	125	100	8x19	8x19	125	457	433/-	319/-	80	368	190	200	280	280	169	212	24	428	428	820/-	233/-	160	120	360	280	550	16	140
		90	201	C1	16	125	100	8x19	8x19	125	457	433/-	319/-	80	368	190	200	280	280	169	212	24	428	428	930/-	233/-	160	120	360	280	550	16	140
		110	212	C1	16	125	100	8x19	8x19	125	508	515/-	374/-	80	406	216	200	280	315	169	212	28	458	458	912/-	299/-	160	120	360	280	660	16	140
		132	219	C1	16	125	100	8x19	8x19	125	508	515/-	374/-	80	457	216	200	280	315	169	212	28	458	458	1077/-	299/-	160	120	360	280	660	16	140
	4	5.5	166	A	16	125	100	8x19	8x19	125	-	159/237	203/227	80	-	-	200	280	-	169	212	-	368	368	379/389	135/317	160	120	360	280	300	16	140
		7.5	182	A	16	125	100	8x19	8x19	125	-	159/237	203/227	80	-	-	200	280	-	169	212	-	368	368	429/389	135/317	160	120	360	280	300	16	140
		11	201	C1	16	125	100	8x19	8x19	125	254	204/308	243/420	80	210	108	200	280	160	169	212	15	398	398	545/471	213/400	160	120	360	280	350	16	140
		15	217	C1	16	125	100	8x19	8x19	125	254	204/308	243/420	80	254	108	200	280	160	169	212	15	398	398	575/515	213/400	160	120	360	280	350	16	140
		18.5	219	C1	16	125	100	8x19	8x19	125	279	286/308	189/420	80	241	121	200	280	180	169	212	15	398	398	558/541	164/400	160	120	360	280	350	16	140
	6	1.5	164	A	16	125	100	8x19	8x19	125	-	166/-	135/-	80	-	-	200	280	-	169	212	-	348	348	336/-	112/-	160	120	360	280	250	16	140
		2.2	183	A	16	125	100	8x19	8x19	125	-	177/-	135/-	80	-	-	200	280	-	169	212	-	348	348	354/-	112/-	160	120	360	280	250	16	140
		3	198	A	16	125	100	8x19	8x19	125	-	202/-	155/-	80	-	-	200	280	-	169	212	-	368	368	385/-	130/-	160	120	360	280	300	16	140
		4	214	A	16	125	100	8x19	8x19	125	-	202/-	155/-	80	-	-	200	280	-	169	212	-	368	368	385/-	130/-	160	120	360	280	300	16	140
		5.5	219	A	16	125	100	8x19	8x19	125	-	202/-	155/-	80	-	-	200	280	-	169	212	-	368	368	435/-	130/-	160	120	360	280	300	16	140
125-100-250 CI	2	110	217	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	406	216	225	280	315	200	232	28	471	471	912/-	299/-	160	120	400	315	660	16	140
		132	231	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1077/-	299/-	160	120	400	315	660	16	140
		160	243	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1077/-	299/-	160	120	400	315	660	16	140
		200	269	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1232/-	299/-	160	120	400	315	660	16	140
	4	15	223	C1	16	125	100	8x19	8x19	140	254	204/308	243/420	80	254	108	225	280	160	200	232	15	411	411	575/515	213/400	160	120	400	315	350	16	140
		18.5	236	C1	16	125	100	8x19	8x19	140	279	286/308	189/420	80	241	121	225	280	180	200	232	15	411	411	558/541	164/400	160	120	400	315	350	16	140
		22	249	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	80	241	121	225	280	180	200	232	15	411	411	588/-	164/-	160	120	400	315	350	16	140
		30	274	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	80	305	133	225	280	200	200	232	19	411	411	636/-	197/-	160	120	400	315	400	16	140
	6	4	216	A	16	125	100	8x19	8x19	140	-	202/-	155/-	80	-	-	225	280	-	200	232	-	381	381	385/-	130/-	160	120	400	315	300	16	140
		5.5	238	A	16	125	100	8x19	8x19	140	-	202/-	155/-	80	-	-	225	280	-	200	232	-	381	381	435/-	130/-	160	120	400	315	300	16	140
		7.5	274	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	80	210	108	225	280	160	200	232	15	411	411	494/-	145/-	160	120	400	315	350	16	140
125-100-250 SS	2	110	217	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	406	216	225	280	315	200	232	28	471	471	912/-	299/-	160	120	400	315	660	16	140
		132	231	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1077/-	299/-	160	120	400	315	660	16	140
		160	243	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1077/-	299/-	160	120	400	315	660	16	140
		200	261	C1	16	125	100	8x19	8x19	140	508	515/-	374/-	80	457	216	225	280	315	200	232	28	471	471	1232/-	299/-	160	120	400	315	660	16	140
	4	15	223	C1	16	125	100	8x19	8x19	140	254	204/308	243/420	80	254	108	225	280	160	200	232	15	411	411	575/515	213/400	160	120	400	315	350	16	140
		18.5	236	C1	16	125	100	8x19	8x19	140	279	286/308	189/420	80	241	121	225	280	180	200	232	15	411	411	558/541	164/400	160	120	400	315	350	16	140
		22	249	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	80	241	121	225	280	180	200	232	15	411	411	588/-	164/-	160	120	400	315	350	16	140
		30	270	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	80	305	133	225	280	200	200	232	19	411	411	636/-	197/-	160	120	400	315	400	16	140
	6	4	216	A	16	125	100	8x19	8x19	140	-	202/-	155/-	80	-	-	225	280	-	200	232	-	381	381	385/-	130/-	160	120	400	315	300	16	140
		5.5	238	A	16	125	100	8x19	8x19	140	-	202/-	155/-	80	-	-	225	280	-	200	232	-	381	381	435/-	130/-	160	120	400	315	300	16	140
		7.5	261	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	80	210	108	225	280	160	200	232	15	411	411	494/-	145/-	160	120	400	315	350	16	140
		11	270	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	80	254	108	225	280	160	200	232	15	411	411	554/-	145/-	160	120	400	315	350	16	140
125-100-315	4	22	264	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	80	241	121	250	315	180	208	264	15	411	411	588/-	164/-	160	120	400	315	350	16	140
		30	290	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	80	305	133	250	315	200	208	264	19	411	411	636/-	197/-	160	120	400	315	400	16	140
		37	309	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	80	286	149	250	315	225	208	264	19	441	441	648/-	197/-	160	120	400	315	450	16	140
		45	329	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	80	286	149	250	315	225	208	264	19	441	441	708/-	197/-	160	120	400	315	450	16	140
		55	334	C1	16	125	100	8x19	8x19	140	406	410/-	319/-	80	349	168	250	315	250	208	264	24	441	441	747/-	233/-	160	120	400	315	550	16	140
	6	7.5	276	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	80	210	108	250	315	160	208	264	15	411	411	494/-	145/-	160	120	400	315	350	16	140
		11	310	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	80	254	108	250	315	160	208	264	15	411	411	554/-	145/-	160	120	400	315	350	16	140
		15	334	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	80	241	121	250	315	180	208	264	15	411	411	588/-	164/-	160	120	400	315	350	16	140
125-100-400 CI	4	37	320	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	648/-	197/-	200	150	500	400	450	20	140
		45	346	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	708/-	197/-	200	150	500	400	450	20	140
		55	365	C1	16	125	100	8x19	8x19	140	406	410/-	319/-	100	349	168	280	355	250	270	296	24	441	441	747/-	233/-	200	150	500	400	550	20	140
		75	395	C1	16	125	100	8x19	8x19	140	457	433/-	319/-	100	368	190	280	355	280	270	296	24	441	441	820/-	233/-	200	150	500	400	550	20	140
		90	415	C1	16	125	100	8x19	8x19	140	457	433/-	319/-	100	368	190	280	355	280	270	296	24	441	441	930/-	233/-	200	150	500	400	550	20	140
	6	11	315	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	100	254	108	280	355	160	270	296	15	411	411	554/-	145/-	200	150	500	400	350	20	140
		15	340	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	100	241	121	280	355	180	270	296	15	411	411	588/-	164/-	200	150	500	400	350	20	140
		18.5	370	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	100	305	133	280	355	200	270	296	19	411	411	611/-	197/-	200	150	500	400	400	20	140
		22	385	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	100	305	133	280	355	200	270	296	19	411	411	636/-	197/-	200	150	500	400	400	20	140
		30	415	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	708/-	197/-	200	150	500	400	450	20	140

[1] Pump with standard motor or pump with E-motor.
[2] X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges					NBG dimensions [mm]																								
					PN	DNs	DNd	Ss	Sd	a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L CI	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
125-100-400 SS	4	37	347	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	648/-	197/-	200	150	500	400	450	20	140
		45	367	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	708/-	197/-	200	150	500	400	450	20	140
		55	392	C1	16	125	100	8x19	8x19	140	406	410/-	319/-	100	349	168	280	355	250	270	296	24	441	441	747/-	233/-	200	150	500	400	550	20	140
		75	428	C1	16	125	100	8x19	8x19	140	457	433/-	319/-	100	368	190	280	355	280	270	296	24	441	441	820/-	233/-	200	150	500	400	550	20	140
		90	438	C1	16	125	100	8x19	8x19	140	457	433/-	319/-	100	368	190	280	355	280	270	296	24	441	441	930/-	233/-	200	150	500	400	550	20	140
	6	11	343	C1	16	125	100	8x19	8x19	140	254	237/-	175/-	100	254	108	280	355	160	270	296	15	411	411	554/-	145/-	200	150	500	400	350	20	140
		15	379	C1	16	125	100	8x19	8x19	140	279	286/-	189/-	100	241	121	280	355	180	270	296	15	411	411	588/-	164/-	200	150	500	400	350	20	140
		18.5	404	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	100	305	133	280	355	200	270	296	19	411	411	611/-	197/-	200	150	500	400	400	20	140
		22	424	C1	16	125	100	8x19	8x19	140	318	315/-	265/-	100	305	133	280	355	200	270	296	19	411	411	636/-	197/-	200	150	500	400	400	20	140
		30	438	C1	16	125	100	8x19	8x19	140	356	338/-	266/-	100	286	149	280	355	225	270	296	19	441	441	708/-	197/-	200	150	500	400	450	20	140
150-125-200 CI	4	11	176-154	C1	16	150	125	8x23	8x19	140	254	204/308	243/420	80	210	108	250	315	160	200	252	15	413	413	545/471	213/400	160	120	400	315	350	16	140
		15	200	C1	16	150	125	8x23	8x19	140	254	204/308	243/420	80	254	108	250	315	160	200	252	15	413	413	575/515	213/400	160	120	400	315	350	16	140
		18.5	216	C1	16	150	125	8x23	8x19	140	279	286/308	189/420	80	241	121	250	315	180	200	252	15	413	413	558/541	164/400	160	120	400	315	350	16	140
		22	226	C1	16	150	125	8x23	8x19	140	279	286/-	189/-	80	241	121	250	315	180	200	252	15	413	413	588/-	164/-	160	120	400	315	350	16	140
	6	3	176-154	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	385/-	130/-	160	120	400	315	300	16	140
		4	196-184	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	385/-	130/-	160	120	400	315	300	16	140
		5.5	215	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	435/-	130/-	160	120	400	315	300	16	140
		7.5	226	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	80	210	108	250	315	160	200	252	15	413	413	494/-	145/-	160	120	400	315	350	16	140
150-125-200 SS	2	90	196-180	C1	16	150	125	8x23	8x19	140	457	433/-	319/-	80	368	190	250	315	280	200	252	24	443	443	930/-	233/-	160	120	400	315	550	16	140
		110	200	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	406	216	250	315	315	200	252	28	473	473	912/-	299/-	160	120	400	315	660	16	140
		132	211	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	457	216	250	315	315	200	252	28	473	473	1077/-	299/-	160	120	400	315	660	16	140
		160	223	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	457	216	250	315	315	200	252	28	473	473	1077/-	299/-	160	120	400	315	660	16	140
		200	226	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	457	216	250	315	315	200	252	28	473	473	1232/-	299/-	160	120	400	315	660	16	140
	4	11	196-186	C1	16	150	125	8x23	8x19	140	254	204/308	243/420	80	210	108	250	315	160	200	252	15	413	413	545/471	213/400	160	120	400	315	350	16	140
		15	208	C1	16	150	125	8x23	8x19	140	254	204/308	243/420	80	254	108	250	315	160	200	252	15	413	413	575/515	213/400	160	120	400	315	350	16	140
		18.5	218	C1	16	150	125	8x23	8x19	140	279	286/308	189/420	80	241	121	250	315	180	200	252	15	413	413	558/541	164/400	160	120	400	315	350	16	140
		22	226	C1	16	150	125	8x23	8x19	140	279	286/-	189/-	80	241	121	250	315	180	200	252	15	413	413	588/-	164/-	160	120	400	315	350	16	140
	6	3	196-180	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	385/-	130/-	160	120	400	315	300	16	140
		4	204	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	385/-	130/-	160	120	400	315	300	16	140
		5.5	222	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	315	-	200	252	-	383	383	435/-	130/-	160	120	400	315	300	16	140
		7.5	226	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	80	210	108	250	315	160	200	252	15	413	413	494/-	145/-	160	120	400	315	350	16	140
150-125-250	2	160	226	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	457	216	250	355	315	208	264	28	471	471	1077/-	299/-	160	120	400	315	660	16	140
		200	242	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	80	457	216	250	355	315	208	264	28	471	471	1232/-	299/-	160	120	400	315	660	16	140
	4	18.5	214	C1	16	150	125	8x23	8x19	140	279	286/308	189/420	80	241	121	250	355	180	208	264	15	411	411	558/541	164/400	160	120	400	315	350	16	140
		22	224	C1	16	150	125	8x23	8x19	140	279	286/-	189/-	80	241	121	250	355	180	208	264	15	411	411	588/-	164/-	160	120	400	315	350	16	140
		30	243	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	80	305	133	250	355	200	208	264	19	411	411	636/-	197/-	160	120	400	315	400	16	140
		37	258	C1	16	150	125	8x23	8x19	140	356	338/-	266/-	80	286	149	250	355	225	208	264	19	441	441	648/-	197/-	160	120	400	315	450	16	140
		45	269	C1	16	150	125	8x23	8x19	140	356	338/-	266/-	80	286	149	250	355	225	208	264	19	441	441	708/-	197/-	160	120	400	315	450	16	140
	6	5.5	217	A	16	150	125	8x23	8x19	140	-	202/-	155/-	80	-	-	250	355	-	208	264	-	381	381	435/-	130/-	160	120	400	315	300	16	140
		7.5	234	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	80	210	108	250	355	160	208	264	15	411	411	494/-	145/-	160	120	400	315	350	16	140
		11	261	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	80	254	108	250	355	160	208	264	15	411	411	554/-	145/-	160	120	400	315	350	16	140
		15	269	C1	16	150	125	8x23	8x19	140	279	286/-	189/-	80	241	121	250	355	180	208	264	15	411	411	588/-	164/-	160	120	400	315	350	16	140
150-125-315	4	30	271	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	100	305	133	280	355	200	231	268	19	411	411	636/-	197/-	200	150	500	400	400	20	140
		37	287	C1	16	150	125	8x23	8x19	140	356	338/-	266/-	100	286	149	280	355	225	231	268	19	441	441	648/-	197/-	200	150	500	400	450	20	140
		45	303	C1	16	150	125	8x23	8x19	140	356	338/-	266/-	100	286	149	280	355	225	231	268	19	441	441	708/-	197/-	200	150	500	400	450	20	140
		55	320	C1	16	150	125	8x23	8x19	140	406	410/-	319/-	100	349	168	280	355	250	231	268	24	441	441	747/-	233/-	200	150	500	400	550	20	140
		75	338	C1	16	150	125	8x23	8x19	140	457	433/-	319/-	100	368	190	280	355	280	231	268	24	441	441	820/-	233/-	200	150	500	400	550	20	140
	6	7.5	254	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	100	210	108	280	355	160	231	268	15	411	411	494/-	145/-	200	150	500	400	350	20	140
		11	286	C1	16	150	125	8x23	8x19	140	254	237/-	175/-	100	254	108	280	355	160	231	268	15	411	411	554/-	145/-	200	150	500	400	350	20	140
		15	313	C1	16	150	125	8x23	8x19	140	279	286/-	189/-	100	241	121	280	355	180	231	268	15	411	411	588/-	164/-	200	150	500	400	350	20	140
		18.5	333	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	100	305	133	280	355	200	231	268	19	411	411	611/-	197/-	200	150	500	400	400	20	140
		22	338	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	100	305	133	280	355	200	231	268	19	411	411	636/-	197/-	200	150	500	400	400	20	140
150-125-400	4	55	333	C1	16	150	125	8x23	8x19	140	406	410/-	319/-	100	349	168	315	400	250	284	320	24	441	441	747/-	233/-	200	150	500	400	550	20	140
		75	369	C1	16	150	125	8x23	8x19	140	457	433/-	319/-	100	368	190	315	400	280	284	320	24	441	441	820/-	233/-	200	150	500	400	550	20	140
		90	389	C1	16	150	125	8x23	8x19	140	457	433/-	319/-	100	368	190	315	400	280	284	320	24	441	441	930/-	233/-	200	150	500	400	550	20	140
		110	414	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	100	406	216	315	400	315	284	320	28	471	471	912/-	299/-	200	150	500	400	660	20	140
		132	438	C1	16	150	125	8x23	8x19	140	508	515/-	374/-	100	457	216	315	400	315	284	320	28	471	471	1077/-	299/-	200	150	500	400	660	20	140
	6	18.5	346	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	100	305	133	315	400	200	284	320	19	411	411	611/-	197/-	200	150	500	400	400	20	140
		22	367	C1	16	150	125	8x23	8x19	140	318	315/-	265/-	100	305	133	315	400	200	284	320	19	411	411	636/-	197/-	200	150	500	400	400	20	140
		30	404	C1	16	150	125	8x23	8x19	140	356	338/-	266/-	100	286	149	315	400	225	284	320	19	441	441	708/-	197/-	200	150	500	400	450	20	140
		37	432	C1	16	150	125	8x23	8x19	140	406	410/-	319/-	100	349	168	315	400	250	284	320	24	441	441	747/-	233/-	200	150	500	400	550	20	140
		45	438	C1	16	150	125	8x23	8x19	140	457	433/-	319/-	100	368	190	315	400	280	284	320	24	441	441	820/-	233/-	200	150	500	400	550	20	140

1 Pump with standard motor or pump with E-motor.

2 X: Service dimension.

Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges PN	DNs	DNd	Ss	Sd	NBG dimensions [mm] a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L Cl	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
150-125-500	4	110	423	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	406	216	400	500	315	344	377	28	554	554	912/-	299/-	200	150	625	500	660	20	180
		132	447	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	457	216	400	500	315	344	377	28	554	554	1077/-	299/-	200	150	625	500	660	20	180
		160	474	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	457	216	400	500	315	344	377	28	554	554	1077/-	299/-	200	150	625	500	660	20	180
		200	508	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	457	216	400	500	315	344	377	28	554	554	1232/-	299/-	200	150	625	500	660	20	180
	6	37	446	C1	16	150	125	8x23	8x19	180	406	410/-	319/-	125	349	168	400	500	250	344	377	24	524	524	747/-	233/-	200	150	625	500	550	20	180
		45	470	C1	16	150	125	8x23	8x19	180	457	433/-	319/-	125	368	190	400	500	280	344	377	24	524	524	820/-	233/-	200	150	625	500	550	20	180
		55	501	C1	16	150	125	8x23	8x19	180	457	433/-	319/-	125	368	190	400	500	280	344	377	24	524	524	820/-	233/-	200	150	625	500	550	20	180
		75	543	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	406	216	400	500	315	344	377	28	554	554	912/-	299/-	200	150	625	500	660	20	180
		90	548	C1	16	150	125	8x23	8x19	180	508	515/-	374/-	125	457	216	400	500	315	344	377	28	554	554	1077/-	299/-	200	150	625	500	660	20	180
200-150-200	2	110	210-154	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	406	216	280	400	315	230	319	28	493	493	912/-	299/-	200	150	550	450	660	20	180
		132	216-176	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	280	400	315	230	319	28	493	493	1077/-	299/-	200	150	550	450	660	20	180
		160	218-204	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	280	400	315	230	319	28	493	493	1077/-	299/-	200	150	550	450	660	20	180
		200	224	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	280	400	315	230	319	28	493	493	1232/-	299/-	200	150	550	450	660	20	180
	4	15	214-174	C1	16	200	150	12x23	8x23	160	254	204/308	243/420	100	254	108	280	400	160	230	319	15	433	433	575/515	213/400	200	150	550	450	350	20	180
		18.5	218-202	C1	16	200	150	12x23	8x23	160	279	286/308	189/420	100	241	121	280	400	180	230	319	15	433	433	558/541	164/400	200	150	550	450	350	20	180
		22	222	C1	16	200	150	12x23	8x23	160	279	286/-	189/-	100	241	121	280	400	180	230	319	15	433	433	588/-	164/-	200	150	550	450	350	20	180
	6	4	210-170	A	16	200	150	12x23	8x23	160	-	202/-	155/-	100	-	-	280	400	-	230	319	-	403	403	385/-	130/-	200	150	550	450	300	20	180
		5.5	218-212	A	16	200	150	12x23	8x23	160	-	202/-	155/-	100	-	-	280	400	-	230	319	-	403	403	435/-	130/-	200	150	550	450	300	20	180
		7.5	224	C1	16	200	150	12x23	8x23	160	254	237/-	175/-	100	210	108	280	400	160	230	319	15	433	433	494/-	145/-	200	150	550	450	350	20	180
200-150-250 CI	4	30	226-224	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	280	375	200	250	297	19	431	431	636/-	197/-	200	150	500	400	400	20	180
		37	240	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	280	375	225	250	297	19	461	461	648/-	197/-	200	150	500	400	450	20	180
		45	252	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	280	375	225	250	297	19	461	461	708/-	197/-	200	150	500	400	450	20	180
		55	263	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	280	375	250	250	297	24	461	461	747/-	233/-	200	150	500	400	550	20	180
		75	282	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	280	375	280	250	297	24	461	461	820/-	233/-	200	150	500	400	550	20	180
	6	11	238	C1	16	200	150	12x23	8x23	160	254	237/-	175/-	100	254	108	280	375	160	250	297	15	431	431	554/-	145/-	200	150	500	400	350	20	180
		15	252	C1	16	200	150	12x23	8x23	160	279	286/-	189/-	100	241	121	280	375	180	250	297	15	431	431	588/-	164/-	200	150	500	400	350	20	180
		18.5	275	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	280	375	200	250	297	19	431	431	611/-	197/-	200	150	500	400	400	20	180
200-150-250 SS	4	30	234	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	280	375	200	250	297	19	431	431	636/-	197/-	200	150	500	400	400	20	180
		37	248	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	280	375	225	250	297	19	461	461	648/-	197/-	200	150	500	400	450	20	180
		45	260	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	280	375	225	250	297	19	461	461	708/-	197/-	200	150	500	400	450	20	180
		55	273	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	280	375	250	250	297	24	461	461	747/-	233/-	200	150	500	400	550	20	180
		75	286	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	280	375	280	250	297	24	461	461	820/-	233/-	200	150	500	400	550	20	180
	6	11	250	C1	16	200	150	12x23	8x23	160	254	237/-	175/-	100	254	108	280	375	160	250	297	15	431	431	554/-	145/-	200	150	500	400	350	20	180
		15	271	C1	16	200	150	12x23	8x23	160	279	286/-	189/-	100	241	121	280	375	180	250	297	15	431	431	588/-	164/-	200	150	500	400	350	20	180
		18.5	286	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	280	375	200	250	297	19	431	431	611/-	197/-	200	150	500	400	400	20	180
200-150-315	4	55	269	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	315	400	250	264	331	24	474	474	747/-	233/-	200	150	550	450	550	20	180
		75	294	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	400	280	264	331	24	474	474	820/-	233/-	200	150	550	450	550	20	180
		90	309	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	400	280	264	331	24	474	474	930/-	233/-	200	150	550	450	550	20	180
		110	326	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	406	216	315	400	315	264	331	28	504	504	912/-	299/-	200	150	550	450	660	20	180
		132	338	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	315	400	315	264	331	28	504	504	1077/-	299/-	200	150	550	450	660	20	180
	6	18.5	283	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	315	400	200	264	331	19	444	444	611/-	197/-	200	150	550	450	400	20	180
		22	297	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	315	400	200	264	331	19	444	444	636/-	197/-	200	150	550	450	400	20	180
		30	323	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	315	400	225	264	331	19	474	474	708/-	197/-	200	150	550	450	450	20	180
		37	338	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	315	400	250	264	331	24	474	474	747/-	233/-	200	150	550	450	550	20	180
200-150-315.2	4	37	249	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	315	400	225	264	331	19	474	474	648/-	197/-	200	150	550	450	450	20	180
		45	263	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	315	400	225	264	331	19	474	474	708/-	197/-	200	150	550	450	450	20	180
		55	279	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	315	400	250	264	331	24	474	474	747/-	233/-	200	150	550	450	550	20	180
		75	310	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	400	280	264	331	24	474	474	820/-	233/-	200	150	550	450	550	20	180
	6	11	247	C1	16	200	150	12x23	8x23	160	254	237/-	175/-	100	254	108	315	400	160	264	331	15	444	444	554/-	145/-	200	150	550	450	350	20	180
		15	271	C1	16	200	150	12x23	8x23	160	279	286/-	189/-	100	241	121	315	400	180	264	331	15	444	444	588/-	164/-	200	150	550	450	350	20	180
		18.5	293	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	315	400	200	264	331	19	444	444	611/-	197/-	200	150	550	450	400	20	180
		22	316	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	315	400	200	264	331	19	444	444	636/-	197/-	200	150	550	450	400	20	180
200-150-400	4	90	341	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	450	280	291	339	24	474	474	930/-	233/-	200	150	550	450	550	20	180
		110	361	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	406	216	315	450	315	291	339	28	504	504	912/-	299/-	200	150	550	450	660	20	180
		132	381	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	315	450	315	291	339	28	504	504	1077/-	299/-	200	150	550	450	660	20	180
		160	401	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	315	450	315	291	339	28	504	504	1077/-	299/-	200	150	550	450	660	20	180
		200	424	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	457	216	315	450	315	291	339	28	504	504	1232/-	299/-	200	150	550	450	660	20	180
	6	22	327	C1	16	200	150	12x23	8x23	160	318	315/-	265/-	100	305	133	315	450	200	291	339	19	444	444	636/-	197/-	200	150	550	450	400	20	180
		30	358	C1	16	200	150	12x23	8x23	160	356	338/-	266/-	100	286	149	315	450	225	291	339	19	474	474	708/-	197/-	200	150	550	450	450	20	180
		37	380	C1	16	200	150	12x23	8x23	160	406	410/-	319/-	100	349	168	315	450	250	291	339	24	474	474	747/-	233/-	200	150	550	450	550	20	180
		45	398	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	450	280	291	339	24	474	474	820/-	233/-	200	150	550	450	550	20	180
		55	419	C1	16	200	150	12x23	8x23	160	457	433/-	319/-	100	368	190	315	450	280	291	339	24	474	474	820/-	233/-	200	150	550	450	550	20	180
		75	438	C1	16	200	150	12x23	8x23	160	508	515/-	374/-	100	406	216	315	450	315	291	339	28	504	504	912/-	299/-	200	150	550	450	660	20	180

1 Pump with standard motor or pump with E-motor.
2 X: Service dimension.

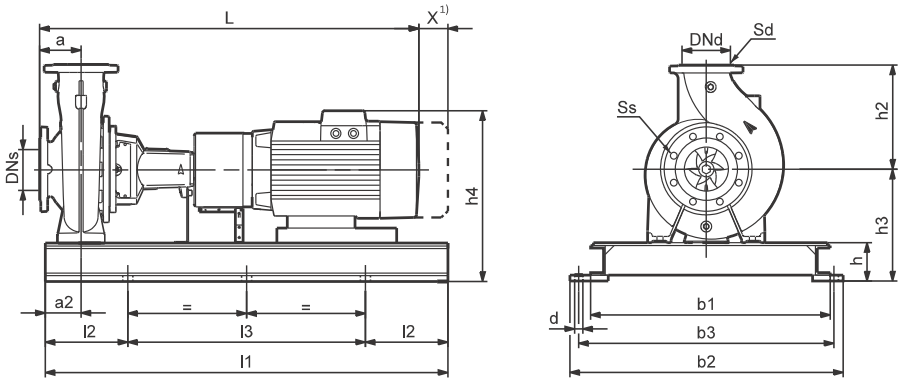
Pump size	Poles	P2 [kW]	Actual impeller size	Mounting design	Flanges					NBG dimensions [mm]																										
					PN	DNs	DNd	Ss	Sd	a	A	AD[1]	AG[1]	b	B	C	h1	h2	H	G1	G2	K	L Cl	L SS	LB[1]	LL[1]	m1	m2	n1	n2	P	s1	X[2]
200-150-500	4	200	419	C1	16	200	150	12x23	8x23	180	508	515/-	374/-	125	457	216	400	500	315	353	396	28	554	554	1232/-	299/-	200	150	625	500	660	20	180
		55	433	C1	16	200	150	12x23	8x23	180	457	433/-	319/-	125	368	190	400	500	280	353	396	24	524	524	820/-	233/-	200	150	625	500	550	20	180
		75	482	C1	16	200	150	12x23	8x23	180	508	515/-	374/-	125	406	216	400	500	315	353	396	28	554	554	912/-	299/-	200	150	625	500	660	20	180
	6	90	510	C1	16	200	150	12x23	8x23	180	508	515/-	374/-	125	457	216	400	500	315	353	396	28	554	554	1077/-	299/-	200	150	625	500	660	20	180
		110	534	C1	16	200	150	12x23	8x23	180	508	515/-	374/-	125	457	216	400	500	315	353	396	28	554	554	1077/-	299/-	200	150	625	500	660	20	180
		132	548	C1	16	200	150	12x23	8x23	180	508	515/-	374/-	125	457	216	400	500	315	353	396	28	554	554	1232/-	299/-	200	150	625	500	660	20	180
250-200-400		55	268	C2	16	250	200	12x28	12x23	170	406	410/-	319/-	125	349	168	400	400	250	331	485	24	512	-	747/-	233/-	200	150	625	500	550	20	180
		75	292	C2	16	250	200	12x28	12x23	170	457	433/-	319/-	125	368	190	400	400	280	331	485	24	512	-	820/-	233/-	200	150	625	500	550	20	180
		90	308	C2	16	250	200	12x28	12x23	170	457	433/-	319/-	125	368	190	400	400	280	331	485	24	512	-	930/-	233/-	200	150	625	500	550	20	180
	4	110	324	C2	16	250	200	12x28	12x23	170	508	515/-	374/-	125	406	216	400	400	315	331	485	28	542	-	912/-	299/-	200	150	625	500	660	20	180
		132	344	C2	16	250	200	12x28	12x23	170	508	515/-	374/-	125	457	216	400	400	315	331	485	28	542	-	1077/-	299/-	200	150	625	500	660	20	180
		160	360	C2	16	250	200	12x28	12x23	170	508	515/-	374/-	125	457	216	400	400	315	331	485	28	542	-	1077/-	299/-	200	150	625	500	660	20	180
		200	396	C2	16	250	200	12x28	12x23	170	508	515/-	374/-	125	457	216	400	400	315	331	485	28	542	-	1232/-	299/-	200	150	625	500	660	20	180
		22	296	C2	16	250	200	12x28	12x23	170	318	315/-	265/-	125	305	133	400	400	200	331	485	19	482	-	636/-	197/-	200	150	625	500	400	20	180
		30	320	C2	16	250	200	12x28	12x23	170	356	338/-	266/-	125	286	149	400	400	225	331	485	19	512	-	708/-	197/-	200	150	625	500	450	20	180
	6	37	344	C2	16	250	200	12x28	12x23	170	406	410/-	319/-	125	349	168	400	400	250	331	485	24	512	-	747/-	233/-	200	150	625	500	550	20	180
		45	360	C2	16	250	200	12x28	12x23	170	457	433/-	319/-	125	368	190	400	400	280	331	485	24	512	-	820/-	233/-	200	150	625	500	550	20	180
		55	392	C2	16	250	200	12x28	12x23	170	457	433/-	319/-	125	368	190	400	400	280	331	485	24	512	-	820/-	233/-	200	150	625	500	550	20	180
250-200-450		75	319	C2	16	250	200	12x28	12x23	150	457	433/-	319/-	125	368	190	400	450	280	355	525	24	487	-	820/-	233/-	200	150	625	500	550	20	180
		90	335	C2	16	250	200	12x28	12x23	150	457	433/-	319/-	125	368	190	400	450	280	355	525	24	487	-	930/-	233/-	200	150	625	500	550	20	180
	4	110	355	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	406	216	400	450	315	355	525	28	517	-	912/-	299/-	200	150	625	500	660	20	180
		132	367	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	457	216	400	450	315	355	525	28	517	-	1077/-	299/-	200	150	625	500	660	20	180
		160	391	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	457	216	400	450	315	355	525	28	517	-	1077/-	299/-	200	150	625	500	660	20	180
		200	419	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	457	216	400	450	315	355	525	28	517	-	1232/-	299/-	200	150	625	500	660	20	180
		37	367	C2	16	250	200	12x28	12x23	150	406	410/-	319/-	125	349	168	400	450	250	355	525	24	487	-	747/-	233/-	200	150	625	500	550	20	180
		45	387	C2	16	250	200	12x28	12x23	150	457	433/-	319/-	125	368	190	400	450	280	355	525	24	487	-	820/-	233/-	200	150	625	500	550	20	180
	6	55	411	C2	16	250	200	12x28	12x23	150	457	433/-	319/-	125	368	190	400	450	280	355	525	24	487	-	820/-	233/-	200	150	625	500	550	20	180
		75	447	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	406	216	400	450	315	355	525	28	517	-	912/-	299/-	200	150	625	500	660	20	180
		90	455	C2	16	250	200	12x28	12x23	150	508	515/-	374/-	125	457	216	400	450	315	355	525	28	517	-	1077/-	299/-	200	150	625	500	660	20	180
300-250-350		75	282	C2	16	300	250	12x28	12x28	180	457	433/-	319/-	125	368	190	450	400	280	379	523	24	566	-	820/-	233/-	200	150	625	500	550	20	180
		90	302	C2	16	300	250	12x28	12x28	180	457	433/-	319/-	125	368	190	450	400	280	379	523	24	566	-	930/-	233/-	200	150	625	500	550	20	180
	4	110	326	C2	16	300	250	12x28	12x23	180	508	515/-	374/-	125	406	216	450	400	315	379	523	28	596	-	912/-	299/-	200	150	625	500	660	20	180
		132	362	C2	16	300	250	12x28	12x28	180	508	515/-	374/-	125	457	216	450	400	315	379	523	28	596	-	1077/-	299/-	200	150	625	500	660	20	180
		22	282	C2	16	300	250	12x28	12x28	180	318	315/-	265/-	125	305	133	450	400	200	379	523	19	536	-	636/-	197/-	200	150	625	500	400	20	180
	6	30	322	C2	16	300	250	12x28	12x28	180	356	338/-	266/-	125	286	149	450	400	225	379	523	19	566	-	708/-	197/-	200	150	625	500	450	20	180
		37	354	C2	16	300	250	12x28	12x28	180	406	410/-	319/-	125	349	168	450	400	250	379	523	24	566	-	747/-	233/-	200	150	625	500	550	20	180
		45	370	C2	16	300	250	12x28	12x28	180	457	433/-	319/-	125	368	190	450	400	280	379	523	24	566	-	820/-	233/-	200	150	625	500	550	20	180
300-250-400		75	277	C2	16	300	250	12x28	12x28	160	457	433/-	319/-	125	368	190	450	500	280	350	498	24	518	-	820/-	233/-	200	150	625	500	550	20	180
		90	297	C2	16	300	250	12x28	12x28	160	457	433/-	319/-	125	368	190	450	500	280	350	498	24	518	-	930/-	233/-	200	150	625	500	550	20	180
	4	110	313	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	406	216	450	500	315	350	498	28	548	-	912/-	299/-	200	150	625	500	660	20	180
		132	325	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	457	216	450	500	315	350	498	28	548	-	1077/-	299/-	200	150	625	500	660	20	180
		160	349	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	457	216	450	500	315	350	498	28	548	-	1077/-	299/-	200	150	625	500	660	20	180
		200	373	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	457	216	450	500	315	350	498	28	548	-	1232/-	299/-	200	150	625	500	660	20	180
		30	305	C2	16	300	250	12x28	12x28	160	356	338/-	266/-	125	286	149	450	500	225	350	498	19	518	-	708/-	197/-	200	150	625	500	450	20	180
		37	321	C2	16	300	250	12x28	12x28	160	406	410/-	319/-	125	349	168	450	500	250	350	498	24	518	-	747/-	233/-	200	150	625	500	550	20	180
	6	45	345	C2	16	300	250	12x28	12x28	160	457	433/-	319/-	125	368	190	450	500	280	350	498	24	518	-	820/-	233/-	200	150	625	500	550	20	180
		55	361	C2	16	300	250	12x28	12x28	160	457	433/-	319/-	125	368	190	450	500	280	350	498	24	518	-	820/-	233/-	200	150	625	500	550	20	180
		75	393	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	406	216	450	500	315	350	498	28	548	-	912/-	299/-	200	150	625	500	660	20	180
		90	405	C2	16	300	250	12x28	12x28	160	508	515/-	374/-	125	457	216	450	500	315	350	498	28	548	-	1077/-	299/-	200	150	625	500	660	20	180
300-250-450		110	309	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	406	216	450	500	315	374	563	28	551	-	912/-	299/-	200	150	625	500	660	20	180
		132	325	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	374	563	28	551	-	1077/-	299/-	200	150	625	500	660	20	180
	4	160	345	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	374	563	28	551	-	1077/-	299/-	200	150	625	500	660	20	180
		200	365	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	374	563	28	551	-	1232/-	299/-	200	150	625	500	660	20	180
		37	321	C2	16	300	250	12x28	12x28	165	406	410/-	319/-	125	349	168	450	500	250	374	563	24	521	-	747/-	233/-	200	150	625	500	550	20	180
		45	341	C2	16	300	250	12x28	12x28	165	457	433/-	319/-	125	368	190	450	500	280	374	563	24	521	-	820/-	233/-	200	150	625	500	550	20	180
	6	55	357	C2	16	300	250	12x28	12x28	165	457	433/-	319/-	125	368	190	450	500	280	374	563	24	521	-	820/-	233/-	200	150	625	500	550	20	180
		75	393	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	406	216	450	500	315	374	563	28	551	-	912/-	299/-	200	150	625	500	660	20	180
		90	417	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	374	563	28	551	-	1077/-	299/-	200	150	625	500	660	20	180
		110	453	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	374	563	28	551	-	1077/-	299/-	200	150	625	500	660	20	180
300-250-500		75	405	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	406	216	450	500	315	441	598	28	574	-	912/-	299/-	200	150	725	600	660	20	180
		90	425	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	441	598	28	574	-	1077/-	299/-	200	150	725	600	660	20	180
	6	110	453	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	441	598	28	574	-	1077/-	299/-	200	150	725	600	660	20	180
		132	497	C2	16	300	250	12x28	12x28	165	508	515/-	374/-	125	457	216	450	500	315	441	598	28	574	-	1232/-	299/-	200	150	725	600	660	20	180
		160	525	C2	16	300	250	12x28	12x28	165	-	-/-	-/-	125	-	-	450	500	-	441	598	-	574	-	-/-	-/-	200	150	725	600	-	20	180

1 Pump with standard motor or pump with E-motor.

2 X: Service dimension.

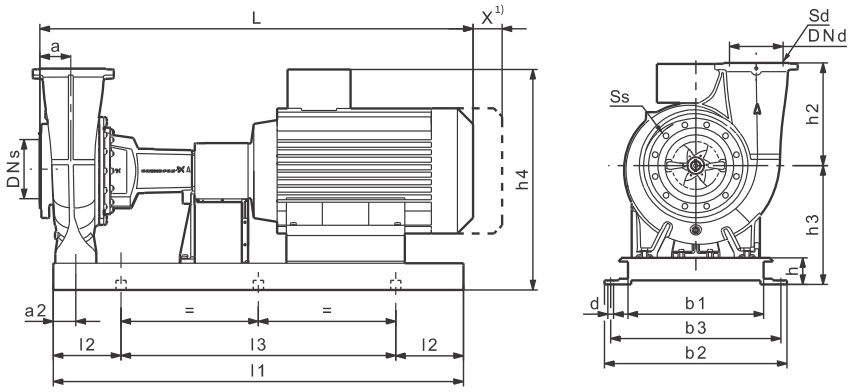
Dimensional drawings, NKG

C-channel base frame, center outlet



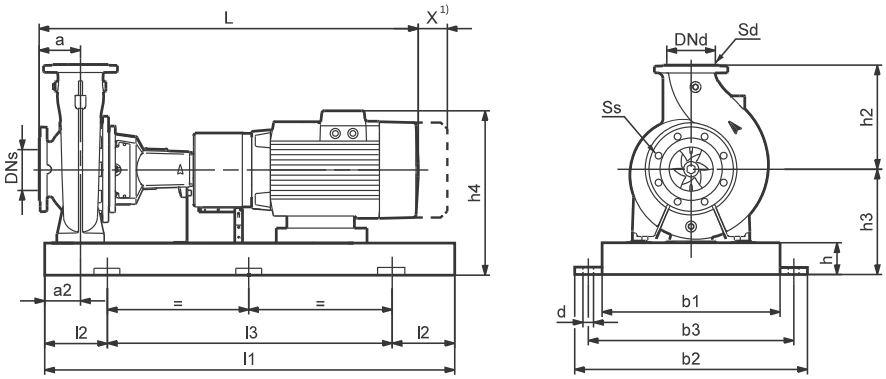
TM03 4051 2415

C-channel base frame, tangential outlet



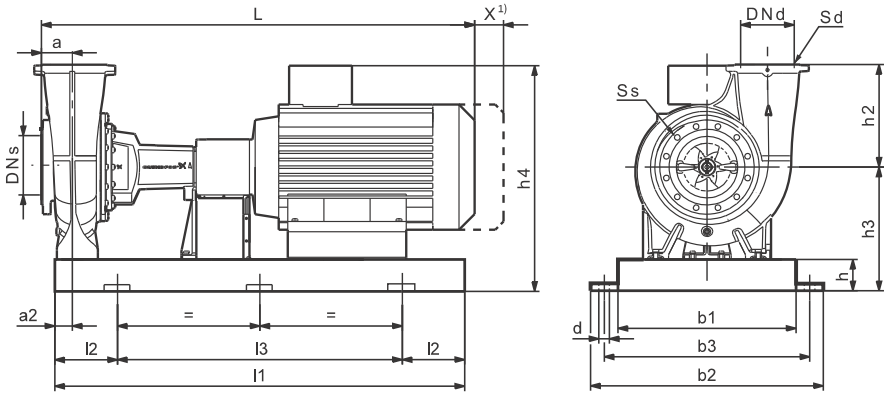
TM04 6113 2415

EN/ISO base frame, center outlet



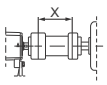
TM03 4179 2415

EN/ISO base frame, tangential outlet



TM03 6005 2415

[1] X: Service dimension. This dimension can be found in section *13. NKG bare shaft pumps*, it equals to the length of the spacer coupling.



Technical data, NKG

Standard motors in this table are IE3 motors:

- 2-pole: P2 less than or equal to 22 kW, pump with MG motor; P2 greater than or equal to 30 kW, pump with Siemens motor.
- 4-pole: P2 less than or equal to 15 kW, pump with MG motor; P2 greater than or equal to 18.5 kW, pump with Siemens motor.
- 6-pole: Pump with Siemens motor.

E-motors in this table:

- 2-pole: P2 less than or equal to 22 kW, pump with MGE motor.
- 4-pole: P2 less than or equal to 18.5 kW, pump with MGE motor.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
50-32-125.1	2	1.1	95	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/335	800/800	130/130	540/540	760/856	783/879	2/2	2/2s
		1.5	104	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	180	286/361	900/900	150/150	600/600	800/896	793/889	3/3	5/5s
		2.2	116	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	180	286/361	900/900	150/150	600/600	840/936	793/889	3/3	5/5s
		3	129	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	177	297/378	900/900	150/150	600/600	864/960	795/891	3/3	9/9s
		4	140	16	50	32	4x19	4x19	80	60	340	450	400	24	80	140	195	329/396	1000/1000	170/170	660/660	901/997	795/891	4/4	14/14s
	4	0.25	116	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/-	800/800	130/130	540/540	700/786	-/-	2/2	1/1s
		0.37	132	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/-	800/800	130/130	540/540	700/786	-/-	2/2	1/1s
		0.55	140	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/335	800/800	130/130	540/540	740/836	783/879	2/2	2/2s
50-32-125	2	1.5	97	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	180	286/361	900/900	150/150	600/600	800/896	793/889	3/3	5/5s
		2.2	107	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	180	286/361	900/900	150/150	600/600	840/936	793/889	3/3	5/5s
		3	122	16	50	32	4x19	4x19	80	60	300	390	345	19	65	140	177	297/378	900/900	150/150	600/600	864/960	795/891	3/3	9/9s
		4	130	16	50	32	4x19	4x19	80	60	340	450	400	24	80	140	195	329/396	1000/1000	170/170	660/660	901/997	795/891	4/4	14/14s
		5.5	142	16	50	32	4x19	4x19	80	60	380	490	440	24	80	140	217	351/418	1120/1120	190/190	740/740	946/1036	832/922	5/5	19/19s
	4	0.25	109	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/-	800/800	130/130	540/540	700/786	-/-	2/2	1/1s
		0.37	123	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/-	800/800	130/130	540/540	700/786	-/-	2/2	1/1s
		0.55	140	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	286/335	800/800	130/130	540/540	740/836	783/879	2/2	2/2s
		0.75	142	16	50	32	4x19	4x19	80	60	270	360	320	19	65	140	177	283/351	800/800	130/130	540/540	790/886	743/839	2/2	5/5s
50-32-160.1	2	2.2	133	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	318/393	1000/1000	170/170	660/660	840/936	793/889	4/4	5/5s
		3	145	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	332/413	1000/1000	170/170	660/660	864/960	795/891	4/4	9/9s
		4	156	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	346/413	1000/1000	170/170	660/660	901/997	795/891	4/4	14/14s
		5.5	170	16	50	32	4x19	4x19	80	60	380	490	440	24	80	160	215	349/416	1120/1120	190/190	740/740	946/1036	832/922	5/5	19/19s
		7.5	177	16	50	32	4x19	4x19	80	60	380	490	440	24	80	160	215	374/452	1120/1120	190/190	740/740	934/1024	856/946	5/5	19/19s
	4	0.37	147	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	321/-	1000/1000	170/170	660/660	700/786	-/-	4/4	1/1s
		0.55	164	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	321/370	1000/1000	170/170	660/660	740/836	783/879	4/4	2/2s
		0.75	173	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	318/386	1000/1000	170/170	660/660	790/886	743/839	4/4	5/5s
50-32-160	2	3	128	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	332/413	1000/1000	170/170	660/660	864/960	795/891	4/4	9/9s
		4	139	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	346/413	1000/1000	170/170	660/660	901/997	795/891	4/4	14/14s
		5.5	152	16	50	32	4x19	4x19	80	60	380	490	440	24	80	160	215	349/416	1120/1120	190/190	740/740	946/1036	832/922	5/5	19/19s
		7.5	168	16	50	32	4x19	4x19	80	60	380	490	440	24	80	160	215	374/452	1120/1120	190/190	740/740	934/1024	856/946	5/5	19/19s
		11	177	16	50	32	4x19	4x19	80	60	430	540	490	24	80	160	245	449/482	1250/1250	205/205	840/840	1063/1146	880/963	6/6	31/31s
	4	0.37	131	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	321/-	1000/1000	170/170	660/660	700/786	-/-	4/4	1/1s
		0.55	147	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	321/370	1000/1000	170/170	660/660	740/836	783/879	4/4	2/2s
		0.75	158	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	318/386	1000/1000	170/170	660/660	790/886	743/839	4/4	5/5s
		1.1	173	16	50	32	4x19	4x19	80	60	340	450	400	24	80	160	212	318/393	1000/1000	170/170	660/660	800/896	793/889	4/4	5/5s
50-32-200.1	2	4	158	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	374/441	1000/1000	170/170	660/660	901/997	795/891	4/4	14/14s
		5.5	175	16	50	32	4x19	4x19	80	60	380	490	440	24	80	180	240	374/441	1120/1120	190/190	740/740	946/1036	832/922	5/5	19/19s
		7.5	192	16	50	32	4x19	4x19	80	60	380	490	440	24	80	180	240	399/477	1120/1120	190/190	740/740	934/1024	856/946	5/5	19/19s
		11	207	16	50	32	4x19	4x19	80	60	430	540	490	24	80	180	245	449/482	1250/1250	205/205	840/840	1063/1146	880/963	6/6	32/32s
	4	0.55	168	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	349/398	1000/1000	170/170	660/660	740/836	783/879	4/4	3/3s
		0.75	182	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	346/414	1000/1000	170/170	660/660	790/886	743/839	4/4	6/6s
		1.1	201	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	346/421	1000/1000	170/170	660/660	800/896	793/889	4/4	6/6s
		1.5	207	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	350/398	1000/1000	170/170	660/660	840/936	735/831	4/4	6/6s
50-32-200	2	5.5	164	16	50	32	4x19	4x19	80	60	380	490	440	24	80	180	240	374/441	1120/1120	190/190	740/740	946/1036	832/922	5/5	19/19s
		7.5	179	16	50	32	4x19	4x19	80	60	380	490	440	24	80	180	240	399/477	1120/1120	190/190	740/740	934/1024	856/946	5/5	19/19s
		11	197	16	50	32	4x19	4x19	80	60	430	540	490	24	80	180	245	449/482	1250/1250	205/205	840/840	1063/1146	880/963	6/6	32/32s
		15	212	16	50	32	4x19	4x19	80	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1063/1146	1063/1146	6/6	32/32s
		18.5	219	16	50	32	4x19	4x19	80	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1107/1190	1107/1190	6/6	32/32s
	4	0.75	169	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	346/414	1000/1000	170/170	660/660	790/886	743/839	4/4	6/6s
		1.1	184	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	346/421	1000/1000	170/170	660/660	800/896	793/889	4/4	6/6s
		1.5	202	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	350/398	1000/1000	170/170	660/660	840/936	735/831	4/4	6/6s
		2.2	219	16	50	32	4x19	4x19	80	60	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	864/960	795/891	4/4	9/9s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
50-32-250	2	11	207	16	50	32	4x19	4x19	100	75	430	540	490	24	80	225	260	464/497	1250/1250	205/205	840/840	1185/1281	1002/1098	6/6	27/27s
		15	227	16	50	32	4x19	4x19	100	75	430	540	490	24	80	225	260	464/561	1250/1250	205/205	840/840	1185/1281	1185/1281	6/6	27/27s
		18.5	242	16	50	32	4x19	4x19	100	75	430	540	490	24	80	225	260	464/561	1250/1250	205/205	840/840	1229/1325	1229/1325	6/6	27/27s
		22	256	16	50	32	4x19	4x19	100	75	430	540	490	24	80	225	265	469/627	1250/1250	205/205	840/840	1258/1354	1255/1351	6/6	34/34s
		30	262	16	50	32	4x19	4x19	100	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1325/1421	-/-	8/8	111/111s
	4	1.1	194	16	50	32	4x19	4x19	100	75	380	490	440	24	80	225	260	366/441	1120/1120	190/190	740/740	935/1031	928/1024	5/5	7/7s
		1.5	213	16	50	32	4x19	4x19	100	75	380	490	440	24	80	225	260	370/418	1120/1120	190/190	740/740	975/1071	870/966	5/5	7/7s
		2.2	243	16	50	32	4x19	4x19	100	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
		3	260	16	50	32	4x19	4x19	100	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
65-40-200	2	11	178	16	65	40	4x19	4x19	100	60	430	540	490	24	80	180	245	449/482	1250/1250	205/205	840/840	1083/1166	900/983	6/6	32/32s
		15	193	16	65	40	4x19	4x19	100	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1083/1166	1083/1166	6/6	32/32s
		18.5	206	16	65	40	4x19	4x19	100	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1127/1210	1127/1210	6/6	32/32s
		22	216	16	65	40	4x19	4x19	100	60	430	540	490	24	80	180	265	469/627	1250/1250	205/205	840/840	1164/1239	1161/1236	6/6	33/33s
		30	219	16	65	40	4x19	4x19	100	60	530	660	600	28	100	180	310	625/-	1600/1600	270/270	1060/1060	1231/1306	-/-	8/8	41/41s
	4	1.1	168	16	65	40	4x19	4x19	100	60	340	450	400	24	80	180	240	346/421	1000/1000	170/170	660/660	820/916	813/909	4/4	6/6s
		1.5	182	16	65	40	4x19	4x19	100	60	340	450	400	24	80	180	240	350/398	1000/1000	170/170	660/660	860/956	755/851	4/4	6/6s
		2.2	205	16	65	40	4x19	4x19	100	60	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
		3	217	16	65	40	4x19	4x19	100	60	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
65-40-250	2	15	193	16	65	40	4x19	4x19	100	75	430	540	490	24	80	225	260	464/561	1250/1250	205/205	840/840	1185/1281	1185/1281	6/6	27/27s
		18.5	206	16	65	40	4x19	4x19	100	75	430	540	490	24	80	225	260	464/561	1250/1250	205/205	840/840	1229/1325	1229/1325	6/6	27/27s
		22	215	16	65	40	4x19	4x19	100	75	430	540	490	24	80	225	265	469/627	1250/1250	205/205	840/840	1258/1354	1255/1351	6/6	34/34s
		30	236	16	65	40	4x19	4x19	100	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1325/1421	-/-	8/8	111/111s
		37	252	16	65	40	4x19	4x19	100	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1350/1446	-/-	8/8	111/111s
		45	260	16	65	40	4x19	4x19	100	75	530	660	600	28	100	225	330	668/-	1600/1600	270/270	1060/1060	1422/1518	-/-	8/8	51/51s
	4	2.2	207	16	65	40	4x19	4x19	100	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
		3	223	16	65	40	4x19	4x19	100	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
		4	246	16	65	40	4x19	4x19	100	75	380	490	440	24	80	225	260	394/461	1120/1120	190/190	740/740	1036/1132	930/1026	5/5	16/16s
		5.5	260	16	65	40	4x19	4x19	100	75	380	490	440	24	80	225	260	419/497	1120/1120	190/190	740/740	1063/1159	985/1081	5/5	21/21s
65-40-315	2	37	271	16	65	40	4x19	4x19	125	75	530	660	600	28	100	250	305	620/-	1600/1600	270/270	1060/1060	1375/1471	-/-	8/8	111/111s
		45	285	16	65	40	4x19	4x19	125	75	530	660	600	28	100	250	330	668/-	1600/1600	270/270	1060/1060	1447/1543	-/-	8/8	52/52s
		55	303	25	65	40	4x19	4x19	125	75	600	730	670	28	100	250	360	770/-	1800/1800	300/300	1200/1200	1516/1612	-/-	9C/9C	60/60s
		75	332	25	65	40	4x19	4x19	125	75	730	890	830	28	130	250	420	853/-	2000/2000	330/330	1340/1340	1589/1685	-/-	10/10	73/73s
		90	344	25	65	40	4x19	4x19	125	75	730	890	830	28	130	250	415	848/-	2000/2000	330/330	1340/1340	1699/1795	-/-	10/10	69/69s
	4	5.5	284	16	65	40	4x19	4x19	125	75	430	540	490	24	80	250	280	439/517	1250/1250	205/205	840/840	1088/1184	1009/1105	6/6	21/21s
		7.5	313	16	65	40	4x19	4x19	125	75	430	540	490	24	80	250	280	439/517	1250/1250	205/205	840/840	1138/1234	1009/1105	6/6	21/21s
		11	344	16	65	40	4x19	4x19	125	75	430	540	490	24	80	250	280	484/581	1250/1250	205/205	840/840	1284/1380	1210/1306	6/6	27/27s
65-50-125	2	3	110	16	65	50	4x19	4x19	80	60	300	390	345	19	65	140	177	297/378	900/900	150/150	600/600	864/960	797/893	3/3	9/9s
		4	118	16	65	50	4x19	4x19	80	60	340	450	400	24	80	140	195	329/396	1000/1000	170/170	660/660	901/997	797/893	4/4	14/14s
		5.5	131	16	65	50	4x19	4x19	80	60	380	490	440	24	80	140	217	351/418	1120/1120	190/190	740/740	946/1036	834/924	5/5	19/19s
		7.5	140	16	65	50	4x19	4x19	80	60	380	490	440	24	80	140	217	376/454	1120/1120	190/190	740/740	934/1024	858/948	5/5	19/19s
		11	142	16	65	50	4x19	4x19	80	60	430	540	490	24	80	140	245	449/482	1250/1250	205/205	840/840	1063/1146	882/965	6/6	31/31s
	4	0.37	111	16	65	50	4x19	4x19	80	60	300	390	345	19	65	140	177	286/-	900/900	150/150	600/600	700/786	-/-	3/3	1/1s
		0.55	123	16	65	50	4x19	4x19	80	60	300	390	345	19	65	140	177	286/335	900/900	150/150	600/600	740/836	783/879	3/3	2/2s
		0.75	133	16	65	50	4x19	4x19	80	60	300	390	345	19	65	140	177	283/351	900/900	150/150	600/600	790/886	743/839	3/3	5/5s
		1.1	142	16	65	50	4x19	4x19	80	60	300	390	345	19	65	140	180	286/361	900/900	150/150	600/600	800/896	793/889	3/3	5/5s
65-50-160	2	5.5	131	16	65	50	4x19	4x19	80	60	380	490	440	24	80	160	215	349/416	1120/1120	190/190	740/740	946/1036	834/924	5/5	19/19s
		7.5	143	16	65	50	4x19	4x19	80	60	380	490	440	24	80	160	215	374/452	1120/1120	190/190	740/740	934/1024	858/948	5/5	19/19s
		11	162	16	65	50	4x19	4x19	80	60	430	540	490	24	80	160	245	449/482	1250/1250	205/205	840/840	1063/1146	882/965	6/6	31/31s
		15	177	16	65	50	4x19	4x19	80	60	430	540	490	24	80	160	245	449/546	1250/1250	205/205	840/840	1063/1146	1063/1146	6/6	31/31s
	4	0.55	128	16	65	50	4x19	4x19	80	60	340	450	400	24	80	160	212	321/370	1000/1000	170/170	660/660	740/836	783/879	4/4	2/2s
		0.75	138	16	65	50	4x19	4x19	80	60	340	450	400	24	80	160	212	318/386	1000/1000	170/170	660/660	790/886	743/839	4/4	5/5s
		1.1	153	16	65	50	4x19	4x19	80	60	340	450	400	24	80	160	212	318/393	1000/1000	170/170	660/660	800/896	793/889	4/4	5/5s
		1.5	168	16	65	50	4x19	4x19	80	60	340	450	400	24	80	160	212	322/370	1000/1000	170/170	660/660	840/936	737/833	4/4	5/5s
		2.2	177	16	65	50	4x19	4x19	80	60	340	450	400	24	80	160	212	332/413	1000/1000	170/170	660/660	864/960	797/893	4/4	9/9s
80-50-200	2	15	167	16	80	50	8x19	4x19	100	60	430	540	490	24	80	200	245	449/546	1250/1250	205/205	840/840	1083/1166	1083/1166	6/6	32/32s
		18.5	178	16	80	50	8x19	4x19	100	60	430	540	490	24	80	200	245	449/546	1250/1250	205/205	840/840	1127/1210	1127/1210	6/6	32/32s
		22	187	16	80	50	8x19	4x19	100	60	430	540	490	24	80	200	265	469/627	1250/1250	205/205	840/840	1164/1239	1161/1236	6/6	33/33s
		30	205	16	80	50	8x19	4x19	100	60	530	660	600	28	100	200	310	625/-	1600/1600	270/270	1060/1060	1231/1306	-/-	8/8	41/41s
		37	218	16	80	50	8x19	4x19	100	60	530	660	600	28	100	200	310	625/-	1600/1600	270/270	1060/1060	1256/1331	-/-	8/8	41/41s
		45	219	16	80	50	8x19	4x19	100	60	530	660	600	28	100	200	330	668/-	1600/1600	270/270	1060/1060	1328/1403	-/-	8/8	55/55s
	4	2.2	178	16	80	50	8x19	4x19	100	60	340	450	400	24	80	200	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
		3	191	16	80	50	8x19	4x19	100	60	340	450	400	24	80	200	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
		4	210	16	80	50	8x19	4x19	100	60	340	450	400	24	80	200	240	374/441	1000/1000	170/170	660/660	921/1017	815/911	4/4	14/14s
		5.5	219	16	80	50	8x19	4x19	100	60	380	490	440	24	80	200	240	399/477	1120/1120	190/190	740/740	954/1044	876/966	5/5	19/19s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
80-50-250	2	30	213	16	80	50	8x19	4x19	125	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1350/1446	-/-	8/8	111/111s
		37	229	16	80	50	8x19	4x19	125	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1375/1471	-/-	8/8	111/111s
		45	242	16	80	50	8x19	4x19	125	75	530	660	600	28	100	225	330	668/-	1600/1600	270/270	1060/1060	1447/1543	-/-	8/8	51/51s
		55	257	16	80	50	8x19	4x19	125	75	600	730	670	28	100	225	355	765/-	1800/1800	300/300	1200/1200	1516/1612	-/-	9/9	59/59s
		75	263	16	80	50	8x19	4x19	125	75	750	890	830	28	130	225	415	848/-	2000/2000	330/330	1340/1340	1589/1685	-/-	10/10	72/72s
	4	4	221	16	80	50	8x19	4x19	125	75	380	490	440	24	80	225	260	394/461	1120/1120	190/190	740/740	1061/1157	955/1051	5/5	16/16s
		5.5	244	16	80	50	8x19	4x19	125	75	380	490	440	24	80	225	260	419/497	1120/1120	190/190	740/740	1088/1184	1010/1106	5/5	21/21s
		7.5	263	16	80	50	8x19	4x19	125	75	380	490	440	24	80	225	260	419/497	1120/1120	190/190	740/740	1138/1234	1010/1106	5/5	21/21s
80-50-315	2	55	271	16	80	50	8x19	8x19	125	75	600	730	670	28	100	280	355	765/-	1800/1800	300/300	1200/1200	1516/1612	-/-	9/9	60/60s
		75	297	25	80	50	8x19	8x19	125	75	730	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1589/1685	-/-	10/10	73/73s
		90	314	25	80	50	8x19	8x19	125	75	730	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1699/1795	-/-	10/10	69/69s
		110	333	25	80	50	8x19	8x19	125	75	730	890	830	28	130	280	450	965/-	2000/2000	330/330	1340/1340	1681/1777	-/-	10/10	76/76s
	4	5.5	256	16	80	50	8x19	4x19	125	75	430	540	490	24	80	280	305	464/542	1250/1250	205/205	840/840	1088/1184	1009/1105	6/6	22/22s
		7.5	283	16	80	50	8x19	4x19	125	75	430	540	490	24	80	280	305	464/542	1250/1250	205/205	840/840	1138/1234	1009/1105	6/6	22/22s
		11	314	16	80	50	8x19	4x19	125	75	430	540	490	24	80	280	305	509/606	1250/1250	205/205	840/840	1284/1380	1210/1306	6/6	28/28s
		15	344	16	80	50	8x19	4x19	125	75	430	540	490	24	80	280	305	509/606	1250/1250	205/205	840/840	1314/1410	1254/1350	6/6	28/28s
80-65-125	2	4	105	16	80	65	8x19	4x19	100	60	340	450	400	24	80	160	212	346/413	1000/1000	170/170	660/660	921/1017	815/911	4/4	14/14s
		5.5	113	16	80	65	8x19	4x19	100	60	380	490	440	24	80	160	215	349/416	1120/1120	190/190	740/740	966/1056	852/942	5/5	19/19s
		7.5	124	16	80	65	8x19	4x19	100	60	380	490	440	24	80	160	215	374/452	1120/1120	190/190	740/740	954/1044	876/966	5/5	19/19s
		11	140	16	80	65	8x19	4x19	100	60	430	540	490	24	80	160	245	449/482	1250/1250	205/205	840/840	1083/1166	900/983	6/6	31/31s
		15	144	16	80	65	8x19	4x19	100	60	430	540	490	24	80	160	245	449/546	1250/1250	205/205	840/840	1083/1166	1083/1166	6/6	31/31s
	4	0.55	109	16	80	65	8x19	4x19	100	60	340	450	400	24	80	160	212	321/370	1000/1000	170/170	660/660	760/856	803/899	4/4	2/2s
		0.75	116	16	80	65	8x19	4x19	100	60	340	450	400	24	80	160	212	318/386	1000/1000	170/170	660/660	810/906	763/859	4/4	5/5s
		1.1	127	16	80	65	8x19	4x19	100	60	340	450	400	24	80	160	212	318/393	1000/1000	170/170	660/660	820/916	813/909	4/4	5/5s
		1.5	143	16	80	65	8x19	4x19	100	60	340	450	400	24	80	160	212	322/370	1000/1000	170/170	660/660	860/956	755/851	4/4	5/5s
80-65-160	2	7.5	127	16	80	65	8x19	4x19	100	60	380	490	440	24	80	180	240	399/477	1120/1120	190/190	740/740	954/1044	876/966	5/5	19/19s
		11	141	16	80	65	8x19	4x19	100	60	430	540	490	24	80	180	245	449/482	1250/1250	205/205	840/840	1083/1166	900/983	6/6	32/32s
		15	154	16	80	65	8x19	4x19	100	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1083/1166	1083/1166	6/6	32/32s
		18.5	165	16	80	65	8x19	4x19	100	60	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1127/1210	1127/1210	6/6	32/32s
		22	177	16	80	65	8x19	4x19	100	60	430	540	490	24	80	180	265	469/627	1250/1250	205/205	840/840	1164/1239	1161/1236	6/6	33/33s
	4	1.1	134	16	80	65	8x19	4x19	100	60	340	450	400	24	80	180	240	346/421	1000/1000	170/170	660/660	820/916	813/909	4/4	6/6s
		1.5	146	16	80	65	8x19	4x19	100	60	340	450	400	24	80	180	240	350/398	1000/1000	170/170	660/660	860/956	755/851	4/4	6/6s
		2.2	165	16	80	65	8x19	4x19	100	60	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
		3	175	16	80	65	8x19	4x19	100	60	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
100-65-200	2	18.5	160	16	100	65	8x19	4x19	100	75	480	610	560	28	100	225	280	484/581	1400/1400	230/230	940/940	1229/1365	1229/1365	7/7	27/27s
		22	168	16	100	65	8x19	4x19	100	75	480	610	560	28	100	225	285	489/647	1400/1400	230/230	940/940	1258/1394	1255/1391	7/7	34/34s
		30	184	16	100	65	8x19	4x19	100	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1325/1461	-/-	8/8	111/111s
		37	195	16	100	65	8x19	4x19	100	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1350/1486	-/-	8/8	111/111s
		45	208	16	100	65	8x19	4x19	100	75	530	660	600	28	100	225	330	668/-	1600/1600	270/270	1060/1060	1422/1558	-/-	8/8	51/51s
		55	219	16	100	65	8x19	4x19	100	75	600	730	670	28	100	225	355	765/-	1800/1800	300/300	1200/1200	1491/1627	-/-	9/9	59/59s
	4	3	173	16	100	65	8x19	4x19	100	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	999/1135	930/1066	5/5	11/11s
		4	189	16	100	65	8x19	4x19	100	75	380	490	440	24	80	225	260	394/461	1120/1120	190/190	740/740	1036/1172	930/1066	5/5	16/16s
		5.5	209	16	100	65	8x19	4x19	100	75	380	490	440	24	80	225	260	419/497	1120/1120	190/190	740/740	1063/1199	985/1121	5/5	21/21s
		7.5	219	16	100	65	8x19	4x19	100	75	430	540	490	24	80	225	260	419/497	1250/1250	205/205	840/840	1113/1249	985/1121	6/6	21/21s
100-65-250	2	45	212	16	100	65	8x19	4x19	125	90	530	660	600	28	100	250	330	668/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	52/52s
		55	226	16	100	65	8x19	4x19	125	90	600	730	670	28	100	250	360	770/-	1800/1800	300/300	1200/1200	1516/1652	-/-	9/9	60/60s
		75	248	16	100	65	8x19	4x19	125	90	750	890	830	28	130	250	415	848/-	2000/2000	330/330	1340/1340	1589/1725	-/-	10/10	73/73s
		90	263	16	100	65	8x19	4x19	125	90	750	890	830	28	130	250	415	848/-	2000/2000	330/330	1340/1340	1699/1835	-/-	10/10	69/69s
		110	270	16	100	65	8x19	4x19	125	90	750	890	830	28	130	250	450	965/-	2000/2000	330/330	1340/1340	1681/1817	-/-	10/10	76/76s
	4	5.5	215	16	100	65	8x19	4x19	125	90	430	540	490	24	80	250	280	439/517	1250/1250	205/205	840/840	1088/1224	1009/1145	6/6	21/21s
		7.5	238	16	100	65	8x19	4x19	125	90	430	540	490	24	80	250	280	439/517	1250/1250	205/205	840/840	1138/1274	1009/1145	6/6	21/21s
		11	265	16	100	65	8x19	4x19	125	90	430	540	490	24	80	250	280	484/581	1250/1250	205/205	840/840	1284/1420	1210/1346	6/6	27/27s
		15	270	16	100	65	8x19	4x19	125	90	480	610	560	28	100	250	300	504/601	1400/1400	230/230	940/940	1314/1450	1254/1390	7/7	27/27s
100-65-315	2	90	269	25	100	65	8x19	4x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1729/1865	-/-	10/10	69/69s
		110	284	25	100	65	8x19	4x19	125	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1711/1847	-/-	10/10	76/76s
		132	298	25	100	65	8x19	4x19	125	90	730	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1876/2012	-/-	10/10	76/76s
		160	313	25	100	65	8x19	4x19	125	90	730	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1876/2012	-/-	10/10	82/82s
		200	320	25	100	65	8x19	4x19	125	90	730	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	2031/2167	-/-	10/10	82/82s
	4	7.5	242	16	100	65	8x19	4x19	125	90	480	610	560	28	100	280	325	484/562	1400/1400	230/230	940/940	1168/1304	1039/1175	7/7	22/22As
		11	270	16	100	65	8x19	4x19	125	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1314/1450	1240/1376	7/7	28/28As
		15	290	16	100	65	8x19	4x19	125	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1344/1480	1284/1420	7/7	28/28As
		18.5	305	16	100	65	8x19	4x19	125	90	480	610	560	28	100	280	325	611/633	1400/1400	230/230	940/940	1327/1463	1310/1446	7/7	35/35As
		22	320	16	100	65	8x19	4x19	125	90	480	610	560	28	100	280	325	611/-	1400/1400	230/230	940/940	1357/1493	-/-	7/7	35/35As

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges PN	DNs	DNd	Ss	Sd	NKG dimensions [mm] a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	Base frame No[1, 3] EN/ISO	C-channel
100-80-125	2	7.5	120-110	16	100	80	8x19	8x19	100	75	380	490	440	24	80	180	240	399/477	1120/1120	190/190	740/740	954/1044	876/966	5/5	19/19s
		11	130	16	100	80	8x19	8x19	100	75	430	540	490	24	80	180	245	449/482	1250/1250	205/205	840/840	1083/1166	900/983	6/6	32/32s
		15	141	16	100	80	8x19	8x19	100	75	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1083/1166	1083/1166	6/6	32/32s
		18.5	144	16	100	80	8x19	8x19	100	75	430	540	490	24	80	180	245	449/546	1250/1250	205/205	840/840	1127/1210	1127/1210	6/6	32/32s
	4	1.1	121	16	100	80	8x19	8x19	100	75	340	450	400	24	80	180	240	346/421	1000/1000	170/170	660/660	820/916	813/909	4/4	6/6s
		1.5	132	16	100	80	8x19	8x19	100	75	340	450	400	24	80	180	240	350/398	1000/1000	170/170	660/660	860/956	755/851	4/4	6/6s
		2.2	144	16	100	80	8x19	8x19	100	75	340	450	400	24	80	180	240	360/441	1000/1000	170/170	660/660	884/980	815/911	4/4	9/9s
100-80-160	2	11	136	16	100	80	8x19	8x19	100	75	430	540	490	24	80	200	245	449/482	1250/1250	205/205	840/840	1185/1281	1002/1098	6/6	27/27s
		15	147	16	100	80	8x19	8x19	100	75	430	540	490	24	80	200	245	449/546	1250/1250	205/205	840/840	1185/1281	1185/1281	6/6	27/27s
		18.5	155	16	100	80	8x19	8x19	100	75	430	540	490	24	80	200	245	449/546	1250/1250	205/205	840/840	1229/1325	1229/1325	6/6	27/27s
		22	163	16	100	80	8x19	8x19	100	75	430	540	490	24	80	200	265	469/627	1250/1250	205/205	840/840	1258/1354	1255/1351	6/6	34/34s
		30	177	16	100	80	8x19	8x19	100	75	530	660	600	28	100	200	310	625/-	1600/1600	270/270	1060/1060	1325/1421	-/-	8/8	111/111s
	4	1.5	140	16	100	80	8x19	8x19	100	75	340	450	400	24	80	200	240	350/398	1000/1000	170/170	660/660	975/1071	870/966	4/4	7/7s
		2.2	156	16	100	80	8x19	8x19	100	75	380	490	440	24	80	200	240	360/441	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
		3	169	16	100	80	8x19	8x19	100	75	380	490	440	24	80	200	240	360/441	1120/1120	190/190	740/740	999/1095	930/1026	5/5	11/11s
		4	177	16	100	80	8x19	8x19	100	75	380	490	440	24	80	200	240	374/441	1120/1120	190/190	740/740	1036/1132	930/1026	5/5	16/16s
125-80-160	2	22	150-130	16	125	80	8x19	8x19	125	75	480	610	560	28	100	225	285	489/647	1400/1400	230/230	940/940	1283/1419	1280/1416	7/7	34/34s
		30	156	16	125	80	8x19	8x19	125	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1350/1486	-/-	8/8	111/111s
		37	165	16	125	80	8x19	8x19	125	75	530	660	600	28	100	225	305	620/-	1600/1600	270/270	1060/1060	1375/1511	-/-	8/8	111/111s
		45	174	16	125	80	8x19	8x19	125	75	530	660	600	28	100	225	330	668/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	51/51s
		55	177	16	125	80	8x19	8x19	125	75	600	730	670	28	100	225	355	765/-	1800/1800	300/300	1200/1200	1516/1652	-/-	9/9	59/59s
	4	3	150	16	125	80	8x19	8x19	125	75	380	490	440	24	80	225	260	380/461	1120/1120	190/190	740/740	1024/1160	955/1091	5/5	11/11s
		4	161	16	125	80	8x19	8x19	125	75	380	490	440	24	80	225	260	394/461	1120/1120	190/190	740/740	1061/1197	955/1091	5/5	16/16s
		5.5	177	16	125	80	8x19	8x19	125	75	380	490	440	24	80	225	260	419/497	1120/1120	190/190	740/740	1088/1224	1010/1146	5/5	21/21s
125-80-200	2	37	169	16	125	80	8x19	8x19	125	75	530	660	600	28	100	250	305	620/-	1600/1600	270/270	1060/1060	1375/1511	-/-	8/8	111/111s
		45	179	16	125	80	8x19	8x19	125	75	530	660	600	28	100	250	330	668/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	51/51s
		55	192	16	125	80	8x19	8x19	125	75	600	730	670	28	100	250	355	765/-	1800/1800	300/300	1200/1200	1516/1652	-/-	9/9	59/59s
		75	207	16	125	80	8x19	8x19	125	75	750	890	830	28	130	250	415	848/-	2000/2000	330/330	1340/1340	1589/1725	-/-	10/10	72/72s
		90	222	16	125	80	8x19	8x19	125	75	750	890	830	28	130	250	415	848/-	2000/2000	330/330	1340/1340	1699/1835	-/-	10/10	70/70s
	4	4	167	16	125	80	8x19	8x19	125	75	430	540	490	24	80	250	260	394/461	1250/1250	205/205	840/840	1061/1197	954/1090	6/6	16/16s
		5.5	184	16	125	80	8x19	8x19	125	75	430	540	490	24	80	250	260	419/497	1250/1250	205/205	840/840	1088/1224	1009/1145	6/6	21/21s
		7.5	202	16	125	80	8x19	8x19	125	75	430	540	490	24	80	250	260	419/497	1250/1250	205/205	840/840	1138/1274	1009/1145	6/6	21/21s
		11	222	16	125	80	8x19	8x19	125	75	430	540	490	24	80	250	260	464/561	1250/1250	205/205	840/840	1284/1420	1210/1346	6/6	27/27s
125-80-250	2	75	218	16	125	80	8x19	8x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1589/1725	-/-	10/10	73/73s
		90	230	16	125	80	8x19	8x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1699/1835	-/-	10/10	69/69s
		110	244	16	125	80	8x19	8x19	125	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1681/1817	-/-	10/10	76/76s
		132	259	16	125	80	8x19	8x19	125	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1846/1982	-/-	10/10	76/76s
		160	270	16	125	80	8x19	8x19	125	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1846/1982	-/-	10/10	76/76s
	4	7.5	211	16	125	80	8x19	8x19	125	90	480	610	560	28	100	280	325	484/562	1400/1400	230/230	940/940	1138/1274	1009/1145	7/7	22/22As
		11	234	16	125	80	8x19	8x19	125	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1284/1420	1210/1346	7/7	28/28s
		15	255	16	125	80	8x19	8x19	125	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1314/1450	1254/1390	7/7	28/28s
		18.5	270	16	125	80	8x19	8x19	125	90	480	610	560	28	100	280	325	611/633	1400/1400	230/230	940/940	1297/1433	1280/1416	7/7	35/35s
125-80-315	2	132	267	16	125	80	8x19	8x19	125	90	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	1876/2012	-/-	10/10	76/76s
		160	285	16	125	80	8x19	8x19	125	90	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	1876/2012	-/-	10/10	82/82s
		200	304	25	125	80	8x19	8x19	125	90	730	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	2031/2167	-/-	10/10	82/82s
		280	334	25	125	80	8x19	8x19	125	90	740	1120	1060	28	140	315	460	1030/-	2250/2250	125/125	2000/2000	2031/2167	-/-	-/-	97/97s
	4	18.5	275	16	125	80	8x19	8x19	125	90	480	610	560	28	100	315	350	636/658	1400/1400	230/230	940/940	1327/1463	1310/1446	7/7	35/35As
		22	287	16	125	80	8x19	8x19	125	90	480	610	560	28	100	315	350	636/-	1400/1400	230/230	940/940	1357/1493	-/-	7/7	35/35As
		30	314	16	125	80	8x19	8x19	125	90	530	660	600	28	100	315	355	670/-	1600/1600	270/270	1060/1060	1405/1541	-/-	8/8	42/42As
		37	332	16	125	80	8x19	8x19	125	90	530	660	600	28	100	315	350	688/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	52/52s
		45	334	16	125	80	8x19	8x19	125	90	530	660	600	28	100	315	350	688/-	1600/1600	270/270	1060/1060	1507/1643	-/-	8/8	52/52s
125-80-400	4	30	342	16	125	80	8x19	8x19	125	90	530	660	600	28	100	355	380	695/-	1600/1600	270/270	1060/1060	1405/1541	-/-	8/8	43/43s
		37	362	16	125	80	8x19	8x19	125	90	530	660	600	28	100	355	380	718/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	53/53s
		45	380	16	125	80	8x19	8x19	125	90	530	660	600	28	100	355	380	718/-	1600/1600	270/270	1060/1060	1507/1643	-/-	8/8	53/53s
		55	401	16	125	80	8x19	8x19	125	90	600	730	670	28	100	355	380	790/-	1800/1800	300/300	1200/1200	1546/1682	-/-	9/9	61/61s
		75	437	16	125	80	8x19	8x19	125	90	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1619/1755	-/-	10/10	68/68s
		90	438	16	125	80	8x19	8x19	125	90	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1729/1865	-/-	10/10	68/68s
125-100-160 CI	2	30	160-140	16	125	100	8x19	8x19	125	90	530	660	600	28	100	280	305	620/-	1600/1600	270/270	1060/1060	1231/1346	-/-	8/8	111/111s
		37	167	16	125	100	8x19	8x19	125	90	530	660	600	28	100	280	305	620/-	1600/1600	270/270	1060/1060	1256/1371	-/-	8/8	111/111s
		45	174	16	125	100	8x19	8x19	125	90	530	660	600	28	100	280	305	668/-	1600/1600	270/270	1060/1060	1328/1443	-/-	8/8	52/52s
	4	4	160-140	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	414/481	1250/1250	205/205	840/840	1061/1197	955/1091	6/6	16/16s
		5.5	169	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/517	1250/1250	205/205	840/840	1088/1224	1010/1146	6/6	21/21s
		7.5	176	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/517	1250/1250	205/205	840/840	1138/1274	1010/1146	6/6	21/21s
	6	1.1	160-140	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	408/-	1250/1250	205/205	840/840	1005/1141	-/-	6/6	110/110s
		1.5	169	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	446/-	1250/1250	205/205	840/840	1025/1161	-/-	6/6	11/11s
		2.2	176	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	457/-	1250/1250	205/205	840/840	1043/1179	-/-	6/6	16/16s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
125-100-160 SS	2	37	160-154	16	125	100	8x19	8x19	125	90	530	660	600	28	100	280	305	620/-	1600/1600	270/270	1060/1060	1375/1511	-/-	8/8	111/111s
		45	163	16	125	100	8x19	8x19	125	90	530	660	600	28	100	280	330	668/-	1600/1600	270/270	1060/1060	1447/1583	-/-	8/8	52/52s
		55	171	16	125	100	8x19	8x19	125	90	600	730	670	28	100	280	360	770/-	1800/1800	300/300	1200/1200	1516/1652	-/-	9/9	60/60s
		75	176	16	125	100	8x19	8x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1589/1725	-/-	10/10	73/73s
	4	4	160-146	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	414/-	1250/1250	205/205	840/840	1061/1197	-/-	6/6	16/16s
		5.5	165	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/-	1250/1250	205/205	840/840	1088/1224	-/-	6/6	21/21s
		7.5	176	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/-	1250/1250	205/205	840/840	1138/1274	-/-	6/6	21/21s
	6	1.1	160-154	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	408/-	1250/1250	205/205	840/840	1005/1141	-/-	6/6	110/110s
		1.5	163	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	446/-	1250/1250	205/205	840/840	1025/1161	-/-	6/6	11/11s
		2.2	176	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	457/-	1250/1250	205/205	840/840	1043/1179	-/-	6/6	16/16s
125-100-200	2	55	173	16	125	100	8x19	8x19	125	90	600	730	670	28	100	280	360	770/-	1800/1800	300/300	1200/1200	1516/1652	-/-	9/9	60/60s
		75	192	16	125	100	8x19	8x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1589/1725	-/-	10/10	73/73s
		90	201	16	125	100	8x19	8x19	125	90	750	890	830	28	130	280	415	848/-	2000/2000	330/330	1340/1340	1699/1835	-/-	10/10	69/69s
		110	212	16	125	100	8x19	8x19	125	90	750	890	830	28	130	280	450	965/-	2000/2000	330/330	1340/1340	1681/1817	-/-	10/10	76/76s
		132	219	16	125	100	8x19	8x19	125	90	750	890	830	28	130	280	450	965/-	2000/2000	330/330	1340/1340	1846/1982	-/-	10/10	76/76s
	4	5.5	166	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/517	1250/1250	205/205	840/840	1088/1224	1009/1145	6/6	21/21s
		7.5	182	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	439/517	1250/1250	205/205	840/840	1138/1274	1009/1145	6/6	21/21s
		11	201	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	484/581	1250/1250	205/205	840/840	1284/1420	1210/1346	6/6	27/27s
		15	217	16	125	100	8x19	8x19	125	90	480	610	560	28	100	280	300	504/601	1400/1400	230/230	940/940	1314/1450	1254/1390	7/7	27/27s
		18.5	219	16	125	100	8x19	8x19	125	90	480	610	560	28	100	280	300	586/608	1400/1400	230/230	940/940	1297/1433	1280/1416	7/7	34/34s
	6	1.5	164	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	446/-	1250/1250	205/205	840/840	1025/1161	-/-	6/6	11/11s
		2.2	183	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	457/-	1250/1250	205/205	840/840	1043/1179	-/-	6/6	16/16s
		3	198	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	482/-	1250/1250	205/205	840/840	1094/1230	-/-	6/6	21/21s
		4	214	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	482/-	1250/1250	205/205	840/840	1094/1230	-/-	6/6	21/21s
		5.5	219	16	125	100	8x19	8x19	125	90	430	540	490	24	80	280	280	482/-	1250/1250	205/205	840/840	1144/1280	-/-	6/6	21/21s
125-100-250 CI	2	110	217	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1726/1862	-/-	10/10	76/76s
		132	231	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1891/2027	-/-	10/10	76/76s
		160	243	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1891/2027	-/-	10/10	82/82s
		200	269	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	2046/2182	-/-	10/10	82/82s
	4	15	223	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1359/1495	1299/1435	7/7	28/28As
		18.5	236	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	611/633	1400/1400	230/230	940/940	1342/1478	1325/1461	7/7	35/35As
		22	249	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	611/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As
		30	274	16	125	100	8x19	8x19	140	90	530	660	600	28	100	280	325	640/-	1600/1600	270/270	1060/1060	1420/1556	-/-	8/8	42/42As
	6	4	216	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	527/-	1400/1400	230/230	940/940	1139/1275	-/-	7/7	22/22As
		5.5	238	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	527/-	1400/1400	230/230	940/940	1189/1325	-/-	7/7	22/22As
		7.5	274	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	562/-	1400/1400	230/230	940/940	1278/1414	-/-	7/7	28/28As
125-100-250 SS	2	110	217	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1726/1862	-/-	10/10	76/76s
		132	231	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1891/2027	-/-	10/10	76/76s
		160	243	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	1891/2027	-/-	10/10	82/82s
		200	261	16	125	100	8x19	8x19	140	90	750	890	830	28	130	280	455	970/-	2000/2000	330/330	1340/1340	2046/2182	-/-	10/10	82/82s
		280	270	16	125	100	8x19	8x19	140	90	740	1120	1060	28	140	280	465	965/-	2250/2250	125/125	2000/2000	2046/2182	-/-	-/-	97/97s
	4	15	223	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	529/626	1400/1400	230/230	940/940	1359/1495	1299/1435	7/7	28/28As
		18.5	236	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	611/633	1400/1400	230/230	940/940	1342/1478	1325/1461	7/7	35/35As
		22	249	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	611/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As
		30	270	16	125	100	8x19	8x19	140	90	530	660	600	28	100	280	325	640/-	1600/1600	270/270	1060/1060	1420/1556	-/-	8/8	42/42As
	6	4	216	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	527/-	1400/1400	230/230	940/940	1139/1275	-/-	7/7	22/22As
		5.5	238	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	527/-	1400/1400	230/230	940/940	1189/1325	-/-	7/7	22/22As
		7.5	261	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	562/-	1400/1400	230/230	940/940	1278/1414	-/-	7/7	28/28As
		11	270	16	125	100	8x19	8x19	140	90	480	610	560	28	100	280	325	562/-	1400/1400	230/230	940/940	1338/1474	-/-	7/7	28/28As
125-100-315	4	22	264	16	125	100	8x19	8x19	140	90	480	610	560	28	100	315	350	636/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As
		30	290	16	125	100	8x19	8x19	140	90	530	660	600	28	100	315	355	670/-	1600/1600	270/270	1060/1060	1420/1556	-/-	8/8	42/42As
		37	309	16	125	100	8x19	8x19	140	90	530	660	600	28	100	315	350	688/-	1600/1600	270/270	1060/1060	1462/1598	-/-	8/8	52/52s
		45	329	16	125	100	8x19	8x19	140	90	530	660	600	28	100	315	350	688/-	1600/1600	270/270	1060/1060	1522/1658	-/-	8/8	52/52s
		55	334	16	125	100	8x19	8x19	140	90	600	730	670	28	100	315	355	765/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	60/60s
	6	7.5	276	16	125	100	8x19	8x19	140	90	480	610	560	28	100	315	350	587/-	1400/1400	230/230	940/940	1278/1414	-/-	7/7	28/28As
		11	310	16	125	100	8x19	8x19	140	90	480	610	560	28	100	315	350	587/-	1400/1400	230/230	940/940	1338/1474	-/-	7/7	28/28As
		15	334	16	125	100	8x19	8x19	140	90	480	610	560	28	100	315	350	636/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
125-100-400 CI	4	37	320	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1462/1598	-/-	9/9	53/53s
		45	346	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	53/53s
		55	365	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	790/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	61/61s
		75	395	16	125	100	8x19	8x19	140	110	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1634/1770	-/-	10/10	68/68s
		90	415	16	125	100	8x19	8x19	140	110	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1744/1880	-/-	10/10	68/68s
	6	11	315	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	617/-	1800/1800	300/300	1200/1200	1338/1474	-/-	9/9	29/29s
		15	340	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	669/-	1800/1800	300/300	1200/1200	1372/1508	-/-	9/9	36/36s
		18.5	370	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1395/1531	-/-	9/9	43/43s
		22	385	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1420/1556	-/-	9/9	43/43s
		30	415	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	53/53s
125-100-400 SS	4	37	347	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1462/1598	-/-	9/9	53/53s
		45	367	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	53/53s
		55	392	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	790/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	61/61s
		75	428	16	125	100	8x19	8x19	140	110	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1634/1770	-/-	10/10	68/68s
		90	438	16	125	100	8x19	8x19	140	110	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1744/1880	-/-	10/10	68/68s
	6	11	343	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	617/-	1800/1800	300/300	1200/1200	1338/1474	-/-	9/9	29/29s
		15	379	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	669/-	1800/1800	300/300	1200/1200	1372/1508	-/-	9/9	36/36s
		18.5	404	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1395/1531	-/-	9/9	43/43s
		22	424	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1420/1556	-/-	9/9	43/43s
		30	438	16	125	100	8x19	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	53/53s
150-125-200 CI	4	11	176-154	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	554/651	1400/1400	230/230	940/940	1299/1435	1225/1361	7/7	28/28s
		15	200	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	554/651	1400/1400	230/230	940/940	1329/1465	1269/1405	7/7	28/28s
		18.5	216	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	636/658	1400/1400	230/230	940/940	1312/1448	1295/1431	7/7	35/35s
		22	226	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	636/-	1400/1400	230/230	940/940	1342/1478	-/-	7/7	35/35s
	6	3	176-154	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1109/1245	-/-	7/7	22/22As
		4	196-184	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1109/1245	-/-	7/7	22/22As
		5.5	215	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1159/1295	-/-	7/7	22/22As
		7.5	226	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	587/-	1400/1400	230/230	940/940	1248/1384	-/-	7/7	28/28s
150-125-200 SS	2	90	196-180	16	150	125	8x23	8x19	140	90	750	890	830	28	130	315	415	848/-	2000/2000	330/330	1340/1340	1714/1850	-/-	10/10	69/69s
		110	200	16	150	125	8x23	8x19	140	90	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	1696/1832	-/-	10/10	76/76s
		132	211	16	150	125	8x23	8x19	140	90	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	1861/1997	-/-	10/10	76/76s
		160	223	16	150	125	8x23	8x19	140	90	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	1861/1997	-/-	10/10	76/76s
		200	226	16	150	125	8x23	8x19	140	110	750	890	830	28	130	315	450	965/-	2000/2000	330/330	1340/1340	2016/2152	-/-	10/10	76/76s
	4	11	196-186	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	554/651	1400/1400	230/230	940/940	1299/1435	1225/1361	7/7	28/28s
		15	208	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	554/651	1400/1400	230/230	940/940	1329/1465	1269/1405	7/7	28/28s
		18.5	218	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	636/658	1400/1400	230/230	940/940	1312/1448	1295/1431	7/7	35/35s
		22	226	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	636/-	1400/1400	230/230	940/940	1342/1478	-/-	7/7	35/35s
	6	3	196-180	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1109/1245	-/-	7/7	22/22As
		4	204	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1109/1245	-/-	7/7	22/22As
		5.5	222	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	552/-	1400/1400	230/230	940/940	1159/1295	-/-	7/7	22/22As
		7.5	226	16	150	125	8x23	8x19	140	90	480	610	560	28	100	315	350	587/-	1400/1400	230/230	940/940	1248/1384	-/-	7/7	28/28s
150-125-250	2	160	226	16	150	125	8x23	8x19	140	90	750	890	830	28	130	355	450	965/-	2000/2000	330/330	1340/1340	1891/2027	-/-	10/10	82/82s
		200	242	16	150	125	8x23	8x19	140	90	750	890	830	28	130	355	450	965/-	2000/2000	330/330	1340/1340	2046/2182	-/-	10/10	82/82s
		280	258	16	150	125	8x23	8x19	140	90	740	1120	1060	28	140	355	460	960/-	2250/2250	125/125	2000/2000	2046/2182	-/-	-/-	97/97s
		353	269	16	150	125	8x23	8x19	140	90	740	1120	1060	28	140	355	460	960/-	2250/2250	125/125	2000/2000	2046/2182	-/-	-/-	97/97s
	4	18.5	214	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	636/658	1400/1400	230/230	940/940	1342/1478	1325/1461	7/7	35/35As
		22	224	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	636/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As
		30	243	16	150	125	8x23	8x19	140	90	530	660	600	28	100	355	355	670/-	1600/1600	270/270	1060/1060	1420/1556	-/-	8/8	42/42As
		37	258	16	150	125	8x23	8x19	140	90	530	660	600	28	100	355	350	688/-	1600/1600	270/270	1060/1060	1462/1598	-/-	8/8	52/52s
		45	269	16	150	125	8x23	8x19	140	90	530	660	600	28	100	355	350	688/-	1600/1600	270/270	1060/1060	1522/1658	-/-	8/8	52/52s
	6	5.5	217	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	552/-	1400/1400	230/230	940/940	1189/1325	-/-	7/7	22/22As
		7.5	234	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	587/-	1400/1400	230/230	940/940	1278/1414	-/-	7/7	28/28As
		11	261	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	587/-	1400/1400	230/230	940/940	1338/1474	-/-	7/7	28/28As
		15	269	16	150	125	8x23	8x19	140	90	480	610	560	28	100	355	350	636/-	1400/1400	230/230	940/940	1372/1508	-/-	7/7	35/35As
150-125-315	4	30	271	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1420/1556	-/-	9/9	43/43s
		37	287	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1462/1598	-/-	9/9	53/53s
		45	303	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	718/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	53/53s
		55	320	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	790/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	61/61s
		75	338	16	150	125	8x23	8x19	140	110	750	890	830	28	130	355	415	848/-	2000/2000	330/330	1340/1340	1634/1770	-/-	10/10	68/68s
	6	7.5	254	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	617/-	1800/1800	300/300	1200/1200	1278/1414	-/-	9/9	29/29s
		11	286	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	617/-	1800/1800	300/300	1200/1200	1338/1474	-/-	9/9	29/29s
		15	313	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	669/-	1800/1800	300/300	1200/1200	1372/1508	-/-	9/9	36/36s
		18.5	333	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1395/1531	-/-	9/9	43/43s
		22	338	16	150	125	8x23	8x19	140	110	600	730	670	28	100	355	380	695/-	1800/1800	300/300	1200/1200	1420/1556	-/-	9/9	43/43s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
150-125-400	4	55	333	16	150	125	8x23	8x19	140	110	600	730	670	28	100	400	415	825/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	62/62s
		75	369	16	150	125	8x23	8x19	140	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1634/1770	-/-	10/10	67/67s
		90	389	16	150	125	8x23	8x19	140	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1744/1880	-/-	10/10	67/67s
		110	414	16	150	125	8x23	8x19	140	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1756/1892	-/-	10/10	74/74s
		132	438	16	150	125	8x23	8x19	140	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1921/2057	-/-	10/10	80/80s
	6	18.5	346	16	150	125	8x23	8x19	140	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1395/1531	-/-	9/9	44/44s
		22	367	16	150	125	8x23	8x19	140	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1420/1556	-/-	9/9	44/44s
		30	404	16	150	125	8x23	8x19	140	110	600	730	670	28	100	400	415	753/-	1800/1800	300/300	1200/1200	1522/1658	-/-	9/9	54/54s
		37	432	16	150	125	8x23	8x19	140	110	600	730	670	28	100	400	415	825/-	1800/1800	300/300	1200/1200	1561/1697	-/-	9/9	62/62s
		45	438	16	150	125	8x23	8x19	140	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1634/1770	-/-	10/10	67/67s
150-125-500	4	110	423	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	1936/2112	-/-	10/10	79/79s
		132	447	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2101/2277	-/-	10/10	84/84s
		160	474	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2101/2277	-/-	10/10	84/84s
		200	508	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2256/2432	-/-	10/10	84/84s
		288	539	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1030/-	2000/2000	330/330	1340/1340	2256/2432	-/-	10/10	99/99s
		362	548	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1030/-	2000/2000	330/330	1340/1340	2400/2576	-/-	10/10	99/99s
	6	37	446	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	940/-	2000/2000	330/330	1340/1340	1741/1917	-/-	10/10	57/57s
		45	470	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	963/-	2000/2000	330/330	1340/1340	1814/1990	-/-	10/10	65/65s
		55	501	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	963/-	2000/2000	330/330	1340/1340	1814/1990	-/-	10/10	65/65s
		75	543	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	1936/2112	-/-	10/10	79/79s
		90	548	16	150	125	8x23	8x19	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2101/2277	-/-	10/10	84/84s
200-150-200	2	110	210-154	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1716/1892	-/-	10/10	75/75s
		132	216-176	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1881/2057	-/-	10/10	75/75s
		160	218-204	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1881/2057	-/-	10/10	81/81s
		200	224	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	2036/2212	-/-	10/10	81/81s
	4	15	214-174	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	380	584/681	1800/1800	300/300	1200/1200	1349/1525	1289/1465	9/9	29/29s
		18.5	218-202	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	380	669/691	1800/1800	300/300	1200/1200	1332/1508	1315/1491	9/9	36/36s
		22	222	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	380	669/-	1800/1800	300/300	1200/1200	1362/1538	-/-	9/9	36/36s
	6	4	210-170	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	385	587/-	1800/1800	300/300	1200/1200	1129/1305	-/-	9/9	23/23s
		5.5	218-212	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	385	587/-	1800/1800	300/300	1200/1200	1179/1355	-/-	9/9	23/23s
		7.5	224	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	380	617/-	1800/1800	300/300	1200/1200	1268/1444	-/-	9/9	29/29s
200-150-250 CI	2	280	237	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	450	950/-	2000/2000	330/330	1340/1340	2066/2242	-/-	10/10	96/96s
		353	254	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	450	950/-	2000/2000	330/330	1340/1340	2066/2242	-/-	10/10	96/96s
	4	30	226-224	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	695/-	1800/1800	300/300	1200/1200	1440/1616	-/-	9/9	43/43s
		37	240	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	718/-	1800/1800	300/300	1200/1200	1482/1658	-/-	9/9	53/53s
		45	252	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	718/-	1800/1800	300/300	1200/1200	1542/1718	-/-	9/9	53/53s
		55	263	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	790/-	1800/1800	300/300	1200/1200	1581/1757	-/-	9/9	61/61s
		75	282	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	415	848/-	2000/2000	330/330	1340/1340	1654/1830	-/-	10/10	68/68s
	6	11	238	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	617/-	1800/1800	300/300	1200/1200	1358/1534	-/-	9/9	29/29s
		15	252	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	669/-	1800/1800	300/300	1200/1200	1392/1568	-/-	9/9	36/36s
		18.5	275	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	695/-	1800/1800	300/300	1200/1200	1415/1591	-/-	9/9	43/43s
200-150-250 SS	2	280	237	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	450	950/-	2000/2000	330/330	1340/1340	2066/2242	-/-	10/10	96/96s
		353	254	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	450	950/-	2000/2000	330/330	1340/1340	2066/2242	-/-	10/10	96/96s
	4	30	234	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	695/-	1800/1800	300/300	1200/1200	1440/1616	-/-	9/9	43/43s
		37	248	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	718/-	1800/1800	300/300	1200/1200	1482/1658	-/-	9/9	53/53s
		45	260	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	718/-	1800/1800	300/300	1200/1200	1542/1718	-/-	9/9	53/53s
		55	273	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	790/-	1800/1800	300/300	1200/1200	1581/1757	-/-	9/9	61/61s
		75	286	16	200	150	12x23	8x23	160	110	750	890	830	28	130	375	415	848/-	2000/2000	330/330	1340/1340	1654/1830	-/-	10/10	68/68s
	6	11	250	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	617/-	1800/1800	300/300	1200/1200	1358/1534	-/-	9/9	29/29s
		15	271	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	669/-	1800/1800	300/300	1200/1200	1392/1568	-/-	9/9	36/36s
		18.5	286	16	200	150	12x23	8x23	160	110	600	730	670	28	100	375	380	695/-	1800/1800	300/300	1200/1200	1415/1591	-/-	9/9	43/43s
200-150-315	4	55	269	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	825/-	1800/1800	300/300	1200/1200	1721/1897	-/-	9/9	62/62s
		75	294	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1794/1970	-/-	10/10	67/67s
		90	309	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1904/2080	-/-	10/10	67/67s
		110	326	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	1916/2092	-/-	10/10	74/74s
		132	338	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	450	965/-	2000/2000	330/330	1340/1340	2081/2257	-/-	10/10	80/80s
	6	18.5	283	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1555/1731	-/-	9/9	44/44s
		22	297	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1580/1756	-/-	9/9	44/44s
		30	323	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	753/-	1800/1800	300/300	1200/1200	1682/1858	-/-	9/9	54/54s
		37	338	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	825/-	1800/1800	300/300	1200/1200	1721/1897	-/-	9/9	62/62s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
200-150-315.2	2	353	263	16	200	150	12x23	8x23	160	110	740	1120	1060	28	140	400	460	1030/-	2250/-	125/-	2000	2198/-	-/-	-/-	100/100s
		398	276	16	200	150	12x23	8x23	160	110	740	1120	1060	28	140	400	500	1190/-	2250/-	125/-	2000/-	2449/-	-/-	-/-	108/108s
	4	37	249	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	753/-	1800/1800	300/300	1200/1200	1620/1796	-/-	9/9	48/48s
		45	263	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	753/-	1800/1800	300/300	1200/1200	1682/1858	-/-	9/9	48/48s
		55	279	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	825/-	1800/1800	300/300	1200/1200	1721/1897	-/-	9/9	56/56s
		75	310	16	200	150	12x23	8x23	160	110	750	890	830	28	130	400	445	878/-	2000/2000	330/330	1340/1340	1794/1970	-/-	10/10	64/64s
	6	11	247	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	652/-	1800/1800	300/300	1200/1200	1498/1674	-/-	9/9	24/24s
		15	271	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	701/-	1800/1800	300/300	1200/1200	1532/1708	-/-	9/9	38/38s
		18.5	293	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1555/1731	-/-	9/9	45/45s
		22	316	16	200	150	12x23	8x23	160	110	600	730	670	28	100	400	415	730/-	1800/1800	300/300	1200/1200	1580/1756	-/-	9/9	45/45s
200-150-400	4	90	341	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	445	878/-	2000/2000	330/330	1340/1340	1904/2080	-/-	10/10	64/64s
		110	361	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	965/-	2000/2000	330/330	1340/1340	1916/2092	-/-	10/10	80/80s
		132	381	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	965/-	2000/2000	330/330	1340/1340	2081/2257	-/-	10/10	85/85s
		160	401	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	965/-	2000/2000	330/330	1340/1340	2081/2257	-/-	10/10	85/85s
		200	424	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	965/-	2000/2000	330/330	1340/1340	2236/2412	-/-	10/10	85/85s
		288	438	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	950/-	2000/2000	330/330	1340/1340	2236/2412	-/-	10/10	100/100s
	6	22	327	16	200	150	12x23	8x23	160	110	600	730	670	28	100	450	415	730/-	1800/1800	300/300	1200/1200	1580/1756	-/-	9/9	45/45s
		30	358	16	200	150	12x23	8x23	160	110	600	730	670	28	100	450	415	753/-	1800/1800	300/300	1200/1200	1682/1858	-/-	9/9	48/48s
		37	380	16	200	150	12x23	8x23	160	110	600	730	670	28	100	450	415	825/-	1800/1800	300/300	1200/1200	1721/1897	-/-	9/9	56/56s
		45	398	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	445	878/-	2000/2000	330/330	1340/1340	1794/1970	-/-	10/10	64/64s
		55	419	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	445	878/-	2000/2000	330/330	1340/1340	1794/1970	-/-	10/10	64/64s
		75	438	16	200	150	12x23	8x23	160	110	750	890	830	28	130	450	450	965/-	2000/2000	330/330	1340/1340	1916/2092	-/-	10/10	80/80s
200-150-500	4	200	419	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2256/2432	-/-	10/10	84/84s
		288	454	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	450	1030/-	2000/2000	330/330	1340/1340	2256/2432	-/-	10/10	99/99s
		362	492	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	450	1030/-	2000/2000	330/330	1340/1340	2400/2576	-/-	10/10	99/99s
	6	55	433	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	963/-	2000/2000	330/330	1340/1340	1814/1990	-/-	10/10	65/65s
		75	482	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	1936/2112	-/-	10/10	79/79s
		90	510	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2101/2277	-/-	10/10	84/84s
		110	534	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2101/2277	-/-	10/10	84/84s
		132	548	16	200	150	12x23	8x23	180	110	750	890	830	28	130	500	530	1045/-	2000/2000	330/330	1340/1340	2256/2432	-/-	10/10	84/84s
250-200-400	4	55	268	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	940/-	1690/1880	330/330	1030/1220	1759/1935	-/-	10E/10F	57/57s
		75	292	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	963/-	1690/2110	330/330	1030/1450	1832/2008	-/-	10E/10D	65/65s
		90	308	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	963/-	1880/2110	330/330	1220/1450	1942/2118	-/-	10F/10D	65/65s
		110	324	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	1050/-	1880/2110	330/330	1220/1450	1954/2130	-/-	10F/10D	79/79s
		132	344	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	1050/-	2110/2110	330/330	1450/1450	2119/2295	-/-	10D/10D	84/84s
		160	360	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	1050/-	2110/2110	330/330	1450/1450	2119/2295	-/-	10D/10D	84/84s
		200	396	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	1050/-	2110/2110	330/330	1450/1450	2274/2450	-/-	10D/10D	84/84s
	6	22	296	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	845/-	1690/1880	330/330	1030/1220	1618/1794	-/-	10E/10F	46/46s
		30	320	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	868/-	1690/1880	330/330	1030/1220	1720/1896	-/-	10E/10F	49/49s
		37	344	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	940/-	1690/1880	330/330	1030/1220	1759/1935	-/-	10E/10F	57/57s
		45	360	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	963/-	1690/2110	330/330	1030/1450	1832/2008	-/-	10E/10D	65/65s
		55	392	16	250	200	12x28	12x23	170	110	730	890	830	28	130	400	530	963/-	1690/2110	330/330	1030/1450	1722/1898	-/-	10E/10D	65/65s
250-200-450	4	75	319	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	963/-	1690/2110	330/330	1030/1450	1805/1981	-/-	10E/10D	65/65s
		90	335	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	963/-	1880/2110	330/330	1220/1450	1915/2091	-/-	10F/10D	65/65s
		110	355	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	1880/2110	330/330	1220/1450	1927/2103	-/-	10F/10D	79/79s
		132	367	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	2110/2110	330/330	1450/1450	2092/2268	-/-	10D/10D	84/84s
		160	391	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	2110/2110	330/330	1450/1450	2092/2268	-/-	10D/10D	84/84s
		200	419	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	2110/2110	330/330	1450/1450	2247/2423	-/-	10D/10D	84/84s
		288	455	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1030/-	2110/2290	330/330	1450/1630	2247/2423	-/-	10D/10G	99/99s
	6	37	367	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	940/-	1690/1880	330/330	1030/1220	1732/1908	-/-	10E/10F	57/57s
		45	387	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	963/-	1690/2110	330/330	1030/1450	1805/1981	-/-	10E/10D	65/65s
		55	411	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	963/-	1880/2110	330/330	1220/1450	1695/1871	-/-	10F/10D	65/65s
		75	447	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	1880/2110	330/330	1220/1450	1927/2103	-/-	10F/10D	79/79s
		90	455	16	250	200	12x28	12x23	150	110	730	890	830	28	130	450	530	1050/-	2110/2110	330/330	1450/1450	2092/2268	-/-	10D/10D	84/84s
300-250-350	4	75	282	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	1013/-	1880/2110	330/330	1220/1450	1883/2059	-/-	10F/10D	66/66s
		90	302	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	1013/-	1880/2110	330/330	1220/1450	1993/2169	-/-	10F/10D	66/66s
		110	326	16	300	250	12x28	12x23	180	110	730	890	830	28	130	400	580	1100/-	1880/2110	330/330	1220/1450	2005/2181	-/-	10F/10D	83/83s
		132	362	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	1100/-	1880/2110	330/330	1220/1450	2170/2346	-/-	10F/10D	83/83s
	6	22	282	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	895/-	1690/1880	330/330	1030/1220	1669/1845	-/-	10E/10F	47/47s
		30	322	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	918/-	1690/1880	330/330	1030/1220	1771/1947	-/-	10E/10F	50/50s
		37	354	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	990/-	1690/1880	330/330	1030/1220	1810/1986	-/-	10E/10F	58/58s
		45	370	16	300	250	12x28	12x28	180	110	730	890	830	28	130	400	580	1013/-	1880/2110	330/330	1220/1450	1883/2059	-/-	10F/10D	66/66s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

Pump size	Poles	P2 [kW]	Actual impeller size	Flanges					NKG dimensions [mm]															Base frame No[1, 3]	
				PN	DNs	DNd	Ss	Sd	a	a2	b1	b2	b3	d	h	h2	h3	h4[2]	l1[1]	l2[1]	l3[1]	L[1] NKG	L[1] NKGE	EN/ISO	C-channel
300-250-400	4	75	277	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1838/2014	-/-	10F/10D	66/66s
		90	297	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1948/2124	-/-	10F/10D	66/66s
		110	313	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	1960/2136	-/-	10F/10D	78/78s
		132	325	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2125/2301	-/-	10F/10D	83/83s
		160	349	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2125/2301	-/-	10F/10D	83/83s
		200	373	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2280/2456	-/-	10F/10D	83/83s
		288	405	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1080/-	2110/2290	330/330	1450/1630	2280/2456	-/-	10D/10G	98/98s
	6	30	305	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	918/-	1690/1880	330/330	1030/1220	1726/1902	-/-	10E/10F	50/50s
		37	321	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	990/-	1690/1880	330/330	1030/1220	1765/1941	-/-	10E/10F	58/58s
		45	345	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1838/2014	-/-	10F/10D	66/66s
		55	361	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1728/1904	-/-	10F/10D	66/66s
		75	393	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	1960/2136	-/-	10F/10D	78/78s
		90	405	16	300	250	12x28	12x28	160	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2125/2301	-/-	10F/10D	83/83s
300-250-450	4	110	309	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	1955/2131	-/-	10F/10D	78/78s
		132	325	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2120/2296	-/-	10F/10D	83/83s
		160	345	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2120/2296	-/-	10F/10D	83/83s
		200	365	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2275/2451	-/-	10F/10D	83/83s
		288	405	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1080/-	2110/2290	330/330	1450/1630	2275/2451	-/-	10D/10G	98/98s
		362	449	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1080/-	2110/2290	330/330	1450/1630	2419/2595	-/-	10D/10G	98/98s
	6	37	321	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	990/-	1690/1880	330/330	1030/1220	1760/1936	-/-	10E/10F	58/58s
		45	341	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1833/2009	-/-	10F/10D	66/66s
		55	357	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1013/-	1880/2110	330/330	1220/1450	1723/1899	-/-	10F/10D	66/66s
		75	393	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	1955/2131	-/-	10F/10D	78/78s
		90	417	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2120/2296	-/-	10F/10D	83/83s
		110	453	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2120/2296	-/-	10F/10D	83/83s
300-250-500	4	288	421	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1080/-	1880/2110	330/330	1220/1450	2280/2456	-/-	10F/10D	98/98s
		362	453	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1080/-	1880/2110	330/330	1220/1450	2424/2600	-/-	10F/10D	98/98s
		408	477	16	300	250	12x28	12x28	165	110	800	960	900	28	130	500	580	1073/-	2460	225	2010	2513/2689	-/-	-	109/109s
		460	505	16	300	250	12x28	12x28	165	110	800	960	900	28	130	500	580	1073/-	2460	225	2010	2513/2689	-/-	-	109/109s
	6	75	405	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	1960/2136	-/-	10F/10D	78/78s
		90	425	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2125/2301	-/-	10F/10D	83/83s
		110	453	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2125/2301	-/-	10F/10D	83/83s
		132	497	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1100/-	1880/2110	330/330	1220/1450	2280/2456	-/-	10F/10D	83/83s
		160	525	16	300	250	12x28	12x28	165	110	730	890	830	28	130	500	580	1080/-	2110/2110	330/330	1450/1450	2280/2456	-/-	10D/10D	83/83s

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with standard motor or pump with E-motor.
3 EN/ISO base frame, see page 152. C-channel base frame, see page 153.

18. Minimum efficiency index

Minimum efficiency index (MEI) means the dimensionless scale unit for hydraulic pump efficiency at best efficiency point (BEP), part load (PL) and overload (OL). The Commission Regulation (EU) sets efficiency requirements to MEI greater than or equal to 0.10 as from 1 January 2013 and MEI greater than or equal to 0.40 as from 1 January 2015. An indicative benchmark for best-performing water pump available on the market as from 1 January 2013 is determined in the Regulation.

- The benchmark for most efficient water pumps is MEI greater than or equal to 0.70.
- The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example by using a variable-speed drive that matches the pump duty to the system.

Information on benchmark efficiency is available at http://europump.eu/efficiencycharts.

2-pole		
Pump size	**NB MEI**	**NK MEI**
50-32-125.1/140	0.70	0.70
50-32-125/142	0.70	0.70
50-32-160.1/177	0.70	0.70
50-32-160/177	0.59	0.52
50-32-200.1/207	0.65	0.59
50-32-200/219	0.62	0.55
50-32-250/262	0.70	0.65
65-40-200/219	0.65	0.59
65-40-250/260	0.70	0.70
65-40-315/344	0.70	0.70
65-50-125/142	0.70	0.70
65-50-160/177	0.70	0.70
80-50-200/219	0.70	0.70
80-50-250/263	0.67	0.61
80-50-315/333	0.65	0.59
80-65-125/144	0.70	0.66
80-65-160/177	0.70	0.70
100-65-200/219	0.70	0.70
100-65-250/270	0.57	0.51
100-65-315/320	0.70	0.65
100-80-125/144	0.70	0.66
100-80-160/177	0.70	0.70
125-80-160/177	0.70	0.70
125-80-200/222	0.70	0.68
125-80-250/270	0.70	0.70
125-80-315/334	0.70	0.70
125-100-160/176 CI	0.70	0.70
125-100-160/176 SS	0.69	0.62
125-100-200/219	0.68	0.62
125-100-250/269 CI	0.70	0.70
125-100-250/270 SS	0.48	0.42
150-125-200/226 SS	0.53	0.47
150-125-250/269	0.70	0.69
200-150-200/224	0.70	0.70
200-150-250/254	-	-
200-150-315.2/276	0.70	0.70

4-pole		
Pump size	**NB MEI**	**NK MEI**
50-32-125.1/140	0.70	0.70
50-32-125/142	0.70	0.70
50-32-160.1/173	0.70	0.70
50-32-160/173	0.65	0.60
50-32-200.1/207	0.70	0.70
50-32-200/219	0.69	0.64
50-32-250/260	0.53	0.48
65-40-200/217	0.70	0.70
65-40-250/260	0.70	0.70
65-40-315/344	0.64	0.60
65-50-125/142	0.70	0.70
65-50-160/177	0.70	0.70
80-50-200/219	0.70	0.70
80-50-250/263	0.70	0.70
80-50-315/344	0.70	0.70
80-65-125/143	0.70	0.70
80-65-160/175	0.70	0.70
100-65-200/219	0.70	0.70
100-65-250/270	0.70	0.67
100-65-315/320	0.70	0.70
100-80-125/144	0.70	0.70
100-80-160/177	0.70	0.70
125-80-160/177	0.70	0.70
125-80-200/222	0.70	0.70
125-80-250/270	0.70	0.70
125-80-315/334	0.70	0.70
125-80-400/438	0.44	0.41
125-100-160/176 CI	0.70	0.70
125-100-160/176 SS	0.31	0.28
125-100-200/219	0.65	0.61
125-100-250/274 CI	0.70	0.70
125-100-250/270 SS	0.42	0.38
125-100-315/334	0.70	0.70
125-100-400/415 CI	0.70	0.70
125-100-400/438 SS	0.30	0.27
150-125-200/226 CI	0.70	0.70
150-125-200/226 SS	0.32	0.29
150-125-250/269	0.62	0.57
150-125-315/338	0.68	0.63
150-125-400/438	0.55	0.50
150-125-500/548	0.50	0.46
200-150-200/222	0.70	0.70
200-150-250/282 CI	0.64	0.60
200-150-250/286 SS	0.22	0.18
200-150-315.2/310	0.68	0.63
200-150-315/338	0.53	0.48
200-150-400/438	0.70	0.70
200-150-500/492	0.44	0.41
250-200-400/396	0.56	0.51
250-200-450/455	0.44	0.40
300-250-350/362	0.70	0.70
300-250-400/405	0.68	0.63
300-250-450/449	0.70	0.67
300-250-500/505	-	-

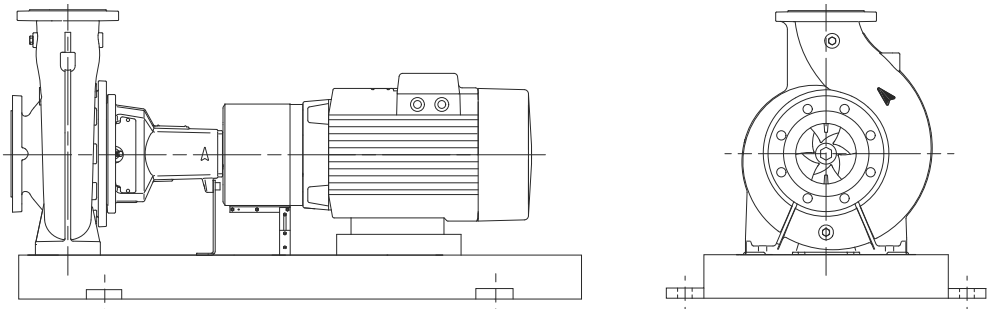
6-pole		
Pump size	**NB MEI**	**NK MEI**
125-100-160/176 CI	0.70	0.70
125-100-160/176 SS	0.31	0.28
125-100-200/219	0.70	0.68
125-100-250/274 CI	0.70	0.70
125-100-250/270 SS	0.55	0.50
125-100-315/334	0.70	0.70
125-100-400/415 CI	0.70	0.70
125-100-400/438 SS	0.36	0.33
150-125-200/226 CI	0.70	0.70
150-125-200/226 SS	0.40	0.37
150-125-250/269	0.68	0.63
150-125-315/338	0.70	0.70
150-125-400/438	0.55	0.50
150-125-500/548	0.50	0.46
200-150-200/224	0.70	0.70
200-150-250/275 CI	0.70	0.65
200-150-250/286 SS	0.23	0.20
200-150-315.2/316	0.70	0.70
200-150-315/338	0.57	0.52
200-150-400/438	0.70	0.70
200-150-500/548	0.66	0.61
250-200-400/392	0.70	0.67
250-200-450/455	0.44	0.40
300-250-350/370	0.70	0.70
300-250-400/405	0.50	0.46
300-250-450/453	0.70	0.66
300-250-500/525	0.48	0.45

Note: CI = Cast Iron, SS = Stainless Steel.

19. Base frames

NKG base frames

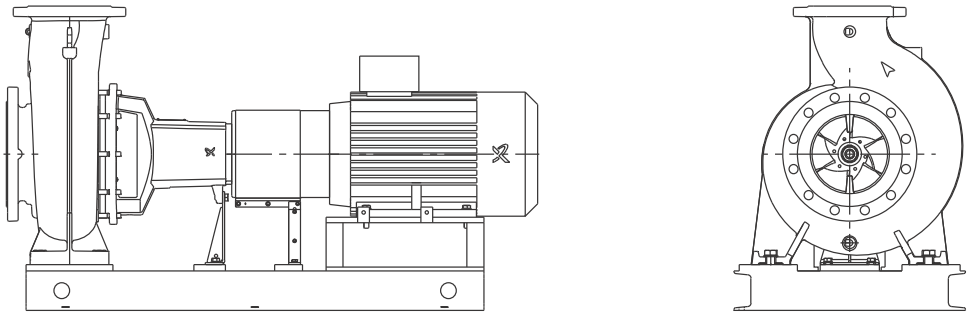
The EN/ISO base frame number is stated for each pump mentioned in section *17. Dimensional drawings and technical data*.



TM05 1513 2711

Fig. 69 NKG pump with EN/ISO base frame

The C-channel base frame number is stated for each pump mentioned in section *NKG with C-channel base frames, dimensional sketches*. See page 153.

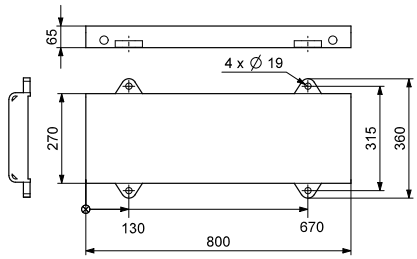
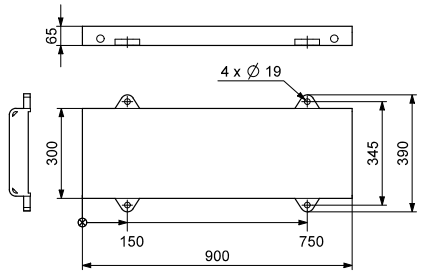
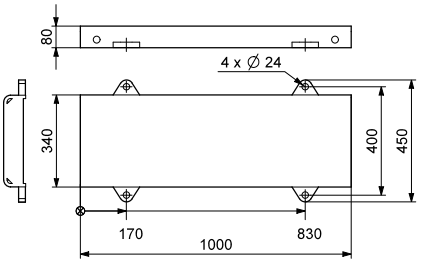
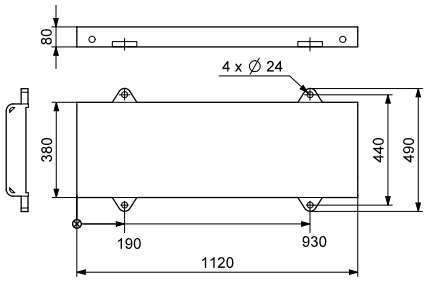
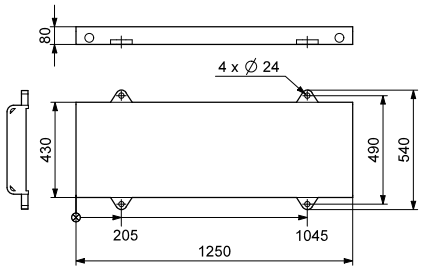


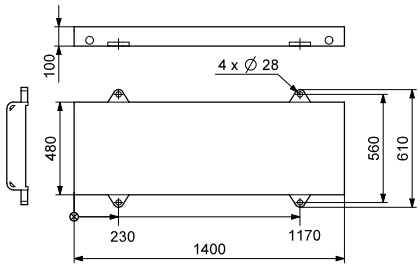
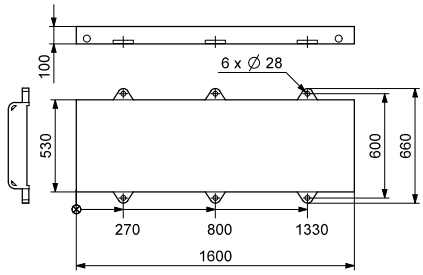
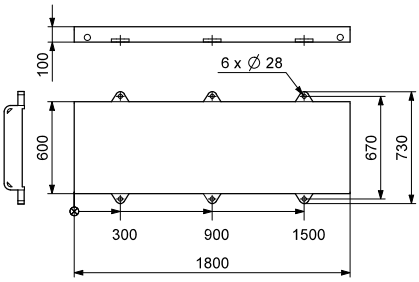
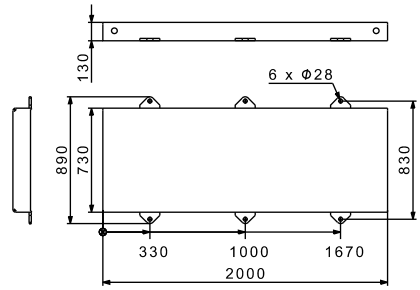
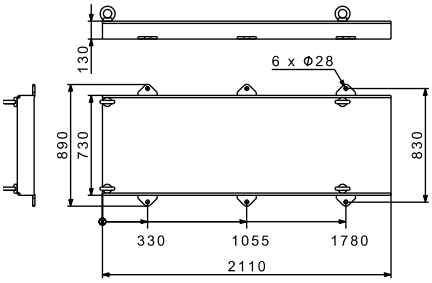
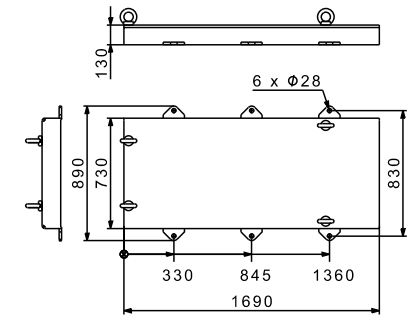
TM05 9293 3713

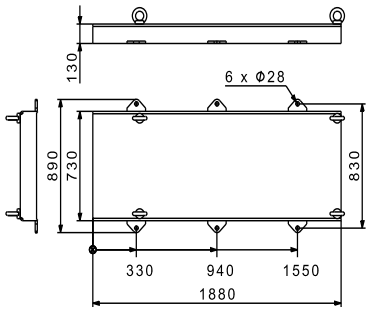
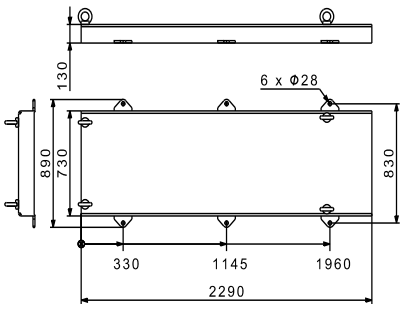
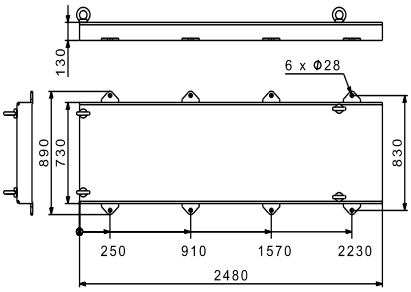
Fig. 70 NKG pump with C-channel base frame

NKG with EN/ISO base frames, dimensional sketches

The EN/ISO base frame number is stated for each pump mentioned in section *17. Dimensional drawings and technical data*.

Base frame number	Dimensions [mm]
2	
3	
4	
5	
6	

Base frame number	Dimensions [mm]
7	
8	
9	
10	
10D	
10E	

Base frame number	Dimensions [mm]
10F	
10G	
10H	

NKG with C-channel base frames, dimensional sketches

C-channel base frame with 4 mounting holes

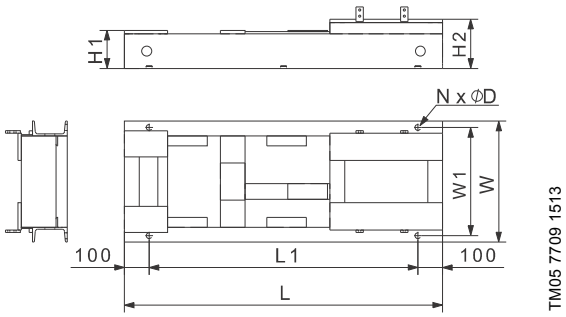


Fig. 71 C-channel base frame with 4 mounting holes

Base frame number	Dimensions [mm]							
	L	L1	W	W1	H1	H2	N	D
1	645	445	330	295	73	134	4	14
1s	731	531	330	295	73	134	4	14
2	700	500	300	265	73	105	4	14
2s	796	596	300	265	73	105	4	14
3	685	485	400	365	77	177	4	14
3s	781	581	400	365	77	177	4	14
3As	800	600	400	365	77	197	4	14
4	805	605	400	365	77	177	4	14
4s	941	741	400	365	77	177	4	14
5	710	510	312	277	73	105	4	14
5s	806	606	312	277	73	105	4	14
6	730	530	400	365	77	167	4	14
6s	826	626	360	325	77	167	4	14
6As	850	650	400	365	77	167	4	14
7	840	640	400	365	77	167	4	14
7s	976	776	400	365	77	167	4	14
8	860	660	430	395	77	237	4	14
8s	996	796	430	395	77	237	4	14
9	750	550	346	303	110	142	4	19
9s	846	646	346	303	110	142	4	19
10	740	540	416	373	114	194	4	19
10s	876	676	416	373	114	194	4	19
11	900	700	416	373	114	194	4	19
12	920	720	446	403	114	239	4	19
13	910	710	596	553	116	296	4	19
14	765	565	346	303	114	134	4	19
14s	855	655	346	303	114	134	4	19
15	755	555	416	373	114	182	4	19
15s	885	685	416	373	114	182	4	19
16	900	700	446	403	114	182	4	19
17	930	730	456	413	114	227	4	19
18	920	720	596	553	116	284	4	19
19	850	650	341	298	114	114	4	19
19s	940	740	341	298	114	114	4	19
20	850	650	416	373	114	162	4	19
20s	980	780	416	373	114	162	4	19
21	980	780	447	404	114	162	4	19
31	970	770	386	343	138	110	4	19
32	990	790	416	373	114	134	4	19
110	860	660	400	365	77	187	4	14

C-channel base frame with 6 mounting holes

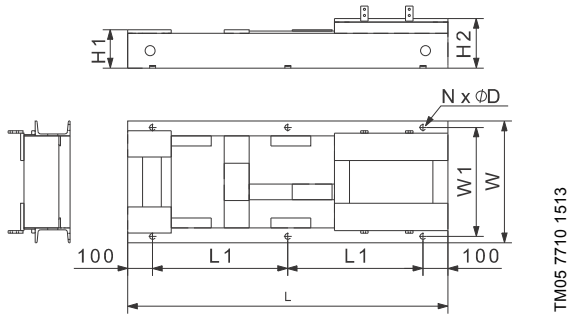


Fig. 72 C-channel base frame with 6 mounting holes

Base frame number	Dimensions [mm]							
	L	L1	W	W1	H1	H2	N	D
11s	1036	418	416	373	114	194	6	19
12s	1030	415	446	403	114	239	6	19
12As	1050	425	446	403	114	239	6	19
13s	1020	410	596	553	116	296	6	19
13As	1080	440	596	553	116	296	6	19
16s	1036	418	446	403	114	182	6	19
17s	1030	415	456	413	114	227	6	19
17As	1060	430	456	413	114	227	6	19
18s	1096	448	596	553	116	284	6	19
21s	1116	458	447	404	114	162	6	19
21As	1030	415	406	363	110	178	6	19
22	1010	405	446	403	114	207	6	19
22s	1080	440	446	403	114	207	6	19
22As	1150	475	446	403	114	207	6	19
23	1030	415	591	548	116	264	6	19
23s	1180	490	591	548	116	264	6	19
23As	1210	505	546	503	116	264	6	19
24	1300	550	586	543	116	271	6	19
24s	1476	638	586	543	116	271	6	19
25	1315	557.5	636	593	116	356	6	19
25s	1491	645.5	636	593	116	356	6	19
26	1350	575	636	593	116	406	6	19
26s	1526	663	636	593	116	406	6	19
27	1140	470	446	403	114	134	6	19
27s	1270	535	446	403	114	134	6	19
28	1140	470	446	403	114	179	6	19
28s	1250	525	446	403	114	179	6	19
28As	1280	540	446	403	114	179	6	19
29	1160	480	586	543	116	236	6	19
29s	1336	568	586	543	116	236	6	19
30	1156	478	596	553	116	271	6	19
30s	1292	546	596	553	116	271	6	19
31s	1053	426.5	386	343	138	110	6	19
32s	1100	450	416	373	114	134	6	19
33	1005	402.5	440	388	154	154	6	24
33s	1105	452.5	440	388	154	154	6	24
34	1150	475	470	418	154	154	6	24
34s	1286	543	470	418	154	154	6	24
35	1180	490	489	437	154	199	6	24
35s	1285	542.5	489	437	154	199	6	24
35As	1315	557.5	489	437	154	199	6	24
36	1200	500	610	558	160	260	6	24
36s	1370	585	610	558	160	260	6	24
37	1200	500	620	568	156	291	6	24
37s	1336	568	620	568	156	291	6	24
38	1340	570	620	568	156	291	6	24
38s	1516	658	620	568	156	291	6	24
39	1365	582.5	670	618	156	376	6	24
39s	1541	670.5	670	618	156	376	6	24
40	1403	601.5	660	610	156	426	6	24
40s	1579	689.5	660	610	156	426	6	24

Base frame number	Dimensions [mm]							
	L	L1	W	W1	H1	H2	N	D
41	1110	455	470	418	170	150	6	24
41s	1220	510	470	418	170	150	6	24
42	1216	508	500	448	154	179	6	24
42s	1352	576	500	448	154	179	6	24
42As	1350	575	500	448	154	179	6	24
43	1240	520	610	558	156	236	6	24
43s	1420	610	610	558	156	236	6	24
44	1240	520	610	558	156	271	6	24
44s	1376	588	610	558	156	271	6	24
45	1380	590	610	558	156	271	6	24
45s	1556	678	610	558	156	271	6	24
46	1400	600	660	608	156	356	6	24
46s	1576	688	660	608	156	356	6	24
47	1438	619	660	608	156	406	6	24
47s	1614	707	660	608	156	406	6	24
48	1438	619	610	558	156	246	6	24
48s	1614	707	610	558	156	246	6	24
49	1460	630	660	608	156	331	6	24
49s	1636	718	660	608	156	331	6	24
50	1504	652	660	608	156	381	6	24
50s	1680	740	660	608	156	381	6	24
51	1230	515	520	468	197	152	6	24
51s	1366	583	520	468	197	152	6	24
52	1300	550	510	458	154	154	6	24
52s	1436	618	510	458	154	154	6	24
53	1310	555	610	558	160	215	6	24
53s	1486	643	610	558	160	215	6	24
54	1305	552.5	610	558	160	250	6	24
54s	1440	620	610	558	160	250	6	24
55	1120	460	520	468	197	152	6	24
55s	1240	520	520	468	197	152	6	24
56	1500	650	630	569	196	261	6	28
56s	1676	738	630	569	196	261	6	28
57	1530	665	680	619	196	346	6	28
57s	1706	753	680	619	196	346	6	28
58	1568	684	780	719	196	396	6	28
58s	1744	772	780	719	196	396	6	28
59	1330	565	596	535	266	196	6	28
59s	1466	633	596	535	266	196	6	28
60	1370	585	596	535	219	194	6	28
60s	1506	653	596	535	219	194	6	28
61	1390	595	644	583	196	226	6	28
61s	1566	683	644	583	196	226	6	28
62	1370	585	630	569	196	261	6	28
62s	1506	653	630	569	196	261	6	28
63	1230	515	596	535	264	194	6	28
63s	1336	568	596	535	264	194	6	28
64	1660	730	680	619	196	231	6	28
64s	1836	818	680	619	196	231	6	28
65	1660	730	690	629	196	316	6	28
65s	1836	818	690	629	196	316	6	28
66	1700	750	780	719	196	366	6	28
66s	1876	838	780	719	196	366	6	28
67	1520	660	660	599	196	231	6	28
67s	1656	728	660	599	196	231	6	28
68	1520	660	637	576	196	196	6	28
68s	1660	730	637	576	196	196	6	28
69	1460	630	647	586	251	196	6	28
69s	1596	698	647	586	251	196	6	28
70	1420	610	647	586	296	196	6	28
70s	1556	678	647	586	296	196	6	28
71	1370	585	637	576	196	196	6	28
71s	1506	653	637	576	196	196	6	28
72	1390	595	647	586	296	196	6	28
72s	1526	663	647	586	296	196	6	28
73	1380	590	650	589	251	196	6	28
73s	1516	658	650	589	251	196	6	28
74	1540	637.5	698	637	196	196	6	28
74s	1676	705.5	698	637	196	196	6	28

Base frame number	Dimensions [mm]							
	L	L1	W	W1	H1	H2	N	D
75	1600	700	700	639	231	196	6	28
75s	1776	788	700	639	231	196	6	28
76	1600	700	702	641	288	198	6	28
76s	1736	768	702	641	288	198	6	28
77	1440	620	702	641	333	198	6	28
77s	1576	688	702	641	333	198	6	28
78	1710	755	780	719	196	331	6	28
78s	1886	843	780	719	196	331	6	28
79	1700	750	690	629	196	281	6	28
79s	1876	838	690	629	196	281	6	28
80	1750	775	690	629	196	196	6	28
80s	1926	863	690	629	196	196	6	28
81	1688	744	690	629	231	196	6	28
81s	1830	815	690	629	231	196	6	28
82	1580	690	690	629	265	200	6	28
82s	1716	758	690	629	265	200	6	28
83	1900	850	780	719	196	331	6	28
84	1850	825	690	629	196	281	6	28
85	1830	815	690	629	196	196	6	28
86	1820	810	710	649	231	196	6	28
86s	1996	898	710	649	231	196	6	28
87	1800	800	710	649	265	200	6	28
87s	1936	868	710	649	265	200	6	28
90	1980	890	710	649	196	196	6	28
96	1800	800	750	689	235	200	6	28
96s	1976	888	750	689	235	200	6	28
97	1675	737.5	750	689	265	200	6	28
97s	1810	805	750	689	265	200	6	28
98	1900	850	790	729	196	331	6	28
99	1880	840	750	689	196	281	6	28
100	1860	830	750	689	200	200	6	28
101	1800	800	800	739	275	200	6	28
101s	1976	888	800	739	275	200	6	28
102	1790	795	800	739	305	200	6	28
102s	1926	863	800	739	305	200	6	28
104	1980	890	800	739	196	241	6	28
110s	996	398	400	365	77	187	6	14
111	1225	512.5	480	428	172	152	6	24
111s	1360	580	480	428	172	152	6	24
112	1170	485	591	548	116	299	6	19
112s	1346	573	591	548	116	299	6	19
113	1890	845	800	739	275	200	6	28
114	1030	415	591	548	116	299	6	19
114s	1166	483	591	548	116	299	6	19
115	1768	784	690	629	231	196	6	28
115s	1944	872	690	629	231	196	6	28
116	1920	860	710	649	231	196	6	28

C-channel base frame with 8 mounting holes

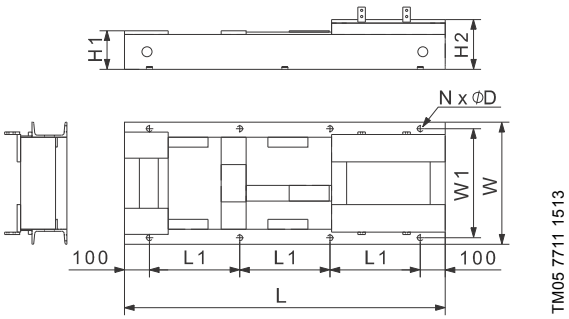
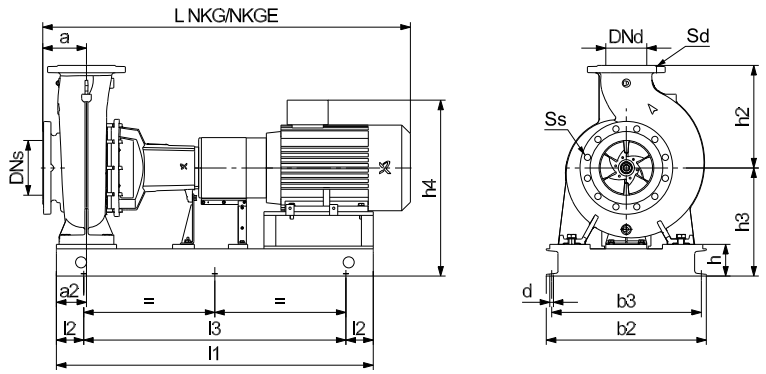


Fig. 73 C-channel base frame with 8 mounting holes

Base frame number	Dimensions [mm]							
	L	L1	W	W1	H1	H2	N	D
83s	2076	625	780	719	196	331	8	28
84s	2027	609	690	629	196	281	8	28
85s	2006	602	690	629	196	196	8	28
88	2015	605	790	729	196	331	8	28
88s	2192	664	790	729	196	331	8	28
89	2000	600	710	649	196	281	8	28
89s	2180	660	710	649	196	281	8	28
90s	2156	652	710	649	196	196	8	28
91	2120	640	710	649	235	200	8	28
91s	2300	700	710	649	235	200	8	28
92	2000	600	710	649	265	200	8	28
92s	2135	645	710	649	265	200	8	28
93	2210	670	790	729	196	331	8	28
93s	2390	730	790	729	196	331	8	28
94	2180	660	710	649	196	281	8	28
94s	2360	720	710	649	196	281	8	28
95	2150	650	710	649	200	200	8	28
95s	2330	710	710	649	200	200	8	28
98s	2075	625	790	729	196	331	8	28
99s	2060	620	750	689	196	281	8	28
100s	2036	612	750	689	200	200	8	28
103	2030	610	810	749	245	205	8	28
103s	2210	670	810	749	245	205	8	28
104s	2156	652	800	739	196	241	8	28
105	2015	605	800	739	196	291	8	28
105s	2195	665	800	739	196	291	8	28
106	2060	620	810	739	196	291	8	28
106s	2240	680	810	739	196	291	8	28
107	2255	685	810	739	196	291	8	28
107s	2435	745	810	739	196	291	8	28
108	2030	610	840	769	245	205	8	28
108s	2210	670	840	769	245	205	8	28
109	2090	630	840	779	196	291	8	28
109s	2270	690	840	779	196	291	8	28
113s	2066	622	800	739	275	200	8	28
116s	2105	635	710	649	231	196	8	28

NKG pump dimensions with C-channel base frames



TM05 7707 1513

Fig. 74 NKG pump with C-channel base frame

NKG pumps, 2-pole

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
50-32-125.1	1.1	80	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	185	294	
	1.5	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	195	305	
	2.2	90L	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	195	305	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
50-32-125	1.5	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	195	305	
	2.2	90L	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	195	305	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
50-32-160.1	2.2	90L	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	371	
50-32-160	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	371	
	11	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
50-32-200.1	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	274	408	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	408	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	399	
	11	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
50-32-200	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	408	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	399	
	11	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	15	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	18.5	160L	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
50-32-250	11	160M	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	15	160M	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	18.5	160L	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	22	180M	●	●	●	●	●	34/34s	75	1150/1286	100	950/1086	470/470	418/418	24	154	334	494	
	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
65-40-200	11	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	15	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	18.5	160L	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	22	180M	●	●	●	●	●	33/33s	60	1005/1105	100	805/905	440/440	388/388	24	154	334	494	
	30	200L	-	●	●	●	●	41/41s	60	1110/1220	100	910/1020	470/470	418/418	24	170	350	655	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
65-40-250	15	160M	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	18.5	160L	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	22	180M	●	●	●	●	●	34/34s	75	1150/1286	100	950/1086	470/470	418/418	24	154	334	494	
	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	45	225M	-	●	●	●	●	51/51s	75	1230/1366	100	1030/1166	520/520	468/468	24	197	377	702	
65-40-315	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	372	677	
	45	225M	-	●	●	●	●	52/52s	75	1300/1436	100	1100/1236	510/510	458/458	24	154	379	704	
	55	250M	-	●	●	●	●	60/60s	75	1370/1506	100	1170/1306	596/596	535/535	28	219	444	836	
	75	280S	-	●	●	●	●	73/73s	75	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
	90	280M	-	●	●	●	●	69/69s	75	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
65-50-125	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	371	
	11	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
65-50-160	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	371	
	11	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
	15	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
80-50-200	15	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	18.5	160L	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	22	180M	●	●	●	●	●	33/33s	60	1005/1105	100	805/905	440/440	388/388	24	154	334	494	
	30	200L	-	●	●	●	●	41/41s	60	1110/1220	100	910/1020	470/470	418/418	24	170	350	655	
	37	200L	-	●	●	●	●	41/41s	60	1110/1220	100	910/1020	470/470	418/418	24	170	350	655	
	45	225M	-	●	●	●	●	55/55s	60	1120/1240	100	920/1040	520/520	468/468	24	197	377	702	
80-50-250	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	45	225M	-	●	●	●	●	51/51s	75	1230/1366	100	1030/1166	520/520	468/468	24	197	377	702	
	55	250M	-	●	●	●	●	59/59s	75	1330/1466	100	1130/1266	596/596	535/535	28	266	446	838	
	75	280S	-	●	●	●	●	72/72s	75	1390/1526	100	1190/1326	647/647	586/586	28	296	476	908	
80-50-315	55	250M	-	●	●	●	●	60/60s	75	1370/1506	100	1170/1306	596/596	535/535	28	219	444	836	
	75	280S	-	●	●	●	●	73/73s	75	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
	90	280M	-	●	●	●	●	69/69s	75	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
	110	315S	-	●	●	●	●	76/76s	75	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
80-65-125	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	246	380	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	380	
	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	246	371	
	11	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
	15	160M	●	●	●	●	●	31/31s	60	970/1053	100	770/853	386/386	343/343	19	138	270	430	
80-65-160	7.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	399	
	11	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	15	160M	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	18.5	160L	●	●	●	●	●	32/32s	60	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	22	180M	●	●	●	●	●	33/33s	60	1005/1105	100	805/905	440/440	388/388	24	154	334	494	
100-65-200	18.5	160L	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	22	180M	●	●	●	●	●	34/34s	75	1150/1286	100	950/1086	470/470	418/418	24	154	334	494	
	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	45	225M	-	●	●	●	●	51/51s	75	1230/1366	100	1030/1166	520/520	468/468	24	197	377	702	
	55	250M	-	●	●	●	●	59/59s	75	1330/1466	100	1130/1266	596/596	535/535	28	266	446	838	
100-65-250	45	225M	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	379	704	
	55	250M	-	●	●	●	●	60/60s	90	1370/1506	100	1170/1306	596/596	535/535	28	219	444	836	
	75	280S	-	●	●	●	●	73/73s	90	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
	90	280M	-	●	●	●	●	69/69s	90	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
100-65-315	90	280M	-	●	●	●	●	69/69s	90	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	160	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	200	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
100-80-125	7.5	132S	●	●	●	●	●	19/19s	75	850/940	100	650/740	341/341	298/298	19	114	274	399	
	11	160M	●	●	●	●	●	32/32s	75	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	15	160M	●	●	●	●	●	32/32s	75	990/1100	100	790/900	416/416	373/373	19	114	294	454	
	18.5	160L	●	●	●	●	●	32/32s	75	990/1100	100	790/900	416/416	373/373	19	114	294	454	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
100-80-160	11	160M	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	15	160M	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	18.5	160L	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
	22	180M	●	●	●	●	●	34/34s	75	1150/1286	100	950/1086	470/470	418/418	24	154	334	494	
	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
125-80-160	22	180M	●	●	●	●	●	34/34s	75	1150/1286	100	950/1086	470/470	418/418	24	154	334	494	
	30	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	45	225M	-	●	●	●	●	51/51s	75	1230/1366	100	1030/1166	520/520	468/468	24	197	377	702	
	55	250M	-	●	●	●	●	59/59s	75	1330/1466	100	1130/1266	596/596	535/535	28	266	446	838	
125-80-200	37	200L	-	●	●	●	●	111/111s	75	1225/1360	100	1025/1160	480/480	428/428	24	172	352	657	
	45	225M	-	●	●	●	●	51/51s	75	1230/1366	100	1030/1166	520/520	468/468	24	197	377	702	
	55	250M	-	●	●	●	●	59/59s	75	1330/1466	100	1130/1266	596/596	535/535	28	266	446	838	
	75	280S	-	●	●	●	●	72/72s	75	1390/1526	100	1190/1326	647/647	586/586	28	296	476	908	
	90	280M	-	●	●	●	●	70/70s	75	1420/1556	100	1220/1356	647/647	586/586	28	296	476	908	
125-80-250	75	280S	-	●	●	●	●	73/73s	90	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
	90	280M	-	●	●	●	●	69/69s	90	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	160	315L	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
125-80-315	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	538	1033	
	160	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	200	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	280	315	-	●	●	●	●	97/97s	90	1675/1810	100	1475/1610	750/750	689/689	28	265	515	983	
125-100-160	30	200L	-	●	●	●	●	111/111s	90	1225/1360	100	1025/1160	480/480	428/428	24	172	372	677	
	37	225S	-	●	●	●	●	111/111s	90	1225/1360	100	1025/1160	480/480	428/428	24	172	372	677	
	45	225M	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	379	704	
	55[4]	250M	-	●	●	●	●	60/60s	90	1370/1506	100	1170/1306	596/596	535/535	28	219	444	836	
	75[4]	280S	-	●	●	●	●	73/73s	90	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
125-100-200	55	250M	-	●	●	●	●	60/60s	90	1370/1506	100	1170/1306	596/596	535/535	28	219	444	836	
	75	280S	-	●	●	●	●	73/73s	90	1380/1516	100	1180/1316	650/650	589/589	28	251	476	908	
	90	280M	-	●	●	●	●	69/69s	90	1460/1596	100	1260/1396	647/647	586/586	28	251	476	908	
	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
125-100-250	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	513	1008	
	160	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	200	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	280[4]	315L	-	●	●	●	●	97/97s	90	1675/1810	100	1475/1610	750/750	689/689	28	265	515	983	
150-125-200[4]	90	280M	-	●	●	●	●	69/69s	90	1460/1596	100	1260/1396	647/647	586/586	28	251	501	933	
	110	315S	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	538	1033	
	132	315M	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	538	1033	
	160	315L	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	538	1033	
	200	315L	-	●	●	●	●	76/76s	90	1600/1736	100	1400/1536	702/702	641/641	28	288	538	1033	
150-125-250	160	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	200	315L	-	●	●	●	●	82/82s	90	1580/1716	100	1380/1516	690/690	629/629	28	265	515	1010	
	280	315	-	●	●	●	●	97/97s	90	1675/1810	100	1475/1610	750/750	689/689	28	265	515	983	
	353	315	-	●	●	●	●	97/97s	90	1675/1810	100	1475/1610	750/750	689/689	28	265	515	983	
200-150-200	110	315S	-	●	●	●	●	75/75s	110	1600/1776	100	1400/1576	700/700	639/639	28	231	511	1006	
	132	315M	-	●	●	●	●	75/75s	110	1600/1776	100	1400/1576	700/700	639/639	28	231	511	1006	
	160	315L	-	●	●	●	●	81/81s	110	1688/1830	100	1488/1630	690/690	629/629	28	231	511	1006	
	200	315L	-	●	●	●	●	81/81s	110	1688/1830	100	1488/1630	690/690	629/629	28	231	511	1006	
200-150-250	280	315	-	●	●	●	●	96/96s	110	1800/1976	100	1600/1776	750/750	689/689	28	235	515	983	
	353	315	-	●	●	●	●	96/96s	110	1800/1976	100	1600/1776	750/750	689/689	28	235	515	983	
200-150-315.2	353	315	-	●	●	●	●	100/100s	110	1860/2036	100	1660/1836	750/750	689/689	28	200	515	983	
	398	355	-	●	●	●	●	108/108s	110	2030/2210	100	1830/2010	840/840	769/769	28	245	560	1101	

1 Pump with standard coupling or pump with spacer coupling.
2 P2 less than or equal to 22 kW, pump with MG motor; P2 greater than or equal to 30 kW, pump with Siemens motor.
3 For pump dimensions with E-motors, see the relevant pages in section *17. Dimensional drawings and technical data*.
4 For stainless steel pump only.

NKG pumps, 4-pole

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
50-32-125.1	0.25	71A	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.37	71B	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	185	294	
50-32-125	0.25	71A	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.37	71B	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	185	294	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	185	305	
50-32-160.1	0.37	71B	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	205	314	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	325	
50-32-160	0.37	71B	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	205	314	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	325	
	1.1	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	
50-32-200.1	0.55	80A	●	●	●	●	●	3/3s	60	685/781	100	485/581	400/400	365/365	14	77	257	366	
	0.75	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	247	367	
	1.1	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	1.5	90L	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
50-32-200	0.75	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	247	367	
	1.1	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	1.5	90L	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	2.2	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
50-32-250	1.1	90S	●	●	●	●	●	7/7s	75	840/976	100	640/776	400/400	365/365	14	77	257	367	
	1.5	90L	●	●	●	●	●	7/7s	75	840/976	100	640/776	400/400	365/365	14	77	257	367	
	2.2	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	3	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
65-40-200	1.1	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	1.5	90L	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	2.2	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
65-40-250	2.2	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	3	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
65-40-315	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	7.5	132M	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	11	160MA	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	314	474	
65-50-125	0.37	71B	●	●	●	●	●	1/1s	60	645/731	100	445/531	330/330	295/295	14	73	205	314	
	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	185	294	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	185	305	
	1.1	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	195	305	
65-50-160	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	205	314	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	325	
	1.1	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	
	1.5	90L	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	
	2.2	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	242	362	
80-50-200	2.2	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
	4	112M	●	●	●	●	●	14/14s	60	765/855	100	565/655	346/346	303/303	19	114	274	408	
	5.5	132S	●	●	●	●	●	19/19s	60	850/940	100	650/740	341/341	298/298	19	114	274	399	
80-50-250	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
	7.5	132M	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
80-50-315	5.5	132S	●	●	●	●	●	22/22s	75	1010/1080	100	810/880	446/446	403/403	19	114	339	464	
	7.5	132M	●	●	●	●	●	22/22s	75	1010/1080	100	810/880	446/446	403/403	19	114	339	464	
	11	160MA	●	●	●	●	●	28/28s	75	1140/1250	100	940/1050	446/446	403/403	19	114	339	499	
	15	160L	●	●	●	●	●	28/28s	75	1140/1250	100	940/1050	446/446	403/403	19	114	339	499	
80-65-125	0.55	80A	●	●	●	●	●	2/2s	60	700/796	100	500/596	300/300	265/265	14	73	205	314	
	0.75	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	325	
	1.1	90S	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	
	1.5	90L	●	●	●	●	●	5/5s	60	710/806	100	510/606	312/312	277/277	14	73	205	315	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
80-65-160	1.1	90S	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	1.5	90L	●	●	●	●	●	6/6s	60	730/826	100	530/626	400/360	365/325	14	77	257	367	
	2.2	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
	3	100L	●	●	●	●	●	9/9s	60	750/846	100	550/646	346/346	303/303	19	110	270	390	
100-65-200	3	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
	7.5	132M	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
100-65-250	5.5	132S	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	7.5	132M	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	11	160MA	●	●	●	●	●	27/27s	90	1140/1270	100	940/1070	446/446	403/403	19	114	314	474	
	15	160L	●	●	●	●	●	27/27s	90	1140/1270	100	940/1070	446/446	403/403	19	114	314	474	
100-65-315	7.5	132M	●	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	339	464	
	11	160MA	●	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	339	499	
	15	160L	●	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	339	499	
	18.5	180M	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	379	686	
	22	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	379	637	
100-80-125	1.1	90S	●	●	●	●	●	6/6s	75	730/826	100	530/626	400/360	365/325	14	77	257	367	
	1.5	90L	●	●	●	●	●	6/6s	75	730/826	100	530/626	400/360	365/325	14	77	257	367	
	2.2	100L	●	●	●	●	●	9/9s	75	750/846	100	550/646	346/346	303/303	19	110	270	390	
100-80-160	1.5	90L	●	●	●	●	●	7/7s	75	840/976	100	640/776	400/400	365/365	14	77	257	367	
	2.2	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	3	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
125-80-160	3	100L	●	●	●	●	●	11/11s	75	900/1036	100	700/836	416/416	373/373	19	114	294	414	
	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
125-80-200	4	112M	●	●	●	●	●	16/16s	75	900/1036	100	700/836	446/446	403/403	19	114	294	428	
	5.5	132S	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
	7.5	132M	●	●	●	●	●	21/21s	75	980/1116	100	780/916	447/447	404/404	19	114	294	419	
	11	160MA	●	●	●	●	●	27/27s	75	1140/1270	100	940/1070	446/446	403/403	19	114	294	454	
125-80-250	7.5	132M	●	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	339	464	
	11	160MA	●	●	●	●	●	28/28s	90	1140/1250	100	940/1050	446/446	403/403	19	114	339	499	
	15	160L	●	●	●	●	●	28/28s	90	1140/1250	100	940/1050	446/446	403/403	19	114	339	499	
	18.5	180M	-	●	●	●	●	35/35s	90	1180/1285	100	980/1085	489/489	437/437	24	154	379	686	
125-80-315	18.5	180M	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	711	
	22	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	662	
	30	200L	-	●	●	●	●	42/42As	90	1216/1350	100	1016/1150	500/500	448/448	24	154	404	709	
	37	225S	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
	45	225M	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
125-80-400	30	200L	-	●	●	●	●	43/43s	90	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	37	225S	-	●	●	●	●	53/53s	90	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	45	225M	-	●	●	●	●	53/53s	90	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	55	250M	-	●	●	●	●	61/61s	90	1390/1566	100	1190/1366	644/644	583/583	28	196	476	868	
	75	280S	-	●	●	●	●	68/68s	90	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
	90	280M	-	●	●	●	●	68/68s	90	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
125-100-160	4	112M	●	●	●	●	●	16/16s	90	900/1036	100	700/836	446/446	403/403	19	114	314	448	
	5.5	132S	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	7.5	132M	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
125-100-200	5.5	132S	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	7.5	132M	●	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	439	
	11	160MA	●	●	●	●	●	27/27s	90	1140/1270	100	940/1070	446/446	403/403	19	114	314	474	
	15	160L	●	●	●	●	●	27/27s	90	1140/1270	100	940/1070	446/446	403/403	19	114	314	474	
	18.5	180M	-	●	●	●	●	34/34s	90	1150/1286	100	950/1086	470/470	418/418	24	154	354	661	
125-100-250	15	160L	●	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	339	499	
	18.5	180M	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	379	686	
	22	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	379	637	
	30	200L	-	●	●	●	●	42/42As	90	1216/1350	100	1016/1150	500/500	448/448	24	154	379	684	
125-100-315	22	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	662	
	30	200L	-	●	●	●	●	42/42As	90	1216/1350	100	1016/1150	500/500	448/448	24	154	404	709	
	37	225S	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
	45	225M	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
	55	250M	-	●	●	●	●	60/60s	90	1370/1506	100	1170/1306	596/596	535/535	28	219	469	861	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
125-100-400	37	225S	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	45	225M	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	55	250M	-	●	●	●	●	61/61s	110	1390/1566	100	1190/1366	644/644	583/583	28	196	476	868	
	75	280S	-	●	●	●	●	68/68s	110	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
	90	280M	-	●	●	●	●	68/68s	110	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
150-125-200	11	160MA	●	●	●	●	●	28/28s	90	1140/1250	100	940/1050	446/446	403/403	19	114	364	524	
	15	160L	●	●	●	●	●	28/28s	90	1140/1250	100	940/1050	446/446	403/403	19	114	364	524	
	18.5	180M	-	●	●	●	●	35/35s	90	1180/1285	100	980/1085	489/489	437/437	24	154	404	711	
	22	180L	-	●	●	●	●	35/35s	90	1180/1285	100	980/1085	489/489	437/437	24	154	404	662	
150-125-250	18.5	180M	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	711	
	22	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	662	
	30	200L	-	●	●	●	●	42/42As	90	1216/1350	100	1016/1150	500/500	448/448	24	154	404	709	
	37	225S	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
	45	225M	-	●	●	●	●	52/52s	90	1300/1436	100	1100/1236	510/510	458/458	24	154	404	729	
150-125-315	30	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	37	225S	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	45	225M	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	55	250M	-	●	●	●	●	61/61s	110	1390/1566	100	1190/1366	644/644	583/583	28	196	476	868	
	75	280S	-	●	●	●	●	68/68s	110	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
150-125-400	55	250M	-	●	●	●	●	62/62s	110	1370/1506	100	1170/1306	630/630	569/569	28	196	511	903	
	75	280S	-	●	●	●	●	67/67s	110	1520/1656	100	1320/1456	660/660	599/599	28	196	511	943	
	90	280M	-	●	●	●	●	67/67s	110	1520/1656	100	1320/1456	660/660	599/599	28	196	511	943	
	110	315S	-	●	●	●	●	74/74s	110	1540/1676	100	1275/1411	698/698	637/637	28	196	511	1006	
	132	315M	-	●	●	●	●	80/80s	110	1750/1926	100	1550/1726	690/690	629/629	28	196	511	1006	
150-125-500	110	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	132	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	160	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	200	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	288	315	-	●	●	●	●	99/99s	110	1880/2060	100	1680/1860	750/750	689/689	28	196	596	1064	
	362	315	-	●	●	●	●	99/99s	110	1880/2060	100	1680/1860	750/750	689/689	28	196	596	1064	
200-150-200	15	160L	●	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	556	
	18.5	180M	-	●	●	●	●	36/36s	110	1200/1370	100	1000/1170	610/610	558/558	24	160	440	747	
	22	180L	-	●	●	●	●	36/36s	110	1200/1370	100	1000/1170	610/610	558/558	24	160	440	698	
200-150-250	30	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	37	225S	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	45	225M	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
	55	250M	-	●	●	●	●	61/61s	110	1390/1566	100	1190/1366	644/644	583/583	28	196	476	868	
	75	280S	-	●	●	●	●	68/68s	110	1520/1660	100	1320/1460	637/637	576/576	28	196	476	908	
200-150-315.2	37	225S	-	●	●	●	●	48/48s	110	1438/1614	100	1238/1414	610/610	558/558	24	156	471	796	
	45	225M	-	●	●	●	●	48/48s	110	1438/1614	100	1238/1414	610/610	558/558	24	156	471	796	
	55	250M	-	●	●	●	●	56/56s	110	1500/1676	100	1300/1476	630/630	569/569	28	196	511	903	
	75	280S	-	●	●	●	●	64/64s	110	1660/1836	100	1460/1636	680/680	619/619	28	196	511	943	
200-150-315	55	250M	-	●	●	●	●	62/62s	110	1370/1506	100	1170/1306	630/630	569/569	28	196	511	903	
	75	280S	-	●	●	●	●	67/67s	110	1520/1656	100	1320/1456	660/660	599/599	28	196	511	943	
	90	280M	-	●	●	●	●	67/67s	110	1520/1656	100	1320/1456	660/660	599/599	28	196	511	943	
	110	315S	-	●	●	●	●	74/74s	110	1540/1676	100	1275/1411	698/698	637/637	28	196	511	1006	
	132	315M	-	●	●	●	●	80/80s	110	1750/1926	100	1550/1726	690/690	629/629	28	196	511	1006	
200-150-400	90	280M	-	●	●	●	●	64/64s	110	1660/1836	100	1460/1636	680/680	619/619	28	196	511	943	
	110	315S	-	●	●	●	●	80/80s	110	1750/1926	100	1550/1726	690/690	629/629	28	196	511	1006	
	132	315M	-	●	●	●	●	85/85s	110	1830/2006	100	1630/1806	690/690	629/629	28	196	511	1006	
	160	315L	-	●	●	●	●	85/85s	110	1830/2006	100	1630/1806	690/690	629/629	28	196	511	1006	
	200	315L	-	●	●	●	●	85/85s	110	1830/2006	100	1630/1806	690/690	629/629	28	196	511	1006	
	288	315	-	●	●	●	●	100/100s	110	1860/2036	100	1660/1836	750/750	689/689	28	200	515	983	
200-150-500	200	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	288	315	-	●	●	●	●	99/99s	110	1880/2060	100	1680/1860	750/750	689/689	28	196	596	1064	
	362	315	-	●	●	●	●	99/99s	110	1880/2060	100	1680/1860	750/750	689/689	28	196	596	1064	
250-200-400	55	250M	-	●	●	●	●	57/57s	110	1530/1706	100	1330/1506	680/680	619/619	28	196	596	988	
	75	280S	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	90	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	110	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	132	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	160	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	200	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
250-200-450	75	280S	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	90	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	110	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	132	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	160	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	200	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	288	315	-	●	●	●	●	99/99s	110	1880/2060	100	1680/1860	750/750	689/689	28	196	596	1064	
300-250-350	75	280S	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	90	280M	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	110	315S	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	132	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
300-250-400	75	280S	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	90	280M	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	110	315S	-	●	●	●	●	78/78s	110	1710/1886	100	1510/1686	780/780	719/719	28	196	646	1141	
	132	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	160	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	200	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	288	315	-	●	●	●	●	98/98s	110	1900/2075	100	1700/1875	790/790	729/729	28	196	646	1114	
300-250-450	110	315S	-	●	●	●	●	78/78s	110	1710/1886	100	1510/1686	780/780	719/719	28	196	646	1141	
	132	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	160	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	200	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	288	315	-	●	●	●	●	98/98s	110	1900/2075	100	1700/1875	790/790	729/729	28	196	646	1114	
	362	315	-	●	●	●	●	98/98s	110	1900/2075	100	1700/1875	790/790	729/729	28	196	646	1114	
300-250-500	288	315	-	●	●	●	●	98/98s	110	1900/2075	100	1700/1875	790/790	729/729	28	196	646	1114	
	362	315	-	●	●	●	●	98/98s	110	1900/2075	100	1700/1875	790/790	729/729	28	196	646	1114	
	408	355	-	●	●	●	●	109/109s	110	2090/2270	100	1890/2070	840/840	779/779	28	196	646	1187	
	460	355	-	●	●	●	●	109/109s	110	2090/2270	100	1890/2070	840/840	779/779	28	196	646	1187	

1 Pump with standard coupling or pump with spacer coupling.

2 P2 less than or equal to 15 kW, pump with MG motor; P2 greater than or equal to 18.5 kW, pump with Siemens motor.

3 For pump dimensions with E-motors, see the relevant pages in section *17. Dimensional drawings and technical data*.

NKG pumps, 6-pole

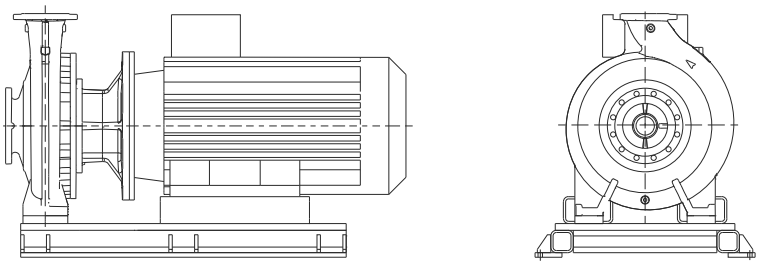
Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
125-100-160	1.1	90L	-	●	●	●	●	110/110s	90	860/996	100	660/796	400/400	365/365	14	77	277	405	
	1.5	100L	-	●	●	●	●	11/11s	90	900/1036	100	700/836	416/416	373/373	19	114	314	449	
	2.2	112M	-	●	●	●	●	16/16s	90	900/1036	100	700/836	446/446	403/403	19	114	314	462	
125-100-200	1.5	100L	-	●	●	●	●	11/11s	90	900/1036	100	700/836	416/416	373/373	19	114	314	449	
	2.2	112M	-	●	●	●	●	16/16s	90	900/1036	100	700/836	446/446	403/403	19	114	314	462	
	3	132M	-	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	481	
	4	132M	-	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	481	
	5.5	132M	-	●	●	●	●	21/21s	90	980/1116	100	780/916	447/447	404/404	19	114	314	481	
125-100-250	4	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	339	506	
	5.5	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	339	506	
	7.5	160M	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	339	536	
	11[4]	160L	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	339	536	
125-100-315	7.5	160M	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	364	561	
	11	160L	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	364	561	
	15	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	662	
125-100-400	11	160L	-	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	593	
	15	180L	-	●	●	●	●	36/36s	110	1200/1370	100	1000/1170	610/610	558/558	24	160	440	698	
	18.5	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	22	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	30	225M	-	●	●	●	●	53/53s	110	1310/1486	100	1110/1286	610/610	558/558	24	160	440	765	
150-125-200	3	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	364	531	
	4	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	364	531	
	5.5	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	364	531	
	7.5	160M	-	●	●	●	●	28/28s	90	1140/1250	100	940/1050	446/446	403/403	19	114	364	561	
150-125-250	5.5	132M	-	●	●	●	●	22/22As	90	1010/1150	100	810/950	446/446	403/403	19	114	364	531	
	7.5	160M	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	364	561	
	11	160L	-	●	●	●	●	28/28As	90	1140/1280	100	940/1080	446/446	403/403	19	114	364	561	
	15	180L	-	●	●	●	●	35/35As	90	1180/1315	100	980/1115	489/489	437/437	24	154	404	662	
150-125-315	7.5	160M	-	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	593	
	11	160L	-	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	593	
	15	180L	-	●	●	●	●	36/36s	110	1200/1370	100	1000/1170	610/610	558/558	24	160	440	698	
	18.5	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
	22	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
150-125-400	18.5	200L	-	●	●	●	●	44/44s	110	1240/1376	100	1040/1176	610/610	558/558	24	156	471	776	
	22	200L	-	●	●	●	●	44/44s	110	1240/1376	100	1040/1176	610/610	558/558	24	156	471	776	
	30	225M	-	●	●	●	●	54/54s	110	1305/1440	100	1105/1240	610/610	558/558	24	160	475	800	
	37	250M	-	●	●	●	●	62/62s	110	1370/1506	100	1170/1306	630/630	569/569	28	196	511	903	
	45	280S	-	●	●	●	●	67/67s	110	1520/1656	100	1320/1456	660/660	599/599	28	196	511	943	
150-125-500	37	250M	-	●	●	●	●	57/57s	110	1530/1706	100	1330/1506	680/680	619/619	28	196	596	988	
	45	280S	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	55	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	75	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	90	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
200-150-200	4	132M	-	●	●	●	●	23/23s	110	1030/1180	100	830/980	591/591	548/548	19	116	396	563	
	5.5	132M	-	●	●	●	●	23/23s	110	1030/1180	100	830/980	591/591	548/548	19	116	396	563	
	7.5	160M	-	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	593	
200-150-250	11	160L	-	●	●	●	●	29/29s	110	1160/1336	100	960/1136	586/586	543/543	19	116	396	593	
	15	180L	-	●	●	●	●	36/36s	110	1200/1370	100	1000/1170	610/610	558/558	24	160	440	698	
	18.5	200L	-	●	●	●	●	43/43s	110	1240/1420	100	1040/1220	610/610	558/558	24	156	436	741	
200-150-315.2	11	160L	-	●	●	●	●	24/24s	110	1300/1476	100	1100/1276	586/586	543/543	19	116	431	628	
	15	180L	-	●	●	●	●	38/38s	110	1340/1516	100	1140/1316	620/620	568/568	24	156	471	729	
	18.5	200L	-	●	●	●	●	45/45s	110	1380/1556	100	1180/1356	610/610	558/558	24	156	471	776	
	22	200L	-	●	●	●	●	45/45s	110	1380/1556	100	1180/1356	610/610	558/558	24	156	471	776	
200-150-315	18.5	200L	-	●	●	●	●	44/44s	110	1240/1376	100	1040/1176	610/610	558/558	24	156	471	776	
	22	200L	-	●	●	●	●	44/44s	110	1240/1376	100	1040/1176	610/610	558/558	24	156	471	776	
	30	225M	-	●	●	●	●	54/54s	110	1305/1440	100	1105/1240	610/610	558/558	24	160	475	800	
	37	250M	-	●	●	●	●	62/62s	110	1370/1506	100	1170/1306	630/630	569/569	28	196	511	903	

Pump type	Motor data							Base frame No[1]	Dimensions [mm]										Pump with E-motor[3]
	P2 [kW]	Frame size	Make						a2	l1[1]	l2	l3[1]	b2[1]	b3[1]	d	h	h3	h4[2]	
			MG	Siemens	MMG-E	MMG-G	MMG-H												
200-150-400	22	200L	-	●	●	●	●	45/45s	110	1380/1556	100	1180/1356	610/610	558/558	24	156	471	776	
	30	225M	-	●	●	●	●	48/48s	110	1438/1614	100	1238/1414	610/610	558/558	24	156	471	796	
	37	250M	-	●	●	●	●	56/56s	110	1500/1676	100	1300/1476	630/630	569/569	28	196	511	903	
	45	280S	-	●	●	●	●	64/64s	110	1660/1836	100	1460/1636	680/680	619/619	28	196	511	943	
	55	280M	-	●	●	●	●	64/64s	110	1660/1836	100	1460/1636	680/680	619/619	28	196	511	943	
	75	315S	-	●	●	●	●	80/80s	110	1750/1926	100	1550/1726	690/690	629/629	28	196	511	1006	
200-150-500	55	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	75	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	90	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	110	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
	132	315L	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
250-200-400	22	200L	-	●	●	●	●	46/46s	110	1400/1576	100	1200/1376	660/660	608/608	24	156	556	861	
	30	225M	-	●	●	●	●	49/49s	110	1460/1636	100	1260/1436	660/660	608/608	24	156	556	881	
	37	250M	-	●	●	●	●	57/57s	110	1530/1706	100	1330/1506	680/680	619/619	28	196	596	988	
	45	280S	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	55	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
250-200-450	37	250M	-	●	●	●	●	57/57s	110	1530/1706	100	1330/1506	680/680	619/619	28	196	596	988	
	45	280S	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	55	280M	-	●	●	●	●	65/65s	110	1660/1836	100	1460/1636	690/690	629/629	28	196	596	1028	
	75	315S	-	●	●	●	●	79/79s	110	1700/1876	100	1500/1676	690/690	629/629	28	196	596	1091	
	90	315M	-	●	●	●	●	84/84s	110	1850/2027	100	1650/1827	690/690	629/629	28	196	596	1091	
300-250-350	22	200L	-	●	●	●	●	47/47s	110	1438/1614	100	1238/1414	660/660	608/608	24	156	606	911	
	30	225M	-	●	●	●	●	50/50s	110	1504/1680	100	1304/1480	660/660	608/608	24	156	606	931	
	37	250M	-	●	●	●	●	58/58s	110	1568/1744	100	1368/1544	780/780	719/719	28	196	646	1038	
	45	280S	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
300-250-400	30	225M	-	●	●	●	●	50/50s	110	1504/1680	100	1304/1480	660/660	608/608	24	156	606	931	
	37	250M	-	●	●	●	●	58/58s	110	1568/1744	100	1368/1544	780/780	719/719	28	196	646	1038	
	45	280S	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	55	280M	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	75	315S	-	●	●	●	●	78/78s	110	1710/1886	100	1510/1686	780/780	719/719	28	196	646	1141	
	90	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
300-250-450	37	250M	-	●	●	●	●	58/58s	110	1568/1744	100	1368/1544	780/780	719/719	28	196	646	1038	
	45	280S	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	55	280M	-	●	●	●	●	66/66s	110	1700/1876	100	1500/1676	780/780	719/719	28	196	646	1078	
	75	315S	-	●	●	●	●	78/78s	110	1710/1886	100	1510/1686	780/780	719/719	28	196	646	1141	
	90	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	110	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
300-250-500	75	315S	-	●	●	●	●	78/78s	110	1710/1886	100	1510/1686	780/780	719/719	28	196	646	1141	
	90	315M	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	110	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	132	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1141	
	160	315L	-	●	●	●	●	83/83s	110	1900/2076	100	1700/1875	780/780	719/719	28	196	646	1146	

1 Pump with standard coupling or pump with spacer coupling.
2 Pump with Siemens motor.
3 For pump dimensions with E-motors, see the relevant pages in section *17. Dimensional drawings and technical data*.
4 For stainless steel pump only.

NBG base frames

Some NBG pumps are available with base frame as an option. The pump is mounted on the base frame when produced, and therefore the base frame should be ordered together with the pump.



TM05 1514 2711

Fig. 75 NBG pump with base frame

20. Motor data

Standard motor ranges

The table shows the standard motors currently available for NBG, NKG pumps. The motors in section *17. Dimensional drawings and technical data* are MG and Siemens motors.

IE class	Make	Pole	P2 [kW]																																		
			0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90	110	132	160	200	224	230	250	280	288	298	315	353	355	362	400	408	460	500
IE1	MMG-G	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	-	-	-	-	-	-
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IE2	MG	4	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-E	2	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	●	-	-	●
		6	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-G	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	●	-	-	-	-	-
		4	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	-	-	●	-	-	-	-	-	-	●
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-H2	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IE3	MG	2	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	●	-	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Siemens	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	●	●	-	-	●	●	-	●	-	-
		4	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	●	-	●	●	-	-	-	●	-	●	●	-
		6	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-
	MMG-H3	2	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Grey background = Outside definition of IE class, this setting also applies to all the other tables in this section.

Note: Not all motors are available worldwide. For specific information about the motors available in your region, contact your Grundfos Customer Service Unit (CSU).

MGE motor range

Pole	IE class	P2 [kW]												
		0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22
2	IE2	-	-	-	-	-	-	-	-	-	-	-	-	-
	IE3	-	-	-	-	-	●	●	●	●	●	●	●	●
	IE5	-	-	●	●	●	-	-	-	-	-	-	-	-
4	IE2	-	-	-	-	-	-	-	-	-	-	-	●	-
	IE3	-	-	-	●	●	●	●	●	●	●	●	-	-
	IE5	●	●	●	-	-	-	-	-	-	-	-	-	-

Outside definition of IE class

Electrical data, IE1 motors

MMG-G, 2-pole

Motor	Frame size	IE class	Voltage	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	80	IE1	3 x 220-255 Δ / 380-440 Y	1.1	4.3 - 3.7 / 2.5 - 2.14	79.8 - 80.0	0.87 - 0.86	3360-3400	6.9 - 8.0
MMG-G	90S	IE1	3 x 220-277 Δ / 380-480 Y	1.5	5.75 - 4.55 / 3.35 - 2.65	80.8 - 81.4	0.87 - 0.85	3390-3440	6.5 - 8.2
MMG-G	90L	IE1		2.2	8.35 - 6.6 / 4.8 - 3.8	83.1 - 83.7	0.86 - 0.84	3410-3460	6.9 - 8.7
MMG-G	100L	IE1		3	10.8 - 8.6 / 6.25 - 4.95	84.2 - 84.9	0.89 - 0.87	3420-3470	6.6 - 8.4
MMG-G	112M	IE1		4	14 - 11.2 / 8.1 - 6.4	85.7 - 86.4	0.90 - 0.88	3430-3480	7.2 - 9.1
MMG-G	90L	IE1	3 x 380-480 Δ	2.2	4.7 - 3.8	83.1 - 83.7	0.86 - 0.84	3410-3460	6.9 - 8.7
MMG-G	100L	IE1		3	6.1 - 4.9	84.2 - 84.9	0.89 - 0.87	3420-3470	6.6 - 8.4
MMG-G	112M	IE1		4	7.9 - 6.35	85.7 - 86.4	0.90 - 0.88	3430-3480	7.2 - 9.1
MMG-G	132S	IE1		5.5	10.8 - 8.8	85.2 - 86.6	0.91 - 0.87	3450-3510	5.0 - 8.1
MMG-G	132S	IE1		7.5	14.6 - 11.6	87.1 - 89.0	0.90 - 0.88	3430-3550	5.2 - 8.4
MMG-G	160M	IE1	3 x 380-480 Δ / 660-690 Y	11	20.6 - 16.6 / 11.8 - 11.6	89.4 - 91.0	0.91 - 0.87	3520-3550	6.3 - 10.1
MMG-G	160M	IE1		15	28.0 - 21.6 / 16 - 15.2	89.5 - 91.3	0.92 - 0.91	3490-3530	5.5 - 9.0
MMG-G	160L	IE1		18.5	33.5 - 26 / 19.2 - 18.2	90.4 - 91.9	0.93 - 0.92	3490-3530	6.1 - 10.1
MMG-G	180MA	IE1		22	40.0 - 33 / 23 - 23.0	91.7 - 92.6	0.91 - 0.87	3520-3550	5.8 - 9.4
MMG-G	200LA	IE1		30	56.5 - 49.5 / 32.5 - 34.5	90.5 - 90.8	0.89 - 0.80	3540-3560	5.6 - 8.6
MMG-G	200LA	IE1		37	68.5 - 54.5 / 39.5 - 38	91.6 - 92.4	0.90 - 0.88	3530-3560	5.1 - 8.5
MMG-G	225MA	IE1		45	79 - 67.5 / 45.5 - 47	92.0 - 92.5	0.94 - 0.87	3530-3560	5.1 - 7.4
MMG-G	250SA	IE1		55	96.5 - 86 / 55.5 - 60	91.3 - 91.4	0.95 - 0.84	3540-3560	5.2 - 7.7
MMG-G	250MA	IE1		75	130-106 / 75.5 - 74	93.2 - 93.7	0.93 - 0.91	3540-3570	5.2 - 8.4
MMG-G	280SA	IE1		90	162-128 / 93-89	93.2 - 93.5	0.91 - 0.90	3550-3560	5.2 - 8.1
MMG-G	280MA	IE1		110	198-156 / 114-108	93.2 - 93.5	0.91 - 0.91	3550-3560	5.1 - 8.1
MMG-G	315SA	IE1		132	236-186 / 136-130	93.5 - 94.0	0.90 - 0.91	3550-3560	5.2 - 8.1
MMG-G	315MA	IE1		160	285-226 / 164-156	93.5 - 94.0	0.91 - 0.91	3560-3560	5.2 - 8.1
MMG-G	315MA	IE1		200	355-280 / 204-194	94.0 - 94.5	0.92 - 0.92	3560-3560	6.0 - 8.0
MMG-G	315MA	IE1		250	425-335 / 246-232	96.0 - 96.0	0.93 - 0.93	3570-3570	7.0 - 7.1
MMG-G	355LA	IE1		315	530-420 / 305-290	96.5 - 96.5	0.94 - 0.94	3570-3570	7.0 - 7.0

MMG-G, 4-pole

Motor	Frame size	IE class	Voltage	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	71	-	3 x 220-255 Δ / 380-440 Y	0.25	1.34 - 1.16 / 0.77 - 0.67	69.5 - 69.5	0.71 - 0.71	1690-1690	5.2 - 5.2
MMG-G	71	-		0.37	1.96 - 1.7 / 1.14 - 0.99	69.3 - 69.5	0.72 - 0.71	1660-1690	4.5 - 5.2
MMG-G	80	-		0.55	2.65 - 2.3 / 1.52 - 1.32	74.3 - 74.5	0.74 - 0.73	1680-1710	5 - 5.8
MMG-G	80	IE1	3 x 220-255 Δ / 380-440 Y	0.75	3.45 - 3 / 2 - 1.74	76.1 - 76.3	0.75 - 0.74	1680-1710	5 - 5.8
MMG-G	90S	IE1	3 x 220-277 Δ / 380-480 Y	1.1	4.7 - 3.8 / 2.75 - 2.2	78.6 - 79.2	0.78 - 0.76	1680-1730	5.4 - 6.9
MMG-G	90L	IE1		1.5	6.05 - 4.85 / 3.5 - 2.8	80.8 - 81.4	0.81 - 0.79	1680-1730	5.6 - 7.1
MMG-G	100L	IE1		2.2	8.6 - 6.95 / 5 - 4	83.1 - 83.7	0.81 - 0.79	1690-1740	6.0 - 7.6
MMG-G	100L	IE1		3	11.4 - 9.30 / 6.65 - 5.35	83.7 - 84.4	0.82 - 0.80	1690-1740	6.0 - 7.6
MMG-G	112M	IE1		4	15 - 12 / 8.65 - 7	85.7 - 86.4	0.82 - 0.80	1700-1750	6.6 - 8.3
MMG-G	100L	IE1	3 x 380-480 Δ	2.2	4.75 - 3.65	84.0 - 86.5	0.84 - 0.84	1740-1740	6.7 - 6.7
MMG-G	100L	IE1		3	6.25 - 5.05	86.0 - 84.5	0.84 - 0.85	1740-1740	7.4 - 7.4
MMG-G	112M	IE1		4	8.55 - 6.85	85.0 - 84.5	0.83 - 0.83	1750-1750	7.1 - 7.1
MMG-G	132S	IE1		5.5	11 - 8.9	88.0 - 87.5	0.86 - 0.85	1750-1750	6.6 - 6.6
MMG-G	132M	IE1	3 x 380-480 Δ / 660-690 Y	7.5	14.2 - 12 / 8.15 - 7.9	87.8 - 88.9	0.91 - 0.85	1730-1760	5.9 - 9.4
MMG-G	160M	IE1		11	21 - 17.2 / 12 - 11.6	89.2 - 90.6	0.89 - 0.85	1740-1770	5.0 - 8.2
MMG-G	160L	IE1		15	28.5 - 24.6 / 16.4 - 15.8	90.8 - 91.8	0.87 - 0.81	1750-1780	6.3 - 10.0
MMG-G	180MC	IE1		18.5	35.5 - 30.5 / 20.6 - 19.8	90.7 - 92.1	0.87 - 0.79	1740-1770	4.4 - 7.1
MMG-G	180LC	IE1		22	43.5 - 37 / 25 - 24	90.7 - 91.5	0.84 - 0.78	1750-1770	5.1 - 8.4
MMG-G	200LC	IE1		30	55.5 - 45.5 / 32 - 30.5	91.8 - 92.6	0.89 - 0.86	1760-1770	5.7 - 9.2
MMG-G	225SC	IE1		37	68.5 - 60.5 / 39.5 - 38	92.5 - 93.0	0.88 - 0.79	1760-1770	4.7 - 7.4
MMG-G	225MC	IE1		45	82.5 - 69.5 / 47.5 - 45.5	92.0 - 92.0	0.90 - 0.84	1760-1770	4.6 - 7.4
MMG-G	250SC	IE1		55	94.5 - 81.5 / 54.5 - 52.5	93.9 - 93.9	0.93 - 0.87	1780-1790	6.4 - 10.3
MMG-G	250MC	IE1		75	134-126 / 77.5 - 87.5	94.9 - 94.9	0.89 - 0.75	1770-1780	4.7 - 7.7
MMG-G	280SC	IE1		90	164-132 / 94-92	94.0 - 94.0	0.89 - 0.87	1780-1780	6.0 - 7.7
MMG-G	280MC	IE1		110	200-160 / 116-110	94.0 - 94.0	0.89 - 0.88	1780-1780	6.0 - 7.7
MMG-G	315SC	IE1		132	240-192 / 138-132	94.0 - 94.0	0.89 - 0.88	1780-1780	6.0 - 7.7
MMG-G	315MC	IE1		160	290-228 / 166-160	94.5 - 94.5	0.89 - 0.89	1780-1780	6.0 - 8.0
MMG-G	315MB	IE1		185	335-265 / 192-182	94.5 - 94.5	0.89 - 0.89	1780-1780	6.0 - 7.8
MMG-G	315MB	IE1		200	350-285 / 204-196	94.8 - 94.8	0.91 - 0.89	1780-1780	6.2 - 8.2
MMG-G	355MB	IE1		220	380-300 / 220-208	96.2 - 96.2	0.92 - 0.92	1790-1790	6.9 - 6.9
MMG-G	355MB	IE1		250	430-340 / 250-236	96.2 - 96.2	0.92 - 0.92	1790-1790	6.9 - 6.9
MMG-G	355LB	IE1		300	500-395 / 290-275	96.6 - 96.6	0.94 - 0.94	1790-1790	6.9 - 6.9
MMG-G	355LB	IE1		315	525-415 / 305-290	96.6 - 96.6	0.94 - 0.94	1790-1790	6.9 - 6.9

MMG-G, 6-pole

Motor	Frame size	IE class	Voltage	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	90L	IE1	3 x 220-277 Δ / 380-480 Y	1.1	5.8 - 4.6 / 3.35 - 2.65	74.8 - 75.4	0.69 - 0.67	1090-1140	4.5 - 5.7
MMG-G	100L	IE1		1.5	7.1 - 5.6 / 4.1 - 3.25	79.8 - 80.4	0.72 - 0.70	1100-1150	5.4 - 6.4
MMG-G	112M	IE1		2.2	9.8 - 7.75 / 5.65 - 4.5	82.4 - 83.0	0.74 - 0.72	1120-1170	5.4 - 6.9
MMG-G	132S	IE1		3	12.8 - 14.6 / 7.4 - 8.4	79.0 - 76.4	0.78 - 0.56	1160-1170	4.4 - 5.4
MMG-G	132M	IE1		4	16.4 - 19.4 / 9.3 - 11.2	81.6 - 79.5	0.82 - 0.56	1150-1160	5.7 - 6.5
MMG-G	112M	IE1	3 x 380-480 Δ / 660-690 Y	2.2	5.5 - 4.45 / 3.15 - 3.05	82.4 - 83.0	0.74 - 0.72	1120-1170	6.5 - 6.5
MMG-G	132S	IE1		3	7.25 - 6.3 / 4.2 - 4.05	78.1 - 78.7	0.80 - 0.73	1140-1170	6.3 - 6.3
MMG-G	132M	IE1		4	8.8 - 8.65 / 5.05 - 6	84.1 - 83.1	0.82 - 0.67	1150-1170	6.3 - 6.3
MMG-G	132M	IE1		5.5	11.8 - 10.8 / 6.8 - 7.5	84.4 - 84.4	0.84 - 0.73	1140-1160	7.0 - 7.0
MMG-G	160M	IE1		7.5	15 - 13.8 / 8.65 - 9.6	87.4 - 87.5	0.87 - 0.75	1160-1180	6.3 - 6.3
MMG-G	160L	IE1		11	22 - 19.4 / 12.8 - 12.4	88.3 - 88.9	0.85 - 0.77	1160-1170	6.9 - 6.9
MMG-G	180LC	IE1		15	31 - 23.6 / 17.8 - 16.8	88.5 - 91.0	0.84 - 0.84	1160-1180	6.9 - 6.9
MMG-G	200LC	IE1		18.5	35.5 - 29 / 20.6 - 19.6	90.0 - 91.2	0.89 - 0.84	1160-1170	6.7 - 6.7
MMG-G	200LC	IE1		22	41.5 - 33.5 / 24-23	91.0 - 92.2	0.88 - 0.85	1160-1170	6.8 - 6.8
MMG-G	225MC	IE1		30	54.5 - 54 / 31.5 - 31	91.7 - 90.9	0.92 - 0.73	1180-1190	6.4 - 6.4
MMG-G	250SC	IE1		37	68-59 / 39-38	92.5 - 93.0	0.89 - 0.81	1170-1190	6.5 - 6.5
MMG-G	250MC	IE1		45	82-74 / 47 - 51.5	92.9 - 93.2	0.90 - 0.78	1180-1190	6.3 - 6.3
MMG-G	280SC	IE1		55	104-85 / 60-58	93.0 - 93.4	0.86 - 0.83	1180-1180	6.3 - 6.8
MMG-G	280MC	IE1		75	140-116 / 81 - 78.5	94.0 - 94.0	0.86 - 0.83	1180-1180	6.5 - 7.0
MMG-G	315SC	IE1		90	170-138 / 97.5 - 94	94.0 - 94.2	0.86 - 0.84	1180-1180	6.5 - 7.0
MMG-G	315MC	IE1		110	206-166 / 118-116	94.2 - 94.7	0.86 - 0.84	1180-1180	6.2 - 6.7
MMG-G	315MC	IE1		132	248-200 / 142-138	94.2 - 95.0	0.86 - 0.84	1180-1180	6.2 - 6.7

Electrical data, IE2 motors

MG, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MG-C	71B	IE2	3 x 220-255 Δ / 380-440 Y	0.37	1.72 / 0.99	73-74	0.82 - 0.72	1680-1720	4.0 - 4.7
MG-C	80A	IE2		0.55	2.40 / 1.40	77-80	0.83 - 0.75	1660-1710	3.9 - 4.7

MMG-G, 2-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	80	IE2	3 x 220-277 Δ / 380-480 Y	1.1	4 - 3.25 / 2.3 - 1.88	83.7 - 84.4	0.86 - 0.84	3400-3450	6.7 - 6.7
MMG-G	90S	IE2		1.5	5.4 - 4.35 / 3.1 - 2.5	84.2 - 84.9	0.87 - 0.85	3400-3450	7.2 - 7.2
MMG-G	90L	IE2		2.2	7.85 - 6.35 / 4.55 - 3.65	85.7 - 86.4	0.86 - 0.84	3420-3470	7.3 - 7.3
MMG-G	100L	IE2		3	10.2 - 8.25 / 5.9 - 4.75	86.7 - 87.4	0.89 - 0.87	3430-3480	8.6 - 8.6
MMG-G	112M	IE2		4	13.4 - 10.8 / 7.75 - 6.25	88.2 - 88.9	0.89 - 0.87	3440-3490	8.3 - 8.3
MMG-G	90L	IE2	3 x 380-480 Δ	2.2	4.55 - 3.65	85.7 - 86.4	0.86 - 0.84	3420-3470	7.3 - 7.3
MMG-G	100L	IE2		3	5.9 - 4.75	86.7 - 87.4	0.89 - 0.87	3430-3480	8.6 - 8.6
MMG-G	112M	IE2		4	7.75 - 6.25	88.2 - 88.9	0.89 - 0.87	3440-3490	8.3 - 8.3
MMG-G	132S	IE2		5.5	10.2 - 8.35	90.5 - 91.4	0.90 - 0.87	3480-3530	7.2 - 7.2
MMG-G	132S	IE2		7.5	14.2 - 11.8	89.8 - 91.4	0.90 - 0.84	3450-3520	6.7 - 6.7
MMG-G	160M	IE2	3 x 380-480 Δ / 660-690 Y	11	20.6 - 16.2 / 11.8 - 11.2	89.1 - 91.4	0.91 - 0.90	3500-3540	7.2 - 7.2
MMG-G	160M	IE2		15	28 - 22.6 / 16 - 15.6	90.1 - 92.1	0.91 - 0.88	3500-3540	7.1 - 7.1
MMG-G	160L	IE2		18.5	33.5 - 26.5 / 19.2 - 18.4	91.4 - 93.2	0.92 - 0.90	3510-3550	8.4 - 8.4
MMG-G	180MA	IE2		22	40-34 / 23-24	92.6 - 93.5	0.90 - 0.83	3520-3550	8.6 - 8.6
MMG-G	200LA	IE2		30	56 - 44.5 / 32.5 - 31	92.2 - 93.6	0.88 - 0.86	3520-3560	8.6 - 8.6
MMG-G	200LA	IE2		37	67 - 52.5 / 38.5 - 36.5	93.8 - 95.0	0.89 - 0.89	3540-3570	8.6 - 8.6
MMG-G	225MA	IE2		45	78.5 - 63 / 45-44	93.3 - 94.3	0.94 - 0.91	3540-3560	8.4 - 8.4
MMG-G	250SA	IE2		55	95.5 - 76.5 / 55-53	94.0 - 94.0	0.93 - 0.92	3550-3570	7.4 - 7.4
MMG-G	250MA	IE2		75	128-102 / 73.5 - 71.5	94.6 - 94.6	0.94 - 0.93	3560-3570	7.5 - 7.5
MMG-G	280SA	IE2		90	154-124 / 88 - 85.5	95.0 - 95.0	0.94 - 0.93	3560-3580	7.0 - 7.0
MMG-G	280MA	IE2		110	190-150 / 108-104	95.5 - 95.5	0.93 - 0.93	3570-3580	7.6 - 7.6
MMG-G	315SA	IE2		132	226-178 / 128-124	95.0 - 96.0	0.94 - 0.93	3570-3580	7.5 - 7.5
MMG-G	315MA	IE2		160	265-216 / 154-150	96.0 - 96.2	0.95 - 0.93	3570-3580	7.0 - 7.0
MMG-G	315MA	IE2		200	355-280 / 206-194	96.0 - 96.0	0.90 - 0.90	3570-3570	8.0 - 8.0
MMG-G	315CA	IE2		250	445-350 / 255-244	95.0 - 95.2	0.90 - 0.90	3570-3570	5.4 - 8.3
MMG-G	355DA	IE2		315	550-435 / 315-305	95.4 - 95.5	0.91 - 0.91	3580-3580	5.5 - 8.5

MMG-G, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	80	-	3 x 220-255 Δ / 380-440 Y	0.55	2.5 - 2.16 / 1.46 - 1.25	82.0 - 82	0.7 - 0.7	1680-1700	7-7
MMG-G	80	IE2	3 x 220-255 Δ / 380-440 Y	0.75	3.25 - 2.85 / 1.9 - 1.65	82.8 - 83	0.73 - 0.72	1680-1710	6.6 - 7.6
MMG-G	90S	IE2	3 x 220-277 Δ / 380-480 Y	1.1	4.35 - 3.50 / 2.5 - 2.06	84.2 - 84.9	0.79 - 0.77	1690-1740	6.7 - 8.5
MMG-G	90L	IE2		1.5	5.75 - 4.65 / 3.35 - 2.7	85.7 - 86.4	0.80 - 0.78	1690-1740	6.7 - 8.5
MMG-G	100L	IE2		2.2	7.8 - 6.3 / 4.5 - 3.65	87.2 - 87.9	0.85 - 0.83	1700-1750	7.6 - 9.6
MMG-G	100L	IE2		3	10.8 - 8.75 / 6.25 - 5.05	87.7 - 88.4	0.83 - 0.81	1700-1750	7.8 - 9.8
MMG-G	112M	IE2		4	13.8 - 11.2 / 8.05 - 6.45	89.2 - 89.9	0.85 - 0.83	1710-1760	7.8 - 9.8
MMG-G	100L	IE2	3 x 380-480 Δ	2.2	4.5 - 3.65	87.2 - 87.9	0.85 - 0.83	1700-1750	9.6 - 9.6
MMG-G	100L	IE2		3	6.25 - 5.05	87.7 - 88.4	0.83 - 0.81	1700-1750	9.8 - 9.8
MMG-G	112M	IE2		4	8.05 - 6.45	89.2 - 89.9	0.85 - 0.83	1710-1760	9.8 - 9.8
MMG-G	132S	IE2	3 x 380-480 Δ / 660-690 Y	5.5	10.8 - 8.5 / 6.2 - 5.95	90.6 - 91.5	0.86 - 0.85	1740-1760	9.8 - 9.8
MMG-G	132M	IE2		7.5	14.4 - 11.6 / 8.35 - 8.1	90.7 - 91.5	0.87 - 0.85	1730-1770	8.7 - 8.7
MMG-G	160M	IE2		11	20.6 - 16.4 / 11.6 - 11.4	92.7 - 93.5	0.89 - 0.87	1730-1770	8.7 - 8.7
MMG-G	160L	IE2		15	27-22 / 15.6 - 15.2	93.2 - 94.0	0.90 - 0.88	1740-1780	8.6 - 8.6
MMG-G	180MC	IE2		18.5	34.5 - 28 / 19.8 - 19.4	93.7 - 94.5	0.87 - 0.85	1740-1780	8.8 - 8.8
MMG-G	180LC	IE2		22	41-33 / 23.6 - 23	93.7 - 94.5	0.87 - 0.85	1740-1780	8.3 - 8.3
MMG-G	200LC	IE2		30	54 - 43.5 / 31 - 30.5	94.2 - 95.0	0.89 - 0.87	1750-1790	9.3 - 9.3
MMG-G	225SC	IE2		37	68.5 - 55 / 39.5 - 38.5	94.7 - 95.5	0.87 - 0.85	1750-1790	7.8 - 7.8
MMG-G	225MC	IE2		45	82.5 - 66.5 / 47.5 - 46.5	94.7 - 95.5	0.87 - 0.85	1750-1790	7.4 - 7.4
MMG-G	250SC	IE2		55	104-80 / 60 - 55.5	94.9 - 96.0	0.85 - 0.86	1750-1790	7.4 - 7.4
MMG-G	250MC	IE2		75	142-110 / 81.5 - 76	94.7 - 96.0	0.85 - 0.86	1750-1790	7.3 - 7.3
MMG-G	280SC	IE2		90	170-130 / 97.5 - 91	95.0 - 96.0	0.85 - 0.86	1750-1790	7.0 - 7.0
MMG-G	280MC	IE2		110	206-160 / 120-112	95.5 - 96.0	0.85 - 0.86	1750-1790	6.8 - 6.8
MMG-G	315SC	IE2		132	250-190 / 142-132	95.1 - 96.0	0.85 - 0.87	1770-1790	6.0 - 6.0
MMG-G	315MCB	IE2		160	300-230 / 172-160	95.1 - 96.0	0.86 - 0.87	1770-1790	6.0 - 6.0
MMG-G	315MB	IE2		200	365-290 / 210-166	95.8 - 95.8	0.88 - 0.88	1780-1780	7.8 - 7.8
MMG-G	315CB	IE2		250	455-355 / 260-246	94.5 - 95.2	0.89 - 0.89	1780-1780	5.5 - 8.3
MMG-G	315DB	IE2		315	575-445 / 330-310	94.5 - 95.2	0.88 - 0.90	1780-1780	5.5 - 8.3

MMG-G, 6-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-G	90L	IE2	3 x 220-277 Δ / 380-480 Y	1.1	5.4 - 4.35 / 3.15 - 2.5	80.2 - 80.8	0.67 - 0.65	1100-1150	5.3 - 6.7
MMG-G	100L	IE2		1.5	6.95 - 5.6 / 4 - 3.25	82.8 - 83.4	0.69 - 0.67	1100-1160	5.6 - 7.1
MMG-G	112M	IE2		2.2	9 - 7.25 / 5.2 - 4.2	83.7 - 84.4	0.77 - 0.75	1100-1160	5.6 - 7.1
MMG-G	132S	IE2		3	11.2 - 11 / 6.45 - 6.4	87.4 - 85.9	0.81 - 0.66	1170-1180	6.5 - 8.8
MMG-G	132M	IE2		4	14.8 - 12 / 8.5 - 6.95	84.5 - 89.4	0.85 - 0.78	1160-1180	5.2 - 7.9
MMG-G	112M	IE2	3 x 380-480 Δ / 660-690 Y	2.2	5.2 - 4.2 / 3 - 2.9	83.7 - 84.4	0.77 - 0.75	1110-1160	5.6 - 7.1
MMG-G	132S	IE2		3	6.45 - 5.5 / 3.7 - 3.85	87.6 - 87.4	0.82 - 0.75	1140-1180	6.4 - 8.0
MMG-G	132M	IE2		4	8.6 - 7.2 / 4.95 - 5	86.1 - 87.7	0.82 - 0.76	1140-1170	4.5 - 7.3
MMG-G	132M	IE2		5.5	11 - 9.95 / 6.4 - 6.9	88.8 - 89.6	0.85 - 0.74	1150-1160	5.2 - 7.9
MMG-G	160M	IE2		7.5	15 - 13.2 / 8.65 - 9.15	90.5 - 91.3	0.84 - 0.75	1160-1170	5.8 - 8.9
MMG-G	160L	IE2		11	21 - 19.6 / 12.2 - 13.6	90.7 - 90.8	0.87 - 0.74	1160-1180	6.1 - 9.2
MMG-G	180LC	IE2		15	29.5 - 24 / 17 - 16.8	91.6 - 93.1	0.85 - 0.81	1170-1180	5.2 - 8.3
MMG-G	200LC	IE2		18.5	37 - 30.5 / 21.6 - 21	92.2 - 93.5	0.82 - 0.78	1170-1180	4.6 - 7.6
MMG-G	200LC	IE2		22	43.5 - 35.5 / 25 - 24.6	92.3 - 93.8	0.83 - 0.80	1170-1180	4.6 - 7.7
MMG-G	225MC	IE2		30	56 - 46.5 / 32.5 - 32	93.5 - 94.2	0.87 - 0.83	1170-1180	4.6 - 7.3
MMG-G	250SC	IE2		37	68 - 56.5 / 39 - 39.5	94.0 - 94.8	0.88 - 0.83	1180-1190	5.4 - 8.7
MMG-G	250MC	IE2		45	82.5 - 67.5 / 47.5 - 47	94.1 - 94.9	0.88 - 0.84	1180-1190	5.4 - 8.8
MMG-G	280SC	IE2		55	99.5 - 78.5 / 57 - 54.5	95.0 - 95.0	0.89 - 0.89	1180-1180	5.3 - 8.3
MMG-G	280MC	IE2		75	136-108 / 78 - 74.5	95.0 - 95.0	0.89 - 0.89	1180-1180	6.0 - 8.5
MMG-G	315SC	IE2		90	160-126 / 92.5 - 88.5	95.2 - 95.2	0.90 - 0.90	1180-1180	6.0 - 8.3
MMG-G	315MB	IE2		110	196-156 / 114-108	95.2 - 95.2	0.89 - 0.89	1190-1190	5.1 - 8.2
MMG-G	315MB	IE2		132	236-184 / 134-128	95.2 - 95.2	0.90 - 0.90	1190-1190	5.5 - 8.0

MMG-H2, 2-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-H2	71B	-	3 x 220-240 Δ / 380-420 Y	0.55	2.42 - 2.22 / 1.40 - 1.26	-	0.82	2820	6.1 - 6.1
MMG-H2	80B	IE2	3 x 220-240 Δ / 380-420 Y	0.75	3.20 - 2.90 / 1.84 - 1.66	79.3	0.78	2880	7.0 - 7.0
MMG-H2	80B	IE2		1.1	4.50 - 4.10 / 2.60 - 2.36	81.3	0.79	2880	7.0 - 7.0
MMG-H2	90S	IE2		1.5	5.40 - 4.95 / 3.10 - 2.80	83.0	0.88	2900	8.5 - 8.5
MMG-H2	90L	IE2		2.2	7.70 - 7.05 / 4.45 - 4.05	84.2	0.89	2900	8.5 - 8.5
MMG-H2	100LA	IE2		3.0	10.2 - 9.40 / 5.95 - 5.35	85.4	0.90	2900	9.0 - 9.0
MMG-H2	112M	IE2		4.0	13.6 - 12.6 / 7.90 - 7.15	86.3	0.89	2920	9.0 - 9.0
MMG-H2	90L	IE2	3 x 380-420 Δ / 660-725 Y	2.2	4.45 - 4.05 / 2.55 - 2.34	84.2	0.89	2900	8.5 - 8.5
MMG-H2	100LA	IE2		3	5.95 - 5.35 / 3.40 - 3.10	85.4	0.90	2900	9.0 - 9.0
MMG-H2	112M	IE2		4	7.90 - 7.15 / 4.55 - 4.15	86.3	0.89	2920	9.0 - 9.0
MMG-H2	132SA	IE2		5.5	10.8 - 9.70 / 6.20 - 5.60	87.5	0.89	2930	8.5 - 8.5
MMG-H2	132SB	IE2		7.5	14.4 - 13.2 / 8.35 - 7.60	88.4	0.89	2930	8.5 - 8.5
MMG-H2	160MA	IE2		11	20.6 - 18.6 / 11.8 - 10.8	89.9	0.90	2940	7.5 - 7.5
MMG-H2	160MB	IE2		15	28.0 - 25.5 / 16.0 - 14.6	90.7	0.90	2940	7.5 - 7.5
MMG-H2	160L	IE2		18.5	34.0 - 30.5 / 19.6 - 17.8	91.2	0.91	2940	7.5 - 7.5
MMG-H2	180M	IE2		22	40.0 - 36.5 / 23.2 - 21.0	91.5	0.91	2950	7.5 - 7.5
MMG-H2	200LA	IE2		30	54.5 - 49.0 / 31.5 - 28.5	92.2	0.91	2950	7.5 - 7.5
MMG-H2	200LB	IE2		37	66.5 - 60.5 / 38.5 - 35.0	92.6	0.91	2950	7.5 - 7.5
MMG-H2	225M	IE2		45	80.5 - 73.0 / 46.5 - 42.5	93.1	0.91	2960	7.5 - 7.5
MMG-H2	250MA	IE2		55	99.5 - 90.0 / 57.0 - 52.0	93.4	0.90	2970	7.5 - 7.5
MMG-H2	280SA	IE2		75	134-122 / 76.5 - 70.0	94.0	0.91	2970	7.5 - 7.5
MMG-H2	280MA	IE2		90	160-144 / 91.5 - 83.5	94.5	0.91	2980	7.5 - 7.5
MMG-H2	315S	IE2		110	194-176 / 112-102	94.6	0.91	2980	7.1 - 7.1
MMG-H2	315M	IE2		132	232-210 / 134-122	94.8	0.91	2980	7.1 - 7.1
MMG-H2	315L	IE2		160	280-255 / 162-148	95.0	0.91	2980	7.1 - 7.1
MMG-H2	315L	IE2		200	350-315 / 202-184	95.7	0.91	2980	7.1 - 7.1
MMG-H2	355M	IE2		250	440-400 / 255-232	95.4	0.90	2990	7.1 - 7.1
MMG-H2	355L	IE2		315	550-495 / 315-285	95.9	0.91	2990	7.1 - 7.1
MMG-H2	355L	IE2		355	620-560 / 355-325	95.8	0.91	2990	8.2 - 8.2

MMG-H2, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-H2	71B	-	3 x 220-240 Δ / 380-420 Y	0.55	2.42 - 2.22 / 1.40 - 1.26	79.3	0.82	2820	6.1 - 6.1
MMG-H2	80B	IE2	3 x 220-240 Δ / 380-420 Y	0.75	3.20 - 2.90 / 1.84 - 1.66	81.3	0.78	2880	7.0 - 7.0
MMG-H2	80B	IE2		1.1	4.50 - 4.10 / 2.60 - 2.36	83.0	0.79	2880	7.0 - 7.0
MMG-H2	90S	IE2		1.5	5.40 - 4.95 / 3.10 - 2.80	84.2	0.88	2900	8.5 - 8.5
MMG-H2	90L	IE2		2.2	7.70 - 7.05 / 4.45 - 4.05	85.4	0.89	2900	8.5 - 8.5
MMG-H2	100LA	IE2		3	10.2 - 9.40 / 5.95 - 5.35	86.3	0.90	2900	9.0 - 9.0
MMG-H2	112M	IE2		4	13.6 - 12.6 / 7.90 - 7.15	-	0.89	2920	9.0 - 9.0
MMG-H2	90L	IE2	3 x 380-420 Δ / 660-725 Y	2.2	4.45 - 4.05 / 2.55 - 2.34	85.4	0.89	2900	8.5 - 8.5
MMG-H2	100LA	IE2		3	5.95 - 5.35 / 3.40 - 3.10	86.3	0.90	2900	9.0 - 9.0
MMG-H2	112M	IE2		4	7.90 - 7.15 / 4.55 - 4.15	87.5	0.89	2920	9.0 - 9.0
MMG-H2	132SA	IE2		5.5	10.8 - 9.70 / 6.20 - 5.60	88.4	0.89	2930	8.5 - 8.5
MMG-H2	132SB	IE2		7.5	14.4 - 13.2 / 8.35 - 7.60	89.9	0.89	2930	8.5 - 8.5
MMG-H2	160MA	IE2		11	20.6 - 18.6 / 11.8 - 10.8	90.7	0.90	2940	7.5 - 7.5
MMG-H2	160MB	IE2		15	28.0 - 25.5 / 16.0 - 14.6	91.2	0.90	2940	7.5 - 7.5
MMG-H2	160L	IE2		18.5	34.0 - 30.5 / 19.6 - 17.8	91.5	0.91	2940	7.5 - 7.5
MMG-H2	180M	IE2		22	40.0 - 36.5 / 23.2 - 21.0	92.2	0.91	2950	7.5 - 7.5
MMG-H2	200LA	IE2		30	54.5 - 49.0 / 31.5 - 28.5	92.6	0.91	2950	7.5 - 7.5
MMG-H2	200LB	IE2		37	66.5 - 60.5 / 38.5 - 35.0	93.1	0.91	2950	7.5 - 7.5
MMG-H2	225M	IE2		45	80.5 - 73.0 / 46.5 - 42.5	93.4	0.91	2960	7.5 - 7.5
MMG-H2	250MA	IE2		55	99.5 - 90.0 / 57.0 - 52.0	94.0	0.90	2970	7.5 - 7.5
MMG-H2	280SA	IE2		75	134-122 / 76.5 - 70.0	94.5	0.91	2970	7.5 - 7.5
MMG-H2	280MA	IE2		90	160-144 / 91.5 - 83.5	94.6	0.91	2980	7.5 - 7.5
MMG-H2	315S	IE2		110	194-176 / 112-102	94.8	0.91	2980	7.1 - 7.1
MMG-H2	315M	IE2		132	232-210 / 134-122	95.0	0.91	2980	7.1 - 7.1
MMG-H2	315L	IE2		160	280-255 / 162-148	95.7	0.91	2980	7.1 - 7.1
MMG-H2	315L	IE2		200	350-315 / 202-184	95.4	0.91	2980	7.1 - 7.1
MMG-H2	355M	IE2		250	440-400 / 255-232	95.9	0.90	2990	7.1 - 7.1
MMG-H2	355L	IE2		315	550-495 / 315-285	95.8	0.91	2990	7.1 - 7.1
MMG-H2	355L	IE2		355	620-560 / 355-325	-	0.91	2990	8.2 - 8.2

MMG-H2, 6-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-H2	806	-	3 x 220-240 Δ / 380-420 Y	0.55	2.80 - 0.25 / 1.62 - 1.46	-	0.70	905	6.7 - 6.7
MMG-H2	90S6	IE2	3 x 220-240 Δ / 380-420 Y	0.75	3.70 - 0.34 / 2.14 - 1.94	76.0	0.70	920	7.5 - 7.5
MMG-H2	90L6	IE2		1.1	5.25 - 0.48 / 3.05 - 2.75	78.3	0.70	920	7.5 - 7.5
MMG-H2	100L6	IE2		1.5	6.95 - 0.63 / 4.00 - 3.65	79.8	0.71	925	7.5 - 7.5
MMG-H2	112M6	IE2		2.2	9.80 - 0.90 / 5.70 - 5.15	81.8	0.72	925	7.5 - 7.5
MMG-H2	132S6	IE2		3	12.6 - 1.16 / 7.30 - 6.60	83.3	0.75	950	8.5 - 8.5
MMG-H2	132M6	IE2		4	16.4 - 1.50 / 9.45 - 8.55	84.6	0.76	950	9.0 - 9.0
MMG-H2	112M6	IE2	3 x 380-420 Δ / 660-725 Y	2.2	5.70 - 0.51 / 3.25 - 2.95	81.8	0.72	925	7.5 - 7.5
MMG-H2	132S6	IE2		3	7.30 - 0.66 / 4.20 - 3.80	83.3	0.75	950	8.5 - 8.5
MMG-H2	132M6	IE2		4	9.45 - 0.85 / 5.45 - 4.95	84.6	0.76	950	9.0 - 9.0
MMG-H2	132M6	IE2		5.5	12.8 - 1.16 / 7.35 - 6.70	86.0	0.76	960	9.5 - 9.5
MMG-H2	160M6	IE2		7.5	17.0 - 15.4 / 9.75 - 8.90	87.4	0.77	970	6.5 - 6.5
MMG-H2	160L6	IE2		11	24.2 - 21.8 / 13.8 - 12.6	88.9	0.78	970	6.4 - 6.4
MMG-H2	180L6	IE2		15	31.5 - 28.5 / 18.0 - 16.4	89.9	0.81	970	7.0 - 7.0
MMG-H2	200LA6	IE2		18.5	38.5 - 34.5 / 22.0 - 20.0	90.5	0.81	980	7.0 - 7.0
MMG-H2	200LB6	IE2		22	45.5 - 41.0 / 26.0 - 23.8	90.9	0.81	980	7.0 - 7.0
MMG-H2	225M6	IE2		30	59.0 - 53.5 / 34.0 - 31.0	91.8	0.84	980	7.0 - 7.0
MMG-H2	250M6	IE2		37	70.0 - 63.5 / 40.5 - 36.5	92.3	0.87	980	7.0 - 7.0
MMG-H2	280S6	IE2		45	85.5 - 77.5 / 49.5 - 45.0	92.8	0.86	990	7.0 - 7.0
MMG-H2	280MA6	IE2		55	104 - 94.5 / 60.0 - 54.5	93.2	0.86	980	7.0 - 7.0
MMG-H2	315S6	IE2		75	142-130 / 82.5 - 75.0	93.8	0.85	980	7.0 - 7.0
MMG-H2	315M6	IE2		90	170-154 / 98.5 - 89.5	94.2	0.85	980	7.0 - 7.0
MMG-H2	315L6	IE2		110	206-186 / 118-108	94.4	0.86	980	6.7 - 6.7
MMG-H2	315L6	IE2		132	246-224 / 142-130	94.6	0.86	980	6.7 - 6.7
MMG-H2	355M6	IE2		160	290-265 / 168-152	94.9	0.88	990	6.7 - 6.7

Electrical data, IE3 motors

MG, 2-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MG-C	71A	IE3	3 x 220-255 Δ / 380-440 Y	0.37	1.50 - 1.44 / 0.87 - 0.83	80.0	0.85 - 0.76	3410-3470	5.5 - 6.5
MG-C	71B	IE3		0.55	2.15 - 2.05 / 1.25 - 1.20	83.0	0.85 - 0.76	3390-3460	5.0 - 6.0
MG-H3	80A	IE3	3 x 220-277 Δ / 380-480 Y	0.75	2.95 - 2.75 / 1.70 - 1.60	83.0 - 85.0	0.86 - 0.77	3410-3470	7.4 - 6.0
MG-H3	80C	IE3		1.1	4.15 - 4.00 / 2.40 - 2.30	82.0 - 84.5	0.88 - 0.82	3420-3470	5.0 - 4.3
MG-H3	90SB	IE3		1.5	5.35 - 4.70 / 3.10 - 2.70	84.0 - 85.5	0.90 - 0.81	3470-3530	7.8 - 10.5
MG-H3	90LC	IE3		2.2	7.70 - 6.35 / 4.45 - 3.70	85.5 - 86.5	0.91 - 0.85	3470-3530	7.8 - 11.0
MG-H3	100LC	IE3		30	10.8 - 9.35 / 6.20 - 5.40	87.5 - 88.5	0.91 - 0.84	3480-3530	8.6 - 11.0
MG-H3	112MC	IE3		4	13.6 - 11.8 / 7.80 - 6.80	88.5	0.91 - 0.82	3510-3540	10.0 - 14.7
MG-H3	90LC	IE3	3 x 380-480 Δ	2.2	445-370	85.5 - 86.5	0.91 - 0.85	3470-3530	7.8 - 11.0
MG-H3	100LC	IE3		3	620-540	87.5 - 88.5	0.91 - 0.84	3480-3530	8.6 - 11.0
MG-H3	112MC	IE3		4	780-680	88.5	0.91 - 0.82	3510-3540	10.0 - 14.7
MG-H3	132SC	IE3		5.5	106-930	89.5	0.90 - 0.80	3510-3550	10.2 - 14.8
MG-H3	132SB	IE3	3 x 380-480 Δ / 660-690 Y	7.5	142-120 / 820-810	89.5 - 90.2	0.90 - 0.82	3490-3530	6.8 - 10.5
MG-H3	160MB	IE3		11	208-172 / 120-116	90.2 - 91.0	0.89 - 0.83	3520-3550	5.8 - 8.90
MG-H3	160MD	IE3		15	280-224 / 162-156	90.2 - 91.0	0.90 - 0.86	3520-3550	5.8 - 8.9
MG-H3	160LB	IE3		18	345-280 / 200-166	91.0 - 91.7	0.89 - 0.84	3520-3560	6.7 - 11.0
MG-H3	180MB	IE3		22	400-325 / 230-222	91.7	0.91	3520-3560	6.5 - 10.4

MG, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MG-C	71A	IE3	3 x 220-255 Δ / 380-440 Y	0.25	1.21 / 0.70	71-72	0.80 - 0.69	1680-1720	4.0 - 4.7
MG-H3	90SC	IE3	3 x 220-277 Δ / 380-480 Y	0.75	3.10 - 2.95 / 1.80 - 1.70	82.5 - 85.5	0.79 - 0.67	1730-1760	5.9 - 7.5
MG-H3	90SB	IE3		1.1	4.50 / 2.60	84.0	0.76 - 0.60	1740-1770	7.1 - 9.1
MG-H3	90LC	IE3		1.5	5.90 - 5.65 / 3.40 - 3.25	84.0 - 86.5	0.78 - 0.65	1740-1770	6.6 - 9.3
MG-H3	100LB	IE3		2.2	8.15 - 7.45 / 4.70 - 4.30	87.5	0.83 - 0.71	1740-1760	5.9 - 7.6
MG-H3	100LC	IE3		3.0	10.6 - 9.55 / 6.10 - 5.50	87.5 - 89.5	0.85 - 0.73	1730-1760	6.2 - 8.8
MG-H3	112MC	IE3		4.0	14.8 - 14.4 / 8.60 - 8.30	87.5 - 89.5	0.79 - 0.64	1750-1770	7.7 - 9.1
MG-H3	100LB	IE3	3 x 380-480 Δ	2.2	4.70 - 4.30	87.5	0.83 - 0.71	1740-1760	5.9 - 7.6
MG-H3	100LC	IE3		3.0	6.10 - 5.50	87.5 - 89.5	0.85 - 0.73	1730-1760	6.2 - 8.8
MG-H3	112MC	IE3		4.0	8.60 - 8.30	87.5 - 89.5	0.79 - 0.64	1750-1770	7.7 - 9.1
MG-H3	132SB	IE3	3 x 380-480 Δ / 660-690 Y	5.5	11.0 - 9.40 / 6.35 - 6.20	87.0 - 89.5	0.88 - 0.79	1750-1770	6.7 - 8.5
MG-H3	132MB	IE3		7.5	14.7 - 12.5 / 8.50 - 8.25	89.5 - 91.7	0.88 - 0.80	1740-1770	5.9 - 8.9
MG-H3	160MA	IE3		11	20.8 - 17.8 / 12.0 - 11.8	91.0	0.90 - 0.81	1760-1780	6.5 - 9.7
MG-H3	160LA	IE3		15	29.0 - 24.2 / 16.6 - 16.4	91.0 - 93.0	0.88 - 0.81	1760-1770	6.5 - 9.8

Siemens, 2-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
Siemens	80M	IE3	3 x 220-240 Δ / 380-420 Y	0.75	3.02 - 2.81 / 1.74 - 1.62	74.4	0.90	3420	4.7
Siemens	80M	IE3		1.1	4.00 - 3.66 / 2.31 - 2.11	82.1	0.90	3455	5.5
Siemens	90S	IE3		1.5	5.33 - 4.86 / 3.08 - 2.81	83.7	0.90	3495	6.6
Siemens	90L	IE3		2.2	7.42 - 6.81 / 4.28 - 3.93	84.3	0.90	3495	6.3
Siemens	100L	IE3		3	10.0 - 9.00 / 5.80 - 5.20	87.5	0.90	3505	7.4
Siemens	112M	IE3		4	13.2 - 12.0 / 7.60 - 6.90	88.5	0.90	3550	7.1
Siemens	100L	IE3	3 x 255-277 Δ / 440-480 Y	3	10.0 - 9.00 / 5.80 - 5.20	88.5	0.90	3520	8.5
Siemens	112M	IE3		4	13.2 - 12.0 / 7.60 - 6.90	88.5	0.90	3555	8.2
Siemens	100L	IE3	3 x 380-420 Δ / 660-725 Y	3	5.80 - 5.20 / 3.40 - 3.00	87.5	0.90	3505	7.4
Siemens	112M	IE3		4	7.60 - 6.90 / 4.40 - 4.00	88.5	0.90	3550	7.1
Siemens	132S	IE3		5.5	10.4 - 9.30 / 6.00 - 5.40	88.5	0.90	3535	6.5
Siemens	132S	IE3		7.5	14.0 - 12.6 / 8.00 - 7.30	89.5	0.90	3540	7.2
Siemens	160M	IE3		11	21.0 - 18.8 / 12.2 - 10.8	90.2	0.90	3550	6.5
Siemens	160M	IE3		15	28.0 - 25.0 / 16.0 - 14.6	91.0	0.90	3550	8.1
Siemens	160L	IE3		18.5	34.0 - 31.0 / 19.6 - 18.0	91.0	0.90	3550	7.4
Siemens	180M	IE3		22	40.5 - 36.5 / 23.6 - 21.0	91.7	0.90	3540	6.6
Siemens	200L	IE3		30	56.0 - 50.0 / 32.0 - 29.0	92.4	0.89	3545	6.1
Siemens	200L	IE3		37	69.0 - 62.0 / 38.5 - 35.0	93.0	0.90	3540	5.8
Siemens	225M	IE3		45	81.0 - 73.0 / 47.0 - 42.0	94.2	0.90	3555	7.6
Siemens	250M	IE3		55	96.0 - 89.0 / 55.0 - 51.0	94.0	0.90	3570	7.3
Siemens	280S	IE3		75	136-122 / 78.0 - 70.0	93.8	0.90	3570	7.4
Siemens	280M	IE3		90	162-146 / 93.0 - 84.0	94.4	0.91	3570	7.8
Siemens	315S	IE3		110	194-174 / 112-102	95.1	0.91	3580	7.8
Siemens	315M	IE3		132	230-210 / 134-122	94.8	0.92	3580	8.0
Siemens	315L	IE3		160	260-236 / 150-136	95.3	0.92	3580	9.1
Siemens	315L	IE3		200	320-285 / 186-166	95.0	0.92	3580	8.5
Siemens	315L	IE3		224	390-355 / 226-206	95.7	0.90	3585	8.5
Siemens	315L	IE3		298	530-475 / 305-275	95.8	0.90	3585	8.4
Siemens	100L	IE3	3 x 440-480 D	3.40	5.80 - 5.20	88.5	0.9	3520	8.5
Siemens	112M	IE3		4.55	7.60 - 6.90	88.5	0.9	3555	8.2
Siemens	132S	IE3		6.30	10.2 - 9.20	89.5	0.9	3545	7.5
Siemens	132S	IE3		8.60	13.8 - 12.4	90.2	0.9	3550	8.4
Siemens	160M	IE3		12.50	20.6 - 18.6	91.0	0.9	3555	7.6
Siemens	160M	IE3		17.00	28.5 - 25.5	91.7	0.9	3555	8.1
Siemens	160L	IE3		21.00	33.5 - 30.5	91.7	0.9	3560	8.4
Siemens	180M	IE3		25.0	39.5 - 36.0	91.7	0.89	3550	8.2
Siemens	200L	IE3		34.5	54.0 - 50.0	93.0	0.87	3550	6.6
Siemens	200L	IE3		42.5	67.0 - 61.0	93.6	0.87	3550	6.7
Siemens	225M	IE3	3 x 440-480 Δ / 760-830 Y	51.5	79.0 - 74.0 / 45.5 - 42.5	93.6	0.89	3560	6.8
Siemens	250M	IE3		63.0	96.0 - 89.0 / 55.0 - 51.0	93.6	0.90	3575	6.7
Siemens	280S	IE3		86.0	130-122 / 75.0 - 70.0	94.5	0.89	3575	6.8
Siemens	280M	IE3		103.5	156-144 / 90.0 - 83.0	94.5	0.90	3575	7.2
Siemens	315S	IE3		126.5	186-172 / 108 - 99.0	95.0	0.91	3580	7.2
Siemens	315M	IE3		151.8	226-206 / 130-118	95.4	0.91	3580	7.1
Siemens	315L	IE3		184	270-250 / 156-144	95.4	0.92	3580	7.7
Siemens	315L	IE3		230	335-305 / 194-176	95.8	0.92	3580	7.1
Siemens	315L	IE3	3 x 440-480 Δ	288	420-385	95.4	0.9	3585	8.7
Siemens	315L	IE3		362	540-510	95.4	0.9	3585	8.9
Siemens	355L	IE3		408	610-550	95.9	0.9	3585	6.5

Siemens, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
Siemens	80	IE3	3 x 220-240 Δ / 380-420 Y	0.75	2.97 - 2.81 / 1.71 - 1.62	83.2	0.78	1740	6.8
Siemens	90S	IE3		1.1	4.22 - 3.90 / 2.44 - 2.25	86.4	0.81	1725	6.4
Siemens	90L	IE3		1.5	5.60 - 5.20 / 3.25 - 3.00	86.5	0.83	1735	6.6
Siemens	100L	IE3		2.2	7.60 - 7.00 / 4.40 - 4.00	89.5	0.84	1760	7.3
Siemens	100L	IE3		3	10.4 - 9.35 / 6.00 - 5.40	89.5	0.85	1750	7.1
Siemens	112M	IE3		4	13.8 - 12.6 / 8.00 - 7.30	89.5	0.84	1755	5.4
Siemens	80	IE3	3 x 255-277 Δ / 440-480 Y	0.86	2.95 - 2.88 / 1.70 - 1.66	85.5	0.75	1750	7.7
Siemens	90S	IE3		1.25	4.16 - 4.04 / 2.40 - 2.33	86.5	0.79	1740	6.9
Siemens	90L	IE3		1.75	5.58 - 5.39 / 3.22 - 3.11	86.5	0.80	1740	7.5
Siemens	100L	IE3		2.5	7.60 - 7.10 / 4.40 - 4.10	89.5	0.84	1765	8.5
Siemens	100L	IE3		3.40	10.2 - 9.35 / 5.90 - 5.40	89.5	0.84	1755	8.4
Siemens	112M	IE3		4.55	14.0 - 12.8 / 8.10 - 7.40	89.5	0.83	1760	7.3
Siemens	100L	IE3	3 x380-420 Δ / 660-725 Y	3	6.00 - 5.40 / 3.50 - 3.10	89.5	0.85	1750	7.1
Siemens	112M	IE3		4	8.00 - 7.30 / 4.60 - 4.20	89.5	0.84	1755	5.4
Siemens	132S	IE3		5.5	11.0 - 10.0 / 6.30 - 5.80	89.5	0.85	1770	7.1
Siemens	132M	IE3		7.5	14.6 - 13.2 / 8.40 - 7.60	91.7	0.85	1760	7.3
Siemens	160M	IE3		11	21.0 - 19.0 / 12.2 - 11.0	92.4	0.86	1770	6.6
Siemens	160L	IE3		15	28.5 - 26.0 / 16.4 - 15.0	93.0	0.86	1775	7.2
Siemens	180M	IE3		18.5	36.5 - 33.0 / 21.0 - 19.0	92.4	0.84	1765	6.2
Siemens	180L	IE3		22	42.5 - 40.5 / 24.6 - 23.6	92.4	0.84	1765	6.0
Siemens	200L	IE3		30	57.5 - 54.0 / 33.5 - 31.5	93.0	0.85	1765	6.1
Siemens	225S	IE3		37	69.0 - 63.0 / 40.0 - 36.5	94.0	0.86	1775	5.4
Siemens	225M	IE3		45	85.0 - 76.0 / 49.0 - 44.0	94.3	0.86	1775	5.3
Siemens	250M	IE3		55	102 - 92.0 / 59.0 - 53.0	94.7	0.87	1780	5.4
Siemens	280S	IE3		75	140-126 / 80.0 - 72.0	94.8	0.87	1785	5.4
Siemens	280M	IE3		90	166-150 / 96.0 - 87.0	94.9	0.87	1785	5.6
Siemens	315S	IE3		110	200-182 / 116-104	95.4	0.87	1785	5.5
Siemens	315M	IE3		132	240-216 / 138-126	95.8	0.88	1790	5.8
Siemens	315L	IE3		160	270-246 / 156-142	96.1	0.88	1790	5.8
Siemens	315L	IE3		200	335-300 / 192-174	95.7	0.88	1790	6.0
Siemens	315L	IE3		250	415-370 / 240-216	95.9	0.86	1790	7.7
Siemens	315L	IE3		298	560-500 / 320-290	95.9	0.85	1790	7.9
Siemens	100L	IE3	3 x 440-480 Δ	3.40	5.90 - 5.40	89.5	0.84	1755	8.4
Siemens	112M	IE3		4.55	8.10 - 7.40	89.5	0.83	1760	7.3
Siemens	132S	IE3		6.30	10.8 - 9.80	91.7	0.84	1775	8.4
Siemens	132M	IE3		8.60	14.6 - 13.0	91.7	0.85	1765	8.4
Siemens	160M	IE3		12.50	21.0 - 19.0	92.4	0.85	1770	7.9
Siemens	160L	IE3		17.00	29.0 - 27.0	93.6	0.83	1775	8.5
Siemens	180M	IE3		21.0	36.0 - 33.0	93.6	0.83	1770	7.0
Siemens	180L	IE3		25.0	43.0 - 40.5	93.6	0.83	1770	6.9
Siemens	200L	IE3		34.5	57.0 - 53.5	93.0	0.85	1770	7.2
Siemens	225S	IE3		42.5	69.0 - 64.0	93.6	0.86	1780	6.7
Siemens	225M	IE3		51.5	84.0 - 79.0	94.1	0.86	1780	6.6
Siemens	250M	IE3		63.0	102 - 94.0	94.1	0.87	1780	6.7
Siemens	280S	IE3		86.0	136-128	94.5	0.87	1785	6.8
Siemens	280M	IE3		103.5	166-154	95.0	0.87	1785	7.0
Siemens	315S	IE3		126.5	200-186	95.8	0.87	1790	6.9
Siemens	315M	IE3		151.8	236-220	96.2	0.88	1790	7.2
Siemens	315L	IE3		184	285-265	96.2	0.88	1790	7.2
Siemens	315L	IE3		230	360-335	95.4	0.88	1790	7.5
Siemens	315L	IE3		288	445-410	96.2	0.88	1790	7.5
Siemens	315L	IE3		362	570-540	96.2	0.86	1790	8.4
Siemens	355L	IE3		408	650-610	96.2	0.85	1790	6.5

Siemens, 6-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
Siemens	80A	-	3 x 220-240 Δ / 380-420 Y	0.37	1.81 - 1.71 / 1.05 - 0.99	77.1	0.69	1125	4.1
Siemens	80B	-		0.55	2.62 - 2.43 / 1.51 - 1.43	79.6	0.70	1120	4.3
Siemens	80A	-	3 x 255-277 Δ / 440-480 Y	0.43	1.8 - 1.82 / 1.04 - 1.05	78.5	0.66	1140	4.6
Siemens	80B	-		0.63	2.51 - 2.5 / 1.45 - 1.44	81.7	0.67	1135	5.0
Siemens	90S	IE3	3 x 220-240 Δ / 380-420 Y	075	3.50 - 3.20 / 2.03 - 1.85	79.9	0.71	1130	4.2
Siemens	90L	IE3		1.1	5.55 - 5.05 / 3.20 - 2.92	72.8	0.72	1125	3.9
Siemens	100L	IE3		1.5	5.80 - 5.30 / 3.35 - 3.05	86.5	0.78	1165	5.2
Siemens	112M	IE3		2.2	8.50 - 7.60 / 4.90 - 4.40	87.5	0.78	1165	6.2
Siemens	132S	IE3		3	11.4 - 10.4 / 6.60 - 6.00	87.5	0.78	1170	6.0
Siemens	132M	IE3		4	15.4 - 13.8 / 8.90 - 8.00	87.5	0.78	1165	5.6
Siemens	90S	IE3	3 x 255-277 Δ / 440-480 Y	0.86	3.29 - 3.22 / 1.9 - 1.86	82.5	0.70	1140	4.9
Siemens	90L	IE3		1.25	5.32 - 5.3 / 3.07 - 3.05	75.0	0.70	1140	4.6
Siemens	100L	IE3		1.75	6.35 - 5.65 / 3.65 - 3.25	86.5	0.74	1170	6.2
Siemens	112M	IE3		2.5	8.50 - 7.80 / 4.90 - 4.50	87.5	0.77	1170	7.0
Siemens	132S	IE3		3.4	11.40 - 10.4 / 6.60 - 6.00	89.5	0.77	1175	7.0
Siemens	132M	IE3		4.55	15.0 - 13.8 / 8.60 - 7.90	89.5	0.78	1170	6.6
Siemens	132M	IE3	3 x 380-420 Δ / 660-725 Y	3	6.60 - 6.00 / 3.80 - 3.45	87.5	0.78	1170	6.0
Siemens	132M	IE3		4	8.90 - 8.00 / 5.10 - 4.60	87.5	0.78	1165	5.6
Siemens	132M	IE3		5.5	11.8 - 10.6 / 6.70 - 6.10	89.5	0.80	1165	5.7
Siemens	160M	IE3		7.5	16.0 - 14.6 / 9.20 - 8.40	89.5	0.80	1170	5.2
Siemens	160L	IE3		11	23.0 - 20.8 / 13.2 - 12.0	90.2	0.81	1170	5.8
Siemens	180L	IE3		15	31.0 - 28.0 / 18.0 - 16.2	90.2	0.82	1165	5.2
Siemens	200L	IE3		18.5	37.5 - 34.0 / 21.6 - 19.6	91.7	0.82	1170	5.4
Siemens	200L	IE3		22	44.5 - 40.0 / 25.5 - 23.4	91.7	0.82	1170	5.3
Siemens	225M	IE3		30	58.0 - 53.0 / 33.5 - 30.5	93.3	0.84	1180	5.9
Siemens	250M	IE3		37	71.0 - 64.0 / 41.0 - 37.0	93.1	0.85	1180	6.2
Siemens	280S	IE3		45	85.0 - 77.0 / 49.0 - 44.5	93.4	0.86	1185	6.2
Siemens	280M	IE3		55	104 - 94.0 / 60.0 - 54.0	93.8	0.86	1185	6.3
Siemens	315S	IE3		75	140-128 / 81.0 - 74.0	94.3	0.86	1190	6.7
Siemens	315M	IE3		90	168-152 / 97.0 - 88.0	94.3	0.87	1185	6.2
Siemens	315L	IE3		110	206-188 / 118-108	95.1	0.85	1190	6.6
Siemens	315L	IE3		132	246-226 / 142-130	95.1	0.86	1190	6.5
Siemens	315L	IE3		160	280-255 / 162-148	95.6	0.85	1190	7.5
Siemens	315L	IE3		200	340-420 / 196-240	95.9	0.86	1190	7.4
Siemens	132S	IE3	3 x 440-480 Δ	3.40	6.60 - 6.00	89.5	0.77	1175	7.0
Siemens	132M	IE3		4.60	8.60 - 7.90	89.5	0.78	1170	6.6
Siemens	132M	IE3		6.30	11.8 - 10.8	91.0	0.78	1170	6.7
Siemens	160M	IE3		8.60	15.4 - 14.2	91.0	0.81	1175	6.3
Siemens	160L	IE3		12.50	22.4 - 20.6	91.7	0.80	1175	6.6
Siemens	180L	IE3	3 x 440-480 Δ / 760-830 Y	17.0	32.0 - 29.5 / 18.4 - 17.0	91.7	0.81	1170	5.8
Siemens	200L	IE3		21.0	39.0 - 36.5 / 22.8 - 21.0	91.7	0.80	1175	5.6
Siemens	200L	IE3		25.0	46.0 - 43.0 / 27.5 - 25.5	93.0	0.81	1175	5.5
Siemens	225M	IE3	3 x 440-480 Δ	34.5	60.0 - 56.0	93.0	0.84	1180	6.5
Siemens	250M	IE3		42.5	72.0 - 67.0	93.6	0.86	1180	6.8
Siemens	280S	IE3		51.5	88.0 - 81.0	93.6	0.86	1185	6.7
Siemens	280M	IE3		63	108-102	94.1	0.85	1185	6.9
Siemens	315S	IE3		86	148-138	95.0	0.84	1190	7.2
Siemens	315M	IE3		103.5	178-164	95.0	0.84	1190	6.6
Siemens	315L	IE3		126.5	216-200	95.0	0.85	1190	7.0
Siemens	315L	IE3		151.8	255-240	95.0	0.85	1190	7.0
Siemens	315L	IE3		184	310-295	95.0	0.84	1190	7.7
Siemens	315L	IE3		230	395-370	95.8	0.83	1190	7.4

MMG-H3, 2-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-H3	80B	IE3	3 x 220-240 Δ / 380-420 Y	0.75	2.90 - 2.60 / 1.66 - 1.50	82.0 - 82.0	0.8	3405	6.9 - 6.9
MMG-H3	80B	IE3		1.1	4.10 - 3.75 / 2.40 - 2.16	83.8 - 83.8	0.8	3405	6.9 - 6.9
MMG-H3	90SA	IE3		1.5	5.30 - 4.85 / 3.10 - 2.75	84.6 - 84.6	0.9	3480	7.0 - 7.0
MMG-H3	90LA	IE3		2.2	7.55 - 6.90 / 4.40 - 3.95	86.2 - 86.2	0.9	3480	6.8 - 6.8
MMG-H3	100LA	IE3		3	10.0 - 9.20 / 5.80 - 5.25	87.3 - 87.3	0.9	3490	7.2 - 7.2
MMG-H3	80B	IE3	3 x 255-277 Δ / 440-480 Y	0.86	2.95 - 2.70 / 1.72 - 1.58	81.5 - 81.5	0.8	3430	7.6 - 7.6
MMG-H3	80B	IE3		1.25	4.15 - 3.85 / 2.40 - 2.20	84.2 - 84.2	0.8	3430	7.6 - 7.6
MMG-H3	90SA	IE3		1.75	5.30 - 4.90 / 3.05 - 2.80	85.0 - 85.0	0.9	3500	7.3 - 7.3
MMG-H3	90LA	IE3		2.50	7.35 - 6.75 / 4.25 - 3.90	86.4 - 86.4	0.9	3500	7.1 - 7.1
MMG-H3	100LA	IE3		3.40	9.85 - 9.10 / 5.70 - 5.25	87.7 - 87.7	0.9	3500	7.1 - 7.1
MMG-H3	100LA	IE3	3 x 380-420 Δ / 660-725 Y	3	5.80 - 5.25 / 3.35 - 3.05	87.3 - 87.3	0.9	3490	7.2 - 7.2
MMG-H3	112MA	IE3		4	7.65 - 6.90 / 4.40 - 4.00	88.6 - 88.6	0.9	3490	6.1 - 6.1
MMG-H3	132SA	IE3		5.5	10.4 - 9.40 / 6.00 - 5.45	89.5 - 89.5	0.9	3510	7.0 - 7.0
MMG-H3	132SB	IE3		7.5	14.0 - 12.6 / 8.00 - 7.25	90.4 - 90.4	0.9	3510	7.0 - 7.0
MMG-H3	160MA	IE3		11	20.6 - 18.2 / 11.6 - 10.6	91.4 - 91.4	0.9	3530	6.2 - 6.2
MMG-H3	160MB	IE3		15	27.5 - 24.4 / 15.6 - 14.2	92.1 - 92.1	0.9	3530	6.3 - 6.3
MMG-H3	160L	IE3		18.5	33.5 - 30.0 / 19.2 - 17.4	92.6 - 92.6	0.9	3530	6.7 - 6.7
MMG-H3	180M	IE3		22	39.5 - 35.5 / 22.6 - 20.6	93.0 - 93.0	0.9	3545	7.2 - 7.2
MMG-H3	200LA	IE3		30	54.0 - 49.0 / 31.0 - 28.5	92.8 - 92.8	0.9	3550	7.7 - 7.7
MMG-H3	200LB	IE3		37	66.5 - 60.0 / 38.5 - 34.5	93.2 - 93.2	0.9	3550	7.8 - 7.8
MMG-H3	225MA	IE3		45	79.5 - 71.5 / 46.0 - 41.5	93.6 - 93.6	0.9	3560	6.9 - 6.9
MMG-H3	250MA	IE3		55	100 - 91.0 / 58.0 - 52.5	93.5 - 93.5	0.9	3570	6.0 - 6.0
MMG-H3	280SA	IE3		75	134-120 / 77.0 - 70.0	94.1 - 94.1	0.9	3565	6.9 - 6.9
MMG-H3	280MA	IE3		90	158-144 / 91.0 - 82.5	94.2 - 94.2	0.9	3565	7.0 - 7.0
MMG-H3	315SA	IE3		110	196-178 / 114-104	94.6 - 94.6	0.9	3575	5.7 - 5.7
MMG-H3	315MA	IE3		132	236-218 / 136-124	94.8 - 94.8	0.9	3575	5.4 - 5.4
MMG-H3	315LA	IE3		160	285-255 / 164-150	95.2 - 95.2	0.9	3575	5.4 - 5.4
MMG-H3	315LB	IE3		200	350-315 / 206-184	95.4 - 95.4	0.9	3575	5.0 - 5.0
MMG-H3	100LA	IE3	3 x 440-480 Δ	3.40	5.70 - 5.25	87.7 - 87.7	0.9	3500	9.1 - 9.1
MMG-H3	112MA	IE3		4.60	7.60 - 7.00	89.0 - 89.0	0.9	3500	7.7 - 7.7
MMG-H3	132SA	IE3		6.30	10.4 - 9.45	90.0 - 90.0	0.9	3520	8.4 - 8.4
MMG-H3	132SB	IE3		8.60	13.8 - 12.6	90.9 - 90.9	0.9	3520	8.4 - 8.4
MMG-H3	160MA	IE3		12.50	19.6 - 18.0	91.8 - 91.8	0.9	3540	7.6 - 7.6
MMG-H3	160MB	IE3		17.00	26.5 - 24.2	92.5 - 92.5	0.9	3540	7.8 - 7.8
MMG-H3	160L	IE3		21.00	32.5 - 30.0	92.9 - 92.9	0.9	3540	8.3 - 8.3
MMG-H3	180M	IE3		25.00	38.5 - 35.5	93.2 - 93.2	0.9	3550	8.7 - 8.7
MMG-H3	200LA	IE3		34.50	54.0 - 49.5	93.1 - 93.1	0.9	3560	9-9
MMG-H3	200LB	IE3		42.50	66.5 - 61.0	93.4 - 93.4	0.9	3560	9-9
MMG-H3	225MA	IE3		51.50	79.0 - 72.5	93.8 - 93.8	0.9	3560	8.3 - 8.3
MMG-H3	250MA	IE3		63.00	100 - 92.0	93.6 - 93.6	0.9	3570	7.1 - 7.1
MMG-H3	280SA	IE3		86.00	132-122	94.3 - 94.3	0.9	3570	8.2 - 8.2
MMG-H3	280MA	IE3		103.5	156-144	94.4 - 94.4	0.9	3570	8.3 - 8.3
MMG-H3	315SA	IE3		126.5	196-180	94.6 - 94.6	0.9	3580	6.7 - 6.7
MMG-H3	315MA	IE3		151.8	234-214	94.9 - 94.9	0.9	3580	6.5 - 6.5
MMG-H3	315LA	IE3		184.0	280-260	95.2 - 95.2	0.9	3580	6.6 - 6.6
MMG-H3	315LB	IE3		230.0	350-320	95.4 - 95.4	0.9	3570	6.1 - 6.1

MMG-H4, 4-pole

Motor	Frame size	IE class	Voltage [V]	P2 [kW]	$I_{1/1}$ [A]	η [%]	Cos φ 1/1	n [min^{-1}]	$\frac{I_{start}}{I_{1/1}}$
MMG-H3	80B	IE3	3 x 220-240 Δ / 380-420 Y	0.750	3.15 - 2.90 / 1.82 - 1.64	83.3 - 83.3	0.8	1710	7-7
MMG-H3	90SA	IE3		1.10	4.20 - 3.85 / 2.46 - 2.20	84.9 - 84.9	0.8	1730	6.5 - 6.5
MMG-H3	90LA	IE3		1.50	5.70 - 5.20 / 3.30 - 2.95	86.0 - 86.0	0.8	1730	6.5 - 6.5
MMG-H3	100LA	IE3		2.20	8.05 - 7.40 / 4.70 - 4.20	87.5 - 87.5	0.8	1730	6.5 - 6.5
MMG-H3	100LB	IE3		3.00	11.0 - 9.95 / 6.30 - 5.70	88.5 - 88.5	0.8	1730	6.5 - 6.5
MMG-H3	80B	IE3	3 x 255-277 Δ / 440-480 Y	0.86	3.20 - 2.95 / 1.86 - 1.70	83.6 - 83.6	0.7	1720	6.8 - 6.8
MMG-H3	90SA	IE3		1.25	4.20 - 3.85 / 2.44 - 2.24	85.3 - 85.3	0.8	1740	7-7
MMG-H3	90LA	IE3		1.75	5.75 - 5.30 / 3.30 - 3.05	86.3 - 86.3	0.8	1740	7-7
MMG-H3	100LA	IE3		2.50	7.95 - 7.35 / 4.60 - 4.25	87.8 - 87.8	0.8	1740	7.5 - 7.5
MMG-H3	100LB	IE3		3.40	10.8 - 9.85 / 6.20 - 5.70	88.8 - 88.8	0.8	1740	8.2 - 8.2
MMG-H3	100LB	IE3	3 x 380-420 Δ / 660-725 Y	3	6.00 - 5.40 / 3.50 - 3.10	89.5 - 89.5	0.9	1750	6.5 - 6.5
MMG-H3	112MA	IE3		4	8.00 - 7.30 / 4.60 - 4.20	89.5 - 89.5	0.8	1755	6.8 - 6.8
MMG-H3	132SA	IE3		5.5	11.0 - 10.0 / 6.30 - 5.80	89.5 - 89.5	0.9	1770	7-7
MMG-H3	132MA	IE3		7.5	14.6 - 13.2 / 8.40 - 7.60	91.7 - 91.7	0.9	1760	7-7
MMG-H3	160MA	IE3		11	21.0 - 19.0 / 12.2 - 11.0	92.4 - 92.4	0.9	1770	6.8 - 6.8
MMG-H3	160LA	IE3		15	28.5 - 26.0 / 16.4 - 15.0	93.0 - 93.0	0.9	1775	6.7 - 6.7
MMG-H3	180MA	IE3		18.5	36.5 - 33.0 / 21.0 - 19.0	92.4 - 92.4	0.8	1765	6.4 - 6.4
MMG-H3	180LA	IE3		22	42.5 - 40.5 / 24.6 - 23.6	92.4 - 92.4	0.8	1765	6.6 - 6.6
MMG-H3	200LA	IE3		30	57.5 - 54.0 / 33.5 - 31.5	93.0 - 93.0	0.9	1765	6.9 - 6.9
MMG-H3	225SA	IE3		37	69.0 - 63.0 / 40.0 - 36.5	94.0 - 94.0	0.9	1775	5.8 - 5.8
MMG-H3	225MA	IE3		45	85.0 - 76.0 / 49.0 - 44.0	94.3 - 94.3	0.9	1775	6.3 - 6.3
MMG-H3	250MA	IE3		55	102 - 92.0 / 59.0 - 53.0	94.7 - 94.7	0.9	1780	6.3 - 6.3
MMG-H3	280SA	IE3		75	140-126 / 80.0 - 72.0	94.8 - 94.8	0.9	1785	5.7 - 5.7
MMG-H3	280MA	IE3		90	166-150 / 96.0 - 87.0	94.9 - 94.9	0.9	1785	5.2 - 5.2
MMG-H3	315SA	IE3		110	200-182 / 116-104	95.4 - 95.4	0.9	1785	5.7 - 5.7
MMG-H3	315MA	IE3		132	240-216 / 138-126	95.8 - 95.8	0.9	1790	5.8 - 5.8
MMG-H3	315LA	IE3		160	270-246 / 156-142	96.1 - 96.1	0.9	1790	5.7 - 5.7
MMG-H3	315LB	IE3		200	335-300 / 192-174	95.7 - 95.7	0.9	1790	5.6 - 5.6
MMG-H3	100LB	IE3	3 x 440-480 Δ	3.40	6.20 - 5.70	88.8 - 88.8	0.8	1740	8.2 - 8.2
MMG-H3	112MA	IE3		4.60	8.25 - 7.55	89.5 - 89.5	0.8	1750	8.4 - 8.4
MMG-H3	132SA	IE3		6.30	11.2 - 10.2	90.5 - 90.5	0.8	1760	8.3 - 8.3
MMG-H3	132MA	IE3		8.60	14.8 - 13.6	91.3 - 91.3	0.8	1760	8.5 - 8.5
MMG-H3	160MA	IE3		12.50	20.6 - 18.8	92.1 - 92.1	0.9	1770	8.5 - 8.5
MMG-H3	160LA	IE3		17.00	27.5 - 25.0	92.7 - 92.7	0.9	1770	8.5 - 8.5
MMG-H3	180MA	IE3		21.00	34.0 - 31.0	93.2 - 93.2	0.9	1770	8-8
MMG-H3	180LA	IE3		25.00	40.5 - 37.0	93.5 - 93.5	0.9	1770	8.3 - 8.3
MMG-H3	200LA	IE3		34.50	55.5 - 51.0	93.8 - 93.8	0.9	1770	8.5 - 8.5
MMG-H3	225SA	IE3		42.50	68.0 - 62.5	94.1 - 94.1	0.9	1780	7.3 - 7.3
MMG-H3	225MA	IE3		51.50	82.5 - 75.5	94.3 - 94.3	0.9	1780	8-8
MMG-H3	250MA	IE3		63.00	100 - 92.0	94.7 - 94.7	0.9	1780	8-8
MMG-H3	280SA	IE3		86.00	138-128	95.0 - 95.0	0.9	1780	7.2 - 7.2
MMG-H3	280MA	IE3		103.5	164-150	95.2 - 95.2	0.9	1780	6.5 - 6.5
MMG-H3	315SA	IE3		126.5	202-184	95.1 - 95.1	0.9	1790	6.9 - 6.9
MMG-H3	315MA	IE3		151.8	238-218	95.4 - 95.4	0.9	1790	6.9 - 6.9
MMG-H3	315LA	IE3		184.0	285-260	95.6 - 95.6	0.9	1790	6.9 - 6.9
MMG-H3	315LB	IE3		230.0	350-320	95.8 - 95.8	0.9	1790	6.7 - 6.7

Electrical data, MGE motors

Electrical data for motors with built-in frequency converter

2-pole

Motor	Frame size	Voltage	P2 [kW]	$I_{1/1}$ [A]
MGE	80B-I	3 x 380-480 V	1.1	2.15 - 1.8
MGE	90SC-I		1.5	2.9 - 2.4
MGE	90LD-I		2.2	4.15 - 3.4
MGE	100LC-D		3	5.8 - 4.8
MGE	112MC-D		4	7.6 - 6.2
MGE	132SC-D		5.5	10.3 - 8.2
MGE	132SB-F		7.5	14.1 - 11.2
MGE	160MB-F		11	20.3 - 16.0
MGE	160MD-F		15	30.0 - 26.0
MGE	160LB-F		18.5	37.0 - 31.0
MGE	180MB-F		22	43.5 - 35.0

4-pole

Motor	Frame size	Voltage	P2 [kW]	$I_{1/1}$ [A]
MGE	80B-I	3 x 380-480 V	0.55	1.2 - 1.1
MGE	80C-I		0.75	1.55 - 1.4
MGE	90SD-I		1.1	2.2 - 1.9
MGE	90LC-D		1.5	2.9 - 2.5
MGE	100LB-D		2.2	4.3 - 3.6
MGE	112LC-D		3	5.8 - 4.6
MGE	112MC-D		4	7.7 - 6.0
MGE	132SB-F		5.5	10.5 - 8.40
MGE	132MB-F		7.5	14.1 - 11.1
MGE	160MB-F		11	22.0 - 17.8
MGE	160LB-F		15	30.0 - 25.4
MGE	180MA-F		18.5	37.0 - 30.0

Pump dimensions with other motors

The tables below show changes of pump dimensions when using other motors than the standard motors listed in section *17. Dimensional drawings and technical data*.

IE class	Motor
IE1	MMG-G
IE2	MMG-E
	MMG-G
	MMG-H2
IE3	Siemens
	MMG-H3

Example

If a 2-pole, 3 kW MMG-G motor, class IE1, is selected, the LL dimension will be 17 mm bigger.

IE1

IE1, MMG-G, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.55	0.55	MG-C	71B	MMG-G	71	29.5	0	23	-37	-2	0	0	0	0	0	5.5	5.2
0.75	0.75	MG-H3	80A	MMG-G	80	11.5	0	49	-22	-2	0	0	0	0	0	6.2	5.3
1.1	1.1	MG-H3	80C	MMG-G2	80	-8.5	0	49	-22	-2	0	0	0	0	0	8.1	7
1.5	1.5	MG-H3	90S	MMG-G2	90S	-23.5	0	60	-102	-23	0	0	0	0	0	5.5	4.5
2.2	2.2	MG-H3	90L	MMG-G2	90L	-38.5	0	60	-102	-23	0	0	0	0	0	6.5	5.5
3	3	MG-H3	100L	MMG-G2	100L	-20.5	0	60	-72	17	0	0	0	0	0	12	10
4	4	MG-H3	112M	MMG-G2	112M	-40.5	0	55	-112	17	0	0	0	0	0	2	1
5.5	5.5	MG-H3	132S	MMG-G2	132S	-17	0	91	-112	37	0	0	0	0	0	25	23
7.5	7.5	MG-H3	132S	MMG-G2	132S	-5	0	66	-113	5	0	0	0	0	0	19	16
11	11	MG-H3	160M	MMG-G2	160M	27	0	59	-153	-48	0	0	0	0	-0.5	22	16
15	15	MG-H3	160M	MMG-G2	160M	27	0	59	-153	-48	0	0	0	0	-0.5	24	17
18.5	18.5	MG-H3	160L	MMG-G2	160L	27	0	59	-153	-48	0	0	0	0	-0.5	26	20
22	22	MG-H3	180M	MMG-G2	180M	21	0	101	-143	-81	0	0	0	0	-0.5	59	52
30	30	Siemens IE3	200L	MMG-G2	200L	49	0	59	-165	-7	0	0	0	0	-0.5	60	30
37	37	Siemens IE3	200L	MMG-G2	200L	24	0	59	-165	-7	0	0	0	0	-0.5	50	25
45	45	Siemens IE3	225M	MMG-G2	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	25	15
55	55	Siemens IE3	250M	MMG-G2	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	65	45
75	75	Siemens IE3	280S	MMG-G2	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	15	-5
90	90	Siemens IE3	280M	MMG-G	280S	-78	0	90	-145	-3	0	0	0	0	0	10	-10
110	110	Siemens IE3	315S	MMG-G	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-140	-70
132	132	Siemens IE3	315M	MMG-G	315S	-131	0	33	-195	1	0	0	-51	0	0	20	20
160	160	Siemens IE3	315L	MMG-G	315M	-80	0	33	-195	1	0	0	0	0	0	220	200
200	200	Siemens IE3	315L	MMG-G	315M	-235	0	33	-195	1	0	0	0	0	0	170	210
250	250	Siemens IE3	315L	MMG-G	355M	128	40	150	-	-	-	102	52	38	0	810	810
315	315	Siemens IE3	315L	MMG-G	355L	128	40	150	-	-	-	102	122	38	0	745	745

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE1, MMG-G, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.25	0.25	MG-C	71B	MMG-G	63	5	-8	13	-32	-2	0	-12	-10	-5	0	5.8	5.5
0.37	0.37	MG-C	71B	MMG-G	71	29.5	0	23	-37	-2	0	0	0	0	0	5.3	5
0.55	0.55	MG-C	80A	MMG-G	80	11.5	0	49	-22	-2	0	0	0	0	0	5.7	4.9
0.75	0.75	MG-H3	90S	MMG-G	80	-38.5	-10	48	-102	-23	0	-15	0	-6	0	7.5	7
1.1	1.1	MG-H3	90S	MMG-G	90S	-23.5	0	60	-102	-23	0	0	0	0	0	-0.4	-1.4
1.5	1.5	MG-H3	90L	MMG-G	90L	-38.5	0	60	-102	-23	0	0	0	0	0	2.5	1.5
2.2	2.2	MG-H3	100L	MMG-G	100L	-20.5	0	60	-72	17	0	0	0	0	0	10	5
3	3	MG-H3	100L	MMG-G	100L	-20.5	0	60	-72	17	0	0	0	0	0	9	7
4	4	MG-H3	112M	MMG-G	112M	-40.5	0	55	-112	17	0	0	0	0	0	0	-1
5.5	5.5	MG-H3	132S	MMG-G	132S	-5	0	66	-113	5	0	0	0	0	0	7	7
7.5	7.5	MG-H3	132M	MMG-G	132M	-17	0	66	-113	5	0	-1	0	0	0	9	5
11	11	MG-H3	160M	MMG-G	160M	-47	0	59	-153	-48	0	0	-44	0	-0.5	21	14
15	15	MG-H3	160L	MMG-G	160L	-33	0	59	-153	-48	0	0	0	0	-0.5	15	9
18.5	18.5	Siemens IE3	180M	MMG-G	180M	4	0	19	-89	-32	0	0	0	0	-0.5	12	7
22	22	Siemens IE3	180L	MMG-G	180L	12	0	19	-89	-32	0	0	38	0	-0.5	35	25
30	30	Siemens IE3	200L	MMG-G	200L	24	0	59	-165	-7	0	0	0	0	-0.5	50	40
37	37	Siemens IE3	225S	MMG-G	225S	28	0	89	-125	-7	0	0	0	0	-0.5	40	25
45	45	Siemens IE3	225M	MMG-G	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	30	15
55	55	Siemens IE3	250M	MMG-G	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	55	35
75	75	Siemens IE3	280S	MMG-G	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	-10	-40
90	90	Siemens IE3	280M	MMG-G	280S	-78	0	90	-145	-3	0	0	0	0	0	-10	-30
110	110	Siemens IE3	315S	MMG-G	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-45	-70
132	132	Siemens IE3	315M	MMG-G	315S	-131	0	33	-195	1	0	0	-51	0	0	-30	-70
160	160	Siemens IE3	315L	MMG-G	315M	-80	0	33	-195	1	0	0	0	0	0	200	180
200	200	Siemens IE3	315L	MMG-G	315M	-235	0	33	-195	1	0	0	0	0	0	60	60
250	250	Siemens IE3	315L	MMG-G	355M	128	40	150	-	-	-	102	52	38	-7	830	830
315	315	Siemens IE3	315L	MMG-G	355L	-16	40	150	-	-	-	102	122	38	-7	620	620

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE1, MMG-G, 6-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.37	0.37	Siemens	80A	MMG-G	80	8.5	0	38	-15	5	0	0	0	0	0.5	7	7
0.55	0.55	Siemens	80B	MMG-G	80	8.5	0	38	-15	5	0	0	0	0	0.5	7	7
0.75	0.75	Siemens IE3	90S	MMG-G	90S	-34.5	0	44	-33	1	0	0	0	0	0	5.5	5.5
1.1	1.1	Siemens IE3	90L	MMG-G2	90L	-54.5	0	44	-33	1	0	0	0	0	0	6	6
1.5	1.5	Siemens IE3	100L	MMG-G2	100L	-21.5	0	14	-45	8	0	0	0	0	0	7	7
2.2	2.2	Siemens IE3	112M	MMG-G2	112M	-22.5	0	12	-45	8	0	0	0	0	0	6	6
3	3	Siemens IE3	132S	MMG-G2	132S	-11	0	23	-65	10	0	0	0	0	0	8	3
4	4	Siemens IE3	132M	MMG-G2	132M	27	0	23	-65	10	0	-1	0	0	0	13	8
5.5	5.5	Siemens IE3	132M	MMG-G2	132M	-23	0	23	-65	10	0	-1	38	0	0	28	11
7.5	7.5	Siemens IE3	160M	MMG-G2	160M	4	0	26.5	-85	20	0	0	0	0	-0.5	21	12
11	11	Siemens IE3	160L	MMG-G2	160L	-12	0	26.5	-85	20	0	0	0	0	-0.5	29	20
15	15	Siemens IE3	180L	MMG-G2	180L	12	0	19	-89	-32	0	0	38	0	-0.5	45	45
18.5	18.5	Siemens IE3	200L	MMG-G2	200L	49	0	59	-165	-7	0	0	0	0	-0.5	60	52
22	22	Siemens IE3	200L	MMG-G2	200L	24	0	59	-165	-7	0	0	0	0	-0.5	45	45
30	30	Siemens IE3	225M	MMG-G2	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	20	5
37	37	Siemens IE3	250M	MMG-G2	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	0	-20
45	45	Siemens IE3	280S	MMG-G2	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	-70	-90
55	55	Siemens IE3	280M	MMG-G2	280S	32	0	90	-145	-3	0	0	0	0	0	50	30
75	75	Siemens IE3	315S	MMG-G2	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-70	-70
90	90	Siemens IE3	315M	MMG-G	315S	-131	0	33	-195	1	0	0	-51	0	0	-40	-50
110	110	Siemens IE3	315L	MMG-G	315M	-80	0	33	-195	1	0	0	0	0	0	0	-20
132	132	Siemens IE3	315L	MMG-G	315M	-235	0	33	-195	1	0	0	0	0	0	-20	-40

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2

IE2, MMG-E, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	MG-C	71B	MMG-E1	80A	24	0	31	10	118	-108	0	0	0	0	7.6	7.7
1.1	1.1	MG-H3	80A	MMG-E1	80B	4	0	31	10	118	-108	0	0	0	0	8.5	8.4
1.5	1.5	MG-H3	80C	MMG-E1	90S	-11	0	50	-56	96	-100	0	0	0	0	4	5
2.2	2.2	MG-H3	90S	MMG-E1	90L	-26	0	50	-56	96	-100	0	0	0	0	4	5
3	3	MG-H3	90L	MMG-E1	100L	-10	0	60	-56	147	-150	0	0	0	0	11	11
4	4	MG-H3	100L	MMG-E1	112M	-32	0	54	-84	147	-140	0	0	-10	0	3	4
5.5	5.5	MG-H3	112M	MMG-E1	132SA	-1	0	76	-84	197	-190	0	0	0	0	25	23
7.5	7.5	MG-H3	132S	MMG-E1	132SB	11	0	51	-85	165	-190	0	0	0	0	21	18
11	11	MG-H3	132S	MMG-E1	160MA	40	0	48	-82	137	-199	0	0	0	0	34	37
15	15	MG-H3	160M	MMG-E1	160MB	40	0	48	-82	137	-199	0	0	0	0	36	38
18.5	18.5	MG-H3	160M	MMG-E1	160L	-4	0	48	-82	137	-199	0	0	0	0	44	45
22	22	MG-H3	160L	MMG-E1	180M	39	0	81	-82	137	-199	0	38	0	0	60	60
30	30	MG-H3	180M	MMG-E1	200LA	49	0	-5	-36	203	-211	0	0	0	0	23	8
37	37	Siemens IE3	200L	MMG-E1	200LB	24	0	-5	-36	203	-211	0	0	0	0	10	0
45	45	Siemens IE3	200L	MMG-E1	225M	2	0	-3	-38	252	-262	0	25	0	0	-14	-5
55	55	Siemens IE3	225M	MMG-E1	250M	28	0	-40	-73	317	-334	0	0	0	0	20	23
75	75	Siemens IE3	250M	MMG-E1	280S	10	0	-38	-73	317	-334	0	0	0	0	32	34
90	90	Siemens IE3	280S	MMG-E1	280M	-50	0	-38	-73	317	-334	0	51	0	0	3	5
110	110	Siemens IE3	280M	MMG-E1	315S	188	0	-10	-54	361	-380	0	0	0	0	65	170
132	132	Siemens IE3	315S	MMG-E1	315M	163	0	15	-54	361	-380	0	0	0	0	110	145
160	160	Siemens IE3	315M	MMG-E1	315LA	163	0	15	-54	361	-380	0	0	0	0	135	150
200	200	Siemens IE3	315L	MMG-E1	315LB	8	0	15	-54	361	-380	0	0	0	0	-25	20
250	250	Siemens IE3	315L	MMG-E1	355M	218	40	155	154	353	-330	102	52	38	0	370	420
315	315	Siemens IE3	315L	MMG-E1	355L	368	40	155	154	353	-330	102	52	38	0	415	465

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-E, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.25	0.25	MG-C	71B	MMG-E1	71A	34	0	15	10	78	-68	0	0	0	0	4.8	5.5
0.37	0.37	MG-C	71B	MMG-E1	71B	34	0	15	10	78	-68	0	0	0	0	5.3	6
0.55	0.55	MG-C	71B	MMG-E1	80A	24	0	31	10	118	-108	0	0	0	0	7.7	7.9
0.75	0.75	MG-C	80A	MMG-E1	80MB	-26	-10	30	-70	97	-108	-15	0	-6	0	8	7.5
1.1	1.1	MG-H3	90S	MMG-E1	90S	14	0	50	-54	97	-98	0	0	0	0	6	7
1.5	1.5	MG-H3	90S	MMG-E1	90L	-26	0	50	-54	97	-98	0	-25	0	0	9	10
2.2	2.2	MG-H3	90L	MMG-E1	100LA	-10	0	60	-54	147	-148	0	0	0	0	11	8
3	3	MG-H3	100L	MMG-E1	100LB	-10	0	60	-54	147	-148	0	0	0	0	14	14
4	4	MG-H3	100L	MMG-E1	112M	38	0	56	-84	147	-140	0	0	0	0	14	15
5.5	5.5	MG-H3	112M	MMG-E1	132S	11	0	51	-85	164	-190	0	0	0	0	17	19
7.5	7.5	MG-H3	132S	MMG-E1	132M	1	0	51	-85	164	-190	0	0	0	0	14	12
11	11	MG-H3	132M	MMG-E1	160M	-47	0	48	-82	137	-199	0	-44	0	0	31	26
15	15	MG-H3	160M	MMG-E1	160L	-33	0	48	-82	137	-199	0	0	0	0	25	21
18.5	18.5	MG-H3	160L	MMG-E1	180M	22	0	-11	-28	186	-199	0	0	0	0	23	28
22	22	Siemens IE3	180M	MMG-E1	180L	42	0	-11	-28	186	-199	0	38	0	0	31	32
30	30	Siemens IE3	180L	MMG-E1	200L	24	0	-5	-36	203	-211	0	0	0	0	35	30
37	37	Siemens IE3	200L	MMG-E1	225S	32	0	-28	-38	252	-262	0	0	0	0	29	32
45	45	Siemens IE3	225S	MMG-E1	225M	-3	0	-3	-37	252	-261	0	25	0	0	10	13
55	55	Siemens IE3	225M	MMG-E1	250M	28	0	-40	-73	317	-334	0	0	0	0	22	25
75	75	Siemens IE3	250M	MMG-E1	280S	10	0	-38	-73	317	-334	0	0	0	0	-1	-10
90	90	Siemens IE3	280S	MMG-E1	280M	-50	0	-38	-73	317	-334	0	51	0	0	9	10
110	110	Siemens IE3	280M	MMG-E1	315S	188	0	-10	-54	361	-380	0	0	0	0	160	170
132	132	Siemens IE3	315S	MMG-E1	315M	133	0	15	-54	361	-380	0	0	0	0	95	90
160	160	Siemens IE3	315M	MMG-E1	315LA	133	0	15	-54	361	-380	0	0	0	0	135	150
200	200	Siemens IE3	315L	MMG-E1	315LB	-22	0	15	-54	361	-380	0	0	0	0	105	110
250	250	Siemens IE3	315L	MMG-E1	355M	148	40	155	154	353	-470	102	52	38	-7	400	450

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-E, 6-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	Siemens IE3	80B	MMG-E1	90S	-2	0	34	15	121	-98	0	0	0	0	7	13
1.1	1.1	Siemens IE3	90S	MMG-E1	90L	-42	0	34	15	121	-98	0	-25	0	0	6	11
1.5	1.5	Siemens IE2	90L	MMG-E1	100L	-11	0	14	-27	138	-148	0	0	0	0	7	14
2.2	2.2	Siemens IE3	100L	MMG-E1	112M	56	0	13	-17	138	-140	0	0	0	0	8	13
3	3	Siemens IE3	112M	MMG-E1	132S	5	0	8	-37	169	-190	0	0	0	0	8	11
4	4	Siemens IE3	132S	MMG-E1	132MA	45	0	8	-37	169	-190	0	0	0	0	17	18
5.5	5.5	Siemens IE3	132M	MMG-E1	132MB	-5	0	8	-37	169	-190	0	38	0	0	26	19
7.5	7.5	Siemens IE3	132M	MMG-E1	160M	4	0	15.5	-14	205	-199	0	0	0	0	33	34
11	11	Siemens IE3	160M	MMG-E1	160L	-12	0	15.5	-14	205	-199	0	0	0	0	24	25
15	15	Siemens IE3	160L	MMG-E1	180L	42	0	-11	-28	186	-199	0	38	0	0	6	16
18.5	18.5	Siemens IE3	180L	MMG-E1	200LA	49	0	-5	-36	203	-211	0	0	0	0	30	32
22	22	Siemens IE3	200L	MMG-E1	200LB	24	0	-5	-36	203	-211	0	0	0	0	15	25
30	30	Siemens IE3	200L	MMG-E1	225M	-3	0	-3	-37	253	-261	0	25	0	0	-20	-25
37	37	Siemens IE3	225M	MMG-E1	250M	28	0	-40	-73	317	-334	0	0	0	0	-20	3
45	45	Siemens IE3	250M	MMG-E1	280S	10	0	-38	-73	317	-334	0	0	0	0	-9	12
55	55	Siemens IE3	280S	MMG-E1	280M	60	0	-38	-73	317	-334	0	51	0	0	10	32
75	75	Siemens IE3	280M	MMG-E1	315S	188	0	15	-54	361	-380	0	0	0	0	65	75
90	90	Siemens IE3	315S	MMG-E1	315M	133	0	15	-54	361	-380	0	0	0	0	50	50

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-G, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.55	0.55	MG-C	71B	MMG-GA	71	29.5	0	23	-37	-2	0	0	0	0	0	7.9	7.6
0.75	0.75	MG-H3	80A	MMG-GA	80	11.5	0	49	-22	-2	0	0	0	0	0	8.6	7.7
1.1	1.1	MG-H3	80C	MMG-G1	80	-8.5	0	49	-22	-2	0	0	0	0	0	7.5	6.4
1.5	1.5	MG-H3	90S	MMG-G1	90S	-23.5	0	60	-102	-23	0	0	0	0	0	5	4
2.2	2.2	MG-H3	90L	MMG-G1	90L	-38.5	0	60	-102	-23	0	0	0	0	0	5	4
3	3	MG-H3	100L	MMG-G1	100L	-20.5	0	60	-72	17	0	0	0	0	0	12	10
4	4	MG-H3	112M	MMG-G1	112M	-40.5	0	55	-112	17	0	0	0	0	0	4	3
5.5	5.5	MG-H3	132S	MMG-G1	132S	-17	0	91	-112	37	0	0	0	0	0	35	33
7.5	7.5	MG-H3	132S	MMG-G1	132S	-5	0	66	-113	5	0	0	0	0	0	24	21
11	11	MG-H3	160M	MMG-G1	160M	27	0	59	-153	-48	0	0	0	0	-0.5	44	38
15	15	MG-H3	160M	MMG-G1	160M	27	0	59	-153	-48	0	0	0	0	-0.5	32	25
18.5	18.5	MG-H3	160L	MMG-G1	160L	27	0	59	-153	-48	0	0	0	0	-0.5	46	40
22	22	MG-H3	180M	MMG-G1	180M	21	0	101	-143	-81	0	0	0	0	-0.5	53	46
30	30	Siemens IE3	200L	MMG-G1	200L	49	0	59	-165	-7	0	0	0	0	-0.5	70	40
37	37	Siemens IE3	200L	MMG-G1	200L	24	0	59	-165	-7	0	0	0	0	-0.5	40	15
45	45	Siemens IE3	225M	MMG-G1	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	35	25
55	55	Siemens IE3	250M	MMG-G1	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	85	65
75	75	Siemens IE3	280S	MMG-G1	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	30	10
90	90	Siemens IE3	280M	MMG-GA	280S	-78	0	90	-145	-3	0	0	0	0	0	40	20
110	110	Siemens IE3	315S	MMG-GA	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-140	-70
132	132	Siemens IE3	315M	MMG-GA	315S	-131	0	33	-195	1	0	0	-51	0	0	-60	-60
160	160	Siemens IE3	315L	MMG-GA	315M	-80	0	33	-195	1	0	0	0	0	0	-35	-55
200	200	Siemens IE3	315L	MMG-GA	315M	-235	0	33	-195	1	0	0	0	0	0	190	230
250	250	Siemens IE3	315L	MMG-GA	315CA	379	0	166	-	-	-	0	202	0	0	410	-
315	315	Siemens IE3	315L	MMG-GA	315DA	579	0	166	-	-	-	0	402	0	0	645	-
355	355	Siemens IE3	355L	MMG-GA	355AA	249	0	171	-	-	-	-20	-90	54	-5	300	-

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-G, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.25	0.25	MG-C	71B	MMG-GA	63	5	-8	13	-32	-2	0	-12	-10	-5	0	5.8	5.5
0.37	0.37	MG-C	71B	MMG-GA	71	29.5	0	23	-37	-2	0	0	0	0	0	5.3	5
0.55	0.55	MG-C	80A	MMG-GA	80	11.5	0	49	-22	-2	0	0	0	0	0	6.7	5.9
0.75	0.75	MG-H3	90S	MMG-GA	80	-38.5	-10	48	-102	-23	0	-15	0	-6	0	7.5	7
1.1	1.1	MG-H3	90S	MMG-G1	90S	-23.5	0	60	-102	-23	0	0	0	0	0	1	0
1.5	1.5	MG-H3	90L	MMG-G1	90L	-38.5	0	60	-102	-23	0	0	0	0	0	4	3
2.2	2.2	MG-H3	100L	MMG-G1	100L	-20.5	0	60	-72	17	0	0	0	0	0	13	8
3	3	MG-H3	100L	MMG-G1	100L	-20.5	0	60	-72	17	0	0	0	0	0	8	6
4	4	MG-H3	112M	MMG-G1	112M	-40.5	0	55	-112	17	0	0	0	0	0	3	2
5.5	5.5	MG-H3	132S	MMG-G1	132S	-5	0	66	-113	5	0	0	0	0	0	19	19
7.5	7.5	MG-H3	132M	MMG-G1	132M	-17	0	66	-113	5	0	-1	0	0	0	14	10
11	11	MG-H3	160M	MMG-G1	160M	-47	0	59	-153	-48	0	0	-44	0	-0.5	35	28
15	15	MG-H3	160L	MMG-G1	160L	-33	0	59	-153	-48	0	0	0	0	-0.5	41	35
18.5	18.5	Siemens IE3	180M	MMG-G1	180M	4	0	19	-89	-32	0	0	0	0	-0.5	6	1
22	22	Siemens IE3	180L	MMG-G1	180L	12	0	19	-89	-32	0	0	38	0	-0.5	35	25
30	30	Siemens IE3	200L	MMG-G1	200L	24	0	59	-165	-7	0	0	0	0	-0.5	50	40
37	37	Siemens IE3	225S	MMG-G1	225S	28	0	89	-125	-7	0	0	0	0	-0.5	35	20
45	45	Siemens IE3	225M	MMG-G1	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	40	25
55	55	Siemens IE3	250M	MMG-G1	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	90	70
75	75	Siemens IE3	280S	MMG-G1	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	5	-25
90	90	Siemens IE3	280M	MMG-GA	280S	-78	0	90	-145	-3	0	0	0	0	0	10	-10
110	110	Siemens IE3	315S	MMG-GA	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-5	-30
132	132	Siemens IE3	315M	MMG-GA	315S	-131	0	33	-195	1	0	0	-51	0	0	-20	-60
160	160	Siemens IE3	315L	MMG-GA	315M	-80	0	33	-195	1	0	0	0	0	0	20	0
200	200	Siemens IE3	315L	MMG-GA	315M	-235	0	33	-195	1	0	0	0	0	0	80	80
250	250	Siemens IE3	315L	MMG-GA	315CB	244	0	166	-	-	-	0	202	0	-7	430	-
315	315	Siemens IE3	315L	MMG-GA	315DB	300	0	166	-	-	-	0	402	0	-7	220	-
355	355	Siemens IE3	355L	MMG-GA	355AB	114	0	171	-	-	-	-20	-90	54	-5	-	-

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-G, 6-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.37	0.37	Siemens	80A	MMG-GA	80	8.5	0	38	-15	5	0	0	0	0	0.5	8	8
0.55	0.55	Siemens	80B	MMG-GA	80	8.5	0	38	-15	5	0	0	0	0	0.5	9	9
0.75	0.75	Siemens IE3	90S	MMG-GA	90S	-39.5	0	46	-33	1	0	0	0	0	0	5	5
1.1	1.1	Siemens IE3	90L	MMG-G1	90L	-54.5	0	44	-33	1	0	0	0	0	0	6	6
1.5	1.5	Siemens IE3	100L	MMG-G1	100L	-21.5	0	14	-45	8	0	0	0	0	0	9	9
2.2	2.2	Siemens IE3	112M	MMG-G1	112M	-22.5	0	12	-45	8	0	0	0	0	0	11	11
3	3	Siemens IE3	132S	MMG-G1	132S	-11	0	23	-65	10	0	0	0	0	0	23	18
4	4	Siemens IE3	132M	MMG-G1	132M	27	0	23	-65	10	0	-1	0	0	0	30	25
5.5	5.5	Siemens IE3	132M	MMG-G1	132M	-23	0	23	-65	10	0	-1	38	0	0	30	13
7.5	7.5	Siemens IE3	160M	MMG-G1	160M	4	0	26.5	-85	20	0	0	0	0	-0.5	37	28
11	11	Siemens IE3	160L	MMG-G1	160L	-12	0	26.5	-85	20	0	0	0	0	-0.5	43	34
15	15	Siemens IE3	180L	MMG-G1	180L	12	0	19	-89	-32	0	0	38	0	-0.5	40	40
18.5	18.5	Siemens IE3	200L	MMG-G1	200L	49	0	59	-165	-7	0	0	0	0	-0.5	70	62
22	22	Siemens IE3	200L	MMG-G1	200L	24	0	59	-165	-7	0	0	0	0	-0.5	45	45
30	30	Siemens IE3	225M	MMG-G1	225M	-7	0	89	-125	-7	0	0	25	0	-0.5	35	20
37	37	Siemens IE3	250M	MMG-G1	250S	-4.5	0	83	-143	-3	0	0	-38	0	0	105	85
45	45	Siemens IE3	280S	MMG-G1	250M	-39.5	-30	60	-143	-3	0	-51	-19	-22	0	55	35
55	55	Siemens IE3	280M	MMG-G1	280S	32	0	90	-145	-3	0	0	0	0	0	90	70
75	75	Siemens IE3	315S	MMG-G1	280M	-10	-35	8	-200	-69	-110	-51	13	-26	-4	-50	-50
90	90	Siemens IE3	315M	MMG-GA	315S	-131	0	33	-195	1	0	0	-51	0	0	10	0
110	110	Siemens IE3	315L	MMG-GA	315M	-80	0	33	-195	1	0	0	0	0	0	20	0
132	132	Siemens IE3	315L	MMG-GA	315M	-235	0	33	-195	1	0	0	0	0	0	-80	-100

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-H2, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.55	0.55	MG-C	71B	MMG-H2	71B	22	0	0	21	21	0	0	0	0	0	-0.8	-1.1
0.75	0.75	MG-H3	80A	MMG-H2	80B	29	0	21	28	28	0	0	0	0	0	2.6	1.7
1.1	1.1	MG-H3	80C	MMG-H2	80B	9	0	21	28	28	0	0	0	0	0	3.5	2.4
1.5	1.5	MG-H3	90S	MMG-H2	90SA	-24	0	35	-47	7	0	0	0	0	0	0	-1
2.2	2.2	MG-H3	90L	MMG-H2	90LA	-39	0	35	-47	7	0	0	0	0	0	-1	-2
3	3	MG-H3	100L	MMG-H2	100LA	-20	0	35	-47	12	0	0	0	0	0	1	-1
4	4	MG-H3	112M	MMG-H2	112MA	-47	0	34	-87	12	0	0	0	0	0	-14	-15
5.5	5.5	MG-H3	132S	MMG-H2	132SA	-41	0	54	-64	35	0	0	0	0	0	0	-2
7.5	7.5	MG-H3	132S	MMG-H2	132SB	9	0	29	-65	3	0	0	38	0	0	-8	-11
11	11	MG-H3	160M	MMG-H2	160MA	33	0	45	-73	-3	0	0	0	0	0	23	17
15	15	MG-H3	160M	MMG-H2	160MB	33	0	45	-73	-3	0	0	0	0	0	21	14
18.5	18.5	MG-H3	160L	MMG-H2	160L	33	0	45	-73	-3	0	0	0	0	0	24	18
22	22	MG-H3	180M	MMG-H2	180M	39	0	61	-73	-3	0	0	0	0	0	45	38
30	30	Siemens IE3	200L	MMG-H2	200LA	59	0	-23	-57	53	0	0	0	0	0	13	-17
37	37	Siemens IE3	200L	MMG-H2	200LB	34	0	-23	-57	53	0	0	0	0	0	2	-23
45	45	Siemens IE3	225M	MMG-H2	225MA	2	0	-23	-58	53	0	0	25	0	0	-18	-28
55	55	Siemens IE3	250M	MMG-H2	250MA	28	0	-38	31	-23	0	0	0	0	0	-3	-23
75	75	Siemens IE3	280S	MMG-H2	250SA	8	0	-32	31	-23	0	0	0	0	0	5	-15
90	90	Siemens IE3	280M	MMG-H2	280MA	-50	0	-32	31	-23	0	0	51	0	0	-45	-65
110	110	Siemens IE3	315S	MMG-H2	315SA	153	0	-15	46	-19	0	0	0	0	0	90	160
132	132	Siemens IE3	315M	MMG-H2	315MA	98	0	-15	46	-19	0	0	0	0	0	80	80
160	160	Siemens IE3	315L	MMG-H2	315LA	98	0	-15	46	-19	0	0	51	0	0	110	90
200	200	Siemens IE3	315L	MMG-H2	315LB	-57	0	-15	46	-19	0	0	51	0	0	10	20
250	250	Siemens IE3	315L	MMG-H2	355MA	138	40	142	194	-7	140	102	52	38	0	420	420
315	315	Siemens IE3	315L	MMG-H2	355LB	138	40	142	194	-7	140	102	122	38	0	565	565
355	355	Siemens IE3	355L	MMG-H2	355LC	-95	0	51	-	-30	-100	-20	-170	54	-5	20	20

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-H2, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.25	0.25	MG-C	71B	MMG-H2	71B	22	0	0	21	21	0	0	0	0	0	-0.1	-0.4
0.37	0.37	MG-C	71B	MMG-H2	71B	22	0	0	21	21	0	0	0	0	0	0	-0.3
0.55	0.55	MG-C	80A	MMG-H2	80B	29	0	21	28	28	0	0	0	0	0	3.7	2.9
0.75	0.75	MG-H3	90S	MMG-H2	80B	-21	-10	20	-52	7	0	-15	0	-6	0	4.5	4
1.1	1.1	MG-H3	90S	MMG-H2	90SA	-24	0	35	-47	7	0	0	0	0	0	-3	-4
1.5	1.5	MG-H3	90L	MMG-H2	90LA	-39	0	35	-47	7	0	0	0	0	0	-1	-2
2.2	2.2	MG-H3	100L	MMG-H2	100LA	-20	0	35	-47	12	0	0	0	0	0	3	-2
3	3	MG-H3	100L	MMG-H2	100LB	-20	0	35	-47	12	0	0	0	0	0	2	0
4	4	MG-H3	112M	MMG-H2	112MA	-47	0	34	-87	12	0	0	0	0	0	-10	-11
5.5	5.5	MG-H3	132S	MMG-H2	132SA	-29	0	29	-65	3	0	0	0	0	0	-9	-9
7.5	7.5	MG-H3	132M	MMG-H2	132MA	-41	0	29	-65	3	0	0	0	0	0	-8	-12
11	11	MG-H3	160M	MMG-H2	160MA	-41	0	45	-73	-3	0	0	-44	0	0	20	13
15	15	MG-H3	160L	MMG-H2	160LA	-27	0	45	-73	-3	0	0	0	0	0	18	12
18.5	18.5	Siemens IE3	180M	MMG-H2	180MA	22	0	-21	-19	46	0	0	0	0	0	10	5
22	22	Siemens IE3	180L	MMG-H2	180LA	30	0	-21	-19	46	0	0	38	0	0	14	4
30	30	Siemens IE3	200L	MMG-H2	200LA	34	0	-23	-57	53	0	0	0	0	0	5	-5
37	37	Siemens IE3	225S	MMG-H2	225SA	37	0	-23	-58	53	0	0	0	0	0	5	-10
45	45	Siemens IE3	225M	MMG-H2	225MA	2	0	-23	-58	53	0	0	25	0	0	6	-9
55	55	Siemens IE3	250M	MMG-H2	250MA	28	0	-38	31	-23	0	0	0	0	0	-35	-55
75	75	Siemens IE3	280S	MMG-H2	280SA	8	0	-32	31	-23	0	0	0	0	0	-45	-75
90	90	Siemens IE3	280M	MMG-H2	280MA	-50	0	-32	31	-23	0	0	51	0	0	-65	-85
110	110	Siemens IE3	315S	MMG-H2	315SA	153	0	-15	46	-19	0	0	0	0	0	166	141
132	132	Siemens IE3	315M	MMG-H2	315MA	98	0	-15	46	-19	0	0	0	0	0	67	27
160	160	Siemens IE3	315L	MMG-H2	315LA	98	0	-15	46	-19	0	0	51	0	0	85	65
200	200	Siemens IE3	315L	MMG-H2	315LB	-57	0	-15	46	-19	0	0	51	0	0	10	-20
250	250	Siemens IE3	315L	MMG-H2	355MA	138	40	142	194	-7	0	102	52	38	-7	470	470
315	315	Siemens IE3	315L	MMG-H2	355LB	-6	40	142	194	-7	0	102	122	38	-7	495	495

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE2, MMG-H2, 6-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.37	0.37	Siemens	80A	MMG-H2	80	26	0	10	35	35	0	0	0	0	0.5	3	3
0.55	0.55	Siemens	80B	MMG-H3	80	26	0	10	35	35	0	0	0	0	0.5	6	6
0.75	0.75	Siemens IE3	90S	MMG-H2	90S	-40	0	19	22	31	0	0	0	0	0	-1	-1
1.1	1.1	Siemens IE3	90L	MMG-H2	90L	-55	0	19	22	31	0	0	0	0	0	-2	-2
1.5	1.5	Siemens IE3	100L	MMG-H2	100L	-21	0	-11	-20	3	0	0	0	0	0	-4	-4
2.2	2.2	Siemens IE3	112M	MMG-H2	112M	-29	0	-9	-20	3	0	0	0	0	0	-10	-10
3	3	Siemens IE3	132S	MMG-H2	132S	-35	0	-14	-17	8	0	0	0	0	0	-18	-23
4	4	Siemens IE3	132M	MMG-H2	132M	3	0	-14	-17	8	0	0	0	0	0	-9	-14
5.5	5.5	Siemens IE3	132M	MMG-H2	132M	-47	0	-14	-17	8	0	0	38	0	0	0	-17
7.5	7.5	Siemens IE3	160M	MMG-H2	160M	10	0	12.5	-5	65	0	0	0	0	0	17	8
11	11	Siemens IE3	160L	MMG-H2	160L	-6	0	12.5	-5	65	0	0	0	0	0	18	9
15	15	Siemens IE3	180L	MMG-H2	180L	30	0	-21	-19	46	0	0	38	0	0	9	9
18.5	18.5	Siemens IE3	200L	MMG-H2	200LA	59	0	-23	-57	53	0	0	0	0	0	9	1
22	22	Siemens IE3	200L	MMG-H2	200LB	34	0	-23	-57	53	0	0	0	0	0	-7	-7
30	30	Siemens IE3	225M	MMG-H2	225MA	2	0	-23	-58	53	0	0	25	0	0	-29	-44
37	37	Siemens IE3	250M	MMG-H2	250MA	28	0	-38	31	-23	0	0	0	0	0	-25	-45
45	45	Siemens IE3	280S	MMG-H2	280SA	8	0	-32	31	-23	0	0	0	0	0	-40	-60
55	55	Siemens IE3	280M	MMG-H2	280MA	60	0	-32	31	-23	0	0	51	0	0	-15	-35
75	75	Siemens IE3	315S	MMG-H2	315SA	153	0	-15	46	-19	0	0	0	0	0	86	86
90	90	Siemens IE3	315M	MMG-H2	315MA	98	0	-15	46	-19	0	0	0	0	0	38	28
110	110	Siemens IE3	315L	MMG-H2	315LA	98	0	-15	46	-19	0	0	51	0	0	120	100
132	132	Siemens IE3	315L	MMG-H2	315LB	-57	0	-15	46	-19	0	0	51	0	0	65	45
160	160	Siemens IE3	315L	MMG-H2	355MA	138	40	127	46	1	140	102	103	38	0	-	-

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE3

IE3, Siemens, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	MG-H3	80A	Siemens IE3	80M	21	0	12	11	-3	0	0	0	0	-0.5	3	
1.1	1.1	MG-H3	80C	Siemens IE3	80M	1	0	12	11	-3	0	0	0	0	-0.5	3	
1.5	1.5	MG-H3	90S	Siemens IE3	90S	16	0	16	-69	-24	0	0	0	0	0	-1	
2.2	2.2	MG-H3	90L	Siemens IE3	90L	-24	0	16	-69	-24	0	0	25	0	0	0	
3	3	MG-H3	100L	Siemens IE3	100L	35.5	0	46	-27	9	0	0	0	0	0	3	2
4	4	MG-H3	112M	Siemens IE3	112M	-18	0	43	-67	9	0	0	0	0	0	-8	-8
5.5	5.5	MG-H3	132S	Siemens IE3	132S	-6	0	68	-47	27	0	0	0	0	0	3	6
7.5	7.5	MG-H3	132S	Siemens IE3	132S	56	0	43	-48	-5	0	0	0	0	0	6	8
11	11	MG-H3	160M	Siemens IE3	160M	23	0	32.5	-68	-68	0	0	0	0	0	-11	-8
15	15	MG-H3	160M	Siemens IE3	160M	23	0	32.5	-68	-68	0	0	0	0	0	-14	-12
18.5	18.5	MG-H3	160L	Siemens IE3	160L	39	0	32.5	-68	-68	0	0	0	0	0	-18	-15
22	22	MG-H3	180M	Siemens IE3	180M	17	0	82	-54	-49	0	0	0	0	0	43	35

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE3, Siemens, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	MG-H3	90S	Siemens IE3	80	-29	-10	11	-69	-24	0	-15	0	-6	-0.5	-4	
1.1	1.1	MG-H3	90S	Siemens IE3	90S	16	0	16	-69	-24	0	0	0	0	0	-4.3	
1.5	1.5	MG-H3	90L	Siemens IE3	90L	-24	0	16	-69	-24	0	0	0	0	0	-3.7	
2.2	2.2	MG-H3	100L	Siemens IE3	100L	35.5	0	46	-27	9	0	0	0	0	0	8	4
3	3	MG-H3	100L	Siemens IE3	100L	35.5	0	46	-27	9	0	0	0	0	0	3	2
4	4	MG-H3	112M	Siemens IE3	112M	-18	0	43	-67	9	0	0	0	0	0	-9	-9
5.5	5.5	MG-H3	132S	Siemens IE3	132S	56	0	43	-48	-5	0	0	0	0	0	8	-2
7.5	7.5	MG-H3	132M	Siemens IE3	132M	6	0	43	-48	-5	0	0	-38	0	0	-4	-3
11	11	MG-H3	160M	Siemens IE3	160M	-51	0	32.5	-68	-68	0	0	-44	0	0	-12	-10
15	15	MG-H3	160L	Siemens IE3	160L	-21	0	32.5	-68	-68	0	0	0	0	0	-17	-14

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE3, MMG-H3, 2-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	MG-H3	80A	MMG-H3	80B	29	0	21	28	28	0	0	0	0	0	2.6	1.7
1.1	1.1	MG-H3	80C	MMG-H3	80B	9	0	21	28	28	0	0	0	0	0	3.5	2.4
1.5	1.5	MG-H3	90S	MMG-H3	90SA	-24	0	35	-47	7	0	0	0	0	0	0	-1
2.2	2.2	MG-H3	90L	MMG-H3	90LA	-39	0	35	-47	7	0	0	0	0	0	-1	-2
3	3	MG-H3	100L	MMG-H3	100LA	-20	0	35	-47	12	0	0	0	0	0	1	-1
4	4	MG-H3	112M	MMG-H3	112MA	-47	0	34	-87	12	0	0	0	0	0	-14	-15
5.5	5.5	MG-H3	132S	MMG-H3	132SA	-41	0	54	-64	35	0	0	0	0	0	0	-2
7.5	7.5	MG-H3	132S	MMG-H3	132SB	9	0	29	-65	3	0	0	38	0	0	-8	-11
11	11	MG-H3	160M	MMG-H3	160MA	33	0	45	-73	-3	0	0	0	0	0	23	17
15	15	MG-H3	160M	MMG-H3	160MB	33	0	45	-73	-3	0	0	0	0	0	21	14
18.5	18.5	MG-H3	160L	MMG-H3	160L	33	0	45	-73	-3	0	0	0	0	0	24	18
22	22	MG-H3	180M	MMG-H3	180M	39	0	61	-73	-3	0	0	0	0	0	45	38
30	30	Siemens IE3	200L	MMG-H3	200LA	59	0	-23	-57	53	0	0	0	0	0	13	-17
37	37	Siemens IE3	200L	MMG-H3	200LB	34	0	-23	-57	53	0	0	0	0	0	2	-23
45	45	Siemens IE3	225M	MMG-H3	225MA	2	0	-23	-58	53	0	0	25	0	0	-18	-28
55	55	Siemens IE3	250M	MMG-H3	250MA	28	0	-38	31	-23	0	0	0	0	0	-3	-23
75	75	Siemens IE3	280S	MMG-H3	280SA	8	0	-32	31	-23	0	0	0	0	0	5	-15
90	90	Siemens IE3	280M	MMG-H3	280MA	-50	0	-32	31	-23	0	0	51	0	0	-45	-65
110	110	Siemens IE3	315S	MMG-H3	315SA	153	0	-15	46	-19	0	0	0	0	0	90	160
132	132	Siemens IE3	315M	MMG-H3	315MA	98	0	-15	46	-19	0	0	0	0	0	80	80
160	160	Siemens IE3	315L	MMG-H3	315LA	98	0	-15	46	-19	0	0	51	0	0	110	90
200	200	Siemens IE3	315L	MMG-H3	315LB	-57	0	-15	46	-19	0	0	51	0	0	10	20

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

IE3, MMG-H3, 4-pole

P2 [kW]		Motors on data pages		Other motors		L/LB	H	h4/AD	AG	LL	P	A	B	C	K	Weight [kg]	
50 Hz	60 Hz	Motor	Frame size	Motor	Frame size					[mm]						NK	NB
0.75	0.75	MG-H3	90S	MMG-H3	80B	-21	-10	20	-52	7	0	-15	0	-6	0	4.5	4
1.1	1.1	MG-H3	90S	MMG-H3	90SA	-24	0	35	-47	7	0	0	0	0	0	-3	-4
1.5	1.5	MG-H3	90L	MMG-H3	90LA	-39	0	35	-47	7	0	0	0	0	0	-1	-2
2.2	2.2	MG-H3	100L	MMG-H3	100LA	-20	0	35	-47	12	0	0	0	0	0	3	-2
3	3	MG-H3	100L	MMG-H3	100LB	-20	0	35	-47	12	0	0	0	0	0	2	0
4	4	MG-H3	112M	MMG-H3	112MA	-47	0	34	-87	12	0	0	0	0	0	-10	-11
5.5	5.5	MG-H3	132S	MMG-H3	132SA	-29	0	29	-65	3	0	0	0	0	0	-9	-9
7.5	7.5	MG-H3	132M	MMG-H3	132MA	-41	0	29	-65	3	0	0	0	0	0	-8	-12
11	11	MG-H3	160M	MMG-H3	160MA	-41	0	45	-73	-3	0	0	-44	0	0	20	13
15	15	MG-H3	160L	MMG-H3	160LA	-27	0	45	-73	-3	0	0	0	0	0	18	12
18.5	18.5	Siemens IE3	180M	MMG-H3	180MA	22	0	-21	-19	46	0	0	0	0	0	10	5
22	22	Siemens IE3	180L	MMG-H3	180LA	30	0	-21	-19	46	0	0	38	0	0	14	4
30	30	Siemens IE3	200L	MMG-H3	200LA	34	0	-23	-57	53	0	0	0	0	0	5	-5
37	37	Siemens IE3	225S	MMG-H3	225SA	37	0	-23	-58	53	0	0	0	0	0	5	-10
45	45	Siemens IE3	225M	MMG-H3	225MA	2	0	-23	-58	53	0	0	25	0	0	6	-9
55	55	Siemens IE3	250M	MMG-H3	250MA	28	0	-38	31	-23	0	0	0	0	0	-35	-55
75	75	Siemens IE3	280S	MMG-H3	280SA	8	0	-32	31	-23	0	0	0	0	0	-45	-75
90	90	Siemens IE3	280M	MMG-H3	280MA	-50	0	-32	31	-23	0	0	51	0	0	-65	-85
110	110	Siemens IE3	315S	MMG-H3	315SA	153	0	-15	46	-19	0	0	0	0	0	166	141
132	132	Siemens IE3	315M	MMG-H3	315MA	98	0	-15	46	-19	0	0	0	0	0	67	27
160	160	Siemens IE3	315L	MMG-H3	315LA	98	0	-15	46	-19	0	0	51	0	0	85	65
200	200	Siemens IE3	315L	MMG-H3	315LB	-57	0	-15	46	-19	0	0	51	0	0	10	-20

Note: The dimensions L and h4 refer to NKG pumps, LB and AD to NBG pumps.

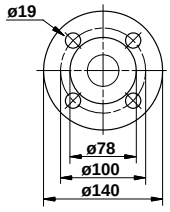
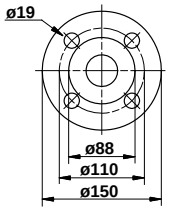
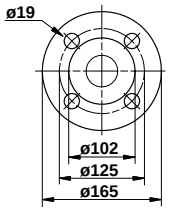
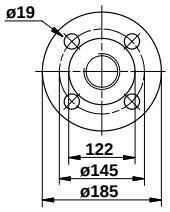
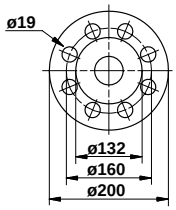
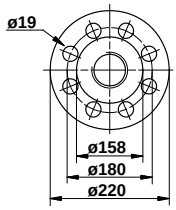
21. Accessories

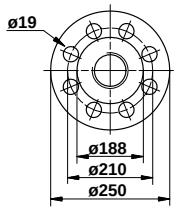
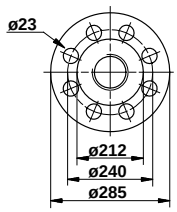
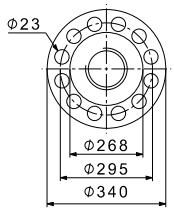
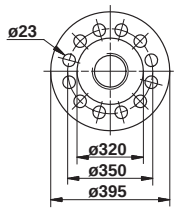
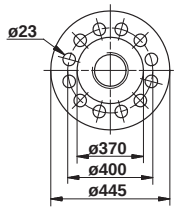
Counter-flanges

Cast iron pumps

Counter-flanges for NBG, NBGE and NKG, NKGE pumps of cast iron are made of steel.

A set consists of one counter-flange, one gasket of asbestos-free material and the requisite number of bolts and nuts.

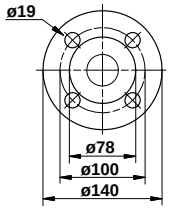
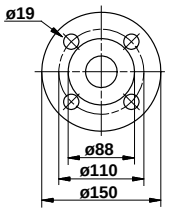
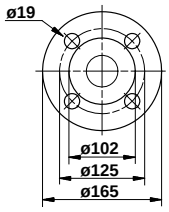
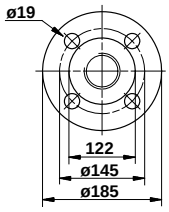
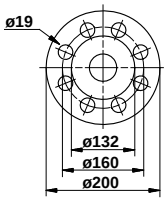
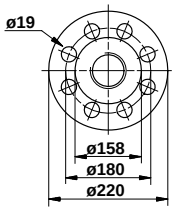
Counter-flange		Flange size	Description	Rated pressure [bar] EN 1092-2	Pipe connection	Product number
	TM03 0400 5004	DN 32	Threaded	10/16	Rp 1 1/4	419901
			For welding	10/16	32 mm	419902
	TM03 0401 5004	DN 40	Threaded	10/16	Rp 1 1/2	429902
			For welding	10/16	40 mm	429901
	TM03 0402 5004	DN 50	Threaded	10/16	Rp 2	339903
			For welding	10/16	50 mm	339901
	TM03 0403 5004	DN 65	Threaded	10/16	Rp 2 1/2	349902
			For welding	10/16	65 mm	349904
	TM03 2117 3705	DN 80	Threaded	10/16	Rp 3	350540
			For welding	10/16	80 mm	350541
	TM03 0405 5004	DN 100	Threaded	10/16	Rp 4	369901
			For welding	10/16	100 mm	369902

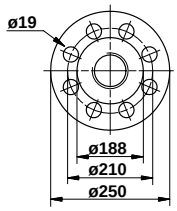
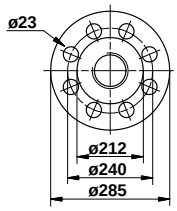
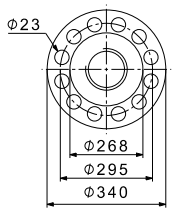
Counter-flange		Flange size	Description	Rated pressure [bar] EN 1092-2	Pipe connection	Product number
	TM03 0406 5004	DN 125	For welding	10/16	125 mm	96414677
	TM03 0407 5004	DN 150	For welding	10/16	150 mm	96414676
	TM04 4364 5109	DN 200	For welding	16b	200 mm	96691093
	TM03 0270 0807	DN 250	For welding	16b	250 mm	96890361
	TM03 0271 0807	DN 300	For welding	16b	300 mm	96890401

Stainless steel pumps

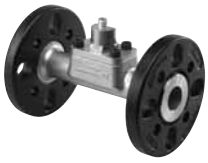
Counter-flanges for stainless steel NBG, NBGE and NKG, NKGE pumps are made of stainless steel according to EN 1.4401 (AISI 316).

A set consists of one counter-flange, one gasket of asbestos-free material and the requisite number of bolts and nuts.

Counter-flange		Flange size	Description	Rated pressure [bar] EN 1092-2	Pipe connection	Product number
	TM03 0400 5004	DN 32	Threaded	10/16	Rp 1 1/4	415304
			For welding	10/16	32 mm	415305
	TM03 0401 5004	DN 40	Threaded	10/16	Rp 1 1/2	425245
			For welding	10/16	40 mm	425246
	TM03 0402 5004	DN 50	Threaded	10/16	Rp 2	335254
			For welding	10/16	50 mm	335255
	TM03 0403 5004	DN 65	Threaded	10/16	Rp 2 1/2	349910
			For welding	10/16	65 mm	349906
	TM03 2117 3705	DN 80	Threaded	10/16	Rp 3	350543
			For welding	10/16	80 mm	350544
	TM03 0405 5004	DN 100	Threaded	10/16	Rp 4	369904
			For welding	10/16	100 mm	369903

Counter-flange		Flange size	Description	Rated pressure [bar] EN 1092-2	Pipe connection	Product number
	TM03 0406 5004	DN 125	For welding	16 bar, EN 1092-2	125 mm	96694017
	TM03 0407 5004	DN 150	For welding	10/16	150 mm	98052936
	TM04 4364 5109	DN 200	For welding	10	200 mm	98052931

Sensors

Grundfos vortex flow sensor, VFI[1]	Type	Flow range [m³/h]	Pipe connection	O-ring		Connection type		Product number
				EPDM	FKM	Cast iron flange	Stainless steel flange	
	VFI 1.3-25 DN32 020 E	1.3 - 25	DN 32	•		•		97686141
	VFI 1.3-25 DN32 020 F				•	•		97686142
	VFI 1.3-25 DN32 020 E			•			•	97688297
	VFI 1.3-25 DN32 020 F				•		•	97688298
	VFI 2-40 DN40 020 E	2-40	DN 40	•		•		97686143
	VFI 2-40 DN40 020 F				•	•		97686144
	VFI 2-40 DN40 020 E			•			•	97688299
	VFI 2-40 DN40 020 F				•		•	97688300
	VFI 3.2-64 DN50 020 E	2-64	DN 50	•		•		97686145
	VFI 3.2-64 DN50 020 F				•	•		97686146
	VFI 3.2-64 DN50 020 E			•			•	97688301
• Sensor tube with sensor Sensor tube of 1.4408 and sensor of 1.4404 • 2 flanges • 5 m cable with M12 connection in one end • Quick guide	VFI 3.2-64 DN50 020 F				•		•	97688302
	VFI 5.2-104 DN65 020 E	5.2 - 104	DN 65	•		•		97686147
	VFI 5.2-104 DN65 020 F				•	•		97686148
	VFI 5.2-104 DN65 020 E			•			•	97688303
	VFI 5.2-104 DN65 020 F				•		•	97688304
	VFI 8-160 DN80 020 E	8-160	DN 80	•		•		97686149
	VFI 8-160 DN80 020 F				•	•		97686150
	VFI 8-160 DN80 020 E			•			•	97688305
	VFI 8-160 DN80 020 F				•		•	97688306
	VFI 12-240 DN100 020 E	12-240	DN 100	•		•		97686151
	VFI 12-240 DN100 020 F				•	•		97686152
	VFI 12-240 DN100 020 E			•			•	97688308
	VFI 12-240 DN100 020 F				•		•	97688309

1 For more information about the VFI sensor, see the "Grundfos direct sensors" data booklet, publication number 97790189.

Grundfos differential pressure sensor, DPI	Content of sensor kit	Data sheet product number[2]	Pressure range [bar]	Product number
	• 1 sensor (7/16" connections), including 0.9 m screened cable • 1 original DPI bracket, for wall mounting • 1 Grundfos bracket, for mounting on motor • screws for mounting of sensor on bracket and motor • 3 capillary tubes, short or long • 2 fittings, 1/4" - 7/16" • 5 cable clips, black • installation and operating instructions • service kit instruction.	96985439	0 - 0.6	96611522
		96985440	0 - 1.0	96611523
		96985441	0 - 1.6	96611524
		96985463	0 - 2.5	96611525
		96985464	0 - 4.0	96611526
		96985465	0 - 6.0	96611527
		96985466	0-10	96611550

2 Enter the product number of the data sheet into Grundfos Product Center to view data for the sensor.
Note: Select the differential pressure sensor so that the maximum pressure of the sensor is higher than the maximum differential pressure of the pump.

External Grundfos sensors

Sensor	Type	Supplier	Measuring range [bar]	Transmitter output [mA]	Power supply [VDC]	Process connection	Product number
Pressure transmitter	RPI	Grundfos	0 - 0.6	4-20	12-30	G 1/2	97748907
			0 - 1.0				97748908
			0 - 1.6				97748909
			0 - 2.5				97748910
			0 - 4.0				97748921
			0 - 6.0				97748922
			0-12				97748923
			0-16				97748924

Sensor interface, SI 001 PSU[3]	Description	Product number
	Grundfos Direct Sensors™, type SI 001 PSU, is an external power supply for the VFI, DPI and other transmitters with 24 VDC supply voltage. It is used when the cable between transmitter and controller is more than 30 metres long.	96915820

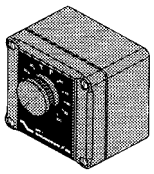
[3] For more information about the PSU sensor interface, see the Installation and operating instructions "SI 001 PSU - sensor interface", publication number 96944355, or Quick guide, publication number 96944356.

Danfoss pressure sensor kit	Pressure range [bar]	Product number
• Connection: G 1/2 A (DIN 16288 - B6kt) • Electrical connection: Plug (DIN 43650)	0 - 2.5	96478188
	0-4	91072075
	0-6	91072076
	0-10	91072077
	0-16	91072078
• Pressure sensor, type MBS 3000, with 2 m screened cable Connection: G 1/4 A (DIN 16288 - B6kt) • 5 cable clips, black • Fitting instructions PT (00400212)	0 - 2.5	405159
	0-4	405160
	0-6	405161
	0-10	405162
	0-16	405163

	Type	Supplier	Measuring range	Product number
Flowmeter	SITRANS F M MAGFLO MAG 5100 W	Siemens	1-5 m^3/h (DN 25)	ID8285
Flowmeter	SITRANS F M MAGFLO MAG 5100 W	Siemens	3-10 m^3/h (DN 40)	ID8286
Flowmeter	SITRANS F M MAGFLO MAG 5100 W	Siemens	6-30 m^3/h (DN 65)	ID8287
Flowmeter	SITRANS F M MAGFLO MAG 5100 W	Siemens	20-75 m^3/h (DN 100)	ID8288
Temperature sensor	TTA (0) 25	Carlo Gavazzi	0-25 °C	96432591
Temperature sensor	TTA (-25) 25	Carlo Gavazzi	-25 to +25 °C	96430194
Temperature sensor	TTA (50) 100	Carlo Gavazzi	50-100 °C	96432592
Temperature sensor	TTA (0) 150	Carlo Gavazzi	0-150 °C	96430195
Accessory for temperature sensor. All with 1/2 RG connection.	Protecting tube ∅9 x 50 mm	Carlo Gavazzi		96430201
	Protecting tube ∅9 x 100 mm	Carlo Gavazzi		96430202
	Cutting ring bush	Carlo Gavazzi		96430203
Temperature sensor, ambient temperature	WR 52	tmg (DK: Plesner)	-50 to +50 °C	ID8295
Differential temperature sensor	ETSD	Honsberg	0-20 °C	96409362
Differential temperature sensor	ETSD	Honsberg	0-50 °C	96409363

Note: All sensors have 4-20 mA output signal.

Potentiometer



Potentiometer for setpoint setting and start/stop of the pump.

Product	Product number
External potentiometer with cabinet for wall mounting	625468

Grundfos GO

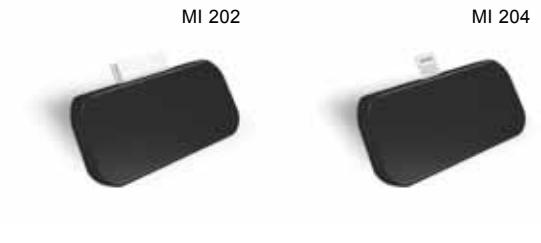
The Grundfos GO is used for wireless infrared or radio communication with the pumps.

Various Grundfos GO variants are available. The variants are described in the following.

MI 202 and MI 204

The MI 202 and MI 204 are an add-on modules with built-in infrared and radio communication. The MI 202 can be used in conjunction with Apple iPod Touch 4, iPhone 4 and 4S.

The MI 204 can be used in conjunction with Apple iPod Touch 5G, iPhone 5 or later.



TM05 3887 1612 - TM05 7704 1513

Fig. 76 MI 202 and MI 204

Supplied with the product:

- Grundfos MI 202 or 204
- sleeve
- quick guide
- charger cable.

MI 204 with iPod touch kit

Supplied with the product:

- Apple iPod touch 5G
- Grundfos MI 204
- protective cover for the iPod touch
- charger
- MI 204 sleeve
- printed quick guide.

MI 301

The MI 301 is a module with built-in infrared and radio communication. The MI 301 must be used in conjunction with an Android or iOS-based smartphone with a Bluetooth connection. The MI 301 has a rechargeable Li-ion battery and must be charged separately.

TM05 3890 1712

Fig. 77 MI 301

Supplied with the product:

- Grundfos MI 301
- battery charger
- quick guide.

Product numbers

Grundfos GO variant	Product number
Grundfos MI 202	98046376
Grundfos MI 204	98424092
Grundfos MI 204 with iPod touch kit	98612711
Grundfos MI 301	98046408

Supported units

Make	Model	Operating system	MI 202	MI 204	MI 301
Apple	iPod touch 4G	iOS 5.0 or later	•		•
	iPhone 4, 4S		•		•
	iPod touch 5G	iOS 6.0 or later		•	•
	iPhone 5			•	•
HTC	Desire S	Android 2.3.3 or later			•
	Sensation	Android 2.3.4 or later			•
Samsung	Galaxy S II				•
	Galaxy Nexus	Android 4.0 or later			•
LG	Google Nexus 4	Android 4.2 or later			•

Note: Similar Android and iOS-based devices may work as well, but are not supported by Grundfos.

CIU communication interface units

GrA 6118

Fig. 78 Grundfos CIU communication interface unit

The CIU units enable communication of operating data, such as measured values and setpoints, between E-pumps and a building management system. The CIU unit incorporates a 24-240 VAC/VDC power supply module and a CIM module. It can either be mounted on a DIN rail or on a wall.

We offer the following CIU units:

CIU 100

For communication via LonWorks.

CIU 150

For communication via PROFIBUS DP.

CIU 200

For communication via Modbus RTU.

CIU 250

For wireless communication via GSM/GPRS.

CIU 271

For communication via Grundfos Remote Management (GRM).

CIU 300

For communication via BACnet MS/TP.

Description	Fieldbus protocol	Product number
CIU 100	LonWorks	96753735
CIU 150	PROFIBUS DP	96753081
CIU 200	Modbus RTU	96753082
CIU 250*	GSM/GPRS	96787106
CIU 271*	GRM	96898819
CIU 300	BACnet MS/TP	Contact Grundfos

* Antenna not included. See below.

Antennas for CIU 250 and 270

Description	Product number
Antenna for roof	97631956
Antenna for desk	97631957

For further information about data communication via CIU units and fieldbus protocols, see the CIU documentation available in Grundfos Product Center.

CIM communication interface modules

GrA6121

Fig. 79 Grundfos CIM communication interface module

The CIM modules enable communication of operating data, such as measured values and setpoints, between E-pumps of 11-22 kW and a building management system. The CIM modules are add-on communication modules which are installed in the terminal box.

Note: CIM modules must be installed by authorised personnel.

We offer the following CIM modules:

Product	Description	Product number
CIM 100	LON	96824797
CIM 150	PROFIBUS DP	96824793
CIM 200	Modbus RTU	96824796
CIM 250	GSM call up (Modbus RTU) GPRS (Modbus TCP)	96824795
CIM 270	Grundfos Remote Management	96898815
CIM 300	BACnet MS/TP	Contact Grundfos

For further information about data communication via CIM modules and fieldbus protocols, see the CIM documentation available in Grundfos Product Center.

EMC filter

EMC (electromagnetic compatibility to EN 61800-3)

Motor [kW]		Emission/immunity
2-pole	4-pole	
0.37	0.37	**Emission** Motors may be installed in residential areas (first environment), unrestricted distribution, corresponding to CISPR11, group 1, class B. **Immunity** Motors fulfil the requirements for both the first and second environment.
0.55	0.55	
0.75	0.75	
1.1	1.1	
1.5	1.5	
2.2	2.2	
3.0	3.0	
4.0	4.0	
5.5	-	
7.5	-	
-	5.5	**Emission** The motors are category C3, corresponding to CISPR11, group 2, class A, and may be installed in industrial areas (second environment). If equipped with an external Grundfos EMC filter, the motors are category C2, corresponding to CISPR11, group 1, class A, and may be installed in residential areas (first environment).
-	7.5	
11	11	
15	15	
18.5	18.5	
22	-	

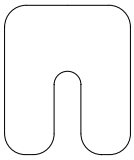
TM02 9198 1203

Fig. 80 EMC filter

The EMC filter for residential areas is available as a complete kit ready for installation.

Product	Product number
EMC-filter (5.5 kW and 7.5 kW, 4-pole)	96041047
EMC-filter (11-22 kW)	96478309

Shims



TM04 3264 0908

Fig. 81 Shim

Shims to adjust motor height when aligning pump and motor.

Product	Product number
Small case (180 pcs)	96659156
Large case (360 pcs)	96659157

Each case contains three types of shims:

Type 1: 55 x 50 mm, 15 mm slot.

Type 2: 75 x 70 mm, 23 mm slot.

Type 3: 90 x 80 mm, 32 mm slot.

Each type has ten of each of three sizes:

0.05; 0.1; 0.2; 0.5; 0.7; 1 mm.

A large case contains 20 of each of the above-mentioned shims. Refills can be found via service.

MP 204 - advanced motor protection

The MP 204 is an electronic motor protection for pumps. One unit covers all electrical motors from 3 to 999 A, as well as voltages from 100 to 480 VAC.

Installation of the MP 204 is by means of screws onto a wall or back plate, or on a mounting rail.

Component	Description	Functions
MP 204 TM03 0150 4204	The MP 204 is an electronic motor protector and data collecting unit. Apart from protecting the motor, it can also send information to a CIU unit via GENIbus, like for instance: • trip • warning • energy consumption • input power • motor temperature. The MP 204 protects the motor primarily by measuring the motor current by means of a true RMS measurement. The pump is protected secondarily by measuring the temperature with a Tempcon sensor, a Pt100/Pt1000 sensor and a PTC sensor/thermal switch. The MP 204 is designed for single- and three-phase motors.	**Features** • Phase-sequence monitoring • indication of current or temperature • input for PTC sensor/thermal switch • indication of temperature in °C or °F • 4-digit, 7-segment display • setting and status reading with the Grundfos GO control • setting and status reading via the Grundfos GENIbus fieldbus. **Tripping conditions** • Overload • underload (dry running) • temperature • missing phase • phase sequence • overvoltage • undervoltage • power factor (cos φ) • current unbalance. **Warnings** • Overload • underload • temperature • overvoltage • undervoltage • power factor (cos φ) • run capacitor (single-phase operation) • starting capacitor (single-phase operation) • loss of communication in network • harmonic distortion. **Learning function** • Phase sequence (three-phase operation) • run capacitor (single-phase operation) • starting capacitor (single-phase operation) • identification and measurement of Pt100/Pt1000 sensor circuit.

Control MP 204

The Control MP 204 is supplied as a plug-and-play control cabinet solution.

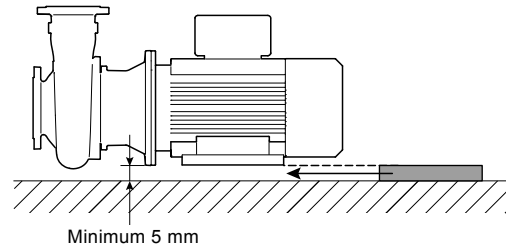
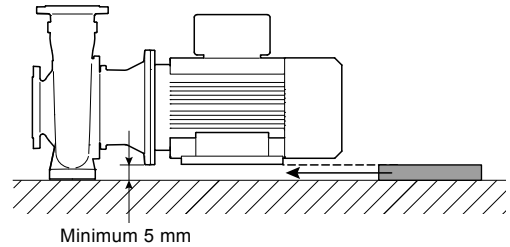
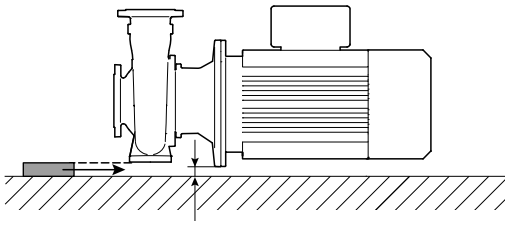
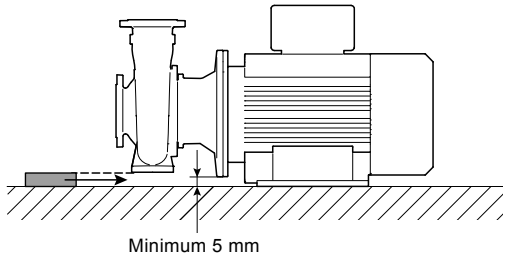
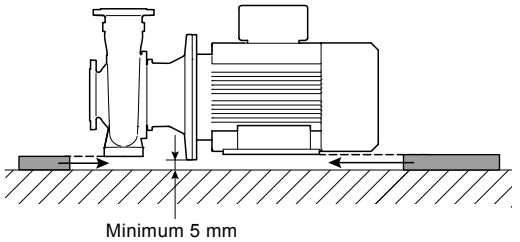
The main switch and LED panel showing power consumption are all you see on the front. Inside you find the MP 204 unit and optional communication interface units.

Cabinet type	Description	Functions
Control MP 204 TM04 9512 4410	The Control MP 204 control cabinets are supplied with all necessary components. Three types of control cabinets are available, depending on functions and starting method. The control cabinets are designed for installation in a control cabinet for outdoor use. The Control MP 204 control cabinets have a built-in main switch and a thermal magnetic circuit breaker.	**Digital input** • Float switch or pressure relay (if no IO 112 is used). **Analog input** • Too high motor temperature (Tempcon) • thermistor/PTC, pump • pressure sensor, 4-20 mA (with IO 112). **Relay output** • Pump alarm. **Communication** • Grundfos Remote Management. • GSM/GPRS (IO 112 not supported) • Modbus RTU wired (IO 112 not supported) • PROFIBUS DP (IO 112 not supported). **Protection** • Protects the pump against short-circuit.

For more information about the MP 204 and Control MP 204, see the "Control MP 204" data booklet, publication number 97770915.

Support blocks (NBG)

Steel support blocks are used to compensate for dimensional differences between pump housing and motor frame sizes. The support blocks can be fitted under the motor or pump housing feet during installation thus enabling horizontal alignment of the pump.

Support blocks	
No	**Position**
1a	
1b	
2a	
2b	
3	

Key to support block number

No	Description
1a	Support blocks to be fitted under motor feet
1b	
2a	Support blocks to be fitted under pump housing feet
2b	
3	Support blocks to be fitted under both motor and pump housing feet

Base frames

As an additional feature a base frame for improving the installation is available. The base frame is placed between the foundation and the support blocks.

When ordering a base frame as an accessory, the relevant support blocks, bolts, nuts and washers for mounting of pump on base frame are always included. Bolts for mounting the base frame on foundation are not included.

Product numbers

Information on the pump nameplate will indicate which support block number to choose.

The product numbers in the tables on the following pages refer to one support block. Therefore always order two of the product numbers in the list as the pump/motor needs to be supported on both sides.

Note: Bolts, washers and nuts are not supplied together with support blocks.

If the pump housing of your pump has feet and two options are indicated, choose the one with support blocks for the pump.

If your pump/motor combination is not in the list, contact your Grundfos Customer Service Unit (CSU).

NBG, 60 Hz, 2-pole

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG		Siemens	MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE3	IE3	IE1	IE1-IE2	IE1-IE2	IE2
50-32-125	3	137	96735813	-	x		x	x		x	
50-32-125	4	137	96735813	-		x	x	x		x	
50-32-125	5.5	162	97975651	-		x	x	x		x	
50-32-160	5.5	157	96735813	-		x	x	x		x	
50-32-160	7.5	157	96735813	-	x		x	x		x	
50-32-160	11	182	97975651	97975652	x		x	x	x	x	
50-32-200	11	185	96735813	95921203	x		x	x	x	x	
50-32-200	15	185	96735813	95921203	x		x	x	x		
50-32-200	15	185	96735813	95921206						x	
50-32-200	18.5	185	96735813	95921203							
50-32-200	18.5	185	96735813	95921206	x		x	x	x		x
50-32-250	11	185	95040657	95921203	x		x	x	x	x	
50-32-250	15	185	95040657	95921203	x		x	x	x		
50-32-250	15	185	95040657	95921206						x	
50-32-250	18.5	185	95040657	95921203							
50-32-250	18.5	185	95040657	95921206	x		x	x	x		x
50-32-250	30	205	95040665	95040707			x	x	x		x
65-40-200	11	185	-	95921203	x		x	x	x	x	
65-40-200	15	185	-	95921203	x		x	x	x		
65-40-200	15	185	-	95921206						x	
65-40-200	18.5	185	-	95921203							
65-40-200	18.5	185	-	95921206	x		x	x	x		x
65-40-200	30	205	-	95040707			x	x	x		x
65-40-200	30	210	97975651	95921207			x				
65-40-250	15	185	-	95921203	x		x	x	x		
65-40-250	15	185	-	95921206						x	
65-40-250	18.5	185	-	95921203							
65-40-250	18.5	185	-	95921206	x		x	x	x		x
65-40-250	30	205	95040665	95040707			x				
65-40-250	30	205	-	95040707			x	x	x		x
65-40-250	37	205	95040665	95040707			x				
65-40-250	37	205	-	95040707			x	x	x		x
65-50-125	3	137	96735813	-	x		x	x		x	
65-50-125	4	137	96735813	-		x	x	x		x	
65-50-125	5.5	162	97975651	-		x	x	x		x	
65-50-125	7.5	162	97975651	-	x		x	x		x	
65-50-160	5.5	157	96735813	-		x	x	x		x	
65-50-160	7.5	157	96735813	-	x		x	x		x	
65-50-160	11	182	97975651	97975652	x		x	x	x	x	
65-50-160	15	182	97975651	97975652	x		x	x	x		
65-50-160	15	182	97975651	-						x	
80-50-200	15	185	-	95921203	x		x	x	x		
80-50-200	15	185	-	95921206						x	
80-50-200	18.5	185	-	95921203							
80-50-200	18.5	185	-	95921206	x		x	x	x		x
80-50-200	30	205	-	95040707			x	x	x		x
80-50-200	30	210	97975651	95921207			x				
80-50-200	37	205	-	95040707			x	x	x		x
80-50-200	37	210	97975651	95921207			x				
80-50-250	30	205	95040665	95040707			x				
80-50-250	30	205	-	95040707			x	x	x		x
80-50-250	37	205	95040665	95040707			x				
80-50-250	37	205	-	95040707			x	x	x		x
80-65-125	5.5	157	96735813	-		x	x	x		x	
80-65-125	7.5	157	96735813	-	x		x	x		x	
80-65-125	11	182	97975651	97975652	x		x	x	x	x	
80-65-125	15	182	97975651	97975652	x		x	x	x		
80-65-125	15	182	97975651	-						x	
80-65-160	11	185	-	95921203	x		x	x	x	x	
80-65-160	15	185	-	95921203	x		x	x	x		
80-65-160	15	185	-	95921206						x	
80-65-160	18.5	185	-	95921203							
80-65-160	18.5	185	-	95921206	x		x	x	x		x

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG		Siemens	MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE3	IE3	IE1	IE1-IE2	IE1-IE2	IE2
100-65-200	18.5	185	-	95921203							
100-65-200	18.5	185	-	95921206	x		x	x	x		x
100-65-200	30	205	95040665	95040707			x				
100-65-200	30	205	-	95040707			x	x	x		x
100-65-200	37	205	95040665	95040707			x				
100-65-200	37	205	-	95040707			x	x	x		x
100-65-250	45	235	95040715	95040708							
100-65-250	45	235	95040715	95921210			x	x	x		x
100-65-250	55	300	97975654	95921214			x				x
100-65-250	55	300	97975654	-				x	x		
100-65-250	75	300	97975654	95921214				x	x		
100-65-250	75	300	97975654	95921216			x				x
100-65-250	90	300	97975654	95921216				x	x		
100-65-250	90	300	97975654	95921291			x				x
100-65-250	110	300	97975654	95921291				x	x		
100-80-125	11	185	95040665	95921203	x		x	x	x	x	
100-80-125	15	185	95040665	95921203	x		x	x	x		
100-80-125	15	185	95040665	95921206						x	
100-80-125	18.5	185	95040665	95921203							
100-80-125	18.5	185	95040665	95921206	x		x	x	x		x
100-80-160	11	185	-	95921203	x		x	x	x	x	
100-80-160	15	185	-	95921203	x		x	x	x		
100-80-160	15	185	-	95921206						x	
100-80-160	18.5	185	-	95921203							
100-80-160	18.5	185	-	95921206	x		x	x	x		x
100-80-160	30	205	-	95040707			x	x	x		x
100-80-160	30	210	95921123	95921207			x				
125-80-160	30	205	95040665	95040707			x				
125-80-160	30	205	-	95040707			x	x	x		x
125-80-160	37	205	95040665	95040707			x				
125-80-160	37	205	-	95040707			x	x	x		x
125-80-200	37	205	95040665	95040707			x	x	x		x
125-80-200	45	230	95921123	95040707			x	x	x		x
125-80-200	55	280	97975657	95921212			x				x
125-80-200	55	280	97975657	-				x	x		
125-80-200	75	280	97975657	95921212				x	x		
125-80-200	75	280	97975657	-			x				x
125-80-200	90	280	97975657	-			x	x	x		x
125-80-250	75	285	97975655	95921213				x	x		
125-80-250	75	285	97975655	95921215			x				x
125-80-250	90	285	97975655	95921215				x	x		
125-80-250	90	285	97975655	95921217			x				x
125-80-250	110	285	97975655	95921217				x	x		
125-80-250	110	345	97975656	95921219			x				x
125-80-250	132	345	97975656	95921222			x				x
125-80-250	132	345	97975656	-				x	x		
125-80-250	160	345	97975656	95921222							x
125-80-250	160	345	97975656	98270989							
125-80-250	160	345	97975656	-			x	x	x		
125-100-160	37	205	95040668	95040707			x	x	x		x
125-100-200	55	300	97975654	95921214			x				x
125-100-200	55	300	97975654	-				x	x		
125-100-200	75	300	97975654	95921214				x	x		
125-100-200	75	300	97975654	95921216			x				x
125-100-200	90	300	97975654	95921216				x	x		
125-100-200	90	300	97975654	95921291			x				x
125-100-200	110	300	97975654	95921291				x	x		
125-100-250	110	285	97975655	95921217				x	x		
125-100-250	110	345	97975656	95921219			x				x
125-100-250	132	345	97975656	95921222			x				x
125-100-250	132	345	97975656	-				x	x		
125-100-250	160	345	97975656	95921222							x
125-100-250	160	345	97975656	98270989							
125-100-250	160	345	97975656	-			x	x	x		
125-100-250	200	345	97975656	95921222							x

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG		Siemens	MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE3	IE3	IE1	IE1-IE2	IE1-IE2	IE2
125-100-250	200	345	97975656	98270989							
125-100-250	200	345	97975656	-			x	x	x		
150-125-200	75	285	95040715	95921215			x				
150-125-200	90	285	95040715	95921215				x	x		
150-125-200	90	285	95040715	95921217			x				x
150-125-200	110	285	95040715	95921217				x	x		
150-125-200	110	350	97975654	95921220			x				x
150-125-200	132	350	97975654	95921223			x				x
150-125-200	132	350	97975654	-				x	x		
150-125-200	160	350	97975654	95921223							x
150-125-200	160	350	97975654	95921225			x				
150-125-200	160	350	97975654	-				x	x		
150-125-200	200	350	97975654	95921223							x
150-125-200	200	350	97975654	95921225			x				
150-125-200	200	350	97975654	-				x	x		
150-125-250	160	350	97975654	95921223							x
150-125-250	160	350	97975654	95921225			x				
150-125-250	160	350	97975654	-				x	x		
150-125-250	200	350	97975654	95921223							x
150-125-250	200	350	97975654	95921225			x				
150-125-250	200	350	97975654	-				x	x		
200-150-200	110	340	97975658	95921218			x				x
200-150-200	132	340	97975658	95921221			x				x
200-150-200	132	340	97975658	-				x	x		
200-150-200	160	340	97975658	95921221							x
200-150-200	160	340	97975658	95921224			x				
200-150-200	160	340	97975658	-				x	x		
200-150-200	200	340	97975658	95921221							x
200-150-200	200	340	97975658	95921224			x				
200-150-200	200	340	97975658	-				x	x		

* Always order two of the product numbers in the list as the pump/motor needs to be supported on both sides.

NBG, 60 Hz, 4-pole

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG	Siemens		MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE2	IE3	IE1	IE1-IE2	IE1-IE2	IE2
65-40-315	11	200	-	95921246		x	x	x	x	x	
65-40-315	11	200	-	98283087	x						
80-50-315	11	240	95040662	95921247		x	x	x	x	x	
80-50-315	11	240	95040662	95921253	x						
80-50-315	15	240	95040662	95921253	x	x	x	x	x	x	
100-65-250	11	200	-	95921246		x	x	x	x	x	
100-65-250	11	200	-	98283087	x						
100-65-250	15	200	-	98283087	x	x	x	x	x	x	
100-65-315	11	240	95040671	95921247		x	x	x	x	x	
100-65-315	11	240	95040671	95921253	x						
100-65-315	15	240	95040671	95921253	x	x	x	x	x	x	
100-65-315	18.5	240	95040671	95921250		x	x	x	x	x	
100-65-315	22	240	95040671	95921250			x				
100-65-315	22	260	95040715	95921256		x		x	x	x	
125-80-200	11	185	95040657	95921203		x	x	x	x	x	
125-80-200	11	185	95040657	95921206	x						
125-80-250	11	240	95040671	95921247		x	x	x	x	x	
125-80-250	11	240	95040671	95921253	x						
125-80-250	15	240	95040671	95921253	x	x	x	x	x	x	
125-80-250	18.5	240	95040671	95921250		x	x	x	x	x	
125-80-315	18.5	260	95040670	95921251		x	x	x	x	x	
125-80-315	22	260	95040670	95921251			x				
125-80-315	22	260	95040670	95921256		x		x	x	x	
125-80-315	30	260	95040670	95921262		x	x	x	x	x	
125-80-315	37	285	95040715	95921260		x	x	x	x		x
125-80-315	45	250	-	95921209		x		x	x	x	
125-80-315	45	285	95040715	95921260			x				
125-80-400	30	300	95040712	95921263		x	x	x	x	x	
125-80-400	37	285	95040668	95921260		x	x	x	x		x
125-80-400	45	280	-	98042221		x		x	x	x	
125-80-400	45	285	95040668	95921260			x				
125-80-400	55	280	-	95921212		x	x				x
125-80-400	55	305	-	98042221				x	x		
125-80-400	75	280	-	95921212				x	x		
125-100-200	11	200	-	95921246		x	x	x	x	x	
125-100-200	11	200	-	98283087	x						
125-100-200	15	200	-	98283087	x	x	x	x	x	x	
125-100-200	18.5	200	-	95921205		x	x	x	x	x	
125-100-250	15	240	95040671	95921253	x	x	x	x	x	x	
125-100-250	18.5	240	95040671	95921250		x	x	x	x	x	
125-100-250	22	240	95040671	95921250			x				
125-100-250	22	260	95040715	95921256		x		x	x	x	
125-100-250	30	225	-	95921208		x	x	x	x	x	
125-100-315	22	260	95040670	95921251			x				
125-100-315	22	260	95040670	95921256		x		x	x	x	
125-100-315	30	260	95040670	95921262		x	x	x	x	x	
125-100-315	37	285	95040715	95921260		x	x	x	x		x
125-100-315	45	250	-	95921209		x		x	x	x	
125-100-315	45	285	95040715	95921260			x				
125-100-315	55	285	95040715	95921213		x	x				x
125-100-315	55	285	95040715	95921226				x	x		
125-100-400	37	285	95040718	95921260		x	x	x	x		x
125-100-400	45	280	-	98042221		x		x	x	x	
125-100-400	45	285	95040718	95921260			x				
125-100-400	55	280	-	95921212		x	x				x
125-100-400	55	305	95921299	98042221				x	x		
125-100-400	75	280	-	95921212				x	x		
150-125-200	11	260	95040670	95921249		x	x	x	x	x	
150-125-200	11	260	95040670	95921255	x						
150-125-200	15	260	95040670	95921255	x	x	x	x	x	x	
150-125-200	18.5	260	95040670	95921251		x	x	x	x	x	
150-125-200	22	260	95040670	95921251			x				
150-125-200	22	260	95040670	95921256		x		x	x	x	

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG	Siemens		MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE2	IE3	IE1	IE1-IE2	IE1-IE2	IE2
150-125-250	18.5	260	95040670	95921251		x	x	x	x	x	
150-125-250	22	260	95040670	95921251			x				
150-125-250	22	260	95040670	95921256		x		x	x	x	
150-125-250	30	260	95040670	95921262		x	x	x	x	x	
150-125-250	37	285	95040715	95921260		x	x	x	x		x
150-125-250	45	250	-	95921209		x		x	x	x	
150-125-250	45	285	95040715	95921260			x				
150-125-315	30	300	95040720	95921263		x	x	x	x	x	
150-125-315	37	285	95040718	95921260		x	x	x	x		x
150-125-315	45	280	-	98042221		x		x	x	x	
150-125-315	45	285	95040718	95921260			x				
150-125-315	55	280	-	95921212		x	x				x
150-125-315	55	305	95921299	98042221				x	x		
150-125-315	75	280	-	95921212				x	x		
150-125-400	55	315	-	97975659		x	x				x
150-125-400	55	350	95921301	95921273				x	x		
150-125-400	75	315	-	95921265		x	x			x	
150-125-400	75	315	-	97975659				x	x		
150-125-400	90	315	-	95921265			x	x			
150-125-400	90	315	-	95921268		x				x	
150-125-400	110	315	-	95921268				x			
150-125-400	110	335	95040720	97994325		x	x				x
150-125-400	132	335	95040720	97994327		x					x
150-125-400	132	335	95040720	-			x	x	x		
150-125-500	110	400	-	95921283				x			
150-125-500	110	400	-	98042216		x	x				x
150-125-500	132	400	-	98042220		x					x
150-125-500	132	435	95921301	95921270			x				
150-125-500	160	400	-	98042220		x	x				x
150-125-500	200	400	-	98042220		x	x				x
200-150-200	15	300	95040720	95921254	x	x	x	x	x	x	
200-150-200	18.5	280	-	95921252		x	x	x	x	x	
200-150-200	22	280	-	95921252			x				
200-150-200	22	280	-	95921257		x		x	x	x	
200-150-250	30	300	95040720	95921263		x	x	x	x	x	
200-150-250	37	285	95040718	95921260		x	x	x	x		x
200-150-250	45	280	-	98042221		x		x	x	x	
200-150-250	45	285	95040718	95921260			x				
200-150-250	55	280	-	95921212		x	x				x
200-150-250	55	305	95921299	98042221				x	x		
200-150-250	75	280	-	95921212				x	x		
200-150-315.2	37	325	95040719	95921261		x	x	x	x		x
200-150-315.2	45	325	95040719	95921261			x				
200-150-315.2	45	325	95040719	95921273		x		x	x	x	
200-150-315.2	55	315	-	97975659		x	x				x
200-150-315.2	55	350	95921301	95921273				x	x		
200-150-315.2	75	315	-	95921265		x	x			x	
200-150-315.2	75	315	-	97975659				x	x		
200-150-315	55	315	-	97975659		x	x				x
200-150-315	55	350	95921301	95921273				x	x		
200-150-315	75	315	-	95921265		x	x			x	
200-150-315	75	315	-	97975659				x	x		
200-150-315	90	315	-	95921265			x	x			
200-150-315	90	315	-	95921268		x				x	
200-150-315	110	315	-	95921268				x			
200-150-315	110	335	95040720	97994325		x	x				x
200-150-315	132	335	95040720	97994327		x					x
200-150-315	132	335	95040720	-			x	x	x		
200-150-400	90	315	-	95921265			x	x			
200-150-400	90	315	-	95921268		x				x	
200-150-400	110	315	-	95921268				x			
200-150-400	110	335	95040720	97994325		x	x				x
200-150-400	132	335	95040720	97994327		x					x
200-150-400	132	335	95040720	-			x	x	x		
200-150-400	160	335	95040720	97994327		x	x				x

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X						
					Standard motor						
					MG	Siemens		MMG-G		MMG-H	
			Support block under pump	Support block under motor	IE2-IE3	IE2	IE3	IE1	IE1-IE2	IE1-IE2	IE2
200-150-400	160	335	95040720	-				x	x		
200-150-400	200	335	95040720	97994327		x	x				x
200-150-400	200	335	95040720	-				x	x		
200-150-500	200	400	-	98042220		x	x				x
250-200-400	55	400	-	98042212		x	x				x
250-200-400	55	400	-	98042234				x	x		
250-200-400	75	400	-	95921282		x	x			x	
250-200-400	75	400	-	98042212				x	x		
250-200-400	90	400	-	95921282			x	x			
250-200-400	90	400	-	95921283		x				x	
250-200-400	110	400	-	95921283				x			
250-200-400	110	400	-	98042216		x	x				x
250-200-400	132	400	-	98042220		x					x
250-200-400	132	435	95921301	95921270			x				
250-200-400	160	400	-	98042220		x	x				x
250-200-400	200	400	-	98042220		x	x				x
250-200-450	75	400	-	95921282		x	x			x	
250-200-450	75	400	-	98042212				x	x		
250-200-450	90	400	-	95921282			x	x			
250-200-450	90	400	-	95921283		x				x	
250-200-450	110	400	-	95921283				x			
250-200-450	110	400	-	98042216		x	x				x
250-200-450	132	400	-	98042220		x					x
250-200-450	132	435	95921301	95921270			x				
250-200-450	160	400	-	98042220		x	x				x
250-200-450	200	400	-	98042220		x	x				x
300-250-350	75	450	-	98042192				x	x		
300-250-350	75	450	-	98042213		x	x			x	
300-250-350	90	450	-	98042213			x	x			
300-250-350	90	450	-	98042218		x				x	
300-250-350	110	450	-	98042215		x	x				x
300-250-350	110	450	-	98042218				x			
300-250-350	132	450	-	98042219		x					x
300-250-400	75	450	-	98042192				x	x		
300-250-400	75	450	-	98042213		x	x			x	
300-250-400	90	450	-	98042213			x	x			
300-250-400	90	450	-	98042218		x				x	
300-250-400	110	450	-	98042215		x	x				x
300-250-400	110	450	-	98042218				x			
300-250-400	132	450	-	98042219		x					x
300-250-400	160	450	-	98042219		x	x				x
300-250-400	200	450	-	98042219		x	x				x
300-250-450	110	450	-	98042215		x	x				x
300-250-450	110	450	-	98042218				x			
300-250-450	132	450	-	98042219		x					x
300-250-450	160	450	-	98042219		x	x				x
300-250-450	200	450	-	98042219		x	x				x

* Always order two of the product numbers in the list as the pump/motor needs to be supported on both sides.

NBG, 60 Hz, 6-pole

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X			
					Standard motor			
					Siemens		MMG-G	
			Support block under pump	Support block under motor	IE2	IE3	IE1	IE1-IE2
125-100-250	7.5	240	95040671	95921247	x	x	x	x
125-100-315	7.5	260	95040670	95921249	x	x	x	x
125-100-315	11	260	95040670	95921255	x	x	x	x
125-100-315	15	260	95040670	95921251		x		
125-100-315	15	260	95040670	95921256	x		x	x
125-100-400	11	300	95040720	95921254	x	x	x	x
125-100-400	15	280	-	95921252		x		
125-100-400	15	280	-	95921257	x		x	x
125-100-400	18.5	300	95040720	95921263	x	x	x	x
125-100-400	22	300	95040720	95921263	x	x	x	x
125-100-400	30	280	-	98042221	x		x	x
125-100-400	30	285	95040718	95921260		x		
150-125-200	7.5	260	95040670	95921249	x	x	x	x
150-125-250	7.5	260	95040670	95921249	x	x	x	x
150-125-250	11	260	95040670	95921255	x	x	x	x
150-125-250	15	260	95040670	95921251		x		
150-125-250	15	260	95040670	95921256	x		x	x
150-125-315	7.5	300	95040720	95921248	x	x	x	x
150-125-315	11	300	95040720	95921254	x	x	x	x
150-125-315	15	280	-	95921252		x		
150-125-315	15	280	-	95921257	x		x	x
150-125-315	18.5	300	95040720	95921263	x	x	x	x
150-125-315	22	300	95040720	95921263	x	x	x	x
150-125-400	18.5	320	95040718	95921287	x	x	x	x
150-125-400	22	320	95040718	95921287	x	x	x	x
150-125-400	30	325	95040719	95921261		x		
150-125-400	30	325	95040719	95921273	x		x	x
150-125-400	37	315	-	97975659	x	x		
150-125-400	37	350	95921301	95921273			x	x
150-125-400	45	315	-	95921265	x	x		
150-125-400	45	315	-	97975659			x	x
150-125-500	37	400	-	98042212	x	x		
150-125-500	37	400	-	98042234			x	x
150-125-500	45	400	-	95921282	x	x		
150-125-500	45	400	-	98042212			x	x
150-125-500	55	400	-	95921282		x	x	
150-125-500	55	400	-	95921283	x			
150-125-500	75	400	-	95921283			x	
150-125-500	75	400	-	98042216	x	x		
150-125-500	90	400	-	98042220	x			
150-125-500	90	435	95921301	95921270		x		
200-150-200	7.5	300	95040720	95921248	x	x	x	x
200-150-250	11	300	95040720	95921254	x	x	x	x
200-150-250	15	280	-	95921252		x		
200-150-250	15	280	-	95921257	x		x	x
200-150-250	18.5	300	95040720	95921263	x	x	x	x
200-150-315.2	11	320	95040718	95921284	x	x		x
200-150-315.2	15	320	95040718	95921285	x			x
200-150-315.2	15	320	95040718	98189154		x		
200-150-315.2	18.5	320	95040718	95921287	x	x	x	x
200-150-315.2	22	320	95040718	95921287	x	x	x	x
200-150-315	18.5	320	95040718	95921287	x	x	x	x
200-150-315	22	320	95040718	95921287	x	x	x	x
200-150-315	30	325	95040719	95921261		x		
200-150-315	30	325	95040719	95921273	x		x	x
200-150-315	37	315	-	97975659	x	x		
200-150-315	37	350	95921301	95921273			x	x
200-150-400	22	320	95040718	95921287	x	x	x	x
200-150-400	30	325	95040719	95921261		x		
200-150-400	30	325	95040719	95921273	x		x	x
200-150-400	37	315	-	97975659	x	x		
200-150-400	37	350	95921301	95921273			x	x
200-150-400	45	315	-	95921265	x	x		

Pump type	P2 [kW]	Axial height with support blocks	Product number of support block*		Support blocks for pump and/or motor are available for motors marked with X			
					Standard motor			
					Siemens		MMG-G	
			Support block under pump	Support block under motor	IE2	IE3	IE1	IE1-IE2
200-150-400	45	315	-	97975659			x	x
200-150-400	55	315	-	95921265		x	x	
200-150-400	55	315	-	95921268	x			
200-150-400	75	315	-	95921268			x	
200-150-400	75	335	95040720	97994325	x	x		
200-150-500	55	400	-	95921282		x	x	
200-150-500	55	400	-	95921283	x			
200-150-500	75	400	-	95921283			x	
200-150-500	75	400	-	98042216	x	x		
200-150-500	90	400	-	98042220	x			
200-150-500	90	435	95921301	95921270		x		
200-150-500	110	400	-	98042220	x			
200-150-500	110	435	95921301	95921270		x		
200-150-500	132	435	95921301	95921270	x	x		
250-200-400	22	400	-	97975660	x	x	x	x
250-200-400	30	400	-	98042208		x		
250-200-400	30	400	-	98042233	x		x	x
250-200-400	37	400	-	98042212	x	x		
250-200-400	37	400	-	98042234			x	x
250-200-400	45	400	-	95921282	x	x		
250-200-400	45	400	-	98042212			x	x
250-200-400	55	400	-	95921282		x	x	
250-200-400	55	400	-	95921283	x			
250-200-450	37	400	-	98042212	x	x		
250-200-450	37	400	-	98042234			x	x
250-200-450	45	400	-	95921282	x	x		
250-200-450	45	400	-	98042212			x	x
250-200-450	55	400	-	95921282		x	x	
250-200-450	55	400	-	95921283	x			
250-200-450	75	400	-	95921283			x	
250-200-450	75	400	-	98042216	x	x		
250-200-450	90	400	-	98042220	x			
250-200-450	90	435	95921301	95921270		x		
300-250-350	22	450	-	98042210	x	x	x	x
300-250-350	30	450	-	98042207		x		
300-250-350	30	450	-	98042231	x		x	x
300-250-350	37	450	-	98042192	x	x		
300-250-350	37	450	-	98042232			x	x
300-250-350	45	450	-	98042192			x	x
300-250-350	45	450	-	98042213	x	x		
300-250-400	30	450	-	98042207		x		
300-250-400	30	450	-	98042231	x		x	x
300-250-400	37	450	-	98042192	x	x		
300-250-400	37	450	-	98042232			x	x
300-250-400	45	450	-	98042192			x	x
300-250-400	45	450	-	98042213	x	x		
300-250-400	55	450	-	98042213		x	x	
300-250-400	55	450	-	98042218	x			
300-250-400	75	450	-	98042215	x	x		
300-250-400	75	450	-	98042218			x	
300-250-400	90	450	-	98042219	x			
300-250-450	37	450	-	98042192	x	x		
300-250-450	37	450	-	98042232			x	x
300-250-450	45	450	-	98042192			x	x
300-250-450	45	450	-	98042213	x	x		
300-250-450	55	450	-	98042213		x	x	
300-250-450	55	450	-	98042218	x			
300-250-450	75	450	-	98042215	x	x		
300-250-450	75	450	-	98042218			x	
300-250-450	90	450	-	98042219	x			
300-250-450	110	450	-	98042219	x			
300-250-500	75	450	-	98042215		x		
300-250-500	75	450	-	98042218			x	

* Always order two of the product numbers in the list as the pump/motor needs to be supported on both sides.

Certificates and reports

Grundfos offers a number of certificates and reports.

When a customer wants a certificate or a report, the request must be stated on the order.

The certificate or report will then be put onto the bill of materials and thus included in the product number of the pump.

Certificates or reports have to be confirmed for every order.

The certificate or report is to be ordered with the product number mentioned below.

Short description	Standard	Product number
Certificate of compliance with the order	EN 10204 - 2.1	
Grundfos document certifying that the pump supplied is in compliance with the order specifications.		96507895
Test certificate - Non-specific inspection and testing	EN 10204 - 2.2	
Certificate with inspection and test results of a non-specific pump		96507896
Inspection certificate - Grundfos authorized department	EN 10204 - 3.1	
Grundfos document certifying that the pump supplied is in compliance with the order specifications. Inspection and test results are mentioned in the certificate.		96507897
Inspection certificate - External classifying society	EN 10204 - 3.2	
Grundfos document certifying that the pump supplied is in compliance with the order specifications. Inspection and test results are mentioned in the certificate. Certificate from the surveyor is included:		
Lloyds Register EMEA (LR)	3.2	96507898
Det Norske Veritas (DNV)	3.2	96507899
Germanischer Lloyd (GL)	3.2	96507920
Bureau Veritas (BV)	3.2	96507921
American Bureau of Shipping (ABS)	3.2	96507922
Registro Italiano Navale Agenture (RINA)	3.2	96507923
China Class. Society (CCS)	3.2	96507924
Russian Maritime Register (RS)	3.2	96507925
Biro Klas. Indonesia (BKI)	3.2	96507926
United States Coast Guard (USCG)	3.2	96507927
Nippon Kaiji Koykai (NKK)	3.2	96531108
Standard test report		
Standard test report - ISO 9906: 2012 Grade 3B / (1999 Grade 2 - Annex A)[1]		96507930
Standard test report - ISO 9906: 2012 Grade 2B / (1999 Grade 2 - Basic)[2]		98777758
Duty point verification report		
Duty point verification report - ISO 9906: 2012 Grade 3B / (1999 Grade 2 - Annex A)[1]		96539699
Duty point verification report - ISO 9906: 2012 Grade 2B / (1999 Grade 2 - Basic)[2]		98777781
Other certificates/Reports		
Material specification report		96507928
Material specification report + certificate from raw material supplier		96507929
ATEX approved pump report		96512240
PWIS-free certificate		98535593
Vibration report - ISO 5199		98443849
Vibration report - ISO 10816		96507932

[1] ISO 9906:1999 Grades 2 - Annex A equals ISO 9906:2012 Grade 3B on tolerances. Flow rate: ± 9 %. Head: ± 7 %.

[2] ISO 9906:1999 Grades 2 - Basic equals ISO 9906:2012 Grade 2B on tolerances. Flow rate: ± 8 %. Head: ± 5 %.

22. Service

Some pump parts will become worn over time and need to be replaced. These parts can be ordered as service kits.

Service recommendations

To avoid unnecessary downtime, we recommend that you stock certain service parts. These service parts should be ordered together with the pump.

Information about service kits and recommended service parts can be found in the service kit catalogue.

In Grundfos Product Center, you can also search for the "Service offerings" data booklet, which gives relevant information about service issues.

23. Grundfos Product Center

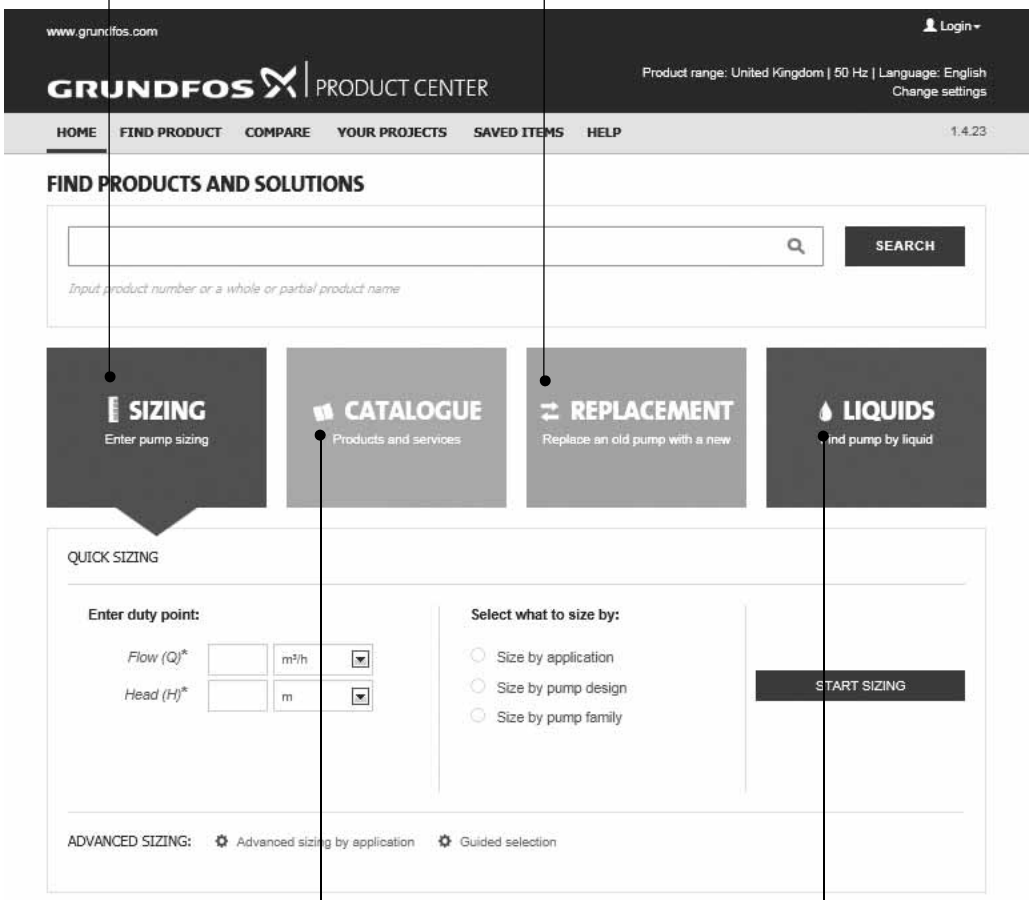
Online search and sizing tool to help you make the right choice.

http://product-selection.grundfos.com

"SIZING" enables you to size a pump based on entered data and selection choices.

"REPLACEMENT" enables you to find a replacement product. Search results will include information on the following:

- the lowest purchase price
- the lowest energy consumption
- the lowest total life cycle cost.



"CATALOGUE" gives you access to the Grundfos product catalogue.

"LIQUIDS" enables you to find pumps designed for aggressive, flammable or other special liquids.

All the information you need in one place

Performance curves, technical specifications, pictures, dimensional drawings, motor curves, wiring diagrams, spare parts, service kits, 3D drawings, documents, system parts. The Product Center displays any recent and saved items - including complete projects - right on the main page.

Downloads

On the product pages, you can download installation and operating instructions, data booklets, service instructions, etc. in PDF format.

Subject to alterations.

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ECM: 1199825

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