

NBG, NBGE, NKG, NKGE

Single-stage end-suction pumps according to ISO 2858
60 Hz



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Introduction

NBG and NKG are multi-purpose 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.

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.

Industrial pressure boosting

Pressure boosting in:

- industrial washing and cleaning systems
- industrial washdown systems
- vehicle washing tunnels
- fire protection systems.

Industrial liquid transfer

Liquid transfer in:

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

HVAC

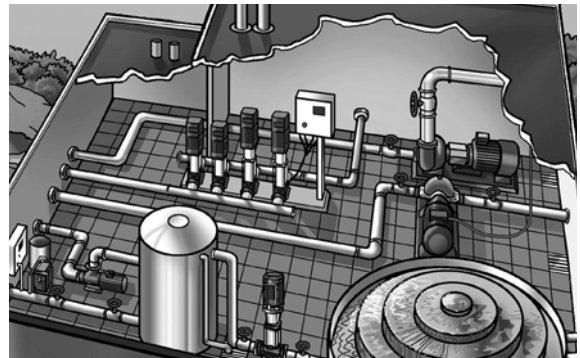
Liquid transfer in:

- heating systems
- ventilation systems
- air-conditioning systems

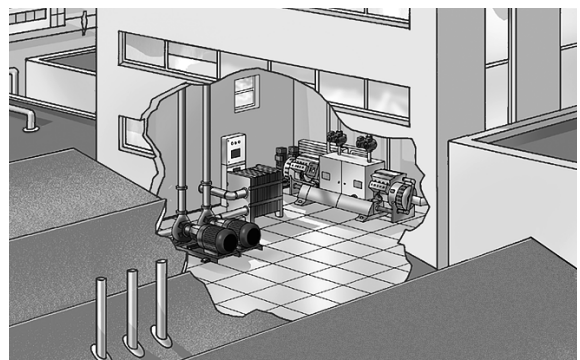
Irrigation

Irrigation covers these applications:

- field irrigation (flooding)
- sprinkler irrigation
- drip-feed irrigation.



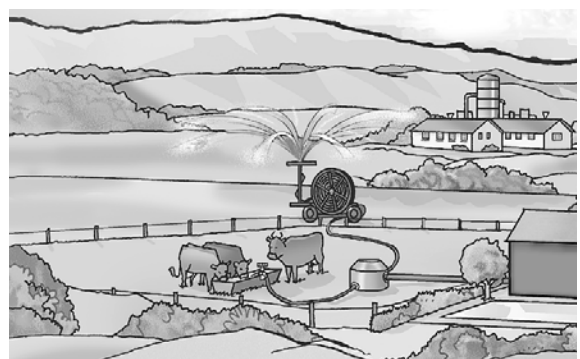
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Features and benefits

NBG and NKG pumps present these features and benefits:

- All NKG pumps are according to ISO 5199.
- The pumps are non-self-priming, single-stage, centrifugal volute pumps with axial suction port, radial discharge port and horizontal shaft.
- Suction and discharge flanges are PN 10 or PN 16 according to EN 1092-2.
- Dimensions and rated performance are according to ISO 2858 (16 bar).
- The NBG pump is close-coupled with a totally enclosed fan-cooled standard motor with main dimensions to IEC and DIN standards
- 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).
- The mechanical shaft seal has dimensions according to EN 12756.
- NBG and NKG pumps offer flow rates from 2 to 1100 m³/h and heads from 2 to 160 m. Motor sizes fall in the 0.25 to 362 kW range.
- Pumps with power requirement of 1.1 to 22 kW are available with motors with built-in frequency converter. These pumps are called NBGE and NKGE.
- All pumps are statically balanced according to ISO 1940 class 6.3. Impellers are hydraulically balanced.
- The NKG pump and motor are mounted on a common, steel base frame in accordance with EN 23661.
- The NBG and NKG product ranges are available in two product series, "standard range" and "premium range". Premium-range products are available with EFF1 motors; standard-range products with EFF2 motors.
- The pumps are of the back pull-out design enabling removal of the motor, coupling, bearing bracket and impeller without disturbing the pump housing or pipework. Even the largest pumps can thus be serviced by a single person with a crane. See fig. 1 and fig. 2.

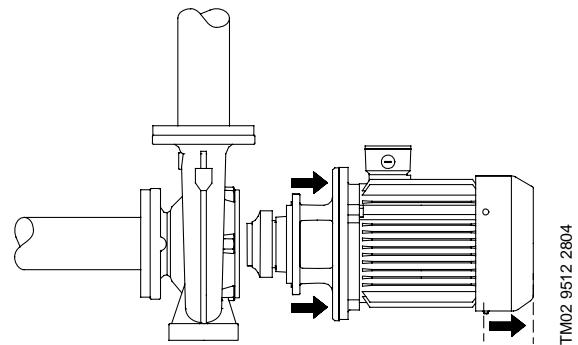


Fig. 1 NBG back pull-out design

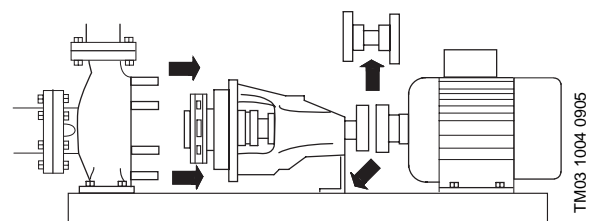


Fig. 2 NKG back pull-out design

High-efficiency motors



Premium range 2- and 4-pole NBG and NKG pumps with motor sizes from 1.1 to 90 kW are fitted with high-efficiency motors (EFF1). EFF1 is the highest efficiency class defined by CEMEP (European Committee of Manufacturers of Electrical Machines and Power Electronics).

Pumps with electronic speed control

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 enable electronic speed control. These pumps are called NBGE and NKGE.

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

The pump materials of NBGE and NKGE pumps are the same as those of the NBG and NKG pump range.

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

- constant pressure
- temperature control
- constant flow.

Why select an NBGE, NKGE pump?

Select an NBGE, NKGE pump if

- controlled operation is required
- constant pressure is required
- communication with the pump is required.

This furthermore gives these obvious advantages:

- energy savings
- increased comfort.

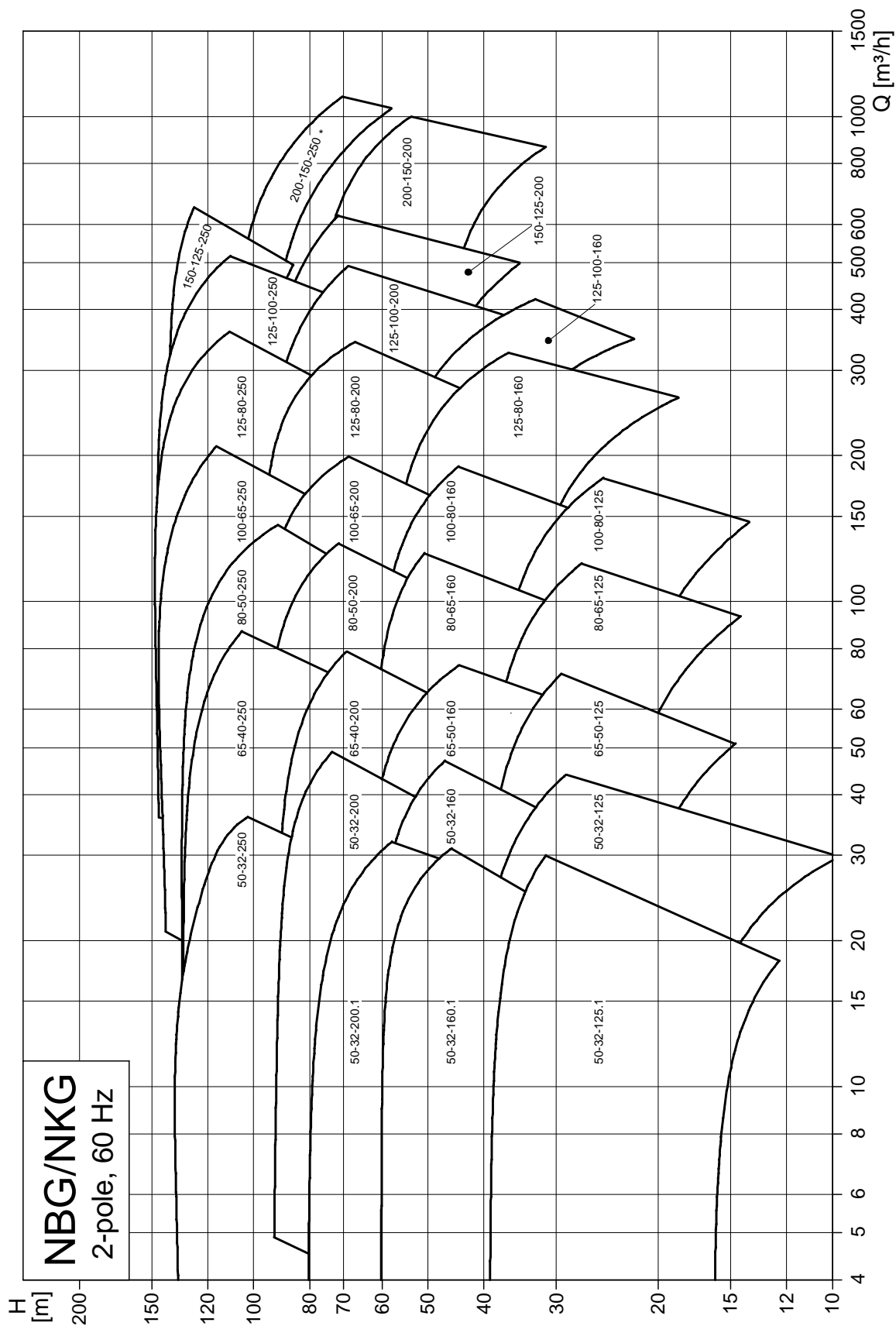
For further information on electronic speed control, see section "Speed-controlled NBG and NKG pumps" on page 33.

ATEX-approved NBG and NKG pumps



On request, Grundfos offers NBG and NKG pumps with ATEX-approval in accordance with Directive 94/9/EC (group II, category 3G and 3D). If an ATEX-approved dry-running protection is installed, the pump can be upgraded to category 2G.

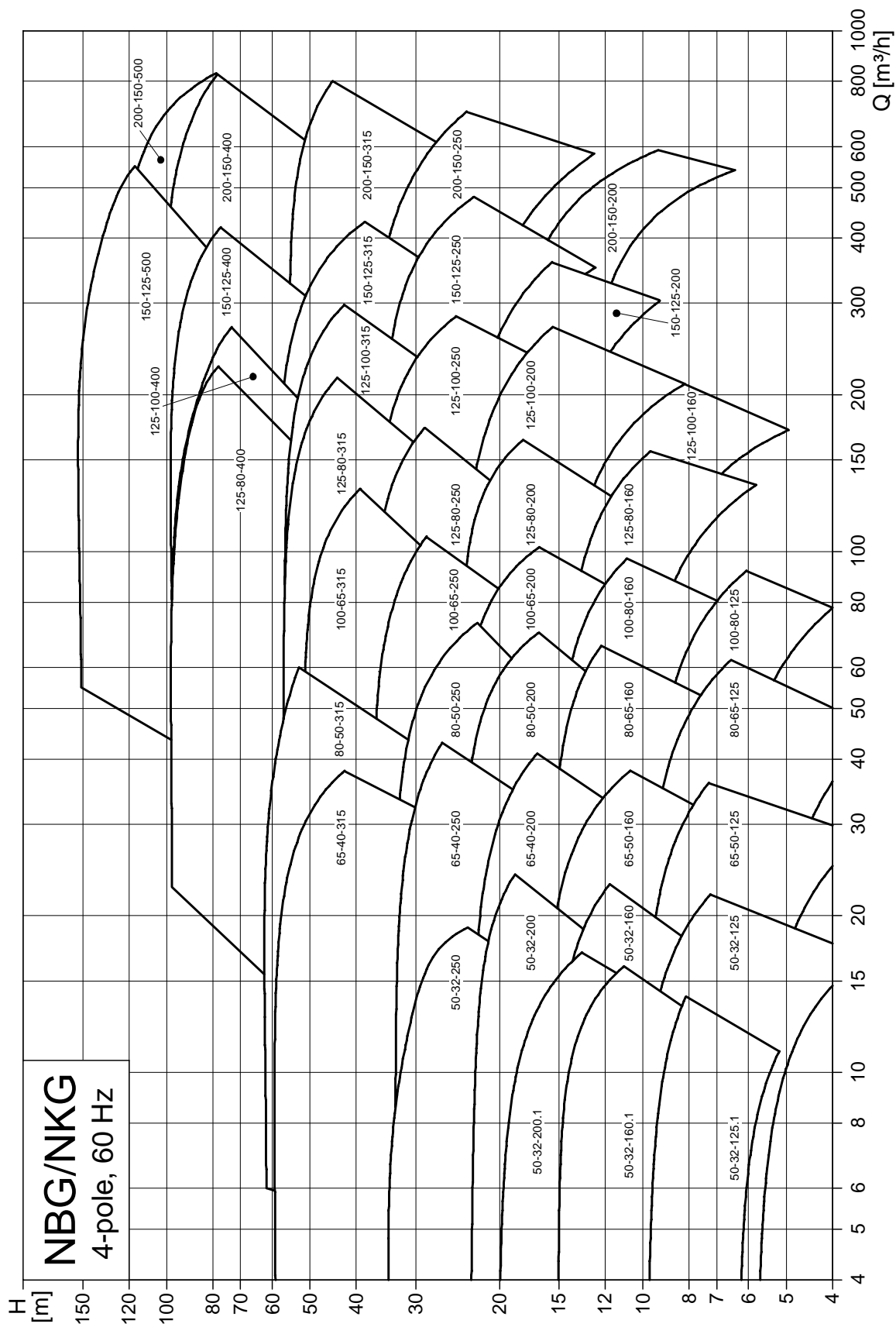
NBG, NKG, 2-pole



* Only available as an NKG pump.

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NBG, NKG, 4-pole

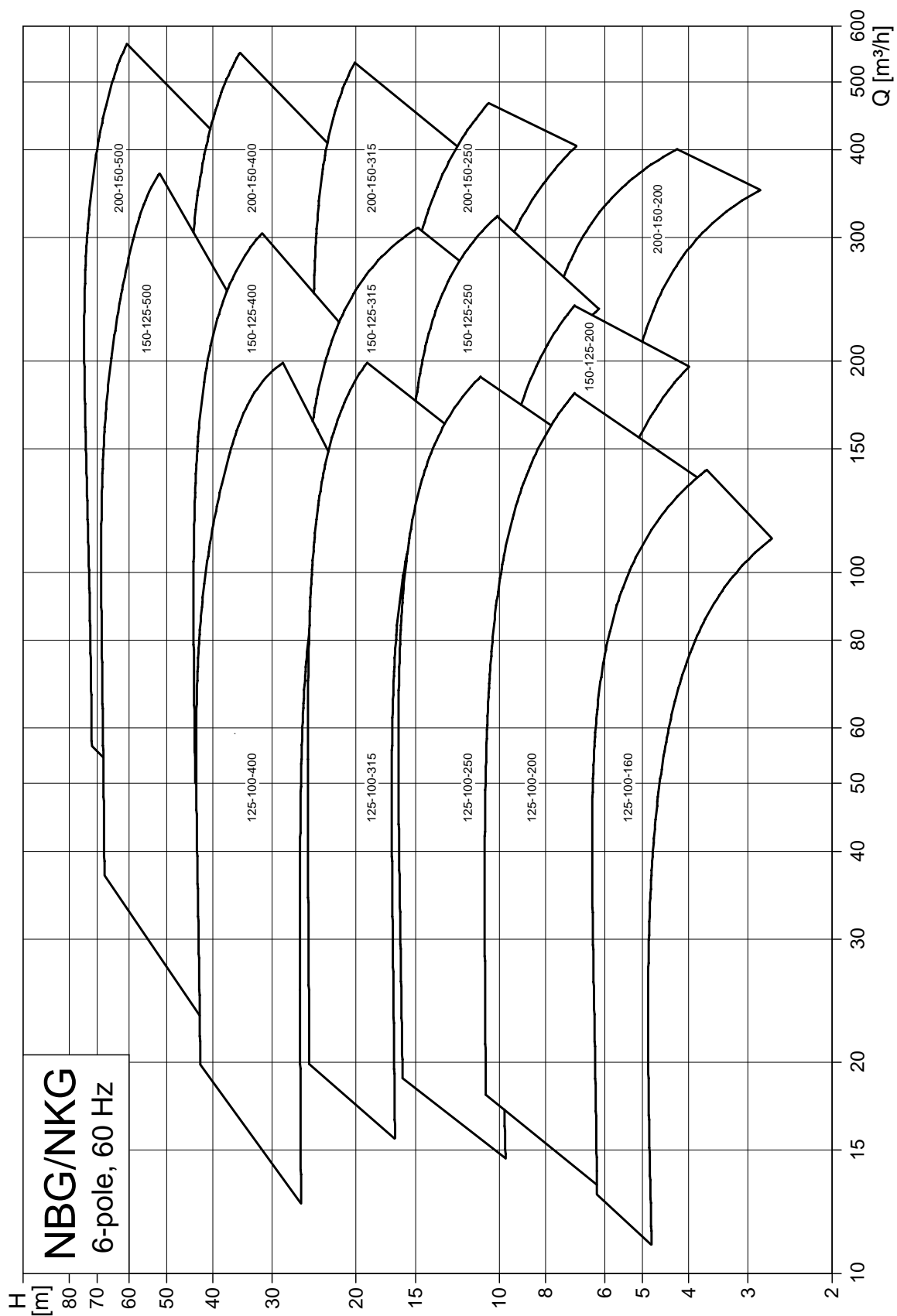


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Performance range

NBG, NBGE, NKG, NKGE

NBG, NKG, 6-pole



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The tables on the following pages show the complete NGB, NBGE and NKG, NKGE product ranges. The product range includes the pumps in WinCAPS and WebCAPS.

The standard range has been combined on the basis of the following parameters:

- Pump housings have discharge flanges from DN 32 to DN 150.
- Motors are 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 Premium range and Standard range 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".
- The range of pumps with electronically speed-controlled motors (three-phase) covers 2-pole motors from 1.5 to 22 kW and 4-pole motors from 0.75 to 22 kW.

To a great extent the pumps can be adapted to the requirements of the individual customer. For customized solutions, please contact Grundfos.

NBG, NKG, 2-pole

Pump type 60 Hz, 2-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
50-32-125.1	B	A			●	1.1
		A	●		●	1.5
		A	●	●	●	2.2
		A	●		●	3
		A	●		●	4
50-32-160.1	B	A	●		●	2.2
		A	●		●	3
		A	●	●	●	4
		A	●		●	5.5
		A	●		●	7.5
50-32-200.1	B	A	●		●	4
		A	●		●	5.5
		A	●		●	7.5
50-32-125	B	A	●		●	1.5
		A	●		●	2.2
		A	●	●	●	3
		A	●		●	4
		A	●		●	5.5
50-32-160	B	A	●		●	3
		A	●		●	4
		A	●	●	●	5.5
		A	●		●	7.5
50-32-200	B	A	●		●	5.5
		A	●		●	7.5
		C	●		●	11
50-32-250	B	C	●	●	●	11
		C	●	●	●	15
		C	●	●	●	18.5
		C	●		●	22
		C	●		●	30
65-50-125	B	A	●	●	●	3
		A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
65-50-160	B	A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11

Pump type 60 Hz, 2-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
65-40-200	B	B	●	●	●	11
		B	●	●	●	15
		B	●	●	●	18.5
		B	●	●	●	22
		B	●		●	30
65-40-250	B	B	●	●	●	15
		B	●	●	●	18.5
		B	●	●	●	22
		B	●		●	30
		B	●		●	37
80-65-125	B	-	●		●	45
		A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11
80-65-160	B	C	●	●	●	15
		A	●	●	●	7.5
		B	●	●	●	11
		B	●	●	●	15
80-50-200	B	B	●	●	●	18.5
		B	●	●	●	22
		B	●	●	●	15
		B	●	●	●	18.5
80-50-250	B	B	●	●	●	22
		B	●	●	●	30
		B	●	●	●	37
		-	●		●	45
		B	●		●	30
100-80-125	B	B	●	●	●	37
		B	●	●	●	45
		C	●	●	●	11
		C	●	●	●	15
100-80-160	B	C	●	●	●	18.5
		B	●	●	●	11
		B	●	●	●	15

Product range

NBG, NBGE, NKG, NKGE

Pump type 60 Hz, 2-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
100-65-200	B	B	●	●	●	18.5
		B	●	●	●	22
		B	●		●	30
		B	●		●	37
		-	●		●	45
		-	●		●	55
100-65-250	B	C	●		●	45
		C	●		●	55
		C	●		●	75
		C	●		●	90
		C	●		●	110
		-	●		●	110
125-80-160	B	B	●	●	●	22
		B	●		●	30
		B	●		●	37
		-	●		●	45
		-	●		●	55
		-	●		●	55
125-80-200	B	C	●		●	37
		C	●		●	45
		C	●		●	55
		C	●		●	75
		C	●		●	90
		-	●		●	90
125-80-250	B	C	●		●	75
		C	●		●	90
		C	●		●	110
		C	●		●	132
		C	●		●	160
		-	●		●	160
125-100-160	B	C			●	37
		-			●	45
		-			●	55
		-			●	75
125-100-200	B	C			●	55
		C			●	75
		C			●	90
		C			●	110
		C			●	132
		-			●	132
125-100-250	B	C			●	110
		C			●	132
		C			●	160
		C			●	200
		-			●	280
		-			●	280
150-125-200	B	C			●	75
		C			●	90
		C			●	110
		C			●	132
		C			●	160
		-			●	200

Pump type 60 Hz, 2-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
150-125-250	B	C			●	160
		C			●	200
		-			●	280
		-			●	353
		-			●	353
200-150-200	B	C			●	110
		C			●	132
		C			●	160
		-			●	200
200-150-250	B	-			●	280
		-			●	353
		-			●	353

NBG, NKG, 4-pole

Pump type 60 Hz, 4-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
50-32-125.1	B	A			●	0.25
		A			●	0.37
		A			●	0.55
50-32-160.1	B	A			●	0.37
		A			●	0.55
		A	●		●	0.75
50-32-200.1	B	A			●	0.55
		A		●	●	0.75
		A		●	●	1.1
		A		●	●	1.5
50-32-125	B	A			●	0.25
		A			●	0.37
		A			●	0.55
		A	●		●	0.75
50-32-160	B	A			●	0.37
		A			●	0.55
		A	●		●	0.75
		A	●		●	1.1
50-32-200	B	A	●		●	0.75
		A	●		●	1.1
		A	●		●	1.5
		A	●		●	2.2
50-32-250	B	A	●	●	●	1.1
		A	●	●	●	1.5
		A	●	●	●	2.2
		A	●	●	●	3
65-50-125	B	A	●		●	0.37
		A	●		●	0.55
		A	●	●	●	0.75
		A	●	●	●	1.1
65-50-160	B	A	●		●	0.55
		A	●	●	●	0.75
		A	●	●	●	1.1
		A	●	●	●	1.5
65-50-200	B	A	●	●	●	1.1
		A	●	●	●	1.5
		A	●	●	●	2.2
		A	●	●	●	3
65-40-200	B	A	●	●	●	1.1
		A	●	●	●	1.5
		A	●	●	●	2.2
		A	●	●	●	3
65-40-250	B	A	●	●	●	2.2
		A	●	●	●	3
		A	●	●	●	4
		A	●	●	●	5.5

Pump type 60 Hz, 4-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
65-40-315	B	A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11
80-65-125	B	A	●		●	0.55
		A	●	●	●	0.75
		A	●	●	●	1.1
		A	●	●	●	1.5
80-65-160	B	A	●	●	●	1.1
		A	●	●	●	1.5
		A	●	●	●	2.2
		A	●	●	●	3
80-50-200	B	A	●	●	●	2.2
		A	●	●	●	3
		A	●	●	●	4
		A	●	●	●	5.5
80-50-250	B	A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
		A	●	●	●	11
80-50-315	B	A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11
		C	●	●	●	15
100-80-125	B	A	●	●	●	1.1
		A	●	●	●	1.5
		A	●	●	●	2.2
100-80-160	B	A	●	●	●	2.2
		A	●	●	●	3
		A	●	●	●	4
100-65-200	B	A	●	●	●	3
		A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
100-65-250	B	A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11
		C	●	●	●	15
100-65-315	B	A	●	●	●	7.5
		C	●	●	●	11
		C	●	●	●	15
		C	●	●	●	18.5
125-80-160	B	A	●	●	●	22
		A	●	●	●	3
		A	●	●	●	4
	B	A	●	●	●	4
		A	●	●	●	5.5

Product range

NBG, NBGE, NKG, NKGE

Pump type 60 Hz, 4-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
125-80-200	B	A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	11
125-80-250	B	A	●	●	●	7.5
		C	●	●	●	11
		C	●	●	●	15
125-80-315	B	C	●	●	●	18.5
		C	●	●	●	22
		C	●	●	●	30
		C	●	●	●	37
125-80-400	B	C	●	●	●	45
		C	●	●	●	30
		C	●	●	●	37
		C	●	●	●	45
125-100-160	B	A	●	●	●	4
		A	●	●	●	5.5
		A	●	●	●	7.5
		A	●	●	●	11
125-100-200	B	A	●	●	●	5.5
		A	●	●	●	7.5
		C	●	●	●	15
		C	●	●	●	18.5
125-100-250	B	C	●	●	●	15
		C	●	●	●	18.5
		C	●	●	●	22
		C	●	●	●	30
125-100-315	B	C	●	●	●	22
		C	●	●	●	30
		C	●	●	●	37
		C	●	●	●	45
125-100-400	B	C	●	●	●	55
		C	●	●	●	75
		C	●	●	●	90
		C	●	●	●	37
150-125-200	B	C	●	●	●	11
		C	●	●	●	15
		C	●	●	●	18.5
		C	●	●	●	22

Pump type 60 Hz, 4-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage	P ₂ [kW]
					PN 16	
150-125-250	B	C	●	●	●	18.5
		C	●	●	●	22
		C	●	●	●	30
		C	●	●	●	37
150-125-315	B	C	●	●	●	45
		C	●	●	●	30
		C	●	●	●	37
		C	●	●	●	45
150-125-400	B	C	●	●	●	55
		C	●	●	●	75
		C	●	●	●	55
		C	●	●	●	75
150-125-500	B	C	●	●	●	90
		C	●	●	●	110
		C	●	●	●	132
		C	●	●	●	110
200-150-200	B	C	●	●	●	110
		C	●	●	●	132
		C	●	●	●	160
		C	●	●	●	200
200-150-250	B	C	●	●	●	288
		C	●	●	●	362
		C	●	●	●	15
		C	●	●	●	18.5
200-150-315	B	C	●	●	●	22
		C	●	●	●	30
		C	●	●	●	37
		C	●	●	●	45
200-150-400	B	C	●	●	●	55
		C	●	●	●	75
		C	●	●	●	55
		C	●	●	●	75
200-150-500	B	C	●	●	●	90
		C	●	●	●	110
		C	●	●	●	132
		C	●	●	●	90
200-150-500	B	C	●	●	●	110
		C	●	●	●	132
		C	●	●	●	160
		C	●	●	●	200
200-150-500	B	C	●	●	●	288
		C	●	●	●	362
		C	●	●	●	200
		C	●	●	●	288

NBG, NKG, 6-pole

Pump type 60 Hz, 6-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage PN 16	P ₂ [kW]
125-100-160	B	A			●	1.1
		A			●	1.5
		A			●	2.2
125-100-200	B	A			●	1.5
		A			●	2.2
		A			●	3
		A			●	4
		A			●	5.5
125-100-250	B	A			●	4
		A			●	5.5
		C			●	7.5
125-100-315	B	C			●	11
		C			●	15
		C			●	11
125-100-400	B	C			●	15
		C			●	18.5
		C			●	22
		C			●	30
		C			●	11
150-125-200	B	A			●	3
		A			●	4
		A			●	5.5
		C			●	7.5
150-125-250	B	A			●	5.5
		C			●	7.5
		C			●	11
		C			●	15
150-125-315	B	C			●	7.5
		C			●	11
		C			●	15
		C			●	18.5
		C			●	22
150-125-400	B	C			●	18.5
		C			●	22
		C			●	30
		C			●	37
		C			●	45
150-125-500	B	C			●	37
		C			●	45
		C			●	55
		C			●	75
		C			●	90

Pump type 60 Hz, 6-pole	NKG model	NBG design	Available in stainless steel	Available as NBGE/NKGE	Pressure stage PN 16	P ₂ [kW]
200-150-200	B	A			●	4
		A			●	5.5
		C			●	7.5
200-150-250	B	C			●	11
		C			●	15
		C			●	18.5
200-150-315	B	C			●	18.5
		C			●	22
		C			●	30
200-150-400	B	C			●	37
		C			●	45
		C			●	55
200-150-500	B	C			●	75
		C			●	55
		C			●	75
		C			●	90
		C			●	110
		C			●	132

NBG type key

The example shows an NBG 50-32-125.1, 60 Hz, with a 140 mm impeller, made of cast iron and with a BAQE shaft seal.

Example	NBG	50-32	-125	.1	/140	A	-F	-A	-BAQE
Type range									
Nominal diameter of suction and discharge port (DN)									
Nominal impeller diameter [mm]									
Reduced performance = .1									
Actual impeller diameter [mm]									
Code for pump version (the codes may be combined)									
A = Basic version									
B = Oversize									
C = Without motor									
D = Pump housing with feet									
E = With ATEX approval, certificate or test report									
X = Special version									
Code for pipework connection:									
F = DIN flange (EN 1092-2)									
Code for materials:									
A = EN-GJL-250 pump housing and impeller, bronze wear ring									
B = EN-GJL-250 pump housing and bronze CuSn10 impeller, bronze wear ring									
S = EN-GJL-250 pump housing and 1.4408 impeller, bronze wear ring									
N = 1.4408 pump housing and impeller, Graflon wear ring									
R = 1.4517 pump housing and impeller, Graflon wear ring									
P = 1.4408 pump housing, 1.4517 impeller, Graflon wear ring									
K = 1.4408 pump housing and impeller, 1.4517 wear ring									
L = 1.4517 pump housing, impeller and wear ring									
M = 1.4408 pump housing, 1.4517 impeller and wear ring									
X = Special version									
Code for mechanical shaft seal and rubber pump parts									

NKG type key

The example shows an NKG 50-32-125.1, 60 Hz, with a 140 mm impeller and a standard coupling, made of cast iron and with a BAQE shaft seal.

Example	NKG	50-32	-125	.1	/140	A1	-F	-A	-BAQE
Type range									
Nominal diameter of suction and discharge port (DN)									
Nominal impeller diameter [mm]									
Reduced performance = .1									
Actual impeller diameter [mm]									
Code for pump version (the codes may be combined)									
A1 = Basic version with standard coupling									
A2 = Basic version with spacer coupling									
AH = Bare shaft pump									
C = Without motor									
E = With ATEX approval, certificate or test report									
X = Special version									
Code for pipework connection:									
F = DIN flange (EN 1092-2)									
Code for materials:									
A = EN-GJL-250 pump housing and impeller, bronze wear ring									
B = EN-GJL-250 pump housing and bronze CuSn10 impeller, bronze wear ring									
S = EN-GJL-250 pump housing and 1.4408 impeller, bronze wear ring									
N = 1.4408 pump housing and impeller, Graflon wear ring									
R = 1.4517 pump housing and impeller, Graflon wear ring									
P = 1.4408 pump housing, 1.4517 impeller, Graflon wear ring									
K = 1.4408 pump housing and impeller, 1.4517 wear ring									
L = 1.4517 pump housing, impeller and wear ring									
M = 1.4408 pump housing, 1.4517 impeller and wear ring									
X = Special version									
Code for mechanical shaft seal and rubber pump parts									

Shaft seals

NBG and NKG pumps are available with a BAQE shaft seal as standard. Other shaft seal variants are available on request.

Codes for shaft seals

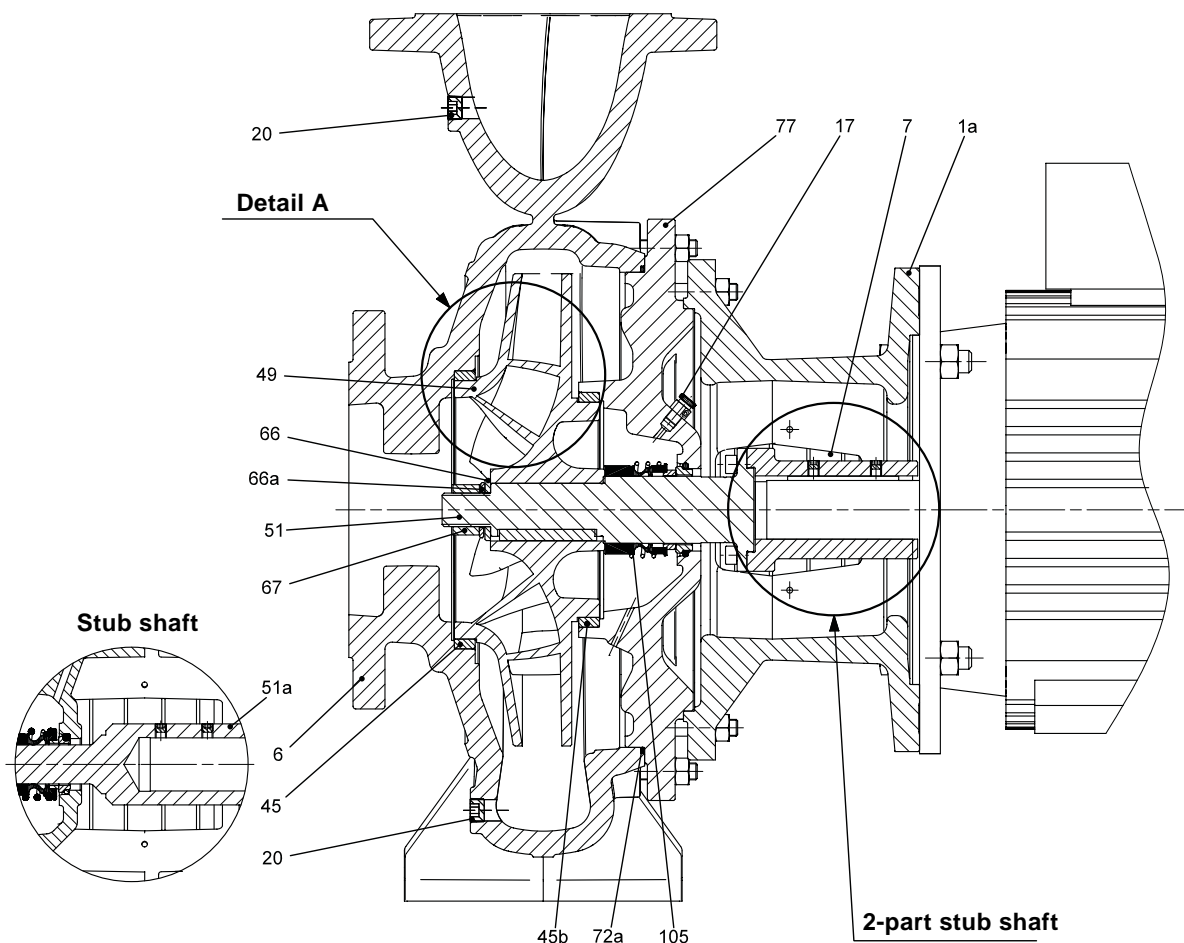
The positions (1) - (4) cover information about the shaft seal:

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 the positions (1), (2), (3) and (4).

Pos.	Type	Short description of seal
(1)	A	O-ring seal with fixed driver
	B	Rubber bellows seal
	G	Bellows seal, type B, with reduced seal faces
	D	O-ring seal, balanced
Pos.	Type	Material
(2) and (3)	Synthetic carbons:	
	A	Carbon, metal-impregnated (antimony (not approved for potable water))
	B	Carbon, resin-impregnated
(3)	Carbides:	
	Q	Silicon carbide
Pos.	Type	Material
(4)	E	EPDM
	V	FKM
	F	FXM

Sectional drawing NBG



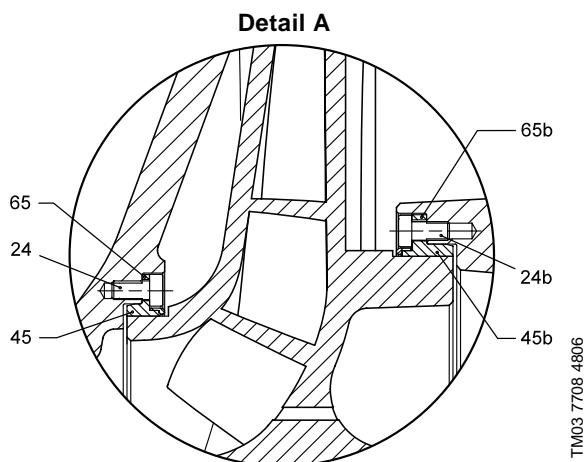
TM03 6014 4106

Fig. 3 Sectional drawing NBG

Cast iron pump

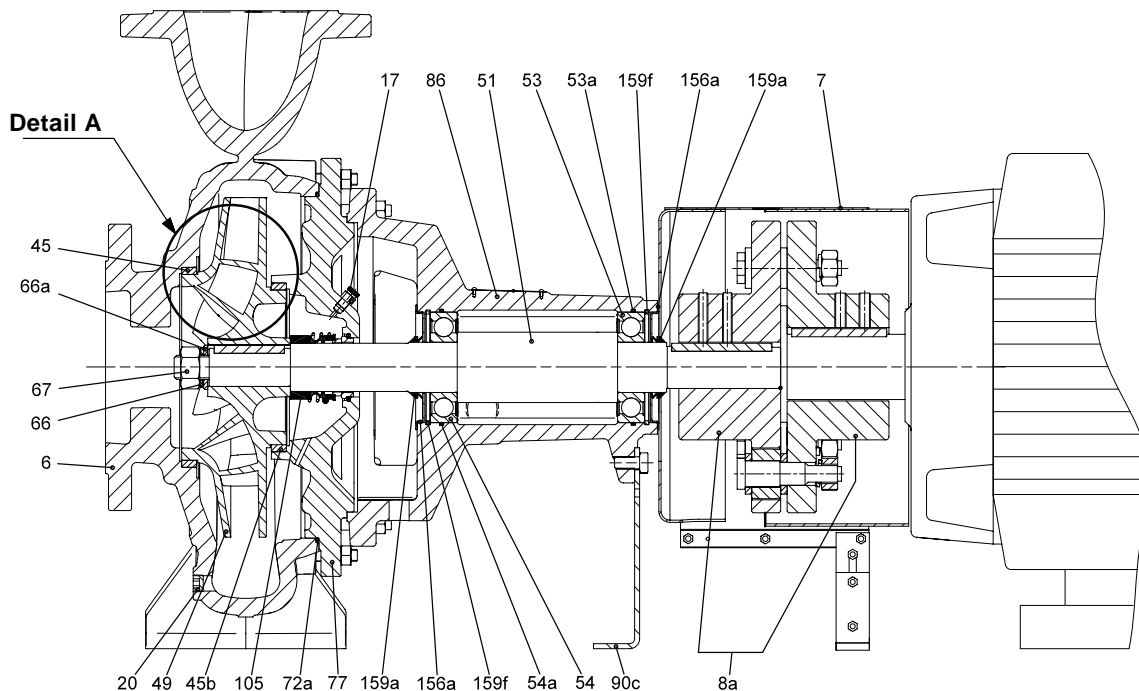
Pos.	Component	A-version Cast iron impeller	B-version Bronze impeller	S-version Stainless steel impeller
1a	Motor stool	EN-GJL-250	EN-GJL-250	EN-GJL-250
6	Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250
7	Coupling guard	1.4016/AISI 430	1.4016/AISI 430	1.4016/AISI 430
17	Air vent plug	2.0401/CuZn44Pb2	2.0401/CuZn44Pb2	2.0401/CuZn44Pb2
20	Plug	ISO898 8.8 carbon steel	ISO898 8.8 carbon steel	ISO898 8.8 carbon steel
45	Wear ring	CuSn10	CuSn10	CuSn10
45b	Wear ring	CuSn10	CuSn10	CuSn10
49	Impeller	EN-GJL-250	CuSn10	1.4408/CF8M
51	2-part stub shaft	1.4021+1.0301/AISI 420+ carbon steel 10	1.4021+1.0301/AISI 420+ carbon steel 10	1.4301+1.0301/AISI 304+ carbon steel C10
51a	Stub shaft	1.4301/AISI 420	1.4301/AISI 420	1.4401/AISI 316
66	Washer	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
66a	Spring lock washer	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
67	Impeller nut	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
72a	O-ring	EPDM or FKM	EPDM or FKM	EPDM or FKM
77	Cover	EN-GJL-250	EN-GJL-250	EN-GJL-250
105	Shaft seal	Burgmann 1.4401/AISI 316	Burgmann 1.4401/AISI 316	Burgmann 1.4401/AISI 316

Stainless steel pump



Pos.	Component	N-version	R-version
1a	Motor stool	EN-GJL-250	EN-GJL-250
6	Pump housing	1.4408/CF8M	1.4517/CD4MCuN
7	Coupling guard	1.4016/AISI 430	1.4016/AISI 430
17	Air vent plug	1.4401/AISI 316	1.4539/AISI 904L
20	Plug	1.4401/AISI 316	1.4539/AISI 904L
24	Hexagon socket head cap screw	ISO898 1.4401/AISI 316	ISO898 1.4539/AISI 904L
24b	Hexagon socket head cap screw	ISO898 1.4401/AISI 316	ISO898 1.4539/AISI 904L
45	Wear ring	Graflon	Graflon
45b	Wear ring	Graflon	Graflon
49	Impeller	1.4408/CF8M	1.4517/CD4MCuN
51	2-part stub shaft	1.4401+1.0301/AISI 316+ carbon steel C10	1.4462+1.0301/ASTM J92205+ carbon steel C10
65	Wear ring retainer	1.4517/CD4MCuN	1.4517/CD4MCuN
65b	Wear ring retainer	1.4517/CD4MCuN	1.4517/CD4MCuN
66	Washer	1.4401/AISI 316	1.4539/AISI 904L
66a	Spring lock washer	1.4401/AISI 316	1.4539/AISI 904L
67	Impeller nut	1.4401/AISI 316	1.4539/AISI 904L
72a	O-ring	EPDM or FKM	EPDM or FKM
77	Cover	1.4408/CF8M	1.4517/CD4MCuN
105	Shaft seal	Burgmann 1.4401/AISI 316	Burgmann 2.4610/Hastelloy C-4

Sectional drawing NKG



TM03 4896 3306

Fig. 4 Sectional drawing NKG, model B

Cast iron pump

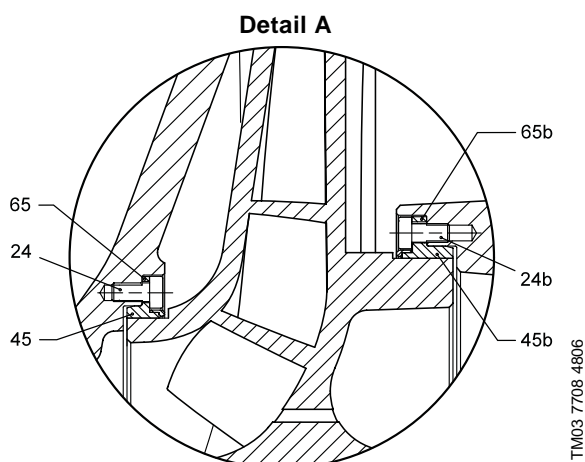
Pos.	Component	A-version Cast iron impeller	B-version Bronze impeller	S-version Stainless steel impeller
6	Pump housing	EN-GJL-250	EN-GJL-250	EN-GJL-250
7	Coupling guard	1.4301/AISI 304	1.4301/AISI 304	1.4301/AISI 304
8a	Coupling assembly	★	★	★
17	Air vent plug	2.0401/CuZn44Pb2	2.0401/CuZn44Pb2	2.0401/CuZn44Pb2
20	Plug	ISO898 8.8 carbon steel	ISO898 8.8 carbon steel	ISO898 8.8 carbon steel
45	Wear ring	CuSn10	CuSn10	CuSn10
45b	Wear ring	CuSn10	CuSn10	CuSn10
49	Impeller	EN-GJL-250	CuSn10	1.4408/CF8M
51	Shaft	1.4021+ 1.0301/AISI 420 + carbon steel C10	1.4021+1.0301/AISI 420 + carbon steel C10	1.4301+1.0301/AISI 304 + carbon steel C10
53	Deep-groove ball bearings	2ZR.C3	2ZR.C3	2ZR.C3
53a	O-ring	EPDM	EPDM	EPDM
54	Deep-groove ball bearings	2ZR.C3	2ZR.C3	2ZR.C3
54a	O-ring	EPDM	EPDM	EPDM
66	Washer	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
66a	Spring lock washer	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
67	Impeller nut	1.4301/AISI 304	1.4301/AISI 304	1.4401/AISI 316
72a	O-ring	EPDM or FKM	EPDM or FKM	EPDM or FKM
77	Cover	EN-GJL-250	EN-GJL-250	EN-GJL-250
86	Bearing bracket	EN-GJL-250	EN-GJL-250	EN-GJL-250
90c	Foot	EN-GJL-250 / 1.0338/carbon steel DC04	EN-GJL-250 / 1.0338/carbon steel DC04	EN-GJL-250 / 1.0338/carbon steel DC04
105	Shaft seal	Burgmann 1.4401/AISI 316	Burgmann 1.4401/AISI 316	Burgmann 1.4401/AISI 316
156a	Cover (bearing)	1.0338/carbon steel DC04	1.0338/carbon steel DC04	1.0338/carbon steel DC04
159a	Thrower	EPDM	EPDM	EPDM
159f	Lock ring (circlip)	DIN472(C75 DIN17 222)	DIN472(C75 DIN17 222)	DIN472(C75 DIN17 222)

★ Material of male and female part

Standard coupling EN-GJL-250	2-pole	up to 22 kW	Standard coupling EN-GJS-450-10	2-pole	from 30 kW
	4-pole	up to 30 kW		4-pole	from 37 kW
	6-pole	up to 37 kW		6-pole	from 45 kW

Spacer coupling (not shown) for all outputs: EN-GJL-250

Stainless steel pump



Pos.	Component	N-version	R-version
6	Pump housing	1.4408/CF8M	1.4517/CD4MCuN
7	Coupling guard	1.4301/AISI 304	1.4301/AISI 304
8a	Coupling assembly	★	★
17	Air vent plug	1.4401/AISI 316	1.4539/AISI 904L
20	Plug	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	Graflon	Graflon
45b	Wear ring	Graflon	Graflon
49	Impeller	1.4408/CF8M	1.4517/CD4MCuN
51	Shaft	1.4401+1.0301/AISI 316 + Carbon steel C10	1.4462+1.0301/ASTM J92205 + Carbon steel C10
53	Deep-groove ball bearings	2ZR.C3	2ZR.C3
53a	O-ring	EPDM	EPDM
54	Deep-groove ball bearings	2ZR.C3	2ZR.C3
54a	O-ring	EPDM	EPDM
65	Wear ring retainer	1.4517/CD4MCuN	1.4517/CD4MCuN
65b	Wear ring retainer	1.4517/CD4MCuN	1.4517/CD4MCuN
66	Washer	1.4401/AISI 316	1.4539/AISI 904L
66a	Spring lock washer	1.4401/AISI 316	1.4539/AISI 904L
67	Impeller nut	1.4401/AISI 316	1.4539/AISI 904L
72a	O-ring	EPDM or FKM	EPDM or FKM
77	Cover	1.4408/CF8M	1.4517/CD4MCuN
86	Bearing bracket	EN-GJL-250	EN-GJL-250
90c	Foot	EN-GJL-250 / 1.0338/carbon steel DC04	EN-GJL-250 / 1.0338/carbon steel DC04
105	Shaft seal	Burgmann 1.4401/AISI 316	Burgmann 2.4610/Hastelloy C-4
156a	Cover (bearing)	1.0338/Carbon steel DC04	1.0338/Carbon steel DC04
159a	Thrower	EPDM	EPDM
159f	Lock ring (circlip)	DIN472(C75 DIN17 222)	DIN472(C75 DIN17 222)

★ Material of male and female part

Standard coupling EN-GJL-250	2-pole	up to 22 kW
	4-pole	up to 30 kW
	6-pole	up to 37 kW

Standard coupling EN-GJS-450-10	2-pole	from 30 kW
	4-pole	from 37 kW
	6-pole	from 45 kW

Spacer coupling (not shown) for all outputs: EN-GJL-250

Mechanical construction

Mounting (NBG)

NBG pumps come in three different designs:

- Design A: Pump housing with feet
- Design B: Motor with feet
- Design C: Pump housing and motor with feet.

See the figures below.

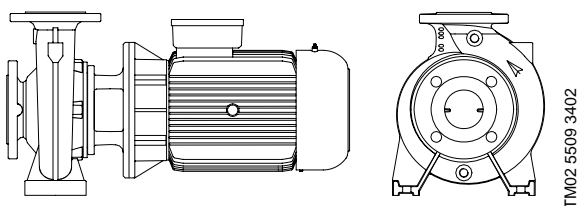


Fig. 5 NBG pump design A

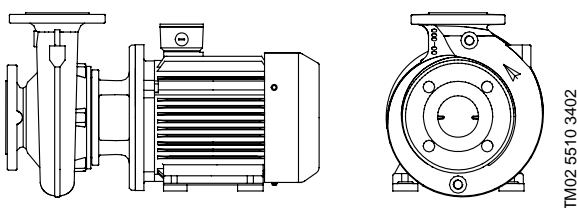


Fig. 6 NBG pump design B

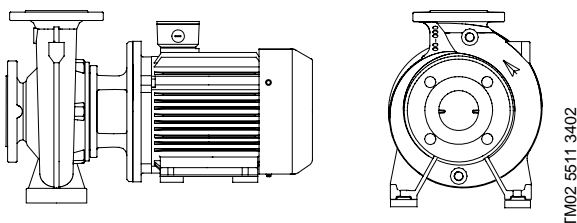


Fig. 7 NBG pump design C

Pump housing

The volute pump housing has an axial suction port and a radial discharge port. Flange dimensions are in accordance with EN 1092-2.

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

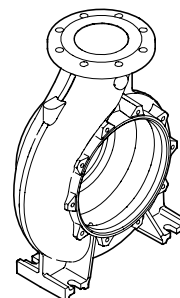


Fig. 8 NBG and NKG pump housing

Bearing bracket and shaft (NKG)

The bearing bracket has two sturdy antifriction, lubricated-for-life bearings. The bearing bracket is made of cast iron EN-GJL-250.

The shaft is made of stainless steel. Shaft diameter d_5 is either $\varnothing 24$, $\varnothing 32$, $\varnothing 42$, $\varnothing 48$ or $\varnothing 60$ mm.

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.

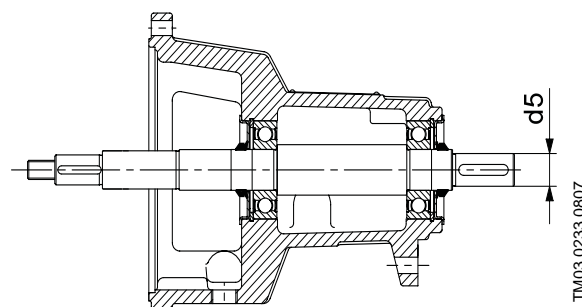


Fig. 9 Bearing bracket and shaft

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.

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:

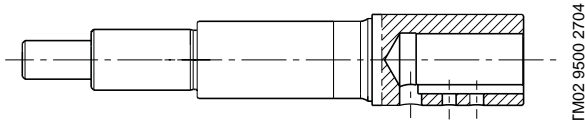
- IM B5: Up to and including frame size 132.
- IM B 35: As from frame size 160 and upwards.

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

Shaft (NBG)

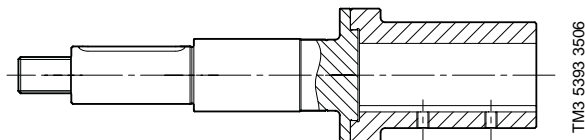
The stainless steel shaft is $\varnothing 28$, $\varnothing 38$, $\varnothing 48$, $\varnothing 55$ or $\varnothing 60$.

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



TM02 9500 2704

Fig. 10 Stub shaft, NBG pump



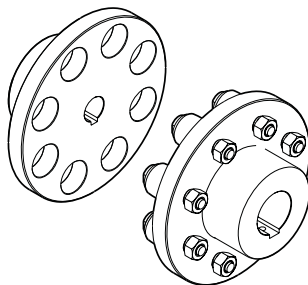
TM3 5393 3506

Fig. 11 2-part stub shaft, NBG pump

Coupling (NKG)

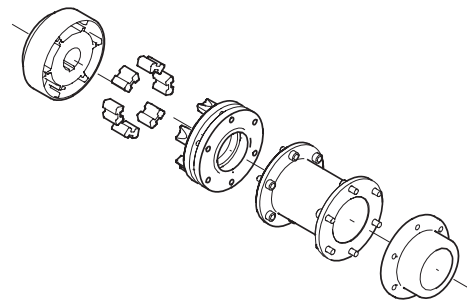
NKG pumps are available with two types of coupling:

- standard coupling
- spacer coupling



TM03 5394 3506

Fig. 12 Standard coupling, NKG pump



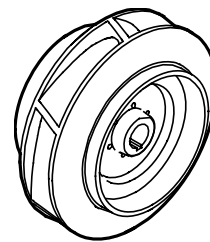
TM03 0234 4504

Fig. 13 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.

Impeller

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



TM03 0231 4504

Fig. 14 Impeller, NBG and NKG pumps

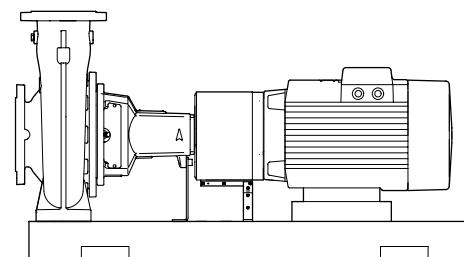
All impellers are dynamically and hydraulically balanced. The hydraulic balancing compensates for axial thrust.

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

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

Base frame (NKG)

Pump and motor are mounted on a common steel base frame in accordance with EN 23661.



TM03 4227 1906

Fig. 15 Schematic view of NKG pump-motor unit mounted on a base frame

A base frame prepared for grouting is available as an option, see "Foundation (NKG)" on page 30.

Surface treatment

NBG and NKG

The cast-iron parts of NBG and NKG have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

1. Alkaline-based cleaning.
2. Zinc phosphating.
3. Cathodic electro-deposition.
4. Curing to a dry film thickness 18-22 μm .

The colour code for the finished product is NCS 9000/RAL 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 16	16	1.6	24	2.4

Motor

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

The tables below show the motors available for NBG and NKG.

As appears from the tables you can choose between standard range with EFF2 (efficiency 2) motors and premium range with EFF1 (efficiency 1) motors for NBG and NKG, and motors with built-in frequency converter for NBE and NKE.

Standard motor range 60 Hz

Standard range - including EFF2 motors			
Output P ₂ [kW]	2-pole	4-pole	6-pole
0.25			
0.37			
0.55		MG model C	
0.75			
1.1			
1.5			
2.2	MG model C EFF2	MG model C EFF2	
3			
4			
5.5			
7.5			
11			
15			
18.5			
22			
30	MMG model E EFF2	MMG model E EFF2	MMG model E
37			
45			
55			
75			
90			
110			
132			
160	MMG model E	MMG model E	
200			
250			
315			

EFF1 is the highest efficiency class of the CEMEP efficiency classes.

Note: The CEMEP list of minimum requirements for high-efficiency motors covers the range from 1.1 kW to 90 kW, 2-pole and 4-pole motors, see bold frame. Consequently, only the motors within this range may be designated EFF1 and EFF2.

Premium motor range 60 Hz

Premium range - including EFF1 motors			
Output P ₂ [kW]	2-pole	4-pole	6-pole
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	MG model D EFF1	MG model D EFF1	
37			
45			
55			
75			
90			
110			
132			
160			
200			
280			
288			
353			
362			
	Siemens EFF1	Siemens EFF1	Siemens
	Siemens	Siemens	
	Siemens	Siemens	

Motors with built-in frequency converter

Electronically speed-controlled motors		
Output P ₂ [kW]	2-pole	4-pole
0.75		
1.1		
1.5		
2.2		
3		
4	MGE	MGE
5.5		
7.5		
11		
15		
18.5	MMGE	MMGE
22		

Pump location

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

The relative air humidity must not exceed 95%.

Sound pressure level

Motor [kW]	Maximum sound pressure level [dB(A)] - ISO 3743		
	Three-phase motor, premium range		
	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	54	57	63
4	68	56	63
5.5	68	62	63
7.5	73	62	66
11	70	66	66
15	70	66	66
18.5	70	63	66
22	70	63	66
30	71	65	62
37	71	65	63
45	75	65	62
55	75	68	62
75	77	71	66
90	77	71	66
110	81	75	66
132	81	75	66
160	81	75	-
200	81	75	-
280	86	-	-
288	-	77	-
353	86	-	-
362	-	77	-

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.

Ambient temperature must not exceed:

- +40°C for EFF2 motors
- +60°C for EFF1 motors.

If the ambient temperature exceeds +40°C (+60°C) or if the motor is installed more than 1000 m (3500 m) above sea level, 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.

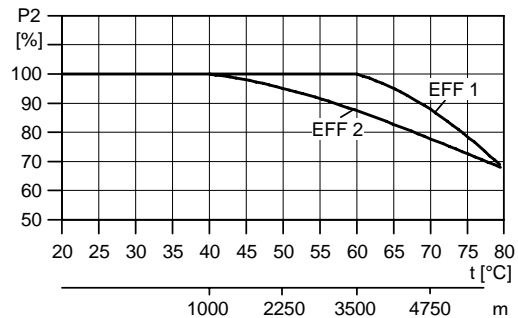


Fig. 16 Motor P2 depends on temperature/altitude

Example:

Fig. 16 shows that the load of an EFF2-motor must be reduced to 88% when installed 3500 m above sea level.

At an ambient temperature of 70°C the load of an EFF2-motor must be reduced to 78% of the rated output.

In such situations an oversize motor can be used.

Pumped liquids

NBG and NKG pumps are suitable for pumping clean, thin and non-explosive liquids, not containing any solid particles.

The effect of viscosity on centrifugal pump performance

A viscous liquid affects a centrifugal pump in several ways.

- The power consumption will be increased, i. e. a larger motor is required.
- Head, flow rate and pump efficiency will be reduced.

The effect of high density on centrifugal pump performance

A high density liquid only affects the power consumption of a centrifugal pump.

- The head, flow rate and pump efficiency will remain unchanged.
- The power consumption will increase at a ratio corresponding to the increase in density. A liquid with a specific gravity of 1.2 will thus require a 20% larger power input.
- An oversize motor will often be required.

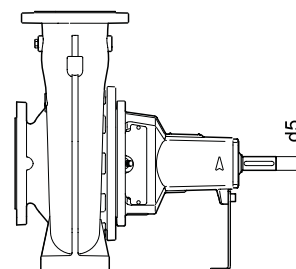
WinCAPS and WebCAPS can help you select the right pump for liquids with viscosity/density different from those of water.

Liquid temperatures

The NBG and NKG pump range covers the temperature range from -25°C to $+140^{\circ}\text{C}$. The permissible liquid temperature depends on the mechanical shaft seal type and pump type. See also the table below.

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

The maximum liquid temperature is stamped on the nameplate.



Diameter of shaft end d5

TM03 3951 1206

Relationship between mechanical shaft seals and temperature

Shaft seal diameter [mm]	NBG/NKG		28, 38	48	55	60
d5 [mm]	NKG		24, 32	42	48	60
	Code	Temperature range	Maximum pressure [bar]			
Rubber bellows seal, metal-impregnated carbon/silicon carbide, EPDM	BAQE	0°C to $+120^{\circ}\text{C}$	16	16	16	16
Rubber bellows seal, metal-impregnated carbon/silicon carbide, FKM	BAQV	0°C to $+90^{\circ}\text{C}$	16	16	16	16
Rubber bellows seal, silicon carbide/silicon carbide, EPDM	BQQE	0°C to $+90^{\circ}\text{C}$	16	16	16	16
Rubber bellows seal, silicon carbide/silicon carbide, FKM	BQQV	0°C to $+90^{\circ}\text{C}$	16	16	16	16
Bellows seal, type B, with reduced seal faces, silicon carbide/silicon carbide, EPDM	GQQE	-25°C to $+90^{\circ}\text{C}$	16	16*	16*	16*
Bellows seal, type B, with reduced seal faces, silicon carbide/silicon carbide, FKM	GQQV	-20°C to $+90^{\circ}\text{C}$	16	16*	16*	16*
O-ring seal with fixed seal driver, silicon carbide/silicon carbide, EPDM	AQQE	0°C to $+90^{\circ}\text{C}$	25	25	16	16
O-ring seal with fixed seal driver, silicon carbide/silicon carbide, FKM	AQQV	0°C to $+90^{\circ}\text{C}$	25	25	16	16
O-ring seal with fixed seal driver, silicon carbide/metal-impregnated carbon, EPDM	AQAE	0°C to $+120^{\circ}\text{C}$	25	25	25	25
O-ring seal with fixed seal driver, silicon carbide/metal-impregnated carbon, FKM	AQAV	0°C to $+90^{\circ}\text{C}$	25	25	25	25
Rubber bellows seal, silicon carbide/resin-impregnated carbon, EPDM	BQBE	0°C to $+140^{\circ}\text{C}$	16	-	-	-
O-ring seal, balanced, metal-impregnated carbon/silicon carbide, FXM	DAQF	0°C to $+140^{\circ}\text{C}$	25	25	25	25
Rubber bellows seal, resin-impregnated carbon/silicon carbide, EPDM	BBQE	0°C to $+120^{\circ}\text{C}$	16	16	16	16

*) Max. 60°C

EPDM

Mechanical shaft seals with EPDM rubber (xxxE) 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

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

Carbon/silicon carbide

Mechanical shaft seals with carbon/silicon carbide (xAQx) 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 will usually be added to the pumped liquid, and xAQx seals will thus not be suitable.

Silicon carbide/silicon carbide

Mechanical shaft seals with silicon carbide/silicon carbide (xQQx) 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 $+90^{\circ}\text{C}$. At higher temperatures, the reduced lubricating properties of the pumped liquid may cause noise problems and limit the life of the seal faces.

Pump speed relative to impeller material and size

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

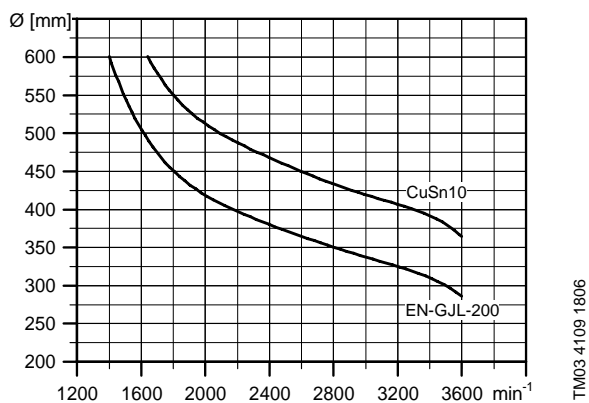


Fig. 17 Maximum permissible speed

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

Inlet pressure

Maximum inlet pressure

The actual inlet pressure + pressure when the pump is running against a closed valve must always be lower than the maximum permissible operating pressure.

Minimum inlet pressure

The minimum inlet pressure must be according to the NPSH curve + a safety margin of at least 0.5 m + correction for vapour pressure. It is, however, advisable to calculate the inlet pressure if:

- 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.

Calculation of maximum suction lift for water in open systems

To avoid cavitation, make sure that there is a minimum pressure on the suction side of the pump. The maximum suction lift "H" in metres head can be calculated as follows:

$$H = p_b \times 10.2 - \text{NPSH} - H_f - H_v - H_s \quad [\text{m}]$$

p_b = Barometric pressure in bar.
(Barometric pressure can be set to 1 bar.)
In closed systems, p_b indicates the system pressure in bar.

NPSH = Net Positive Suction Head in metres head.
(To be read from the NPSH curve at the highest flow the pump will be delivering.)

H_f = Friction loss in suction pipe in metres head.
(At the highest flow the pump will be delivering.)

H_v = Vapour pressure in metres head.
(To be read from the vapour pressure scale. " H_v " depends on the liquid temperature " T_m ".)

H_s = Safety margin = minimum 0.5 metres head.

If the "H" calculated is positive, the pump can operate at a suction lift of maximum "H" metres head.

If the "H" calculated is negative, an inlet pressure of minimum "H" metres head is required.

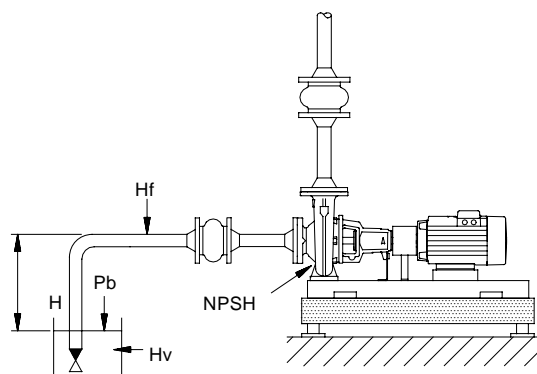


Fig. 18 Schematic view of open system with an NKG pump

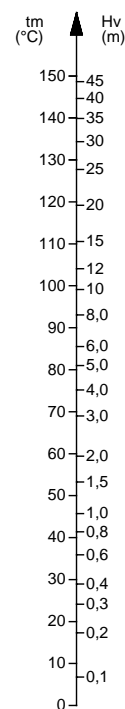


Fig. 19 Relation between liquid temperature and vapour pressure

TM02 6572 1003

TM00 3037 0798

Foundation (NKG)

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 should be 1.5 times the pump weight. Base frame prepared for grouting is available as an option, see Fig. 23.

The foundation should be 100 mm larger than the base frame on all four sides, see Fig. 20.

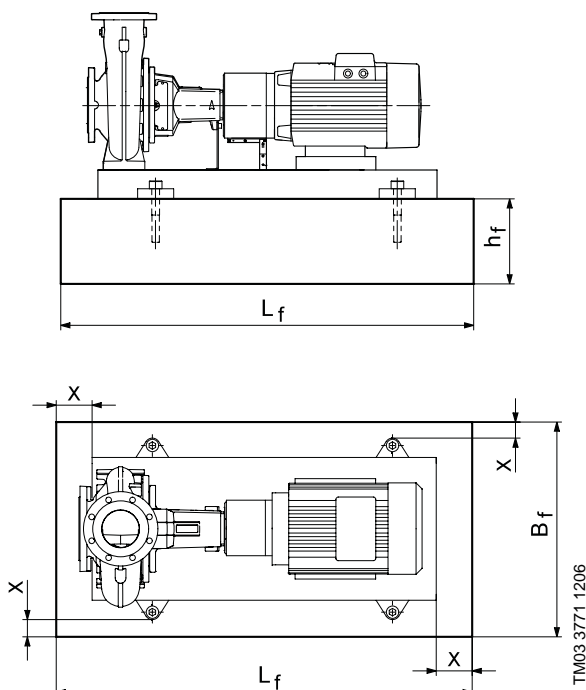


Fig. 20 Foundation, X = min. 100 mm

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

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

The density (δ) of concrete is usually taken as 2200 kg/m³.

Place the pump on the foundation and fasten it. The base frame must be supported under its entire area, see Fig. 21.

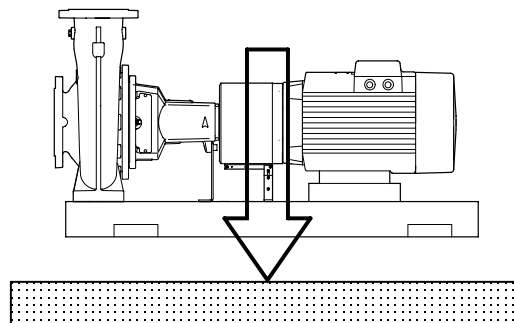


Fig. 21 Correct foundation

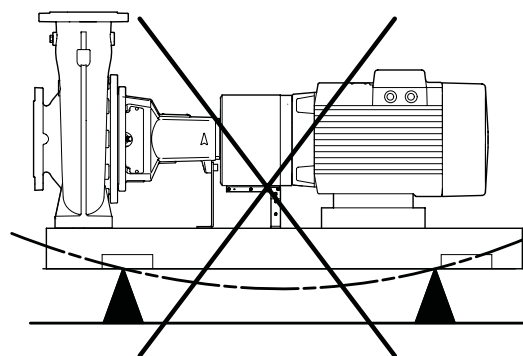


Fig. 22 Incorrect foundation

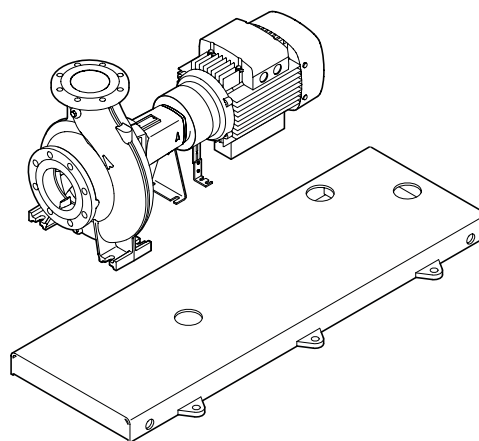


Fig. 23 Base frame prepared for grouting

TM03 3950 1206

TM03 4324 1206

TM03 3771 1206

TM03 4587 2206

Piping

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

The suction and discharge 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 suction side of the pump, see Fig. 24.

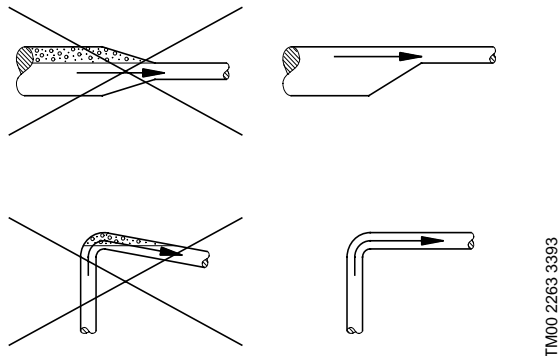


Fig. 24 Pipelines

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 suction and the discharge side. The counter flanges should lie true against the pump flanges without being stressed as this will cause damage to the pump.

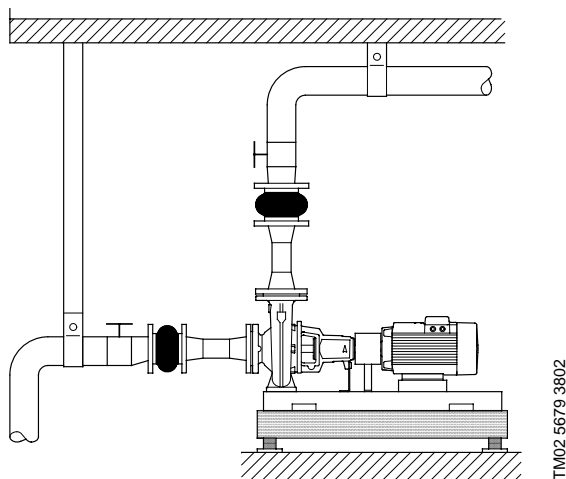


Fig. 25 Pipeline mounting

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.

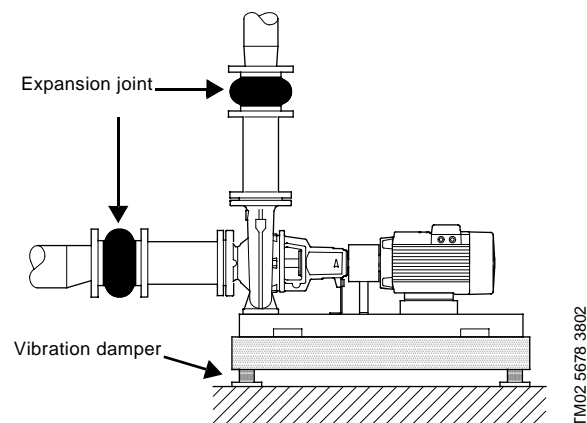


Fig. 26 NKG pump with expansion joints and vibration dampers

Vibration dampers

To prevent the transmission of vibrations to buildings, we recommend you to 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 % (suggested value is 70%).
- Which is the right damper varies from installation to installation, and a wrong damper may increase the vibration level. Vibration dampers should therefore be sized by the supplier.

Expansion joints

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.

Install expansion joints to

- absorb expansions/contractions in the pipework caused by changing liquid temperature
- reduce mechanical strains in connection with pressure surges in the pipework
- isolate mechanical structure-borne noise in the pipework (only rubber bellows expansion joints).

Note: Do not install expansion joints to compensate for inaccuracies in the pipework such as centre displacement of flanges.

Fit expansion joints at a distance of minimum 1 to 1½ times the nominal flange diameter away from the pump on the suction as well as on the discharge side. This will prevent the development of turbulence in the expansion joints, resulting in better suction conditions and a minimum pressure loss on the pressure side. At high water velocities (> 5 m/s) we recommend you to install larger expansion joints corresponding to the pipework.

We always recommend expansion joints with limiting rods for flanges larger than DN 100.

Alignment (NKG)

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/removing shims under the feet of the pump or the motor.

Take care to align carefully as this will increase the working lives of the coupling, bearings and shaft seals considerably.

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

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

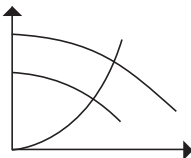
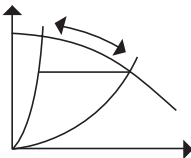
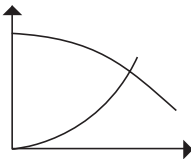
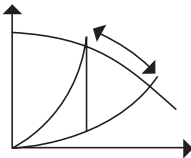
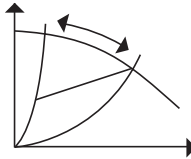
Alternatively, all NBG and NKG pumps with three-phase motors can be connected to an external frequency converter.

NBGE and NKGE pump applications

NBGE and NKGE pumps with integrated speed control enable automatic adaptation of performance to current 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	
	<ul style="list-style-type: none"> Single-pipe heating systems Systems with three-way valves Heating and cooling surfaces Chiller pumps (Sensor not required)
Constant pressure	
	<ul style="list-style-type: none"> Pressure boosting systems (Sensor required)
Temperature control	
	<ul style="list-style-type: none"> Single-pipe heating systems Systems with three-way valves Cooling towers Chiller pumps Domestic hot-water recirculation systems (Sensor required)
Constant flow	
	<ul style="list-style-type: none"> Heating and cooling surfaces Cooling towers Flow filters (Sensor required)
Proportional differential pressure (measured)	
	<ul style="list-style-type: none"> System with two-way valves (Differential pressure sensor is located in the system)

Constant curve

In constant curve control mode, the pump will adjust its speed to meet the required flow 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-control mode, the pump will adjust its speed to keep a constant pressure where the sensor is fitted.

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

A pressure sensor with a suitable operating range is required.

Temperature control

In the temperature control mode, the pump will adjust 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 the constant-flow control mode, the pump will adjust 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.

In this control mode either an electronic flowmeter or a differential pressure sensor is required.

Proportional differential pressure (measured)

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

This control mode is recommended 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 in a reference point away from the NKGE pump.

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

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.

In order to achieve optimum operating economy, the pump should be selected on the basis of the following criteria:

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

Between the min. and max. 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 max. curve.

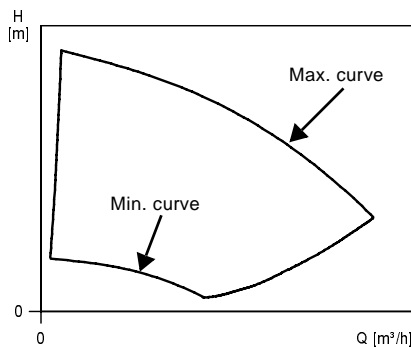


Fig. 27 Min. and max. performance curves

In situations where it is not possible to select a duty point close to the max. curve, use the affinity equations below. The head (H), the flow (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 $H = k \times Q^2$, 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.

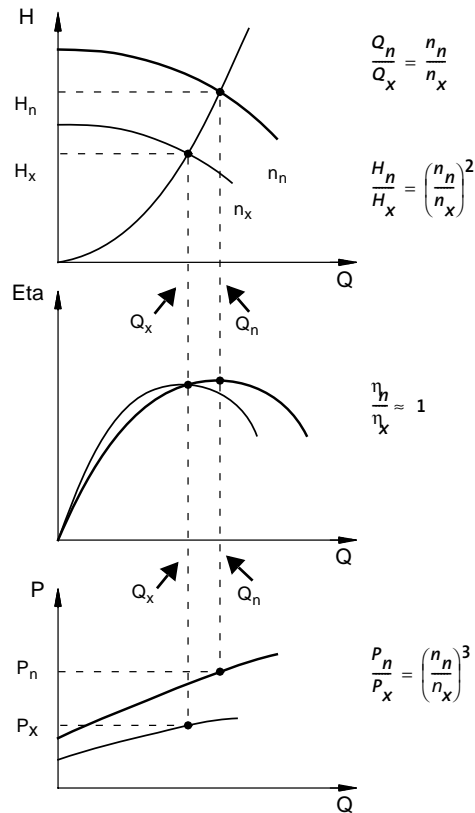


Fig. 28 Affinity equations

Legend

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

WinCAPS and WebCAPS

WinCAPS and WebCAPS are both 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.

For further information, see page 243.

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Communication with NBGE and NKGE pumps

Communication with NBGE, NKGE pumps is possible via a central building management system, remote control (Grundfos R100) or a control panel.

Central building management system

The operator can communicate with the NBGE, NKGE pump even though he is not present near the pump. Communication can take place via a central building management system allowing the operator to monitor and change control modes and setpoint settings.

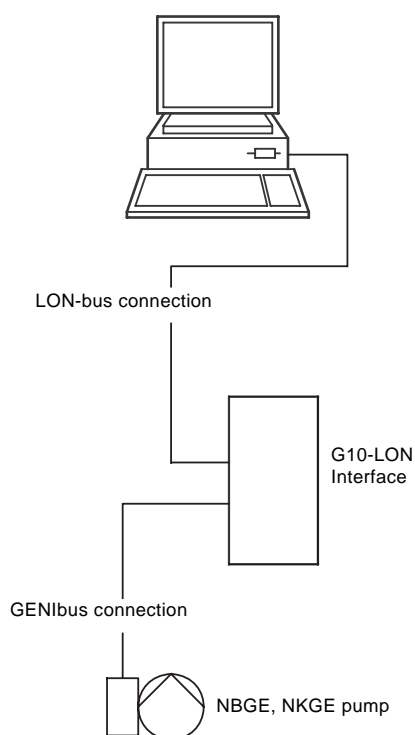


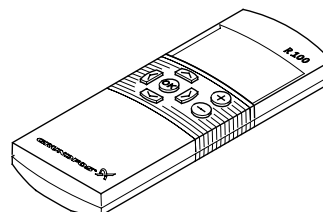
Fig. 29 Structure of a central building management system

TM02 6592 1103

Remote control

The R100 remote control produced by Grundfos is available as an accessory.

The operator can communicate with the NBGE, NKGE pump by pointing the IR-signal transmitter at the control panel of the NBGE, NKGE pump terminal box.



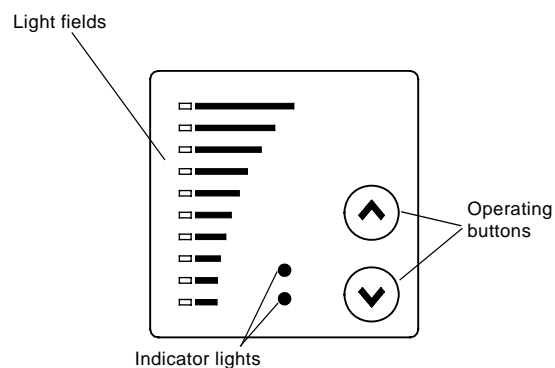
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Fig. 30 R100 remote control

The operator can monitor and change control modes and settings of the NBGE, NKGE pump via the R100 display.

Control panel

The operator can change the setpoint settings manually on the control panel of the NBGE, NKGE pump terminal box.



TM00 7600 0404

Fig. 31 Control panel of an NBGE, NKGE pump

Pump size

Selection of pump size should be based on:

- 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.
- best efficiency at the estimated duty point.

Efficiency

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

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

Material

The material variant should be selected on the basis of the liquid to be pumped, see "List of pumped liquids", page 37.

Motor size

Selection of motor size should be based on 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 page 50 to page 221.

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 min. P ₂ [kW]
286	315
227	250
181	200
145	160
120	132
100	110
81	90
68	75
49	55
40	45
32.5	37
26	30
19	22
15.9	18.5
12.8	15
9.1	11
6.1	7.5
4.3	5.5
3.2	4
2.3	3
1.7	2.2
1.1	1.5
0.81	1.1
0.55	0.75
0.40	0.55
0.27	0.37
0.18	0.25

Pumped liquids

We recommend NBG and NKG pumps for thin, clean and non-explosive liquids, not containing solid particles or fibres. The liquid must not attack the pump materials chemically or mechanically.

If you pump liquids with a density and/or viscosity higher than those of water, use motors with correspondingly higher outputs. See "List of pumped liquids".

The mechanical shaft seal must be suitable for the liquid.

Water in heating and ventilating systems often contains additives to prevent negative effects, such as system corrosion or calcareous deposits. If you want to use the pump for such liquids, and if the temperature is above 80°C, use special shaft seals to avoid crystallization/precipitation between the seal faces.

Liquid temperature: -25°C to +140°C.

For heating systems, the water quality should meet VDI 2035.

List of pumped liquids

The list on the following pages gives an overview of liquids which may typically be pumped by NBG and NKG pumps.

The list states the recommended shaft seals. Other shaft seals may be applicable, but we consider those stated in the list to be the best choices.

The list is intended as a general guide only, and it cannot replace actual testing of pumped liquids and pump materials under specific working conditions.

However, use the list with some caution, as factors may affect the chemical resistance of a specific pump version. The factors are

- operating conditions
- solids
- cleaning procedures
- contaminants
- pressure.

Legend for notes in the list

a	To minimize the risk of corrosion, the pump must run continuously, i.e. standstills must not exceed 6-8 hours.
b	May contain additives or impurities which can cause shaft seal problems.
c	The pump should run continuously to prevent discoloration of pool tiles. For intermittent use, the N version should be used.
d	Density and viscosity may differ from those of water. Consider this when calculating motor and pump performance.
e	In order to avoid corrosion, the liquid must be free of oxygen.
f	Flammable or combustible liquid.
g	Risk of crystallization/precipitation at the shaft seal.

Pumped liquids	Notes	Additional information	Material version					Shaft seal
			A	B	S	N	R	
Water								
Acidic minewater		Low pH value, high chloride content				x	x	BQQE
Boiler-feed water		<120°C	x					BAQE
		120°C - 140°C	x					BQBE/DAQF ¹⁾
Brackish water	a	30°C, 2000 ppm chloride				x		BQQE
		<90°C	x					BQQE
Condensate		90°C - 120°C	x					BAQE
		120°C - 140°C	x					BQBE/DAQF ¹⁾
Cooling and cutting lubricant			x					BQQV
Demineralized water		<90°C				x		BQQE
		<120°C						BAQE
		120°C - 140°C	x					BQBE/DAQF ¹⁾
Groundwater		<90°C	x	x	x			BQQE
		>90°C	x	x	x			BAQE ²⁾ /BQBE
Oil containing water		<90°C	x					BQQV
		<90°C		x	x			BQQE
		90°C - 120°C		x	x			BAQE ²⁾
Seawater	a	<35°C					x	BQQE
Swimming-pool water, chlorinated	c	40°C, 150 ppm Cl- (< 2 ppm free chlorine)		x	x			BQQE
Coolants								
Calcium chloride	b, d, e, g	<5°C, 30%	x					BQQE/GQQE
Ethylene glycol	b, d	<50°C	x					BQQE/GQQE
Glycerine (glycerol)	b, d	<50°C	x					BQQE/GQQE
Hydrocarbon-based coolant	d, f	50°C	x					BQQV/GQQV
Potassium acetate (inhibited)	b, d, e, g	<20°C	x	x	x			BQQE/GQQE
Potassium formate (inhibited)	b, d, e, g	<20°C	x	x	x			BQQE/GQQE
Propylene glycol	b, d	<50°C	x					BQQE/GQQE
Sodium chloride	b, d, e, g	<5°C, 30%	x					BQQE/GQQE
Fuels								
Biodiesel	f		x					BAQV
Diesel oil	f		x					BAQV
Jet fuel	f		x					BAQV
Kerosene	f		x					BAQV
Naphta	f		x					BAQV
Petrol	f		x					BAQV
Mineral oils								
Crude oil	b, d, f	<20°C			x			BQQV
Mineral lubricating oil	d, f		x					BAQV/BQQV
Mineral motor oil	d, f		x					BAQV/BQQV
Synthetic oils								
Synthetic lubricating oil	d, f		x					BAQV/BQQV
Synthetic motor oil	d, f		x					BAQV/BQQV
Silicone oil	d		x					BAQV/BQQV
Vegetable oils								
Corn oil	b, d		x		x			BAQV/BQQV
Olive oil	b, d		x		x			BAQV/BQQV
Peanut oil	b, d		x		x			BAQV/BQQV
Rapeseed oil	b, d		x		x			BAQV/BQQV
Soya oil	b, d		x		x			BAQV/BQQV
Cleaning								
Alkaline degreasing agent	b, h	<80°C	x		x			BQQE/DAQF ⁴⁾
Soap (salts of fatty acids)	b	<80°C	x	x	x			BQQV
Organic solvents								
Acetone	f	40°C	x					BAQE ³⁾ /BBQE
Ethyl alcohol (ethanol)	f	40°C	x					BAQE ³⁾ /BBQE
Hydrogen peroxide		20°C, 5%				x		BQQE
Isopropyl alcohol	f	40°C	x					BAQE ³⁾ /BBQE
Methyl alcohol (methanol)	f	40°C	x					BAQE ³⁾ /BBQE

Pumped liquids	Notes	Additional information	Material version					Shaft seal
			A	B	S	N	R	
Oxidants								
Sodium hypochlorite		20°C, 0.1%					x	BQQV
Salts								
Ammonium bicarbonate	b, d	20°C, 15%	x					BQQE
		60°C, 20%			x			BQQE
Copper sulphate	b, d, g	60°C, 20%				x	x	BQQE
Ferric sulphate	b, d, g	20°C, 20%				x	x	BQQE
Potassium bicarbonate	b, d	20°C, 20%	x					BQQE
		60°C, 20%				x		BQQE
Sodium carbonate	b, d, g	20°C, 20%			x			BQQE
		60°C, 20%				x		BQQE
Potassium permanganate	b, d	20°C, 1%			x			BQQE
		50°C, 10%				x		BQQE
Sodium nitrate	b, d	20°C, 5%			x			BQQE
		60°C, 20%				x		BQQE
Sodium nitrite	b, d	20°C, 20%	x					BQQE
		60°C, 20%				x		BQQE
Sodium phosphate (mono)	b, d	60°C, 20%				x		BQQE
Sodium phosphate (di)	b, d	30°C, 20%			x			BQQE
		60°C, 20%				x		BQQE
Sodium phosphate (tri)	b, d, g	20°C, 10%			x			BQQE
		70°C, 20%				x		BQQE
Sodium sulphate	b, d, g	60°C, 20%				x		BQQE
Sodium sulphite	b, d, g	20°C, 1%			x			BQQE
		60°C, 20%				x		BQQE
Acids								
Acetic acid		20°C, 15%				x		BQQE
Chromic acid		20°C, 10%					x	BQQE
Citric acid	d	50°C, 20%				x		BQQE
Formic acid	d	20°C, 30%				x		BQQE
Nitric acid	d	20°C, 40%				x		BQQE
Oxalic acid	g	20°C, 10%					x	BQQE
Phosphoric acid	b, d, g	70°C, 40%				x		BQQE
Sulphuric acid	b, d	20°C, 20%					x	BQQV
Sulphurous acid		20°C, 5%					x	BQQV
Alkalies								
Ammonium hydroxide		30°C, 30%	x					BQQE
Calcium hydroxide	b	30°C, 5%			x			BQQE
Potassium hydroxide	d, g	20°C, 20%			x			BQQE
		60°C, 20%				x		BQQE
Sodium hydroxide	d, g	20°C, 20%			x			BQQE
		80°C, 20%				x		BQQE

- 1) Shaft diameters measured at the shaft end (d5) are either 24, 32, 42, 48 or 60 mm. BQBE shaft seals can be used for shaft end diameter (d5) 24 or 32 mm. DAQF shaft seals can be used for all five shaft diameters.
- 2) Do not use BAQE for potable water. For potable water, we recommend BBQE shaft seals.
- 3) If diluted with water, use BBQE.
- 4) If oil residuals are present, use DAQF.

The tables below give all electrical data for motors for NB(E) and NK(E).

Note: For information about electrical data of MMG model E, TECO EFF2/standard efficiency and TECO EFF1/high efficiency, see page 231.

Electrical data, mains-operated motors

NBG/NKG, standard range, 2-pole

Motor	Frame size	Model	Voltage [V]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ 1/1	n [min ⁻¹]	$\frac{I_{start}}{I_{1/1}}$
MG	80B	C	3x220-255D/ 380-440Y	1.1	4.15-3.8/2.4-2.2	82-85	0.86-0.80	3370-3450	5.9-7.3
MG	90SA	C	3x220-277D/ 380-480Y	1.5	5.7-5.0/3.3-2.9	80.5-82	0.89-0.78	3440-3500	5.9-8.4
MG	90LA	C		2.2	8.05-6.95/4.65-4.0	83-84.5	0.90-0.81	3440-3500	6.5-9.5
MG	100LA	D	3x380-480Δ	3	10.8-9.45/6.25-5.45	83-85	0.90-0.79	3470-3520	7.5-11.0
MG	112MB	C		4	13.6-11.4/7.85-6.6	86-87	0.92-0.85	3480-3520	8.0-12.0
MG	90LA	C	3x380-480Δ	2.2	4.65-4.0	83-84.5	0.90-0.81	3440-3500	6.5-9.5
MG	100LA	D		3	6.25-5.45	83-85	0.90-0.79	3470-3520	7.5-11.0
MG	112MB	C	3x380-480Δ	4	7.85-6.6	86-87	0.92-0.85	3480-3520	8.0-12.0
MG	132SB	C		5.5	10.8-9.0	86.5-88.5	0.92-0.85	3480-3520	8.2-12.4
MG	132SC	C	3x380-480Δ	7.5	14.6-13.0	87.5-89	0.92-0.80	3480-3520	9.5-11.6
MMG	160MA	E		11	20.6-16.6/11.8	88.1-88.8	0.92-0.89	3510-3550	5.2-8.3
MMG	160MB	E	3x380-480Δ/ 660-690Y	15	28.0-22.4/16.2	89.6-90.3	0.92-0.89	3510-3550	5.2-8.3
MMG	160L	E		18.5	33.5-27.5/19.6	90.3-90.8	0.92-0.89	3510-3550	5.8-9.2
MMG	180M	E	3x380-480Δ/ 660-690Y	22	40.0-32.5/23.4	90.4-91.4	0.92-0.88	3520-3550	6.0-9.4
MMG	200LA	E		30	55.5-45.5/32.0	91.0-91.9	0.90-0.87	3530-3560	5.6-9.0
MMG	200LB	E	3x380-480Δ/ 660-690Y	37	67.0-54.5/38.5	91.7-91.4	0.91-0.88	3560-3560	6.2-10.0
MMG	225M	E		45	82.5-66.5/47.5	91.3-91.7	0.91-0.88	3560-3580	6.1-9.9
MMG	250M	E	3x380-480Δ/ 660-690Y	55	100-80.0/58.0	92.3-92.8	0.90-0.89	3540-3580	4.7-7.8
MMG	280S	E		75	136-108/78.5	94.2-94.7	0.89-0.88	3570-3580	5.2-8.3
MMG	280M	E	3x380-480Δ/ 660-690Y	90	160-130/92.5	95.0-94.8	0.90-0.88	3570-3580	5.6-8.9
MMG	315S	E		110	185-148/108	94.0	0.93-0.89	3590-3580	6.4-7.8
MMG	315M	E	3x380-480Δ/ 660-690Y	132	235-186/136	94.5	0.90	3570-3580	4.6-7.4
MMG	315LA	E		160	285-222/164	94.5-95.0	0.90-0.91	3570-3580	4.7-7.5
MMG	315LB	E	3x380-480Δ/ 660-690Y	200	360-280/208	93.5-94.0	0.89-0.91	3560-3580	4.4-7.2
MMG	355M	E		250	435-350/250	94.5	0.92-0.90	3570-3580	5.4-8.5
MMG	355L	E	315	540-445/310	94.5	0.92-0.90	3570-3580	5.5-8.6	

NBG/NKG, standard range, 4-pole

Motor	Frame size	Model	Voltage [V]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ 1/1	n [min ⁻¹]	I _{start} I ₁ / 1
MG	71A	C	3x220-254D/ 380-440Y	0.25	1.21/0.7	71-72	0.80-0.69	1680-1720	4.0-4.7
MG	71B	C		0.37	1.72/0.99	73-74	0.82-0.72	1680-1720	4.0-4.7
MG	80A	C		0.55	2.4/1.4	77-80	0.83-0.75	1660-1710	3.9-4.7
MG	80B	C		0.75	3.1/1.8	77-81	0.84-0.76	1660-1710	3.9-4.5
MG	90SA	C	3x220-277D/ 380-480Y	1.1	4.75-4.5/2.75-2.6	78-80	0.82-0.67	1700-1750	4.2-5.5
MG	90LA	C		1.5	6.3-5.7/3.65-3.3	79-81	0.83-0.73	1700-1750	4.4-6.0
MG	100LA	D		2.2	9.0-7.8/5.2-4.5	83-85	0.80-0.70	1710-1750	4.7-6.8
MG	100LB	D		3	12.2-11.6/7.1-6.75	84-85	0.80-0.70	1710-1750	5.2-6.8
MG	112MB	C	3x380-480Δ	4	14.8-13.4/8.6-7.7	87-89	0.85-0.73	1730-1760	6.0-8.4
MG	100LA	D		2.2	5.2-4.5/-	83-85	0.80-0.70	1710-1750	4.7-6.8
MG	100LB	D		3	7.1-6.75	84-85	0.80-0.70	1710-1750	5.2-6.8
MG	112MB	C		4	8.6-7.7	87-89	0.85-0.73	1730-1760	6.0-8.4
MG	132SC	C		5.5	12.2-11.0	87-88	0.83-0.72	1730-1750	5.8-8.0
MMG	132SB	E		7.5	14.8-12.2/8.55	87.5-90.0	0.88-0.83	1730-1760	5.5-9.3
MMG	160MA	E	11	21.6-17.6/12.4	89.0-90.5	0.87-0.83	1730-1760	5.7-9.4	
MMG	160L	E	15	28.0-23.0/16.2	90.0-91.0	0.90-0.86	1750-1770	6.6-10.8	
MMG	180M	E	18.5	33.5-28.5/19.6	91.5-91.0	0.91-0.86	1750-1770	6.0-9.5	
MMG	180L	E	22	40.5-33.0/23.4	91.5-92.0	0.91-0.87	1760-1780	6.4-10.4	
MMG	200L	E	30	55.0-44.5/31.5	92.0-93.5	0.90-0.88	1760-1780	5.7-9.2	
MMG	225S	E	37	67.0-54.0/38.5	92.5-93.5	0.90-0.88	1780	5.7-9.5	
MMG	225M	E	45	81.0-67.0/46.5	93.0-93.5	0.90-0.86	1780	6.2-10.0	
MMG	250M	E	55	100-79.5/57.5	93.0-93.5	0.90-0.88	1770-1780	5.7-9.5	
MMG	280S	E	75	136-106/78.5	93.5-94.5	0.90	1770-1780	5.7-9.5	
MMG	280M	E	90	164-126/94.5	93.5-94.5	0.89-0.91	1770-1790	5.2-8.9	
MMG	315S	E	110	200-162/116	94.0-94.0	0.89-0.86	1780-1790	5.0-7.8	
MMG	315M	E	132	240-190/139	95.0-94.5	0.88-0.87	1780-1790	6.5-8.5	
MMG	315LA	E	160	295-228/170	94.5-95.0	0.89-0.87	1780-1790	4.6-7.4	
MMG	315LB	E	200	360-286/208	95.0-95.5	0.88-0.88	1780-1790	4.4-7.0	
MMG	355M	E	250	440-345/254	94.5-95.0	0.90-0.91	1780-1790	4.9-8.0	
MMG	355L	E	315	550-440/318	95.5-95.5	0.90-0.89	1780-1790	5.4-8.6	

NBG/NKG, standard range, 6-pole

Motor	Frame size	Model	Voltage [V]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ 1/1	n [min ⁻¹]	I _{start} I ₁ / 1
MMG	90L	E	3x220-277D/ 380-480Y	1.1	4.6-4.2/2.65-2.42	77.2-81.2	0.82-0.67	1090-1140	4.1-5.9
MMG	100L	E		1.5	5.4-5.9/3.1-3.4	79.5-79.5	0.84-0.67	1120-1150	4.7-6.3
MMG	112M	E		2.2	8.6-7.8/5.0-4.5	82.0-83.5	0.82-0.70	1120-1150	4.6-6.7
MMG	132S	E		3	11.8-10.0/6.80-5.75	86.0-89.0	0.78-0.69	1150-1170	4.9-8.1
MMG	132MA	E	4	15.4-13.0/8.9-7.5	87.5-90.0	0.78-0.71	1150-1170	5.7-8.3	
MMG	112M	E	2.2	5.0-4.5/2.9	82.0-83.5	0.82-0.70	1120-1150	4.6-6.7	
MMG	132S	E	3	6.8-5.75/3.95	86.0-89.0	0.78-0.69	1150-1170	4.9-8.1	
MMG	132MA	E	4	8.9-7.5/5.15	87.5-90.0	0.78-0.71	1150-1170	5.7-8.3	
MMG	132MB	E	5.5	12.2-10.6/7.05	88.0-90.0	0.78-0.69	1150-1170	6.9-8.7	
MMG	160M	E	7.5	15.8-13.4/9.1	88.0-90.0	0.81-0.74	1160-1170	5.2-8.8	
MMG	160L	E	11	23.4-19.4/13.6	88.0-90.0	0.81-0.76	1160-1170	5.4-9.3	
MMG	180L	E	15	29.5-25.5/17.0	90.0-90.5	0.86-0.78	1140-1180	5.5-8.5	
MMG	200LA	E	18.5	36.0-30.5/20.8	89.5-90.5	0.87-0.80	1170-1180	6.1-9.8	
MMG	200LB	E	22	42.5-35.5/24.6	90.5-91.5	0.87-0.81	1170-1180	5.3-8.4	
MMG	225M	E	30	58.5-46.0/33.5	-	0.86	1170	5.4-9.2	
MMG	250M	E	37	69.0-95.5/40.0	92.0-92.5	0.88-0.87	1180-1190	5.3-8.9	
MMG	280S	E	45	84.5-67.5/48.5	93.0-93.5	0.88-0.86	1180-1190	5.7-9.3	
MMG	280M	E	55	102-81.5/59.0	93.0-94.0	0.88-0.86	1180-1190	5.5-9.2	
MMG	315S	E	75	140-114/81.0	94.0-94.0	0.87-0.84	1180-1190	5.0-8.0	
MMG	315M	E	90	156-122/90.0	95.0-95.0	0.89-0.85	1180-1190	5.1-8.2	
MMG	315LA	E	110	202-160/116	95.0-95.0	0.89-0.87	1180-1190	5.2-8.5	
MMG	315LB	E	132	250-190/144-110	95-95	0.89-0.88	1180-1190	5.8-8.5	

NBG/NKG, premium range, 2-pole

Motor	Frame size	Model	Voltage [V]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ 1/1	n [min ⁻¹]	$\frac{I_{start}}{I_1}$
MG	90SA	D	3x220-277Δ/ 380-480Y	1.1	4.15-3.55/2.4-2.05	81-83	0.90-0.81	3470-3530	6.0-8.8
MG	90SB	D		1.5	5.35-4.7/3.1-2.7	84-85	0.90-0.81	3470-3530	7.8-10.5
MG	90LC	D		2.2	7.7-6.35/4.45-3.7	85.5-87	0.91-0.85	3470-3530	7.8-11.0
MG	100LC	D		3	10.8-9.8/6.2-5.65	84-87.5	0.89-0.84	3430-3530	8.0-11.0
MG	112MC	D		4	13.6-11.8/7.8-6.8	88-89.5	0.90-0.82	3510-3540	10.2-15.0
MG	90LC	D	3x380-480Δ	2.2	4.45-3.7	85.5-87	0.91-0.85	3470-3530	7.8-11.0
MG	100LC	D		3	6.2-5.65	84-87.5	0.89-0.84	3430-3530	8.0-11.0
MG	112MC	D		4	7.8-6.8	88-89.5	0.90-0.82	3510-3540	10.2-15.0
MG	132SC	D		5.5	10.8-9.45	89	0.90-0.82	3510-3540	10.0-14.6
MG	132SD	D		7.5	14.8-13.4	89.5-89.5	0.90-0.79	3490-3530	9.3-13.0
Siemens	160M	-	3x380-480Δ/ 660-690Y	11	20.0-16.5/11.6-11.0	88.7-90.0	0.94-0.89	3510-3550	6.4-10.1
Siemens	160M	-		15	27.0-22.0/15.6-14.8	89.9-91.2	0.94-0.89	3510-3550	6.8-10.8
Siemens	160L	-		18.5	32.5-26.5/18.8-18.0	91-92.3	0.94-0.91	3510-3550	6.5-10.4
Siemens	180M	-		22	40.0-32.5/23.0-22.0	91.5-92.4	0.92-0.88	3530-3560	6.7-10.5
Siemens	200L	-		30	54.0-44.0/31.0-29.5	92.6-93.6	0.91-0.88	3550-3570	6.7-10.6
Siemens	200L	-		37	66.0-54.0/38.0-36.0	93.5-94.2	0.91-0.88	3540-3570	6.6-10.5
Siemens	225M	-		45	81.0-65.0/46.5-44.0	94.3-95.1	0.90-0.87	3550-3570	5.7-9.0
Siemens	250M	-		55	97.0-79.0/56.0-53.0	94.6-95.2	0.91-0.88	3570-3580	5.4-8.3
Siemens	280S	-		75	134-108/77.0-73.0	94.8-95.3	0.90-0.87	3570-3580	5.5-8.6
Siemens	280M	-		90	160-128/92.0-87.0	95.2-95.6	0.90-0.89	3570-3580	5.9-9.3
Siemens	315S	-		110	194-154/112-106	95.2-95.6	0.91-0.90	3580-3580	5.4-8.5
Siemens	315M	-		132	230-184/134-126	95.3-95.9	0.91-0.90	3580-3580	5.6-8.9
Siemens	315L	-		160	275-220/158-152	95.8-96.2	0.92-0.90	3580-3580	5.5-9.0
Siemens	315L	-		200	345-270/198-188	95.6-96.1	0.92-0.92	3580-3580	4.7-7.6
Siemens	315	-		3x460Δ	280	410	96	0.89	3578
Siemens	315	-	353		520	96.6	0.91	3580	-

NBG/NKG, premium range, 4-pole

Motor	Frame size	Model	Voltage [v]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ1/1	n [min ⁻¹]	$\frac{I_{start}}{I_1}$
MG	90SB	D	3x220-277D/ 380-480Y	1.1	4.5-4.0/2.6-2.3	81-82	0.82-0.72	1720-1750	-
MG	90LC	D		1.5	5.7-5.1/3.3-2.95	84-85	0.86-0.75	1720-1750	-
MG	100LB	D		2.2	8.9-8.15/5.15-4.7	85-86	0.80-0.70	1720-1750	6.6-9.2
MG	100LC	D		3	12.0-10.9/6.95-6.3	86-86.5	0.80-0.70	1720-1750	5.4-7.5
MG	112MC	D		4	14.2-12.6/8.2-7.3	88-89	0.86-0.77	1740-1755	-
MG	100LB	D	3x380-480Δ	2.2	5.15-4.7	85-86	0.80-0.70	1720-1750	6.6-9.2
MG	100LC	D		3	6.95-6.3	86-86.5	0.80-0.70	1720-1750	5.4-7.5
MG	112MC	D		4	8.2-7.3	88-89	0.86-0.77	1740-1755	-
Siemens	132S	-		5.5	10.6-9.30/6.1-5.8	87.9-89.4	0.90-0.80	1740-1760	6.6-9.7
Siemens	132M	-		7.5	14.2-12.4/8.2-7.8	89.4-90.8	0.90-0.82	1740-1770	6.9-10.4
Siemens	160M	-	3x380-480Δ/ 660-690Y	11	20.8-17.6/12.0-11.6	90.5-91.7	0.89-0.83	1750-1770	6.1-9.6
Siemens	160L	-		15	28.5-24.0/16.6-15.6	90.9-92.1	0.89-0.83	1750-1770	6.2-9.8
Siemens	180M	-		18.5	35.5-29.5/20.0-19.2	91.7-92.8	0.88-0.81	1760-1780	7.2-10.9
Siemens	180L	-		22	41.0-34.5/23.6-22.5	92.3-93.3	0.88-0.82	1760-1780	7.6-11.6
Siemens	200L	-		30	55.0-45.5/31.5-30.5	92.1-93.2	0.90-0.85	1760-1780	6.8-10.7
Siemens	225S	-		37	69.0-58.0/39.5-38.0	93.8-94.6	0.87-0.81	1770-1780	5.0-8.3
Siemens	225M	-		45	83.0-69.0/48.0-46.0	94.2-94.9	0.87-0.82	1770-1780	5.1-8.5
Siemens	250M	-		55	100-83.0/58.0-55.0	94.9-95.4	0.88-0.84	1770-1790	5.5-9.1
Siemens	280S	-		75	136-116/79.0-78.0	94.8-95.2	0.88-0.82	1770-1790	5.0-8.0
Siemens	280S	-		90	164-136/94.0-90.0	95.1-95.4	0.88-0.84	1780-1790	5.5-9.1
Siemens	315S	-		110	198-164/114-112	95.6-95.7	0.88-0.84	1780-1790	5.2-8.6
Siemens	315MA	-		132	236-192/136-130	95.8-96.0	0.88-0.86	1780-1790	5.3-9.0
Siemens	315L	-		160	285-236/164-158	96.0-96.3	0.89-0.86	1780-1790	5.4-9.1
Siemens	315L	-		200	355-290/206-196	96.1-96.4	0.89-0.86	1780-1790	5.5-9.3
Siemens	315	-		3x460Δ	288	430	95.9	0.87	1784
Siemens	315	-	362		540	96.3	0.87	1785	-

NBG/NKG, premium motor range, 6-pole

Motor	Frame size	Voltage [V]	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
Siemens	90L	3x220-277Δ/ 380-480Y	1.1	4.5-4.6/2.5-2.65	82.8-83.4	0.79-0.61	1120-1150	5.2-6.4
Siemens	100L		1.5	5.5-5.3/3.2-3.05	83.0-84.6	0.86-0.70	1120-1160	5.5-7.3
Siemens	112M		2.2	8.3-8.0/4.8-4.65	86.5-87.0	0.81-0.66	1150-1170	6.9-9.2
Siemens	132SA		3	10.6-8.80/6.1-5.1	84.5-87.5	0.88-0.81	1140-1165	5.7-8.9
Siemens	132MA		4	13.0-11.4/7.5-6.6	85.2-87.6	0.87-0.77	1140-1170	6.1-9.1
Siemens	112M		2.2	4.8-4.65/2.75-2.7	86.5-87.0	0.81-0.66	1150-1170	6.9-9.2
Siemens	132SA		3	6.1-5.1/3.4-3.35	84.5-87.5	0.88-0.81	1140-1165	5.7-8.9
Siemens	132MA		4	7.5-6.6/4.3-4.15	85.2-87.6	0.87-0.77	1140-1170	6.1-9.1
Siemens	132MB		5.5	11.2-10.4/6.4-6.2	87.0-88.3	0.86-0.72	1150-1170	6.9-9.5
Siemens	160M		7.5	16.0-14.6/9.2-8.9	88.3-89.7	0.81-0.70	1160-1180	4.8-6.8
Siemens	160L	11	22.6-20.0/13.0-12.4	88.2-89.9	0.84-0.73	1150-1170	5.8-8.5	
Siemens	180L	15	29.5-27.0/17.2-16.5	90.9-91.7	0.84-0.73	1170-1180	6.2-8.9	
Siemens	200LA	18.5	37.5-33.0/22.0-21.0	90.4-91.6	0.82-0.73	1170-1180	5.2-7.7	
Siemens	200LB	22	43.0-38.0/25.0-24.0	91.1-92.1	0.85-0.75	1170-1180	6.0-8.7	
Siemens	225M	30	58.0-47.5/33.0-32.0	92.8-94.1	0.85-0.80	1170-1180	4.8-8.1	
Siemens	250M	37	73.0-59.0/42.0-40.0	92.8-94.1	0.83-0.80	1180-1190	4.9-8.4	
Siemens	280S	45	86.0-71.0/49.0-47.0	93.7-94.7	0.85-0.81	1180-1190	4.9-8.2	
Siemens	280M	55	104-86.0/60.0-57.0	94.0-94.9	0.86-0.81	1180-1190	5.3-8.9	
Siemens	315S	75	140-120/81.0-80.0	94.6-95.0	0.86-0.79	1190-1190	5.5-8.9	
Siemens	315MA	90	166-140/96.0-92.0	94.8-95.4	0.86-0.82	1190-1190	5.4-8.8	
Siemens	315MB	110	206-170/118-114	95.2-95.7	0.86-0.82	1190-1190	5.4-9.0	
Siemens	315L	132	240-200/138-134	95.4-95.8	0.87-0.82	1190-1190	5.8-9.7	

Electrical data, motors with built-in frequency converter

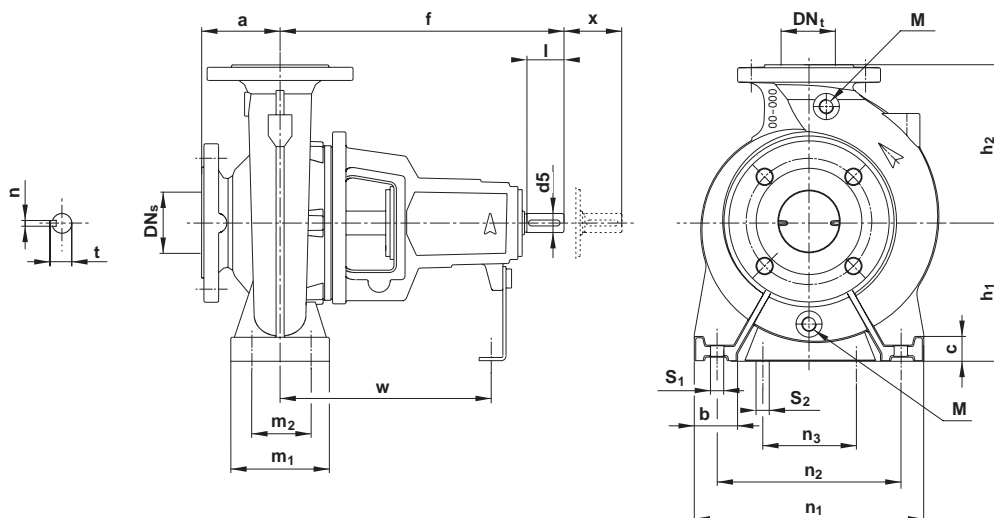
NBGE/NKGE, motor range, 2-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]
MGE	90SB-D	3x380-480 V	1.5	3.3 - 2.7
MGE	90LC-D		2.2	4.6 - 3.8
MGE	100LC-D		3.0	6.2 - 5.0
MGE	112MC-D		4.0	8.1 - 6.6
MGE	132SC-D		5.5	11.0 - 8.8
MGE	132SD-D		7.5	15.0 - 12.0
MMGE	160M	3x380-415 V	11.0	21.4
MMGE	160MX		15.0	28.0
MMGE	160L		18.5	34.0
MMGE	180M		22.0	42.0

NBGE/NKGE, motor range, 4-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]
MGE	90SA-D	3x380-480 V	0.75	1.8-1.9
MGE	90SB-D		1.1	2.5 - 2.2
MGE	90LC-D		1.5	3.3 - 2.9
MGE	100LB-D		2.2	4.6 - 3.8
MGE	110LC-D		3.0	6.2 - 5.0
MGE	112MC-D		4.0	8.1 - 6.6
MGE	132SC-D	5.5	11.3 - 10.5	
MMGE	160M	3x380-415 V	7.5	14.8
MMGE	160M		11.0	21.8
MMGE	160L		15.0	28.5
MMGE	180M		18.5	35.1
MMGE	180L		22.0	41.0

NKG model B



TM01 9274 4606

M Drain plug/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	d ₅	l	x	t	n	C _I ⁽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	-
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	-
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	-
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	-
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	-
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	-
NKG 50-32-250	50	32	100	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	26	32	80	100	35	8	83	85
NKG 65-50-125	65	40	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	40	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	19	32	80	100	35	8	81	85
NKG 65-40-315	65	40	125	500	200	250	1/2"	65	125	95	345	280	110	370	M12	M12	24	32	80	100	35	8	124	116
NKG 80-65-125	65	50	100	385	132	160	3/8"	50	100	70	240	190	110	385	M12	M12	18	24	50	100	27	8	50	51
NKG 80-65-160	65	50	100	385	160	180	3/8"	50	100	70	265	212	110	385	M12	M12	18	24	50	100	27	8	52	54
NKG 80-50-200	65	50	100	385	160	200	3/8"	50	100	70	265	212	110	385	M12	M12	18	24	50	100	27	8	58	59
NKG 80-50-250	65	50	125	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	19	32	80	100	35	8	86	88
NKG 80-50-315	65	50	125	500	225	280	1/2"	65	125	95	345	280	110	370	M12	M12	31	32	80	100	35	8	130	119
NKG 100-80-125	80	65	100	385	160	180	3/8"	65	125	95	280	212	110	385	M12	M12	19	24	50	100	27	8	55	55
NKG 100-80-160	80	65	100	500	160	200	3/8"	65	125	95	280	212	110	370	M12	M12	19	32	80	100	35	8	72	71
NKG 100-65-200	80	65	100	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	19	32	80	140	35	8	81	82
NKG 100-65-250	80	65	125	500	200	250	1/2"	80	160	120	360	280	110	370	M16	M12	23	32	80	140	35	10	111	110
NKG 100-65-315	80	65	125	530	225	280	3/8"	80	160	120	400	315	110	370	M16	M12	23	42	110	140	45	10	141	145
NKG 125-80-160	100	80	125	500	180	225	3/8"	65	125	95	320	250	110	370	M12	M12	19	32	80	140	35	8	81	83
NKG 125-80-200	100	80	125	500	180	250	3/8"	65	125	95	345	280	110	370	M12	M12	19	32	80	140	35	8	95	100
NKG 125-80-250	100	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	100	80	125	530	250	315	3/8"	80	160	120	400	315	110	370	M16	M12	23	42	110	140	45	10	152	158
NKG 125-80-400	100	80	125	530	280	355	1/2"	80	160	120	435	355	110	370	M16	M12	31	42	110	140	45	10	225	201
NKG 125-100-160	125	100	125	500	200	280	3/8"	80	160	120	360	280	110	370	M16	M12	21	32	80	140	35	10	99	-
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	-
NKG 125-100-250	125	100	140	530	225	225	1/2"	80	160	120	400	315	110	370	M16	M12	24	42	110	140	45	12	133	-
NKG 125-100-315	125	100	140	530	250	315	1/2"	80	160	120	400	315	110	370	M16	M12	23	42	110	140	45	12	161	-
NKG 125-100-400	125	100	140	530	280	355	1/2"	100	200	150	500	400	110	370	M20	M12	30	42	110	140	45	12	242	-
NKG 150-125-200	150	125	140	500	250	315	1/2"	80	160	120	400	315	110	370	M16	M12	23	42	110	140	45	12	135	-
NKG 150-125-250	150	125	140	530	250	355	1/2"	80	160	120	400	315	110	370	M16	M12	23	42	110	140	45	12	158	-
NKG 150-125-315	150	125	140	530	280	355	1/2"	100	200	150	500	400	110	370	M20	M12	26	42	110	140	45	12	190	-
NKG 150-125-400	150	125	140	530	315	400	1/2"	100	200	150	500	400	110	370	M20	M12	38	42	110	140	45	12	254	-
NKG 150-125-500	150	125	180	670	400	500	1/2"	125	200	150	625	500	140	500	M20	M16	49	60	110	180	64	18	503	-

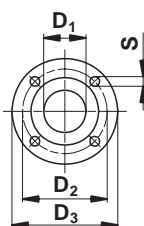
Type	Pump [mm]							Supporting feet [mm]							Shaft [mm]							Weight [kg]		
	DNs	DNt	a	f	h1	h2	M	b	m1	m2	n1	n2	n3	w	S1	S2	c	d5	l	x	t	n	CI ⁽¹⁾	SS ⁽²⁾
NKG 200-150-200	200	150	160	500	280	400	1/2"	100	200	150	550	450	110	370	M20	M16	27	32	80	140	35	10	190	-
NKG 200-150-250	200	150	160	530	280	375	1/2"	100	200	150	500	400	110	370	M20	M16	33	42	110	180	45	12	195	-
NKG 200-150-315	200	150	160	670	315	400	1/2"	100	200	150	550	450	140	500	M20	M16	33	48	110	180	51.5	14	324	-
NKG 200-150-400	200	150	160	670	315	450	1/2"	100	200	150	550	450	140	500	M20	M16	28	48	110	180	51.5	14	366	-
NKG 200-150-500	200	150	180	670	400	500	1/2"	125	200	150	625	500	140	500	M20	M16	43	60	110	180	64	18	523	-

(1) CI: Cast iron version

(2) SS: Stainless steel version

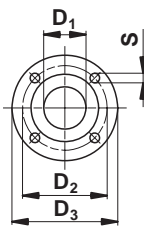
Flange dimensions (EN 1092-2)

The flange dimensions are stated in mm.

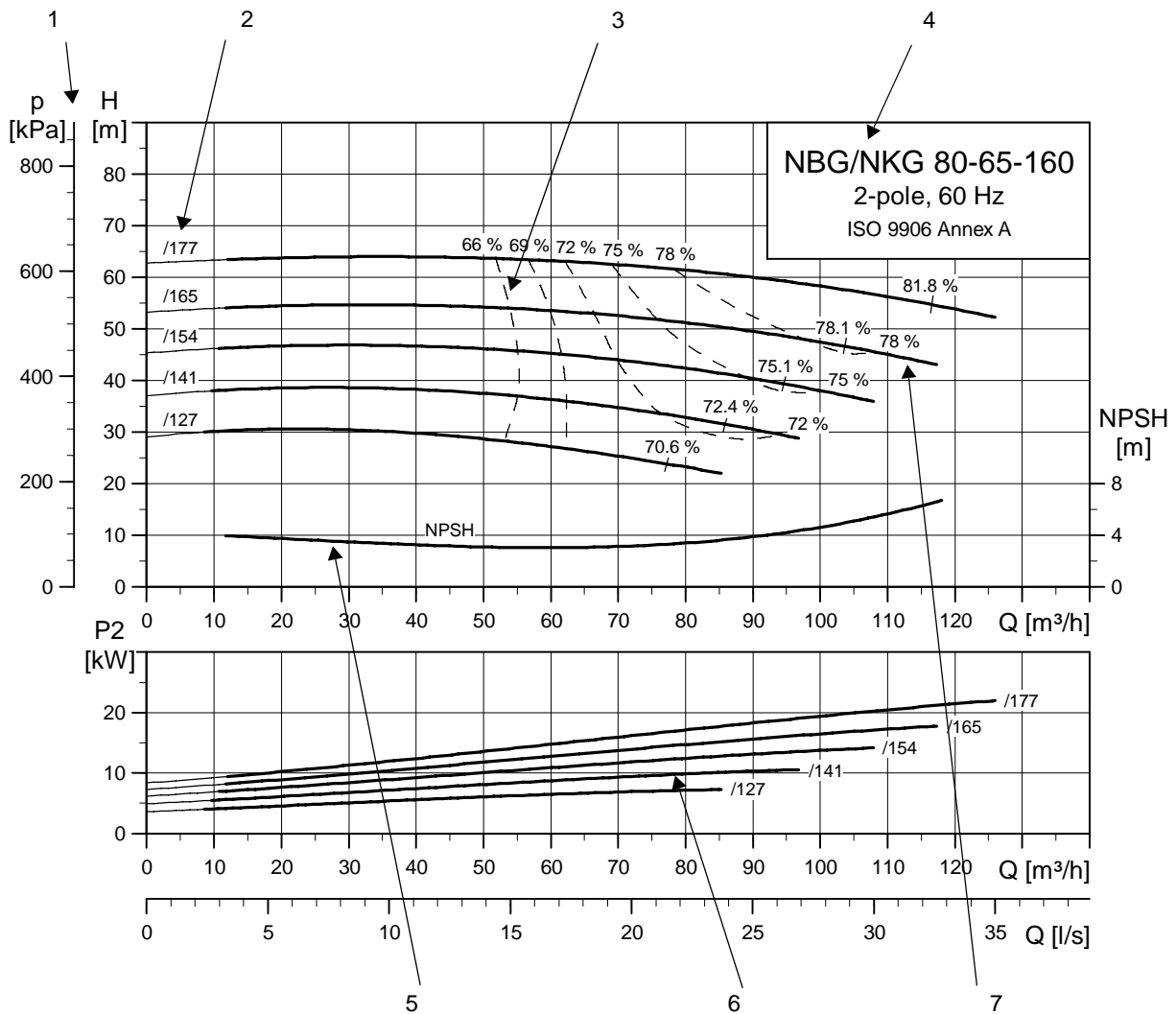
		EN 1092-2 - PN 16									
		Nominal diameter (DN)									
		32	40	50	65	80	100	125	150	200	
 TM02 7720 3803	D₁	32	40	50	65	80	100	125	150	200	
	D₂	100	110	125	145	160	180	210	240	295	
	D₃	140	150	165	185	200	220	250	285	340	
	S	4 x 19	4 x 19	4 x 19	4 x 19	8 x 19	8 x 19	8 x 19	8 x 23	12 x 23	

Flange dimensions (AS 2129, table E)

The flange dimensions are stated in mm.

		AS 2129 - PN 16									
		Nominal diameter (DN)									
		32	40	50	65	80	100	125	150	200	
 TM02 7720 3803	D₁	32	40	50	65	80	100	125	150	200	
	D₂	87	98	114	127	146	178	210	235	292	
	D₃	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	

How to read the curve charts



TM03 5007 3406

1	Total pump head, p [kPa] or H [m] = H_{total}
2	Impeller diameter [mm]
3	Hydraulic efficiency curves are shown as dashed lines η [%]
4	Pump type, pole number and frequency
5	The NPSH curve is shown for maximum impeller size. When sizing the pumps, add a safety margin of at least 0.5 m.
6	The power curve indicates pump input power P_2 [kW]
7	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 page 50 to 221.

- Tolerances according to ISO 9906, Annex A.
- The curves show pump performance with different impeller diameters at the nominal speed.
- The **bold** part of the curves show the **recommended** operating range.
- The thin parts are not recommended as the possible operating range here might suggest the selection of a smaller/larger pump type.
- Do not use the pumps at minimum flow rates below $0.1 \times Q_{\max}$ 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 $1 \text{ mm}^2/\text{s}$ (1 cSt).
- **Eta**: The dashed lines show values of the hydraulic efficiency of the pump.
- **NPSH**: The curves show average 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 discharge 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.

Calculation of total head

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

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

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

Performance tests

The requested duty point for every pump is tested according to ISO 9906, Annex A, and without certification.

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

Certificates

Certificates have to be confirmed for every order and are available on request as follows:

- Certificate for compliance with the order
EN 10204-2.1
- Pump certificate
EN 10204-2.2
- Inspection certificate
EN 10204-3.1.B
- Inspection certificate
EN 10204-3.1.C.

Technical data

The pump dimensions on the following pages include

- **NBG/NKG**:
Data based on the NBG/NKG premium range. That is pumps fitted with Grundfos MG (EFF1) or Siemens (EFF1) motors.
Note: See the correction tables on page 232 and 236 for dimensions of pumps with MG EFF2, MMG model E, TECO EFF2/standard efficiency and TECO EFF1/high efficiency motors.
- **NBGE/NKGE**:
Data on pumps fitted with motors with built-in frequency converter, type MGE/MMGE.

Overview – Curves/ Technical data

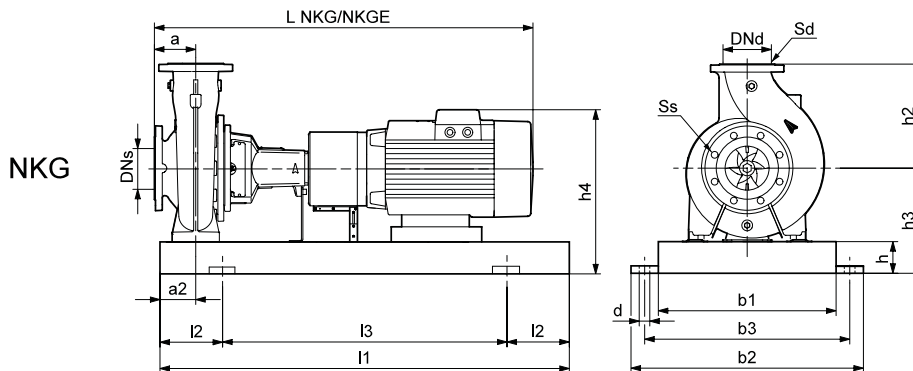
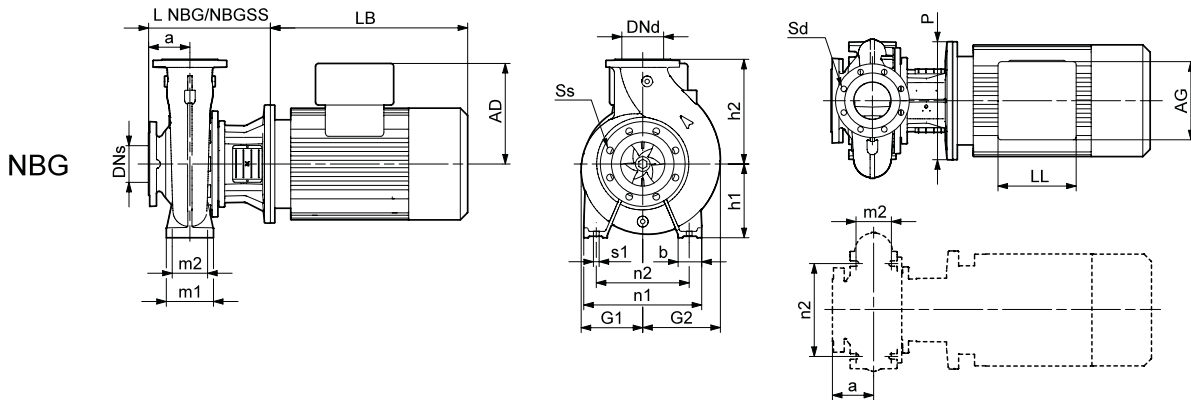
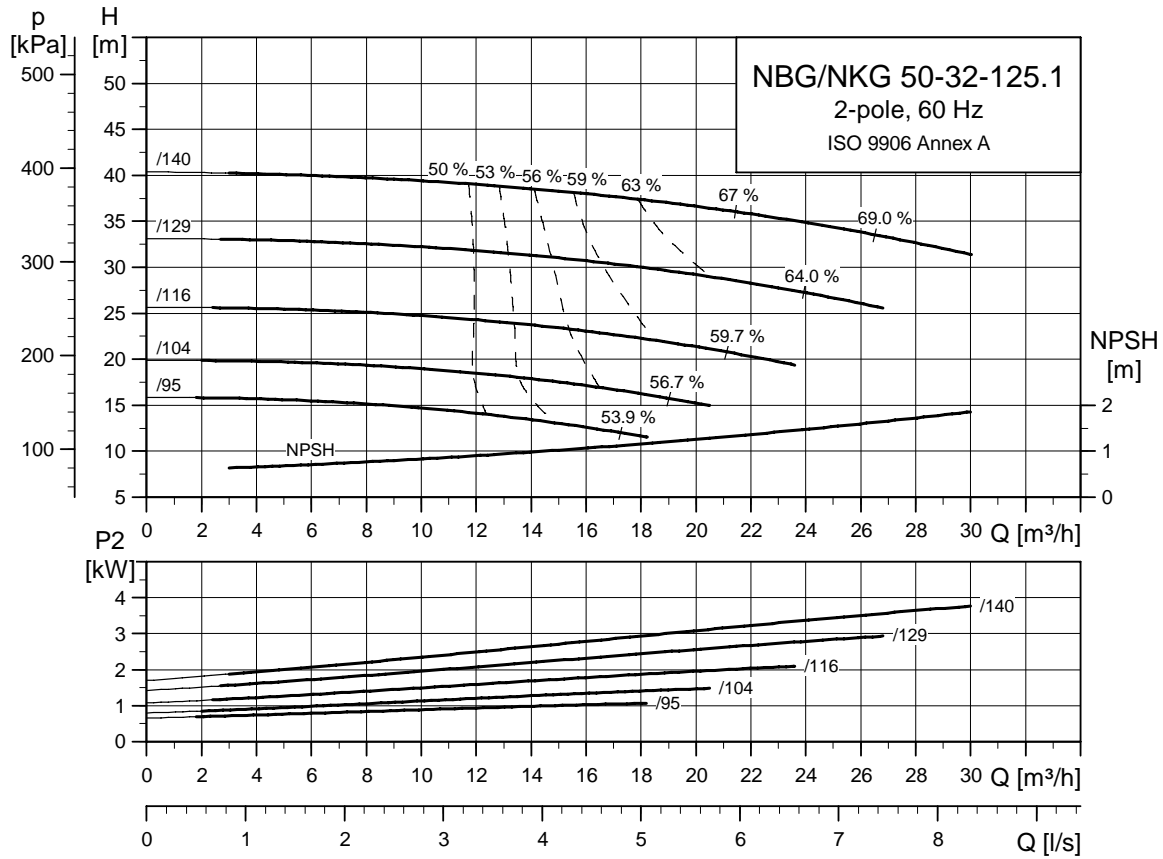
NBG, NBGE, NKG, NKGE

2-pole		4-pole		6-pole	
Pump type	See page	Pump type	See page	Pump type	See page
NBG, NKG 50-32-125.1	50	NBG, NKG 50-32-125.1	108	NBG, NKG 125-100-160	192
NBG, NKG 50-32-160.1	52	NBG, NKG 50-32-160.1	110	NBG, NKG 125-100-200	194
NBG, NKG 50-32-200.1	54	NBG, NKG 50-32-200.1	112	NBG, NKG 125-100-250	196
NBG, NKG 50-32-125	56	NBG, NKG 50-32-125	114	NBG, NKG 125-100-315	198
NBG, NKG 50-32-160	58	NBG, NKG 50-32-160	116	NBG, NKG 125-100-400	200
NBG, NKG 50-32-200	60	NBG, NKG 50-32-200	118	NBG, NKG 150-125-200	202
NBG, NKG 50-32-250	62	NBG, NKG 50-32-250	120	NBG, NKG 150-125-250	204
NBG, NKG 65-50-125	64	NBG, NKG 65-50-125	122	NBG, NKG 150-125-315	206
NBG, NKG 65-50-160	66	NBG, NKG 65-50-160	124	NBG, NKG 150-125-400	208
NBG, NKG 65-40-200	68	NBG, NKG 65-40-200	126	NBG, NKG 150-125-500	210
NBG, NKG 65-40-250	70	NBG, NKG 65-40-250	128	NBG, NKG 200-150-200	212
NBG, NKG 80-65-125	72	NBG, NKG 65-40-315	130	NBG, NKG 200-150-250	214
NBG, NKG 80-65-160	74	NBG, NKG 80-65-125	132	NBG, NKG 200-150-315	216
NBG, NKG 80-50-200	76	NBG, NKG 80-65-160	134	NBG, NKG 200-150-400	218
NBG, NKG 80-50-250	78	NBG, NKG 80-50-200	136	NBG, NKG 200-150-500	220
NBG, NKG 100-80-125	80	NBG, NKG 80-50-250	138		
NBG, NKG 100-80-160	82	NBG, NKG 80-50-315	140		
NBG, NKG 100-65-200	84	NBG, NKG 100-80-125	142		
NBG, NKG 100-65-250	86	NBG, NKG 100-80-160	144		
NBG, NKG 125-80-160	88	NBG, NKG 100-65-200	146		
NBG, NKG 125-80-200	90	NBG, NKG 100-65-250	148		
NBG, NKG 125-80-250	92	NBG, NKG 100-65-315	150		
NBG, NKG 125-100-160	94	NBG, NKG 125-80-160	152		
NBG, NKG 125-100-200	96	NBG, NKG 125-80-200	154		
NBG, NKG 125-100-250	98	NBG, NKG 125-80-250	156		
NBG, NKG 150-125-200	100	NBG, NKG 125-80-315	158		
NBG, NKG 150-125-250	102	NBG, NKG 125-80-400	160		
NBG, NKG 200-150-200	104	NBG, NKG 125-100-160	162		
NBG, NKG 200-150-250	106	NBG, NKG 125-100-200	164		
		NBG, NKG 125-100-250	166		
		NBG, NKG 125-100-315	168		
		NBG, NKG 125-100-400	170		
		NBG, NKG 150-125-200	172		
		NBG, NKG 150-125-250	174		
		NBG, NKG 150-125-315	176		
		NBG, NKG 150-125-400	178		
		NBG, NKG 150-125-500	180		
		NBG, NKG 200-150-200	182		
		NBG, NKG 200-150-250	184		
		NBG, NKG 200-150-315	186		
		NBG, NKG 200-150-400	188		
		NBG, NKG 200-150-500	190		

Technical data/ performance curves

NBG, NKG 50-32-125.1
2-pole

NBG, NKG 2-pole



TM03 4996 3406

TM03 8008 0107

TM03 8011 0107

Pump type		50-32-125.1/95	50-32-125.1/104	50-32-125.1/116	50-32-125.1/129	50-32-125.1/140	
Motor type	Premium Motor	MG 90SA-D	MG 90SB-D	MG 90LC-D	MG 100LC-D	MG 112MC-D	
	E-Motor	-	MGE 90SB	MGE 90LC	MGE 100LC	MGE 112MC	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2	3	4
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	140	140	140	140	140
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	790/886	800/896	840/936	864/960	901/997
	L NKGE	[mm]	-/-	840/936	840/936	864/960	901/997
	Weight NKG	[mm]	103/103	103/103	107/107	111/109	141/139
	Weight NKGE	[kg]	-/-	111/110	115/114	119/117	141/139
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	900	900	900	900	1000
	l ₂	[mm]	150	150	150	150	170
	l ₃	[mm]	600	600	600	600	660
	b ₁	[mm]	300	300	300	300	340
	b ₂	[mm]	390	390	390	390	450
	b ₃	[mm]	345	345	345	345	400
	d	[mm]	19	19	19	19	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	65	65	65	65	80
	h ₃	[mm]	180	180	180	177	195
	h ₄ ¹⁾	[mm]	290/-	290/347	290/347	297/354	329/383
Base frame no.		3	3	3	3	4	
NBG data	Design		A	A	A	A ²⁾	A ²⁾
	L NBG	[mm]	226	226	226	254	254
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	112	112	112	112	112
	G ₁	[mm]	117	117	117	117	117
	G ₂	[mm]	117	117	117	117	117
	m ₁	[mm]	100	100	100	100	100
	m ₂	[mm]	70	70	70	70	70
	n ₁	[mm]	190	190	190	190	190
	n ₂	[mm]	140	140	140	140	140
	b	[mm]	50	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12	M12
	H	[mm]	-	-	-	-	-
	LB ¹⁾	[mm]	281/-	281/321	321/321	335/335	372/372
	AD ¹⁾	[mm]	110/-	110/167	110/167	120/177	134/188
	AG ¹⁾	[mm]	162/-	162/264	162/264	162/264	202/290
	LL ¹⁾	[mm]	103/-	103/260	103/260	103/260	103/300
	P	[mm]	200	200	200	250	250
	C	[mm]	-	-	-	-	-
	B	[mm]	-	-	-	-	-
	A	[mm]	-	-	-	-	-
K	[mm]	-	-	-	-	-	
Weight NBG ¹⁾	[kg]	42/-	43/51	47/55	53/61	71/72	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

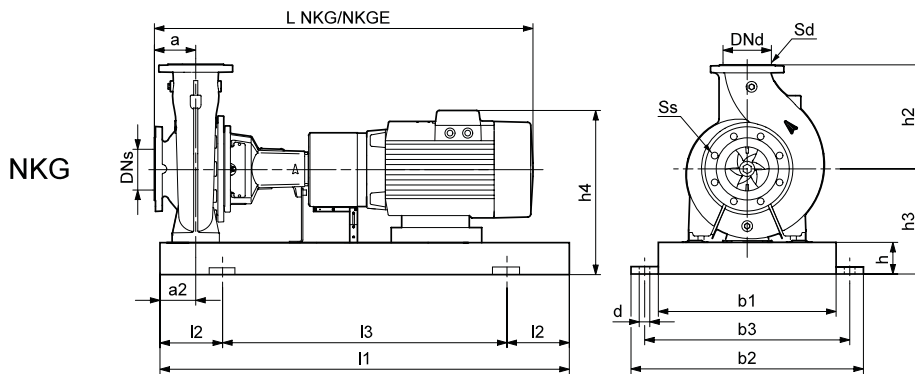
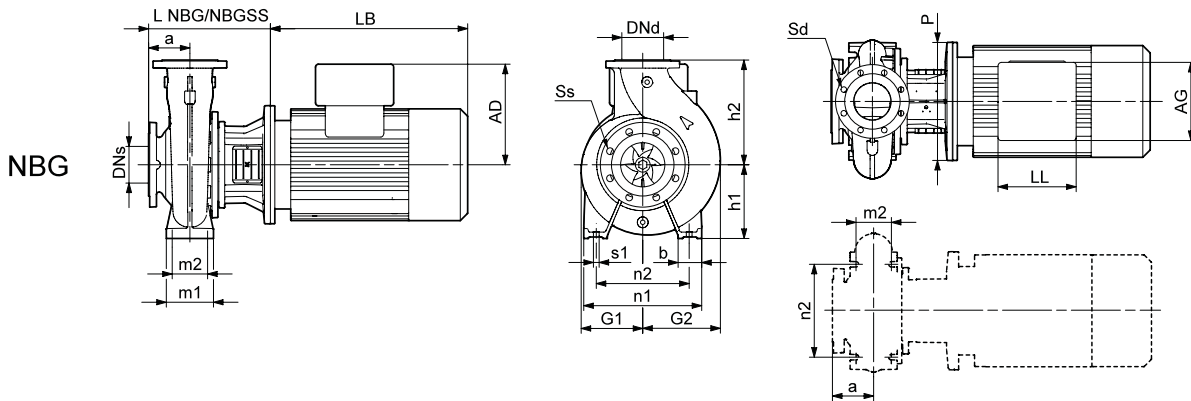
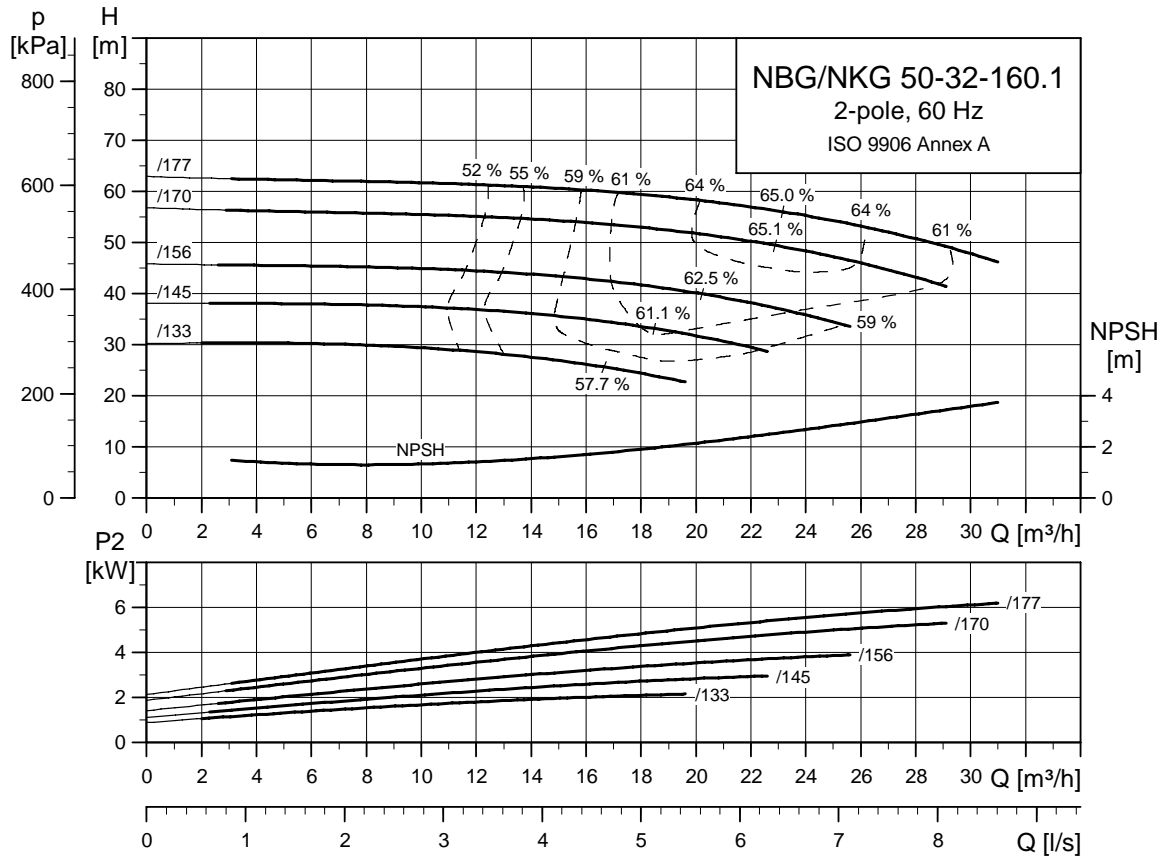
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 50-32-160.1
2-pole



TM03 4998 3406

TM03 8008 0107

TM03 8011 0107

Pump type		50-32-160.1/133	50-32-160.1/145	50-32-160.1/156	50-32-160.1/170	50-32-160.1/177	
Motor type	Premium Motor	MG 90LC-D	MG 100LC-D	MG 112MC-D	MG 132SC-D	MG 132SD-D	
	E-Motor	MGE 90LC	MGE 100LC	MGE 112MC	MGE 132SC	MGE 132SD	
Common data NBG/NKG	P ₂	[kW]	2.2	3	4	5.5	7.5
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	160	160	160	160	160
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	840/936	864/960	901/997	946/1036	946/1036
	L NKGE	[mm]	840/936	864/960	901/997	946/1036	946/1036
	Weight NKG	[mm]	123/123	130/128	146/144	155/152	155/152
	Weight NKGE	[kg]	131/130	138/136	146/144	162/159	165/162
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1000	1000	1000	1120	1120
	l ₂	[mm]	170	170	170	190	190
	l ₃	[mm]	660	660	660	740	740
	b ₁	[mm]	340	340	340	380	380
	b ₂	[mm]	450	450	450	490	490
	b ₃	[mm]	400	400	400	440	440
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	212	212	212	215	215
	h ₄ ¹⁾	[mm]	322/379	332/389	346/400	349/403	349/403
	Base frame no.		4	4	4	5	5
	NBG data	Design		A	A	A	A ²⁾
L NBG		[mm]	226	254	254	293	293
L NBG SS		[mm]	-	-	-	-	-
h ₁		[mm]	132	132	132	132	132
G ₁		[mm]	117	117	117	117	117
G ₂		[mm]	123	123	123	123	123
m ₁		[mm]	100	100	100	100	100
m ₂		[mm]	70	70	70	70	70
n ₁		[mm]	240	240	240	240	240
n ₂		[mm]	190	190	190	190	190
b		[mm]	50	50	50	50	50
s ₁		[mm]	M12	M12	M12	M12	M12
H		[mm]	-	-	-	-	-
LB ¹⁾		[mm]	321/321	335/335	372/372	391/391	391/391
AD ¹⁾		[mm]	110/167	120/177	134/188	134/188	134/188
AG ¹⁾		[mm]	162/264	162/264	202/290	202/290	202/290
LL ¹⁾		[mm]	103/260	103/260	103/300	103/300	103/300
P		[mm]	200	250	250	300	300
C		[mm]	-	-	-	-	-
B		[mm]	-	-	-	-	-
A		[mm]	-	-	-	-	-
K		[mm]	-	-	-	-	-
Weight NBG ¹⁾		[kg]	49/56	55/62	73/73	78/85	78/88
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

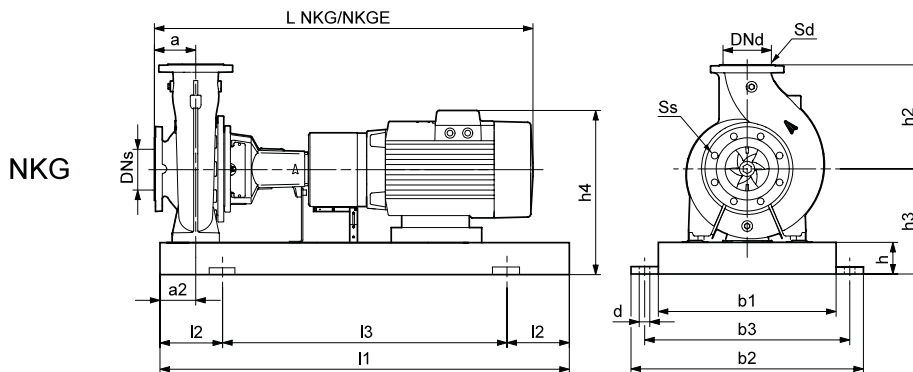
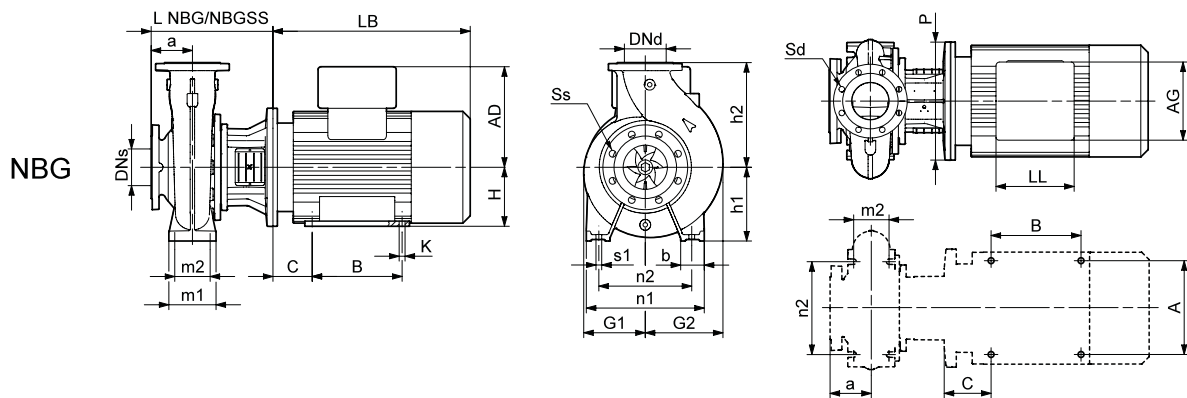
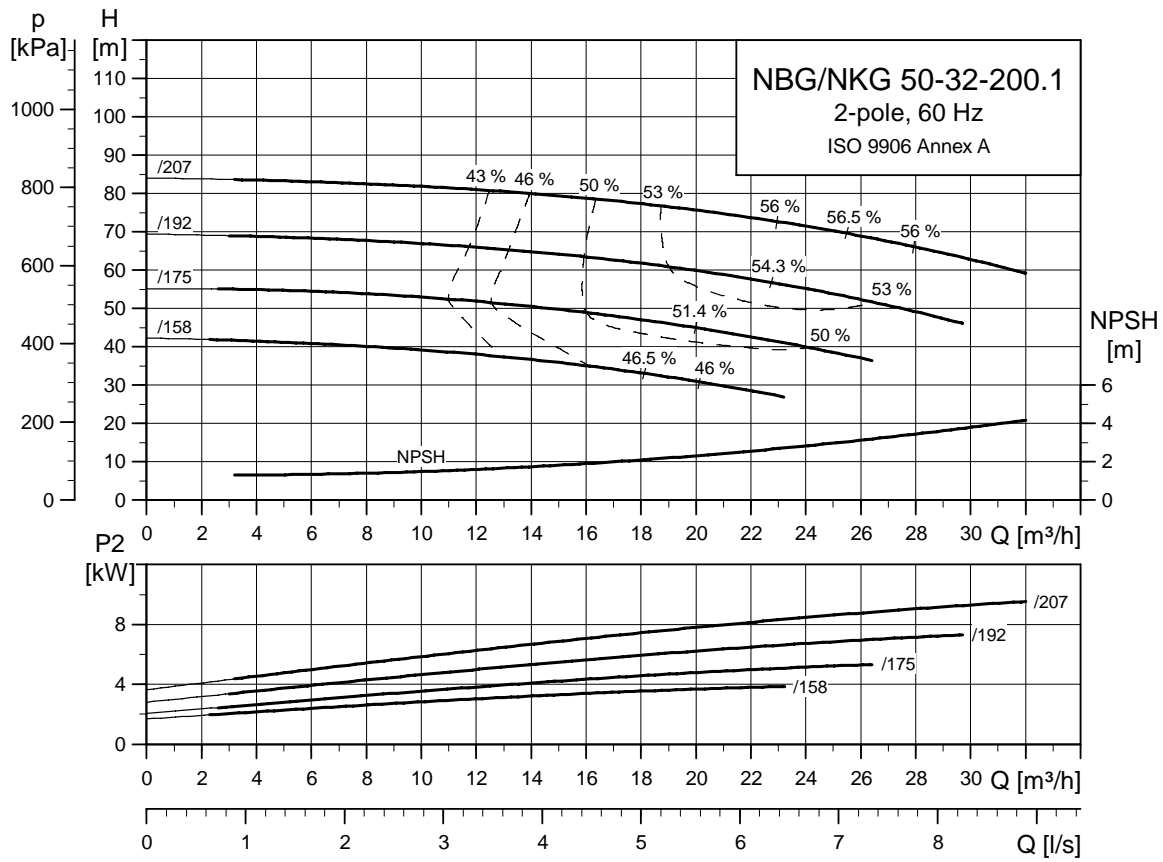
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 50-32-200.1
2-pole



TM03 5000 3406

TM03 8010 0107

TM03 8011 0107

Pump type		50-32-200.1/158	50-32-200.1/175	50-32-200.1/192	50-32-200.1/207	
Motor type	Premium Motor	MG 112MC-D	MG 132SC-D	MG 132SD-D	Siemens 160M	
	E-Motor	MGE 112MC	MGE 132SC	MGE 132SD	MMGE 160M	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5	11
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	80	80	80	80
	h ₂	[mm]	180	180	180	180
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	901/997	946/1036	946/1036	1070/1153
	L NKGE	[mm]	901/997	946/1036	946/1036	1041/1124
	Weight NKG	[mm]	162/160	170/166	170/166	215/209
	Weight NKGE	[kg]	162/160	176/173	180/176	263/257
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1000	1120	1120	1250
	l ₂	[mm]	170	190	190	205
	l ₃	[mm]	660	740	740	840
	b ₁	[mm]	340	380	380	430
	b ₂	[mm]	450	490	490	540
	b ₃	[mm]	400	440	440	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	245
	h ₄ ¹⁾	[mm]	374/428	374/428	374/428	442/604
	Base frame no.		4	5	5	6
NBG data	Design		A	A	A	C ²⁾
	L NBG	[mm]	254	293	293	323
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	135	135	135	135
	G ₂	[mm]	137	137	137	137
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	240	240	240	240
	n ₂	[mm]	190	190	190	190
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	160
	LB ¹⁾	[mm]	372/372	391/391	391/391	478/449
	AD ¹⁾	[mm]	134/188	134/188	134/188	197/359
	AG ¹⁾	[mm]	202/290	202/290	202/290	165/296
	LL ¹⁾	[mm]	103/300	103/300	103/300	165/410
	P	[mm]	250	300	300	350
	C	[mm]	-	-	-	108
	B	[mm]	-	-	-	210
	A	[mm]	-	-	-	254
	K	[mm]	-	-	-	15
Weight NKG ¹⁾	[kg]	80/80	85/92	85/95	123/171	
Weight NKG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

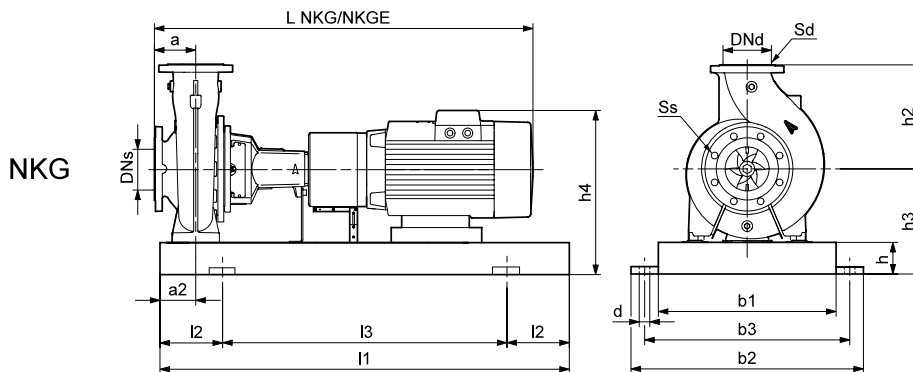
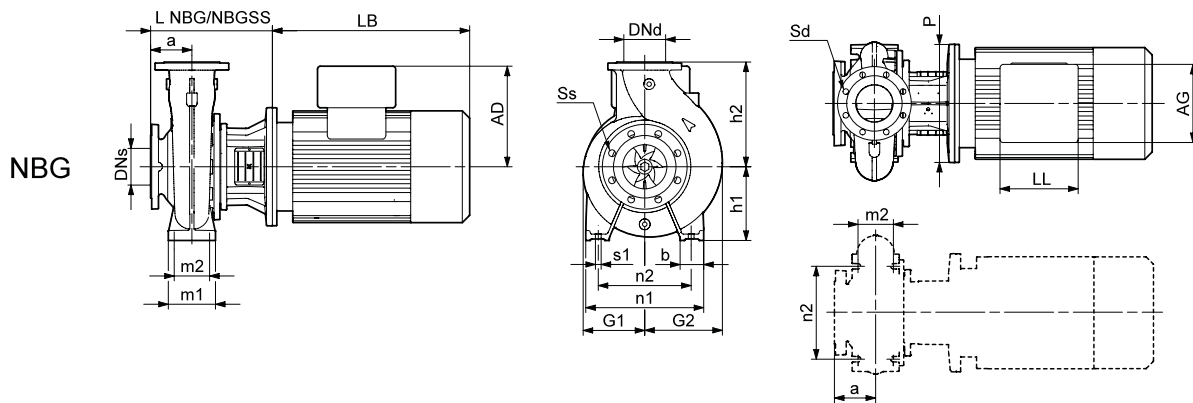
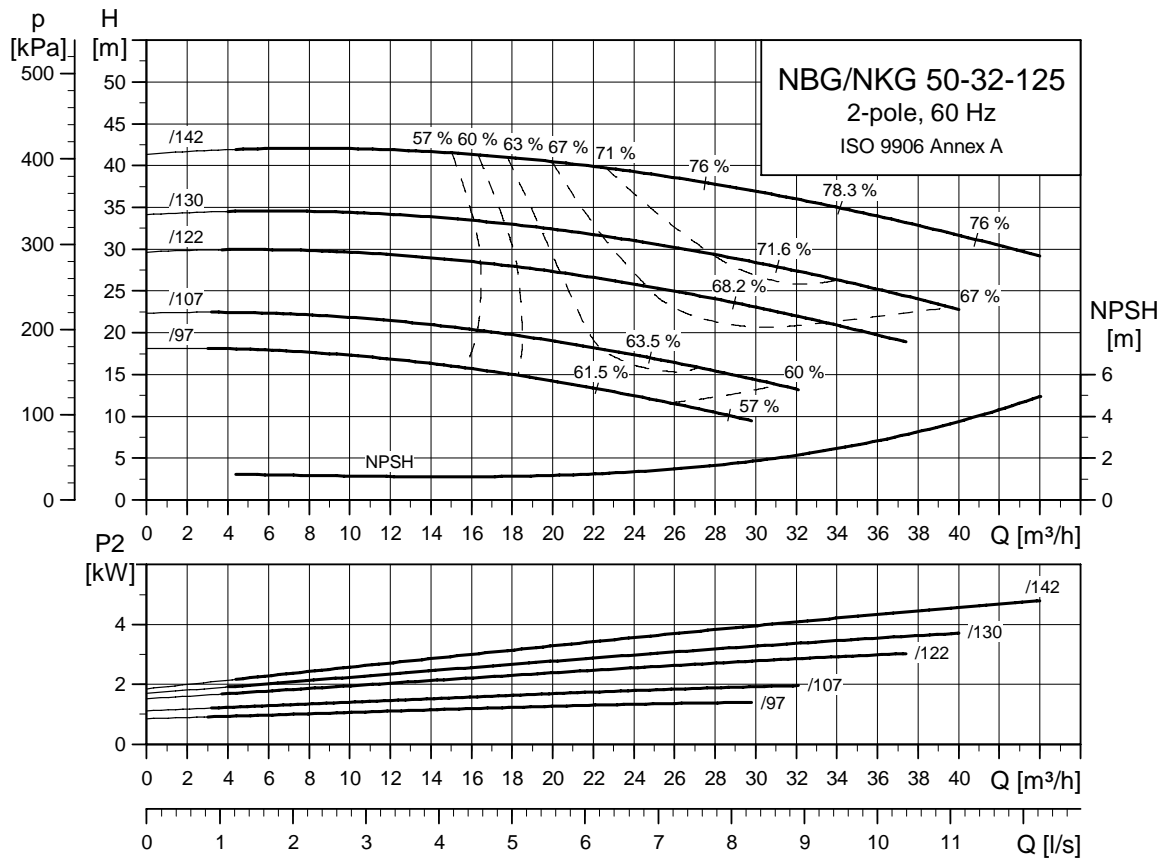
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 50-32-125
2-pole



TM03 4995 3406

TM03 8008 0107

TM03 8011 0107

Pump type		50-32-125/97	50-32-125/107	50-32-125/122	50-32-125/130	50-32-125/142	
Motor type	Premium Motor	MG 90SB-D	MG 90LC-D	MG 100LC-D	MG 112MC-D	MG 132SC-D	
	E-Motor	MGE 90SB	MGE 90LC	MGE 100LC	MGE 112MC	MGE 132SC	
Common data NBG/NKG	P ₂	[kW]	1.5	2.2	3	4	5.5
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	140	140	140	140	140
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	800/896	840/936	864/960	901/997	946/1036
	L NKGE	[mm]	840/936	840/936	864/960	901/997	946/1036
	Weight NKG	[mm]	104/103	108/107	111/109	141/139	159/155
	Weight NKGE	[kg]	111/111	115/115	119/117	142/140	165/162
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	900	900	900	1000	1120
	l ₂	[mm]	150	150	150	170	190
	l ₃	[mm]	600	600	600	660	740
	b ₁	[mm]	300	300	300	340	380
	b ₂	[mm]	390	390	390	450	490
	b ₃	[mm]	345	345	345	400	440
	d	[mm]	19	19	19	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	65	65	65	80	80
	h ₃	[mm]	180	180	177	195	217
	h ₄ ¹⁾	[mm]	290/347	290/347	297/354	329/383	351/405
	Base frame no.		3	3	3	4	5
	NBG data	Design		A	A	A ²⁾	A ²⁾
L NBG		[mm]	226	226	254	254	293
L NBG SS		[mm]	-	-	-	-	-
h ₁		[mm]	112	112	112	112	112
G ₁		[mm]	117	117	117	117	117
G ₂		[mm]	117	117	117	117	117
m ₁		[mm]	100	100	100	100	100
m ₂		[mm]	70	70	70	70	70
n ₁		[mm]	190	190	190	190	190
n ₂		[mm]	140	140	140	140	140
b		[mm]	50	50	50	50	50
s ₁		[mm]	M12	M12	M12	M12	M12
H		[mm]	-	-	-	-	-
LB ¹⁾		[mm]	281/321	321/321	335/335	372/372	391/391
AD ¹⁾		[mm]	110/167	110/167	120/177	134/188	134/188
AG ¹⁾		[mm]	162/264	162/264	162/264	202/290	202/290
LL ¹⁾		[mm]	103/260	103/260	103/260	103/300	103/300
P		[mm]	200	200	250	250	300
C		[mm]	-	-	-	-	-
B		[mm]	-	-	-	-	-
A		[mm]	-	-	-	-	-
K		[mm]	-	-	-	-	-
Weight NBG ¹⁾		[kg]	44/51	48/55	54/62	72/72	78/84
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

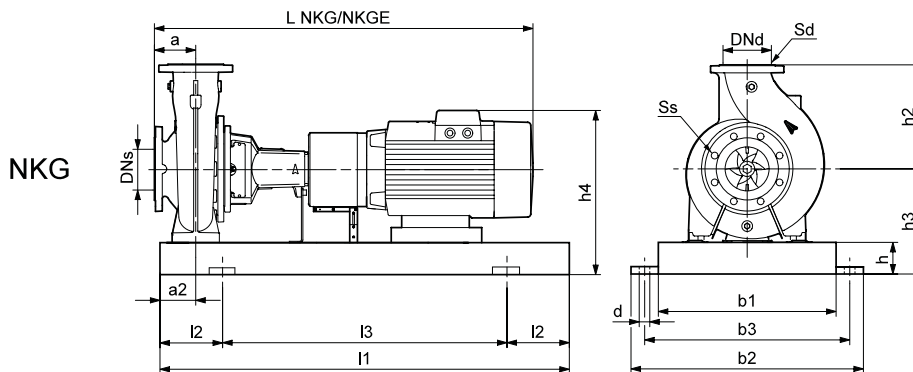
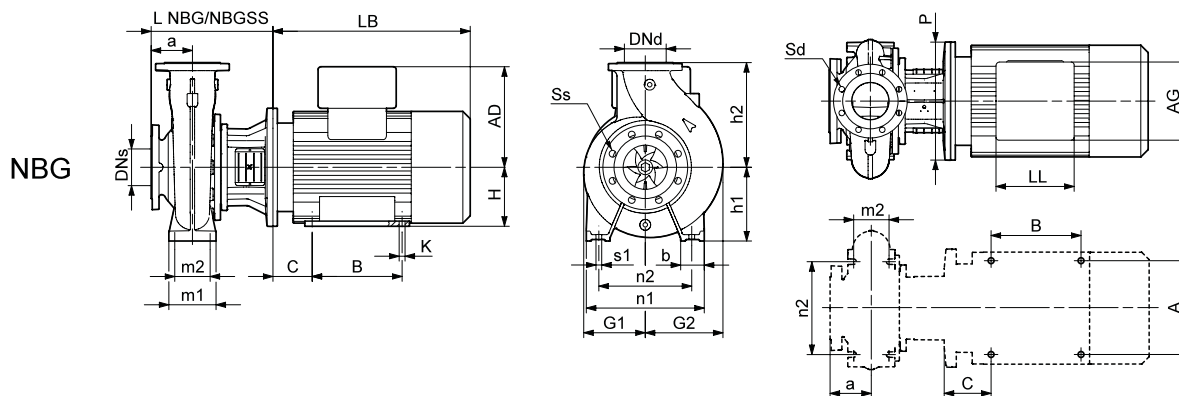
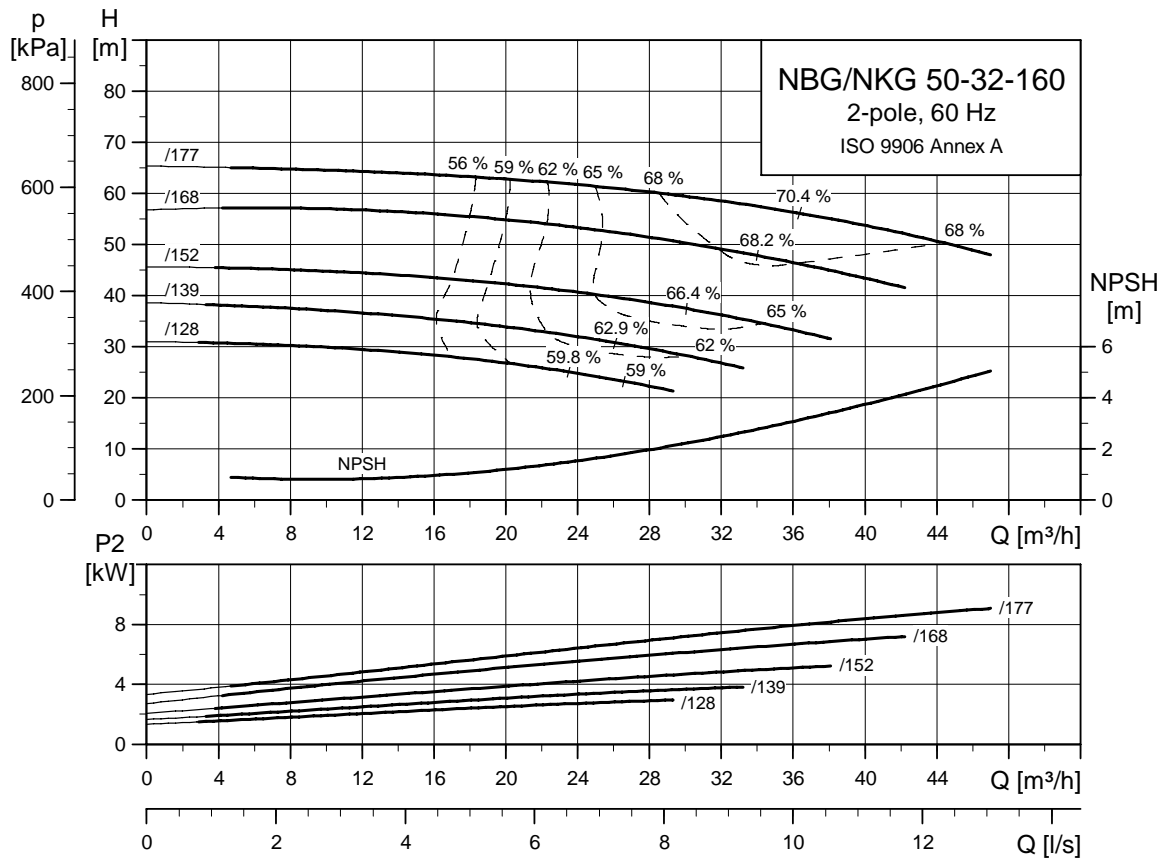
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 50-32-160
2-pole



TM03 4997 3406

TM03 8010 0107

TM03 8011 0107

Technical data

NBG, NKG 50-32-160
2-pole

Pump type		50-32-160/128	50-32-160/139	50-32-160/152	50-32-160/168	50-32-160/177	
Motor type	Premium Motor	MG 100LC-D	MG 112MC-D	MG 132SC-D	MG 132SD-D	Siemens 160M	
	E-Motor	MGE 100LC	MGE 112MC	MGE 132SC	MGE 132SD	MMGE 160M	
Common data NBG/NKG	P ₂	[kW]	3	4	5.5	7.5	11
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	160	160	160	160	160
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	864/960	901/997	946/1036	946/1036	1070/1153
	L NKGE	[mm]	864/960	901/997	946/1036	946/1036	1041/1124
	Weight NKG	[mm]	131/129	147/145	156/153	156/153	211/206
	Weight NKGE	[kg]	139/137	147/145	163/160	166/163	259/254
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	I ₁	[kg]	1000	1000	1120	1120	1250
	I ₂	[mm]	170	170	190	190	205
	I ₃	[mm]	660	660	740	740	840
	b ₁	[mm]	340	340	380	380	430
	b ₂	[mm]	450	450	490	490	540
	b ₃	[mm]	400	400	440	440	490
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	212	212	215	215	245
	h ₄ ¹⁾	[mm]	332/389	346/400	349/403	349/403	442/604
Base frame no.		4	4	5	5	6	
NBG data	Design		A	A	A ²⁾	A ²⁾	C ²⁾
	L NBG	[mm]	254	254	293	293	323
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	132	132	132	132	132
	G ₁	[mm]	117	117	117	117	117
	G ₂	[mm]	125	125	125	125	125
	m ₁	[mm]	100	100	100	100	100
	m ₂	[mm]	70	70	70	70	70
	n ₁	[mm]	240	240	240	240	240
	n ₂	[mm]	190	190	190	190	190
	b	[mm]	50	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12	M12
	H	[mm]	-	-	-	-	160
	LB ¹⁾	[mm]	335/335	372/372	391/391	391/391	478/449
	AD ¹⁾	[mm]	120/177	134/188	134/188	134/188	197/359
	AG ¹⁾	[mm]	162/264	202/290	202/290	202/290	165/296
	LL ¹⁾	[mm]	103/260	103/300	103/300	103/300	165/410
	P	[mm]	250	250	300	300	350
	C	[mm]	-	-	-	-	108
	B	[mm]	-	-	-	-	210
	A	[mm]	-	-	-	-	254
	K	[mm]	-	-	-	-	15
Weight NBG ¹⁾	[kg]	56/63	74/74	79/86	79/89	117/165	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

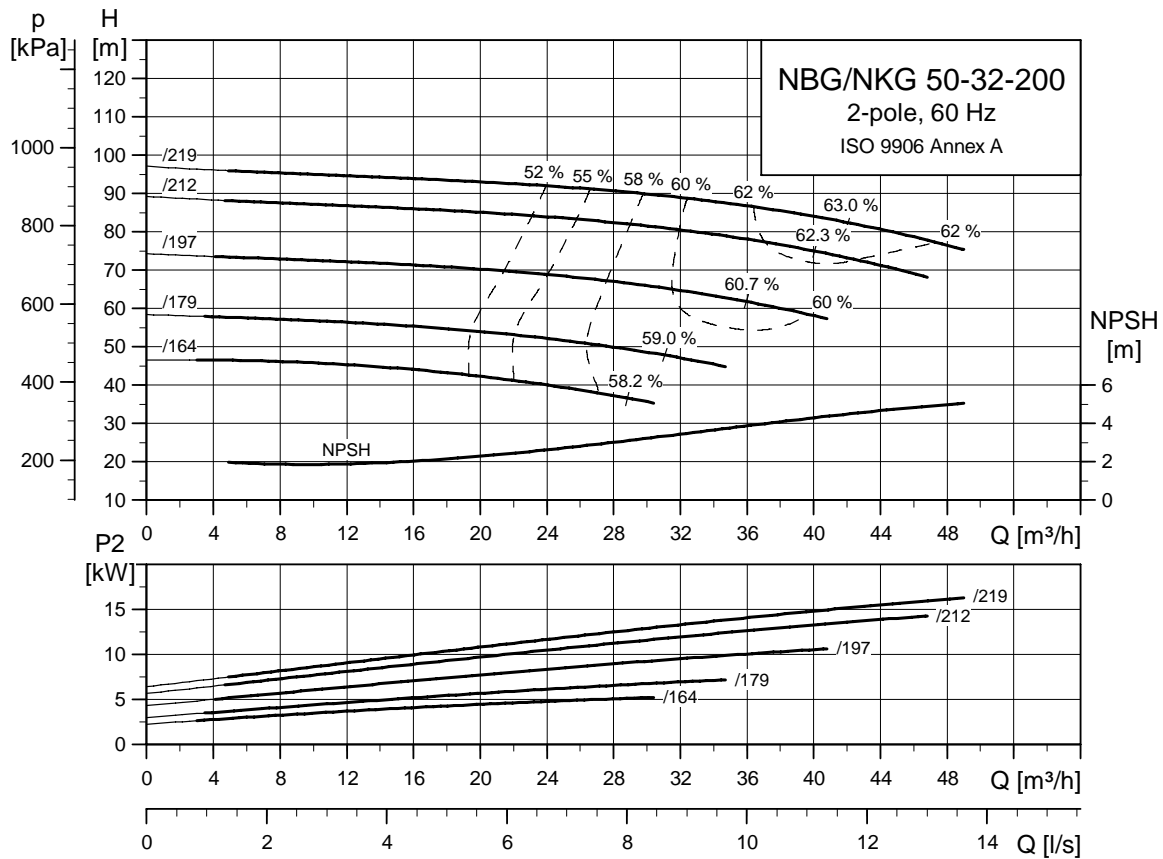
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

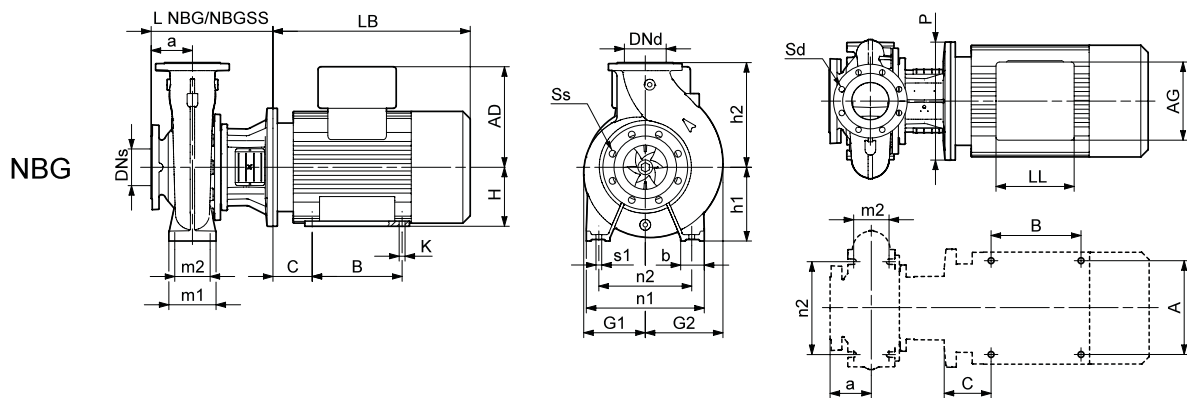
Note: For information about base frames, see page 222.

Performance curves

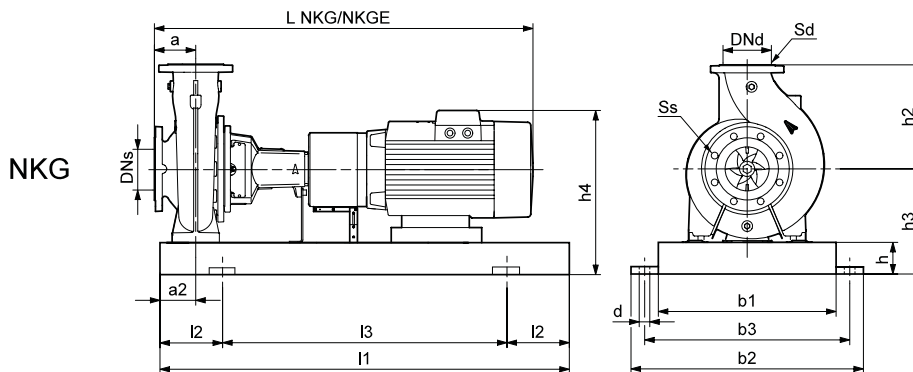
NBG, NKG 50-32-200
2-pole



TM03 4999 3406



TM03 8010 0107



TM03 8011 0107

Pump type		50-32-200/164	50-32-200/179	50-32-200/197	50-32-200/212	50-32-200/219	
Motor type	Premium Motor	MG 132SC-D	MG 132SD-D	Siemens 160M	Siemens 160M	Siemens 160L	
	E-Motor	MGE 132SC	MGE 132SD	MMGE 160M	MMGE 160MX	MMGE 160L	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15	18.5
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	180	180	180	180	180
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	946/1036	946/1036	1070/1153	1070/1153	1110/1193
	L NKGE	[mm]	946/1036	946/1036	1041/1124	1053/1136	1091/1174
	Weight NKG	[mm]	170/167	170/167	215/209	224/218	244/238
	Weight NKGE	[kg]	177/173	180/176	263/257	292/286	323/317
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1120	1120	1250	1250	1250
	l ₂	[mm]	190	190	205	205	205
	l ₃	[mm]	740	740	840	840	840
	b ₁	[mm]	380	380	430	430	430
	b ₂	[mm]	490	490	540	540	540
	b ₃	[mm]	440	440	490	490	490
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	240	240	245	245	245
	h ₄ ¹⁾	[mm]	374/428	374/428	442/604	442/622	442/622
	Base frame no.		5	5	6	6	6
NBG data	Design		A	A	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	293	293	323	323	323
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	160	160	160	160	160
	G ₁	[mm]	124	124	124	124	124
	G ₂	[mm]	145	145	145	145	145
	m ₁	[mm]	100	100	100	100	100
	m ₂	[mm]	70	70	70	70	70
	n ₁	[mm]	240	240	240	240	240
	n ₂	[mm]	190	190	190	190	190
	b	[mm]	50	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12	M12
	H	[mm]	-	-	160	160	160
	LB ¹⁾	[mm]	391/391	391/391	478/449	478/461	518/499
	AD ¹⁾	[mm]	134/188	134/188	197/359	197/377	197/377
	AG ¹⁾	[mm]	202/290	202/290	165/296	165/296	165/296
	LL ¹⁾	[mm]	103/300	103/300	165/410	165/410	165/410
	P	[mm]	300	300	350	350	350
	C	[mm]	-	-	108	108	108
	B	[mm]	-	-	210	210	254
	A	[mm]	-	-	254	254	254
	K	[mm]	-	-	15	15	15
Weight NBG ¹⁾	[kg]	85/92	85/95	123/171	132/200	152/231	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

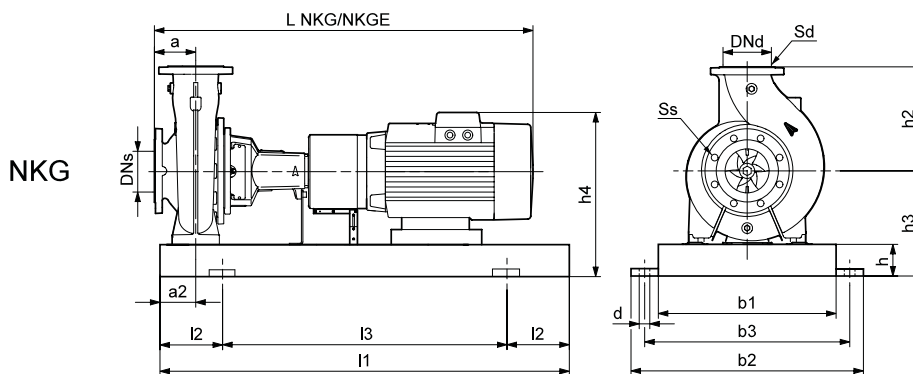
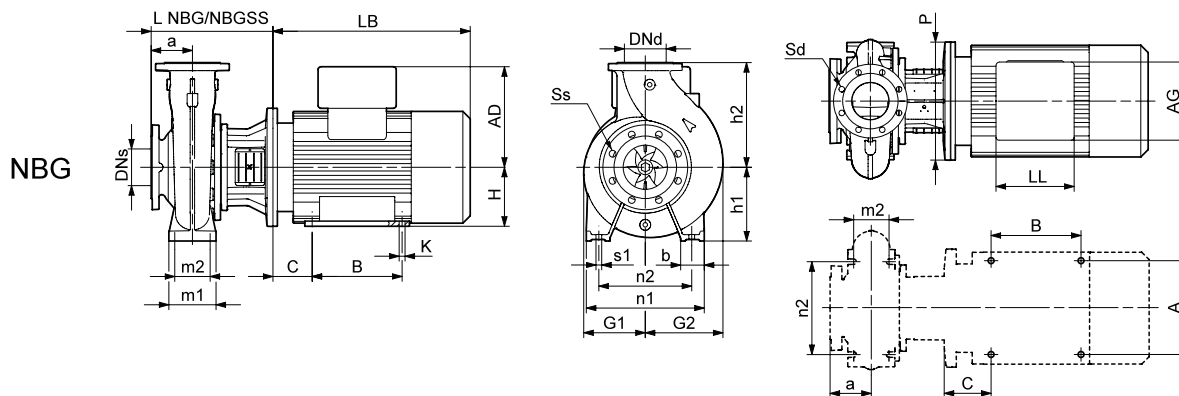
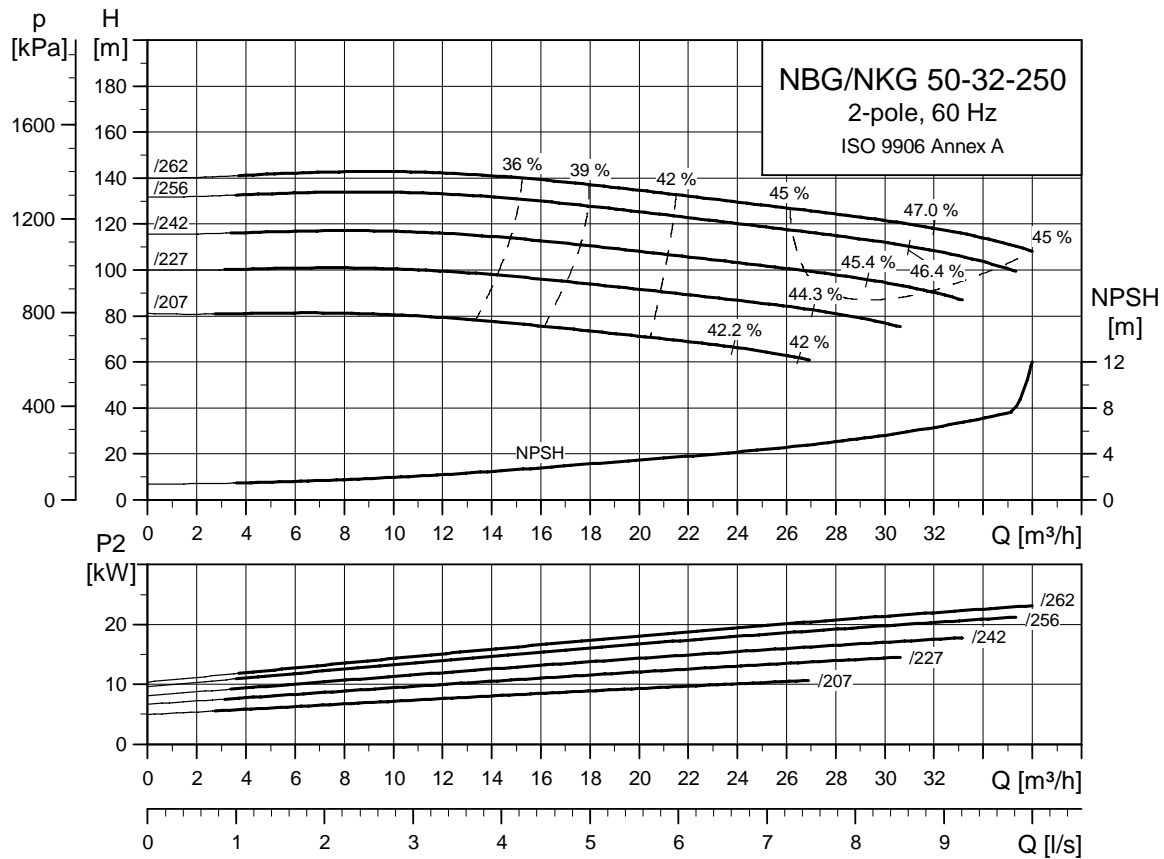
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 50-32-250
2-pole



TM03 5001 3406

TM03 8010 0107

TM03 8011 0107

Pump type		50-32-250/207	50-32-250/227	50-32-250/242	50-32-250/256	50-32-250/262	
Motor type	Premium Motor	Siemens 160M	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 200L	
	E-Motor	MMGE 160M	MMGE 160MX	MMGE 160L	MMGE 180M	-	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5	22	30
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	50	50	50	50	50
	DNd	[mm]	32	32	32	32	32
	a	[mm]	100	100	100	100	100
	h2	[mm]	225	225	225	225	225
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1192/1288	1192/1288	1232/1328	1316/1412	1373/1469
	L NKGE	[mm]	1163/1259	1175/1271	1213/1309	1239/1335	-/-
	Weight NKG	[mm]	246/241	255/250	275/270	304/296	448/443
	Weight NKGE	[kg]	294/289	323/318	354/349	385/377	-/-
	Weight NKG SS	[kg]	250/245	259/254	279/274	308/300	453/447
NKG data	Weight NKGE SS	[kg]	298/293	327/322	358/353	389/381	-/-
	l1	[kg]	1250	1250	1250	1250	1600
	l2	[mm]	205	205	205	205	270
	l3	[mm]	840	840	840	840	1060
	b1	[mm]	430	430	430	430	530
	b2	[mm]	540	540	540	540	660
	b3	[mm]	490	490	490	490	600
	d	[mm]	24	24	24	24	28
	a2	[mm]	75	75	75	75	75
	h	[mm]	80	80	80	80	100
	h3	[mm]	260	260	260	265	305
	h4 ¹⁾	[mm]	457/619	457/637	457/637	523/664	610/-
Base frame no.		6	6	6	6	8	
NBG data	Design		C	C	C	C	C ²⁾
	L NBG	[mm]	343	343	343	343	343
	L NBG SS	[mm]	343	343	343	343	343
	h1	[mm]	180	180	180	180	180
	G1	[mm]	162	162	162	162	162
	G2	[mm]	164	164	164	164	164
	m1	[mm]	125	125	125	125	125
	m2	[mm]	95	95	95	95	95
	n1	[mm]	320	320	320	320	320
	n2	[mm]	250	250	250	250	250
	b	[mm]	65	65	65	65	65
	s1	[mm]	M12	M12	M12	M12	M12
	H	[mm]	160	160	160	180	200
	LB ¹⁾	[mm]	478/449	478/461	518/499	602/525	659/-
	AD ¹⁾	[mm]	197/359	197/377	197/377	258/399	305/-
	AG ¹⁾	[mm]	165/296	165/296	165/296	152/328	260/-
	LL ¹⁾	[mm]	165/410	165/410	165/410	132/456	192/-
	P	[mm]	350	350	350	350	400
	C	[mm]	108	108	108	121	133
	B	[mm]	210	210	254	241	305
	A	[mm]	254	254	254	279	318
	K	[mm]	15	15	15	15	19
	Weight NBG ¹⁾	[kg]	139/187	148/216	168/247	196/277	284/-
Weight NBG SS ¹⁾	[kg]	143/191	152/220	172/251	200/281	287/-	

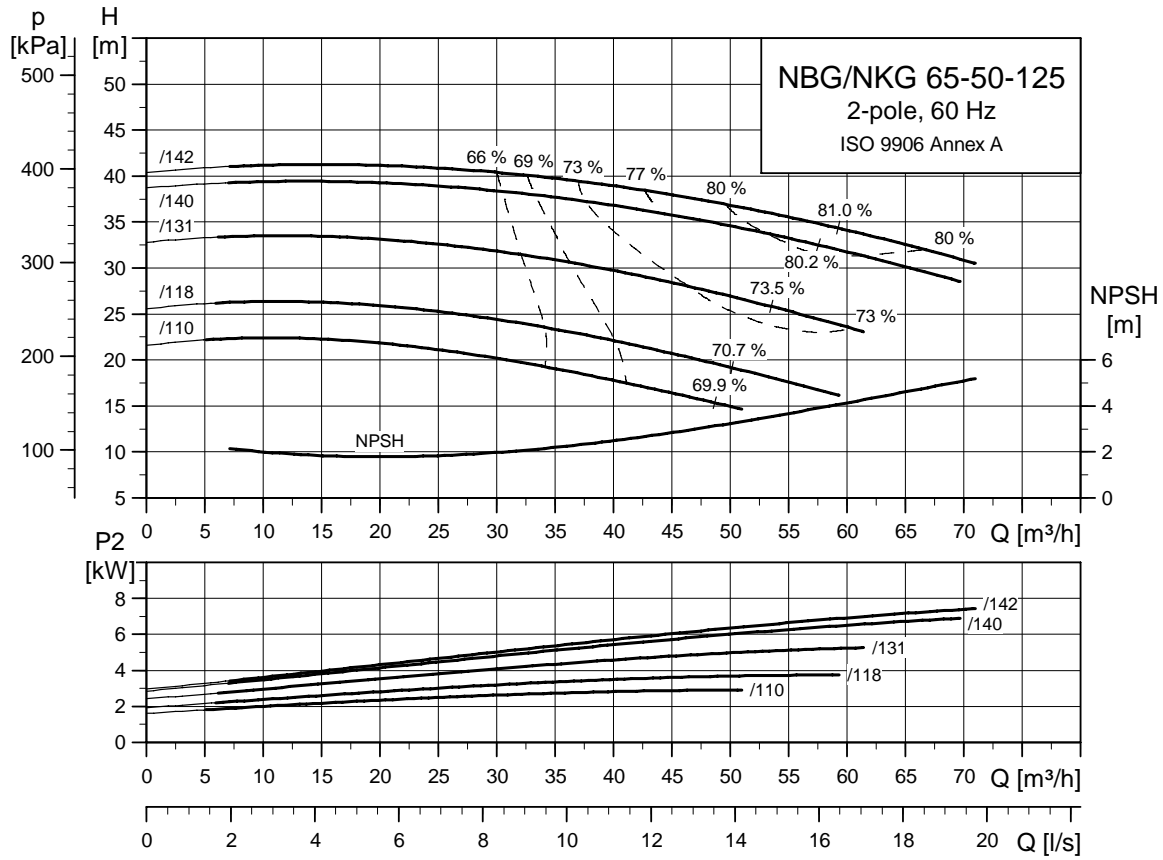
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

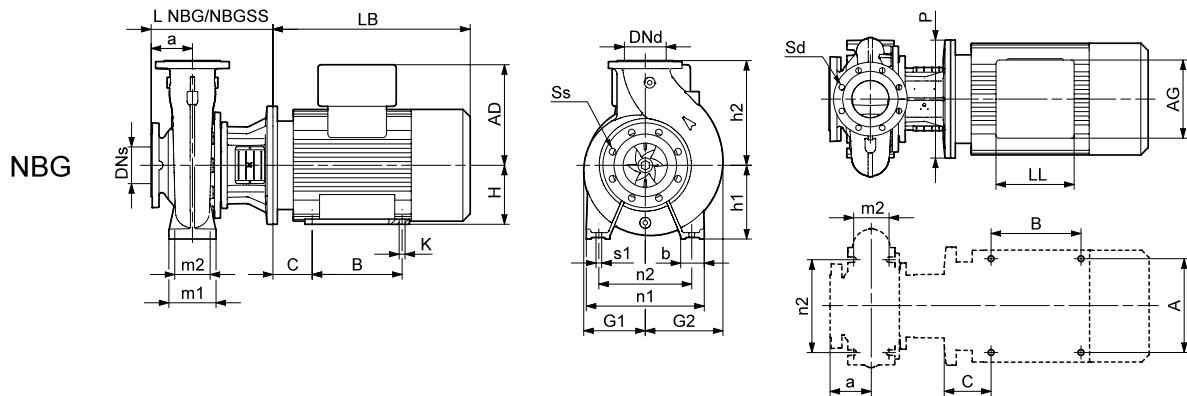
Note: For information about base frames, see page 222.

Performance curves

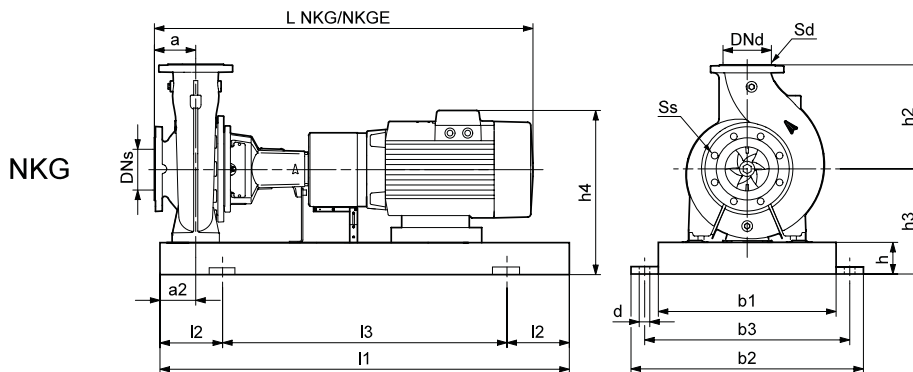
NBG, NKG 65-50-125
2-pole



TM03 5002 3406



TM03 8010 0107



TM03 8011 0107

Pump type		65-50-125/110	65-50-125/118	65-50-125/131	65-50-125/140	65-50-125/142	
Motor type	Premium Motor	MG 100LC-D	MG 112MC-D	MG 132SC-D	MG 132SD-D	Siemens 160M	
	E-Motor	MGE 100LC	MGE 112MC	MGE 132SC	MGE 132SD	MMGE 160M	
Common data NBG/NKG	P ₂	[kW]	3	4	5.5	7.5	11
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	65	65	65	65	65
	DNd	[mm]	50	50	50	50	50
	a	[mm]	80	80	80	80	80
	h2	[mm]	140	140	140	140	140
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	864/960	901/997	946/1036	946/1036	1070/1153
	L NKGE	[mm]	864/960	901/997	946/1036	946/1036	1041/1124
	Weight NKG	[mm]	116/114	146/144	164/160	164/160	214/208
	Weight NKGE	[kg]	124/122	147/144	170/167	173/170	262/256
	Weight NKG SS	[kg]	115/113	145/143	162/159	162/159	213/207
	Weight NKGE SS	[kg]	123/121	145/143	169/166	172/169	261/255
NKG data	l1	[kg]	900	1000	1120	1120	1250
	l2	[mm]	150	170	190	190	205
	l3	[mm]	600	660	740	740	840
	b1	[mm]	300	340	380	380	430
	b2	[mm]	390	450	490	490	540
	b3	[mm]	345	400	440	440	490
	d	[mm]	19	24	24	24	24
	a2	[mm]	60	60	60	60	60
	h	[mm]	65	80	80	80	80
	h3	[mm]	177	195	217	217	245
	h4 ¹⁾	[mm]	297/354	329/383	351/405	351/405	442/604
Base frame no.		3	4	5	5	6	
NBG data	Design		A ²⁾	A ²⁾	A ²⁾	A ²⁾	C ²⁾
	L NBG	[mm]	254	254	293	293	293
	L NBG SS	[mm]	273	273	293	293	323
	h1	[mm]	112	112	112	112	112
	G1	[mm]	117	117	117	117	117
	G2	[mm]	118	118	118	118	118
	m1	[mm]	100	100	100	100	100
	m2	[mm]	70	70	70	70	70
	n1	[mm]	210	210	210	210	210
	n2	[mm]	160	160	160	160	160
	b	[mm]	50	50	50	50	50
	s1	[mm]	M12	M12	M12	M12	M12
	H	[mm]	-	-	-	-	160
	LB ¹⁾	[mm]	335/335	372/372	391/391	391/391	478/449
	AD ¹⁾	[mm]	120/177	134/188	134/188	134/188	197/359
	AG ¹⁾	[mm]	162/264	202/290	202/290	202/290	165/296
	LL ¹⁾	[mm]	103/260	103/300	103/300	103/300	165/410
	P	[mm]	250	250	300	300	350
	C	[mm]	-	-	-	-	108
	B	[mm]	-	-	-	-	210
	A	[mm]	-	-	-	-	254
	K	[mm]	-	-	-	-	15
Weight NBG ¹⁾	[kg]	59/66	77/77	82/89	82/92	113/161	
Weight NBG SS ¹⁾	[kg]	61/68	79/79	82/89	82/92	121/169	

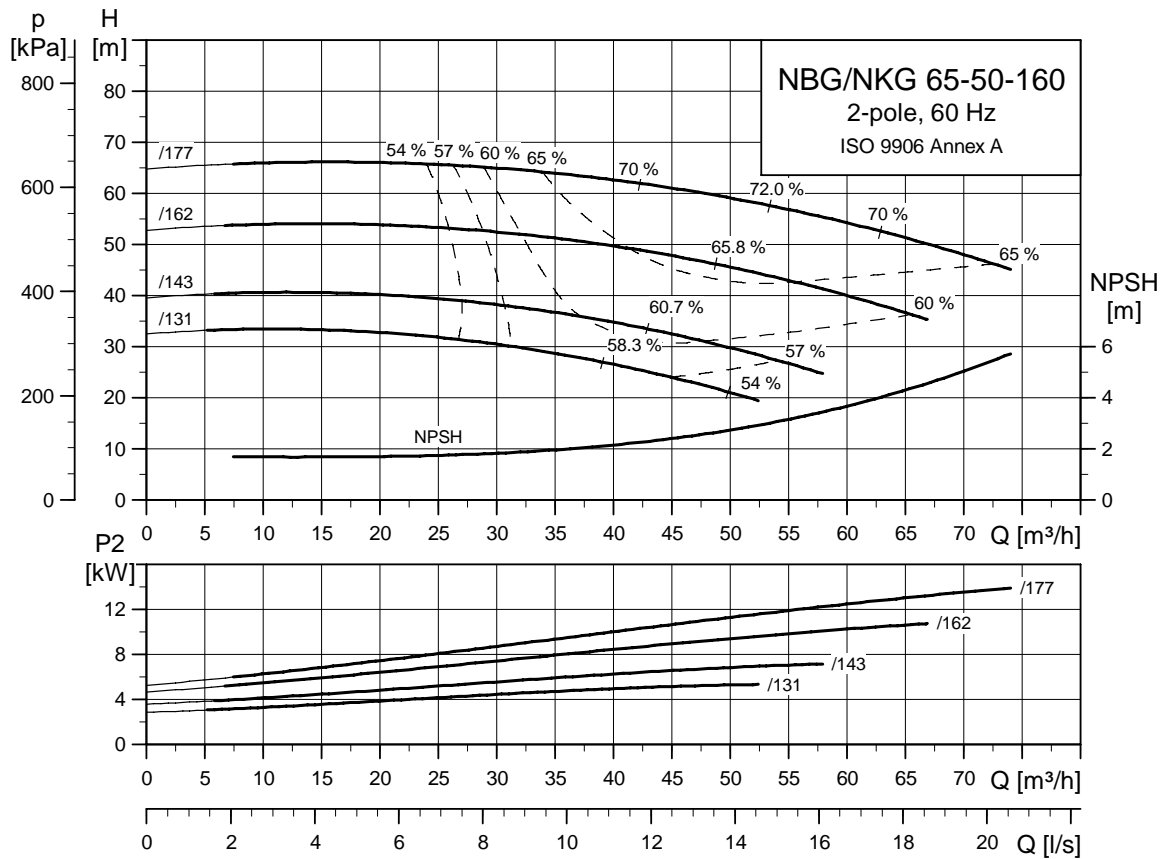
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

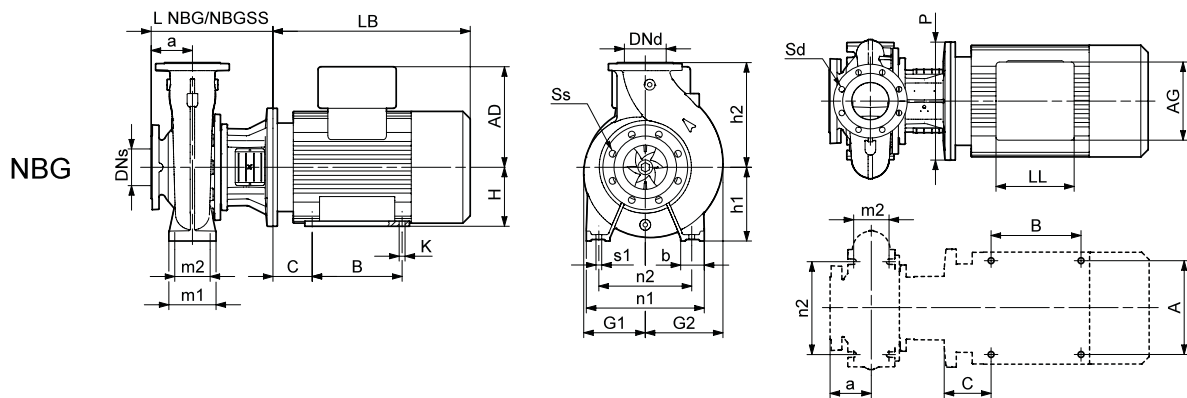
Note: For information about base frames, see page 222.

Performance curves

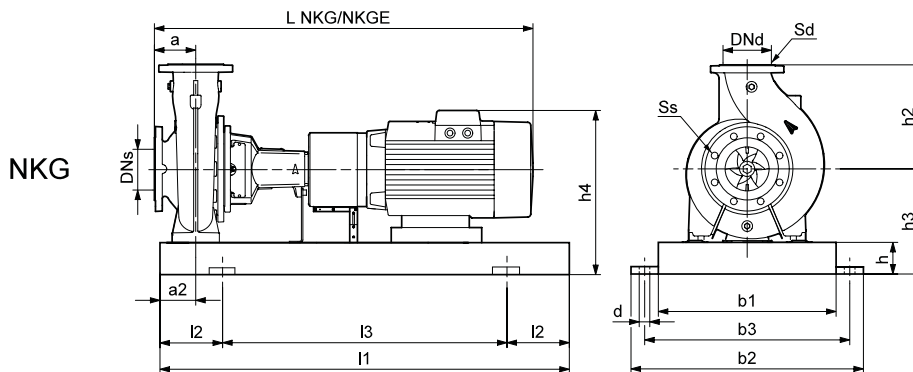
NBG, NKG 65-50-160
2-pole



TM03 5003 3406



TM03 8010 0107



TM03 8011 0107

Technical data

NBG, NKG 65-50-160
2-pole

Pump type		65-50-160/131	65-50-160/143	65-50-160/162	65-50-160/177	
Motor type	Premium Motor	MG 132SC-D	MG 132SD-D	Siemens 160M	Siemens 160M	
	E-Motor	MGE 132SC	MGE 132SD	MMGE 160M	MMGE 160MX	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15
	PN	[bar]	16	16	16	16
	DNs	[mm]	65	65	65	65
	DNd	[mm]	50	50	50	50
	a	[mm]	80	80	80	80
	h ₂	[mm]	160	160	160	160
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	946/1036	946/1036	1070/1153	1070/1153
	L NKGE	[mm]	946/1036	946/1036	1041/1124	1053/1136
	Weight NKG	[mm]	161/157	161/157	216/210	225/219
	Weight NKGE	[kg]	167/164	170/167	264/258	293/287
	Weight NKG SS	[kg]	160/157	160/157	215/209	224/218
	Weight NKGE SS	[kg]	167/164	170/167	263/257	292/286
NKG data	l ₁	[kg]	1120	1120	1250	1250
	l ₂	[mm]	190	190	205	205
	l ₃	[mm]	740	740	840	840
	b ₁	[mm]	380	380	430	430
	b ₂	[mm]	490	490	540	540
	b ₃	[mm]	440	440	490	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	215	215	245	245
	h ₄ ¹⁾	[mm]	349/403	349/403	442/604	442/622
	Base frame no.		5	5	6	6
	NBG data	Design		A ²⁾	A ²⁾	C ²⁾
L NBG		[mm]	293	293	323	323
L NBG SS		[mm]	293	293	323	323
h ₁		[mm]	132	132	132	132
G ₁		[mm]	117	117	117	117
G ₂		[mm]	134	134	134	134
m ₁		[mm]	100	100	100	100
m ₂		[mm]	70	70	70	70
n ₁		[mm]	240	240	240	240
n ₂		[mm]	190	190	190	190
b		[mm]	50	50	50	50
s ₁		[mm]	M12	M12	M12	M12
H		[mm]	-	-	160	160
LB ¹⁾		[mm]	391/391	391/391	478/449	478/461
AD ¹⁾		[mm]	134/188	134/188	197/359	197/377
AG ¹⁾		[mm]	202/290	202/290	165/296	165/296
LL ¹⁾		[mm]	103/300	103/300	165/410	165/410
P		[mm]	300	300	350	350
C		[mm]	-	-	108	108
B		[mm]	-	-	210	210
A		[mm]	-	-	254	254
K		[mm]	-	-	15	15
Weight NBG ¹⁾	[kg]	84/90	84/93	121/169	130/198	
Weight NBG SS ¹⁾	[kg]	84/91	84/94	123/171	132/200	

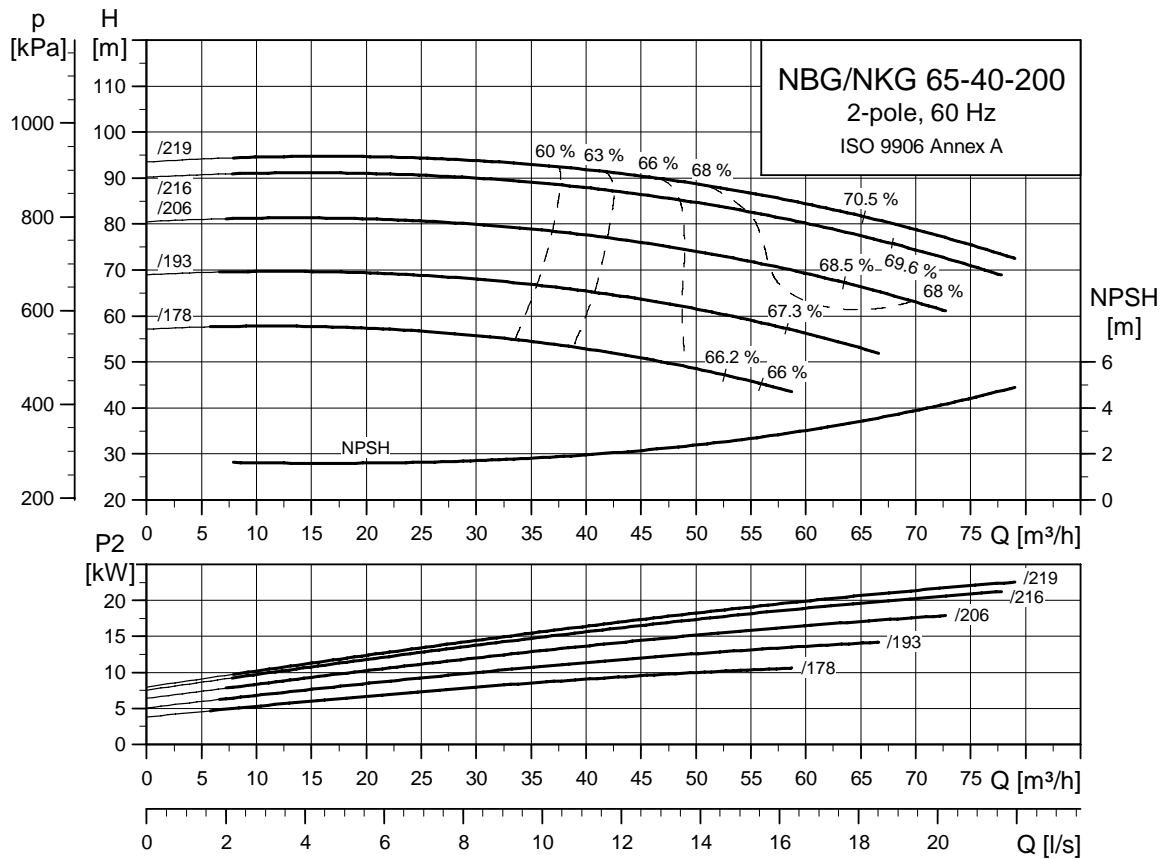
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

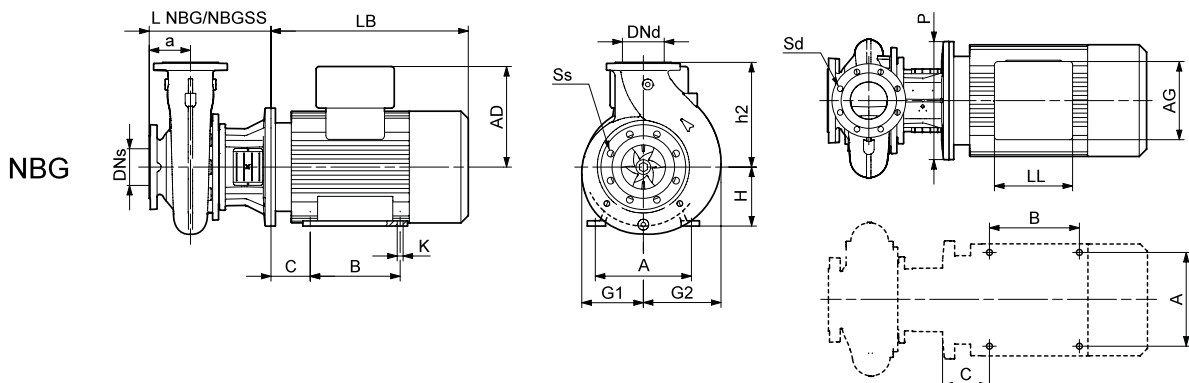
Note: For information about base frames, see page 222.

Performance curves

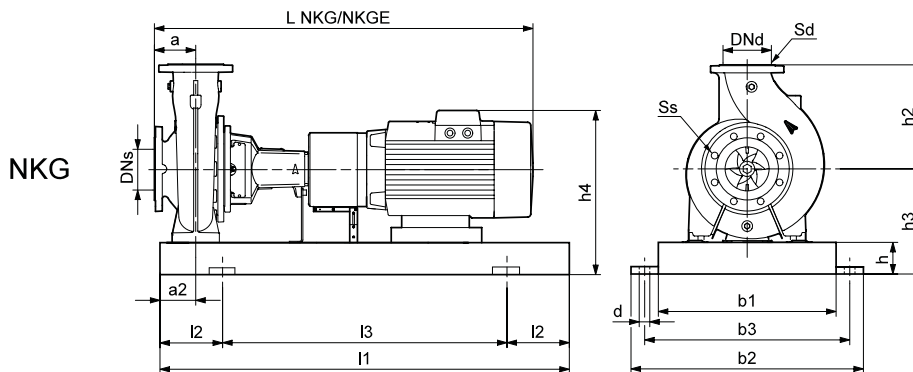
NBG, NKG 65-40-200
2-pole



TM03 5004 3406



TM03 8009 0107



TM03 8011 0107

Technical data

NBG, NKG 65-40-200
2-pole

Pump type		65-40-200/178	65-40-200/193	65-40-200/206	65-40-200/216	65-40-200/219	
Motor type	Premium Motor	Siemens 160M	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 200L	
	E-Motor	MMGE 160M	MMGE 160MX	MMGE 160L	MMGE 180M	-	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5	22	30
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	65	65	65	65	65
	DNd	[mm]	40	40	40	40	40
	a	[mm]	100	100	100	100	100
	h ₂	[mm]	180	180	180	180	180
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1090/1173	1090/1173	1130/1213	1222/1297	1279/1354
	L NKGE	[mm]	1061/1144	1073/1156	1111/1194	1145/1220	-/-
	Weight NKG	[mm]	216/210	225/219	245/239	282/274	427/421
	Weight NKGE	[kg]	264/258	293/287	324/318	363/355	-/-
	Weight NKG SS	[kg]	220/214	229/223	249/243	286/277	430/424
	Weight NKGE SS	[kg]	268/262	297/291	328/322	367/358	-/-
NKG data	l ₁	[kg]	1250	1250	1250	1250	1600
	l ₂	[mm]	205	205	205	205	270
	l ₃	[mm]	840	840	840	840	1060
	b ₁	[mm]	430	430	430	430	530
	b ₂	[mm]	540	540	540	540	660
	b ₃	[mm]	490	490	490	490	600
	d	[mm]	24	24	24	24	28
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	100
	h ₃	[mm]	245	245	245	265	310
	h ₄ ¹⁾	[mm]	442/604	442/622	442/622	523/664	615/-
Base frame no.		6	6	6	6	8	
NBG data	Design		B ²⁾	B ²⁾	B ²⁾	B	B ²⁾
	L NBG	[mm]	343	343	343	343	343
	L NBG SS	[mm]	343	343	343	343	343
	h ₁	[mm]	-	-	-	-	-
	G ₁	[mm]	140	140	140	140	140
	G ₂	[mm]	157	157	157	157	157
	m ₁	[mm]	-	-	-	-	-
	m ₂	[mm]	-	-	-	-	-
	n ₁	[mm]	-	-	-	-	-
	n ₂	[mm]	-	-	-	-	-
	b	[mm]	-	-	-	-	-
	s ₁	[mm]	-	-	-	-	-
	H	[mm]	160	160	160	180	200
	LB ¹⁾	[mm]	478/449	478/461	518/499	602/525	659/-
	AD ¹⁾	[mm]	197/359	197/377	197/377	258/399	305/-
	AG ¹⁾	[mm]	165/296	165/296	165/296	152/328	260/-
	LL ¹⁾	[mm]	165/410	165/410	165/410	132/456	192/-
	P	[mm]	350	350	350	350	400
	C	[mm]	108	108	108	121	133
	B	[mm]	210	210	254	241	305
A	[mm]	254	254	254	279	318	
K	[mm]	15	15	15	15	19	
Weight NBG ¹⁾	[kg]	124/172	133/201	153/232	182/263	273/-	
Weight NBG SS ¹⁾	[kg]	130/178	139/207	159/238	187/268	274/-	

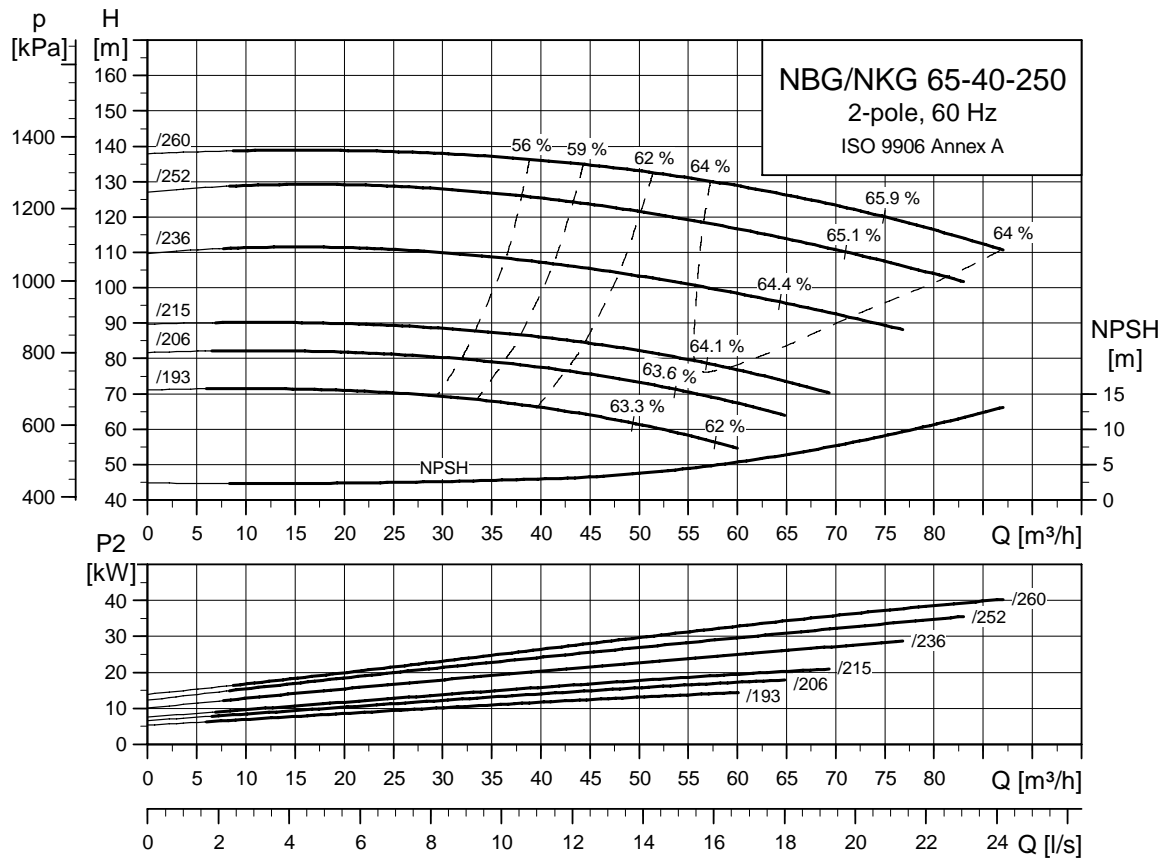
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

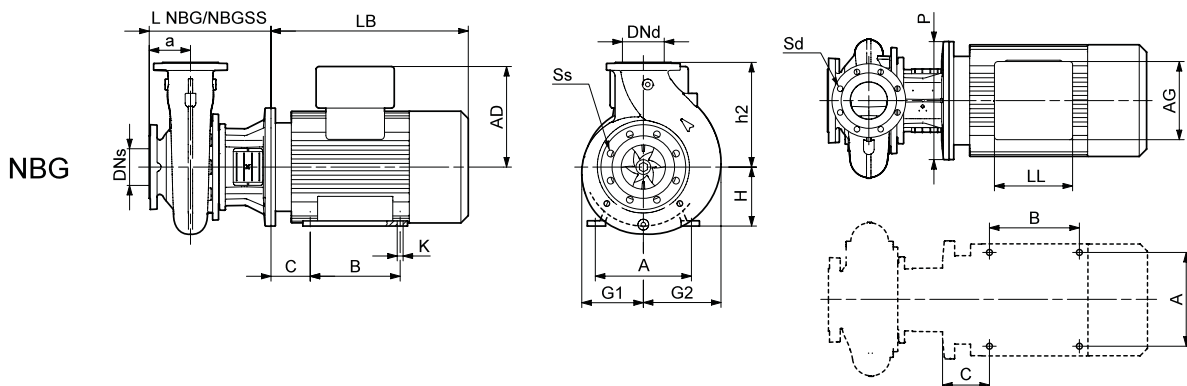
Note: For information about base frames, see page 222.

Performance curves

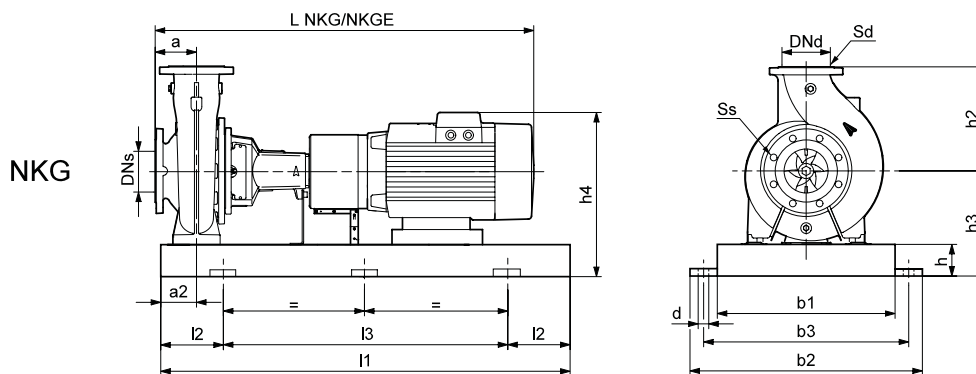
NBG, NKG 65-40-250
2-pole



TM03 5005 3406



TM03 8009 0107



TM03 8012 0107

Technical data

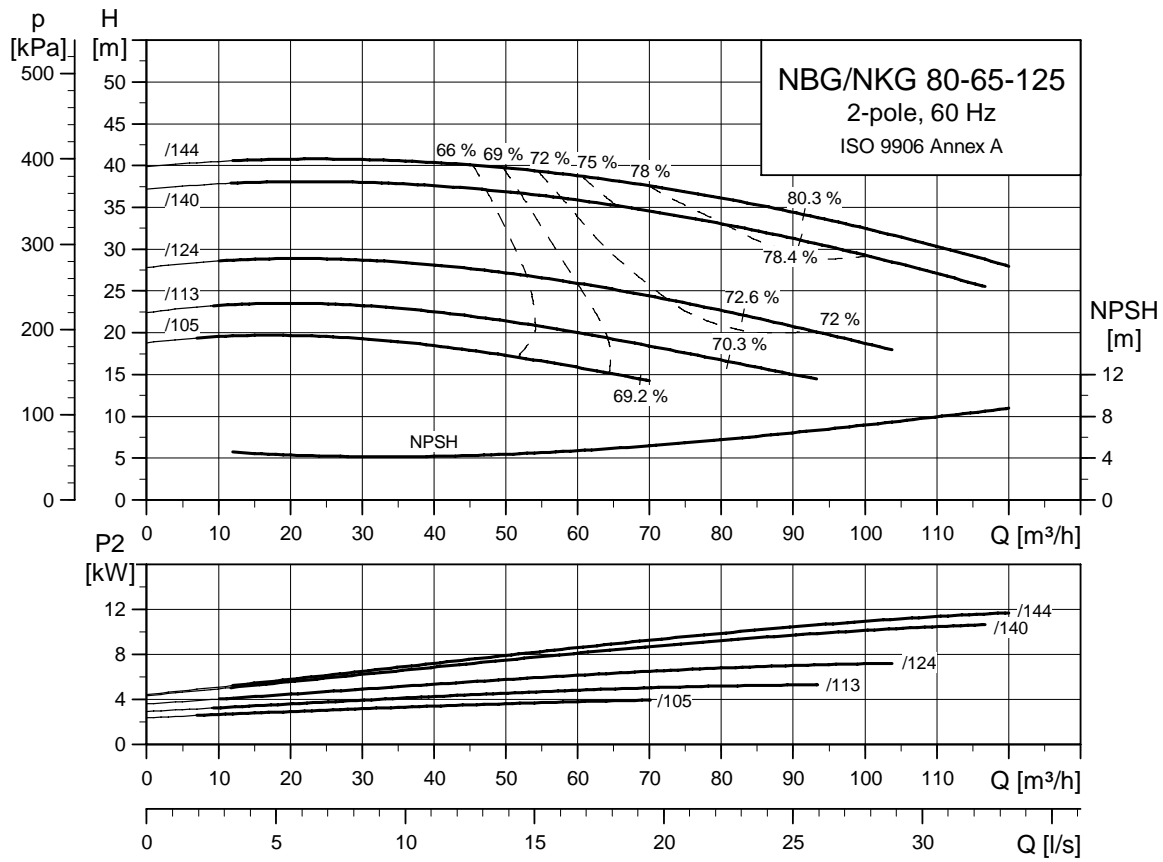
NBG, NKG 65-40-250
2-pole

Pump type		65-40-250/193	65-40-250/206	65-40-250/215	65-40-250/236	65-40-250/252	65-40-250/260	
Motor type	Premium Motor	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 200L	Siemens 200L	Siemens 225M	
	E-Motor	MMGE 160MX	MMGE 160L	MMGE 180M	-	-	-	
Common data NBG/NKG	P ₂	[kW]	15	18.5	22	30	37	45
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	65	65	65	65	65	65
	DNd	[mm]	40	40	40	40	40	40
	a	[mm]	100	100	100	100	100	100
	h ₂	[mm]	225	225	225	225	225	225
	Ss		4x19	4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1192/1288	1232/1328	1316/1412	1373/1469	1373/1469	1423/1519
	L NKGE	[mm]	1175/1271	1213/1309	1239/1335	-/-	-/-	-/-
	Weight NKG	[mm]	253/248	273/268	302/294	447/441	447/441	562/556
	Weight NKGE	[kg]	321/316	352/347	383/375	-/-	-/-	-/-
	Weight NKG SS	[kg]	259/254	279/274	308/300	452/447	452/447	567/562
NKG data	Weight NKGE SS	[kg]	327/322	358/353	389/381	-/-	-/-	-/-
	l ₁	[kg]	1250	1250	1250	1600	1600	1600
	l ₂	[mm]	205	205	205	270	270	270
	l ₃	[mm]	840	840	840	1060	1060	1060
	b ₁	[mm]	430	430	430	530	530	530
	b ₂	[mm]	540	540	540	660	660	660
	b ₃	[mm]	490	490	490	600	600	600
	d	[mm]	24	24	24	28	28	28
	a ₂	[mm]	75	75	75	75	75	75
	h	[mm]	80	80	80	100	100	100
	h ₃	[mm]	260	260	265	305	305	330
h ₄ ¹⁾	[mm]	457/637	457/637	523/664	610/-	610/-	655/-	
Base frame no.		6	6	6	8	8	8	
NBG data	Design		B ²⁾	B ²⁾	B	B ²⁾	B ²⁾	-
	L NBG	[mm]	343	343	343	343	343	-
	L NBG SS	[mm]	343	343	343	343	343	-
	h ₁	[mm]	-	-	-	-	-	-
	G ₁	[mm]	164	164	164	164	164	-
	G ₂	[mm]	172	172	172	172	172	-
	m ₁	[mm]	-	-	-	-	-	-
	m ₂	[mm]	-	-	-	-	-	-
	n ₁	[mm]	-	-	-	-	-	-
	n ₂	[mm]	-	-	-	-	-	-
	b	[mm]	-	-	-	-	-	-
	s ₁	[mm]	-	-	-	-	-	-
	H	[mm]	160	160	180	200	200	-
	LB ¹⁾	[mm]	478/461	518/499	602/525	659/-	659/-	-/-
	AD ¹⁾	[mm]	197/377	197/377	258/399	305/-	305/-	-/-
	AG ¹⁾	[mm]	165/296	165/296	152/328	260/-	260/-	-/-
	LL ¹⁾	[mm]	165/410	165/410	132/456	192/-	192/-	-/-
	P	[mm]	350	350	350	400	400	-
	C	[mm]	108	108	121	133	133	-
	B	[mm]	210	254	241	305	305	-
A	[mm]	254	254	279	318	318	-	
K	[mm]	15	15	15	19	19	-	
Weight NBG ¹⁾	[kg]	146/214	166/245	194/275	281/-	281/-	-/-	
Weight NBG SS ¹⁾	[kg]	148/216	168/247	197/278	284/-	284/-	-/-	

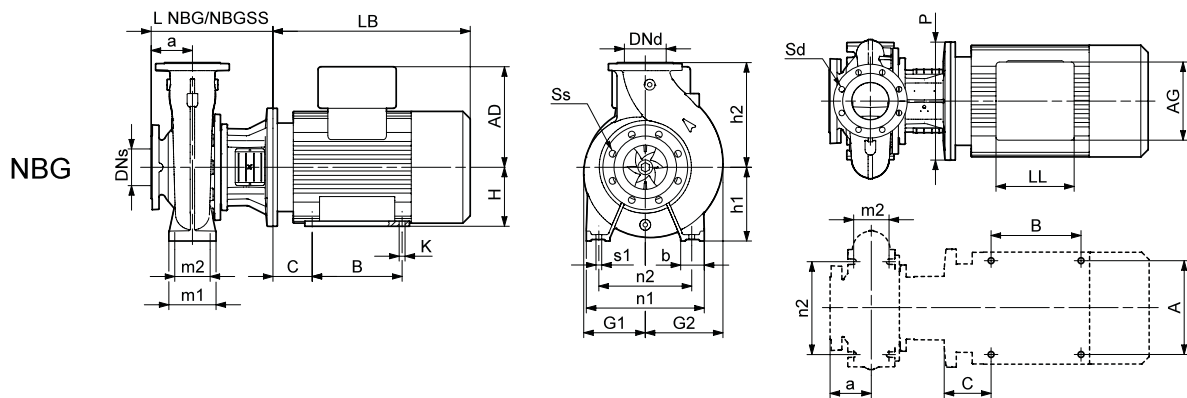
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

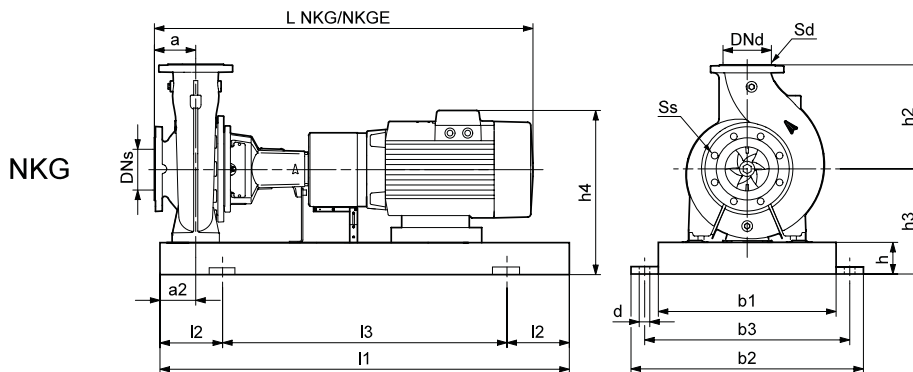
Note: For information about base frames, see page 222.



TM03 5006 3406



TM03 8010 0107



TM03 8011 0107

Pump type		80-65-125/105	80-65-125/113	80-65-125/124	80-65-125/140	80-65-125/144	
Motor type	Premium Motor	MG 112MC-D	MG 132SC-D	MG 132SD-D	Siemens 160M	Siemens 160M	
	E-Motor	MGE 112MC	MGE 132SC	MGE 132SD	MMGE 160M	MMGE 160MX	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5	11	15
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	80	80	80	80	80
	DNd	[mm]	65	65	65	65	65
	a	[mm]	100	100	100	100	100
	h ₂	[mm]	160	160	160	160	160
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	921/1017	966/1056	966/1056	1090/1173	1090/1173
	L NKGE	[mm]	921/1017	966/1056	966/1056	1061/1144	1073/1156
	Weight NKG	[mm]	153/151	163/159	163/159	217/212	226/221
	Weight NKGE	[kg]	153/151	169/166	172/169	265/260	294/289
	Weight NKG SS	[kg]	153/151	163/160	163/160	218/212	227/221
	Weight NKGE SS	[kg]	154/152	170/166	173/170	266/260	295/289
NKG data	l ₁	[kg]	1000	1120	1120	1250	1250
	l ₂	[mm]	170	190	190	205	205
	l ₃	[mm]	660	740	740	840	840
	b ₁	[mm]	340	380	380	430	430
	b ₂	[mm]	450	490	490	540	540
	b ₃	[mm]	400	440	440	490	490
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	212	215	215	245	245
	h ₄ ¹⁾	[mm]	346/400	349/403	349/403	442/604	442/622
Base frame no.		4	5	5	6	6	
NBG data	Design		A	A ²⁾	A ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	274	313	313	343	343
	L NBG SS	[mm]	293	313	313	343	343
	h ₁	[mm]	132	132	132	132	132
	G ₁	[mm]	117	117	117	117	117
	G ₂	[mm]	131	131	131	131	131
	m ₁	[mm]	100	100	100	100	100
	m ₂	[mm]	70	70	70	70	70
	n ₁	[mm]	240	240	240	240	240
	n ₂	[mm]	190	190	190	190	190
	b	[mm]	50	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12	M12
	H	[mm]	-	-	-	160	160
	LB ¹⁾	[mm]	372/372	391/391	391/391	478/449	478/461
	AD ¹⁾	[mm]	134/188	134/188	134/188	197/359	197/377
	AG ¹⁾	[mm]	202/290	202/290	202/290	165/296	165/296
	LL ¹⁾	[mm]	103/300	103/300	103/300	165/410	165/410
	P	[mm]	250	300	300	350	350
	C	[mm]	-	-	-	108	108
	B	[mm]	-	-	-	210	210
	A	[mm]	-	-	-	254	254
	K	[mm]	-	-	-	15	15
	Weight NBG ¹⁾	[kg]	80/80	85/92	85/95	123/171	132/200
Weight NBG SS ¹⁾	[kg]	83/84	87/93	87/97	125/173	134/202	

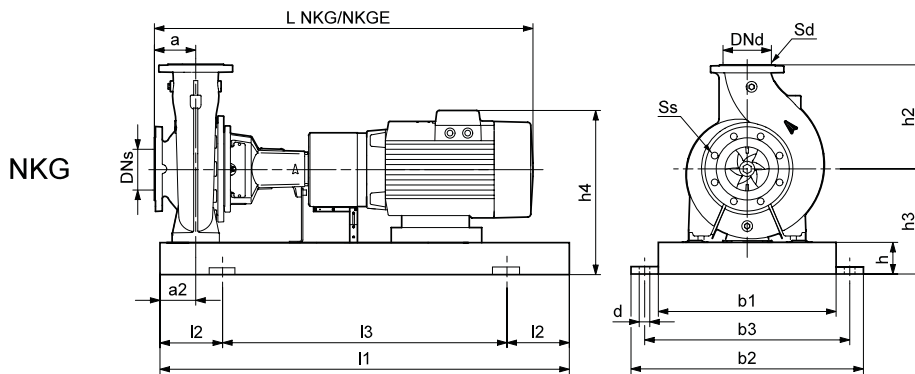
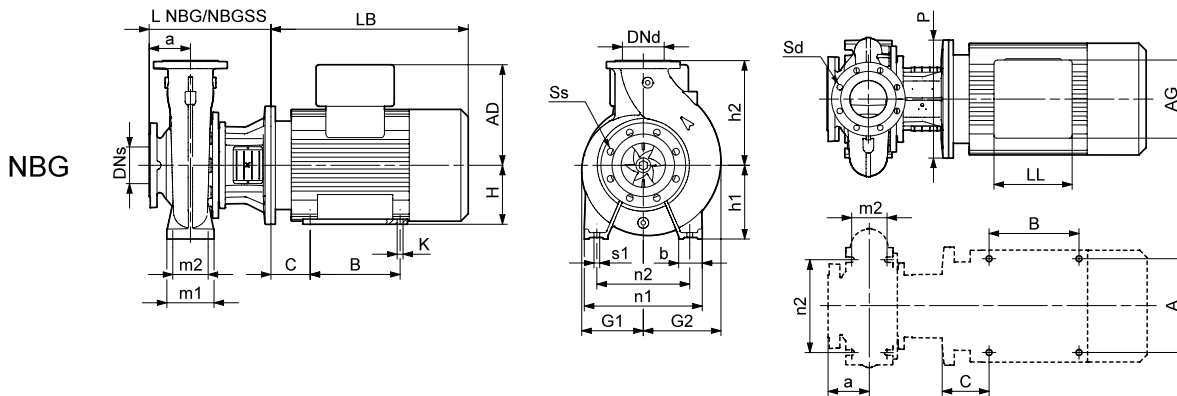
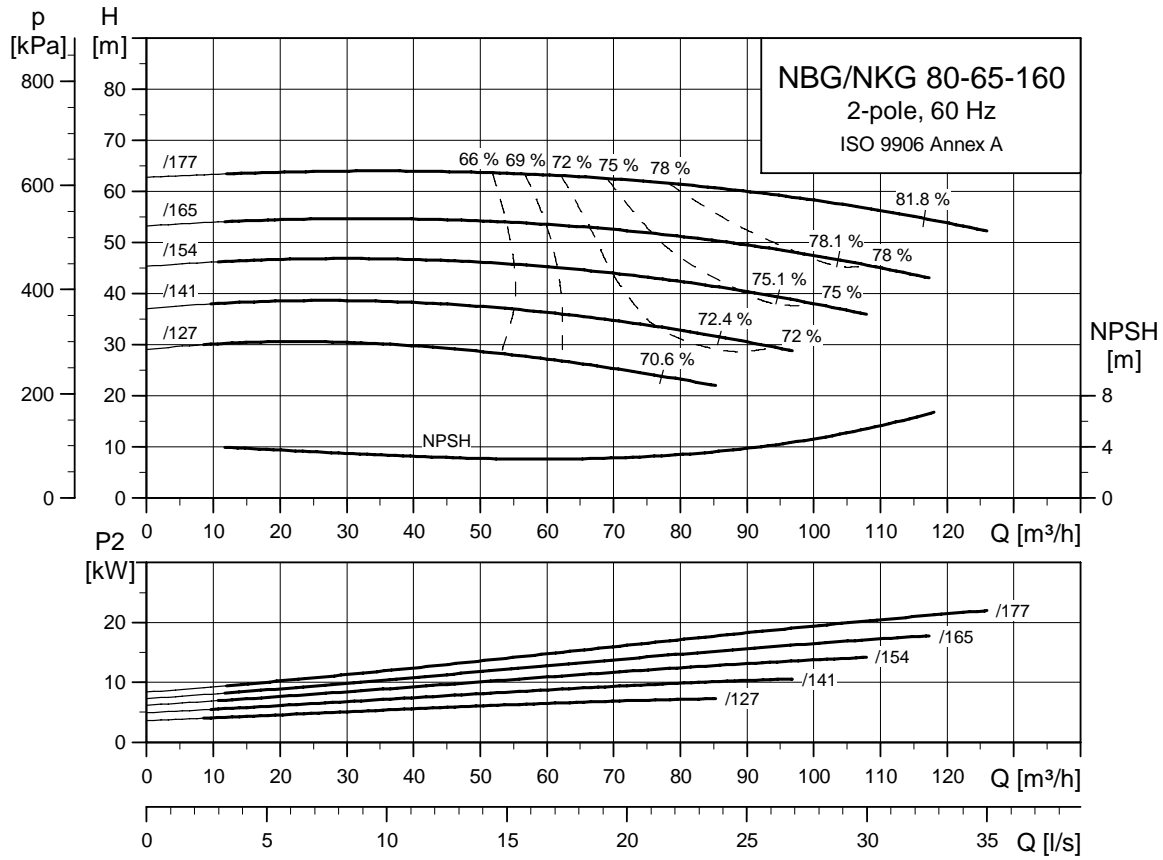
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 80-65-160
2-pole



TM03 5007 3406

TM03 8010 0107

TM03 8011 0107

Technical data

NBG, NKG 80-65-160
2-pole

Pump type		80-65-160/127	80-65-160/141	80-65-160/154	80-65-160/165	80-65-160/177	
Motor type	Premium Motor	MG 132SD-D	Siemens 160M	Siemens 160M	Siemens 160L	Siemens 180M	
	E-Motor	MGE 132SD	MMGE 160M	MMGE 160MX	MMGE 160L	MMGE 180M	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15	18.5	22
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	80	80	80	80	80
	DNd	[mm]	65	65	65	65	65
	a	[mm]	100	100	100	100	100
	h2	[mm]	180	180	180	180	180
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	966/1056	1090/1173	1090/1173	1130/1213	1222/1297
	L NKGE	[mm]	966/1056	1061/1144	1073/1156	1111/1194	1145/1220
	Weight NKG	[mm]	171/167	215/210	224/219	244/239	282/273
	Weight NKGE	[kg]	180/177	263/258	292/287	323/318	363/354
	Weight NKG SS	[kg]	172/168	216/211	225/220	245/240	283/274
	Weight NKGE SS	[kg]	181/178	264/259	293/288	324/319	364/355
NKG data	l1	[kg]	1120	1250	1250	1250	1250
	l2	[mm]	190	205	205	205	205
	l3	[mm]	740	840	840	840	840
	b1	[mm]	380	430	430	430	430
	b2	[mm]	490	540	540	540	540
	b3	[mm]	440	490	490	490	490
	d	[mm]	24	24	24	24	24
	a2	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h3	[mm]	240	245	245	245	265
	h4 ¹⁾	[mm]	374/428	442/604	442/622	442/622	523/664
	Base frame no.		5	6	6	6	6
NBG data	Design		A	B ²⁾	B ²⁾	B ²⁾	B
	L NBG	[mm]	313	343	343	343	343
	L NBG SS	[mm]	313	343	343	343	343
	h1	[mm]	160	-	-	-	-
	G1	[mm]	125	125	125	125	125
	G2	[mm]	151	151	151	151	151
	m1	[mm]	100	-	-	-	-
	m2	[mm]	70	-	-	-	-
	n1	[mm]	264	-	-	-	-
	n2	[mm]	212	-	-	-	-
	b	[mm]	50	-	-	-	-
	s1	[mm]	M12	-	-	-	-
	H	[mm]	-	160	160	160	180
	LB ¹⁾	[mm]	391/391	478/449	478/461	518/499	602/525
	AD ¹⁾	[mm]	134/188	197/359	197/377	197/377	258/399
	AG ¹⁾	[mm]	202/290	165/296	165/296	165/296	152/328
	LL ¹⁾	[mm]	103/300	165/410	165/410	165/410	132/456
	P	[mm]	300	350	350	350	350
	C	[mm]	-	108	108	108	121
	B	[mm]	-	210	210	254	241
A	[mm]	-	254	254	254	279	
K	[mm]	-	15	15	15	15	
Weight NBG ¹⁾	[kg]	88/98	123/171	132/200	152/231	181/262	
Weight NBG SS ¹⁾	[kg]	90/100	125/173	134/202	154/233	183/264	

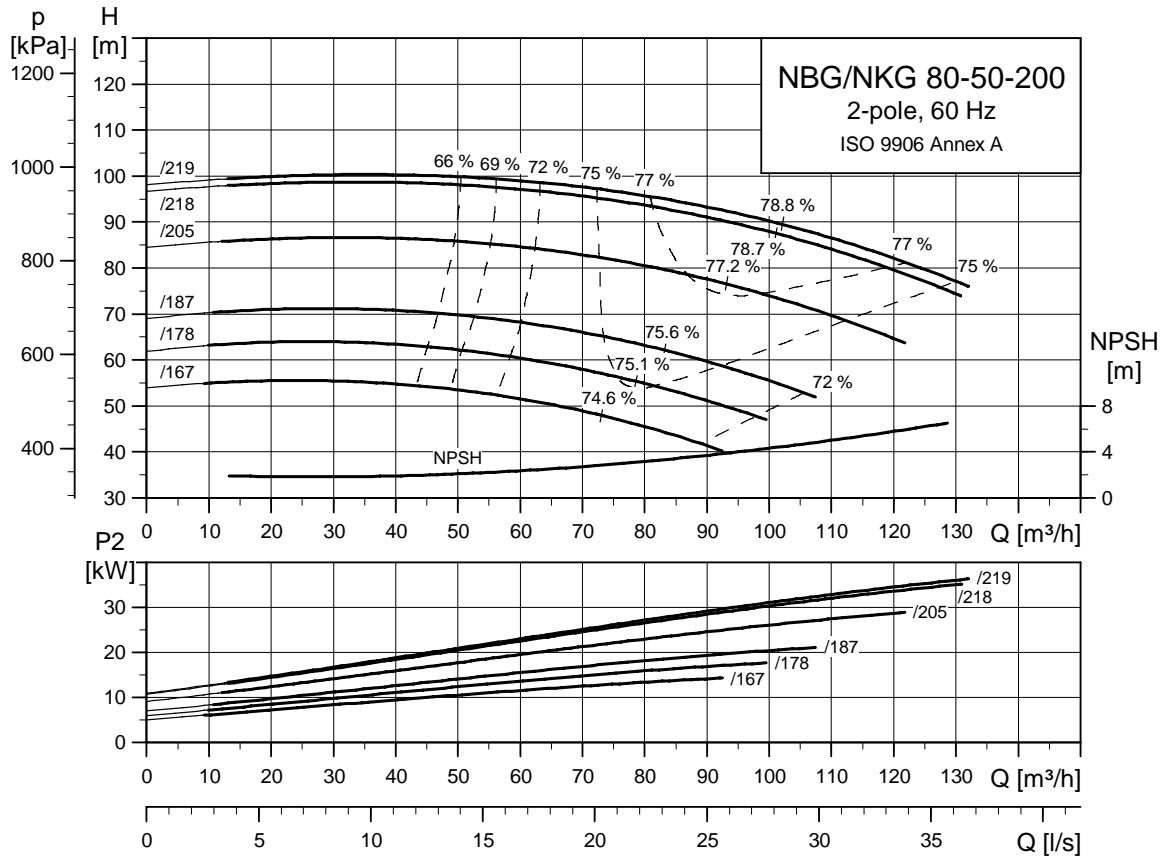
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

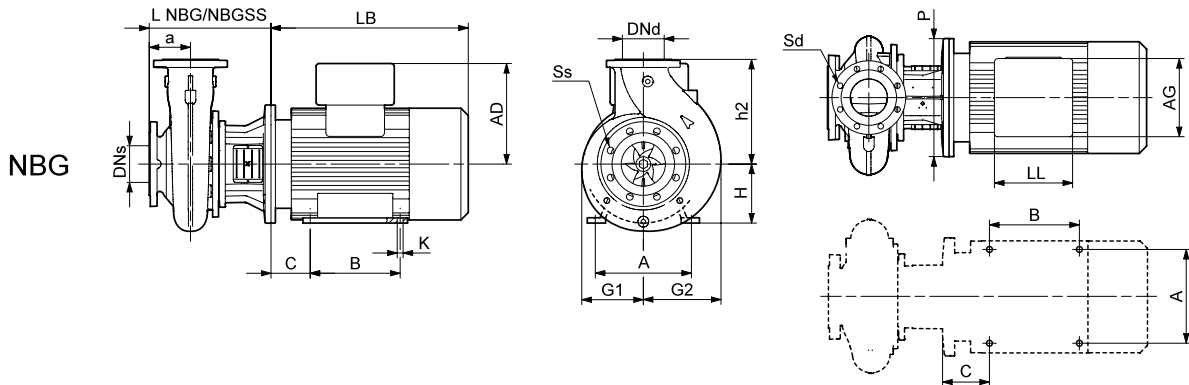
Note: For information about base frames, see page 222.

Performance curves

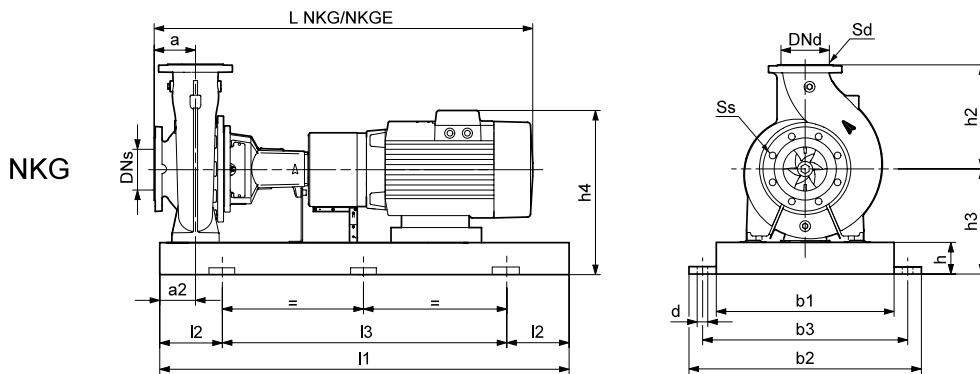
NBG, NKG 80-50-200
2-pole



TM03 5008 3406



TM03 8009 0107



TM03 8012 0107

Pump type		80-50-200/167	80-50-200/178	80-50-200/187	80-50-200/205	80-50-200/218	80-50-200/219	
Motor type	Premium Motor	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 200L	Siemens 200L	Siemens 225M	
	E-Motor	MMGE 160MX	MMGE 160L	MMGE 180M	-	-	-	
Common data NBG/NKG	P ₂	[kW]	15	18.5	22	30	37	45
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	80	80	80	80	80	80
	DNd	[mm]	50	50	50	50	50	50
	a	[mm]	100	100	100	100	100	100
	h ₂	[mm]	200	200	200	200	200	200
	Ss		8x19	8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1090/1173	1130/1213	1222/1297	1279/1354	1279/1354	1329/1404
	L NKGE	[mm]	1073/1156	1111/1194	1145/1220	-/-	-/-	-/-
	Weight NKG	[mm]	230/224	250/244	287/278	432/426	432/426	545/539
	Weight NKGE	[kg]	298/292	329/323	368/359	-/-	-/-	-/-
	Weight NKG SS	[kg]	231/225	251/245	288/280	433/427	433/427	546/540
NKG data	l ₁	[kg]	1250	1250	1250	1600	1600	1600
	l ₂	[mm]	205	205	205	270	270	270
	l ₃	[mm]	840	840	840	1060	1060	1060
	b ₁	[mm]	430	430	430	530	530	530
	b ₂	[mm]	540	540	540	660	660	660
	b ₃	[mm]	490	490	490	600	600	600
	d	[mm]	24	24	24	28	28	28
	a ₂	[mm]	60	60	60	60	60	60
	h	[mm]	80	80	80	100	100	100
	h ₃	[mm]	245	245	265	310	310	330
	h ₄ ¹⁾	[mm]	442/622	442/622	523/664	615/-	615/-	655/-
	Base frame no.		6	6	6	8	8	8
	NBG data	Design		B ²⁾	B ²⁾	B	B ²⁾	B ²⁾
L NBG		[mm]	343	343	343	343	343	-
L NBG SS		[mm]	343	343	343	343	343	-
h ₁		[mm]	-	-	-	-	-	-
G ₁		[mm]	142	142	142	142	142	-
G ₂		[mm]	163	163	163	163	163	-
m ₁		[mm]	-	-	-	-	-	-
m ₂		[mm]	-	-	-	-	-	-
n ₁		[mm]	-	-	-	-	-	-
n ₂		[mm]	-	-	-	-	-	-
b		[mm]	-	-	-	-	-	-
s ₁		[mm]	-	-	-	-	-	-
H		[mm]	160	160	180	200	200	-
LB ¹⁾		[mm]	478/461	518/499	602/525	659/-	659/-	-/-
AD ¹⁾		[mm]	197/377	197/377	258/399	305/-	305/-	-/-
AG ¹⁾		[mm]	165/296	165/296	152/328	260/-	260/-	-/-
LL ¹⁾		[mm]	165/410	165/410	132/456	192/-	192/-	-/-
P		[mm]	350	350	350	400	400	-
C		[mm]	108	108	121	133	133	-
B		[mm]	210	254	241	305	305	-
A	[mm]	254	254	279	318	318	-	
K	[mm]	15	15	15	19	19	-	
Weight NBG ¹⁾	[kg]	137/205	157/236	186/267	276/-	276/-	-/-	
Weight NBG SS ¹⁾	[kg]	141/209	161/240	190/271	277/-	277/-	-/-	

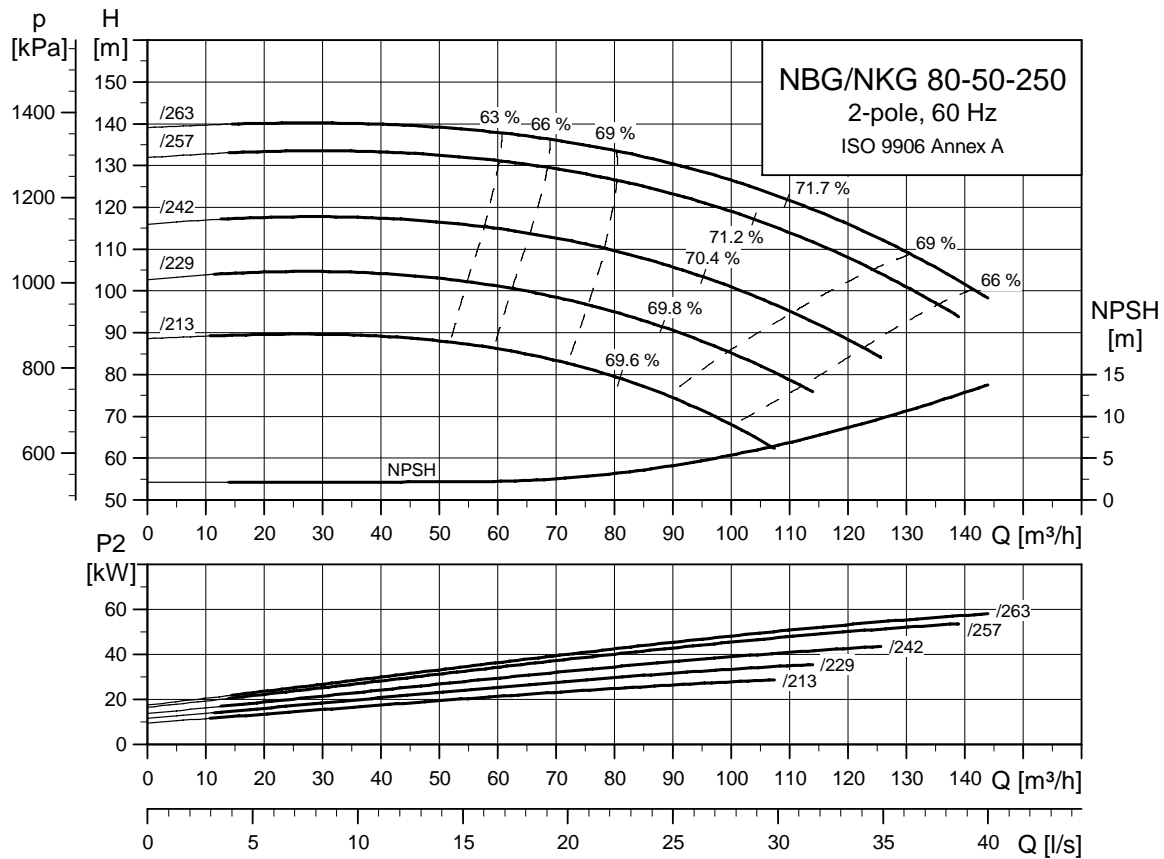
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

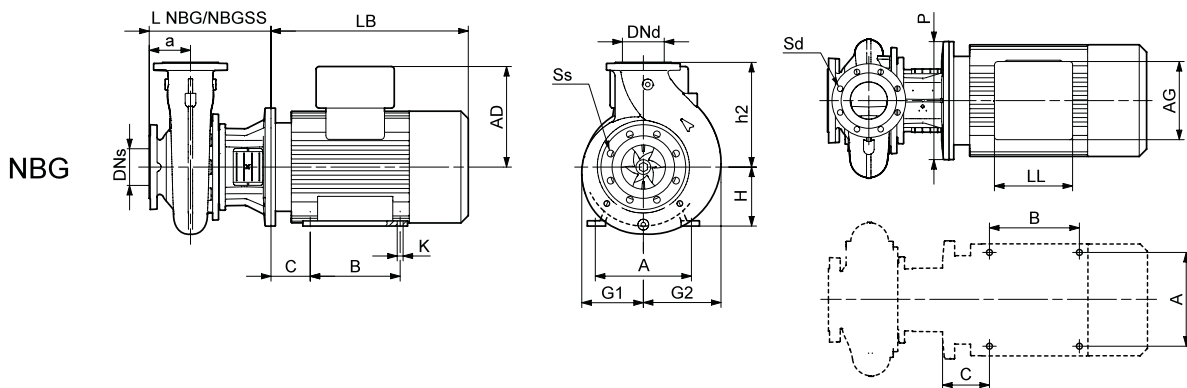
Note: For information about base frames, see page 222.

Performance curves

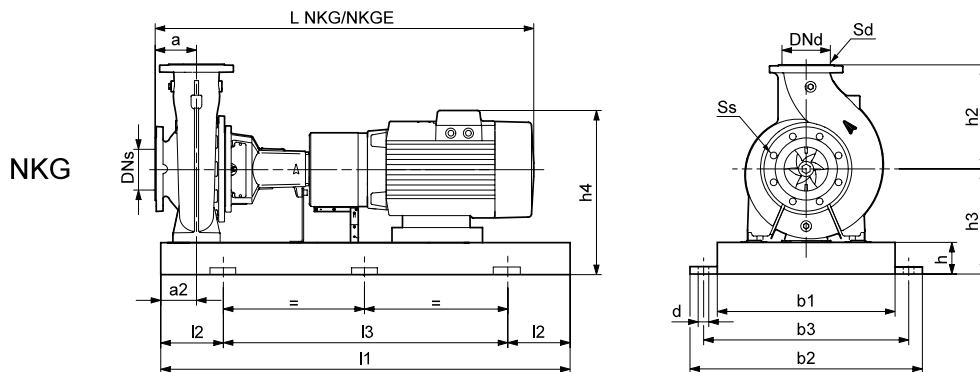
NBG, NKG 80-50-250
2-pole



TM03 5009 3406



TM03 8009 0107



TM03 8012 0107

Technical data

NBG, NKG 80-50-250
2-pole

Pump type		80-50-250/213	80-50-250/229	80-50-250/242	80-50-250/257	80-50-250/263	
Motor type	Premium Motor	Siemens 200L	Siemens 200L	Siemens 225M	Siemens 250M	Siemens 280S	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	30	37	45	55	75
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	80	80	80	80	80
	DNd	[mm]	50	50	50	50	50
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	225	225	225	225	225
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1398/1494	1398/1494	1448/1544	1516/1612	1589/1685
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	456/451	456/451	571/566	699/694	962/961
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	461/455	461/455	576/570	703/698	967/965
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1600	1600	1600	1800	2000
	l ₂	[mm]	270	270	270	300	330
	l ₃	[mm]	1060	1060	1060	1200	1340
	b ₁	[mm]	530	530	530	600	750
	b ₂	[mm]	660	660	660	730	890
	b ₃	[mm]	600	600	600	670	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	75	75	75	75	75
	h	[mm]	100	100	100	100	130
	h ₃	[mm]	305	305	330	355	415
	h ₄ ¹⁾	[mm]	610/-	610/-	655/-	747/-	847/-
	Base frame no.		8	8	8	9	10
NBG data	Design		B ²⁾	B ²⁾	-	-	-
	L NBG	[mm]	368	368	-	-	-
	L NBG SS	[mm]	368	368	-	-	-
	h ₁	[mm]	-	-	-	-	-
	G ₁	[mm]	164	164	-	-	-
	G ₂	[mm]	180	180	-	-	-
	m ₁	[mm]	-	-	-	-	-
	m ₂	[mm]	-	-	-	-	-
	n ₁	[mm]	-	-	-	-	-
	n ₂	[mm]	-	-	-	-	-
	b	[mm]	-	-	-	-	-
	s ₁	[mm]	-	-	-	-	-
	H	[mm]	200	200	-	-	-
	LB ¹⁾	[mm]	659/-	659/-	-/-	-/-	-/-
	AD ¹⁾	[mm]	305/-	305/-	-/-	-/-	-/-
	AG ¹⁾	[mm]	260/-	260/-	-/-	-/-	-/-
	LL ¹⁾	[mm]	192/-	192/-	-/-	-/-	-/-
	P	[mm]	400	400	-	-	-
	C	[mm]	133	133	-	-	-
	B	[mm]	305	305	-	-	-
	A	[mm]	318	318	-	-	-
	K	[mm]	19	19	-	-	-
Weight NBG ¹⁾	[kg]	289/-	289/-	-/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	292/-	292/-	-/-	-/-	-/-	

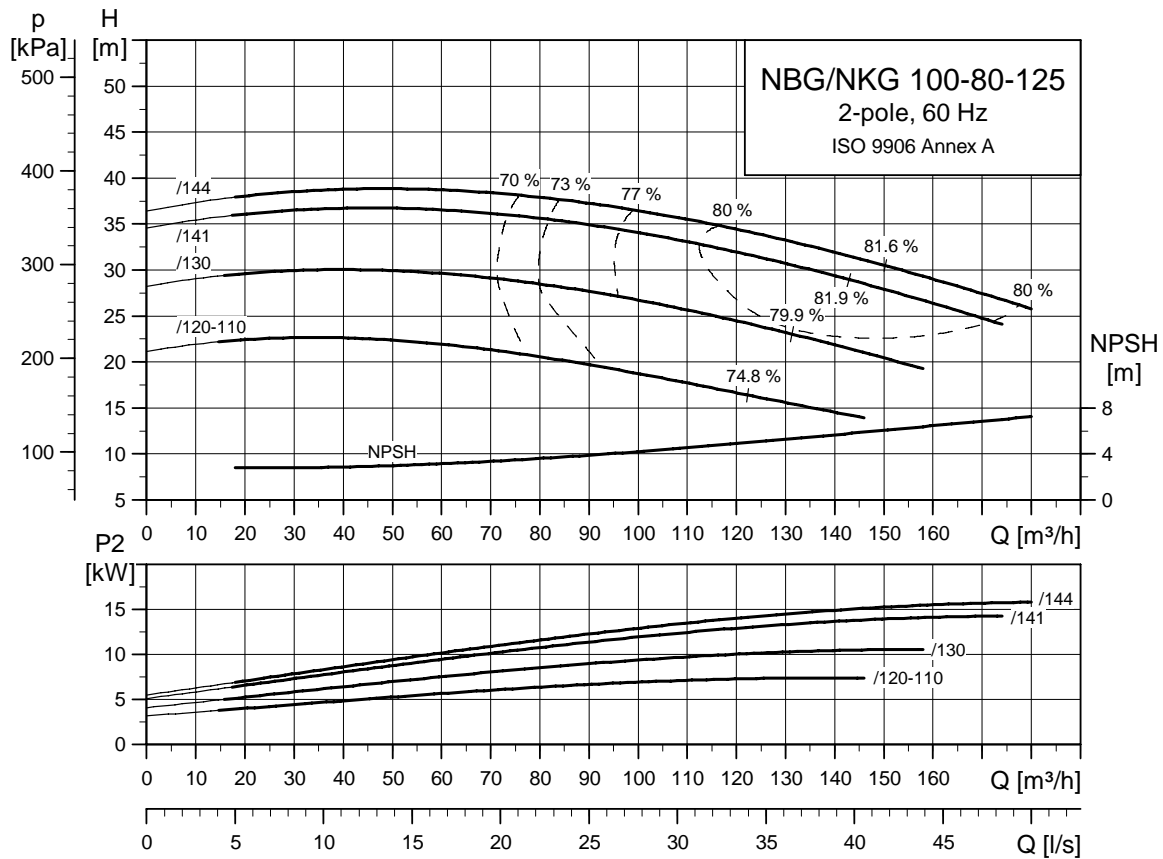
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

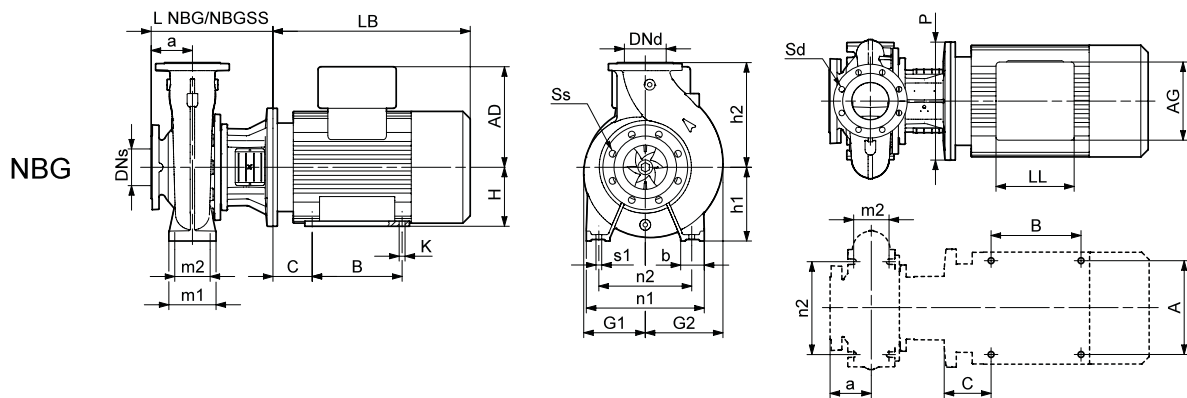
Note: For information about base frames, see page 222.

Performance curves

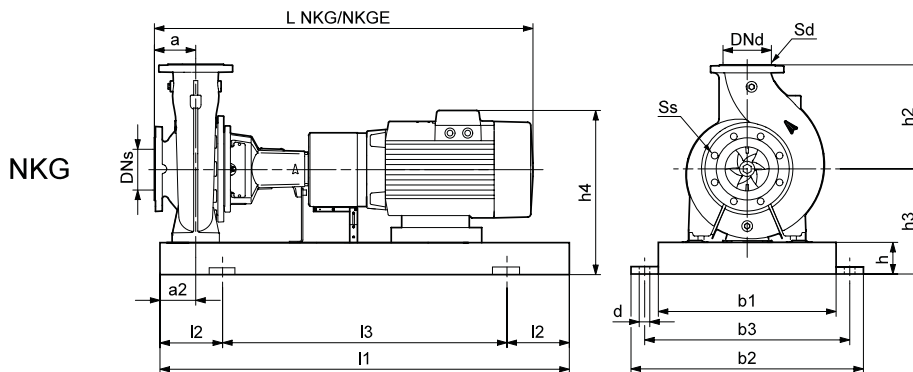
NBG, NKG 100-80-125
2-pole



TM03 5010 3406



TM03 8010 0107



TM03 8011 0107

Pump type		100-80-125/120-110	100-80-125/130	100-80-125/141	100-80-125/144	
Motor type	Premium Motor	MG 132SD-D	Siemens 160M	Siemens 160M	Siemens 160L	
	E-Motor	MGE 132SD	MMGE 160M	MMGE 160MX	MMGE 160L	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15	18.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	100	100	100	100
	DNd	[mm]	80	80	80	80
	a	[mm]	100	100	100	100
	h ₂	[mm]	180	180	180	180
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	966/1056	1090/1173	1090/1173	1130/1213
	L NKGE	[mm]	966/1056	1061/1144	1073/1156	1111/1194
	Weight NKG	[mm]	173/169	218/212	227/221	247/241
	Weight NKGE	[kg]	183/179	266/260	295/289	326/320
	Weight NKG SS	[kg]	173/170	218/212	227/221	247/241
	Weight NKGE SS	[kg]	183/180	266/260	295/289	326/320
NKG data	l ₁	[kg]	1120	1250	1250	1250
	l ₂	[mm]	190	205	205	205
	l ₃	[mm]	740	840	840	840
	b ₁	[mm]	380	430	430	430
	b ₂	[mm]	490	540	540	540
	b ₃	[mm]	440	490	490	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	245	245	245
	h ₄ ¹⁾	[mm]	374/428	442/604	442/622	442/622
Base frame no.		5	6	6	6	
NBG data	Design		A	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	313	343	343	343
	L NBG SS	[mm]	313	343	343	343
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	117	117	117	117
	G ₂	[mm]	146	146	146	146
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	280	280	280	280
	n ₂	[mm]	212	212	212	212
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	160	160	160
	LB ¹⁾	[mm]	391/391	478/449	478/461	518/499
	AD ¹⁾	[mm]	134/188	197/359	197/377	197/377
	AG ¹⁾	[mm]	202/290	165/296	165/296	165/296
	LL ¹⁾	[mm]	103/300	165/410	165/410	165/410
	P	[mm]	300	350	350	350
	C	[mm]	-	108	108	108
	B	[mm]	-	210	210	254
	A	[mm]	-	254	254	254
	K	[mm]	-	15	15	15
	Weight NBG ¹⁾	[kg]	90/100	127/175	136/204	156/235
Weight NBG SS ¹⁾	[kg]	91/101	130/178	139/207	159/238	

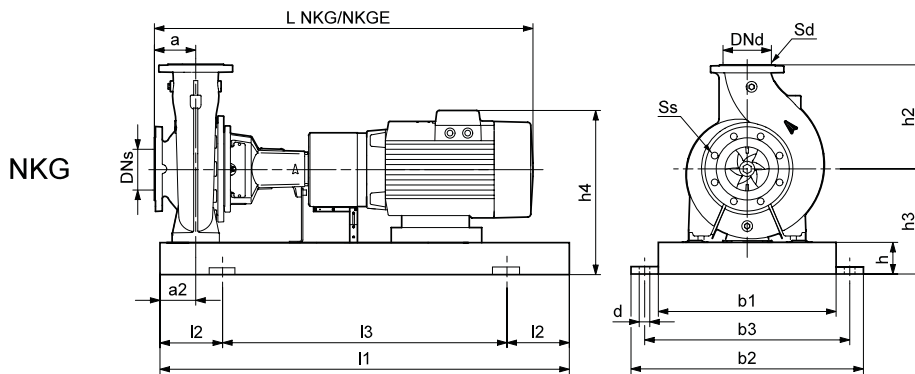
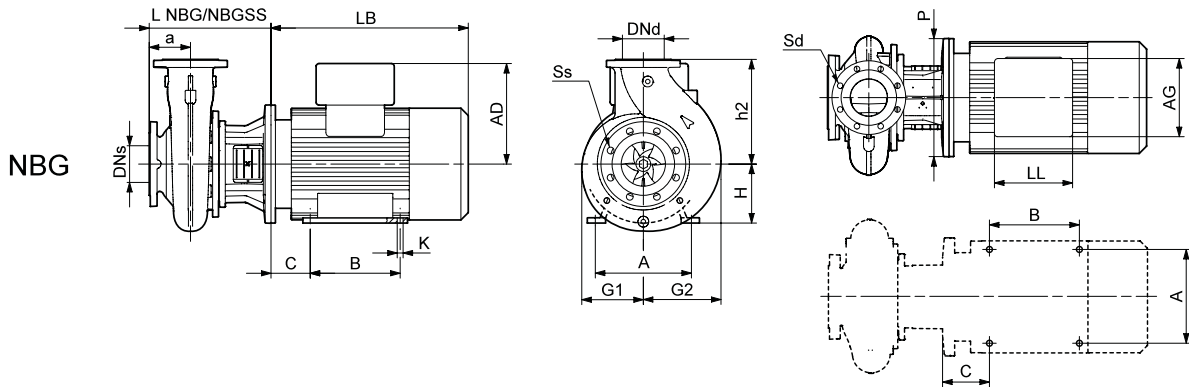
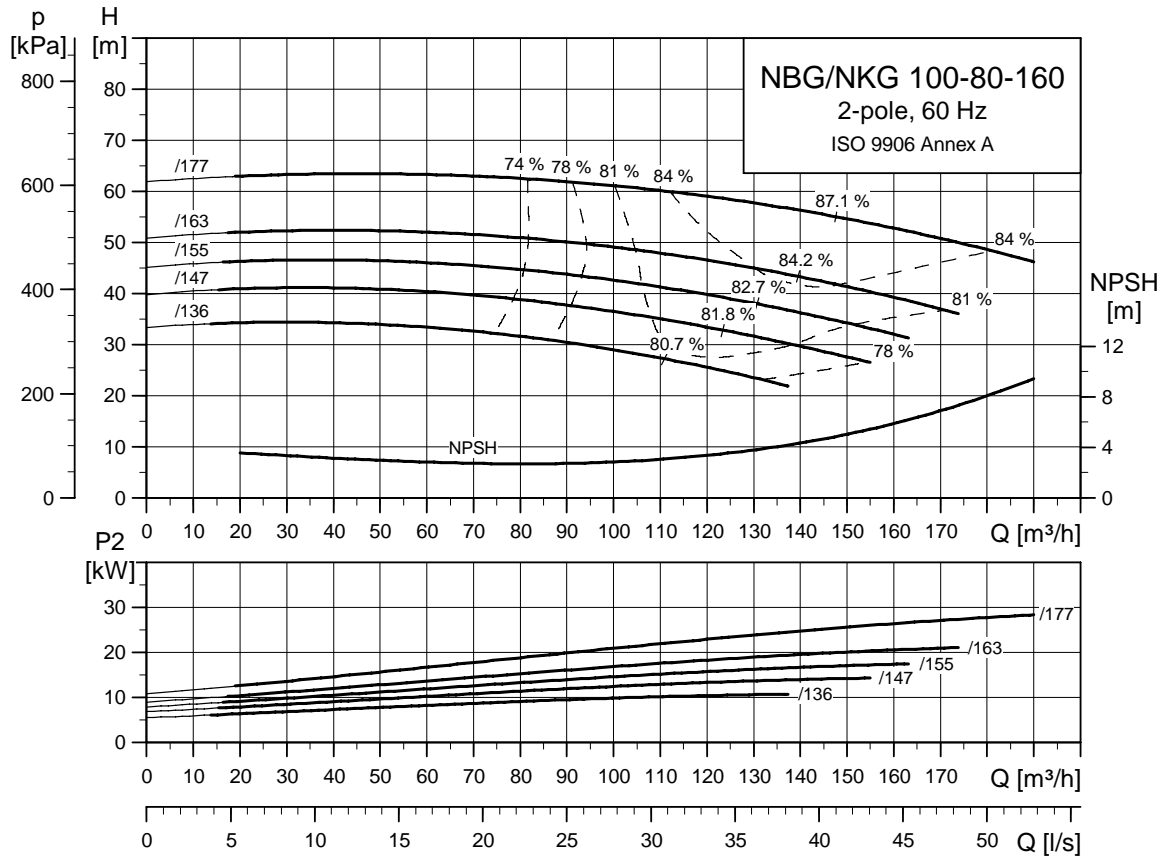
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 100-80-160
2-pole



TM03 5011 3406

TM03 8009 0107

TM03 8011 0107

Pump type		100-80-160/136	100-80-160/147	100-80-160/155	100-80-160/163	100-80-160/177	
Motor type	Premium Motor	Siemens 160M	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 200L	
	E-Motor	MMGE 160M	MMGE 160MX	MMGE 160L	MMGE 180M	-	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5	22	30
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	100	100	100	100	100
	DNd	[mm]	80	80	80	80	80
	a	[mm]	100	100	100	100	100
	h ₂	[mm]	200	200	200	200	200
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1192/1288	1192/1288	1232/1328	1316/1412	1373/1469
	L NKGE	[mm]	1163/1259	1175/1271	1213/1309	1239/1335	-/-
	Weight NKG	[mm]	236/231	245/240	265/260	303/295	446/441
	Weight NKGE	[kg]	284/279	313/308	344/339	384/376	-/-
	Weight NKG SS	[kg]	237/232	246/241	266/261	303/295	447/441
NKG data	Weight NKGE SS	[kg]	285/280	314/309	345/340	384/376	-/-
	l ₁	[kg]	1250	1250	1250	1250	1600
	l ₂	[mm]	205	205	205	205	270
	l ₃	[mm]	840	840	840	840	1060
	b ₁	[mm]	430	430	430	430	530
	b ₂	[mm]	540	540	540	540	660
	b ₃	[mm]	490	490	490	490	600
	d	[mm]	24	24	24	24	28
	a ₂	[mm]	75	75	75	75	75
	h	[mm]	80	80	80	80	100
	h ₃	[mm]	245	245	245	265	310
h ₄ ¹⁾	[mm]	442/604	442/622	442/622	523/664	615/-	
Base frame no.		6	6	6	6	8	
NBG data	Design		B ²⁾	B ²⁾	B ²⁾	B	B ²⁾
	L NBG	[mm]	343	343	343	343	343
	L NBG SS	[mm]	343	343	343	343	343
	h ₁	[mm]	-	-	-	-	-
	G ₁	[mm]	127	127	127	127	127
	G ₂	[mm]	161	161	161	161	161
	m ₁	[mm]	-	-	-	-	-
	m ₂	[mm]	-	-	-	-	-
	n ₁	[mm]	-	-	-	-	-
	n ₂	[mm]	-	-	-	-	-
	b	[mm]	-	-	-	-	-
	s ₁	[mm]	-	-	-	-	-
	H	[mm]	160	160	160	180	200
	LB ¹⁾	[mm]	478/449	478/461	518/499	602/525	659/-
	AD ¹⁾	[mm]	197/359	197/377	197/377	258/399	305/-
	AG ¹⁾	[mm]	165/296	165/296	165/296	152/328	260/-
	LL ¹⁾	[mm]	165/410	165/410	165/410	132/456	192/-
	P	[mm]	350	350	350	350	400
	C	[mm]	108	108	108	121	133
	B	[mm]	210	210	254	241	305
	A	[mm]	254	254	254	279	318
K	[mm]	15	15	15	15	19	
Weight NKG ¹⁾	[kg]	131/179	140/208	160/239	189/270	276/-	
Weight NKG SS ¹⁾	[kg]	133/181	142/210	162/241	190/271	277/-	

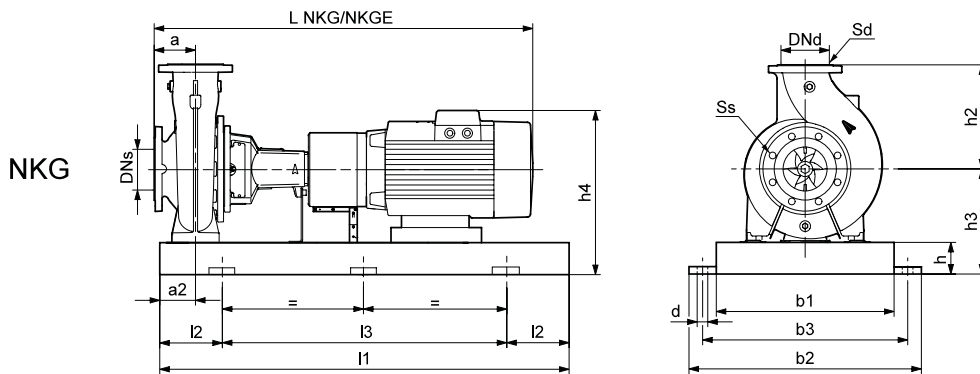
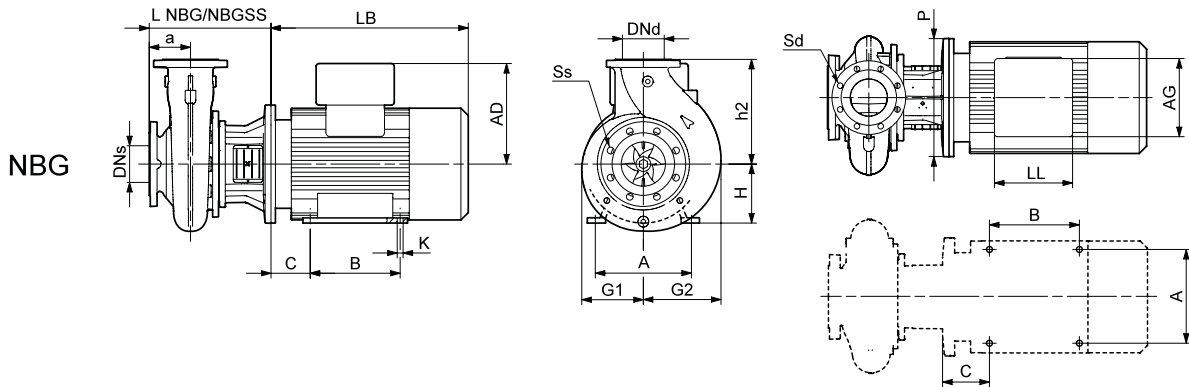
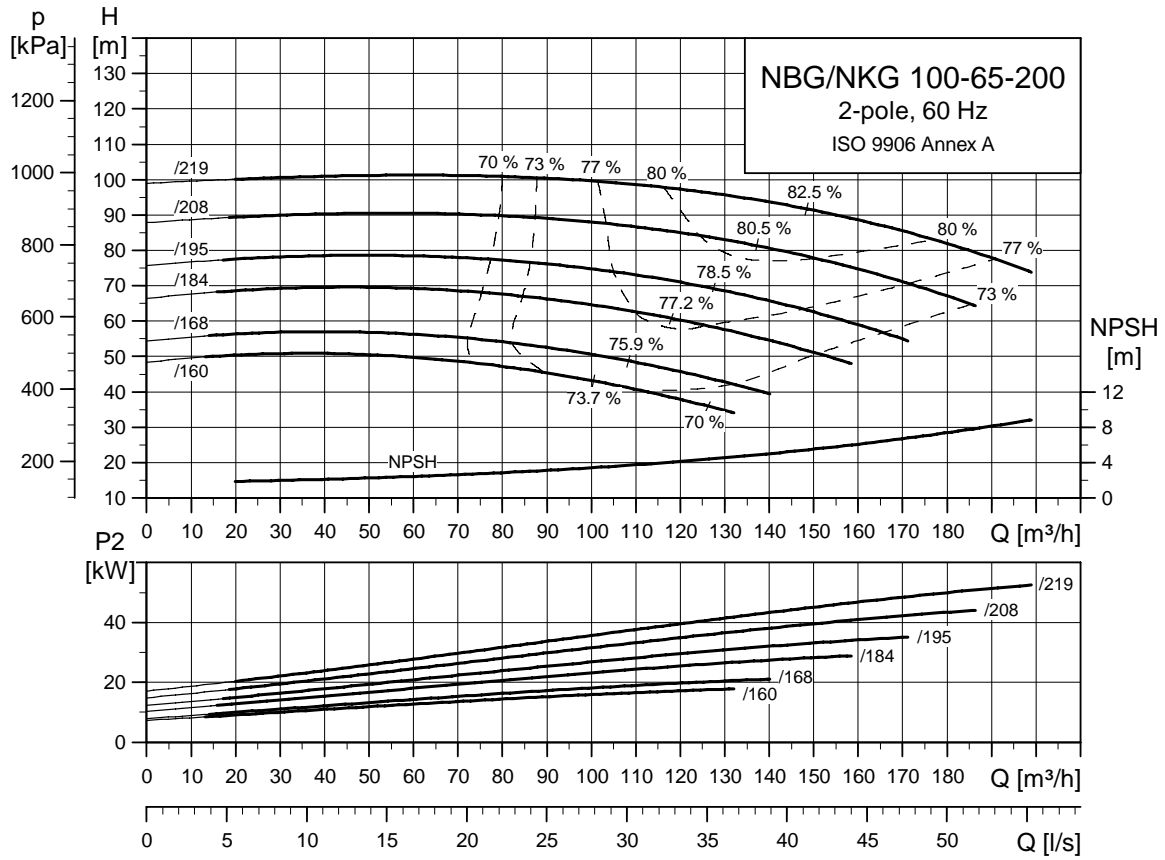
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 100-65-200
2-pole



TM03 5012 3406

TM03 8009 0107

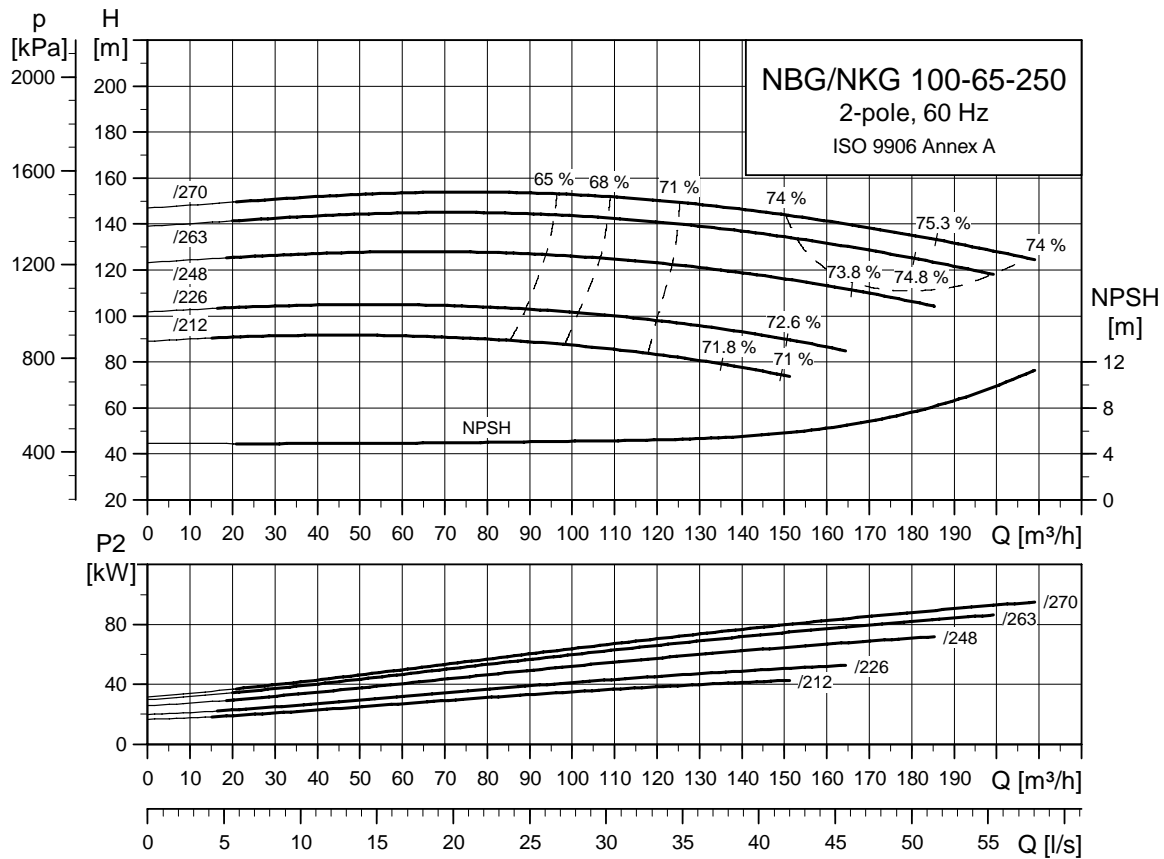
TM03 8012 0107

Pump type		100-65-200/160	100-65-200/168	100-65-200/184	100-65-200/195	100-65-200/208	100-65-200/219	
Motor type	Premium Motor	Siemens 160L	Siemens 180M	Siemens 200L	Siemens 200L	Siemens 225M	Siemens 250M	
	E-Motor	MMGE 160L	MMGE 180M	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	18.5	22	30	37	45	55
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	100	100	100	100	100	100
	DNd	[mm]	65	65	65	65	65	65
	a	[mm]	100	100	100	100	100	100
	h ₂	[mm]	225	225	225	225	225	225
	Ss		8x19	8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1232/1368	1316/1452	1373/1509	1373/1509	1423/1559	1491/1627
	L NKGE	[mm]	1213/1349	1239/1375	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	308/303	337/329	451/446	451/446	566/561	694/689
	Weight NKGE	[kg]	387/382	418/410	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	311/306	340/332	454/449	454/449	569/564	697/692
	Weight NKGE SS	[kg]	390/385	421/413	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1600	1600	1600	1800
	l ₂	[mm]	230	230	270	270	270	300
	l ₃	[mm]	940	940	1060	1060	1060	1200
	b ₁	[mm]	480	480	530	530	530	600
	b ₂	[mm]	610	610	660	660	660	730
	b ₃	[mm]	560	560	600	600	600	670
	d	[mm]	28	28	28	28	28	28
	a ₂	[mm]	75	75	75	75	75	75
	h	[mm]	100	100	100	100	100	100
	h ₃	[mm]	280	285	305	305	330	355
	h ₄ ¹⁾	[mm]	477/657	543/684	610/-	610/-	655/-	747/-
Base frame no.		7	7	8	8	8	9	
NBG data	Design		B ²⁾	B	B ²⁾	B ²⁾	-	-
	L NBG	[mm]	343	343	343	343	-	-
	L NBG SS	[mm]	343	343	343	343	-	-
	h ₁	[mm]	-	-	-	-	-	-
	G ₁	[mm]	149	149	149	149	-	-
	G ₂	[mm]	173	173	173	173	-	-
	m ₁	[mm]	-	-	-	-	-	-
	m ₂	[mm]	-	-	-	-	-	-
	n ₁	[mm]	-	-	-	-	-	-
	n ₂	[mm]	-	-	-	-	-	-
	b	[mm]	-	-	-	-	-	-
	s ₁	[mm]	-	-	-	-	-	-
	H	[mm]	160	180	200	200	-	-
	LB ¹⁾	[mm]	518/499	602/525	659/-	659/-	-/-	-/-
	AD ¹⁾	[mm]	197/377	258/399	305/-	305/-	-/-	-/-
	AG ¹⁾	[mm]	165/296	152/328	260/-	260/-	-/-	-/-
	LL ¹⁾	[mm]	165/410	132/456	192/-	192/-	-/-	-/-
	P	[mm]	350	350	400	400	-	-
	C	[mm]	108	121	133	133	-	-
	B	[mm]	254	241	305	305	-	-
	A	[mm]	254	279	318	318	-	-
K	[mm]	15	15	19	19	-	-	
Weight NBG ¹⁾	[kg]	168/247	196/277	283/-	283/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	170/249	199/280	286/-	286/-	-/-	-/-	

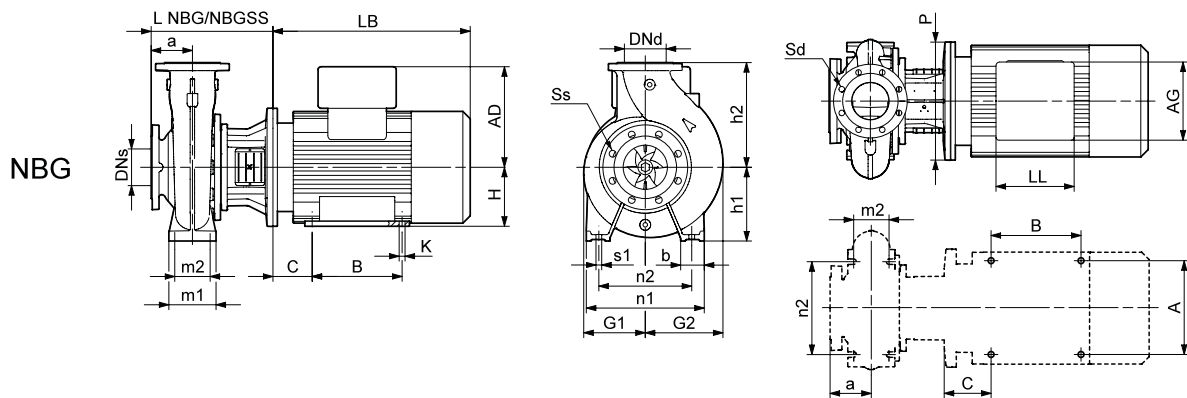
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

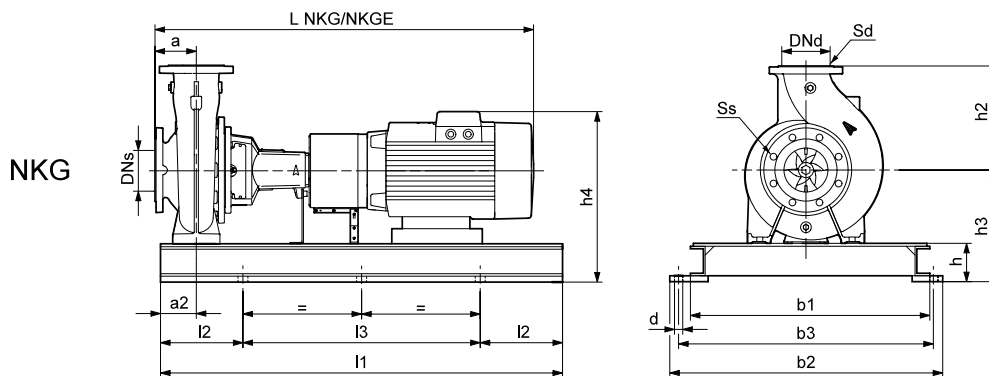
Note: For information about base frames, see page 222.



TM03 5013 3406



TM03 8010 0107



TM03 8013 0107

Technical data

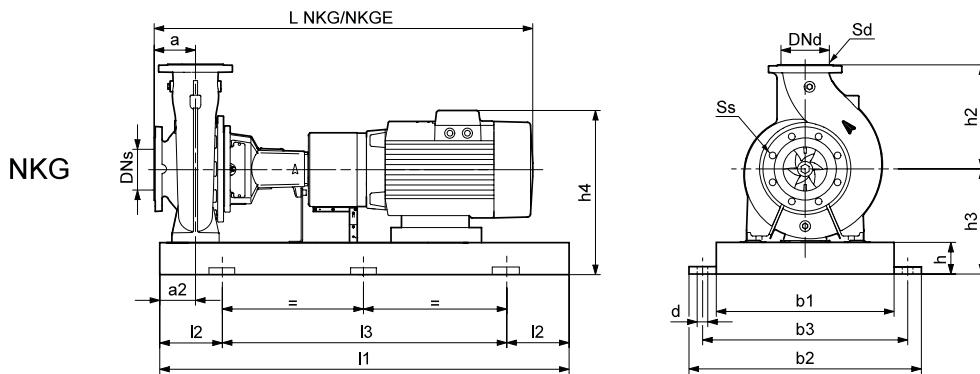
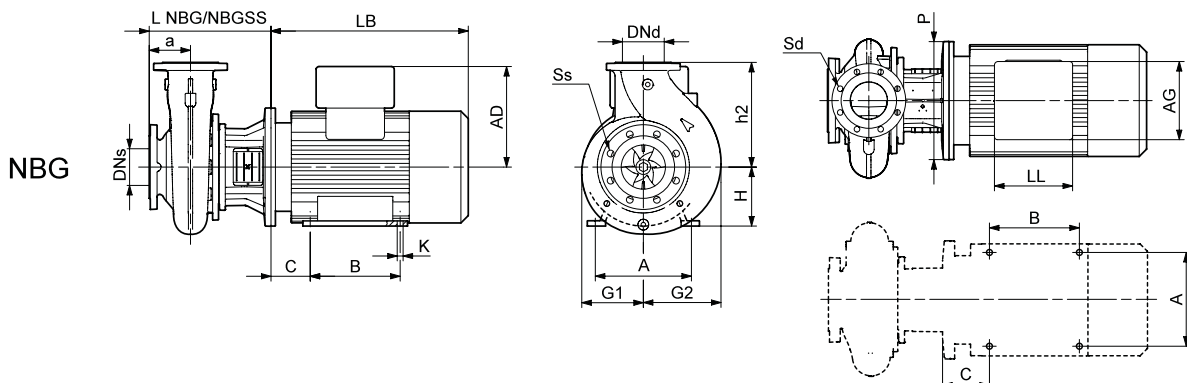
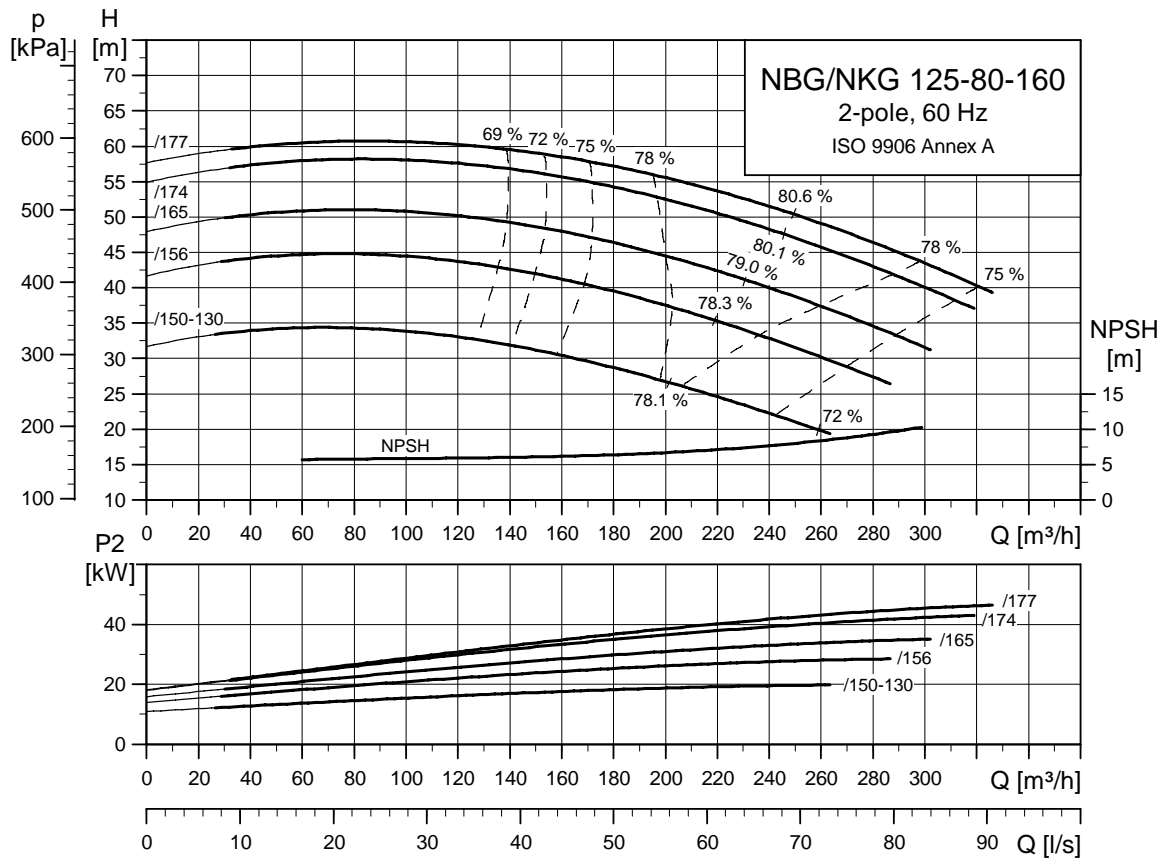
NBG, NKG 100-65-250
2-pole

Pump type		100-65-250/212	100-65-250/226	100-65-250/248	100-65-250/263	100-65-250/270	
Motor type	Premium Motor	Siemens 225M	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	45	55	75	90	110
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	100	100	100	100	100
	DNd	[mm]	65	65	65	65	65
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	250	250	250	250	250
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1448/1584	1516/1652	1589/1725	1699/1835	1701/1837
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	603/597	733/728	991/989	1076/1075	1259/1258
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	601/596	732/727	989/988	1075/1073	1258/1256
NKG data	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
	l ₁	[kg]	1600	1800	2000	2000	2000
	l ₂	[mm]	270	300	330	330	330
	l ₃	[mm]	1060	1200	1340	1340	1340
	b ₁	[mm]	530	600	750	750	750
	b ₂	[mm]	660	730	890	890	890
	b ₃	[mm]	600	670	830	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	100	100	130	130	130
	h ₃	[mm]	330	360	415	415	450
NBG data	h ₄ ¹⁾	[mm]	655/-	752/-	847/-	847/-	945/-
	Base frame no.		8	9	10	10	10
	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	428	428	428	428	458
	L NBG SS	[mm]	428	428	428	428	458
	h ₁	[mm]	200	200	200	200	200
	G ₁	[mm]	183	183	183	183	183
	G ₂	[mm]	200	200	200	200	200
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	360	360	360	360	360
	n ₂	[mm]	280	280	280	280	280
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	225	250	280	280	315
	LB ¹⁾	[mm]	709/-	747/-	820/-	930/-	932/-
	AD ¹⁾	[mm]	325/-	392/-	432/-	432/-	495/-
	AG ¹⁾	[mm]	260/-	300/-	300/-	300/-	379/-
	LL ¹⁾	[mm]	192/-	236/-	236/-	236/-	307/-
	P	[mm]	450	550	550	550	660
C	[mm]	149	168	190	190	216	
B	[mm]	311	349	368	419	406	
A	[mm]	356	406	457	457	508	
K	[mm]	19	24	24	24	28	
Weight NBG ¹⁾	[kg]	446/-	551/-	662/-	747/-	960/-	
Weight NBG SS ¹⁾	[kg]	448/-	550/-	660/-	745/-	959/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.



TM03 5014 3406

TM03 8009 0107

TM03 8012 0107

Pump type		125-80-160/150-130	125-80-160/156	125-80-160/165	125-80-160/174	125-80-160/177	
Motor type	Premium Motor	Siemens 180M	Siemens 200L	Siemens 200L	Siemens 225M	Siemens 250M	
	E-Motor	MMGE 180M	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	22	30	37	45	55
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	80	80	80	80	80
	a	[mm]	125	125	125	125	125
	h2	[mm]	225	225	225	225	225
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1341/1477	1398/1534	1398/1534	1448/1584	1516/1652
	L NKGE	[mm]	1264/1400	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	338/330	452/447	452/447	567/562	695/690
	Weight NKGE	[kg]	419/411	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	342/334	456/450	456/450	571/565	699/694
	Weight NKGE SS	[kg]	423/415	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1400	1600	1600	1600	1800
	l2	[mm]	230	270	270	270	300
	l3	[mm]	940	1060	1060	1060	1200
	b1	[mm]	480	530	530	530	600
	b2	[mm]	610	660	660	660	730
	b3	[mm]	560	600	600	600	670
	d	[mm]	28	28	28	28	28
	a2	[mm]	75	75	75	75	75
	h	[mm]	100	100	100	100	100
	h3	[mm]	285	305	305	330	355
	h4 ¹⁾	[mm]	543/684	610/-	610/-	655/-	747/-
Base frame no.		7	8	8	8	9	
NBG data	Design		B	B ²⁾	B ²⁾	-	-
	L NBG	[mm]	368	368	368	-	-
	L NBG SS	[mm]	368	368	368	-	-
	h1	[mm]	-	-	-	-	-
	G1	[mm]	139	139	139	-	-
	G2	[mm]	182	182	182	-	-
	m1	[mm]	-	-	-	-	-
	m2	[mm]	-	-	-	-	-
	n1	[mm]	-	-	-	-	-
	n2	[mm]	-	-	-	-	-
	b	[mm]	-	-	-	-	-
	s1	[mm]	-	-	-	-	-
	H	[mm]	180	200	200	-	-
	LB ¹⁾	[mm]	602/525	659/-	659/-	-/-	-/-
	AD ¹⁾	[mm]	258/399	305/-	305/-	-/-	-/-
	AG ¹⁾	[mm]	152/328	260/-	260/-	-/-	-/-
	LL ¹⁾	[mm]	132/456	192/-	192/-	-/-	-/-
	P	[mm]	350	400	400	-	-
	C	[mm]	121	133	133	-	-
	B	[mm]	241	305	305	-	-
A	[mm]	279	318	318	-	-	
K	[mm]	15	19	19	-	-	
Weight NBG ¹⁾	[kg]	197/278	284/-	284/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	200/281	287/-	287/-	-/-	-/-	

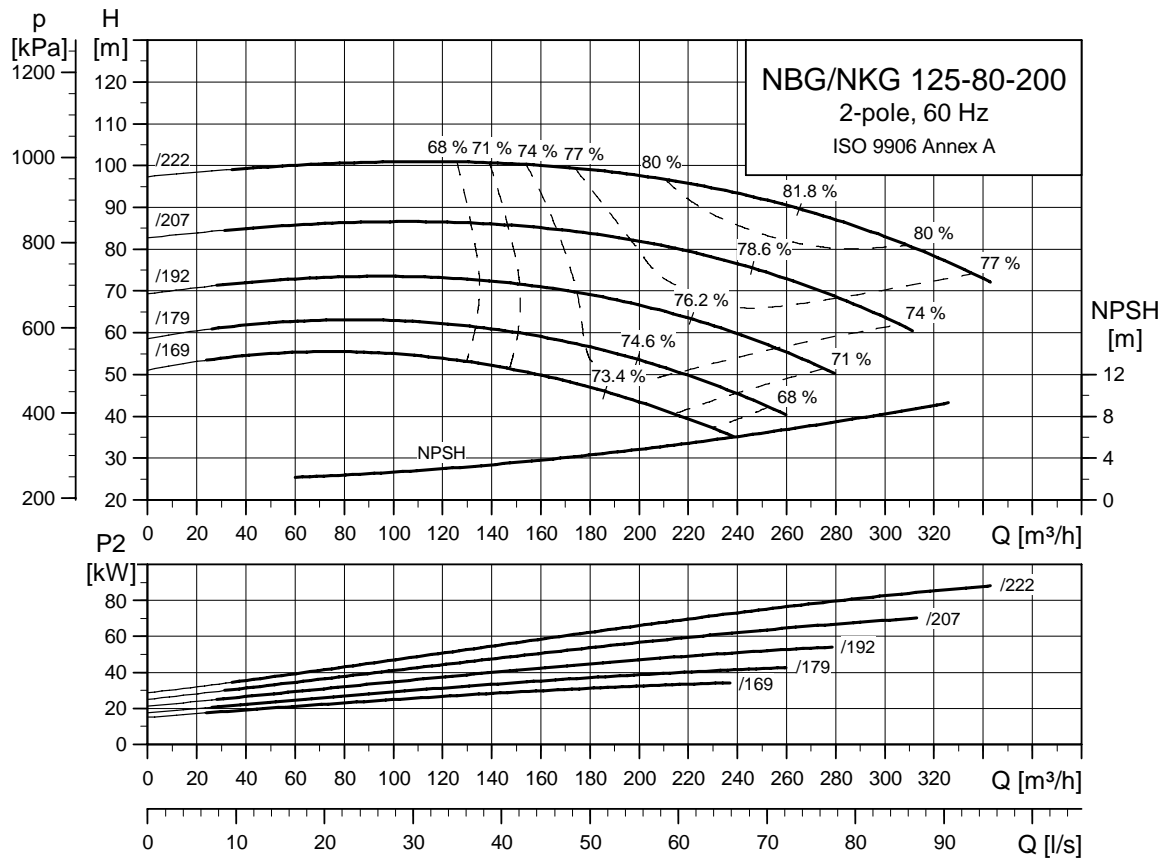
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

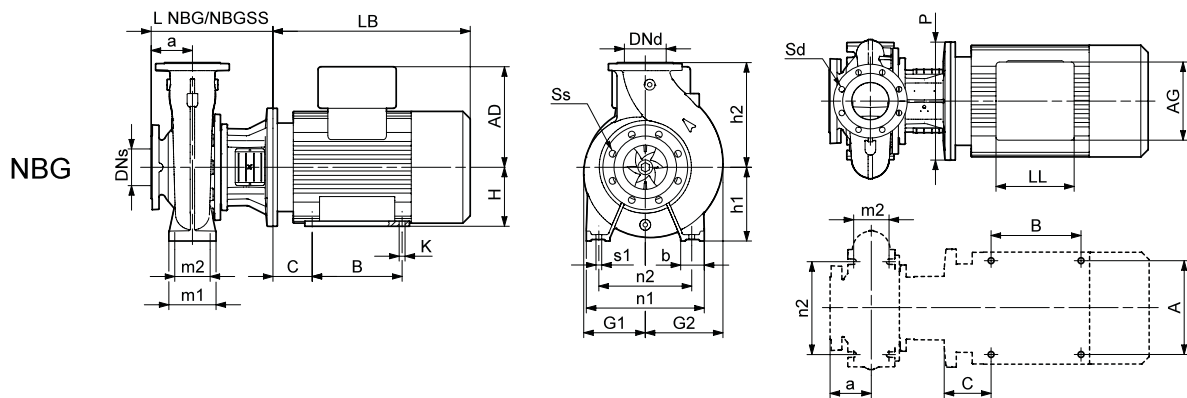
Note: For information about base frames, see page 222.

Performance curves

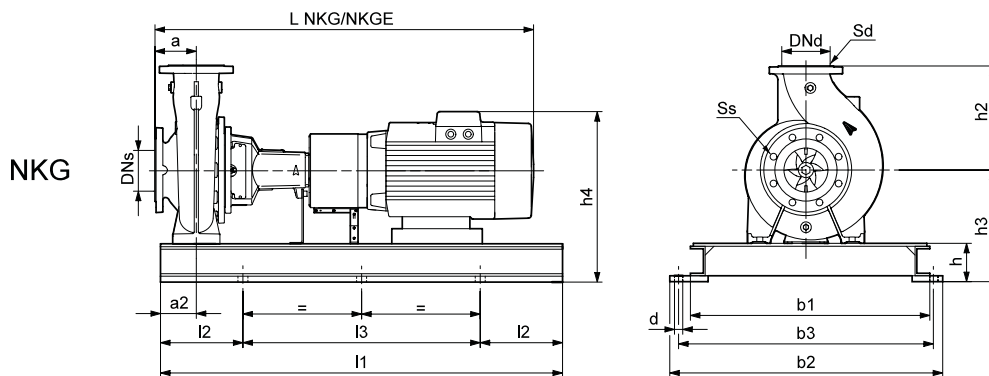
NBG, NKG 125-80-200
2-pole



TM03 5015 3406



TM03 8010 0107



TM03 8013 0107

Technical data

NBG, NKG 125-80-200
2-pole

Pump type		125-80-200/169	125-80-200/179	125-80-200/192	125-80-200/207	125-80-200/222	
Motor type	Premium Motor	Siemens 200L	Siemens 225M	Siemens 250M	Siemens 280S	Siemens 280M	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	37	45	55	75	90
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	80	80	80	80	80
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	250	250	250	250	250
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1398/1534	1448/1584	1516/1652	1589/1725	1699/1835
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	468/462	583/577	711/706	974/972	1059/1058
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	473/467	588/582	716/711	979/977	1065/1063
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1600	1600	1800	2000	2000
	l ₂	[mm]	270	270	300	330	330
	l ₃	[mm]	1060	1060	1200	1340	1340
	b ₁	[mm]	530	530	600	750	750
	b ₂	[mm]	660	660	730	890	890
	b ₃	[mm]	600	600	670	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	75	75	75	75	75
	h	[mm]	100	100	100	130	130
	h ₃	[mm]	305	330	355	415	415
	h ₄ ¹⁾	[mm]	610/-	655/-	747/-	847/-	847/-
Base frame no.		8	8	9	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	398	428	428	428	428
	L NBG SS	[mm]	398	428	428	428	428
	h ₁	[mm]	180	180	180	180	180
	G ₁	[mm]	161	161	161	161	161
	G ₂	[mm]	193	193	193	193	193
	m ₁	[mm]	125	125	125	125	125
	m ₂	[mm]	95	95	95	95	95
	n ₁	[mm]	345	345	345	345	345
	n ₂	[mm]	280	280	280	280	280
	b	[mm]	65	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12	M12
	H	[mm]	200	225	250	280	280
	LB ¹⁾	[mm]	659/-	709/-	747/-	820/-	930/-
	AD ¹⁾	[mm]	305/-	325/-	392/-	432/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	300/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	236/-	236/-	236/-
	P	[mm]	400	450	550	550	550
	C	[mm]	133	149	168	190	190
	B	[mm]	305	311	349	368	419
	A	[mm]	318	356	406	457	457
	K	[mm]	19	19	24	24	24
	Weight NBG ¹⁾	[kg]	306/-	430/-	536/-	646/-	731/-
Weight NBG SS ¹⁾	[kg]	315/-	439/-	541/-	651/-	736/-	

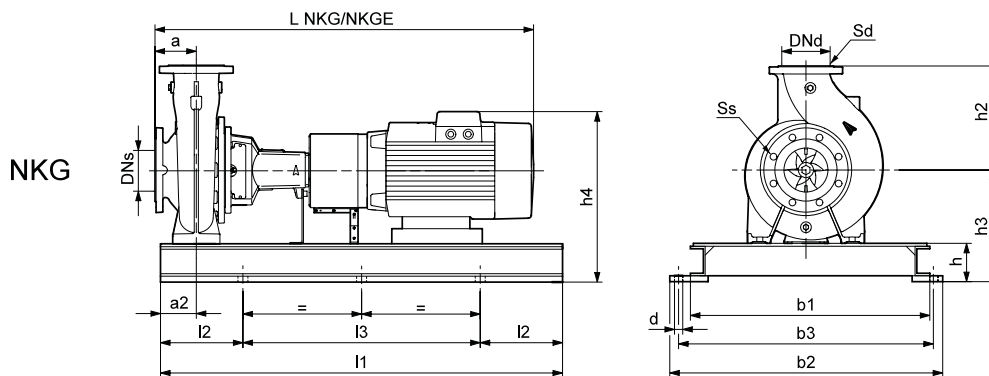
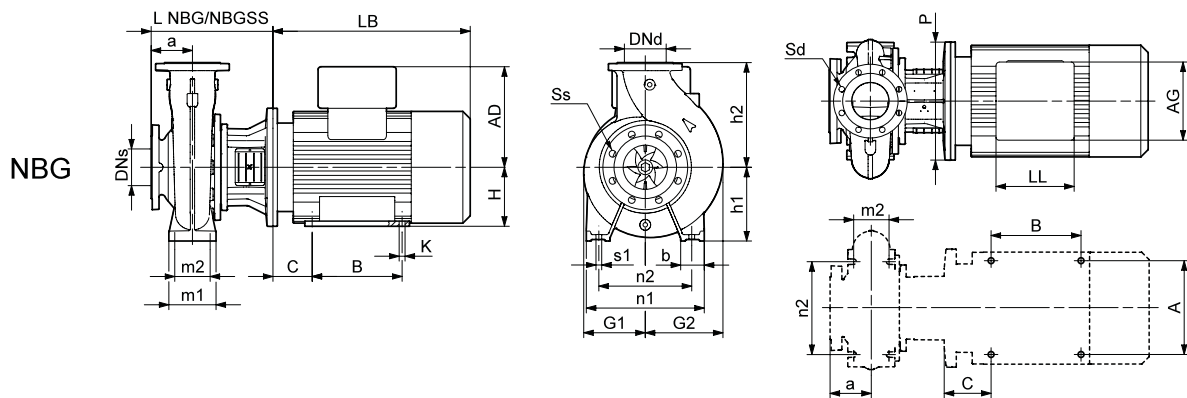
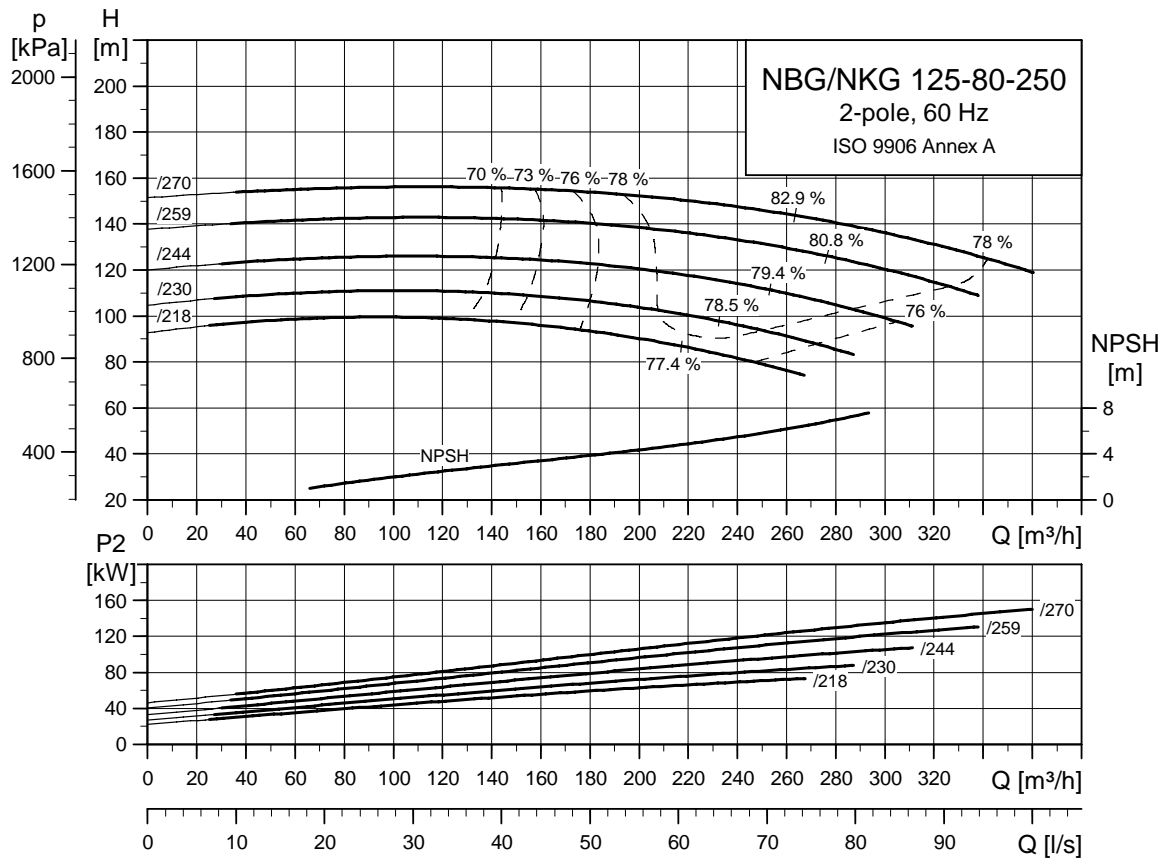
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-80-250
2-pole



TM03 5016 3406

TM03 8010 0107

TM03 8013 0107

Technical data

NBG, NKG 125-80-250
2-pole

Pump type		125-80-250/218	125-80-250/230	125-80-250/244	125-80-250/259	125-80-250/270	
Motor type	Premium Motor	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315M	Siemens 315L	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	75	90	110	132	160
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	80	80	80	80	80
	a	[mm]	125	125	125	125	125
	h2	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1589/1725	1699/1835	1701/1837	1861/1997	1861/1997
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	995/993	1080/1079	1267/1266	1393/1392	1532/1531
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	999/998	1085/1083	1271/1270	1398/1396	1536/1535
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	2000	2000	2000	2000	2000
	l2	[mm]	330	330	330	330	330
	l3	[mm]	1340	1340	1340	1340	1340
	b1	[mm]	750	750	750	750	750
	b2	[mm]	890	890	890	890	890
	b3	[mm]	830	830	830	830	830
	d	[mm]	28	28	28	28	28
	a2	[mm]	90	90	90	90	90
	h	[mm]	130	130	130	130	130
	h3	[mm]	415	415	455	455	455
	h4 ¹⁾	[mm]	847/-	847/-	950/-	950/-	950/-
Base frame no.		10	10	10	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	428	428	458	458	458
	L NBG SS	[mm]	428	428	458	458	458
	h1	[mm]	225	225	225	225	225
	G1	[mm]	182	182	182	182	182
	G2	[mm]	210	210	210	210	210
	m1	[mm]	160	160	160	160	160
	m2	[mm]	120	120	120	120	120
	n1	[mm]	400	400	400	400	400
	n2	[mm]	315	315	315	315	315
	b	[mm]	80	80	80	80	80
	s1	[mm]	M16	M16	M16	M16	M16
	H	[mm]	280	280	315	315	315
	LB ¹⁾	[mm]	820/-	930/-	932/-	1092/-	1092/-
	AD ¹⁾	[mm]	432/-	432/-	495/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	300/-	379/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	236/-	307/-	307/-	307/-
	P	[mm]	550	550	660	660	660
	C	[mm]	190	190	216	216	216
	B	[mm]	368	419	406	457	508
	A	[mm]	457	457	508	508	508
	K	[mm]	24	24	28	28	28
	Weight NBG ¹⁾	[kg]	665/-	750/-	963/-	1088/-	1229/-
Weight NBG SS ¹⁾	[kg]	670/-	755/-	968/-	1093/-	1234/-	

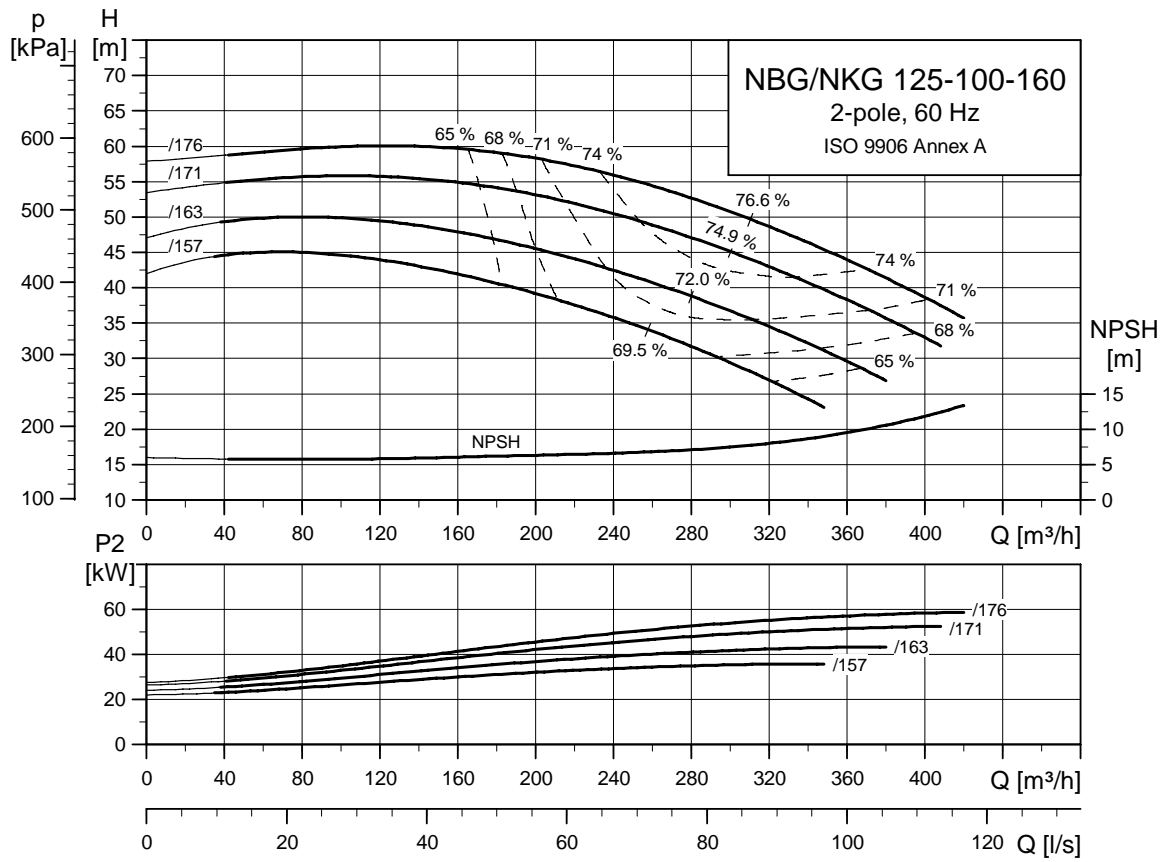
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

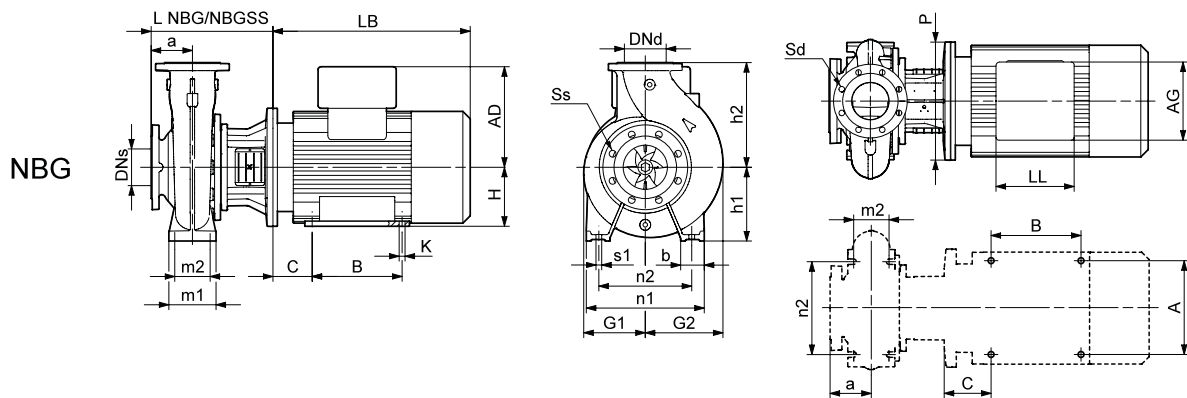
Note: For information about base frames, see page 222.

Performance curves

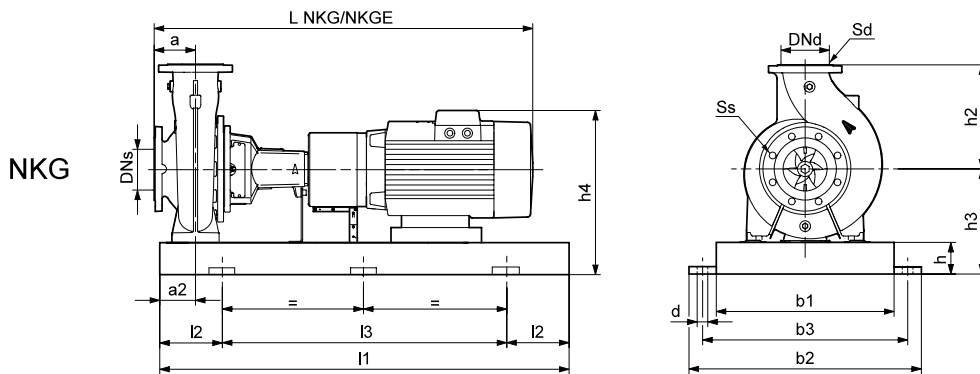
NBG, NKG 125-100-160
2-pole



TM03 5017 3406



TM03 8010 0107



TM03 8012 0107

Pump type		125-100-160/157	125-100-160/163	125-100-160/171	125-100-160/176	
Motor type	Premium Motor	Siemens 200L	Siemens 225M	Siemens 250M	Siemens 280S	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	37	45	55	75
	PN	[bar]	16	16	16	16
	DNs	[mm]	125	125	125	125
	DNd	[mm]	100	100	100	100
	a	[mm]	125	125	125	125
	h2	[mm]	280	280	280	280
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1398/1534	1448/1584	1516/1652	1589/1725
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	462/457	584/579	715/710	972/971
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1600	1600	1800	2000
	l2	[mm]	270	270	300	330
	l3	[mm]	1060	1060	1200	1340
	b1	[mm]	530	530	600	750
	b2	[mm]	660	660	730	890
	b3	[mm]	600	600	670	830
	d	[mm]	28	28	28	28
	a2	[mm]	90	90	90	90
	h	[mm]	100	100	100	130
	h3	[mm]	305	330	360	415
	h4 ¹⁾	[mm]	610/-	655/-	752/-	847/-
Base frame no.		8	8	9	10	
NBG data	Design		C ²⁾	-	-	-
	L NBG	[mm]	368	-	-	-
	L NBG SS	[mm]	-	-	-	-
	h1	[mm]	200	-	-	-
	G1	[mm]	146	-	-	-
	G2	[mm]	187	-	-	-
	m1	[mm]	160	-	-	-
	m2	[mm]	120	-	-	-
	n1	[mm]	360	-	-	-
	n2	[mm]	280	-	-	-
	b	[mm]	80	-	-	-
	s1	[mm]	M16	-	-	-
	H	[mm]	200	-	-	-
	LB ¹⁾	[mm]	659/-	-/-	-/-	-/-
	AD ¹⁾	[mm]	305/-	-/-	-/-	-/-
	AG ¹⁾	[mm]	260/-	-/-	-/-	-/-
	LL ¹⁾	[mm]	192/-	-/-	-/-	-/-
	P	[mm]	400	-	-	-
	C	[mm]	133	-	-	-
	B	[mm]	305	-	-	-
	A	[mm]	318	-	-	-
K	[mm]	19	-	-	-	
Weight NBG ¹⁾	[kg]	301/-	-/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

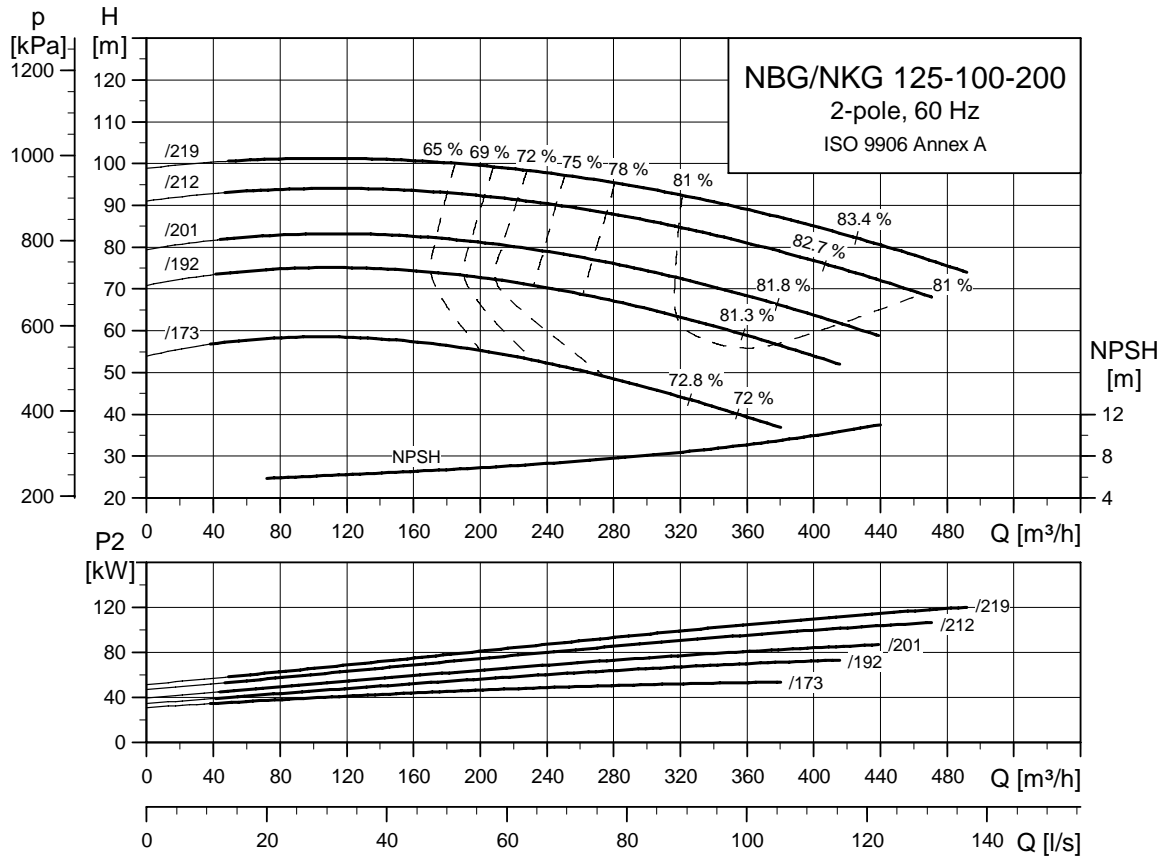
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

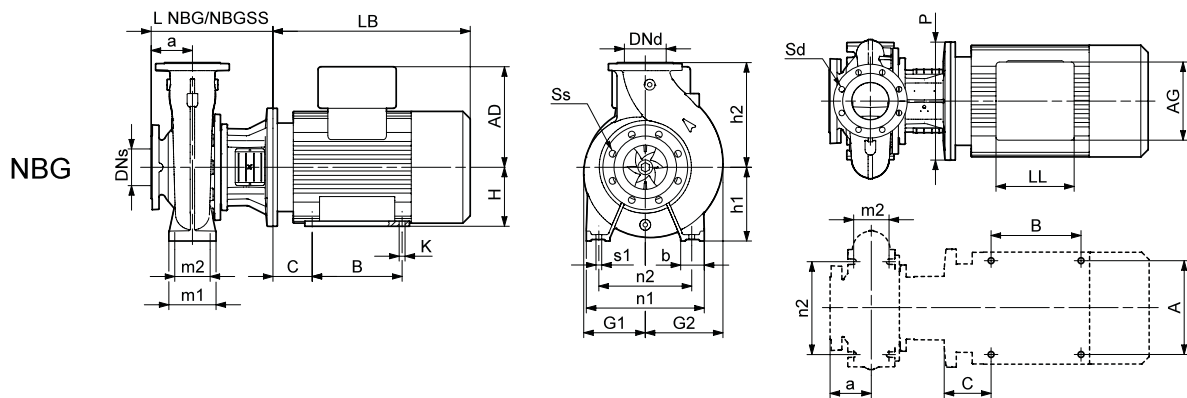
Note: For information about base frames, see page 222.

Performance curves

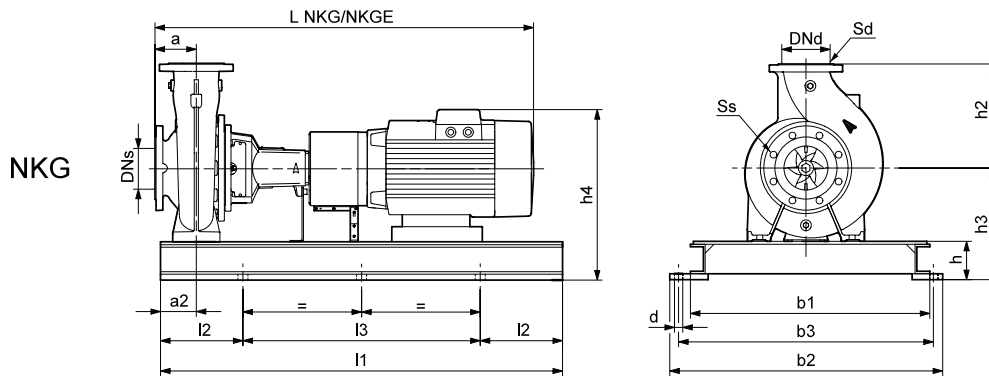
NBG, NKG 125-100-200
2-pole



TM03 5018 3406



TM03 8010 0107



TM03 8013 0107

Pump type		125-100-200/173	125-100-200/192	125-100-200/201	125-100-200/212	125-100-200/219	
Motor type	Premium Motor	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315M	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	55	75	90	110	132
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	125	125	125	125	125
	h2	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1516/1652	1589/1725	1699/1835	1701/1837	1861/1997
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	727/722	985/983	1070/1069	1253/1252	1379/1377
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1800	2000	2000	2000	2000
	l2	[mm]	300	330	330	330	330
	l3	[mm]	1200	1340	1340	1340	1340
	b1	[mm]	600	750	750	750	750
	b2	[mm]	730	890	890	890	890
	b3	[mm]	670	830	830	830	830
	d	[mm]	28	28	28	28	28
	a2	[mm]	90	90	90	90	90
	h	[mm]	100	130	130	130	130
	h3	[mm]	360	415	415	450	450
	h4 ¹⁾	[mm]	752/-	847/-	847/-	945/-	945/-
	Base frame no.		9	10	10	10	10
	NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾
L NBG		[mm]	428	428	428	458	458
L NBG SS		[mm]	-	-	-	-	-
h1		[mm]	200	200	200	200	200
G1		[mm]	169	169	169	169	169
G2		[mm]	212	212	212	212	212
m1		[mm]	160	160	160	160	160
m2		[mm]	120	120	120	120	120
n1		[mm]	360	360	360	360	360
n2		[mm]	280	280	280	280	280
b		[mm]	80	80	80	80	80
s1		[mm]	M16	M16	M16	M16	M16
H		[mm]	250	280	280	315	315
LB ¹⁾		[mm]	747/-	820/-	930/-	932/-	1092/-
AD ¹⁾		[mm]	392/-	432/-	432/-	495/-	495/-
AG ¹⁾		[mm]	300/-	300/-	300/-	379/-	379/-
LL ¹⁾		[mm]	236/-	236/-	236/-	307/-	307/-
P		[mm]	550	550	550	660	660
C		[mm]	168	190	190	216	216
B		[mm]	349	368	419	406	457
A	[mm]	406	457	457	508	508	
K	[mm]	24	24	24	28	28	
Weight NBG ¹⁾	[kg]	545/-	656/-	741/-	954/-	1079/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

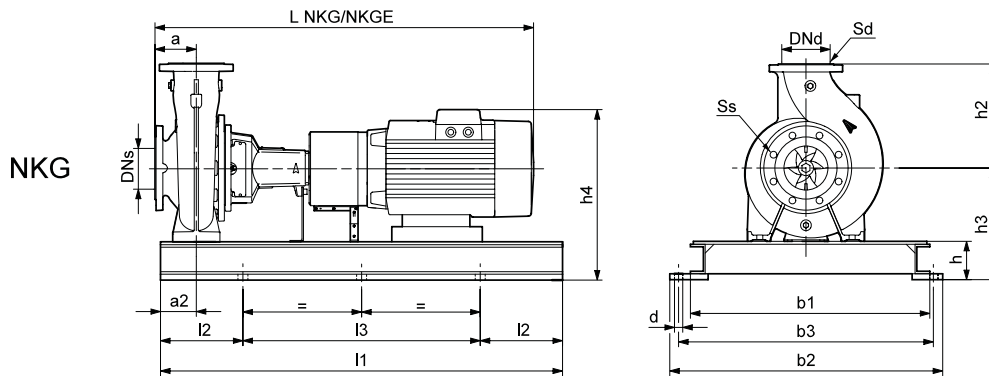
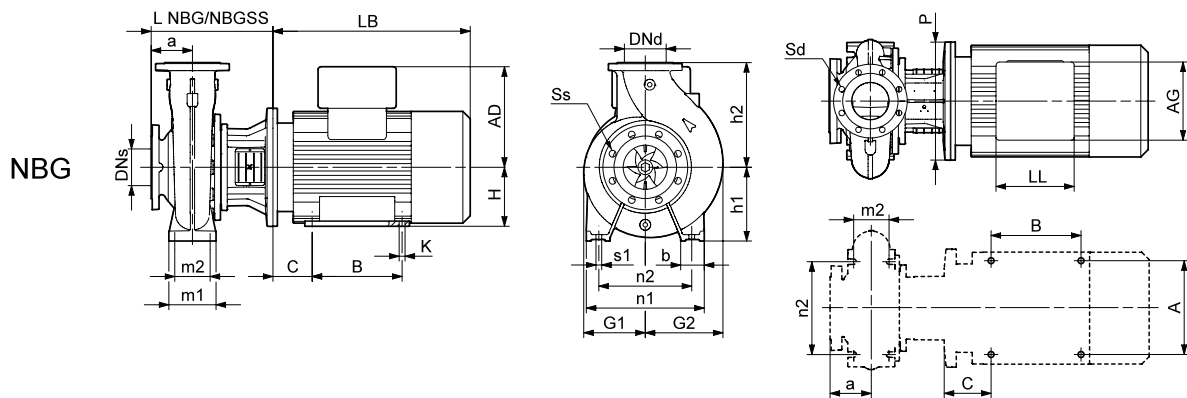
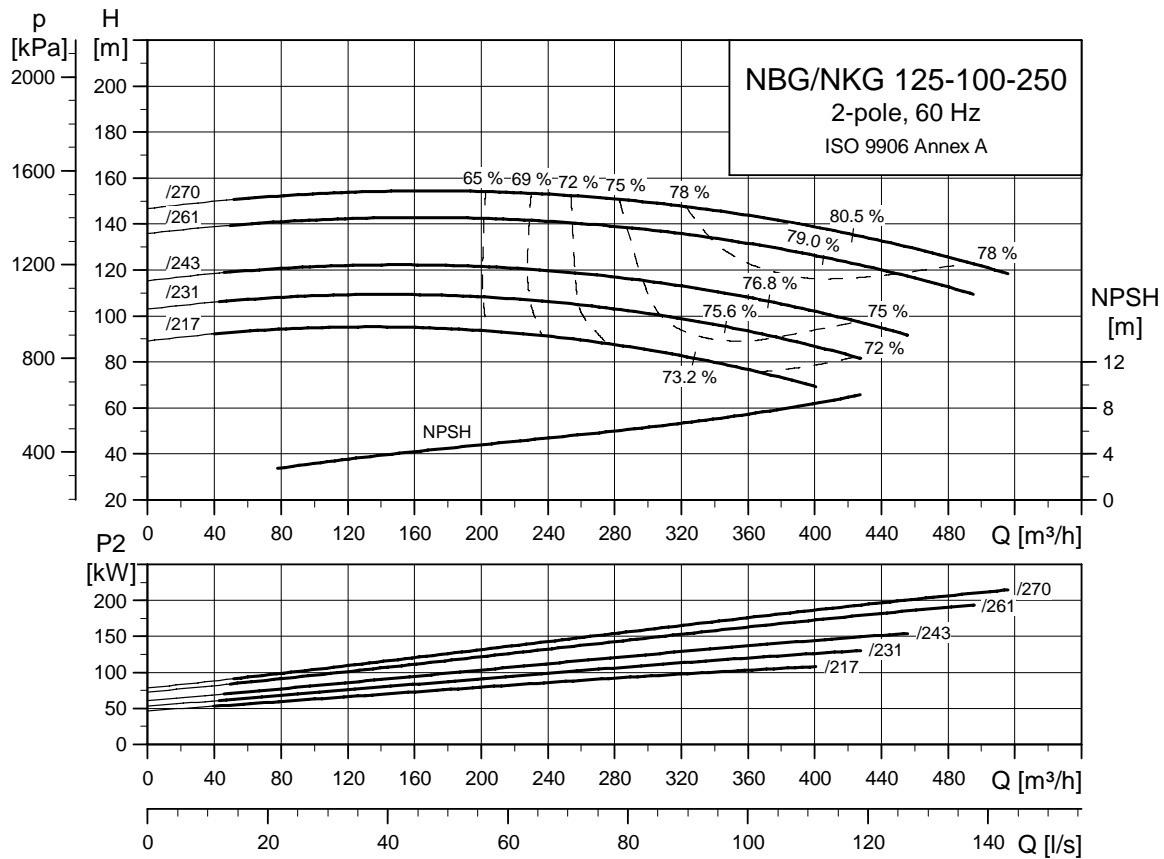
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-100-250
2-pole



TM03 5019 3406

TM03 8010 0107

TM03 8013 0107

Pump type		125-100-250/217	125-100-250/231	125-100-250/243	125-100-250/261	125-100-250/270	
Motor type	Premium Motor	Siemens 315S	Siemens 315M	Siemens 315L	Siemens 315L	Siemens 315	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	110	132	160	200	280
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	140	140	140	140	140
	h2	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1746/1882	1906/2042	1906/2042	2046/2182	2054/2190
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1280/1279	1406/1405	1545/1544	1735/1734	1793/1792
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	2000	2000	2000	2000	2000
	l2	[mm]	330	330	330	330	330
	l3	[mm]	1340	1340	1340	1340	1340
	b1	[mm]	750	750	750	750	750
	b2	[mm]	890	890	890	890	890
	b3	[mm]	830	830	830	830	830
	d	[mm]	28	28	28	28	28
	a2	[mm]	90	90	90	90	90
	h	[mm]	130	130	130	130	130
	h3	[mm]	455	455	455	455	455
	h4 ¹⁾	[mm]	950/-	950/-	950/-	950/-	923/-
	Base frame no.		10	10	10	10	10
	NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾
L NBG		[mm]	471	471	471	471	-
L NBG SS		[mm]	-	-	-	-	-
h1		[mm]	225	225	225	225	-
G1		[mm]	188	188	188	188	-
G2		[mm]	224	224	224	224	-
m1		[mm]	160	160	160	160	-
m2		[mm]	120	120	120	120	-
n1		[mm]	400	400	400	400	-
n2		[mm]	315	315	315	315	-
b		[mm]	80	80	80	80	-
s1		[mm]	M16	M16	M16	M16	-
H		[mm]	315	315	315	315	-
LB ¹⁾		[mm]	932/-	1092/-	1092/-	1232/-	-/-
AD ¹⁾		[mm]	495/-	495/-	495/-	495/-	-/-
AG ¹⁾		[mm]	379/-	379/-	379/-	379/-	-/-
LL ¹⁾		[mm]	307/-	307/-	307/-	307/-	-/-
P		[mm]	660	660	660	660	-
C		[mm]	216	216	216	216	-
B		[mm]	406	457	508	508	-
A		[mm]	508	508	508	508	-
K	[mm]	28	28	28	28	-	
Weight NBG ¹⁾	[kg]	972/-	1097/-	1237/-	1427/-	-/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

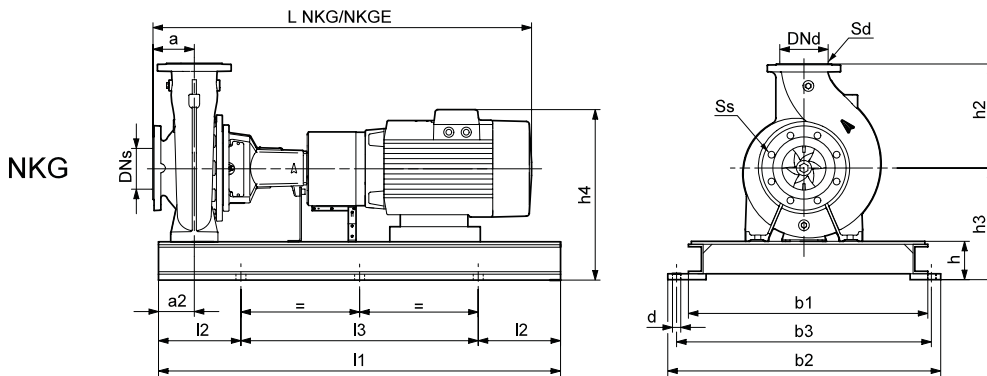
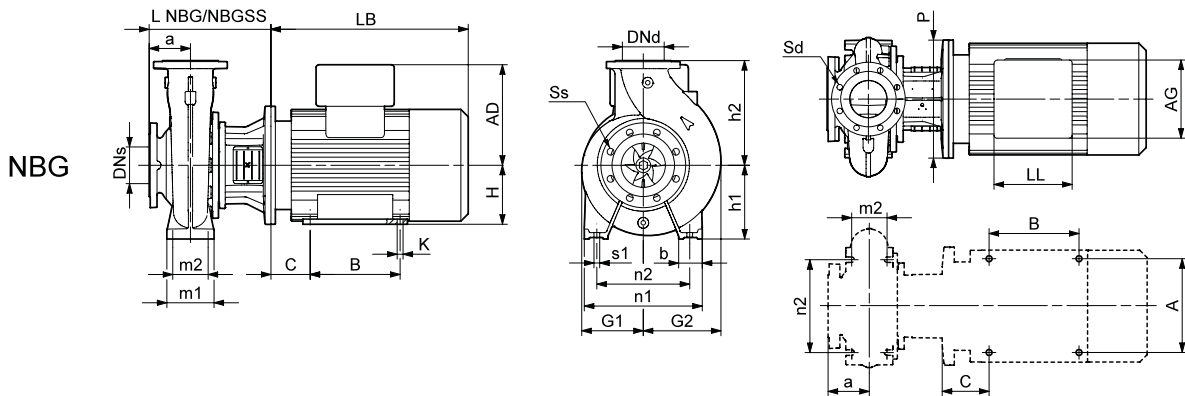
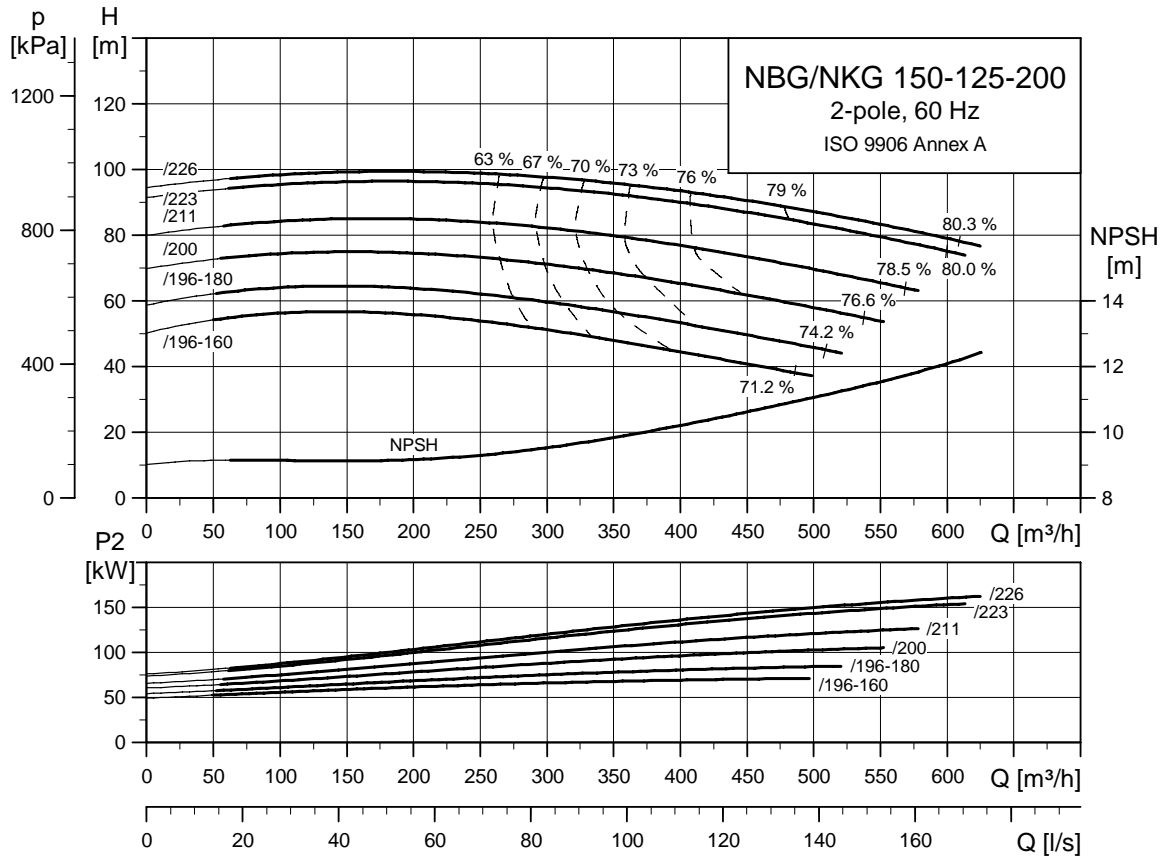
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 150-125-200
2-pole



TM03 5020 3406

TM03 8010 0107

TM03 8013 0107

Pump type		150-125-200/196-160	150-125-200/196-180	150-125-200/200	150-125-200/211	150-125-200/223	150-125-200/226	
Motor type	Premium Motor	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315M	Siemens 315L	Siemens 315L	
	E-Motor	-	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	75	90	110	132	160	200
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125	125
	a	[mm]	140	140	140	140	140	140
	h ₂	[mm]	315	315	315	315	315	315
	Ss		8x23	8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1604/1740	1714/1850	1716/1852	1876/2012	1876/2012	-/-
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1016/1014	1101/1100	1277/1275	1402/1401	1542/1540	-/-
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	2000	2000	2000	2000	2000	-
	l ₂	[mm]	330	330	330	330	330	-
	l ₃	[mm]	1340	1340	1340	1340	1340	-
	b ₁	[mm]	750	750	750	750	750	-
	b ₂	[mm]	890	890	890	890	890	-
	b ₃	[mm]	830	830	830	830	830	-
	d	[mm]	28	28	28	28	28	-
	a ₂	[mm]	90	90	90	90	90	-
	h	[mm]	130	130	130	130	130	-
	h ₃	[mm]	415	415	450	450	450	-
	h ₄ ¹⁾	[mm]	847/-	847/-	945/-	945/-	945/-	-/-
Base frame no.		10	10	10	10	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	443	443	473	473	473	473
	L NBG SS	[mm]	-	-	-	-	-	-
	h ₁	[mm]	250	250	250	250	250	250
	G ₁	[mm]	183	183	183	183	183	183
	G ₂	[mm]	234	234	234	234	234	234
	m ₁	[mm]	160	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120	120
	n ₁	[mm]	400	400	400	400	400	400
	n ₂	[mm]	315	315	315	315	315	315
	b	[mm]	80	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16	M16
	H	[mm]	280	280	315	315	315	315
	LB ¹⁾	[mm]	820/-	930/-	932/-	1092/-	1092/-	1232/-
	AD ¹⁾	[mm]	432/-	432/-	495/-	495/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	300/-	379/-	379/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	236/-	307/-	307/-	307/-	307/-
	P	[mm]	550	550	660	660	660	660
	C	[mm]	190	190	216	216	216	216
	B	[mm]	368	419	406	457	508	508
	A	[mm]	457	457	508	508	508	508
K	[mm]	24	24	28	28	28	28	
Weight NBG ¹⁾	[kg]	684/-	769/-	982/-	1107/-	1248/-	1438/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	-/-	

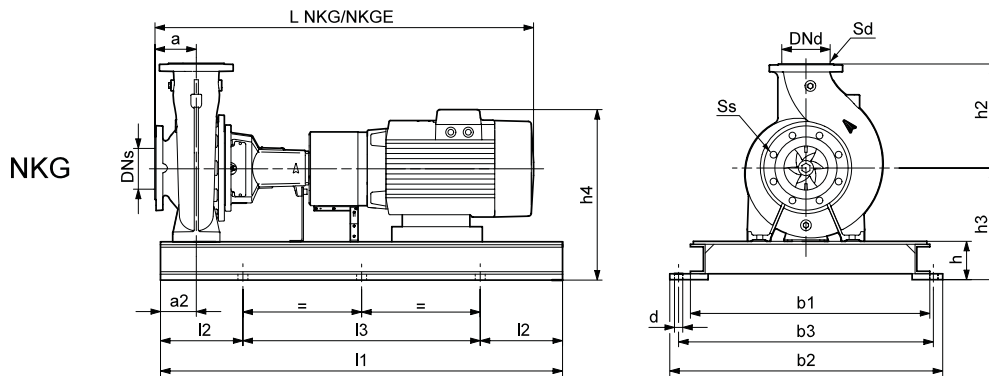
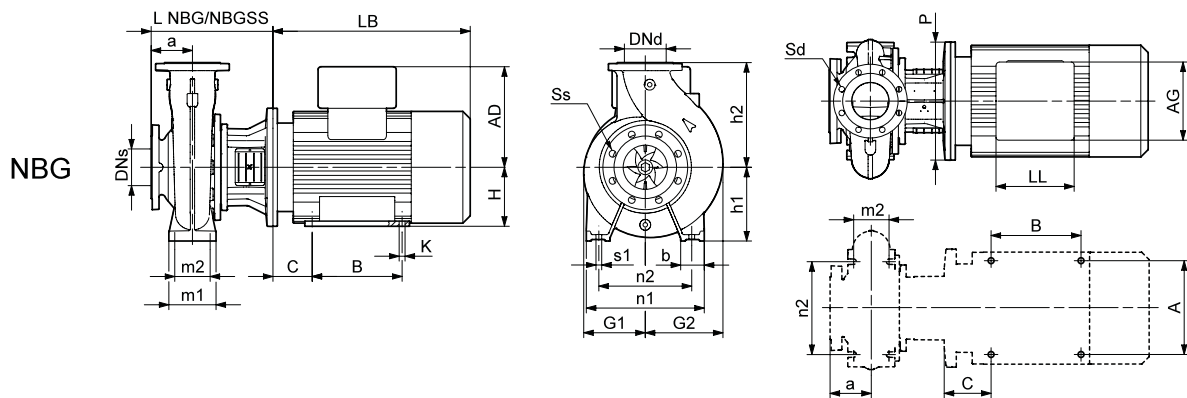
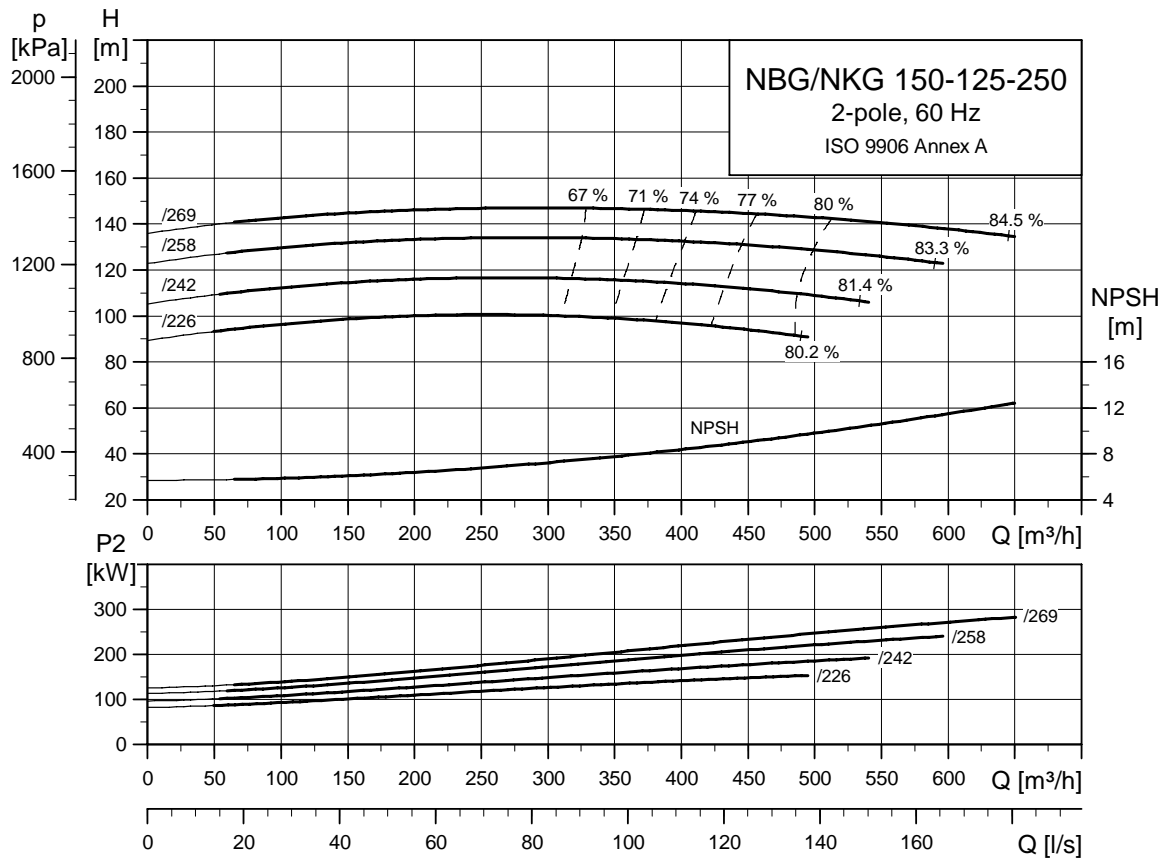
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 150-125-250
2-pole



TM03 5021 3406

TM03 8010 0107

TM03 8013 0107

Technical data

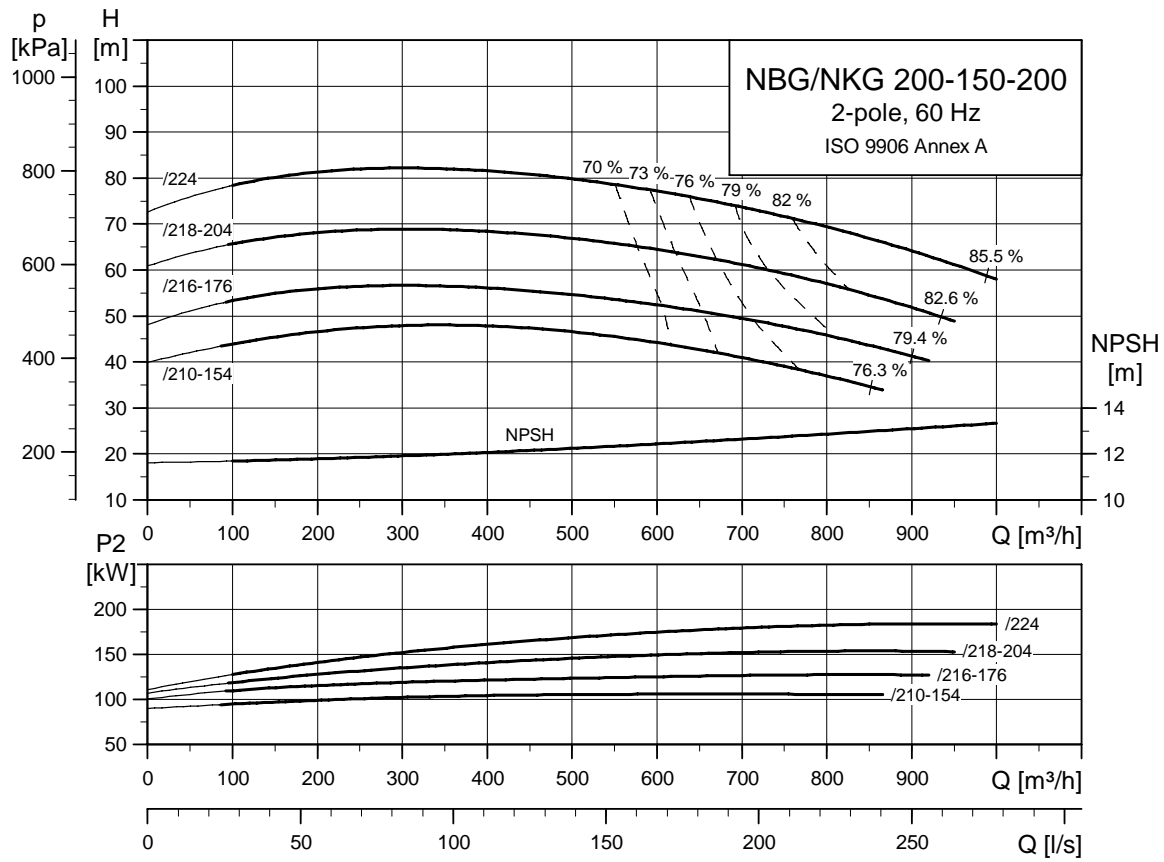
NBG, NKG 150-125-250
2-pole

Pump type		150-125-250/226	150-125-250/242	150-125-250/258	150-125-250/269	
Motor type	Premium Motor	Siemens 315L	Siemens 315L	Siemens 315	Siemens 315	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	160	200	280	353
	PN	[bar]	16	16	16	16
	DNs	[mm]	150	150	150	150
	DNd	[mm]	125	125	125	125
	a	[mm]	140	140	140	140
	h ₂	[mm]	355	355	355	355
	Ss		8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1906/2042	2046/2182	2054/2190	2054/2190
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1559/1558	1749/1748	1805/1804	2005/2004
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	2000	2000	2000	2000
	l ₂	[mm]	330	330	330	330
	l ₃	[mm]	1340	1340	1340	1340
	b ₁	[mm]	750	750	750	750
	b ₂	[mm]	890	890	890	890
	b ₃	[mm]	830	830	830	830
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	130	130	130	130
	h ₃	[mm]	450	450	450	450
	h ₄ ¹⁾	[mm]	945/-	945/-	918/-	918/-
Base frame no.		10	10	10	10	
NBG data	Design		C ²⁾	C ²⁾	-	-
	L NBG	[mm]	471	471	-	-
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	250	250	-	-
	G ₁	[mm]	208	208	-	-
	G ₂	[mm]	264	264	-	-
	m ₁	[mm]	160	160	-	-
	m ₂	[mm]	120	120	-	-
	n ₁	[mm]	400	400	-	-
	n ₂	[mm]	315	315	-	-
	b	[mm]	80	80	-	-
	s ₁	[mm]	M16	M16	-	-
	H	[mm]	315	315	-	-
	LB ¹⁾	[mm]	1092/-	1232/-	-/-	-/-
	AD ¹⁾	[mm]	495/-	495/-	-/-	-/-
	AG ¹⁾	[mm]	379/-	379/-	-/-	-/-
	LL ¹⁾	[mm]	307/-	307/-	-/-	-/-
	P	[mm]	660	660	-	-
	C	[mm]	216	216	-	-
	B	[mm]	508	508	-	-
A	[mm]	508	508	-	-	
K	[mm]	28	28	-	-	
Weight NBG ¹⁾	[kg]	1260/-	1450/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

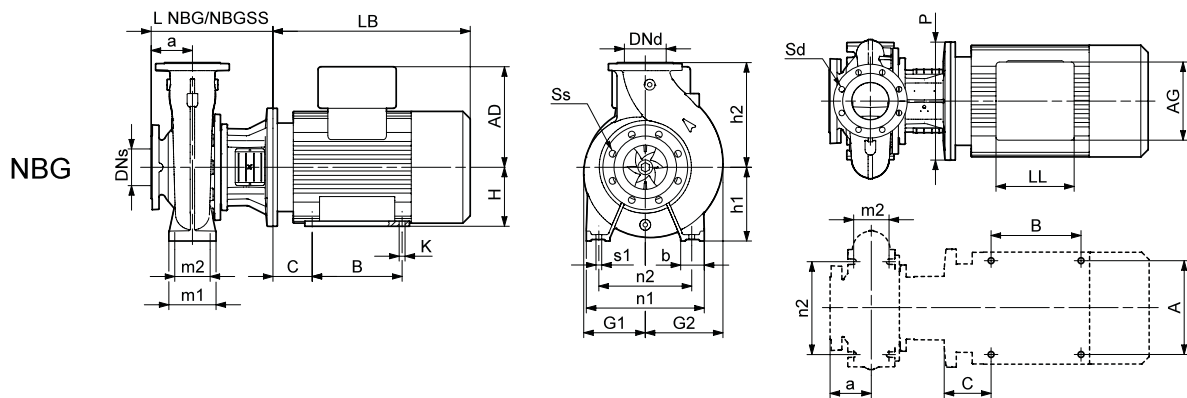
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

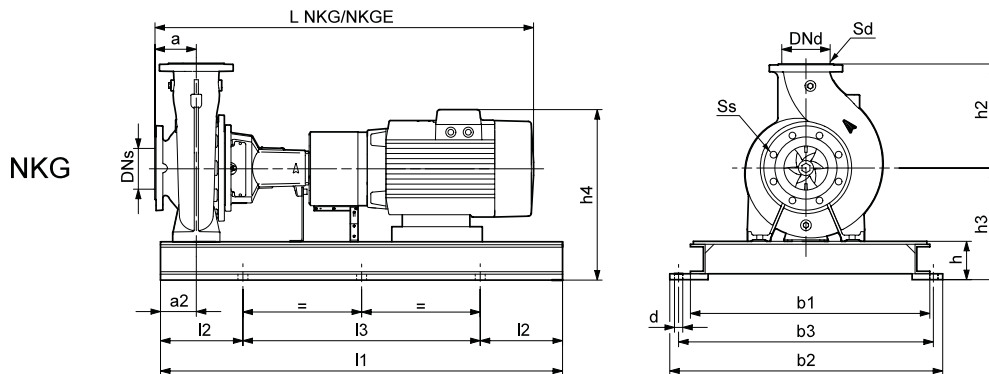
Note: For information about base frames, see page 222.



TM03 5022 3406



TM03 8010 0107



TM03 8013 0107

Technical data

NBG, NKG 200-150-200
2-pole

Pump type		200-150-200/210-154	200-150-200/216-176	200-150-200/218-204	200-150-200/224	
Motor type	Premium Motor	Siemens 315S	Siemens 315M	Siemens 315L	Siemens 315L	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	110	132	160	200
	PN	[bar]	16	16	16	16
	DNs	[mm]	200	200	200	200
	DNd	[mm]	150	150	150	150
	a	[mm]	160	160	160	160
	h2	[mm]	400	400	400	400
	Ss		8x23	8x23	8x23	8x23
	Sd		8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1736/1912	1896/2072	1896/2072	-/-
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1339/1338	1465/1463	1604/1603	-/-
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	2000	2000	2000	-
	l2	[mm]	330	330	330	-
	l3	[mm]	1340	1340	1340	-
	b1	[mm]	750	750	750	-
	b2	[mm]	890	890	890	-
	b3	[mm]	830	830	830	-
	d	[mm]	28	28	28	-
	a2	[mm]	110	110	110	-
	h	[mm]	130	130	130	-
	h3	[mm]	450	450	450	-
	h4 ¹⁾	[mm]	945/-	945/-	945/-	-/-
Base frame no.		10	10	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	493	493	493	493
	L NBG SS	[mm]	-	-	-	-
	h1	[mm]	280	280	280	280
	G1	[mm]	230	230	230	230
	G2	[mm]	319	319	319	319
	m1	[mm]	200	200	200	200
	m2	[mm]	150	150	150	150
	n1	[mm]	550	550	550	550
	n2	[mm]	450	450	450	450
	b	[mm]	100	100	100	100
	s1	[mm]	M20	M20	M20	M20
	H	[mm]	315	315	315	315
	LB ¹⁾	[mm]	932/-	1092/-	1092/-	1232/-
	AD ¹⁾	[mm]	495/-	495/-	495/-	495/-
	AG ¹⁾	[mm]	379/-	379/-	379/-	379/-
	LL ¹⁾	[mm]	307/-	307/-	307/-	307/-
	P	[mm]	660	660	660	660
	C	[mm]	216	216	216	216
	B	[mm]	406	457	508	508
	A	[mm]	508	508	508	508
	K	[mm]	28	28	28	28
Weight NBG ¹⁾	[kg]	1037/-	1162/-	1303/-	1493/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

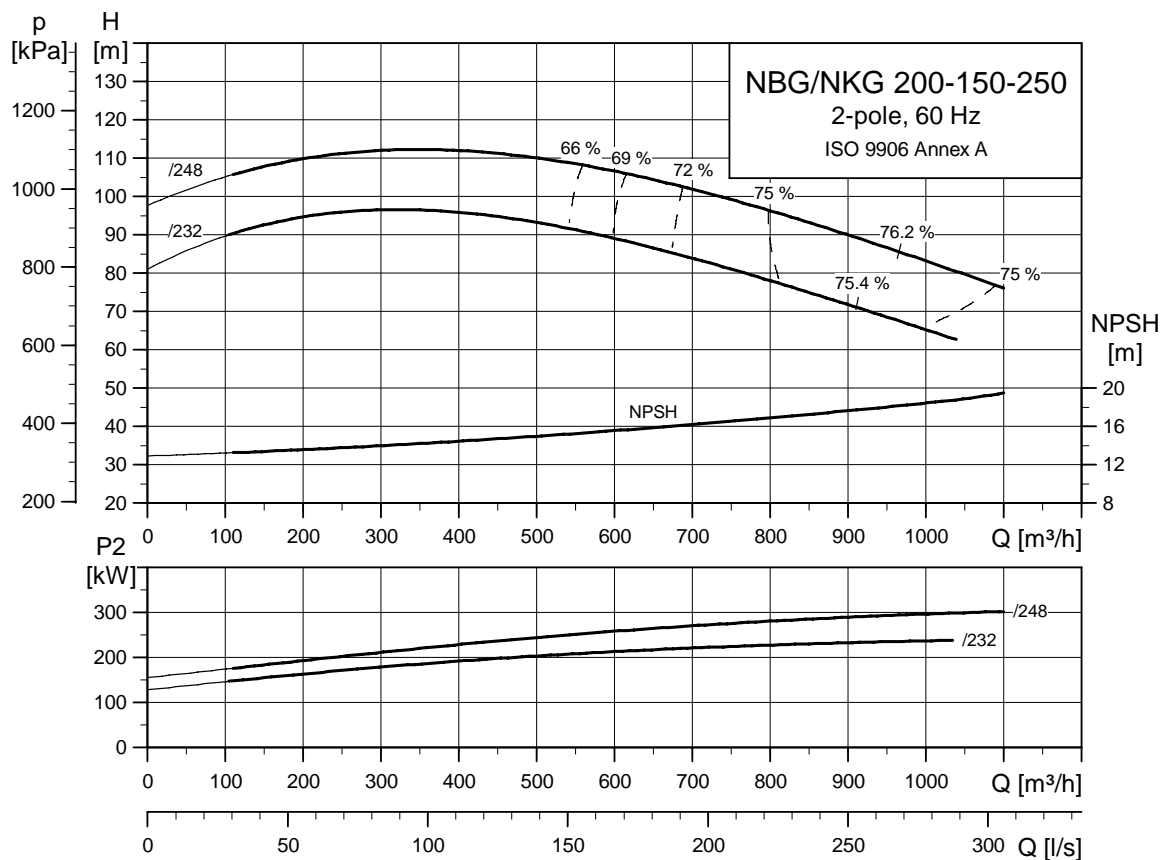
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

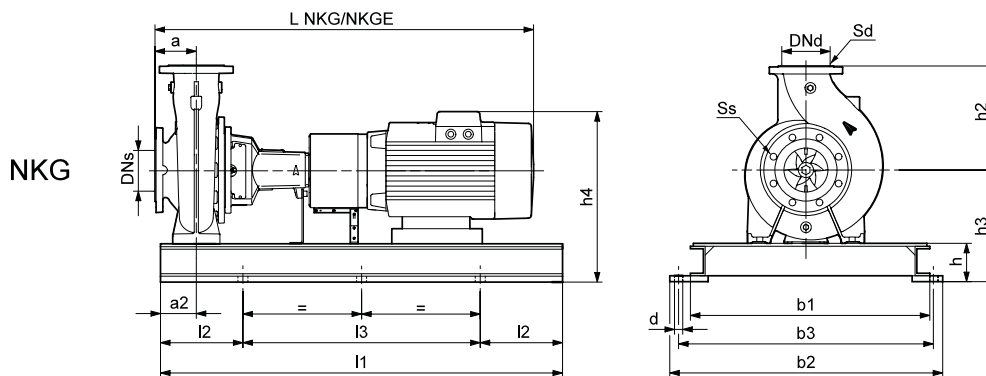
Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-250
2-pole
2-pole



TM03 5023 3406



TM03 8013 0107

Technical data

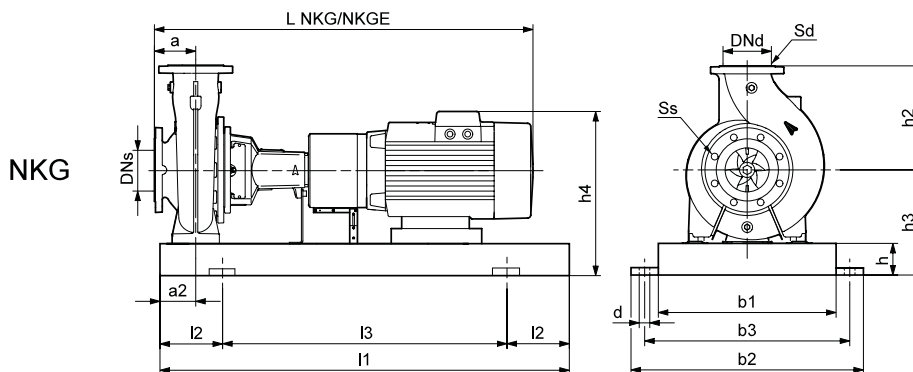
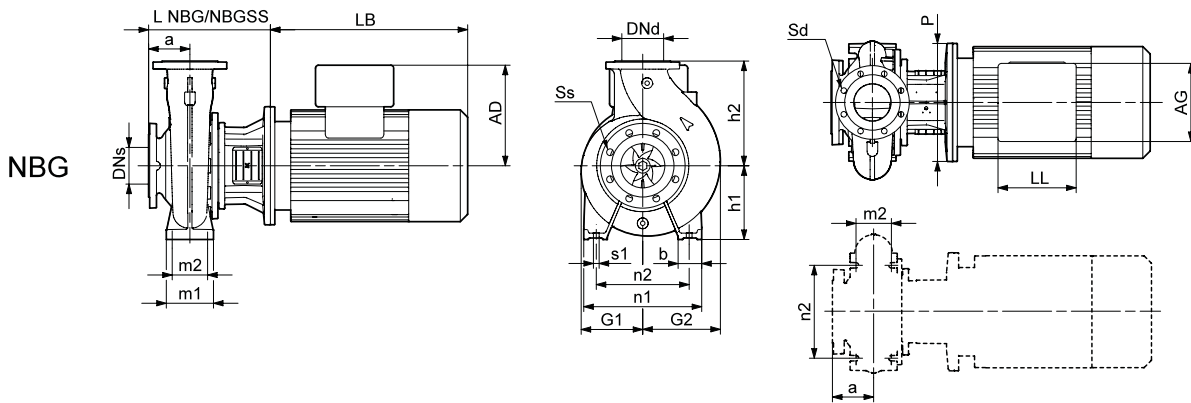
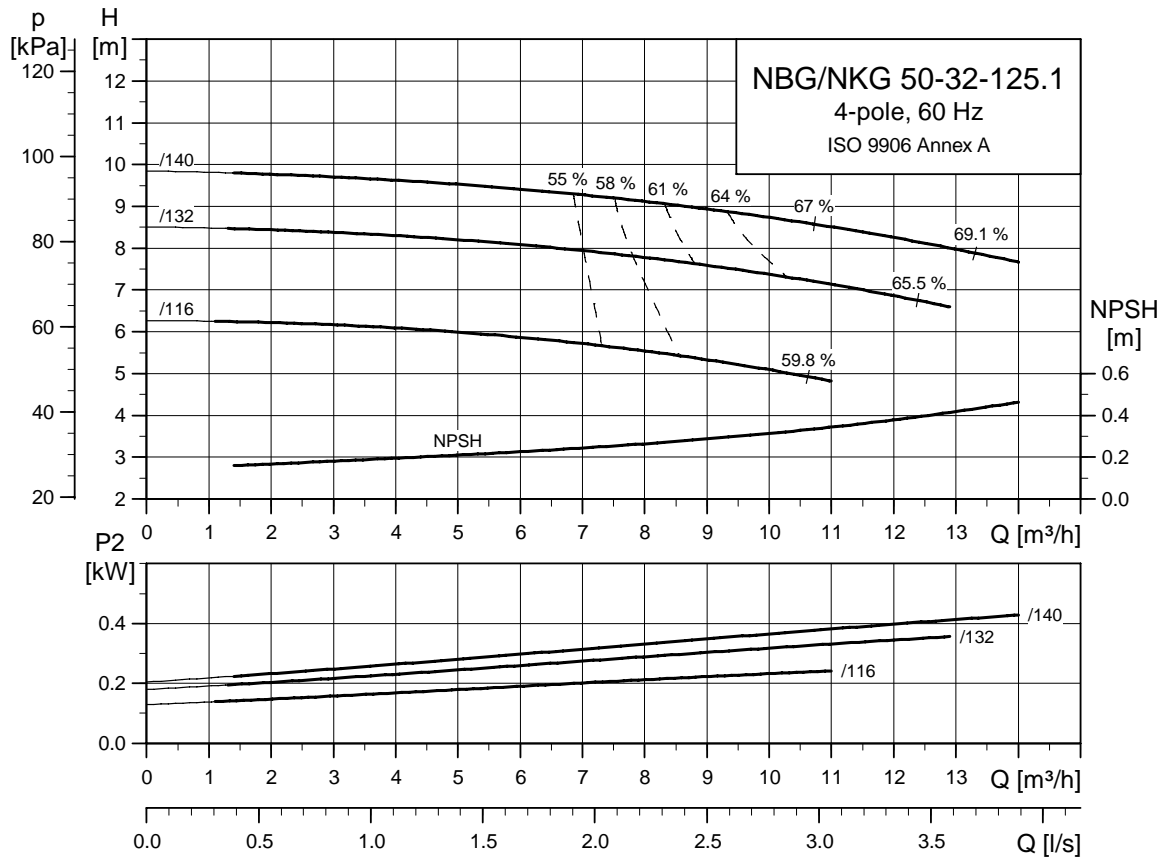
NBG, NKG 200-150-250
2-pole

Pump type		200-150-250/232	200-150-250/248	
Motor type	Premium Motor	Siemens 315	Siemens 315	
	E-Motor	-	-	
Common data NBG/NKG	P ₂	[kW]	280	353
	PN	[bar]	16	16
	DNs	[mm]	200	200
	DNd	[mm]	150	150
	a	[mm]	160	160
	h2	[mm]	375	375
	Ss		12x23	12x23
	Sd		8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	2074/2250	2074/2250
	L NKGE	[mm]	-/-	-/-
	Weight NKG	[mm]	1855/1854	2055/2054
	Weight NKGE	[kg]	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-
NKG data	l1	[kg]	2000	2000
	l2	[mm]	330	330
	l3	[mm]	1340	1340
	b1	[mm]	750	750
	b2	[mm]	890	890
	b3	[mm]	830	830
	d	[mm]	28	28
	a2	[mm]	110	110
	h	[mm]	130	130
	h3	[mm]	450	450
	h4 ¹⁾	[mm]	918/-	918/-
Base frame no.		10	10	
NBG data	Design		-	-
	L NBG	[mm]	-	-
	L NBG SS	[mm]	-	-
	h1	[mm]	-	-
	G1	[mm]	-	-
	G2	[mm]	-	-
	m1	[mm]	-	-
	m2	[mm]	-	-
	n1	[mm]	-	-
	n2	[mm]	-	-
	b	[mm]	-	-
	s1	[mm]	-	-
	H	[mm]	-	-
	LB ¹⁾	[mm]	-/-	-/-
	AD ¹⁾	[mm]	-/-	-/-
	AG ¹⁾	[mm]	-/-	-/-
	LL ¹⁾	[mm]	-/-	-/-
	P	[mm]	-	-
	C	[mm]	-	-
	B	[mm]	-	-
	A	[mm]	-	-
K	[mm]	-	-	
Weight NBG ¹⁾	[kg]	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

NBG, NKG 4-pole



TM03 5024 3406

TM03 8008 0107

TM03 8011 0107

Technical data

NBG, NKG 50-32-125.1
4-pole

Pump type		50-32-125.1/116	50-32-125.1/132	50-32-125.1/140	
Motor type	Premium Motor	MG 71A-C	MG 71B-C	MG 80A-C	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	0.25	0.37	0.55
	PN	[bar]	16	16	16
	DNs	[mm]	50	50	50
	DNd	[mm]	32	32	32
	a	[mm]	80	80	80
	h ₂	[mm]	140	140	140
	Ss		4x19	4x19	4x19
	Sd		4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	700/786	700/786	740/836
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	87/87	88/88	89/89
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	800	800	800
	l ₂	[mm]	130	130	130
	l ₃	[mm]	540	540	540
	b ₁	[mm]	270	270	270
	b ₂	[mm]	360	360	360
	b ₃	[mm]	320	320	320
	d	[mm]	19	19	19
	a ₂	[mm]	60	60	60
	h	[mm]	65	65	65
	h ₃	[mm]	177	177	177
	h ₄ ¹⁾	[mm]	286/-	286/-	286/-
	Base frame no.		2	2	2
NBG data	Design		A	A	A
	L NBG	[mm]	201	201	226
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	112	112	112
	G ₁	[mm]	117	117	117
	G ₂	[mm]	117	117	117
	m ₁	[mm]	100	100	100
	m ₂	[mm]	70	70	70
	n ₁	[mm]	190	190	190
	n ₂	[mm]	140	140	140
	b	[mm]	50	50	50
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	-	-
	LB ¹⁾	[mm]	191/-	191/-	231/-
	AD ¹⁾	[mm]	109/-	109/-	109/-
	AG ¹⁾	[mm]	82/-	82/-	82/-
	LL ¹⁾	[mm]	82/-	82/-	82/-
	P	[mm]	160	160	200
	C	[mm]	-	-	-
	B	[mm]	-	-	-
	A	[mm]	-	-	-
	K	[mm]	-	-	-
Weight NBG ¹⁾	[kg]	32/-	32/-	35/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

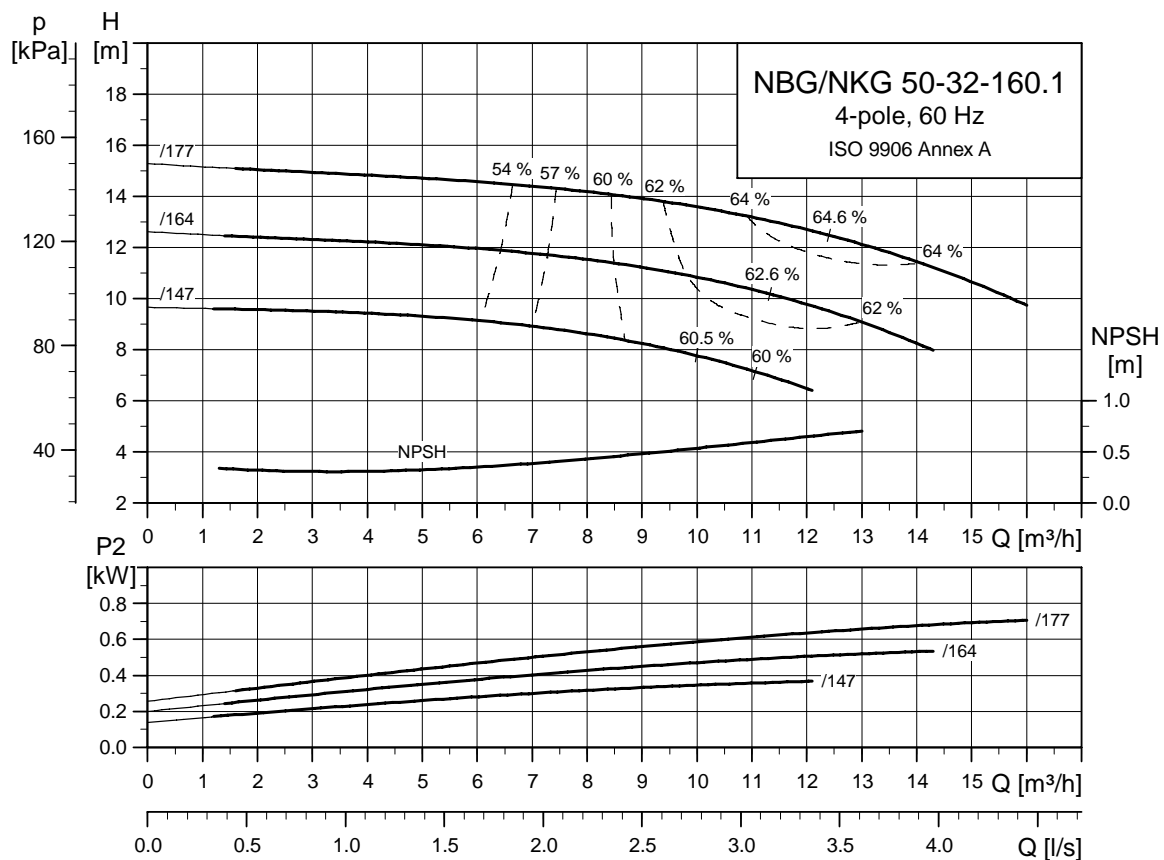
1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

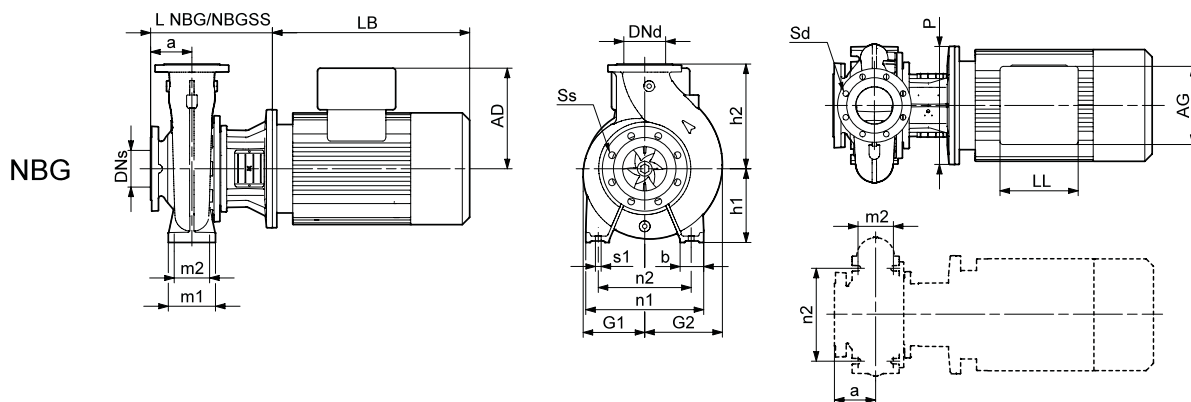
Performance curves

NBG, NKG 50-32-160.1
4-pole, 60 Hz

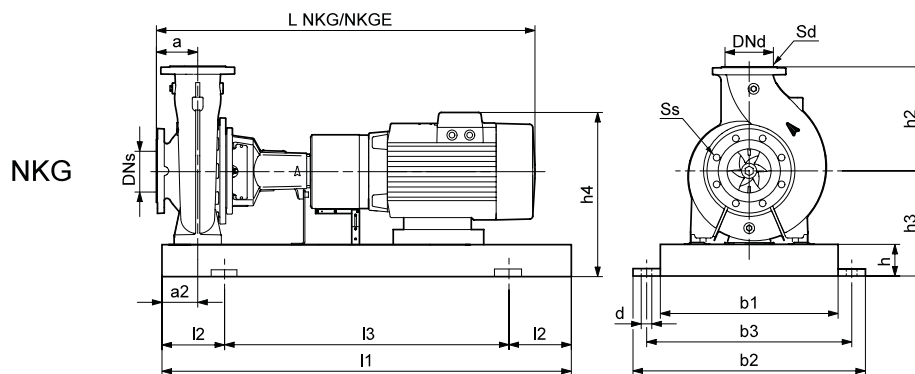
4-pole



TM03 5025 3406



TM03 8008 0107



TM03 8011 0107

Pump type		50-32-160.1/147	50-32-160.1/164	50-32-160.1/177	
Motor type	Premium Motor	MG 71B-C	MG 80A-C	MG 80B-C	
	E-Motor	-	-	MGE 90SA	
Common data NBG/NKG	P ₂	[kW]	0.37	0.55	0.75
	PN	[bar]	16	16	16
	DNs	[mm]	50	50	50
	DNd	[mm]	32	32	32
	a	[mm]	80	80	80
	h ₂	[mm]	160	160	160
	Ss		4x19	4x19	4x19
	Sd		4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	700/786	740/836	740/836
	L NKGE	[mm]	-/-	-/-	830/926
	Weight NKG	[mm]	107/107	110/110	111/111
	Weight NKGE	[kg]	-/-	-/-	124/123
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	I ₁	[kg]	1000	1000	1000
	I ₂	[mm]	170	170	170
	I ₃	[mm]	660	660	660
	b ₁	[mm]	340	340	340
	b ₂	[mm]	450	450	450
	b ₃	[mm]	400	400	400
	d	[mm]	24	24	24
	a ₂	[mm]	60	60	60
	h	[mm]	80	80	80
	h ₃	[mm]	212	212	212
	h ₄ ¹⁾	[mm]	321/-	321/-	321/379
Base frame no.		4	4	4	
NBG data	Design		A	A	A
	L NBG	[mm]	201	226	226
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	132	132	132
	G ₁	[mm]	117	117	117
	G ₂	[mm]	123	123	123
	m ₁	[mm]	100	100	100
	m ₂	[mm]	70	70	70
	n ₁	[mm]	240	240	240
	n ₂	[mm]	190	190	190
	b	[mm]	50	50	50
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	-	-
	LB ¹⁾	[mm]	191/-	231/-	231/321
	AD ¹⁾	[mm]	109/-	109/-	109/167
	AG ¹⁾	[mm]	82/-	82/-	82/264
	LL ¹⁾	[mm]	82/-	82/-	82/260
	P	[mm]	160	200	200
	C	[mm]	-	-	-
	B	[mm]	-	-	-
	A	[mm]	-	-	-
K	[mm]	-	-	-	
Weight NBG ¹⁾	[kg]	33/-	37/-	38/49	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

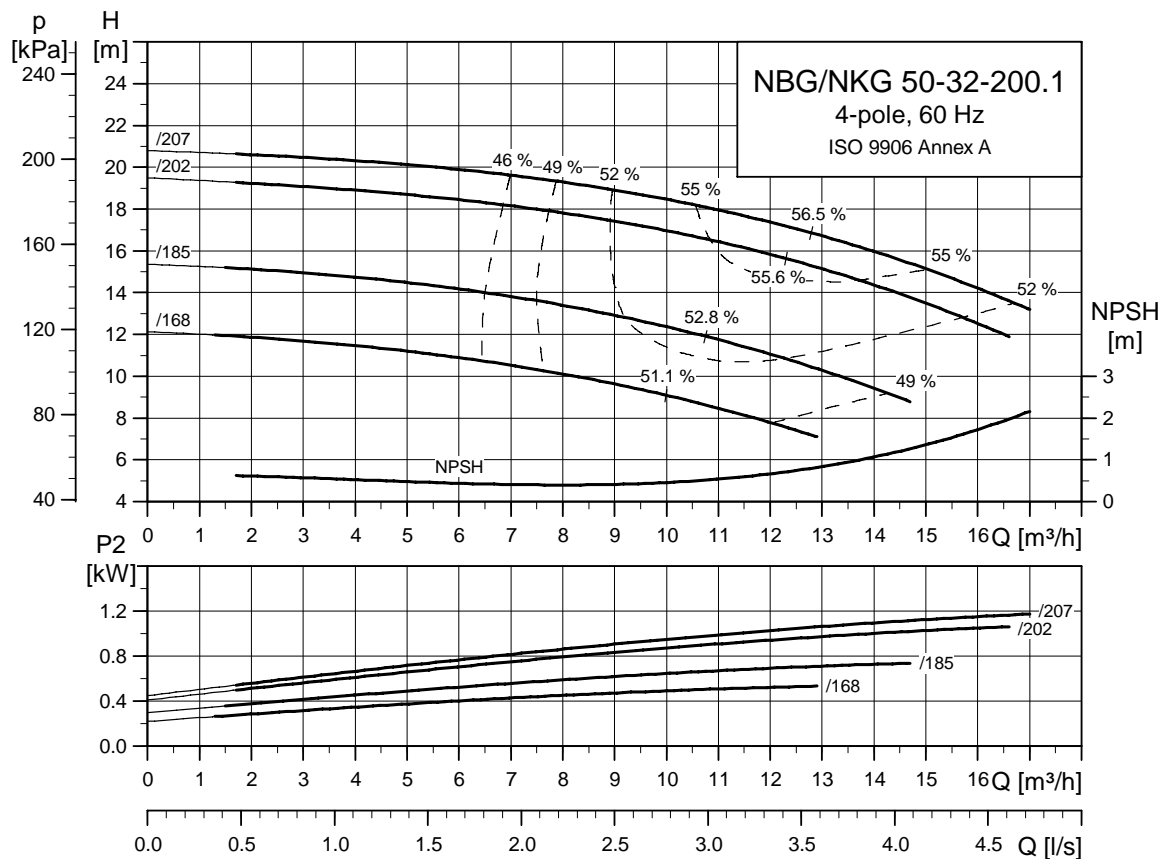
1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

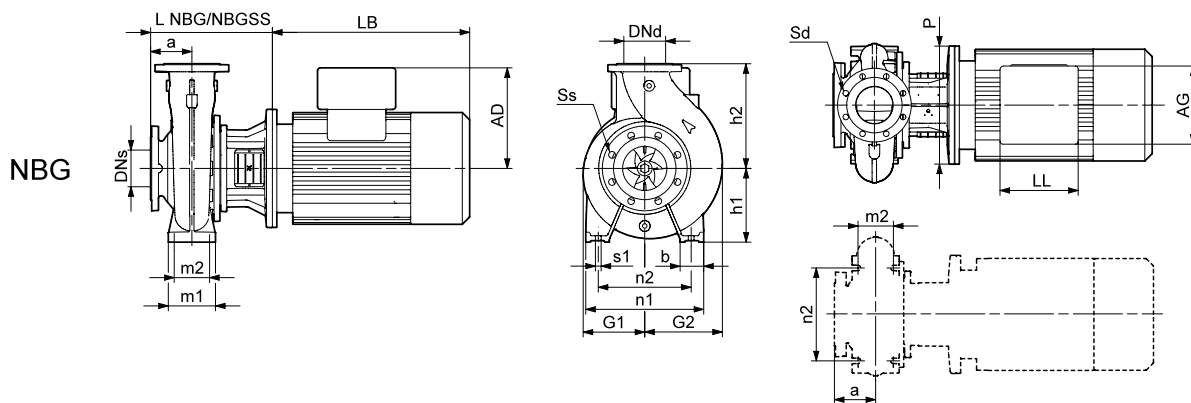
Performance curves

NBG, NKG 50-32-200.1
4-pole, 60 Hz

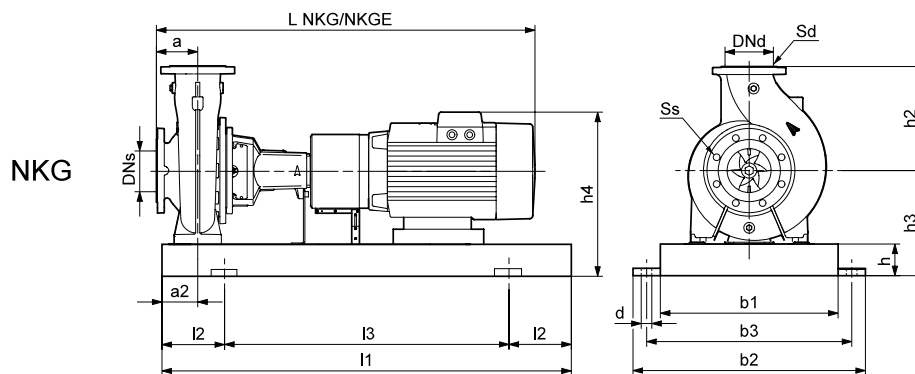
ISO 9906 Annex A



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TM03 8008 0107



TM03 8011 0107

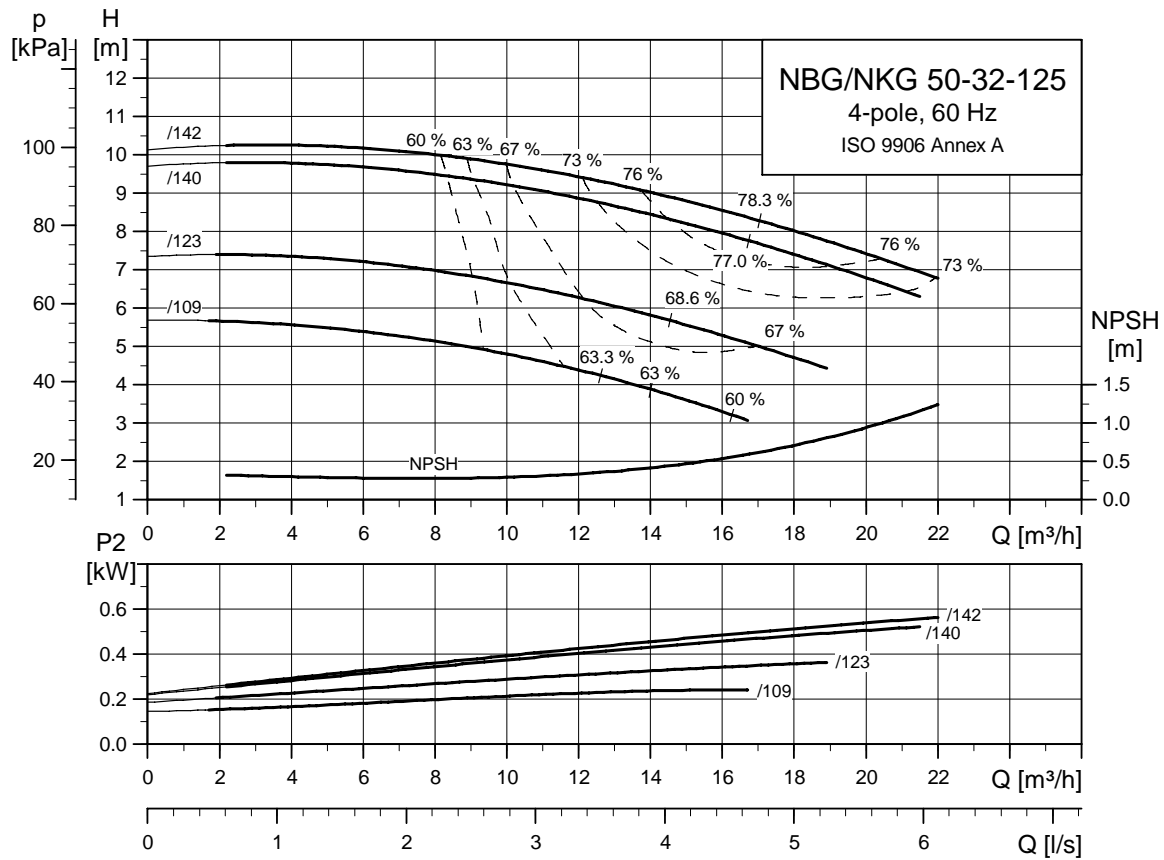
Pump type		50-32-200.1/168	50-32-200.1/185	50-32-200.1/202	50-32-200.1/207	
Motor type	Premium Motor	MG 80A-C	MG 80B-C	MG 90SB-D	MG 90LC-D	
	E-Motor	-	MGE 90SA	MGE 90SB	MGE 90LC	
Common data NBG/NKG	P ₂	[kW]	0.55	0.75	1.1	1.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	80	80	80	80
	h ₂	[mm]	180	180	180	180
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	740/836	740/836	800/896	840/936
	L NKGE	[mm]	-/-	830/926	840/936	840/936
	Weight NKG	[mm]	118/118	119/119	129/128	130/129
	Weight NKGE	[kg]	-/-	130/129	136/135	137/136
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170
	l ₃	[mm]	660	660	660	660
	b ₁	[mm]	340	340	340	340
	b ₂	[mm]	450	450	450	450
	b ₃	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	349/-	349/407	350/407	350/407
	Base frame no.		4	4	4	4
NBG data	Design		A	A	A	A
	L NBG	[mm]	226	226	226	226
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	135	135	135	135
	G ₂	[mm]	137	137	137	137
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	240	240	240	240
	n ₂	[mm]	190	190	190	190
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	231/-	231/321	281/321	321/321
	AD ¹⁾	[mm]	109/-	109/167	110/167	110/167
	AG ¹⁾	[mm]	82/-	82/264	162/264	162/264
	LL ¹⁾	[mm]	82/-	82/260	103/260	103/260
	P	[mm]	200	200	200	200
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
	K	[mm]	-	-	-	-
Weight NBG ¹⁾	[kg]	44/-	45/56	56/62	57/63	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

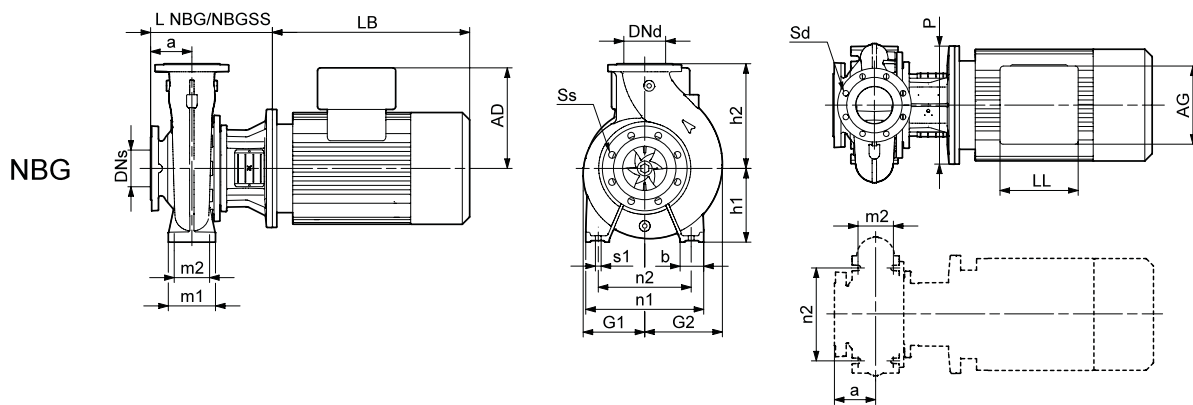
Note: For information about base frames, see page 222.

Performance curves

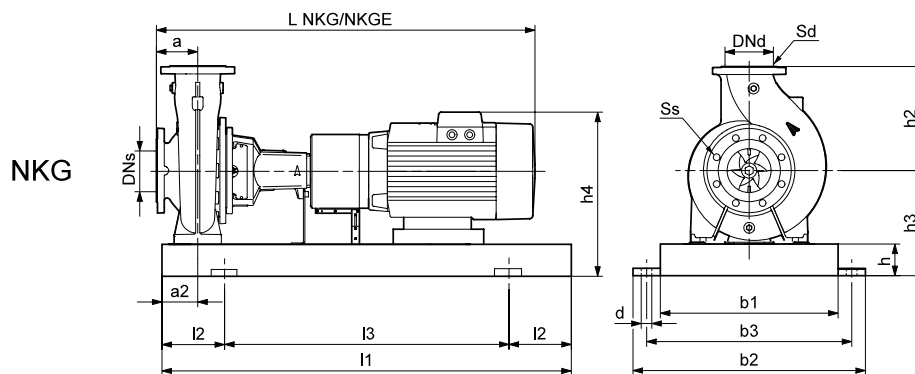
NBG, NKG 50-32-125
4-pole



TM03 5027 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 50-32-125
4-pole

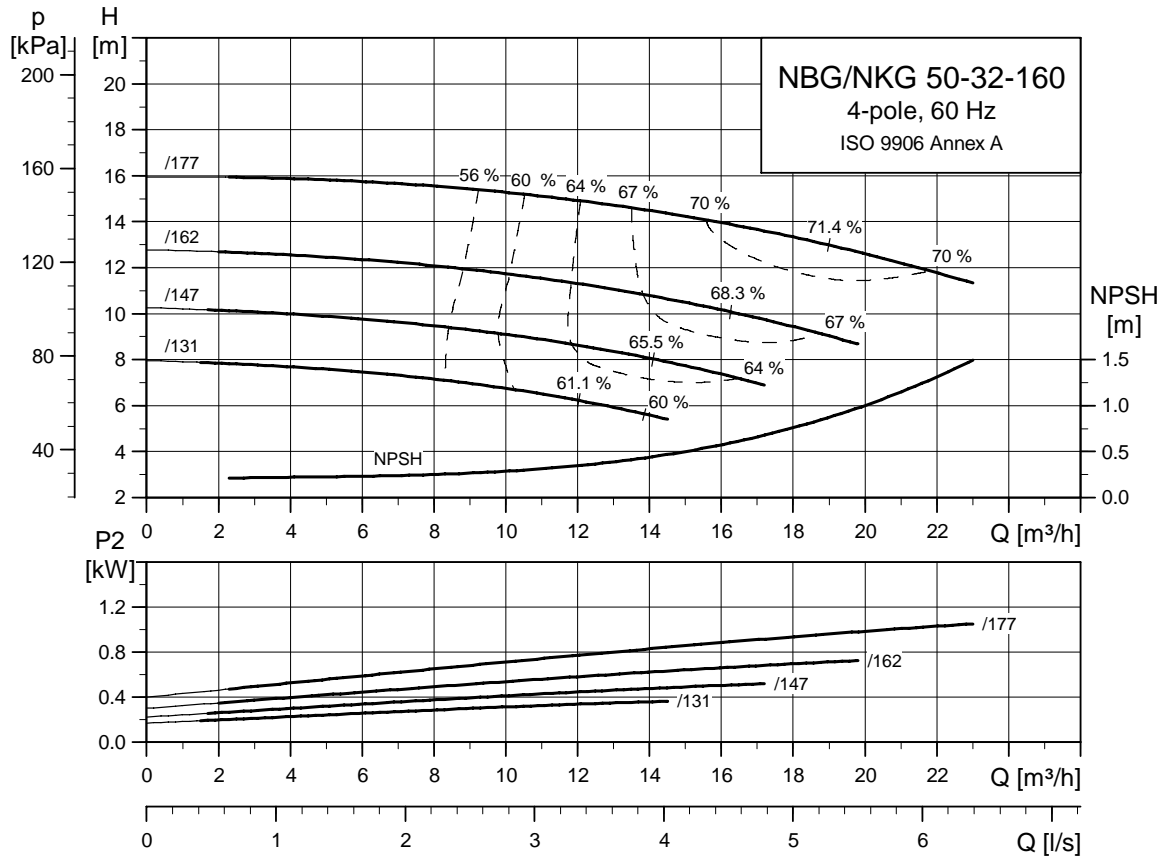
Pump type		50-32-125/109	50-32-125/123	50-32-125/140	50-32-125/142	
Motor type	Premium Motor	MG 71A-C	MG 71B-C	MG 80A-C	MG 80B-C	
	E-Motor	-	-	-	MGE 90SA	
Common data NBG/NKG	P ₂	[kW]	0.25	0.37	0.55	0.75
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	80	80	80	80
	h ₂	[mm]	140	140	140	140
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	700/786	700/786	740/836	740/836
	L NKGE	[mm]	-/-	-/-	-/-	830/926
	Weight NKG	[mm]	88/88	88/88	90/90	91/91
	Weight NKGE	[kg]	-/-	-/-	-/-	108/108
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	800	800	800	800
	l ₂	[mm]	130	130	130	130
	l ₃	[mm]	540	540	540	540
	b ₁	[mm]	270	270	270	270
	b ₂	[mm]	360	360	360	360
	b ₃	[mm]	320	320	320	320
	d	[mm]	19	19	19	19
	a ₂	[mm]	60	60	60	60
	h	[mm]	65	65	65	65
	h ₃	[mm]	177	177	177	177
	h ₄ ¹⁾	[mm]	286/-	286/-	286/-	286/344
Base frame no.		2	2	2	2	
NBG data	Design		A	A	A	A
	L NBG	[mm]	201	201	226	226
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	112	112	112	112
	G ₁	[mm]	117	117	117	117
	G ₂	[mm]	117	117	117	117
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	190	190	190	190
	n ₂	[mm]	140	140	140	140
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	191/-	191/-	231/-	231/321
	AD ¹⁾	[mm]	109/-	109/-	109/-	109/167
	AG ¹⁾	[mm]	82/-	82/-	82/-	82/264
	LL ¹⁾	[mm]	82/-	82/-	82/-	82/260
	P	[mm]	160	160	200	200
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
A	[mm]	-	-	-	-	
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	32/-	33/-	36/-	37/48	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

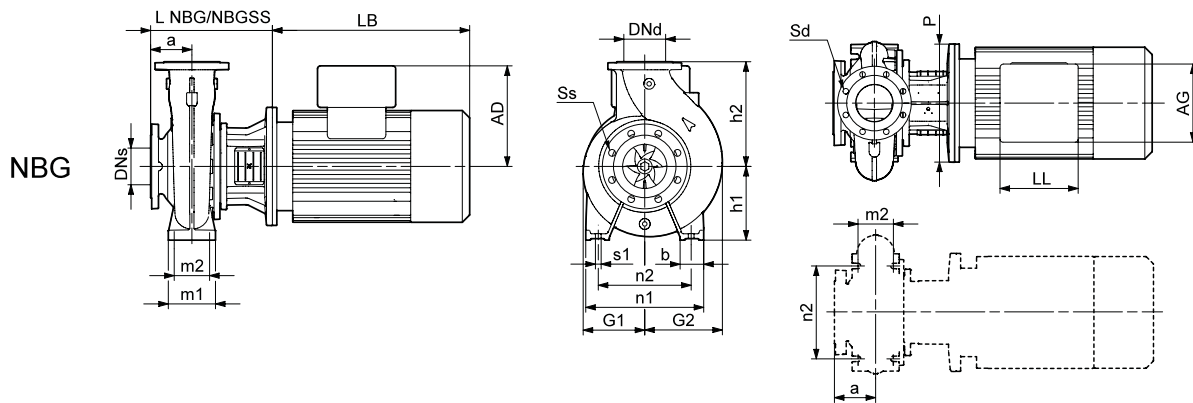
Note: For information about base frames, see page 222.

Performance curves

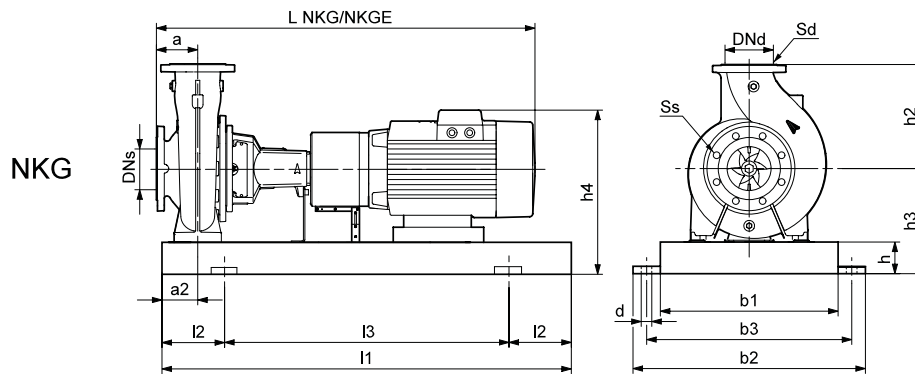
NBG, NKG 50-32-160
4-pole



TM03 5028 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 50-32-160
4-pole

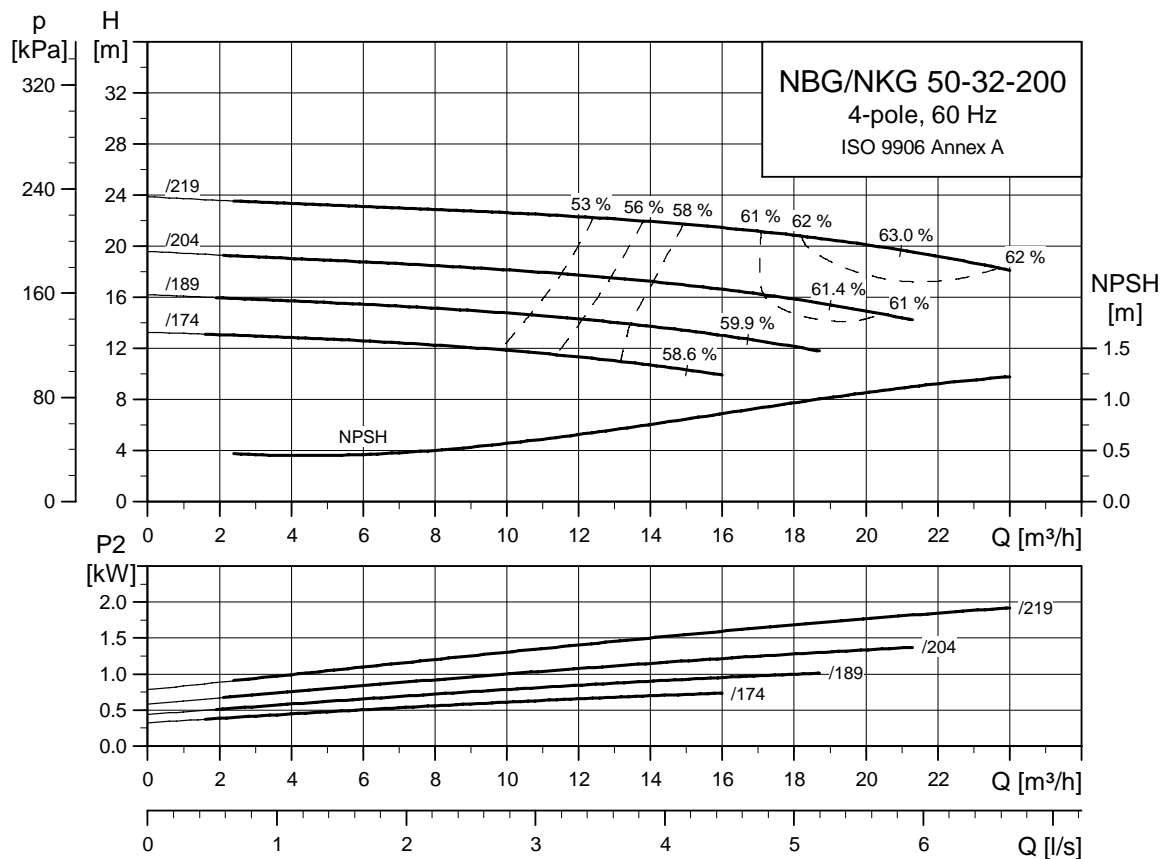
Pump type		50-32-160/131	50-32-160/147	50-32-160/162	50-32-160/177	
Motor type	Premium Motor	MG 71B-C	MG 80A-C	MG 80B-C	MG 90SB-D	
	E-Motor	-	-	MGE 90SA	MGE 90SB	
Common data NBG/NKG	P ₂	[kW]	0.37	0.55	0.75	1.1
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	80	80	80	80
	h2	[mm]	160	160	160	160
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	700/786	740/836	740/836	800/896
	L NKGE	[mm]	-/-	-/-	830/926	840/936
	Weight NKG	[mm]	108/108	111/111	112/112	124/124
	Weight NKGE	[kg]	-/-	-/-	125/124	131/130
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1000	1000	1000	1000
	l2	[mm]	170	170	170	170
	l3	[mm]	660	660	660	660
	b1	[mm]	340	340	340	340
	b2	[mm]	450	450	450	450
	b3	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a2	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h3	[mm]	212	212	212	212
	h4 ¹⁾	[mm]	321/-	321/-	321/379	322/379
Base frame no.		4	4	4	4	
NBG data	Design		A	A	A	A
	L NBG	[mm]	201	226	226	226
	L NBG SS	[mm]	-	-	-	-
	h1	[mm]	132	132	132	132
	G1	[mm]	117	117	117	117
	G2	[mm]	125	125	125	125
	m1	[mm]	100	100	100	100
	m2	[mm]	70	70	70	70
	n1	[mm]	240	240	240	240
	n2	[mm]	190	190	190	190
	b	[mm]	50	50	50	50
	s1	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	191/-	231/-	231/321	281/321
	AD ¹⁾	[mm]	109/-	109/-	109/167	110/167
	AG ¹⁾	[mm]	82/-	82/-	82/264	162/264
	LL ¹⁾	[mm]	82/-	82/-	82/260	103/260
	P	[mm]	160	200	200	200
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
A	[mm]	-	-	-	-	
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	34/-	38/-	39/50	50/56	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

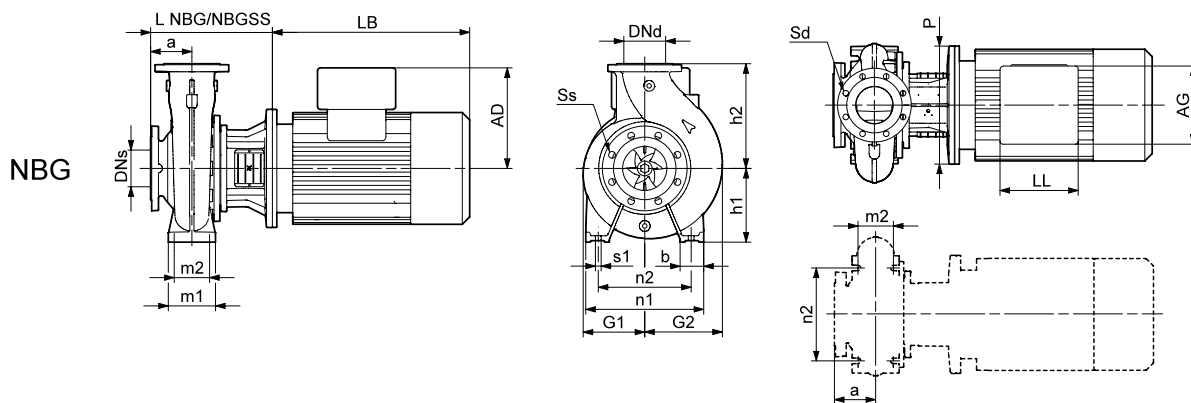
Note: For information about base frames, see page 222.

Performance curves

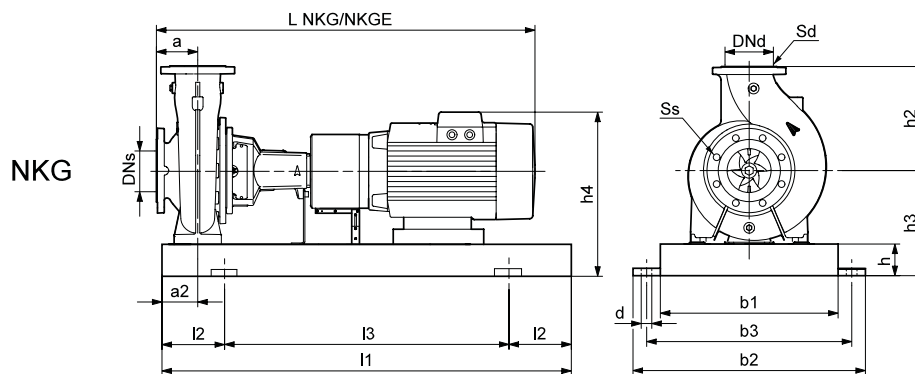
NBG, NKG 50-32-200
4-pole



TM03 5029 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 50-32-200
4-pole

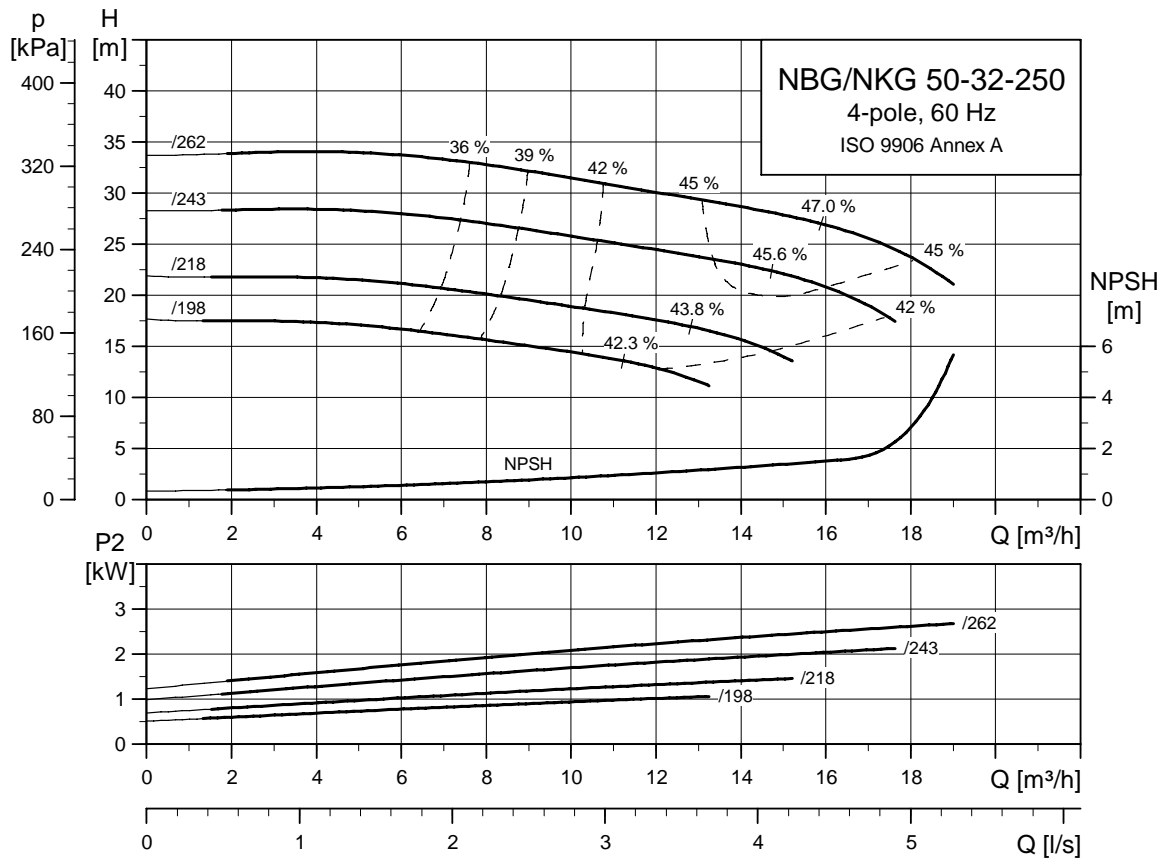
Pump type		50-32-200/174	50-32-200/189	50-32-200/204	50-32-200/219	
Motor type	Premium Motor	MG 80B-C	MG 90SB-D	MG 90LC-D	MG 100LB-D	
	E-Motor	MGE 90SA	MGE 90SB	MGE 90LC	MGE 100LB	
Common data NBG/NKG	P ₂	[kW]	0.75	1.1	1.5	2.2
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	80	80	80	80
	h ₂	[mm]	180	180	180	180
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	740/836	800/896	840/936	864/960
	L NKGE	[mm]	830/926	840/936	840/936	864/960
	Weight NKG	[mm]	120/120	129/129	130/130	135/133
	Weight NKGE	[kg]	130/129	136/135	137/136	146/144
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170
	l ₃	[mm]	660	660	660	660
	b ₁	[mm]	340	340	340	340
	b ₂	[mm]	450	450	450	450
	b ₃	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	349/407	350/407	350/407	360/417
	Base frame no.		4	4	4	4
NBG data	Design		A	A	A	A
	L NBG	[mm]	226	226	226	254
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	124	124	124	124
	G ₂	[mm]	145	145	145	145
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	240	240	240	240
	n ₂	[mm]	190	190	190	190
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	231/321	281/321	321/321	335/335
	AD ¹⁾	[mm]	109/167	110/167	110/167	120/177
	AG ¹⁾	[mm]	82/264	162/264	162/264	162/264
	LL ¹⁾	[mm]	82/260	103/260	103/260	103/260
	P	[mm]	200	200	200	250
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
A	[mm]	-	-	-	-	
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	45/56	56/62	57/63	64/72	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

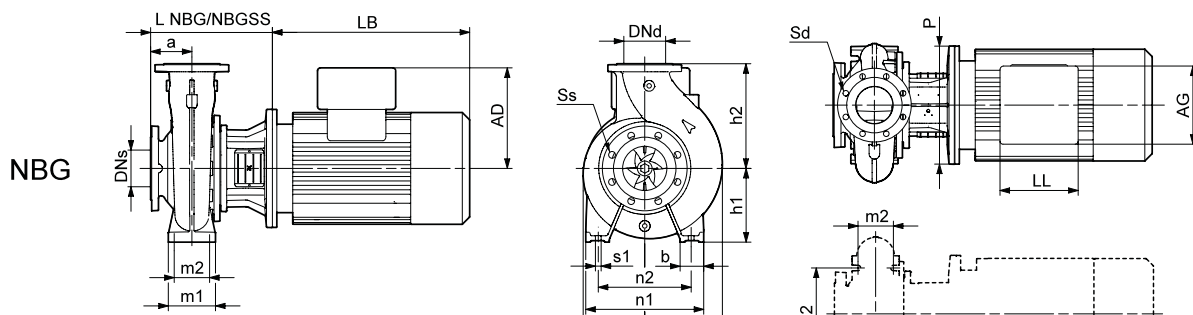
Note: For information about base frames, see page 222.

Performance curves

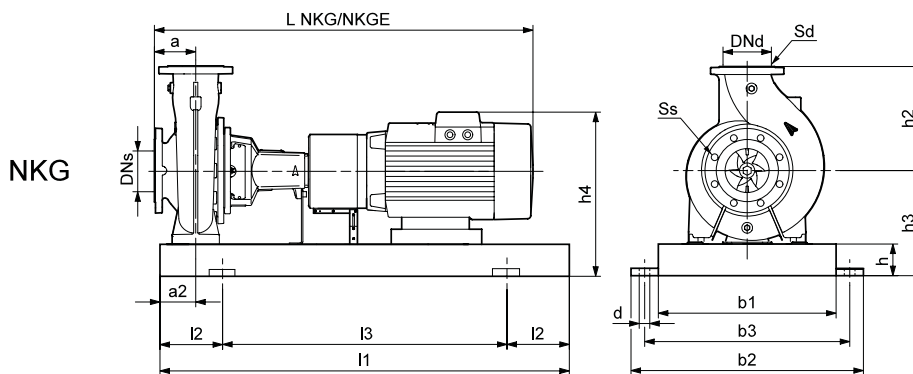
NBG, NKG 50-32-250
4-pole



TM03 5030 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 50-32-250
4-pole

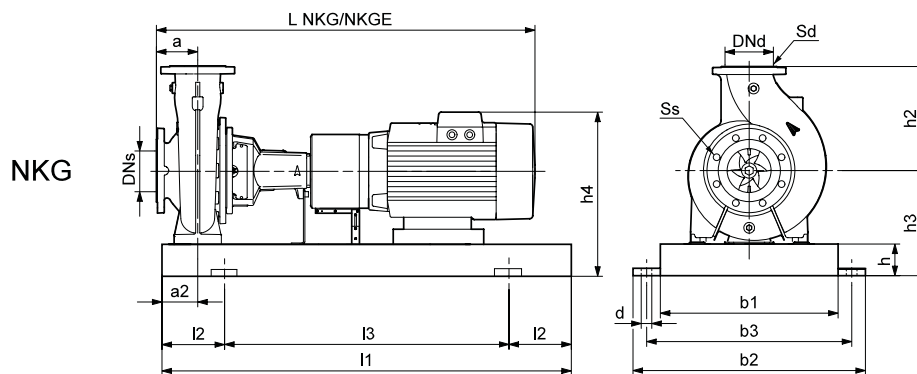
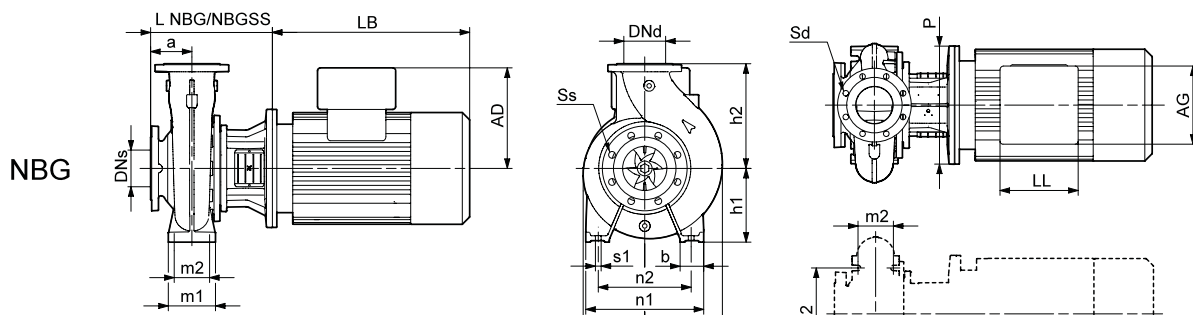
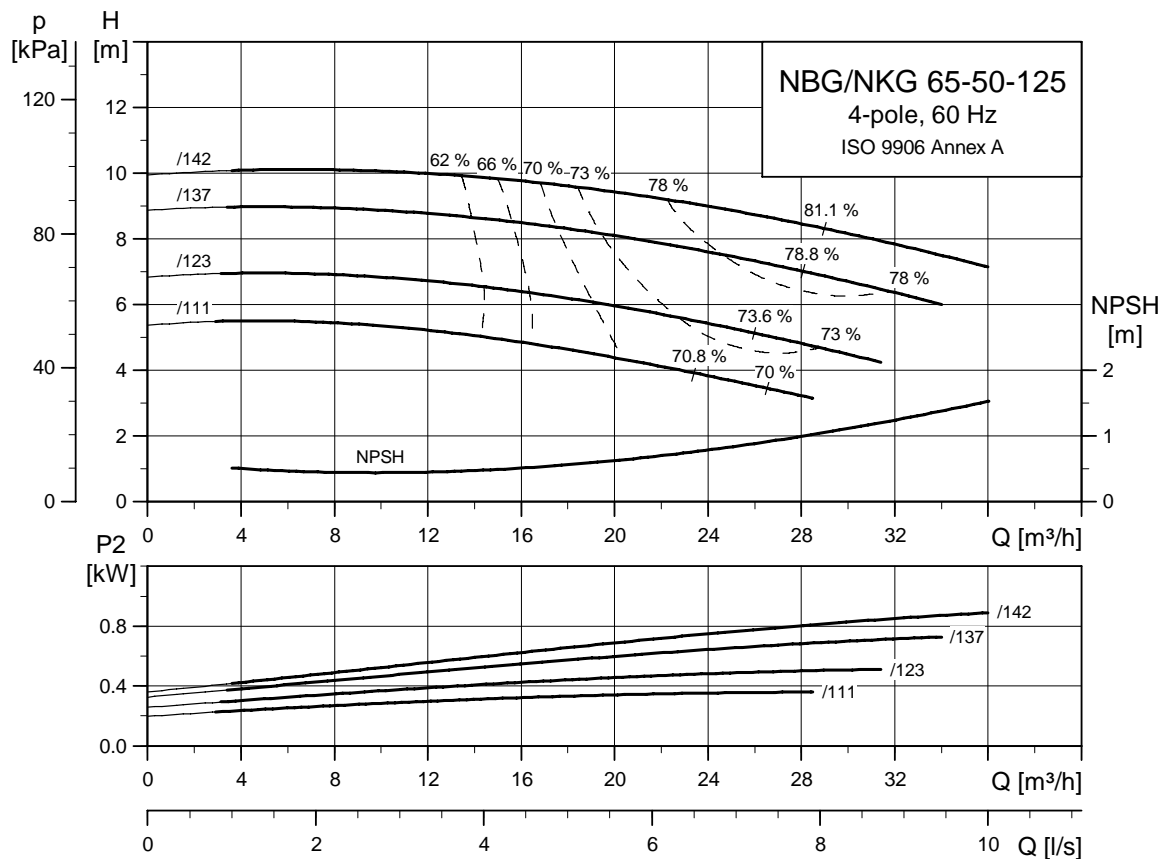
Pump type		50-32-250/198	50-32-250/218	50-32-250/243	50-32-250/262	
Motor type	Premium Motor	MG 90SB-D	MG 90LC-D	MG 100LB-D	MG 100LC-D	
	E-Motor	MGE 90SB	MGE 90LC	MGE 100LB	MGE 100LC	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2	3
	PN	[bar]	16	16	16	16
	DNs	[mm]	50	50	50	50
	DNd	[mm]	32	32	32	32
	a	[mm]	100	100	100	100
	h2	[mm]	225	225	225	225
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	935/1031	975/1071	999/1095	999/1095
	L NKGE	[mm]	975/1071	975/1071	999/1095	999/1095
	Weight NKG	[mm]	171/170	172/171	176/174	181/179
	Weight NKGE	[kg]	177/177	178/178	187/185	189/187
	Weight NKG SS	[kg]	175/174	176/175	180/179	185/184
	Weight NKGE SS	[kg]	182/181	183/182	191/190	193/192
NKG data	l1	[kg]	1120	1120	1120	1120
	l2	[mm]	190	190	190	190
	l3	[mm]	740	740	740	740
	b1	[mm]	380	380	380	380
	b2	[mm]	490	490	490	490
	b3	[mm]	440	440	440	440
	d	[mm]	24	24	24	24
	a2	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h3	[mm]	260	260	260	260
	h4 ¹⁾	[mm]	370/427	370/427	380/437	380/437
Base frame no.		5	5	5	5	
NBG data	Design		A	A	A	A
	L NBG	[mm]	273	273	293	293
	L NBG SS	[mm]	273	273	293	293
	h1	[mm]	180	180	180	180
	G1	[mm]	162	162	162	162
	G2	[mm]	164	164	164	164
	m1	[mm]	125	125	125	125
	m2	[mm]	95	95	95	95
	n1	[mm]	320	320	320	320
	n2	[mm]	250	250	250	250
	b	[mm]	65	65	65	65
	s1	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	281/321	321/321	335/335	335/335
	AD ¹⁾	[mm]	110/167	110/167	120/177	120/177
	AG ¹⁾	[mm]	162/264	162/264	162/264	162/264
	LL ¹⁾	[mm]	103/260	103/260	103/260	103/260
	P	[mm]	200	200	250	250
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	72/78	73/79	81/89	83/91	
Weight NBG SS ¹⁾	[kg]	76/82	77/83	84/92	86/94	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 65-50-125
4-pole



TM03 5031 3406

TM03 8008 0107

TM03 8011 0107

Technical data

NBG, NKG 65-50-125
4-pole

Pump type		65-50-125/111	65-50-125/123	65-50-125/137	65-50-125/142	
Motor type	Premium Motor	MG 71B-C	MG 80A-C	MG 80B-C	MG 90SB-D	
	E-Motor	-	-	MGE 90SA	MGE 90SB	
Common data NBG/NKG	P ₂	[kW]	0.37	0.55	0.75	1.1
	PN	[bar]	16	16	16	16
	DNs	[mm]	65	65	65	65
	DNd	[mm]	50	50	50	50
	a	[mm]	80	80	80	80
	h2	[mm]	140	140	140	140
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	700/786	740/836	740/836	800/896
	L NKGE	[mm]	-/-	-/-	830/926	840/936
	Weight NKG	[mm]	100/100	101/101	102/102	113/112
	Weight NKGE	[kg]	-/-	-/-	113/112	119/118
	Weight NKG SS	[kg]	99/98	100/99	101/101	111/111
	Weight NKGE SS	[kg]	-/-	-/-	112/111	118/117
NKG data	l1	[kg]	900	900	900	900
	l2	[mm]	150	150	150	150
	l3	[mm]	600	600	600	600
	b1	[mm]	300	300	300	300
	b2	[mm]	390	390	390	390
	b3	[mm]	345	345	345	345
	d	[mm]	19	19	19	19
	a2	[mm]	60	60	60	60
	h	[mm]	65	65	65	65
	h3	[mm]	177	177	177 ²⁾	180
	h4 ¹⁾	[mm]	286/-	286/-	286/344	290/347
Base frame no.		3	3	3	3	
NBG data	Design		A	A	A	A
	L NBG	[mm]	201	226	226	226
	L NBG SS	[mm]	243	253	253	253
	h1	[mm]	112	112	112	112
	G1	[mm]	117	117	117	117
	G2	[mm]	118	118	118	118
	m1	[mm]	100	100	100	100
	m2	[mm]	70	70	70	70
	n1	[mm]	210	210	210	210
	n2	[mm]	160	160	160	160
	b	[mm]	50	50	50	50
	s1	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	191/-	231/-	231/321	281/321
	AD ¹⁾	[mm]	109/-	109/-	109/167	110/167
	AG ¹⁾	[mm]	82/-	82/-	82/264	162/264
	LL ¹⁾	[mm]	82/-	82/-	82/260	103/260
	P	[mm]	160	200	200	200
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	37/-	41/-	42/53	53/59	
Weight NBG SS ¹⁾	[kg]	39/-	42/-	43/54	54/60	

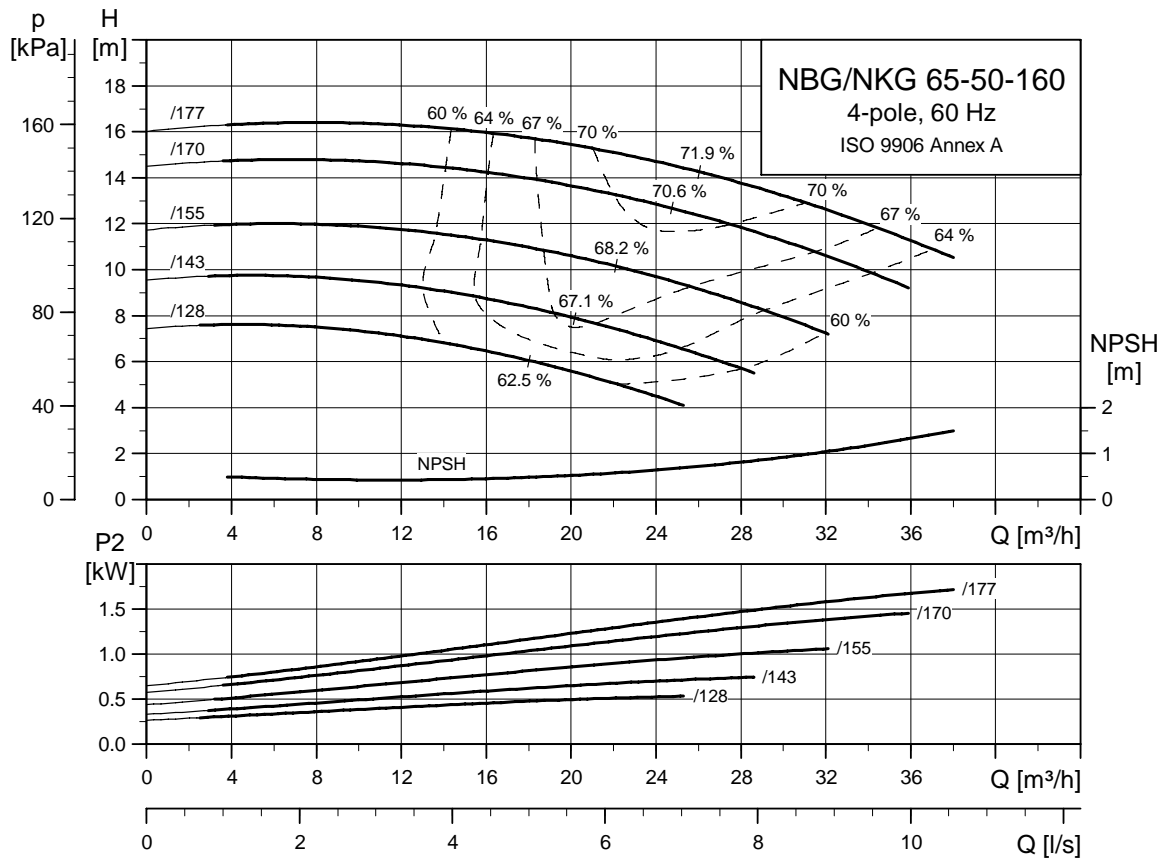
1) Dimension of pump with premium range motor/built-in frequency converter.

2) The h3 dimension of NKGE 65-50-125/137 is 180 mm.

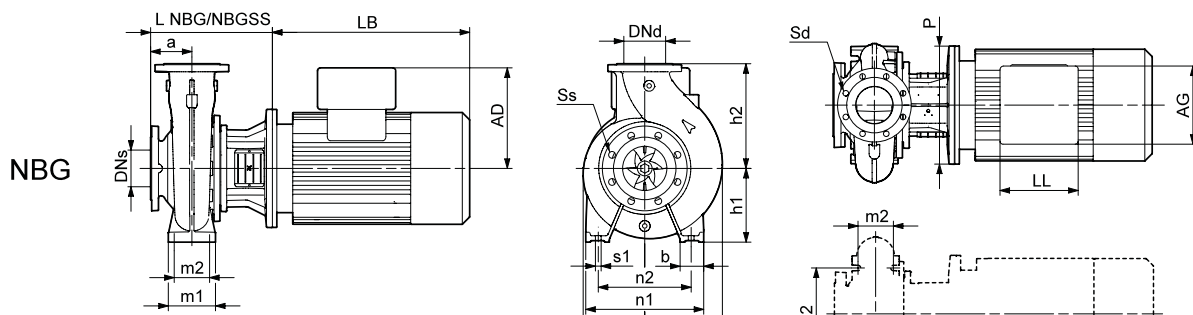
Note: For information about base frames, see page 222.

Performance curves

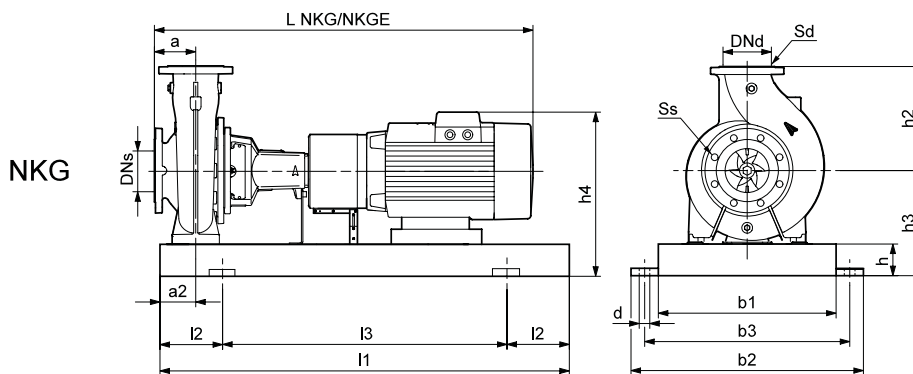
NBG, NKG 65-50-160
4-pole



TM03 5032 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 65-50-160
4-pole

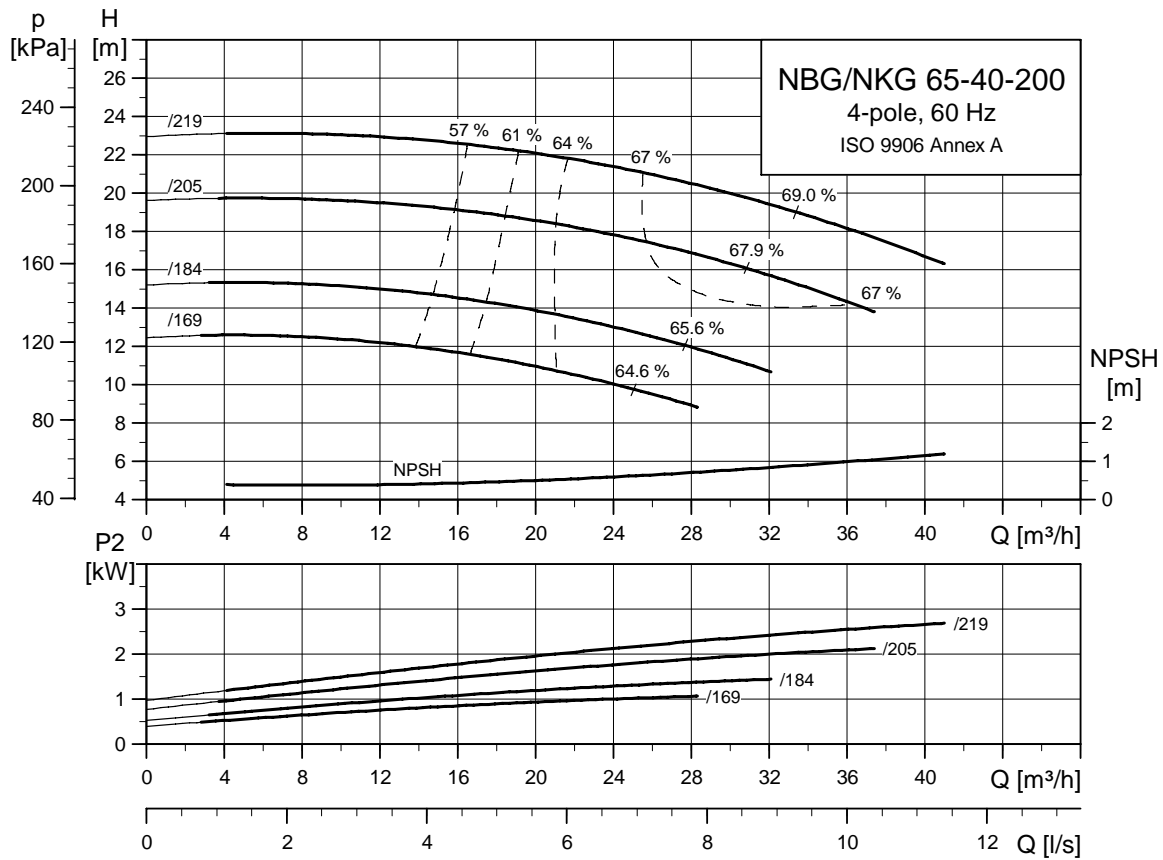
Pump type		65-50-160/128	65-50-160/143	65-50-160/155	65-50-160/170	65-50-160/177	
Motor type	Premium Motor	MG 80A-C	MG 80B-C	MG 90SB-D	MG 90LC-D	MG 100LB-D	
	E-Motor	-	MGE 90SA	MGE 90SB	MGE 90LC	MGE 100LB	
Common data NBG/NKG	P ₂	[kW]	0.55	0.75	1.1	1.5	2.2
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	65	65	65	65	65
	DNd	[mm]	50	50	50	50	50
	a	[mm]	80	80	80	80	80
	h ₂	[mm]	160	160	160	160	160
	Ss		4x19	4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	740/836	740/836	800/896	840/936	864/960
	L NKGE	[mm]	-/-	830/926	840/936	840/936	864/960
	Weight NKG	[mm]	115/115	116/116	129/128	130/129	135/132
	Weight NKGE	[kg]	-/-	129/128	135/134	136/135	146/143
	Weight NKG SS	[kg]	114/114	116/115	128/127	129/128	134/132
	Weight NKGE SS	[kg]	-/-	129/128	135/134	136/135	145/143
NKG data	l ₁	[kg]	1000	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170	170
	l ₃	[mm]	660	660	660	660	660
	b ₁	[mm]	340	340	340	340	340
	b ₂	[mm]	450	450	450	450	450
	b ₃	[mm]	400	400	400	400	400
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	60	60	60	60	60
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	212	212	212	212	212
	h ₄ ¹⁾	[mm]	321/-	321/379	322/379	322/379	332/389
	Base frame no.		4	4	4	4	4
	NBG data	Design		A	A	A	A
L NBG		[mm]	226	226	226	226	254
L NBG SS		[mm]	253	253	253	253	273
h ₁		[mm]	132	132	132	132	132
G ₁		[mm]	117	117	117	117	117
G ₂		[mm]	134	134	134	134	134
m ₁		[mm]	100	100	100	100	100
m ₂		[mm]	70	70	70	70	70
n ₁		[mm]	240	240	240	240	240
n ₂		[mm]	190	190	190	190	190
b		[mm]	50	50	50	50	50
s ₁		[mm]	M12	M12	M12	M12	M12
H		[mm]	-	-	-	-	-
LB ¹⁾		[mm]	231/-	231/321	281/321	321/321	335/335
AD ¹⁾		[mm]	109/-	109/167	110/167	110/167	120/177
AG ¹⁾		[mm]	82/-	82/264	162/264	162/264	162/264
LL ¹⁾		[mm]	82/-	82/260	103/260	103/260	103/260
P		[mm]	200	200	200	200	250
C		[mm]	-	-	-	-	-
B		[mm]	-	-	-	-	-
A		[mm]	-	-	-	-	-
K		[mm]	-	-	-	-	-
Weight NBG ¹⁾	[kg]	42/-	43/54	54/60	55/61	62/70	
Weight NBG SS ¹⁾	[kg]	44/-	45/56	56/62	57/63	64/72	

1) Dimension of pump with premium range motor/built-in frequency converter.

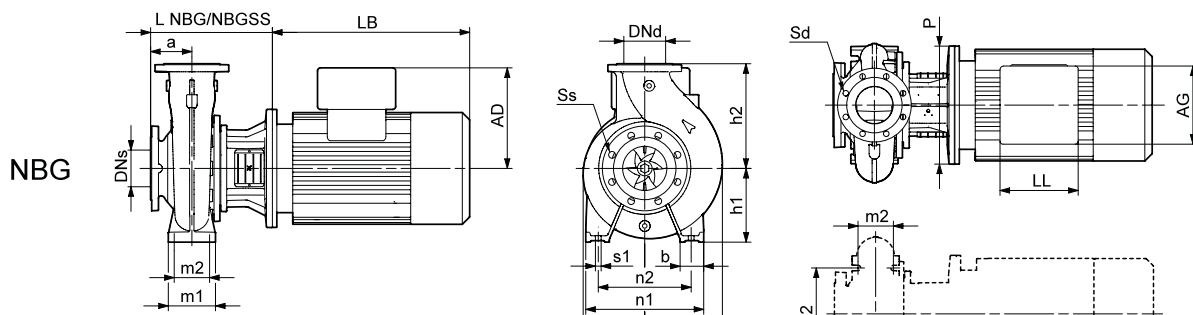
Note: For information about base frames, see page 222.

Performance curves

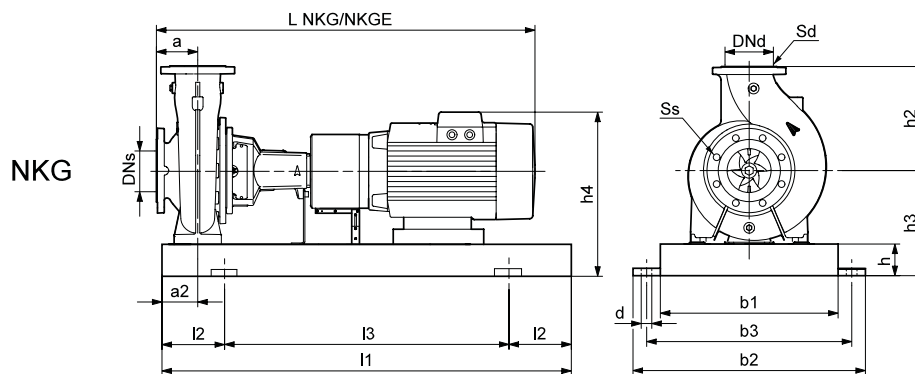
NBG, NKG 65-40-200
4-pole



TM03 5033 3406



TM03 8008 0107



TM03 8011 0107

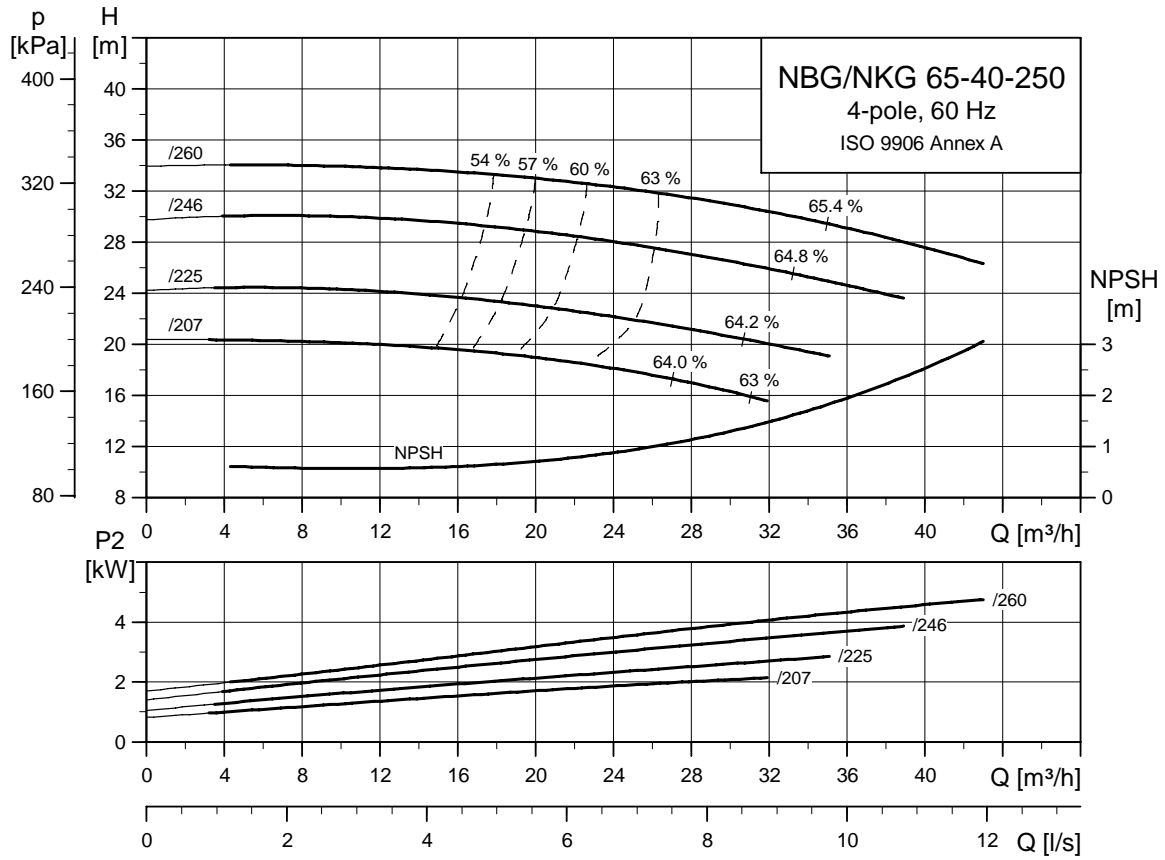
Pump type		65-40-200/169	65-40-200/184	65-40-200/205	65-40-200/219	
Motor type	Premium Motor	MG 90SB-D	MG 90LC-D	MG 100LB-D	MG 100LC-D	
	E-Motor	MGE 90SB	MGE 90LC	MGE 100LB	MGE 100LC	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2	3
	PN	[bar]	16	16	16	16
	DNs	[mm]	65	65	65	65
	DNd	[mm]	40	40	40	40
	a	[mm]	100	100	100	100
	h ₂	[mm]	180	180	180	180
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	820/916	860/956	884/980	884/980
	L NKGE	[mm]	860/956	860/956	884/980	884/980
	Weight NKG	[mm]	131/130	132/131	137/135	142/140
	Weight NKGE	[kg]	137/136	138/137	148/146	150/148
	Weight NKG SS	[kg]	134/133	135/134	140/138	145/143
	Weight NKGE SS	[kg]	141/140	142/141	151/149	153/151
NKG data	l ₁	[kg]	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170
	l ₃	[mm]	660	660	660	660
	b ₁	[mm]	340	340	340	340
	b ₂	[mm]	450	450	450	450
	b ₃	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	350/407	350/407	360/417	360/417
Base frame no.		4	4	4	4	
NBG data	Design		A	A	A	A
	L NBG	[mm]	246	246	274	274
	L NBG SS	[mm]	273	273	293	293
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	140	140	140	140
	G ₂	[mm]	157	157	157	157
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	265	265	265	265
	n ₂	[mm]	212	212	212	212
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	281/321	321/321	335/335	335/335
	AD ¹⁾	[mm]	110/167	110/167	120/177	120/177
	AG ¹⁾	[mm]	162/264	162/264	162/264	162/264
	LL ¹⁾	[mm]	103/260	103/260	103/260	103/260
	P	[mm]	200	200	250	250
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
A	[mm]	-	-	-	-	
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	57/63	58/64	65/73	67/75	
Weight NBG SS ¹⁾	[kg]	65/71	66/72	73/81	75/83	

1) Dimension of pump with premium range motor/built-in frequency converter.

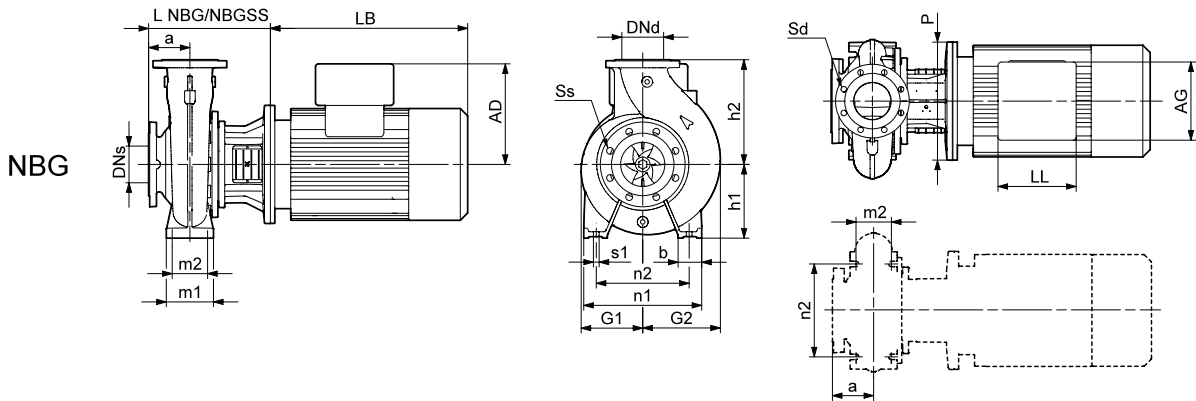
Note: For information about base frames, see page 222.

Performance curves

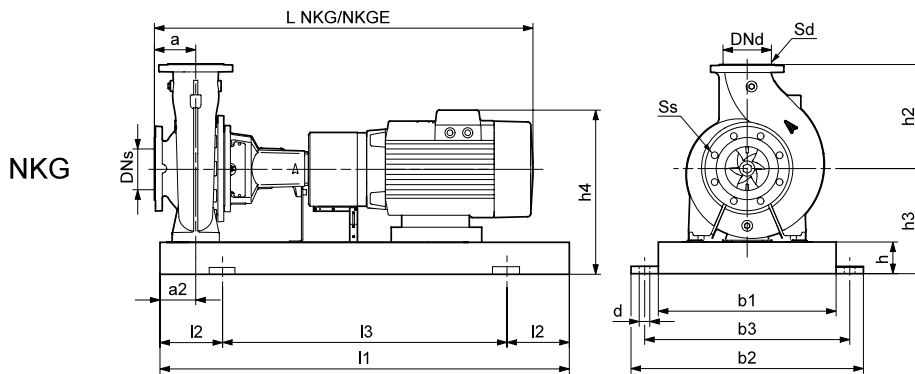
NBG, NKG 65-40-250
4-pole



TM03 5034 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 65-40-250
4-pole

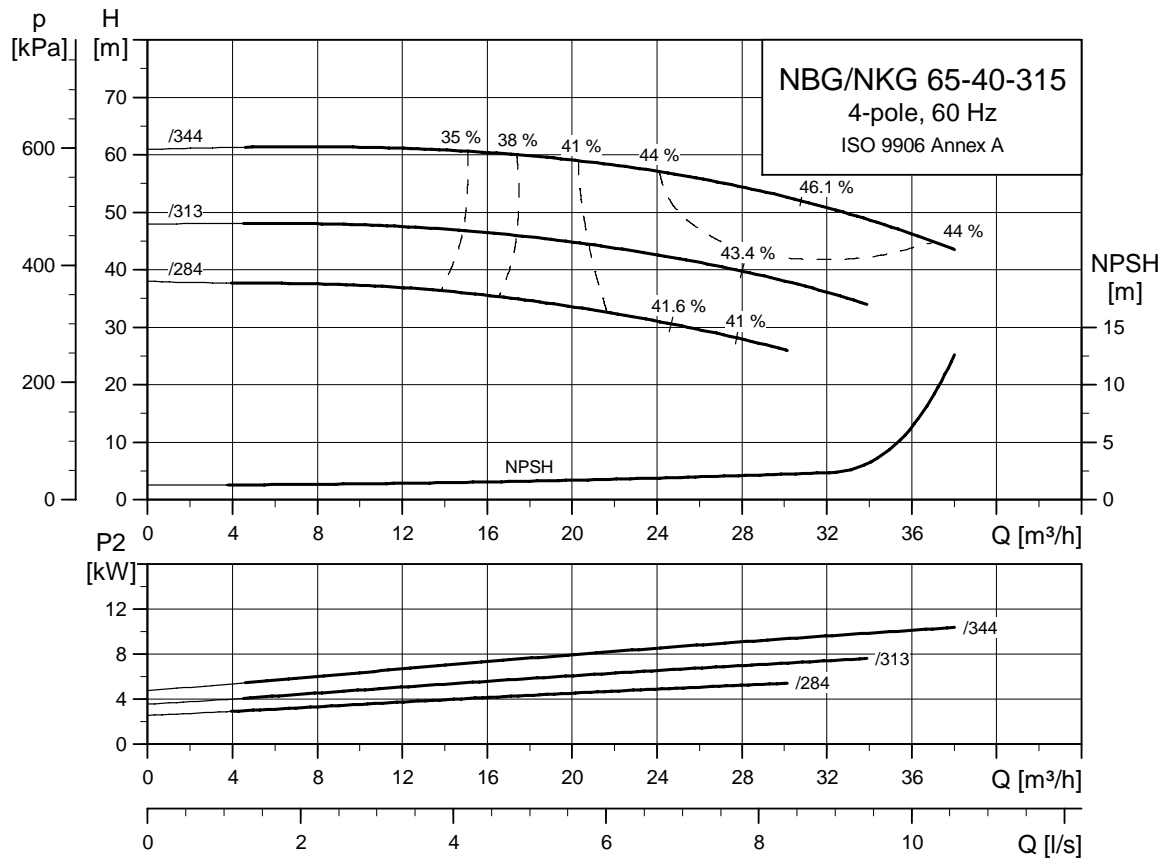
Pump type		65-40-250/207	65-40-250/225	65-40-250/246	65-40-250/260	
Motor type	Premium Motor	MG 100LB-D	MG 100LC-D	MG 112MC-D	Siemens 132S	
	E-Motor	MGE 100LB	MGE 100LC	MGE 112MC	MGE 132SC	
Common data NBG/NKG	P ₂	[kW]	2.2	3	4	5.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	65	65	65	65
	DNd	[mm]	40	40	40	40
	a	[mm]	100	100	100	100
	h ₂	[mm]	225	225	225	225
	Ss		4x19	4x19	4x19	4x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	999/1095	999/1095	1036/1132	1057/1153
	L NKGE	[mm]	999/1095	999/1095	1036/1132	1075/1171
	Weight NKG	[mm]	174/173	179/178	196/194	205/202
	Weight NKGE	[kg]	185/184	187/186	200/199	215/212
	Weight NKG SS	[kg]	180/178	185/183	201/200	211/208
	Weight NKGE SS	[kg]	191/189	193/191	206/204	221/218
NKG data	l ₁	[kg]	1120	1120	1120	1120
	l ₂	[mm]	190	190	190	190
	l ₃	[mm]	740	740	740	740
	b ₁	[mm]	380	380	380	380
	b ₂	[mm]	490	490	490	490
	b ₃	[mm]	440	440	440	440
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	260	260	260	260
	h ₄ ¹⁾	[mm]	380/437	380/437	394/448	427/448
Base frame no.		5	5	5	5	
NBG data	Design		A	A	A	A
	L NBG	[mm]	293	293	293	313
	L NBG SS	[mm]	293	293	293	313
	h ₁	[mm]	180	180	180	180
	G ₁	[mm]	164	164	164	164
	G ₂	[mm]	172	172	172	172
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	320	320	320	320
	n ₂	[mm]	250	250	250	250
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	335/335	335/335	372/372	373/391
	AD ¹⁾	[mm]	120/177	120/177	134/188	167/188
	AG ¹⁾	[mm]	162/264	162/264	202/290	140/290
	LL ¹⁾	[mm]	103/260	103/260	103/300	140/300
	P	[mm]	250	250	250	300
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
	K	[mm]	-	-	-	-
Weight NBG ¹⁾	[kg]	79/87	81/89	96/101	102/113	
Weight NBG SS ¹⁾	[kg]	84/92	86/94	101/106	107/119	

1) Dimension of pump with premium range motor/built-in frequency converter.

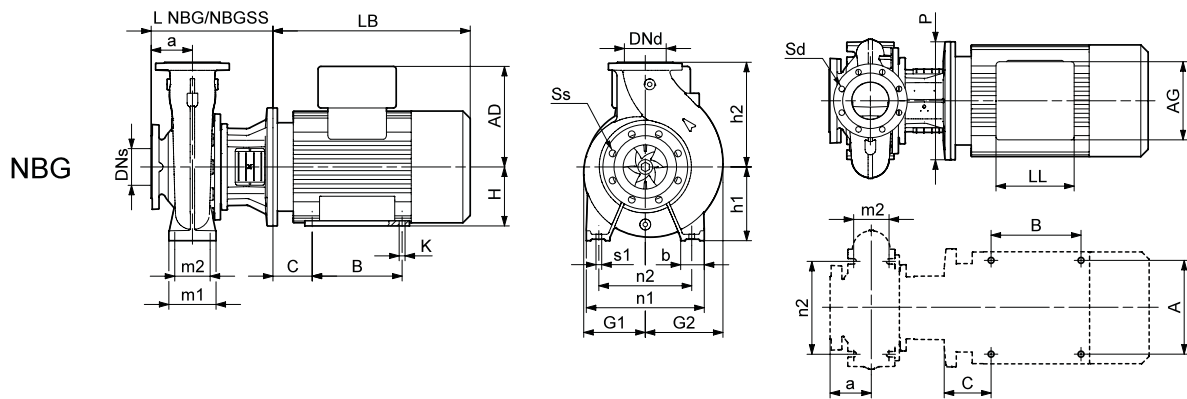
Note: For information about base frames, see page 222.

Performance curves

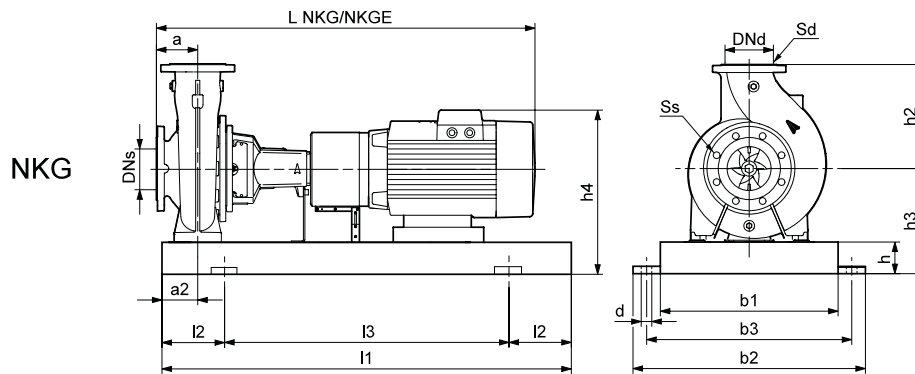
NBG, NKG 65-40-315
4-pole



TM03 5035 3406



TM03 8010 0107



TM03 8011 0107

Pump type		65-40-315/284	65-40-315/313	65-40-315/344	
Motor type	Premium Motor	Siemens 132S	Siemens 132M	Siemens 160M	
	E-Motor	MGE 132SC	MMGE 132M ³⁾	MMGE 160M	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11
	PN	[bar]	16	16	16
	DNs	[mm]	65	65	65
	DNd	[mm]	40	40	40
	a	[mm]	125	125	125
	h ₂	[mm]	250	250	250
	Ss		4x19	4x19	4x19
	Sd		4x19	4x19	4x19
Common data NKG standard/ spacer/ coupling	L NKG	[mm]	1082/1178	1120/1216	1217/1313
	L NKGE	[mm]	1100/1196	1188/1284	1188/1284
	Weight NKG	[mm]	258/255	273/270	305/300
	Weight NKGE	[kg]	268/265	325/320	356/351
	Weight NKG SS	[kg]	254/251	269/266	301/295
	Weight NKGE SS	[kg]	263/260	321/315	352/346
NKG data	l ₁	[kg]	1250	1250	1250
	l ₂	[mm]	205	205	205
	l ₃	[mm]	840	840	840
	b ₁	[mm]	430	430	430
	b ₂	[mm]	540	540	540
	b ₃	[mm]	490	490	490
	d	[mm]	24	24	24
	a ₂	[mm]	75	75	75
	h	[mm]	80	80	80
	h ₃	[mm]	280	280	280
	h ₄ ¹⁾	[mm]	447/468	447/639	477/639
Base frame no.		6	6	6	
NBG data	Design		A	A ²⁾	C ²⁾
	L NBG	[mm]	368	368	398
	L NBG SS	[mm]	368	368	398
	h ₁	[mm]	200	200	200
	G ₁	[mm]	200	200	200
	G ₂	[mm]	206	206	206
	m ₁	[mm]	125	125	125
	m ₂	[mm]	95	95	95
	n ₁	[mm]	345	345	345
	n ₂	[mm]	280	280	280
	b	[mm]	65	65	65
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	132	160
	LB ¹⁾	[mm]	373/391	411/449	478/449
	AD ¹⁾	[mm]	167/188	167/333	197/359
	AG ¹⁾	[mm]	140/290	140/246	165/296
	LL ¹⁾	[mm]	140/300	140/410	165/410
	P	[mm]	300	300	350
	C	[mm]	-	89	108
	B	[mm]	-	178	210
	A	[mm]	-	216	254
	K	[mm]	-	12	15
Weight NBG ¹⁾	[kg]	146/158	161/202	187/238	
Weight NBG SS ¹⁾	[kg]	146/158	161/202	188/239	

1) Dimension of pump with premium range motor/built-in frequency converter.

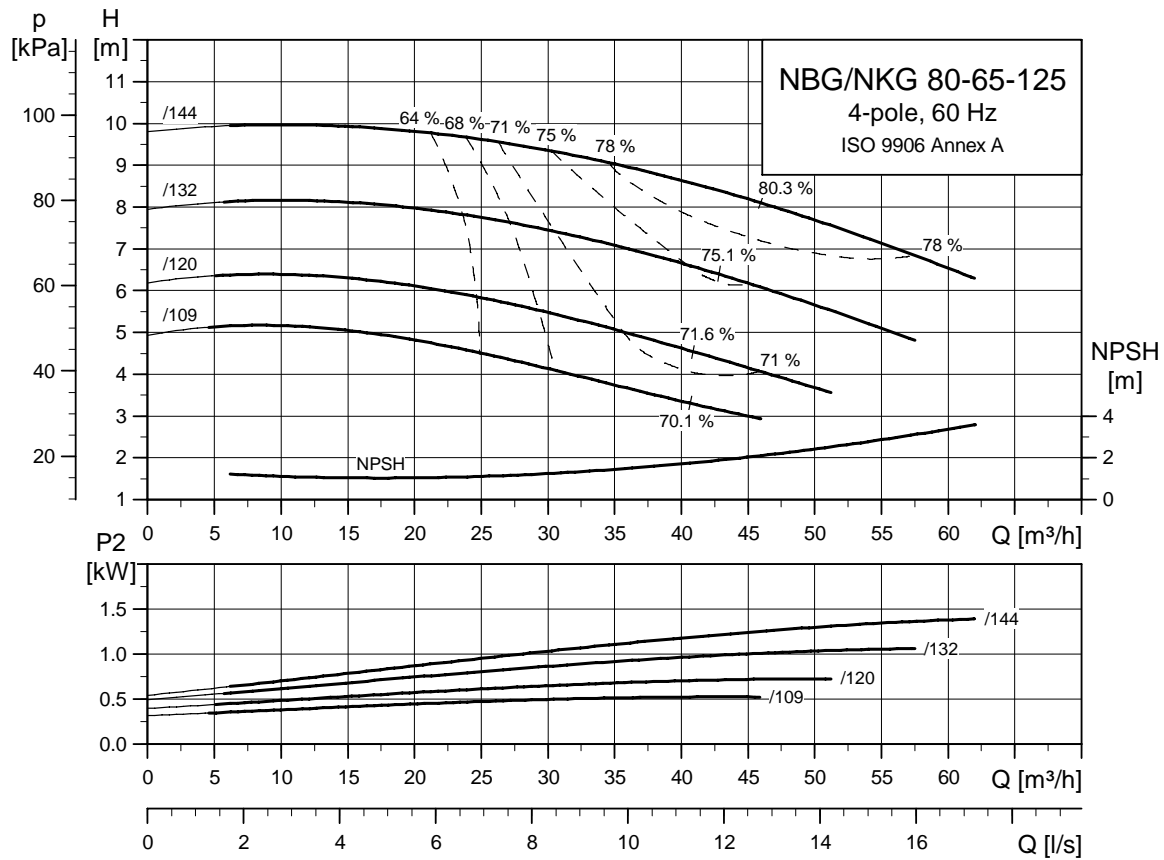
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 65-40-315/313 is fitted with an MMGE 132M motor with motor feet; NKG 65-40-315/313 is fitted with an MMGE 160M motor.

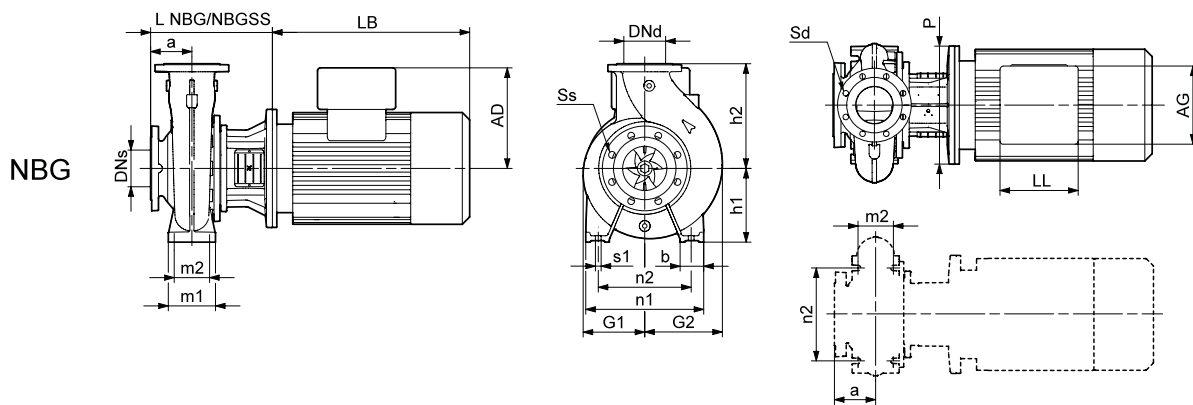
Note: For information about base frames, see page 222.

Performance curves

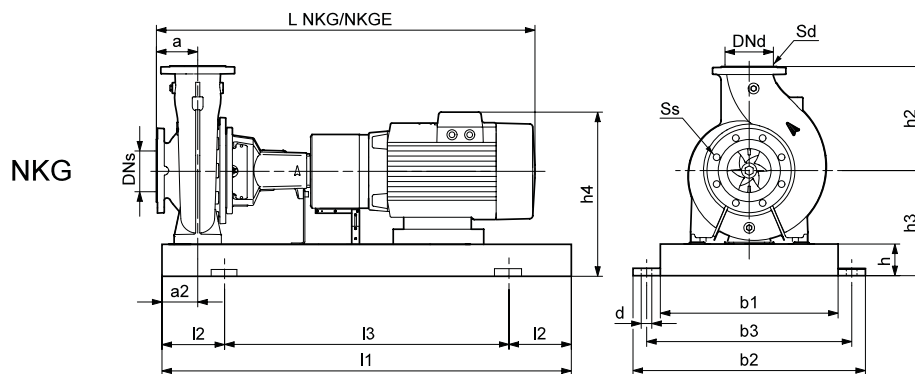
NBG, NKG 80-65-125
4-pole



TM03 5036 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 80-65-125
4-pole

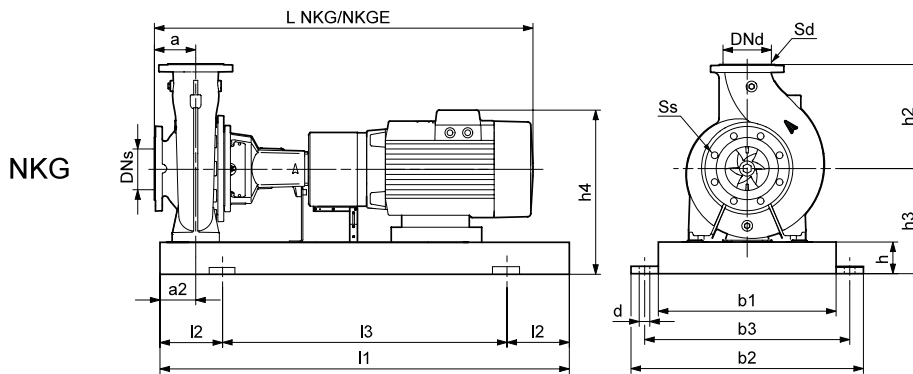
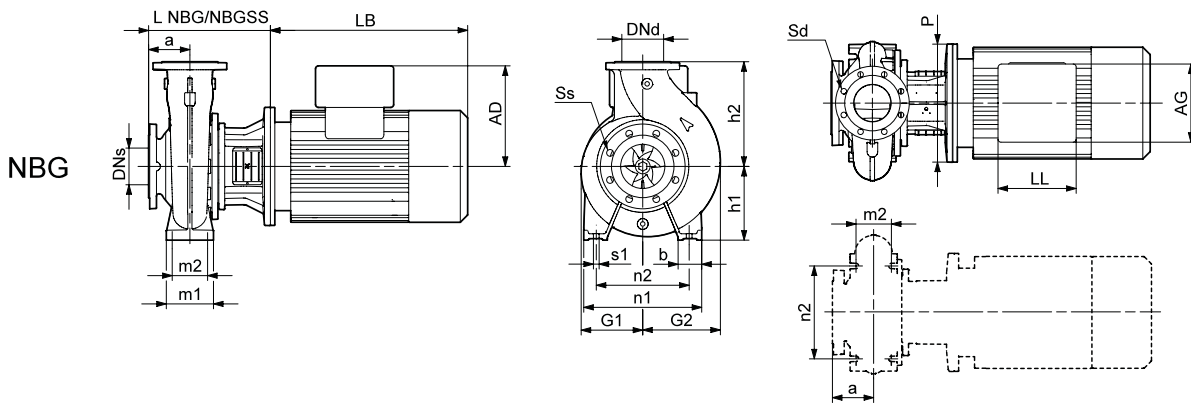
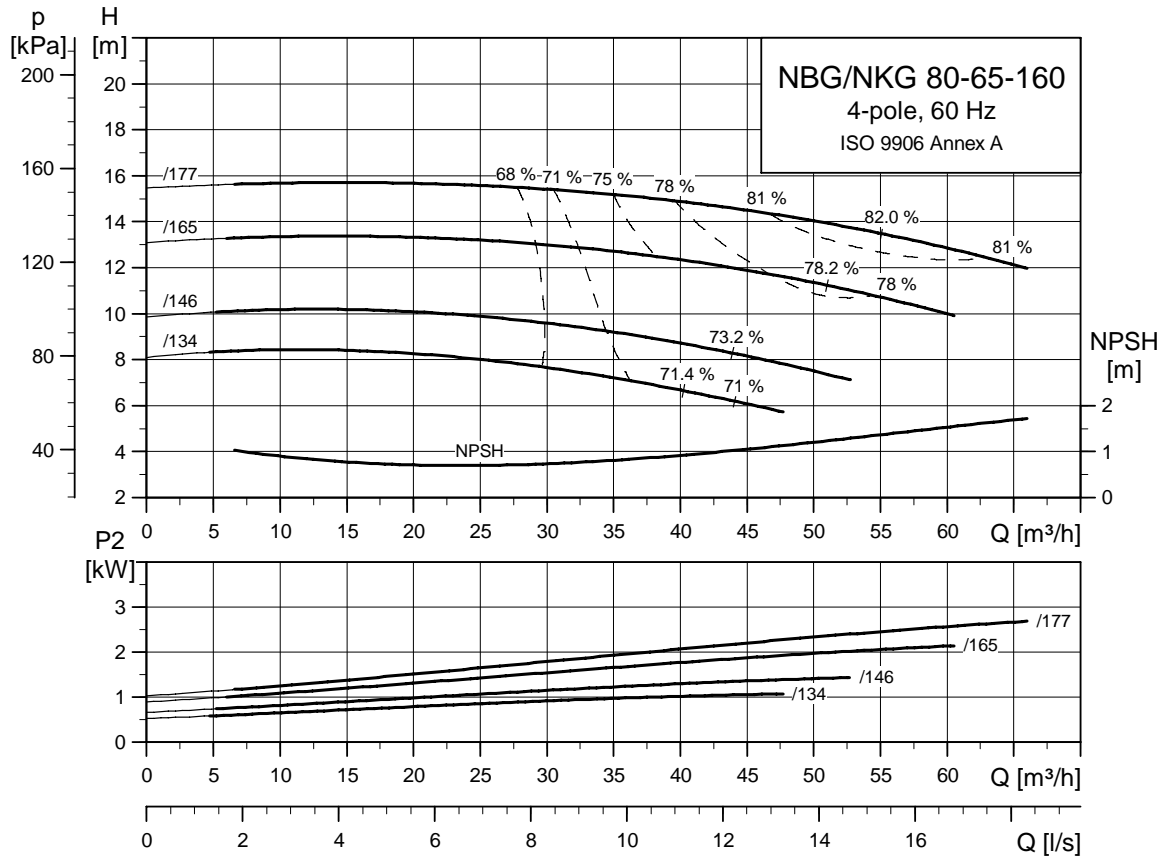
Pump type		80-65-125/109	80-65-125/120	80-65-125/132	80-65-125/144	
Motor type	Premium Motor	MG 80A-C	MG 80B-C	MG 90SB-D	MG 90LC-D	
	E-Motor	-	MGE 90SA	MGE 90SB	MGE 90LC	
Common data NBG/NKG	P ₂	[kW]	0.55	0.75	1.1	1.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	80	80	80	80
	DNd	[mm]	65	65	65	65
	a	[mm]	100	100	100	100
	h ₂	[mm]	160	160	160	160
	Ss		8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	760/856	760/856	820/916	860/956
	L NKGE	[mm]	-/-	850/946	860/956	860/956
	Weight NKG	[mm]	117/117	118/118	130/130	131/131
	Weight NKGE	[kg]	-/-	131/130	137/136	138/137
	Weight NKG SS	[kg]	117/116	118/118	131/130	132/131
	Weight NKGE SS	[kg]	-/-	132/131	138/137	139/138
NKG data	l ₁	[kg]	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170
	l ₃	[mm]	660	660	660	660
	b ₁	[mm]	340	340	340	340
	b ₂	[mm]	450	450	450	450
	b ₃	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	212	212	212	212
	h ₄ ¹⁾	[mm]	321/-	321/379	322/379	322/379
	Base frame no.		4	4	4	4
NBG data	Design		A	A	A	A
	L NBG	[mm]	246	246	246	246
	L NBG SS	[mm]	273	273	273	273
	h ₁	[mm]	132	132	132	132
	G ₁	[mm]	117	117	117	117
	G ₂	[mm]	131	131	131	131
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	240	240	240	240
	n ₂	[mm]	190	190	190	190
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	231/-	231/321	281/321	321/321
	AD ¹⁾	[mm]	109/-	109/167	110/167	110/167
	AG ¹⁾	[mm]	82/-	82/264	162/264	162/264
	LL ¹⁾	[mm]	82/-	82/260	103/260	103/260
	P	[mm]	200	200	200	200
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
	K	[mm]	-	-	-	-
Weight NBG ¹⁾	[kg]	44/-	45/56	56/62	57/63	
Weight NBG SS ¹⁾	[kg]	47/-	48/59	59/65	60/66	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 80-65-160
4-pole



TM03 5037 3406

TM03 8008 0107

TM03 8011 0107

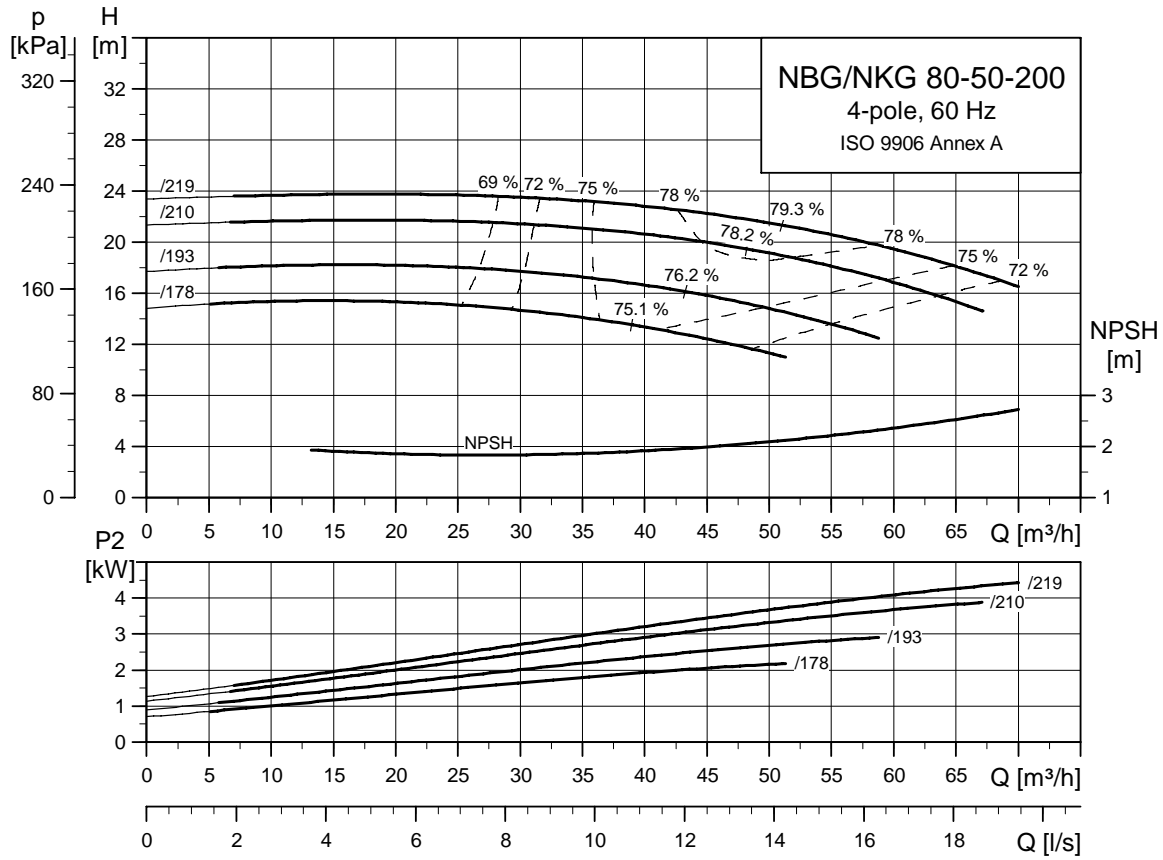
Pump type		80-65-160/134	80-65-160/146	80-65-160/165	80-65-160/177	
Motor type	Premium Motor	MG 90SB-D	MG 90LC-D	MG 100LB-D	MG 100LC-D	
	E-Motor	MGE 90SB	MGE 90LC	MGE 100LB	MGE 100LC	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2	3
	PN	[bar]	16	16	16	16
	DNs	[mm]	80	80	80	80
	DNd	[mm]	65	65	65	65
	a	[mm]	100	100	100	100
	h ₂	[mm]	180	180	180	180
	Ss		8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	820/916	860/956	884/980	884/980
	L NKGE	[mm]	860/956	860/956	884/980	884/980
	Weight NKG	[mm]	130/129	131/130	136/134	141/139
	Weight NKGE	[kg]	137/136	138/137	147/145	149/147
	Weight NKG SS	[kg]	131/130	132/131	137/135	142/140
	Weight NKGE SS	[kg]	138/137	139/138	148/146	150/148
NKG data	l ₁	[kg]	1000	1000	1000	1000
	l ₂	[mm]	170	170	170	170
	l ₃	[mm]	660	660	660	660
	b ₁	[mm]	340	340	340	340
	b ₂	[mm]	450	450	450	450
	b ₃	[mm]	400	400	400	400
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	350/407	350/407	360/417	360/417
	Base frame no.		4	4	4	4
NBG data	Design		A	A	A	A
	L NBG	[mm]	246	246	274	274
	L NBG SS	[mm]	273	273	293	293
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	125	125	125	125
	G ₂	[mm]	151	151	151	151
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	264	264	264	264
	n ₂	[mm]	212	212	212	212
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	281/321	321/321	335/335	335/335
	AD ¹⁾	[mm]	110/167	110/167	120/177	120/177
	AG ¹⁾	[mm]	162/264	162/264	162/264	162/264
	LL ¹⁾	[mm]	103/260	103/260	103/260	103/260
	P	[mm]	200	200	250	250
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
	K	[mm]	-	-	-	-
Weight NBG ¹⁾	[kg]	58/64	59/65	66/74	68/76	
Weight NBG SS ¹⁾	[kg]	62/68	63/69	70/78	72/80	

1) Dimension of pump with premium range motor/built-in frequency converter.

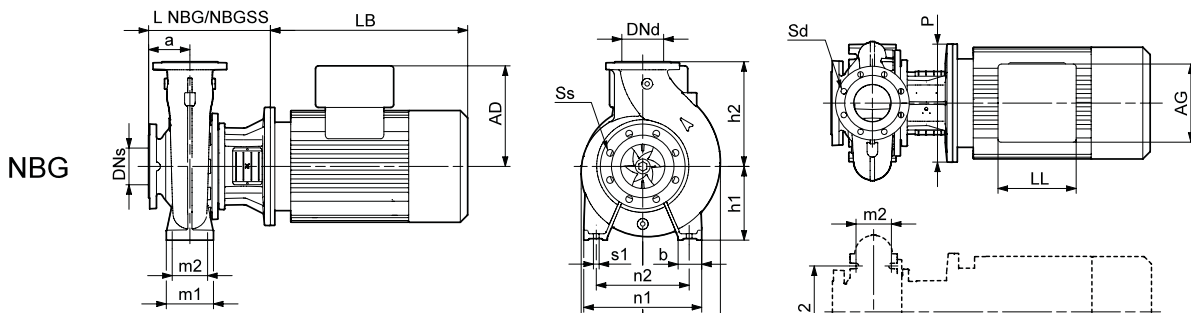
Note: For information about base frames, see page 222.

Performance curves

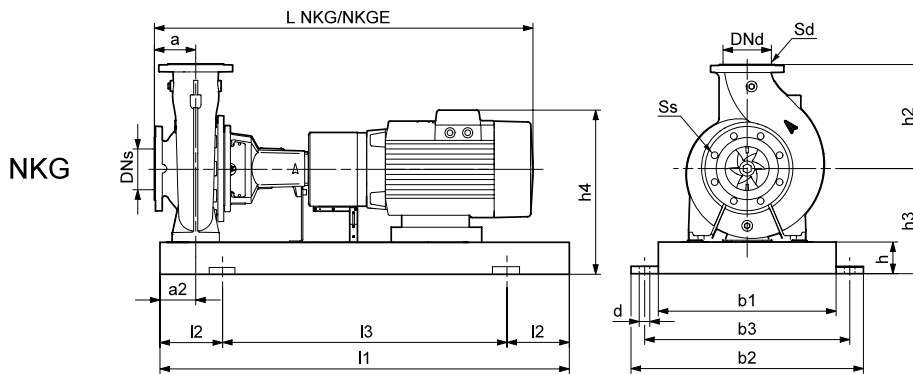
NBG, NKG 80-50-200
4-pole



TM03 5038 3406



TM03 8008 0107



TM03 8011 0107

Technical data

NBG, NKG 80-50-200
4-pole

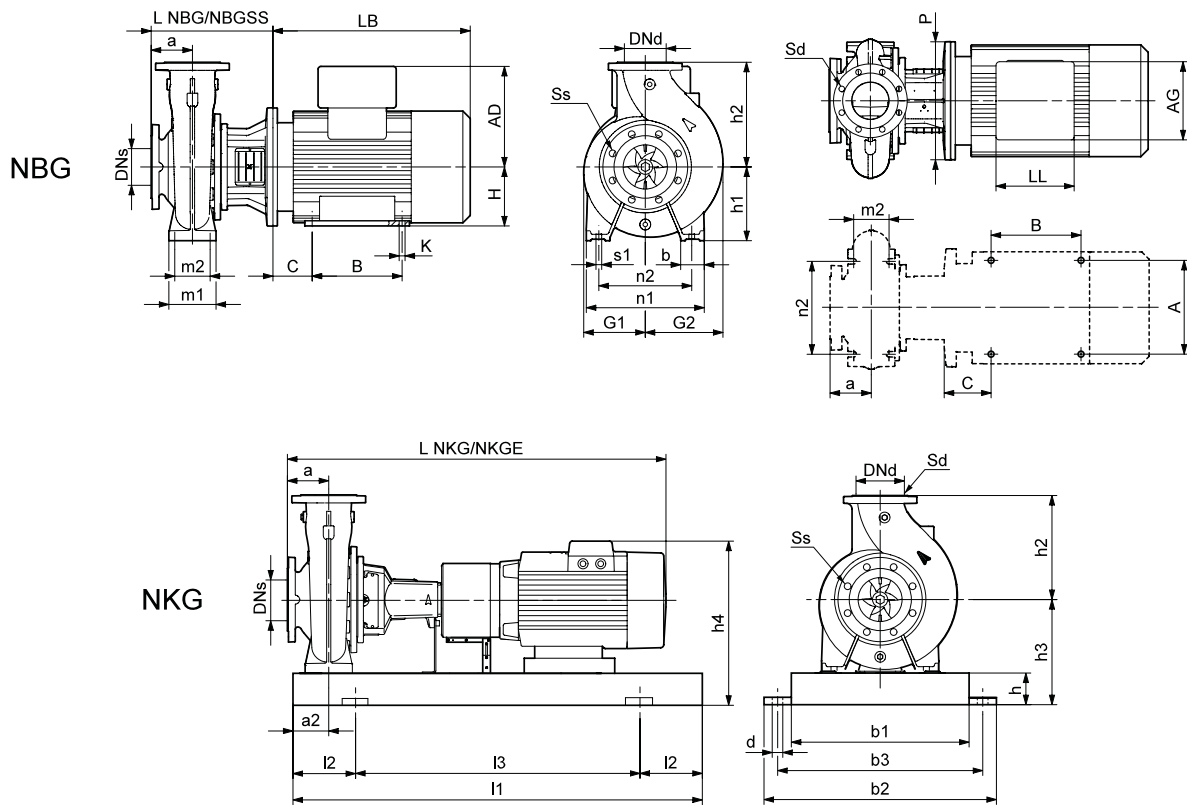
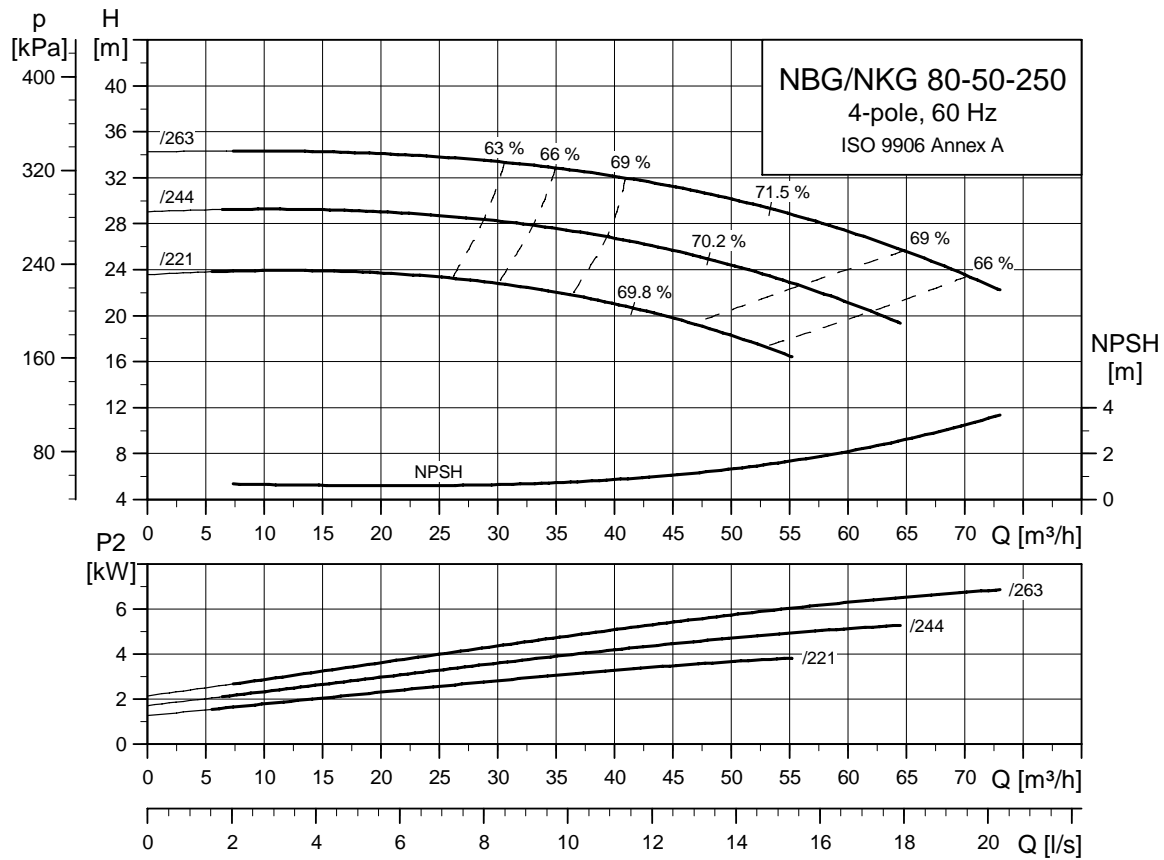
Pump type		80-50-200/178	80-50-200/193	80-50-200/210	80-50-200/219	
Motor type	Premium Motor	MG 100LB-D	MG 100LC-D	MG 112MC-D	Siemens 132S	
	E-Motor	MGE 100LB	MGE 100LC	MGE 112MC	MGE 132SC	
Common data NBG/NKG	P ₂	[kW]	2.2	3	4	5.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	80	80	80	80
	DNd	[mm]	50	50	50	50
	a	[mm]	100	100	100	100
	h ₂	[mm]	200	200	200	200
	Ss		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	Sd		4x19	4x19	4x19	4x19
	L NKG	[mm]	884/980	884/980	921/1017	948/1038
	L NKGE	[mm]	884/980	884/980	921/1017	966/1056
	Weight NKG	[mm]	142/139	147/144	169/167	181/178
	Weight NKGE	[kg]	153/150	155/152	174/172	191/188
	Weight NKG SS	[kg]	143/141	148/146	170/168	182/179
NKG data	Weight NKGE SS	[kg]	154/152	156/154	175/173	192/189
	l ₁	[kg]	1000	1000	1000	1120
	l ₂	[mm]	170	170	170	190
	l ₃	[mm]	660	660	660	740
	b ₁	[mm]	340	340	340	380
	b ₂	[mm]	450	450	450	490
	b ₃	[mm]	400	400	400	440
	d	[mm]	24	24	24	24
	a ₂	[mm]	60	60	60	60
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	360/417	360/417	374/428	407/428
	Base frame no.		4	4	4	5
NBG data	Design		A	A	A	A
	L NBG	[mm]	274	274	274	313
	L NBG SS	[mm]	293	293	293	313
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	142	142	142	142
	G ₂	[mm]	163	163	163	163
	m ₁	[mm]	100	100	100	100
	m ₂	[mm]	70	70	70	70
	n ₁	[mm]	265	265	265	265
	n ₂	[mm]	212	212	212	212
	b	[mm]	50	50	50	50
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	335/335	335/335	372/372	373/391
	AD ¹⁾	[mm]	120/177	120/177	134/188	167/188
	AG ¹⁾	[mm]	162/264	162/264	202/290	140/290
	LL ¹⁾	[mm]	103/260	103/260	103/300	140/300
	P	[mm]	250	250	250	300
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
	A	[mm]	-	-	-	-
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	70/78	72/80	87/92	94/106	
Weight NBG SS ¹⁾	[kg]	76/84	78/86	93/97	98/110	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 80-50-250
4-pole



TM03 5039 3406

TM03 8010 0107

TM03 8011 0107

Technical data

NBG, NKG 80-50-250
4-pole

Pump type		80-50-250/221	80-50-250/244	80-50-250/263	
Motor type	Premium Motor	MG 112MC-D	Siemens 132S	Siemens 132M	
	E-Motor	MGE 112MC	MGE 132SC	MMGE 132M ³⁾	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5
	PN	[bar]	16	16	16
	DNs	[mm]	80	80	80
	DNd	[mm]	50	50	50
	a	[mm]	125	125	125
	h ₂	[mm]	225	225	225
	Ss		8x19	8x19	8x19
Sd		4x19	4x19	4x19	
Common data NKG standard/ spacer coupling	L NKG	[mm]	1061/1157	1082/1178	1120/1216
	L NKGE	[mm]	1061/1157	1100/1196	1188/1284
	Weight NKG	[mm]	205/204	215/212	230/227
	Weight NKGE	[kg]	210/208	225/222	282/277
	Weight NKG SS	[kg]	210/208	219/216	234/231
NKG data	Weight NKGE SS	[kg]	214/212	229/226	286/281
	l ₁	[kg]	1120	1120	1120
	l ₂	[mm]	190	190	190
	l ₃	[mm]	740	740	740
	b ₁	[mm]	380	380	380
	b ₂	[mm]	490	490	490
	b ₃	[mm]	440	440	440
	d	[mm]	24	24	24
	a ₂	[mm]	75	75	75
	h	[mm]	80	80	80
	h ₃	[mm]	260	260	260
h ₄ ¹⁾	[mm]	394/448	427/448	427/619	
Base frame no.		5	5	5	
NBG data	Design		A	A	A ²⁾
	L NBG	[mm]	318	338	338
	L NBG SS	[mm]	318	338	338
	h ₁	[mm]	180	180	180
	G ₁	[mm]	164	164	164
	G ₂	[mm]	180	180	180
	m ₁	[mm]	125	125	125
	m ₂	[mm]	95	95	95
	n ₁	[mm]	320	320	320
	n ₂	[mm]	250	250	250
	b	[mm]	65	65	65
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	-	132
	LB ¹⁾	[mm]	372/372	373/391	411/449
	AD ¹⁾	[mm]	134/188	167/188	167/333
	AG ¹⁾	[mm]	202/290	140/290	140/246
	LL ¹⁾	[mm]	103/300	140/300	140/410
	P	[mm]	250	300	300
	C	[mm]	-	-	89
	B	[mm]	-	-	178
A	[mm]	-	-	216	
K	[mm]	-	-	12	
Weight NBG ¹⁾	[kg]	106/110	111/123	126/167	
Weight NBG SS ¹⁾	[kg]	109/114	115/127	130/171	

1) Dimension of pump with premium range motor/built-in frequency converter.

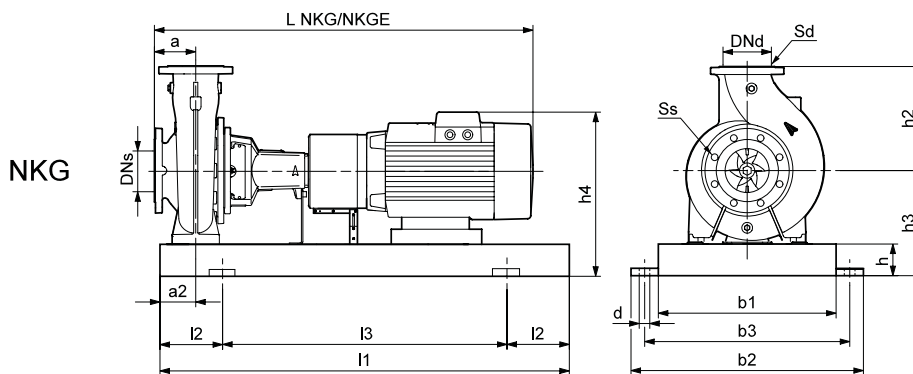
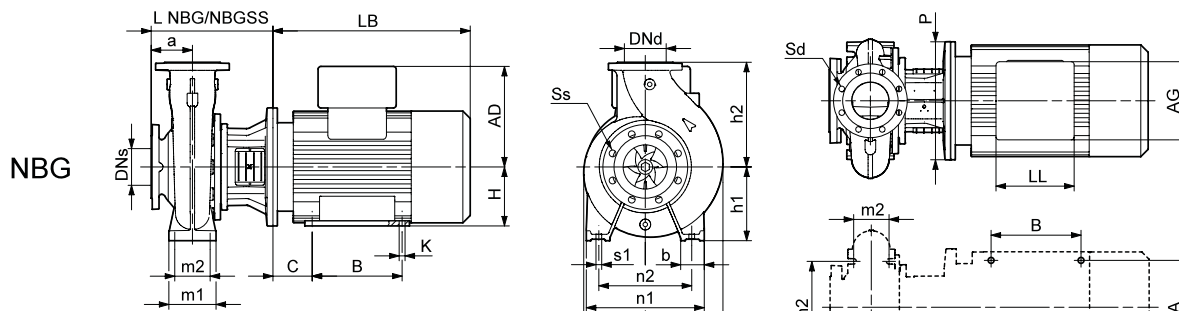
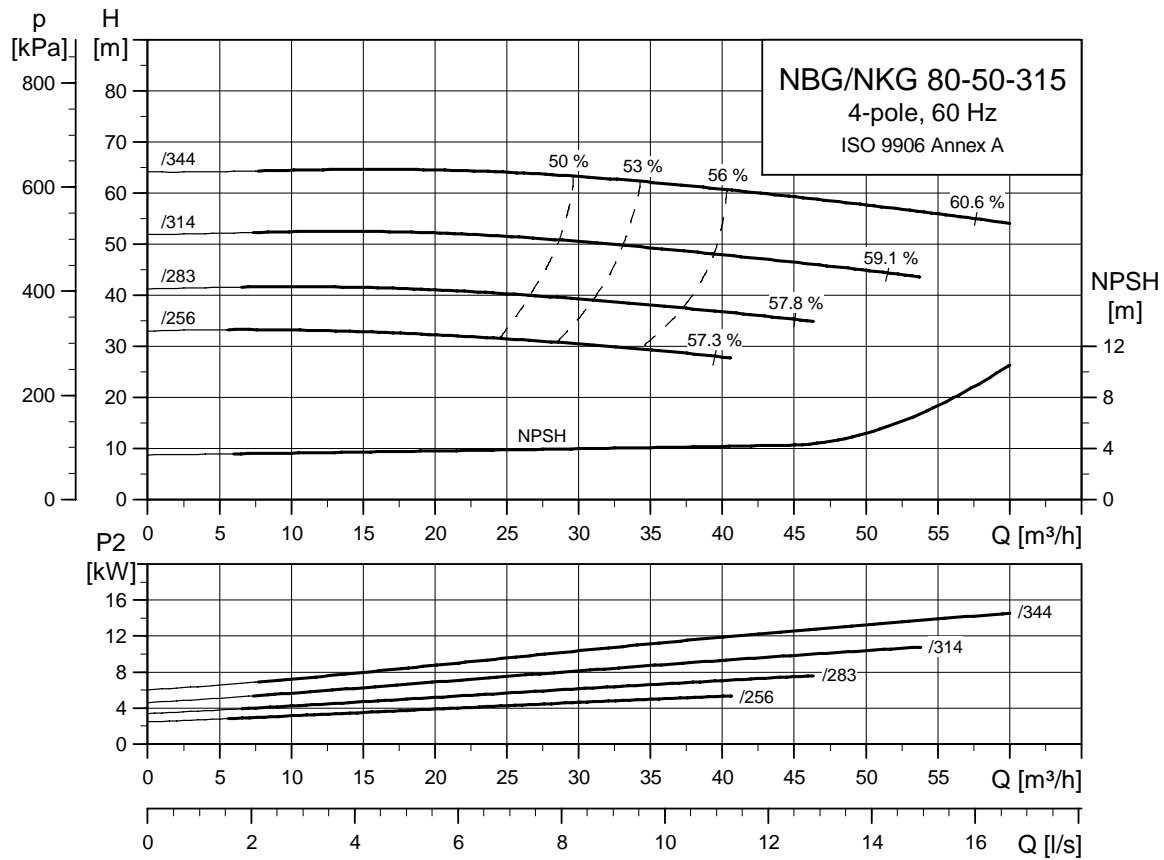
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 80-50-250/263 is fitted with an MMGE 132M motor with motor feet; NKG 80-50-250/263 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 80-50-315
4-pole



TM03 5040 3406

TM03 8010 0107

TM03 8011 0107

Pump type		80-50-315/256	80-50-315/283	80-50-315/314	80-50-315/344	
Motor type	Premium Motor	Siemens 132S	Siemens 132M	Siemens 160M	Siemens 160L	
	E-Motor	MGE 132SC	MMGE 132M ³⁾	MMGE 160M	MMGE 160L	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15
	PN	[bar]	16	16	16	16
	DNs	[mm]	80	80	80	80
	DNd	[mm]	50	50	50	50
	a	[mm]	125	125	125	125
	h ₂	[mm]	280	280	280	280
	Ss		8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer/ coupling	L NKG	[mm]	1082/1178	1120/1216	1217/1313	1257/1353
	L NKGE	[mm]	1100/1196	1188/1284	1188/1284	1238/1334
	Weight NKG	[mm]	266/263	281/278	305/299	331/325
	Weight NKGE	[kg]	275/272	325/319	356/350	374/368
	Weight NKG SS	[kg]	259/256	274/271	298/293	324/319
	Weight NKGE SS	[kg]	269/266	318/313	349/344	367/362
NKG data	l ₁	[kg]	1250	1250	1250	1250
	l ₂	[mm]	205	205	205	205
	l ₃	[mm]	840	840	840	840
	b ₁	[mm]	430	430	430	430
	b ₂	[mm]	540	540	540	540
	b ₃	[mm]	490	490	490	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	305	305	305	305
	h ₄ ¹⁾	[mm]	472/493	472/664	502/664	502/682
Base frame no.		6	6	6	6	
NBG data	Design		A	A ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	368	368	398	398
	L NBG SS	[mm]	368	368	398	398
	h ₁	[mm]	225	225	225	225
	G ₁	[mm]	203	203	203	203
	G ₂	[mm]	214	214	214	214
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	345	345	345	345
	n ₂	[mm]	280	280	280	280
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	132	160	160
	LB ¹⁾	[mm]	373/391	411/449	478/449	518/499
	AD ¹⁾	[mm]	167/188	167/333	197/359	197/377
	AG ¹⁾	[mm]	140/290	140/246	165/296	165/296
	LL ¹⁾	[mm]	140/300	140/410	165/410	165/410
	P	[mm]	300	300	350	350
	C	[mm]	-	89	108	108
	B	[mm]	-	178	210	254
	A	[mm]	-	216	254	254
K	[mm]	-	12	15	15	
Weight NBG ¹⁾	[kg]	153/165	168/209	194/245	220/263	
Weight NBG SS ¹⁾	[kg]	151/163	166/207	194/245	220/263	

1) Dimension of pump with premium range motor/built-in frequency converter.

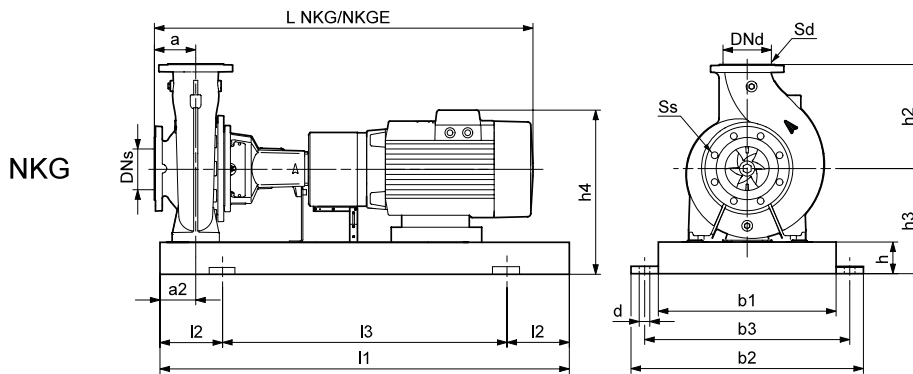
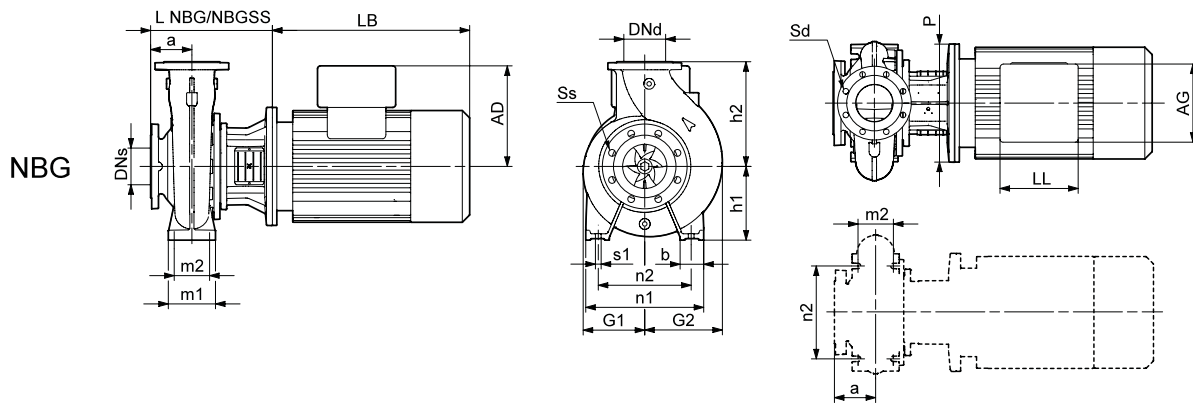
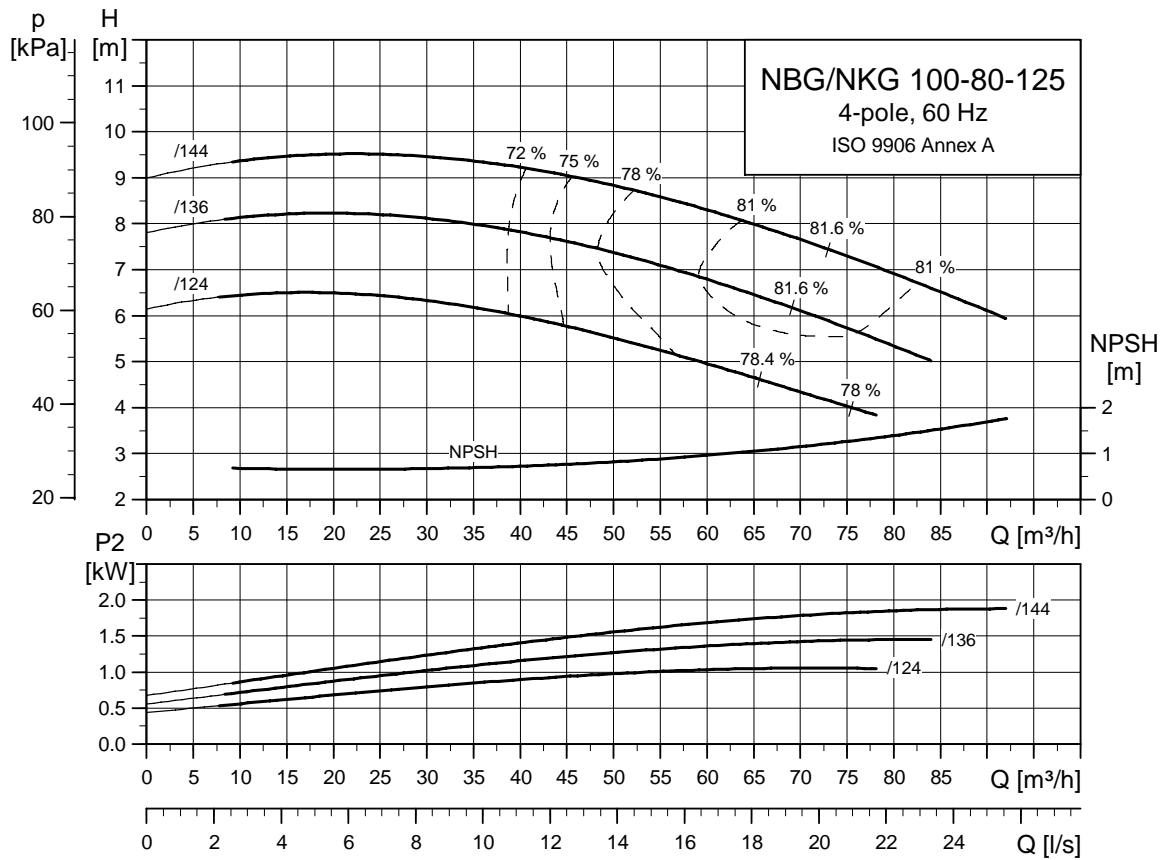
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 80-50-315/283 is fitted with an MMGE 132M motor with motor feet; NKG 80-50-315/283 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 100-80-125
4-pole



TM03 5041 3406

TM03 8008 0107

TM03 8011 0107

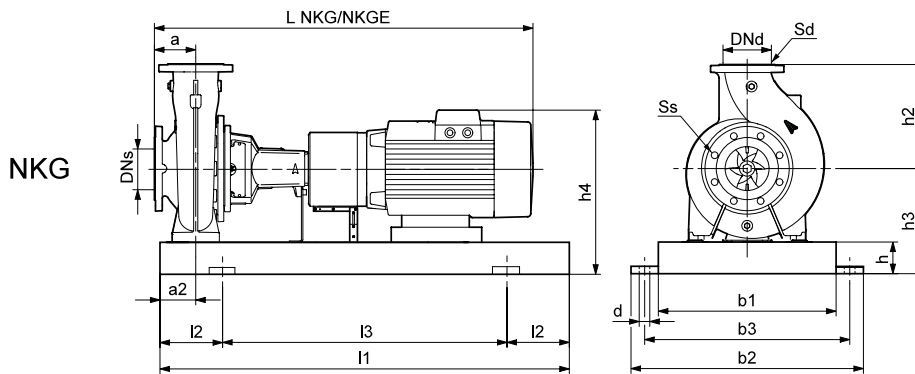
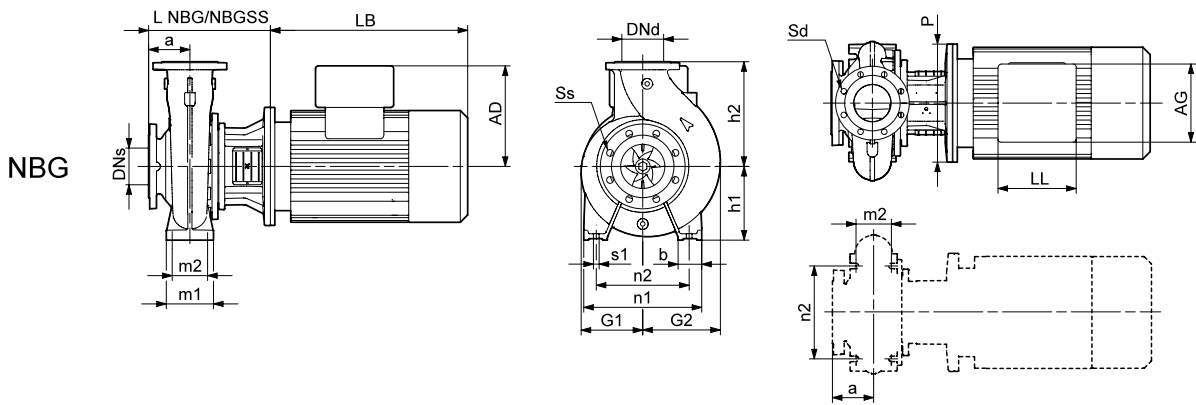
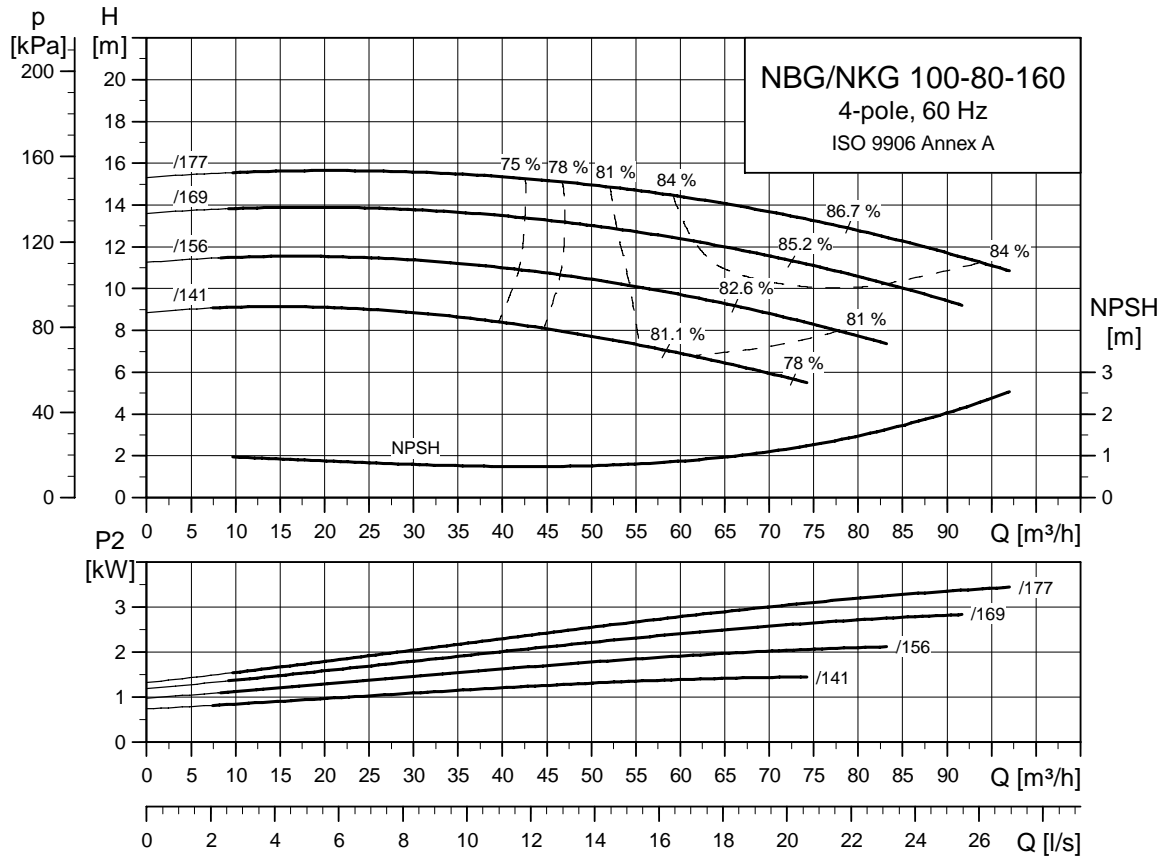
Pump type		100-80-125/124	100-80-125/136	100-80-125/144	
Motor type	Premium Motor	MG 90SB-D	MG 90LC-D	MG 100LB-D	
	E-Motor	MGE 90SB	MGE 90LC	MGE 100LB	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2
	PN	[bar]	16	16	16
	DNs	[mm]	100	100	100
	DNd	[mm]	80	80	80
	a	[mm]	100	100	100
	h ₂	[mm]	180	180	180
	Ss		8x19	8x19	8x19
Common data NKG standard/ spacer coupling	Sd		8x19	8x19	
	L NKG	[mm]	820/916	860/956	884/980
	L NKGE	[mm]	860/956	860/956	884/980
	Weight NKG	[mm]	132/132	133/133	138/136
	Weight NKGE	[kg]	139/138	140/139	149/147
	Weight NKG SS	[kg]	133/132	134/133	139/137
NKG data	Weight NKGE SS	[kg]	139/139	140/140	150/148
	l ₁	[kg]	1000	1000	1000
	l ₂	[mm]	170	170	170
	l ₃	[mm]	660	660	660
	b ₁	[mm]	340	340	340
	b ₂	[mm]	450	450	450
	b ₃	[mm]	400	400	400
	d	[mm]	24	24	24
	a ₂	[mm]	75	75	75
	h	[mm]	80	80	80
	h ₃	[mm]	240	240	240
NBG data	h ₄ ¹⁾	[mm]	350/407	350/407	360/417
	Base frame no.		4	4	4
	Design		A	A	A
	L NBG	[mm]	246	246	274
	L NBG SS	[mm]	273	273	293
	h ₁	[mm]	160	160	160
	G ₁	[mm]	117	117	117
	G ₂	[mm]	146	146	146
	m ₁	[mm]	125	125	125
	m ₂	[mm]	95	95	95
	n ₁	[mm]	280	280	280
	n ₂	[mm]	212	212	212
	b	[mm]	65	65	65
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	-	-
	LB ¹⁾	[mm]	281/321	321/321	335/335
	AD ¹⁾	[mm]	110/167	110/167	120/177
	AG ¹⁾	[mm]	162/264	162/264	162/264
	LL ¹⁾	[mm]	103/260	103/260	103/260
	P	[mm]	200	200	250
C	[mm]	-	-	-	
B	[mm]	-	-	-	
A	[mm]	-	-	-	
K	[mm]	-	-	-	
Weight NBG ¹⁾	[kg]	60/67	61/68	68/76	
Weight NBG SS ¹⁾	[kg]	63/70	64/71	72/80	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 238.

Performance curves

NBG, NKG 100-80-160
4-pole



TM03 5042 3406

TM03 8008 0107

TM03 8011 0107

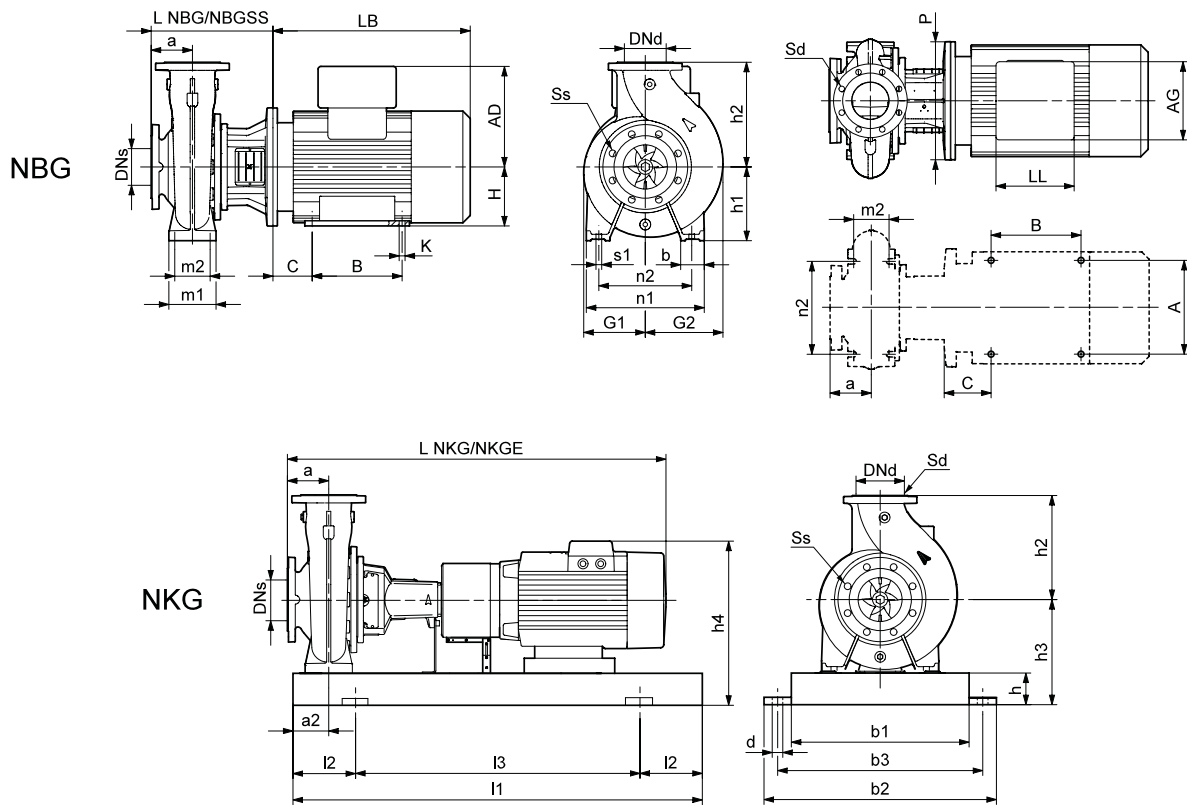
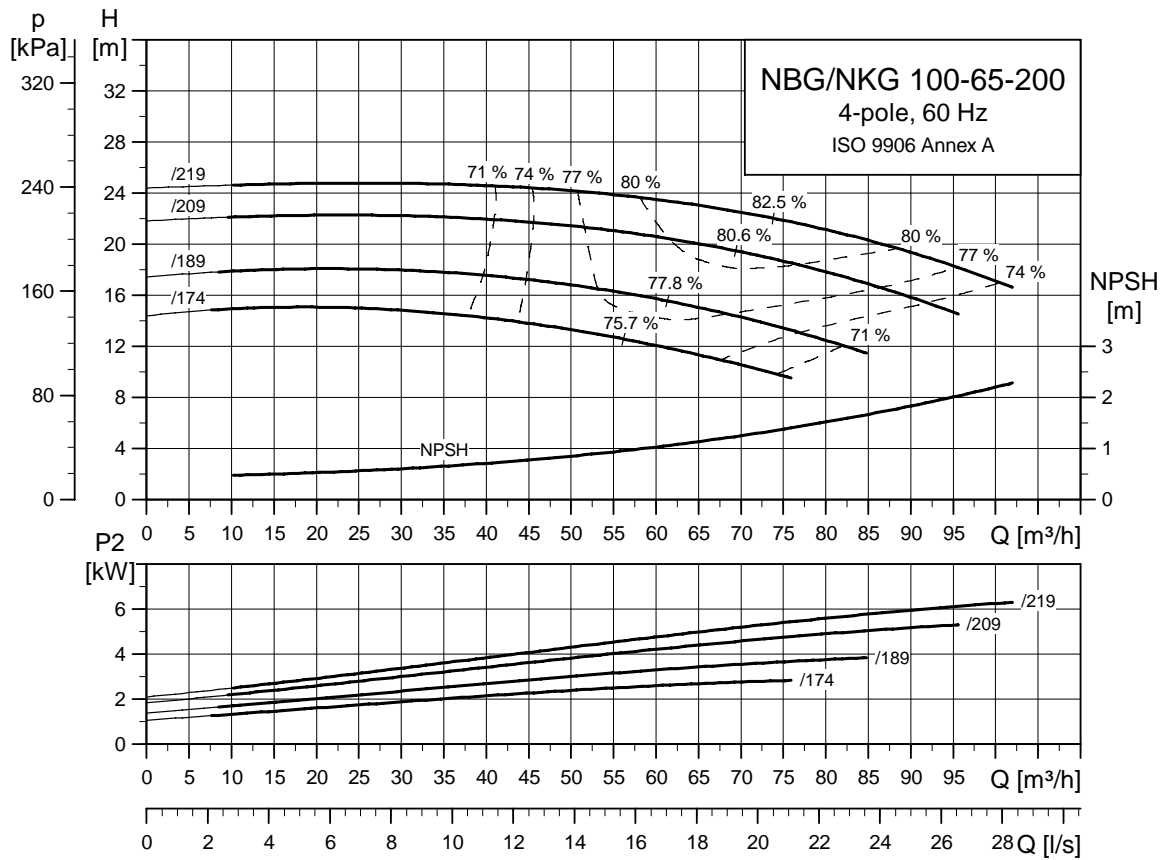
Pump type		100-80-160/141	100-80-160/156	100-80-160/169	100-80-160/177	
Motor type	Premium Motor	MG 90LC-D	MG 100LB-D	MG 100LC-D	MG 112MC-D	
	E-Motor	MGE 90LC	MGE 100LB	MGE 100LC	MGE 112MC	
Common data NBG/NKG	P ₂	[kW]	1.5	2.2	3	4
	PN	[bar]	16	16	16	16
	DNs	[mm]	100	100	100	100
	DNd	[mm]	80	80	80	80
	a	[mm]	100	100	100	100
	h ₂	[mm]	200	200	200	200
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	975/1071	999/1095	999/1095	1036/1132
	L NKGE	[mm]	975/1071	999/1095	999/1095	1036/1132
	Weight NKG	[mm]	152/151	170/168	175/173	198/196
	Weight NKGE	[kg]	159/158	181/179	183/181	202/200
	Weight NKG SS	[kg]	153/152	170/169	175/174	198/196
	Weight NKGE SS	[kg]	159/158	181/180	183/182	203/201
NKG data	l ₁	[kg]	1000	1120	1120	1120
	l ₂	[mm]	170	190	190	190
	l ₃	[mm]	660	740	740	740
	b ₁	[mm]	340	380	380	380
	b ₂	[mm]	450	490	490	490
	b ₃	[mm]	400	440	440	440
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	240	240	240	240
	h ₄ ¹⁾	[mm]	350/407	360/417	360/417	374/428
Base frame no.		4	5	5	5	
NBG data	Design		A	A	A	A
	L NBG	[mm]	273	293	293	293
	L NBG SS	[mm]	273	293	293	293
	h ₁	[mm]	160	160	160	160
	G ₁	[mm]	127	127	127	127
	G ₂	[mm]	161	161	161	161
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	280	280	280	280
	n ₂	[mm]	212	212	212	212
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	-
	LB ¹⁾	[mm]	321/321	335/335	335/335	372/372
	AD ¹⁾	[mm]	110/167	120/177	120/177	134/188
	AG ¹⁾	[mm]	162/264	162/264	162/264	202/290
	LL ¹⁾	[mm]	103/260	103/260	103/260	103/300
	P	[mm]	200	250	250	250
	C	[mm]	-	-	-	-
	B	[mm]	-	-	-	-
A	[mm]	-	-	-	-	
K	[mm]	-	-	-	-	
Weight NBG ¹⁾	[kg]	68/75	76/84	78/86	93/97	
Weight NBG SS ¹⁾	[kg]	68/75	76/84	78/86	93/97	

1) Dimension of pump with premium range motor/built-in frequency converter.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 100-65-200
4-pole



TM03 5043 3406

TM03 8010 0107

TM03 8011 0107

Pump type		100-65-200/174	100-65-200/189	100-65-200/209	100-65-200/219	
Motor type	Premium Motor	MG 100LC-D	MG 112MC-D	Siemens 132S	Siemens 132M	
	E-Motor	MGE 100LC	MGE 112MC	MGE 132SC	MMGE 132M ³⁾	
Common data NBG/NKG	P ₂	[kW]	3	4	5.5	7.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	100	100	100	100
	DNd	[mm]	65	65	65	65
	a	[mm]	100	100	100	100
	h ₂	[mm]	225	225	225	225
	Ss		8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	999/1135	1036/1172	1057/1193	1095/1231
	L NKGE	[mm]	999/1135	1036/1172	1075/1211	1163/1299
	Weight NKG	[mm]	184/182	201/199	210/207	238/235
	Weight NKGE	[kg]	192/190	205/203	220/217	277/272
	Weight NKG SS	[kg]	187/185	204/202	213/210	241/238
	Weight NKGE SS	[kg]	195/193	208/206	223/220	280/275
NKG data	l ₁	[kg]	1120	1120	1120	1250
	l ₂	[mm]	190	190	190	205
	l ₃	[mm]	740	740	740	840
	b ₁	[mm]	380	380	380	430
	b ₂	[mm]	490	490	490	540
	b ₃	[mm]	440	440	440	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	260	260	260	260
	h ₄ ¹⁾	[mm]	380/437	394/448	427/448	427/619
Base frame no.		5	5	5	6	
NBG data	Design		A	A	A	A ²⁾
	L NBG	[mm]	293	293	313	313
	L NBG SS	[mm]	293	293	313	313
	h ₁	[mm]	180	180	180	180
	G ₁	[mm]	149	149	149	149
	G ₂	[mm]	173	173	173	173
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	320	320	320	320
	n ₂	[mm]	250	250	250	250
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	-	132
	LB ¹⁾	[mm]	335/335	372/372	373/391	411/449
	AD ¹⁾	[mm]	120/177	134/188	167/188	167/333
	AG ¹⁾	[mm]	162/264	202/290	140/290	140/246
	LL ¹⁾	[mm]	103/260	103/300	140/300	140/410
	P	[mm]	250	250	300	300
	C	[mm]	-	-	-	89
	B	[mm]	-	-	-	178
	A	[mm]	-	-	-	216
K	[mm]	-	-	-	12	
Weight NBG ¹⁾	[kg]	86/94	101/105	106/118	121/162	
Weight NBG SS ¹⁾	[kg]	88/96	103/108	109/121	124/165	

1) Dimension of pump with premium range motor/built-in frequency converter.

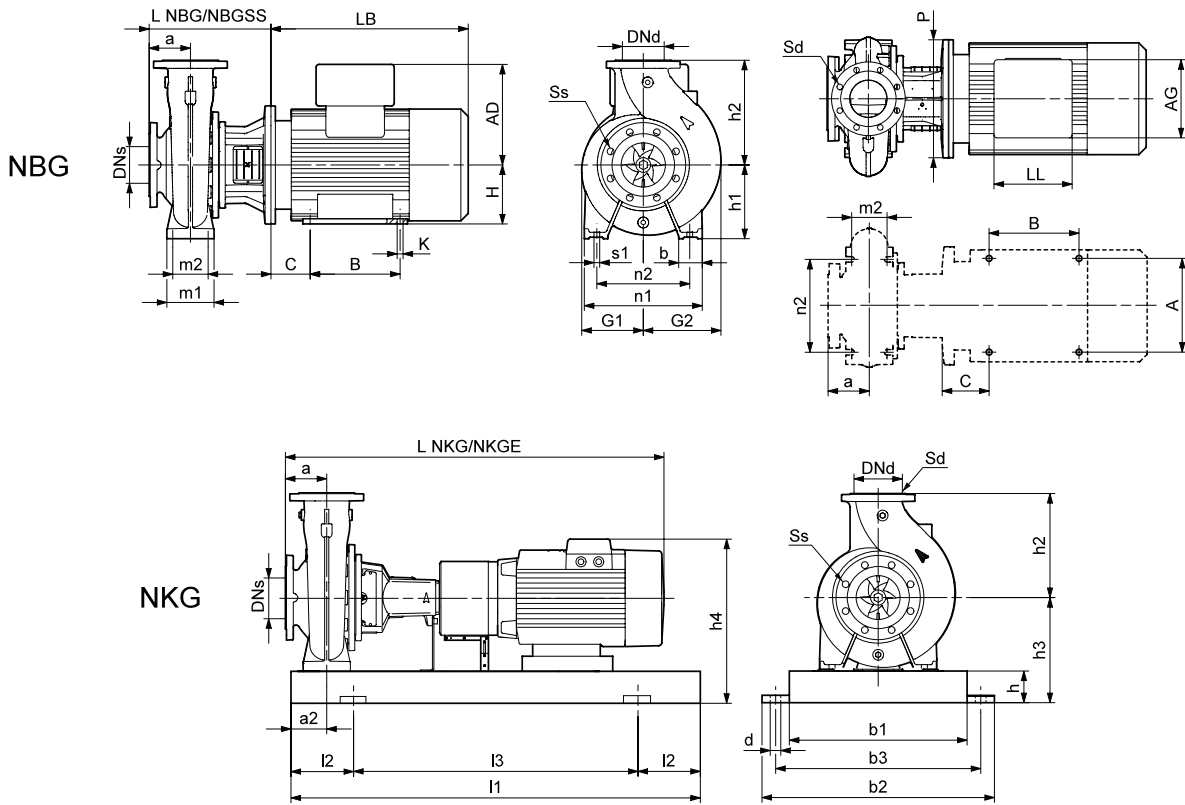
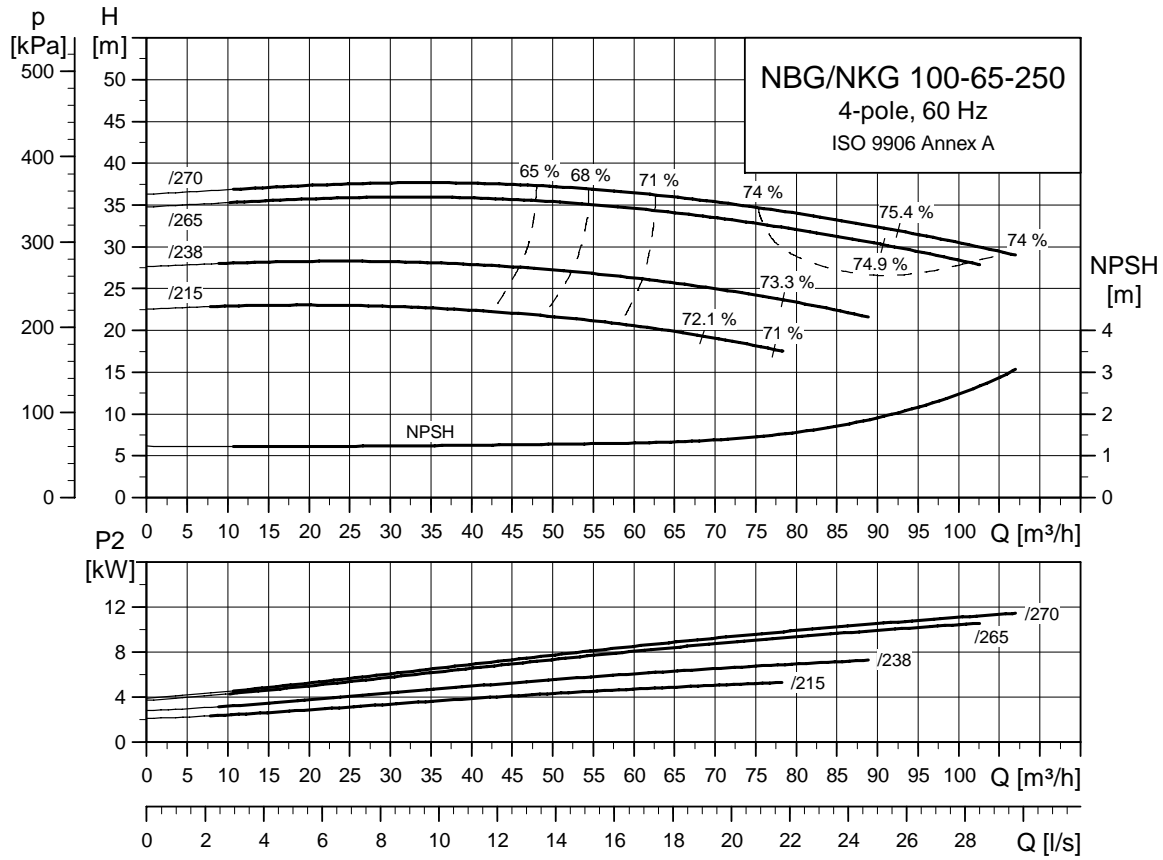
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 100-65-200/219 is fitted with an MMGE 132M motor with motor feet; NKGE 100-65-200/219 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 100-65-250
4-pole



TM03 5044 3406

TM03 8010 0107

TM03 8011 0107

Pump type		100-65-250/215	100-65-250/238	100-65-250/265	100-65-250/270	
Motor type	Premium Motor	Siemens 132S	Siemens 132M	Siemens 160M	Siemens 160L	
	E-Motor	MGE 132SC	MMGE 132M ³⁾	MMGE 160M	MMGE 160L	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15
	PN	[bar]	16	16	16	16
	DNs	[mm]	100	100	100	100
	DNd	[mm]	65	65	65	65
	a	[mm]	125	125	125	125
	h ₂	[mm]	250	250	250	250
	Ss		8x19	8x19	8x19	8x19
Sd		4x19	4x19	4x19	4x19	
Common data NKG standard/ spacer coupling	L NKG	[mm]	1082/1218	1120/1256	1217/1353	1257/1393
	L NKGE	[mm]	1100/1236	1188/1324	1188/1324	1238/1374
	Weight NKG	[mm]	251/248	266/263	298/292	354/348
	Weight NKGE	[kg]	261/258	318/312	349/343	397/391
	Weight NKG SS	[kg]	249/246	264/261	296/291	352/347
Weight NKGE SS	[kg]	259/256	316/311	347/342	395/390	
NKG data	l ₁	[kg]	1250	1250	1250	1400
	l ₂	[mm]	205	205	205	230
	l ₃	[mm]	840	840	840	940
	b ₁	[mm]	430	430	430	480
	b ₂	[mm]	540	540	540	610
	b ₃	[mm]	490	490	490	560
	d	[mm]	24	24	24	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	80	80	80	100
	h ₃	[mm]	280	280	280	300
	h ₄ ¹⁾	[mm]	447/468	447/639	477/639	497/677
Base frame no.		6	6	6	7	
NBG data	Design		A	A ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	368	368	398	398
	L NBG SS	[mm]	368	368	398	398
	h ₁	[mm]	200	200	200	200
	G ₁	[mm]	183	183	183	183
	G ₂	[mm]	200	200	200	200
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	360	360	360	360
	n ₂	[mm]	280	280	280	280
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	-	132	160	160
	LB ¹⁾	[mm]	373/391	411/449	478/449	518/499
	AD ¹⁾	[mm]	167/188	167/333	197/359	197/377
	AG ¹⁾	[mm]	140/290	140/246	165/296	165/296
	LL ¹⁾	[mm]	140/300	140/410	165/410	165/410
	P	[mm]	300	300	350	350
	C	[mm]	-	89	108	108
	B	[mm]	-	178	210	254
	A	[mm]	-	216	254	254
	K	[mm]	-	12	15	15
	Weight NBG ¹⁾	[kg]	139/150	154/195	180/231	206/249
Weight NBG SS ¹⁾	[kg]	142/154	157/198	184/235	210/253	

1) Dimension of pump with premium range motor/built-in frequency converter.

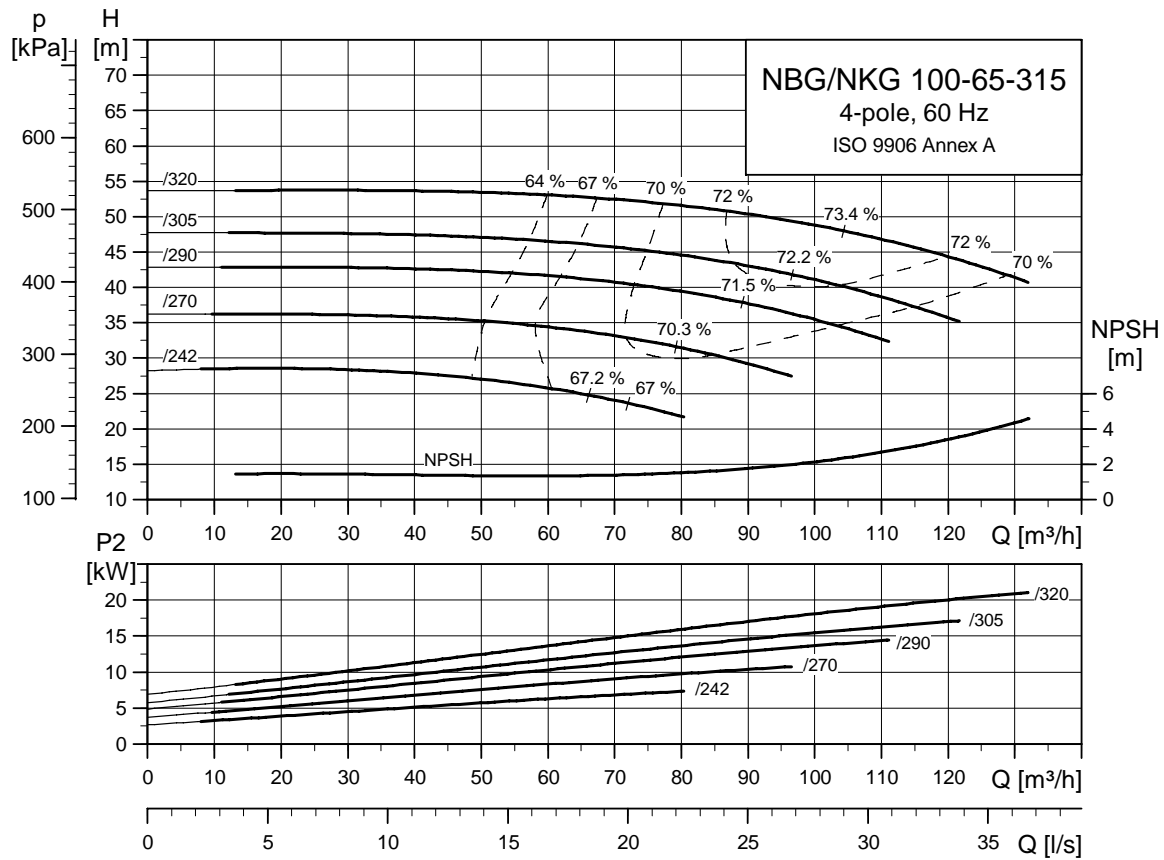
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 100-65-250/238 is fitted with an MMGE 132M motor with motor feet; NKGE 100-65-250/238 is fitted with an MMGE 160M motor.

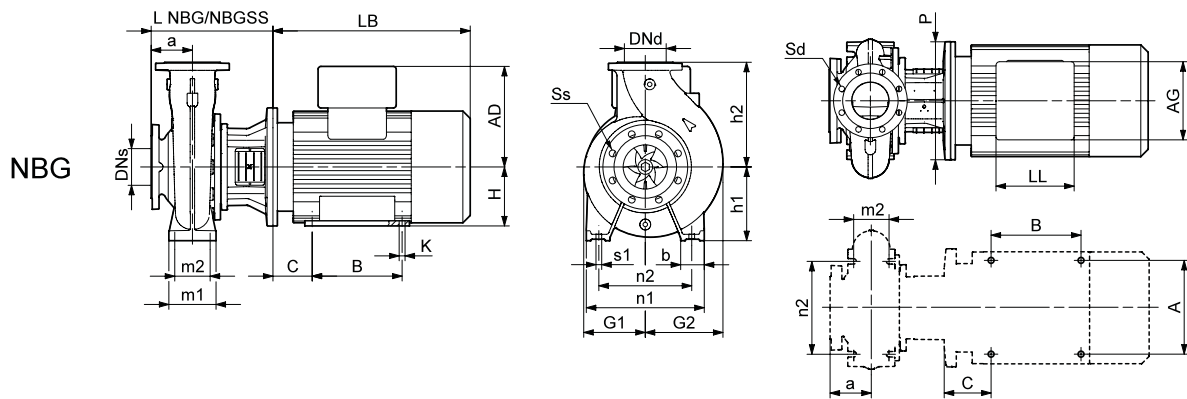
Note: For information about base frames, see page 222.

Performance curves

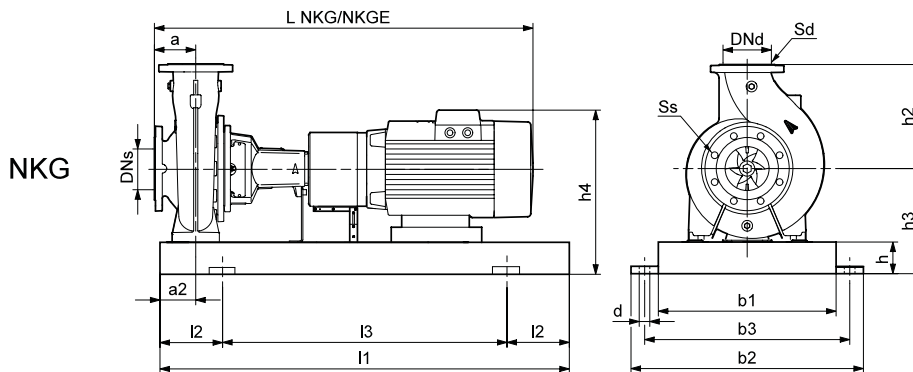
NBG, NKG 100-65-315
4-pole



TM03 5045 3406



TM03 8010 0107



TM03 8011 0107

Pump type		100-65-315/242	100-65-315/270	100-65-315/290	100-65-315/305	100-65-315/320	
Motor type	Premium Motor	Siemens 132M	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 180L	
	E-Motor	MMGE 132M ³⁾	MMGE 160M	MMGE 160L	MMGE 180M	MMGE 180L	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15	18.5	22
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	100	100	100	100	100
	DNd	[mm]	65	65	65	65	65
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		4x19	4x19	4x19	4x19	4x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1150/1286	1247/1383	1287/1423	1371/1507	1371/1507
	L NKGE	[mm]	1218/1354	1218/1354	1268/1404	1268/1404	1339/1475
	Weight NKG	[mm]	326/323	350/345	376/371	410/403	430/423
	Weight NKGE	[kg]	370/365	401/396	419/414	467/460	501/494
	Weight NKG SS	[kg]	333/330	357/352	383/378	418/410	438/430
	Weight NKGE SS	[kg]	377/372	408/403	426/421	475/467	509/501
NKG data	l ₁	[kg]	1400	1400	1400	1400	1400
	l ₂	[mm]	230	230	230	230	230
	l ₃	[mm]	940	940	940	940	940
	b ₁	[mm]	480	480	480	480	480
	b ₂	[mm]	610	610	610	610	610
	b ₃	[mm]	560	560	560	560	560
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	325	325	325	325	325
	h ₄ ¹⁾	[mm]	492/684	522/684	522/702	583/724	583/724
Base frame no.		7	7	7	7	7	
NBG data	Design		A ²⁾	C ²⁾	C ²⁾	C	C
	L NBG	[mm]	366	396	396	396	396
	L NBG SS	[mm]	366	396	396	396	396
	h ₁	[mm]	225	225	225	225	225
	G ₁	[mm]	211	211	211	211	211
	G ₂	[mm]	219	219	219	219	219
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	400	400	400	400	400
	n ₂	[mm]	315	315	315	315	315
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	132	160	160	180	180
	LB ¹⁾	[mm]	411/449	478/449	518/499	602/499	602/570
	AD ¹⁾	[mm]	167/333	197/359	197/377	258/399	258/399
	AG ¹⁾	[mm]	140/246	165/296	165/296	152/328	152/328
	LL ¹⁾	[mm]	140/410	165/410	165/410	132/456	132/456
	P	[mm]	300	350	350	350	350
	C	[mm]	89	108	108	121	121
	B	[mm]	178	210	254	241	279
	A	[mm]	216	254	254	279	279
	K	[mm]	12	15	15	15	15
	Weight NBG ¹⁾	[kg]	177/218	205/256	231/274	250/307	270/341
Weight NBG SS ¹⁾	[kg]	185/226	213/264	239/282	257/314	277/348	

1) Dimension of pump with premium range motor/built-in frequency converter.

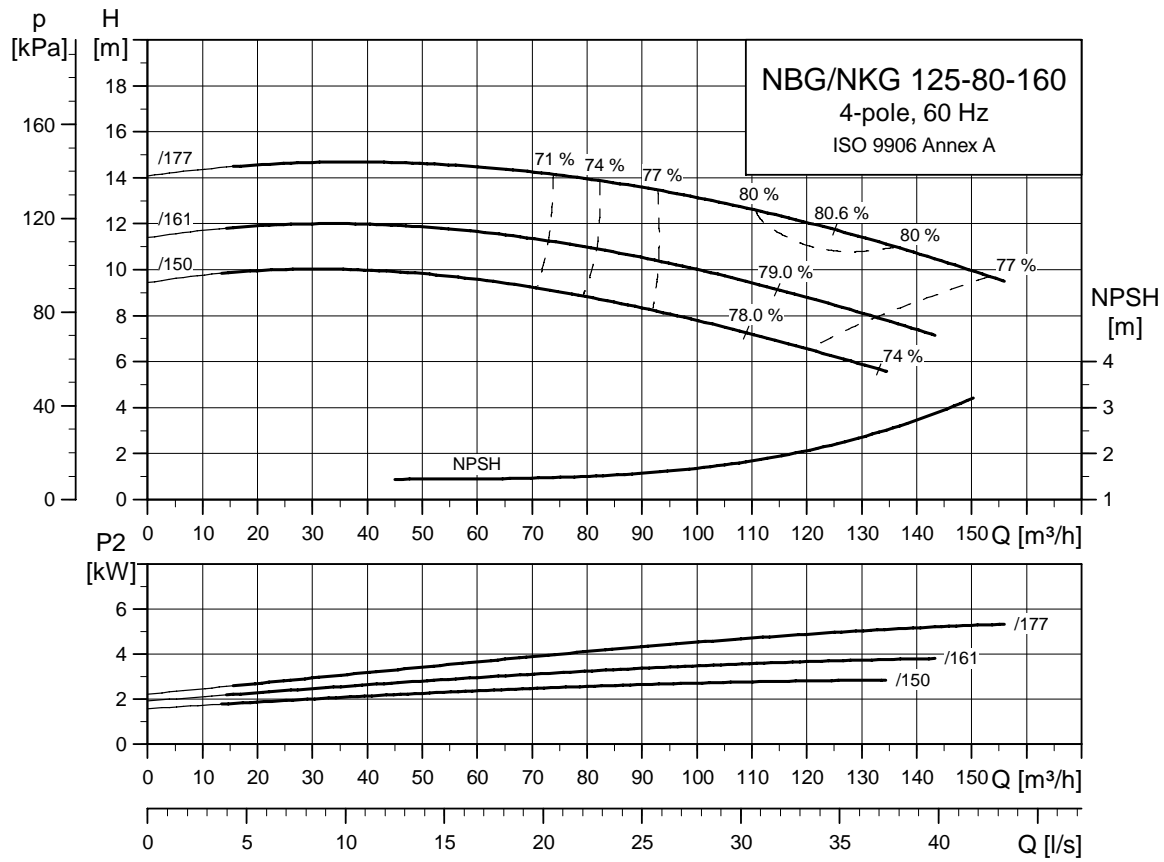
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 100-65-315/242 is fitted with an MMGE 132M motor with motor feet; NKGE 100-65-315/242 is fitted with an MMGE 160M motor.

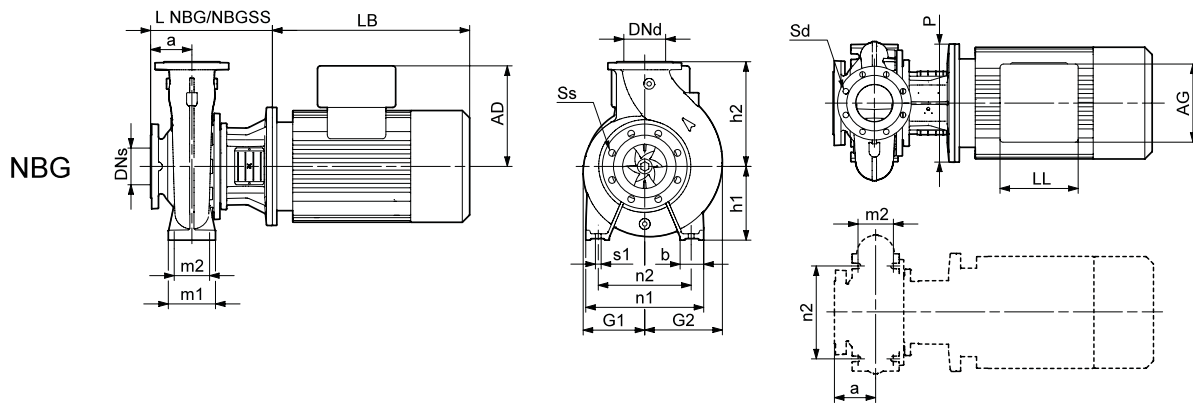
Note: For information about base frames, see page 222.

Performance curves

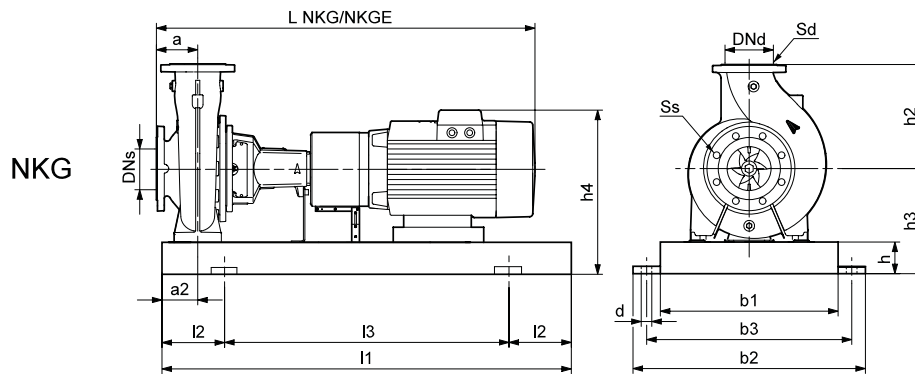
NBG, NKG 125-80-160
4-pole



TM03 5046 3406



TM03 8008 0107



TM03 8011 0107

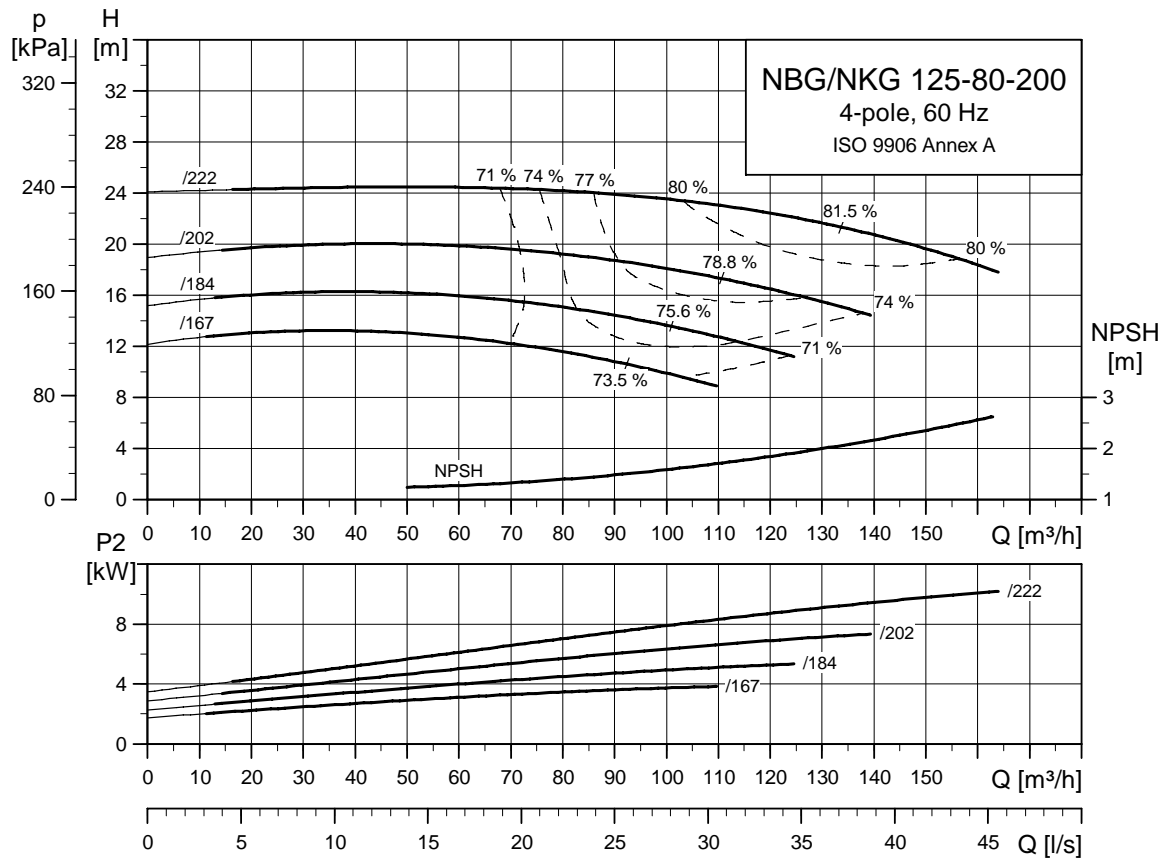
Pump type		125-80-160/150	125-80-160/161	125-80-160/177	
Motor type	Premium Motor	MG 100LC-D	MG 112MC-D	Siemens 132S	
	E-Motor	MGE 100LC	MGE 112MC	MGE 132SC	
Common data NBG/NKG	P ₂	[kW]	3	4	5.5
	PN	[bar]	16	16	16
	DNs	[mm]	125	125	125
	DNd	[mm]	80	80	80
	a	[mm]	125	125	125
	h ₂	[mm]	225	225	225
	Ss		8x19	8x19	8x19
	Sd		8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1024/1160	1061/1197	1082/1218
	L NKGE	[mm]	1024/1160	1061/1197	1100/1236
	Weight NKG	[mm]	185/183	201/200	211/208
	Weight NKGE	[kg]	193/191	206/204	221/218
	Weight NKG SS	[kg]	189/187	205/203	214/211
	Weight NKGE SS	[kg]	197/195	210/208	224/221
NKG data	l ₁	[kg]	1120	1120	1120
	l ₂	[mm]	190	190	190
	l ₃	[mm]	740	740	740
	b ₁	[mm]	380	380	380
	b ₂	[mm]	490	490	490
	b ₃	[mm]	440	440	440
	d	[mm]	24	24	24
	a ₂	[mm]	75	75	75
	h	[mm]	80	80	80
	h ₃	[mm]	260	260	260
	h ₄ ¹⁾	[mm]	380/437	394/448	427/448
Base frame no.		5	5	5	
NBG data	Design		A	A	A
	L NBG	[mm]	318	318	338
	L NBG SS	[mm]	318	318	338
	h ₁	[mm]	180	180	180
	G ₁	[mm]	139	139	139
	G ₂	[mm]	182	182	182
	m ₁	[mm]	125	125	125
	m ₂	[mm]	95	95	95
	n ₁	[mm]	320	320	320
	n ₂	[mm]	250	250	250
	b	[mm]	65	65	65
	s ₁	[mm]	M12	M12	M12
	H	[mm]	-	-	-
	LB ¹⁾	[mm]	335/335	372/372	373/391
	AD ¹⁾	[mm]	120/177	134/188	167/188
	AG ¹⁾	[mm]	162/264	202/290	140/290
	LL ¹⁾	[mm]	103/260	103/300	140/300
	P	[mm]	250	250	300
	C	[mm]	-	-	-
	B	[mm]	-	-	-
	A	[mm]	-	-	-
	K	[mm]	-	-	-
Weight NBG ¹⁾	[kg]	87/94	102/106	107/119	
Weight NBG SS ¹⁾	[kg]	90/98	105/109	110/122	

1) Dimension of pump with premium range motor/built-in frequency converter.

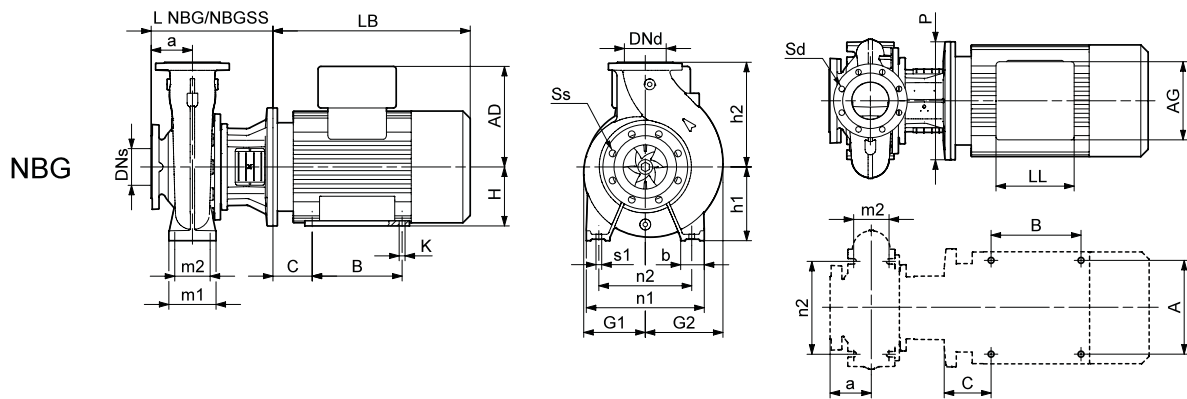
Note: For information about base frames, see page 222.

Performance curves

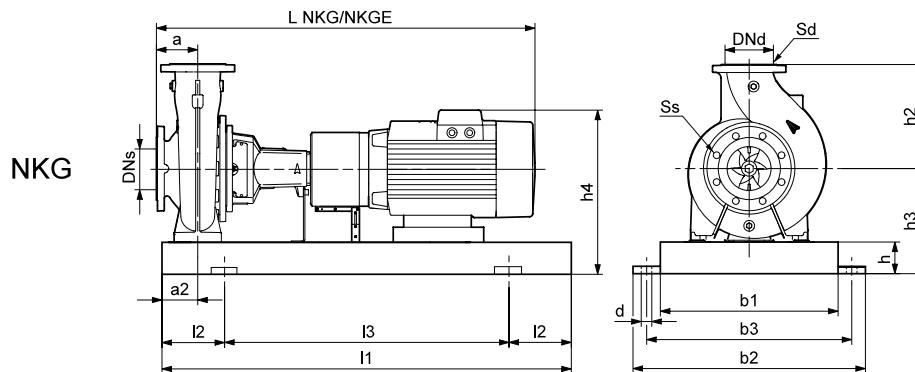
NBG, NKG 125-80-200
4-pole



TM03 5047 3406



TM03 8010 0107



TM03 8011 0107

Pump type		125-80-200/167	125-80-200/184	125-80-200/202	125-80-200/222	
Motor type	Premium Motor	MG 112MC-D	Siemens 132S	Siemens 132M	Siemens 160M	
	E-Motor	MGE 112MC	MGE 132SC	MMGE 132M ³⁾	MMGE 160M	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5	11
	PN	[bar]	16	16	16	16
	DNs	[mm]	125	125	125	125
	DNd	[mm]	80	80	80	80
	a	[mm]	125	125	125	125
	h ₂	[mm]	250	250	250	250
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1061/1197	1082/1218	1120/1256	1217/1353
	L NKGE	[mm]	1061/1197	1100/1236	1188/1324	1188/1324
	Weight NKG	[mm]	230/229	240/237	255/252	274/269
	Weight NKGE	[kg]	235/233	250/247	294/289	325/320
	Weight NKG SS	[kg]	235/234	245/242	260/257	279/274
	Weight NKGE SS	[kg]	240/238	255/252	299/294	330/325
NKG data	l ₁	[kg]	1250	1250	1250	1250
	l ₂	[mm]	205	205	205	205
	l ₃	[mm]	840	840	840	840
	b ₁	[mm]	430	430	430	430
	b ₂	[mm]	540	540	540	540
	b ₃	[mm]	490	490	490	490
	d	[mm]	24	24	24	24
	a ₂	[mm]	75	75	75	75
	h	[mm]	80	80	80	80
	h ₃	[mm]	260	260	260	260
	h ₄ ¹⁾	[mm]	394/448	427/448	427/619	457/619
	Base frame no.		6	6	6	6
NBG data	Design		A	A	A ²⁾	C ²⁾
	L NBG	[mm]	348	368	368	398
	L NBG SS	[mm]	348	368	368	398
	h ₁	[mm]	180	180	180	180
	G ₁	[mm]	161	161	161	161
	G ₂	[mm]	193	193	193	193
	m ₁	[mm]	125	125	125	125
	m ₂	[mm]	95	95	95	95
	n ₁	[mm]	345	345	345	345
	n ₂	[mm]	280	280	280	280
	b	[mm]	65	65	65	65
	s ₁	[mm]	M12	M12	M12	M12
	H	[mm]	-	-	132	160
	LB ¹⁾	[mm]	372/372	373/391	411/449	478/449
	AD ¹⁾	[mm]	134/188	167/188	167/333	197/359
	AG ¹⁾	[mm]	202/290	140/290	140/246	165/296
	LL ¹⁾	[mm]	103/300	140/300	140/410	165/410
	P	[mm]	250	300	300	350
	C	[mm]	-	-	89	108
	B	[mm]	-	-	178	210
A	[mm]	-	-	216	254	
K	[mm]	-	-	12	15	
	Weight NBG ¹⁾	[kg]	116/120	123/135	138/179	164/215
	Weight NBG SS ¹⁾	[kg]	125/130	133/144	148/189	175/226

1) Dimension of pump with premium range motor/built-in frequency converter.

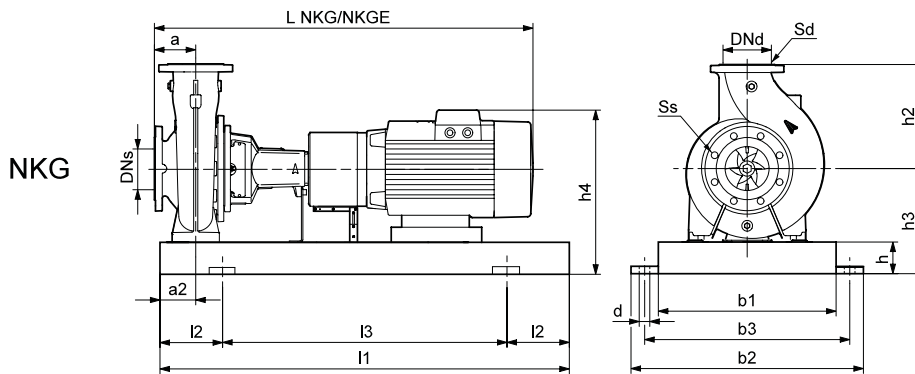
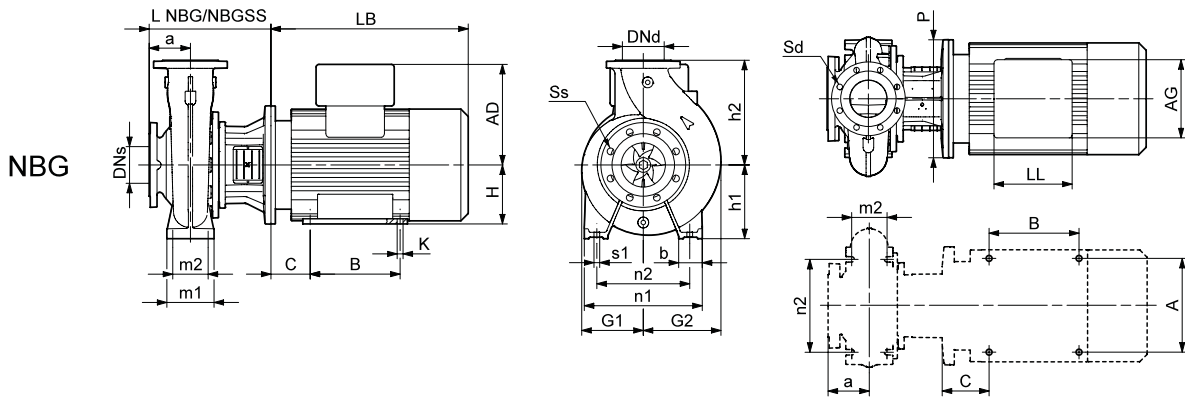
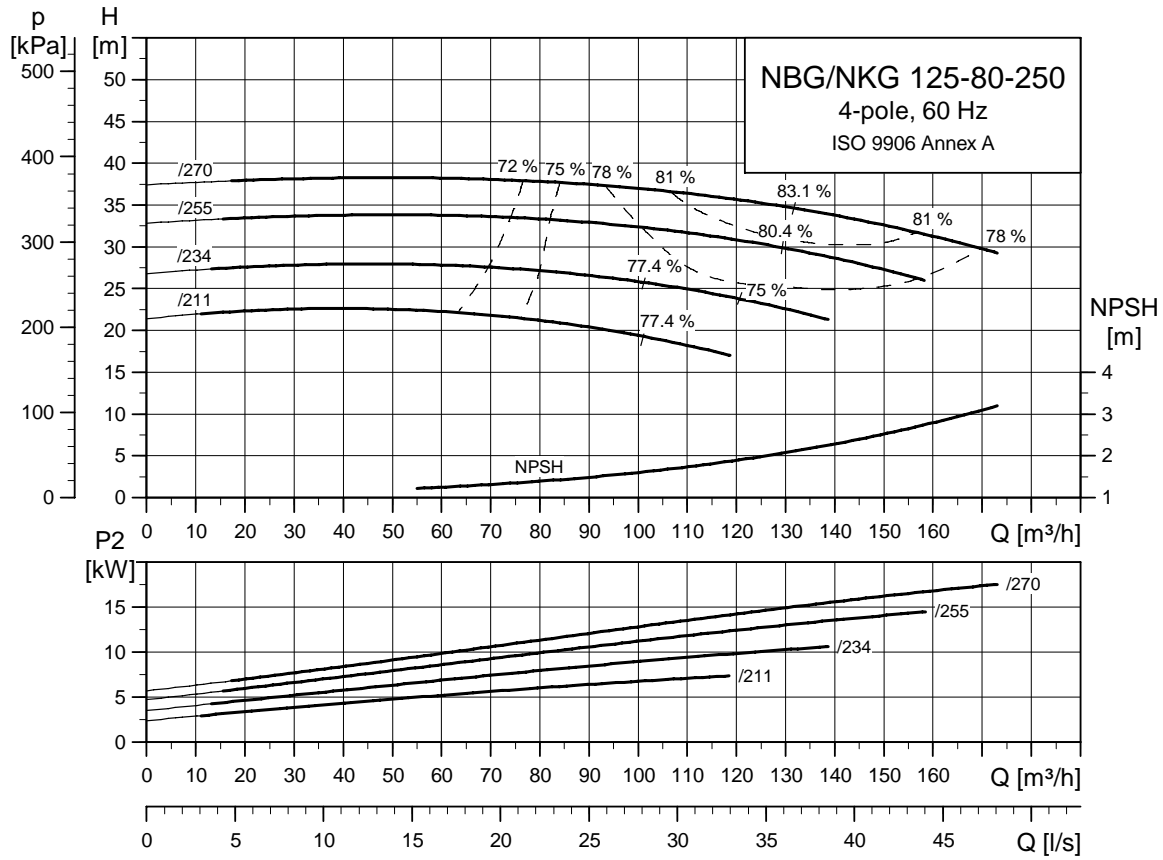
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 125-80-200/202 is fitted with an MMGE 132M motor with motor feet; NKGE 125-80-200/202 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-80-250
4-pole



TM03 5048 3406

TM03 8010 0107

TM03 8011 0107

Pump type		125-80-250/211	125-80-250/234	125-80-250/255	125-80-250/270	
Motor type	Premium Motor	Siemens 132M	Siemens 160M	Siemens 160L	Siemens 180M	
	E-Motor	MMGE 132M ³⁾	MMGE 160M	MMGE 160L	MMGE 180M	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15	18.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	125	125	125	125
	DNd	[mm]	80	80	80	80
	a	[mm]	125	125	125	125
	h ₂	[mm]	280	280	280	280
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1120/1256	1217/1353	1257/1393	1341/1477
	L NKGE	[mm]	1188/1324	1188/1324	1238/1374	1238/1374
	Weight NKG	[mm]	300/297	324/319	350/345	385/377
	Weight NKGE	[kg]	344/339	375/370	393/388	442/434
	Weight NKG SS	[kg]	304/301	328/323	354/349	389/381
	Weight NKGE SS	[kg]	348/343	379/374	397/392	446/438
NKG data	l ₁	[kg]	1400	1400	1400	1400
	l ₂	[mm]	230	230	230	230
	l ₃	[mm]	940	940	940	940
	b ₁	[mm]	480	480	480	480
	b ₂	[mm]	610	610	610	610
	b ₃	[mm]	560	560	560	560
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h ₃	[mm]	325	325	325	325
	h ₄ ¹⁾	[mm]	492/684	522/684	522/702	583/724
Base frame no.		7	7	7	7	
NBG data	Design		A ²⁾	C ²⁾	C ²⁾	C
	L NBG	[mm]	368	398	398	398
	L NBG SS	[mm]	368	398	398	398
	h ₁	[mm]	225	225	225	225
	G ₁	[mm]	182	182	182	182
	G ₂	[mm]	210	210	210	210
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	400	400	400	400
	n ₂	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	132	160	160	180
	LB ¹⁾	[mm]	411/449	478/449	518/499	602/499
	AD ¹⁾	[mm]	167/333	197/359	197/377	258/399
	AG ¹⁾	[mm]	140/246	165/296	165/296	152/328
	LL ¹⁾	[mm]	140/410	165/410	165/410	132/456
	P	[mm]	300	350	350	350
	C	[mm]	89	108	108	121
	B	[mm]	178	210	254	241
	A	[mm]	216	254	254	279
	K	[mm]	12	15	15	15
	Weight NBG ¹⁾	[kg]	157/198	184/235	210/253	229/286
Weight NBG SS ¹⁾	[kg]	166/207	193/244	219/262	238/295	

1) Dimension of pump with premium range motor/built-in frequency converter.

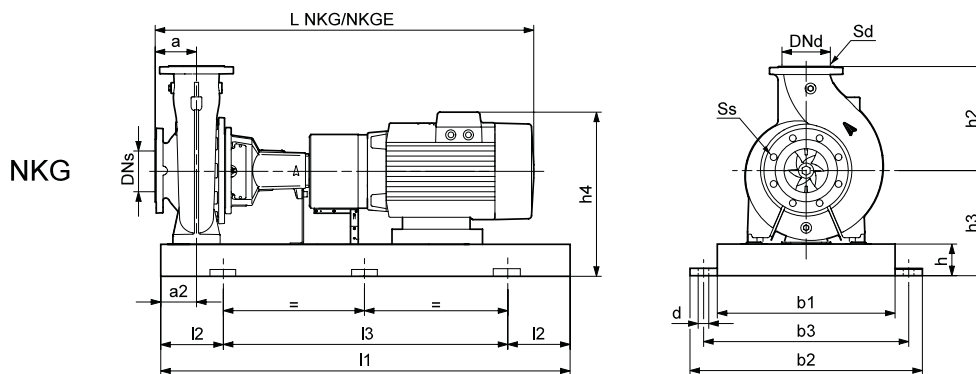
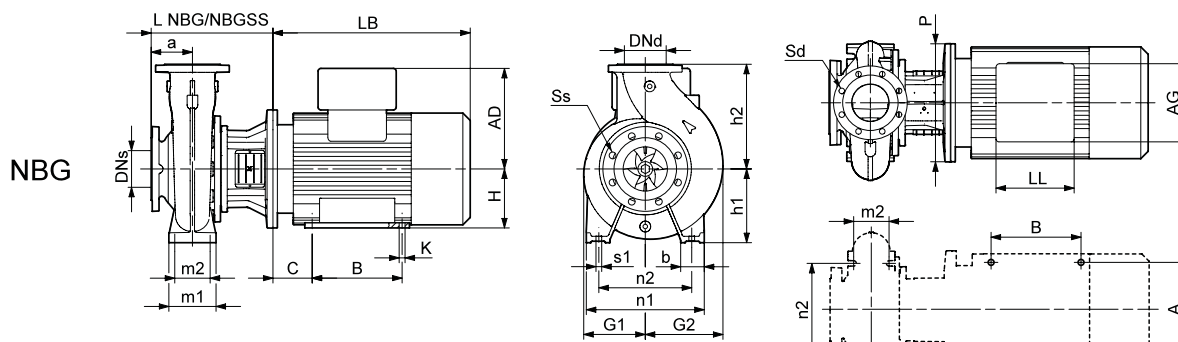
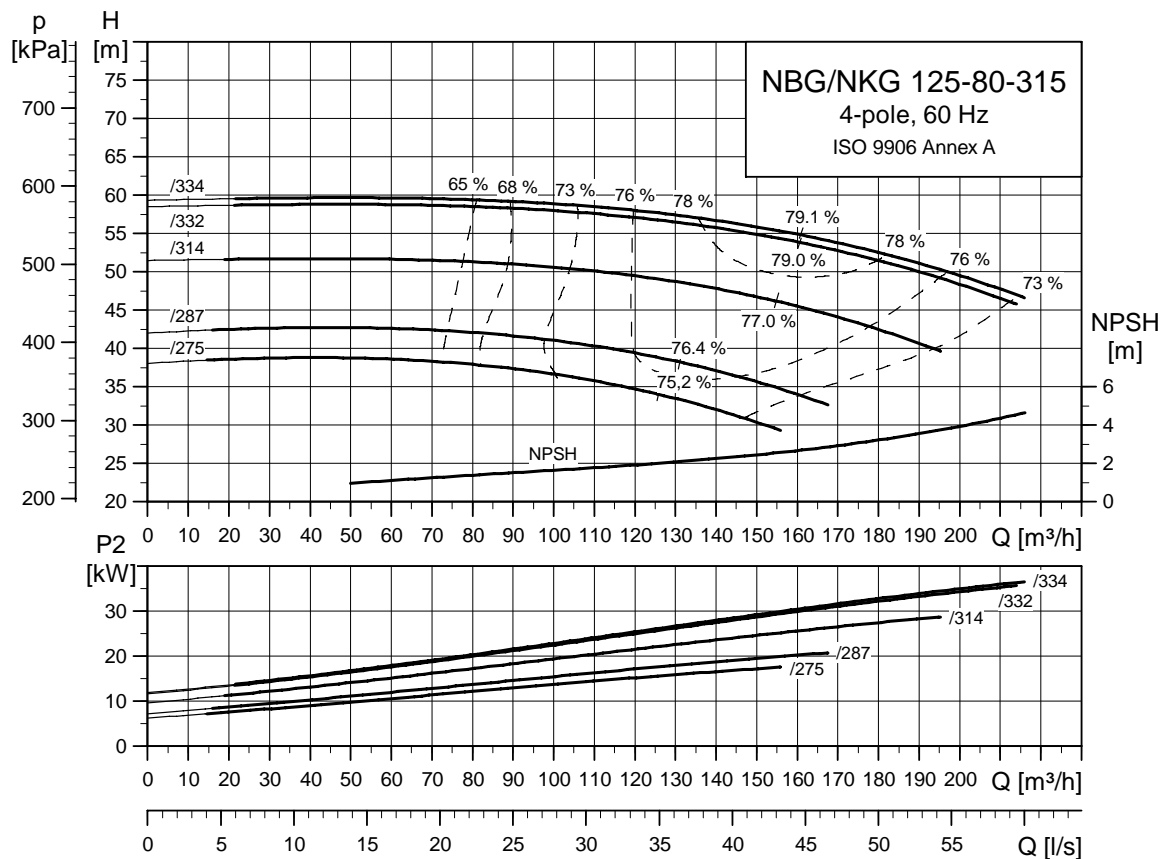
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 125-80-250/211 is fitted with an MMGE 132M motor with motor feet; NKGE 125-80-250/211 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-80-315
4-pole



TM03 5049 3406

TM03 8010 0107

TM03 8012 0107

Pump type		125-80-315/275	125-80-315/287	125-80-315/314	125-80-315/332	125-80-315/334	
Motor type	Premium Motor	Siemens 180M	Siemens 180L	Siemens 200L	Siemens 225S	Siemens 225M	
	E-Motor	MMGE 180M	MMGE 180L	-	-	-	
Common data NBG/NKG	P ₂	[kW]	18.5	22	30	37	45
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	80	80	80	80	80
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	315	315	315	315	315
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1371/1507	1371/1507	1428/1564	1448/1584	1508/1644
	L NKGE	[mm]	1268/1404	1339/1475	-/-	-/-	-/-
	Weight NKG	[mm]	413/405	433/425	542/536	613/608	653/648
	Weight NKGE	[kg]	470/462	504/496	-/-	-/-	-/-
	Weight NKG SS	[kg]	422/414	442/434	551/546	622/617	662/657
	Weight NKGE SS	[kg]	479/471	513/505	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1600	1600	1600
	l ₂	[mm]	230	230	270	270	270
	l ₃	[mm]	940	940	1060	1060	1060
	b ₁	[mm]	480	480	530	530	530
	b ₂	[mm]	610	610	660	660	660
	b ₃	[mm]	560	560	600	600	600
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	350	350	355	350	350
	h ₄ ¹⁾	[mm]	608/749	608/749	660/-	675/-	675/-
Base frame no.		7	7	8	8	8	
NBG data	Design		C	C	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	396	396	396	426	426
	L NBG SS	[mm]	396	396	396	426	426
	h ₁	[mm]	250	250	250	250	250
	G ₁	[mm]	217	217	217	217	217
	G ₂	[mm]	243	243	243	243	243
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	400	400	400	400	400
	n ₂	[mm]	315	315	315	315	315
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	180	180	200	225	225
	LB ¹⁾	[mm]	602/499	602/570	659/-	649/-	709/-
	AD ¹⁾	[mm]	258/399	258/399	305/-	325/-	325/-
	AG ¹⁾	[mm]	152/328	152/328	260/-	260/-	260/-
	LL ¹⁾	[mm]	132/456	132/456	192/-	192/-	192/-
	P	[mm]	350	350	400	450	450
	C	[mm]	121	121	133	149	149
	B	[mm]	241	279	305	286	286
	A	[mm]	279	279	318	356	356
	K	[mm]	15	15	19	19	19
	Weight NBG ¹⁾	[kg]	261/318	281/352	340/-	442/-	482/-
Weight NBG SS ¹⁾	[kg]	270/327	290/361	349/-	451/-	491/-	

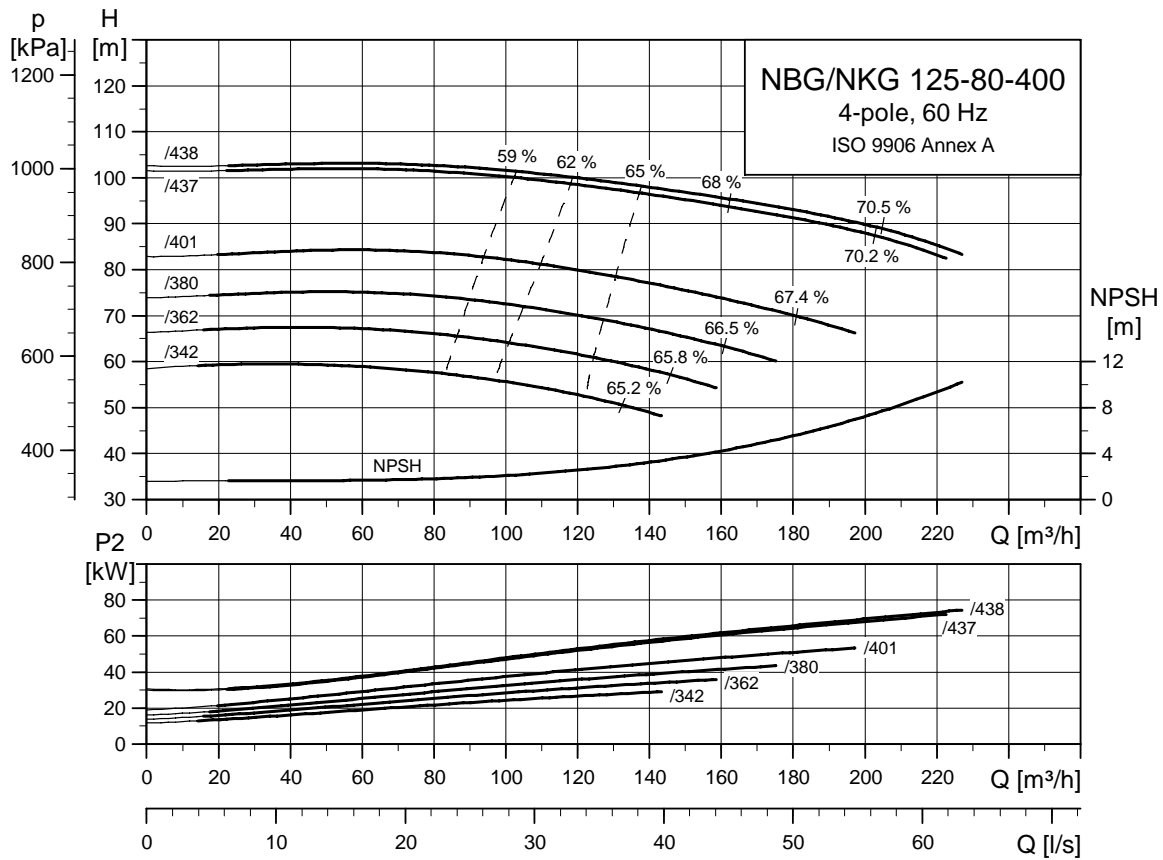
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

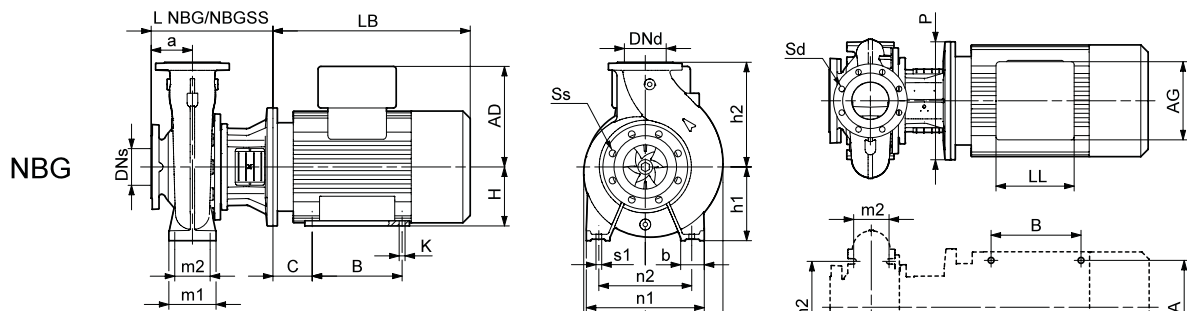
Note: For information about base frames, see page 222.

Performance curves

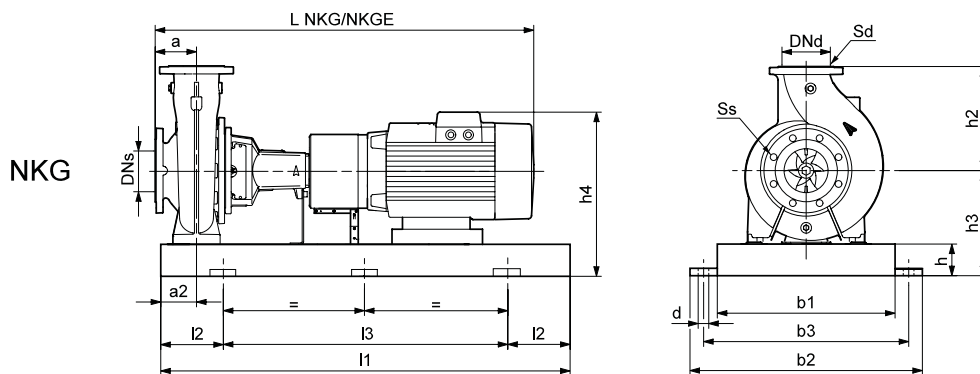
NBG, NKG 125-80-400
4-pole



TM03 5050 3406



TM03 8010 0107



TM03 8012 0107

Pump type		125-80-400/342	125-80-400/362	125-80-400/380	125-80-400/401	125-80-400/437	125-80-400/438	
Motor type	Premium Motor	Siemens 200L	Siemens 225S	Siemens 225M	Siemens 250M	Siemens 280S	Siemens 280M	
	E-Motor	-	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	30	37	45	55	75	90
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125	125
	DNd	[mm]	80	80	80	80	80	80
	a	[mm]	125	125	125	125	125	125
	h2	[mm]	355	355	355	355	355	355
	Ss		8x19	8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1428/1564	1448/1584	1508/1644	1616/1752	1619/1755	1729/1865
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	579/574	694/690	734/730	890/889	1143/1137	1244/1237
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	560/554	675/671	715/711	871/870	1124/1118	1224/1218
NKG data	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	l1	[kg]	1600	1600	1600	1800	2000	2000
	l2	[mm]	270	270	270	300	330	330
	l3	[mm]	1060	1060	1060	1200	1340	1340
	b1	[mm]	530	530	530	600	750	750
	b2	[mm]	660	660	660	730	890	890
	b3	[mm]	600	600	600	670	830	830
	d	[mm]	28	28	28	28	28	28
	a2	[mm]	90	90	90	90	90	90
	h	[mm]	100	100	100	100	130	130
	h3	[mm]	380	380	380	380	415	415
h4 ¹⁾	[mm]	685/-	705/-	705/-	772/-	847/-	847/-	
Base frame no.		8	8	8	9	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C	C
	L NBG	[mm]	396	426	426	426	426	426
	L NBG SS	[mm]	398	428	428	428	428	428
	h1	[mm]	280	280	280	280	280	280
	G1	[mm]	266	266	266	266	266	266
	G2	[mm]	288	288	288	288	288	288
	m1	[mm]	160	160	160	160	160	160
	m2	[mm]	120	120	120	120	120	120
	n1	[mm]	435	435	435	435	435	435
	n2	[mm]	355	355	355	355	355	355
	b	[mm]	80	80	80	80	80	80
	s1	[mm]	M16	M16	M16	M16	M16	M16
	H	[mm]	200	225	225	250	280	280
	LB ¹⁾	[mm]	659/-	649/-	709/-	817/-	820/-	930/-
	AD ¹⁾	[mm]	305/-	325/-	325/-	392/-	432/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	260/-	300/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	192/-	236/-	236/-	236/-
	P	[mm]	400	450	450	550	550	550
	C	[mm]	133	149	149	168	190	190
	B	[mm]	305	286	286	349	368	419
A	[mm]	318	356	356	406	457	457	
K	[mm]	19	19	19	24	24	24	
Weight NKG ¹⁾	[kg]	401/-	502/-	542/-	685/-	800/-	900/-	
Weight NKG SS ¹⁾	[kg]	382/-	483/-	523/-	666/-	781/-	881/-	

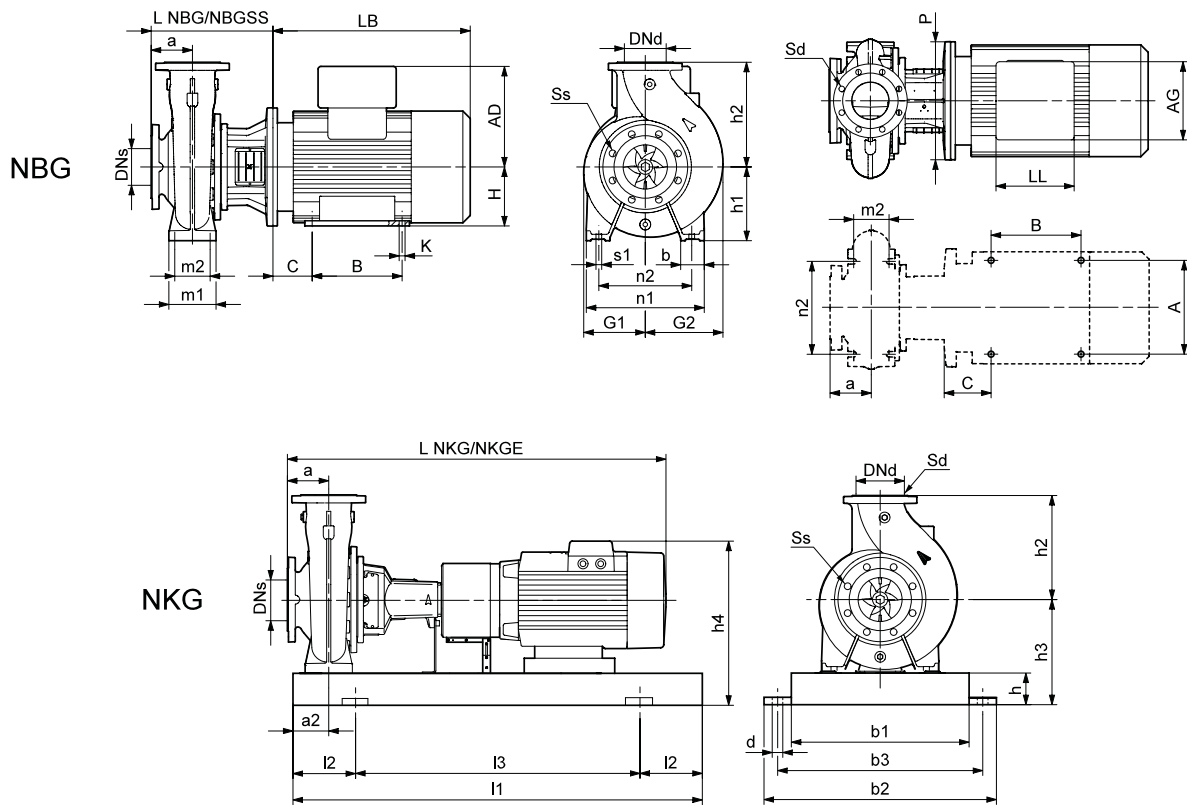
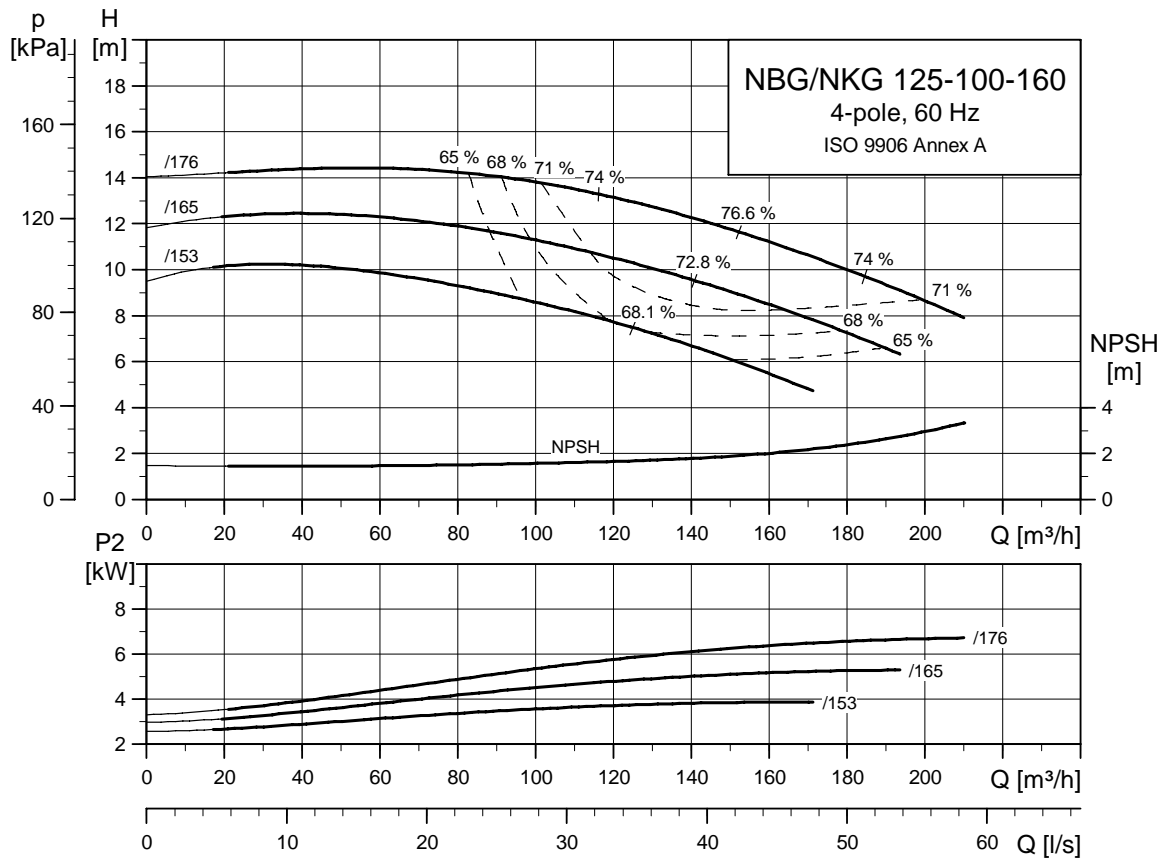
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-100-160
4-pole, 60 Hz
ISO 9906 Annex A



TM03 5051 3406

TM03 8010 0107

TM03 8011 0107

Pump type		125-100-160/153	125-100-160/165	125-100-160/176	
Motor type	Premium Motor	MG 112MC-D	Siemens 132S	Siemens 132M	
	E-Motor	MGE 112MC	MGE 132SC	MMGE 132M ³⁾	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5
	PN	[bar]	16	16	16
	DNs	[mm]	125	125	125
	DNd	[mm]	100	100	100
	a	[mm]	125	125	125
	h ₂	[mm]	280	280	280
	Ss		8x19	8x19	8x19
	Sd		8x19	8x19	
Common data NKG standard/ spacer coupling	L NKG	[mm]	1061/1197	1082/1218	1120/1256
	L NKGE	[mm]	1061/1197	1100/1236	1188/1324
	Weight NKG	[mm]	227/225	232/229	247/244
	Weight NKGE	[kg]	232/230	242/239	299/294
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	1250	1250	1250
	l ₂	[mm]	205	205	205
	l ₃	[mm]	840	840	840
	b ₁	[mm]	430	430	430
	b ₂	[mm]	540	540	540
	b ₃	[mm]	490	490	490
	d	[mm]	24	24	24
	a ₂	[mm]	90	90	90
	h	[mm]	80	80	80
	h ₃	[mm]	280	280	280
	h ₄ ¹⁾	[mm]	414/468	447/468	447/639
	Base frame no.		6	6	6
NBG data	Design		A	A	A ²⁾
	L NBG	[mm]	318	338	338
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	200	200	200
	G ₁	[mm]	146	146	146
	G ₂	[mm]	187	187	187
	m ₁	[mm]	160	160	160
	m ₂	[mm]	120	120	120
	n ₁	[mm]	360	360	360
	n ₂	[mm]	280	280	280
	b	[mm]	80	80	80
	s ₁	[mm]	M16	M16	M16
	H	[mm]	-	-	132
	LB ¹⁾	[mm]	372/372	373/391	411/449
	AD ¹⁾	[mm]	134/188	167/188	167/333
	AG ¹⁾	[mm]	202/290	140/290	140/246
	LL ¹⁾	[mm]	103/300	140/300	140/410
	P	[mm]	250	300	300
	C	[mm]	-	-	89
	B	[mm]	-	-	178
A	[mm]	-	-	216	
K	[mm]	-	-	12	
	Weight NBG ¹⁾	[kg]	115/119	120/132	135/176
	Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-

1) Dimension of pump with premium range motor/built-in frequency converter.

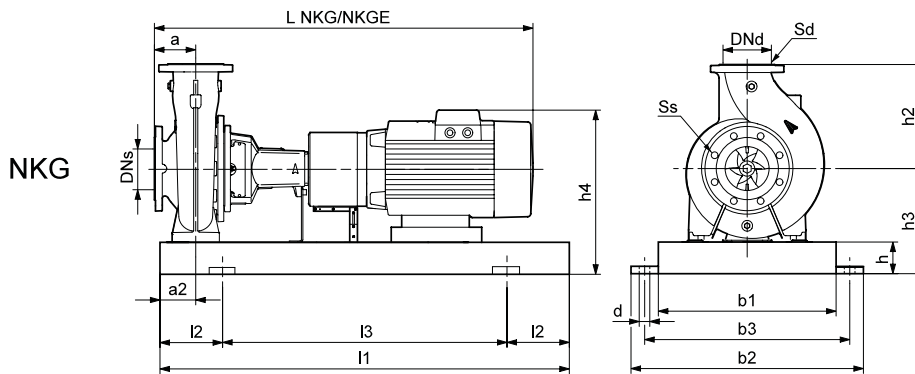
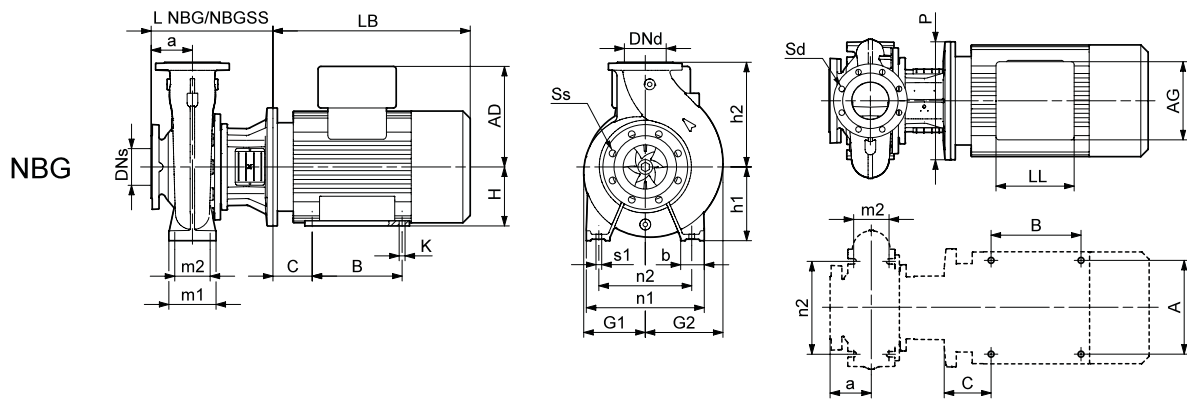
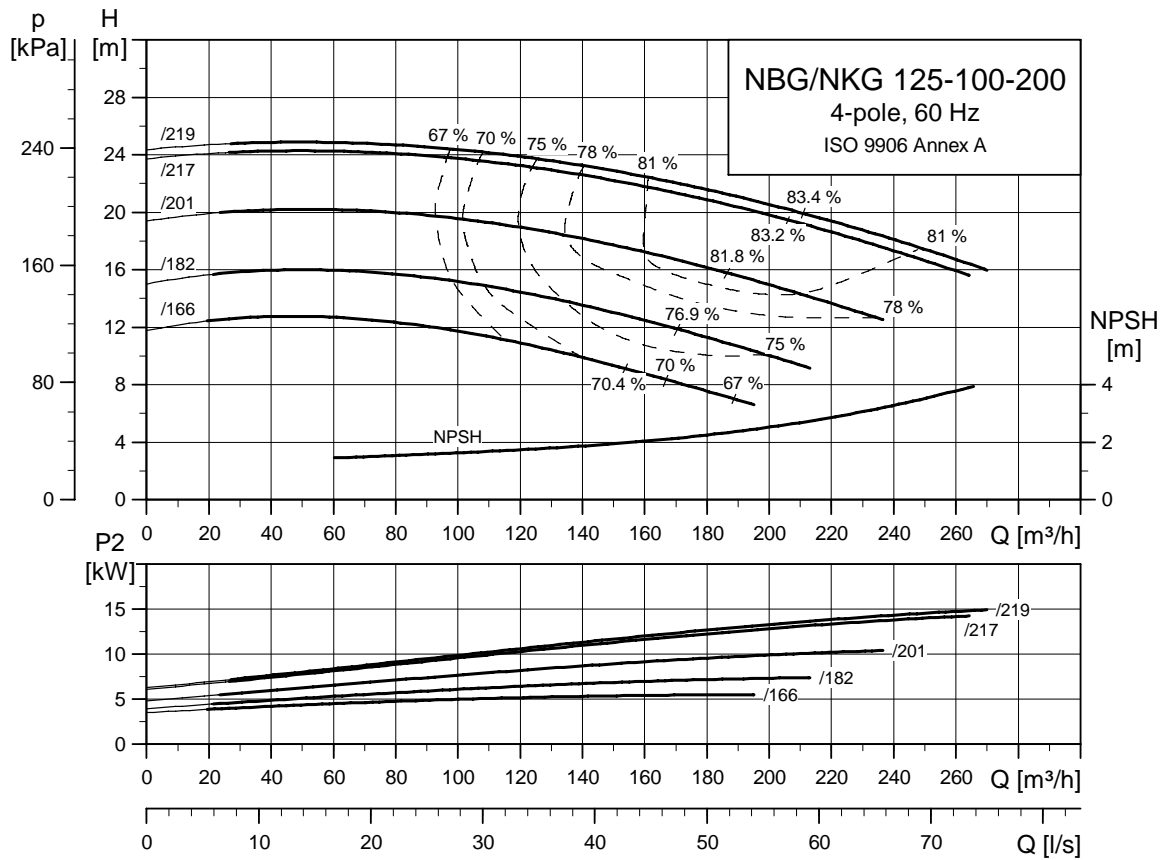
2) Support blocks are needed because of the P, h₁ and H dimensions.

3) NBGE 125-100-160/176 is fitted with an MMGE 132M motor with motor feet; NKGE 125-100-160/176 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-100-200
4-pole, 60 Hz



TM03 5052 3406

TM03 8010 0107

TM03 8011 0107

Pump type		125-100-200/166	125-100-200/182	125-100-200/201	125-100-200/217	125-100-200/219	
Motor type	Premium Motor	Siemens 132S	Siemens 132M	Siemens 160M	Siemens 160L	Siemens 180M	
	E-Motor	MGE 132SC	MMGE 132M ³⁾	MMGE 160M	MMGE 160L	MMGE 180M	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15	18.5
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
Sd		8x19	8x19	8x19	8x19	8x19	
Common data NKG standard/ spacer coupling	L NKG	[mm]	1082/1218	1120/1256	1217/1353	1257/1393	1341/1477
	L NKG E	[mm]	1100/1236	1188/1324	1188/1324	1238/1374	1238/1374
	Weight NKG	[mm]	245/242	260/257	292/286	348/342	364/356
	Weight NKG E	[kg]	254/251	312/306	343/337	391/385	421/413
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
Weight NKG E SS	[kg]	-/-	-/-	-/-	-/-	-/-	
NKG data	l ₁	[kg]	1250	1250	1250	1400	1400
	l ₂	[mm]	205	205	205	230	230
	l ₃	[mm]	840	840	840	940	940
	b ₁	[mm]	430	430	430	480	480
	b ₂	[mm]	540	540	540	610	610
	b ₃	[mm]	490	490	490	560	560
	d	[mm]	24	24	24	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	80	80	80	100	100
	h ₃	[mm]	280	280	280	300	300
	h ₄ ¹⁾	[mm]	447/468	447/639	477/639	497/677	558/699
Base frame no.		6	6	6	7	7	
NBG data	Design		A	A ²⁾	C ²⁾	C ²⁾	C
	L NBG	[mm]	368	368	398	398	398
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	200	200	200	200	200
	G ₁	[mm]	169	169	169	169	169
	G ₂	[mm]	212	212	212	212	212
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	360	360	360	360	360
	n ₂	[mm]	280	280	280	280	280
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	-	132	160	160	180
	LB ¹⁾	[mm]	373/391	411/449	478/449	518/499	602/499
	AD ¹⁾	[mm]	167/188	167/333	197/359	197/377	258/399
	AG ¹⁾	[mm]	140/290	140/246	165/296	165/296	152/328
	LL ¹⁾	[mm]	140/300	140/410	165/410	165/410	132/456
	P	[mm]	300	300	350	350	350
	C	[mm]	-	89	108	108	121
	B	[mm]	-	178	210	254	241
A	[mm]	-	216	254	254	279	
K	[mm]	-	12	15	15	15	
Weight NBG ¹⁾	[kg]	133/144	148/189	174/225	200/243	219/276	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

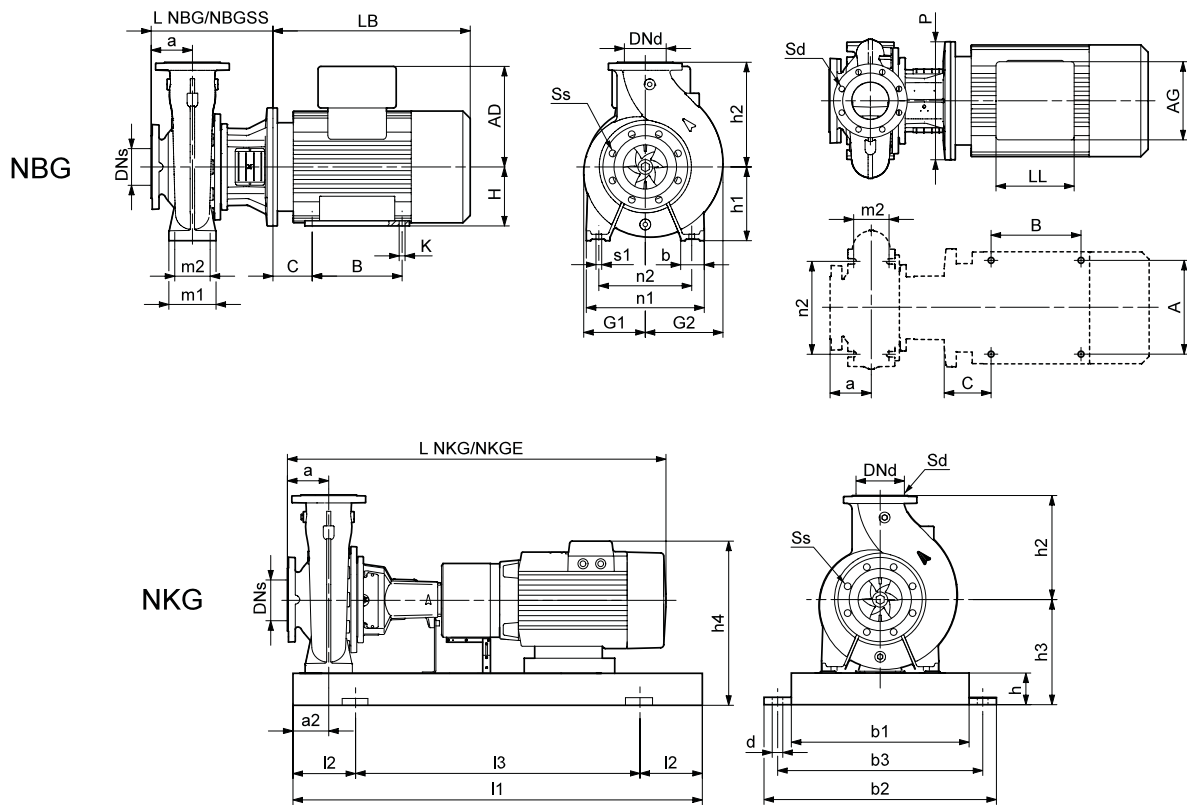
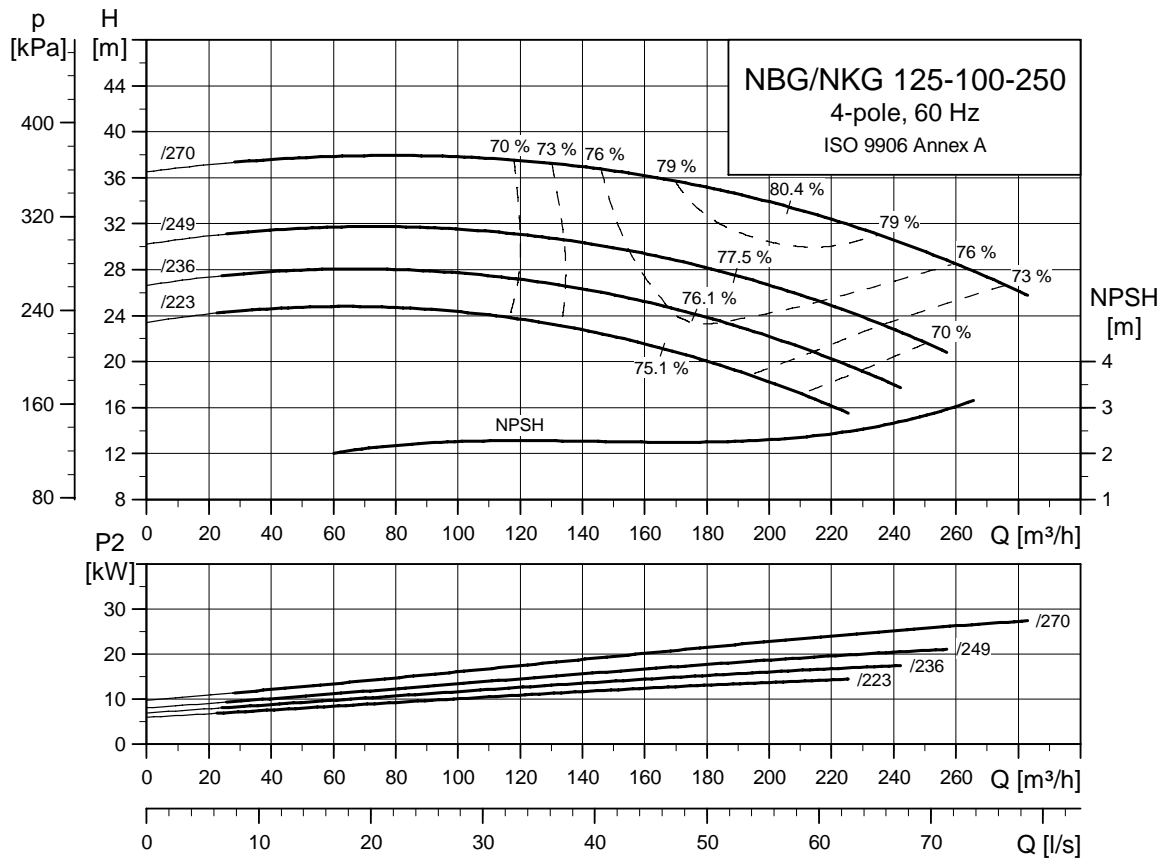
3) NBGE 125-100-200/182 is fitted with an MMGE 132M motor with motor feet; NKGE 125-100-200/182 is fitted with an MMGE 160M motor.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-100-250
4-pole, 60 Hz

ISO 9906 Annex A



TM03 5053 3406

TM03 8010 0107

TM03 8011 0107

Pump type		125-100-250/223	125-100-250/236	125-100-250/249	125-100-250/270	
Motor type	Premium Motor	Siemens 160L	Siemens 180M	Siemens 180L	Siemens 200L	
	E-Motor	MMGE 160L	MMGE 180M	MMGE 180L	-	
Common data NBG/NKG	P ₂	[kW]	15	18.5	22	30
	PN	[bar]	16	16	16	16
	DNs	[mm]	125	125	125	125
	DNd	[mm]	100	100	100	100
	a	[mm]	140	140	140	140
	h ₂	[mm]	280	280	280	280
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1302/1438	1386/1522	1386/1522	1443/1579
	L NKGE	[mm]	1283/1419	1283/1419	1354/1490	-/-
	Weight NKG	[mm]	363/358	398/390	418/410	495/490
	Weight NKGE	[kg]	406/401	455/447	489/481	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1400	1600
	l ₂	[mm]	230	230	230	270
	l ₃	[mm]	940	940	940	1060
	b ₁	[mm]	480	480	480	530
	b ₂	[mm]	610	610	610	660
	b ₃	[mm]	560	560	560	600
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h ₃	[mm]	325	325	325	325
	h ₄ ¹⁾	[mm]	522/702	583/724	583/724	630/-
Base frame no.		7	7	7	8	
NBG data	Design		C ²⁾	C	C	C ²⁾
	L NBG	[mm]	411	411	411	411
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	225	225	225	225
	G ₁	[mm]	188	188	188	188
	G ₂	[mm]	224	224	224	224
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	400	400	400	400
	n ₂	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	160	180	180	200
	LB ¹⁾	[mm]	518/499	602/499	602/570	659/-
	AD ¹⁾	[mm]	197/377	258/399	258/399	305/-
	AG ¹⁾	[mm]	165/296	152/328	152/328	260/-
	LL ¹⁾	[mm]	165/410	132/456	132/456	192/-
	P	[mm]	350	350	350	400
	C	[mm]	108	121	121	133
	B	[mm]	254	241	279	305
	A	[mm]	254	279	279	318
K	[mm]	15	15	15	19	
Weight NBG ¹⁾	[kg]	218/261	237/294	257/328	316/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

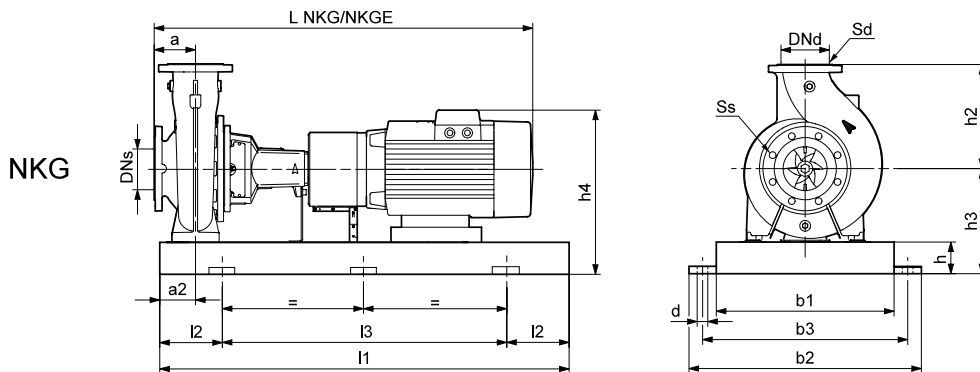
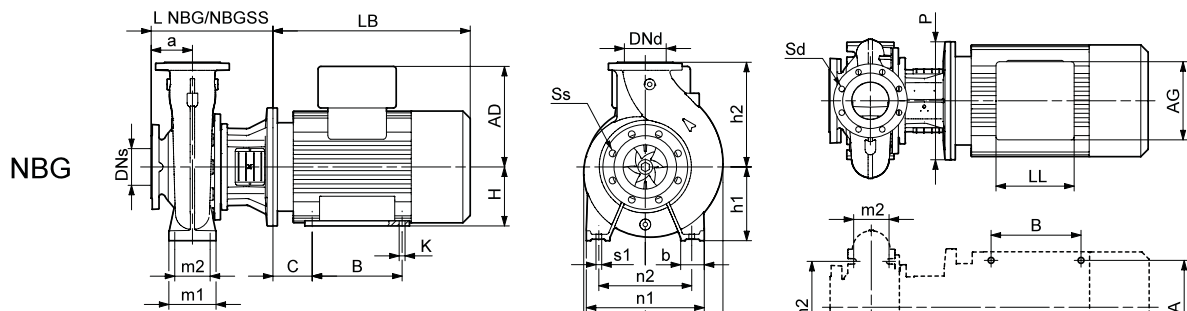
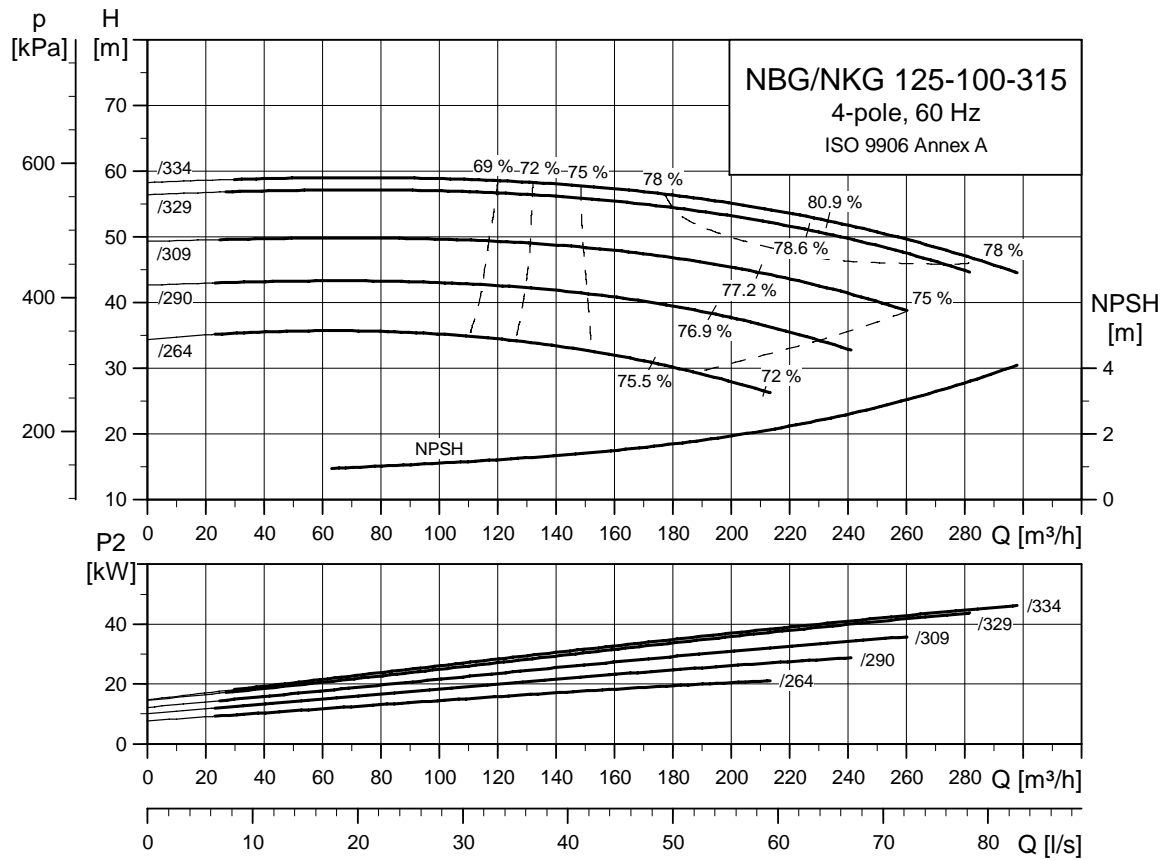
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 125-100-315
4-pole



TM03 5054 3406

TM03 8010 0107

TM03 8012 0107

Pump type		125-100-315/264	125-100-315/290	125-100-315/309	125-100-315/329	125-100-315/334	
Motor type	Premium Motor	Siemens 180L	Siemens 200L	Siemens 225S	Siemens 225M	Siemens 250M	
	E-Motor	MMGE 180L	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	22	30	37	45	55
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	315	315	315	315	315
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1386/1522	1443/1579	1463/1599	1523/1659	1631/1767
	L NKGE	[mm]	1354/1490	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	437/429	545/540	616/612	656/652	807/806
	Weight NKGE	[kg]	508/500	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1600	1600	1600	1800
	l ₂	[mm]	230	270	270	270	300
	l ₃	[mm]	940	1060	1060	1060	1200
	b ₁	[mm]	480	530	530	530	600
	b ₂	[mm]	610	660	660	660	730
	b ₃	[mm]	560	600	600	600	670
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	350	355	350	350	355
	h ₄ ¹⁾	[mm]	608/749	660/-	675/-	675/-	747/-
Base frame no.		7	8	8	8	9	
NBG data	Design		C	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	411	411	441	441	441
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	250	250	250	250	250
	G ₁	[mm]	208	208	208	208	208
	G ₂	[mm]	264	264	264	264	264
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	400	400	400	400	400
	n ₂	[mm]	315	315	315	315	315
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	180	200	225	225	250
	LB ¹⁾	[mm]	602/570	659/-	649/-	709/-	817/-
	AD ¹⁾	[mm]	258/399	305/-	325/-	325/-	392/-
	AG ¹⁾	[mm]	152/328	260/-	260/-	260/-	300/-
	LL ¹⁾	[mm]	132/456	192/-	192/-	192/-	236/-
	P	[mm]	350	400	450	450	550
	C	[mm]	121	133	149	149	168
	B	[mm]	279	305	286	286	349
	A	[mm]	279	318	356	356	406
K	[mm]	15	19	19	19	24	
Weight NBG ¹⁾	[kg]	285/356	344/-	445/-	485/-	628/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

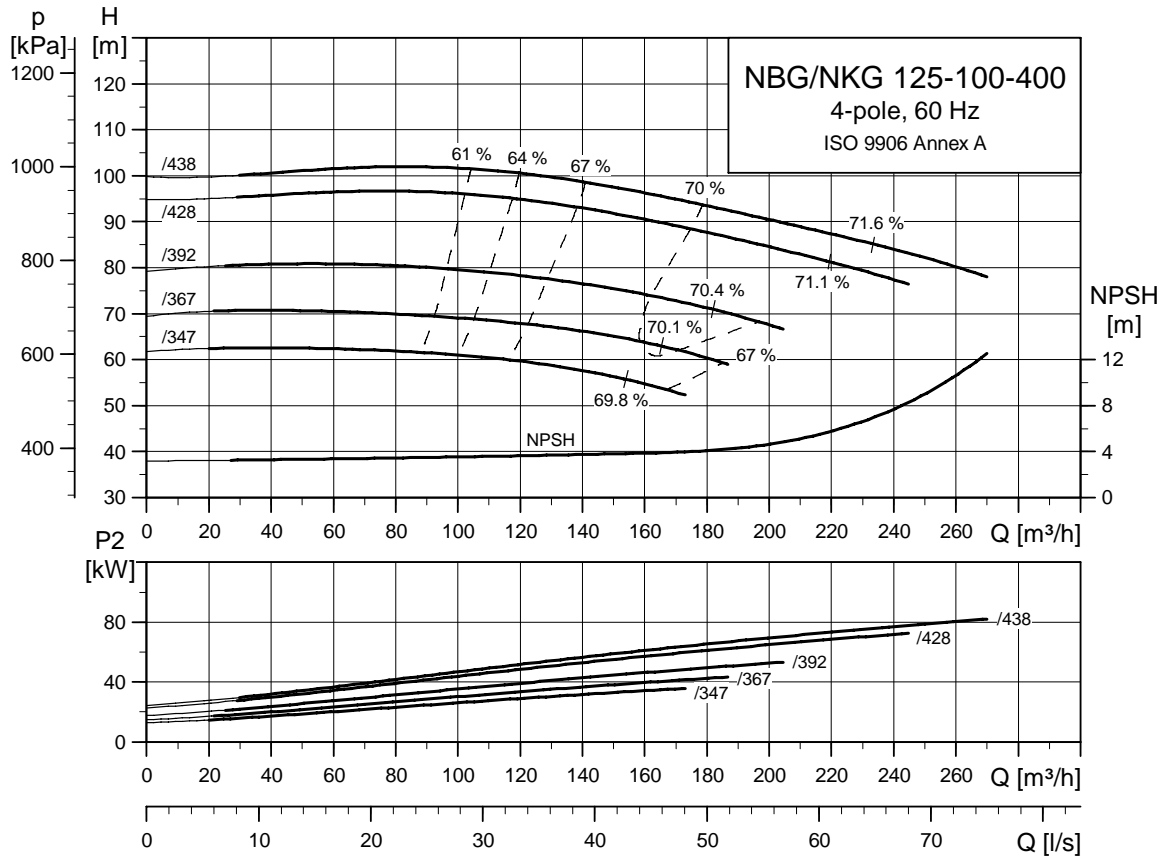
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

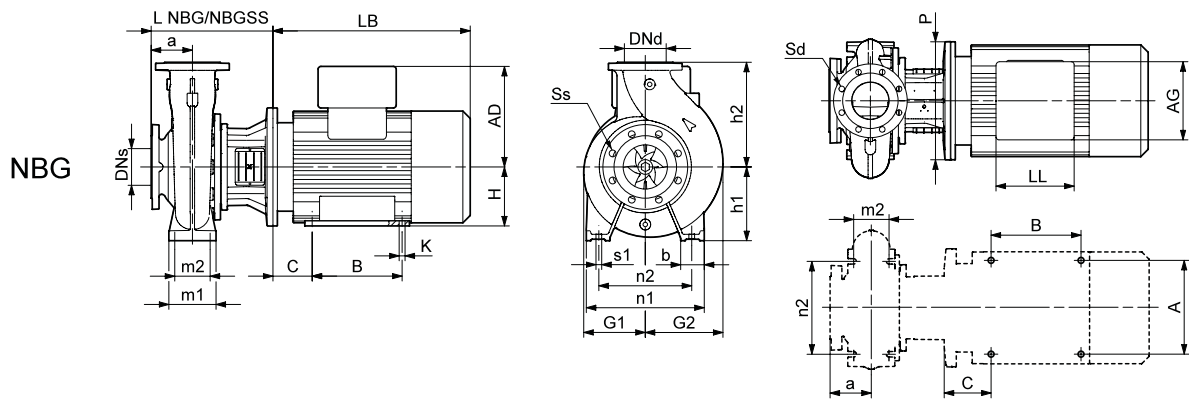
Note: For information about base frames, see page 222.

Performance curves

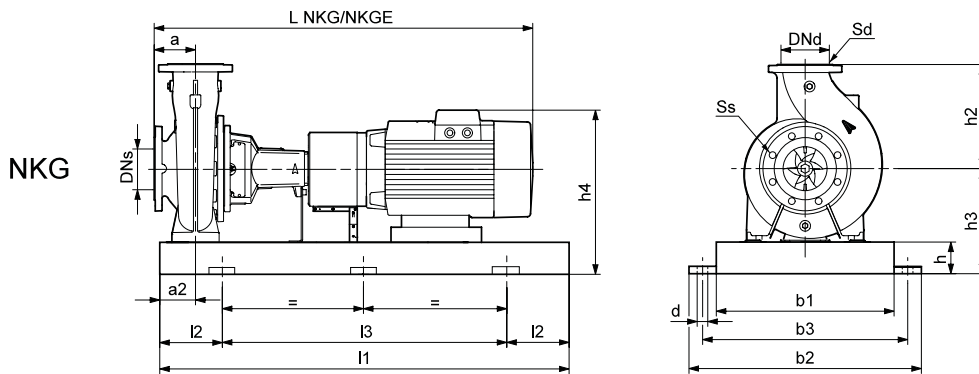
NBG, NKG 125-100-400
4-pole



TM03 5055 3406



TM03 8010 0107



TM03 8012 0107

Pump type		125-100-400/347	125-100-400/367	125-100-400/392	125-100-400/428	125-100-400/438	
Motor type	Premium Motor	Siemens 225S	Siemens 225M	Siemens 250M	Siemens 280S	Siemens 280M	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	37	45	55	75	90
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	355	355	355	355	355
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1463/1599	1523/1659	1631/1767	1634/1770	1744/1880
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	743/738	783/778	907/906	1160/1154	1261/1255
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	2000	2000
	l ₂	[mm]	300	300	300	330	330
	l ₃	[mm]	1200	1200	1200	1340	1340
	b ₁	[mm]	600	600	600	750	750
	b ₂	[mm]	730	730	730	890	890
	b ₃	[mm]	670	670	670	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	130	130
	h ₃	[mm]	380	380	380	415	415
	h ₄ ¹⁾	[mm]	705/-	705/-	772/-	847/-	847/-
Base frame no.		9	9	9	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C	C
	L NBG	[mm]	441	441	441	441	441
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	280	280	280	280	280
	G ₁	[mm]	272	272	272	272	272
	G ₂	[mm]	298	298	298	298	298
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	225	225	250	280	280
	LB ¹⁾	[mm]	649/-	709/-	817/-	820/-	930/-
	AD ¹⁾	[mm]	325/-	325/-	392/-	432/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	300/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	236/-	236/-	236/-
	P	[mm]	450	450	550	550	550
	C	[mm]	149	149	168	190	190
	B	[mm]	286	286	349	368	419
A	[mm]	356	356	406	457	457	
K	[mm]	19	19	24	24	24	
Weight NKG ¹⁾	[kg]	519/-	559/-	702/-	817/-	917/-	
Weight NKG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

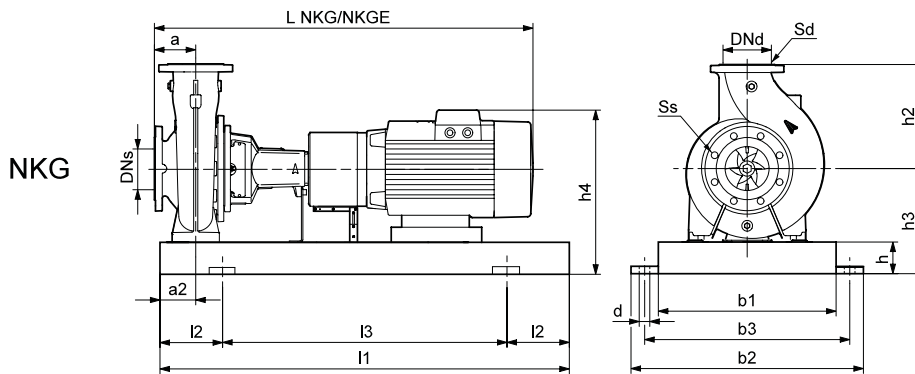
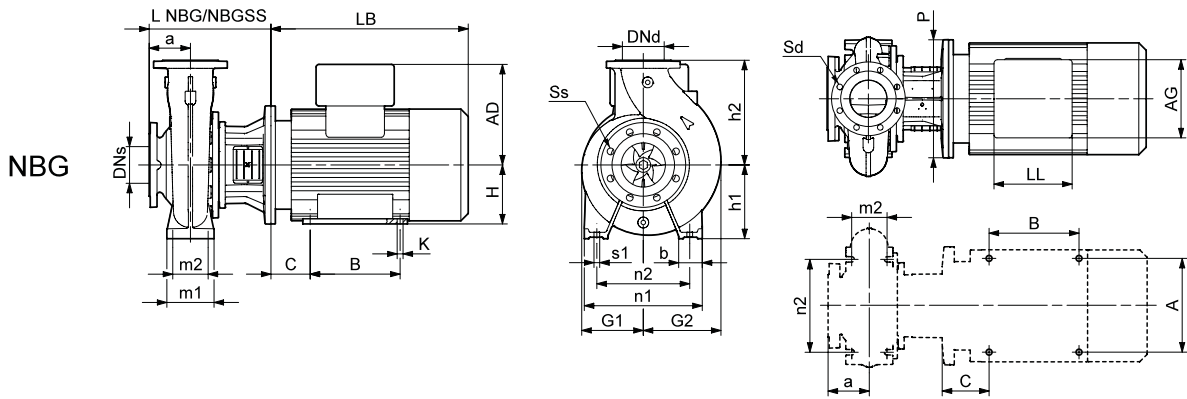
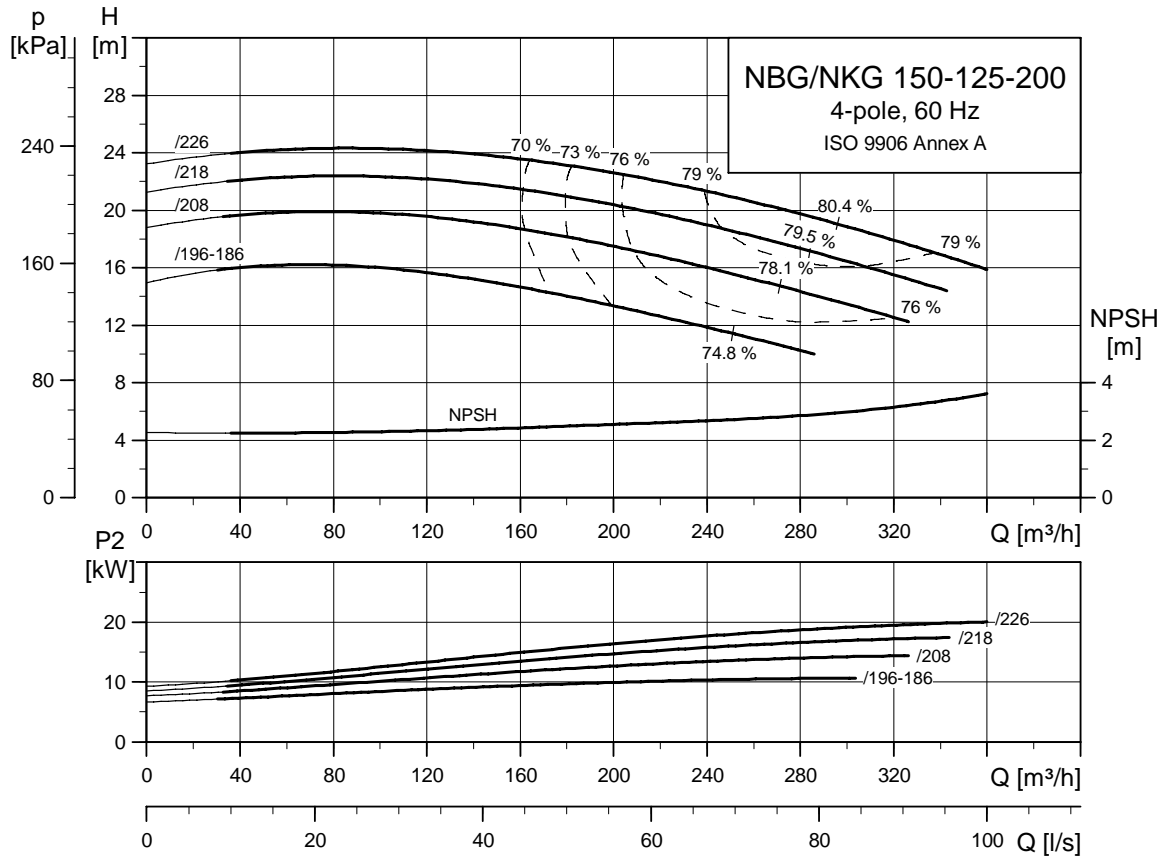
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 150-125-200
4-pole, 60 Hz



TM03 5056 3406

TM03 8010 0107

TM03 8011 0107

Pump type		150-125-200/196-186	150-125-200/208	150-125-200/218	150-125-200/226	
Motor type	Premium Motor	Siemens 160M	Siemens 160L	Siemens 180M	Siemens 180L	
	E-Motor	MMGE 160M	MMGE 160L	MMGE 180M	MMGE 180L	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5	22
	PN	[bar]	16	16	16	16
	DNs	[mm]	150	150	150	150
	DNd	[mm]	125	125	125	125
	a	[mm]	140	140	140	140
	h ₂	[mm]	315	315	315	315
	Ss		8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1232/1368	1272/1408	1356/1492	1356/1492
	L NKGE	[mm]	1203/1339	1253/1389	1253/1389	1324/1460
	Weight NKG	[mm]	344/339	370/365	394/386	414/406
	Weight NKGE	[kg]	395/390	413/408	451/443	485/477
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1400	1400
	l ₂	[mm]	230	230	230	230
	l ₃	[mm]	940	940	940	940
	b ₁	[mm]	480	480	480	480
	b ₂	[mm]	610	610	610	610
	b ₃	[mm]	560	560	560	560
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h ₃	[mm]	350	350	350	350
	h ₄ ¹⁾	[mm]	547/709	547/727	608/749	608/749
Base frame no.		7	7	7	7	
NBG data	Design		C ²⁾	C ²⁾	C	C
	L NBG	[mm]	413	413	413	413
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	250	250	250	250
	G ₁	[mm]	183	183	183	183
	G ₂	[mm]	234	234	234	234
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	400	400	400	400
	n ₂	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	160	160	180	180
	LB ¹⁾	[mm]	478/449	518/499	602/499	602/570
	AD ¹⁾	[mm]	197/359	197/377	258/399	258/399
	AG ¹⁾	[mm]	165/296	165/296	152/328	152/328
	LL ¹⁾	[mm]	165/410	165/410	132/456	132/456
	P	[mm]	350	350	350	350
	C	[mm]	108	108	121	121
	B	[mm]	210	254	241	279
	A	[mm]	254	254	279	279
K	[mm]	15	15	15	15	
Weight NBG ¹⁾	[kg]	202/253	228/271	247/304	267/338	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

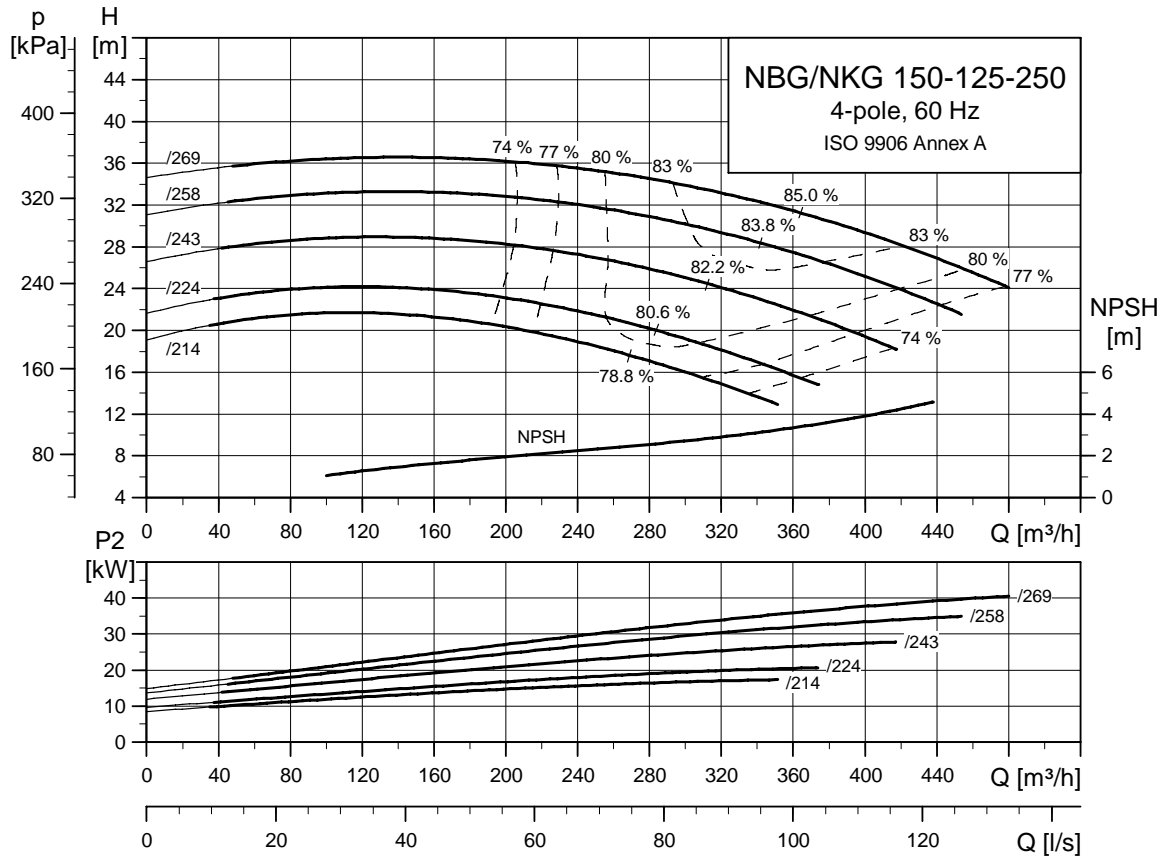
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

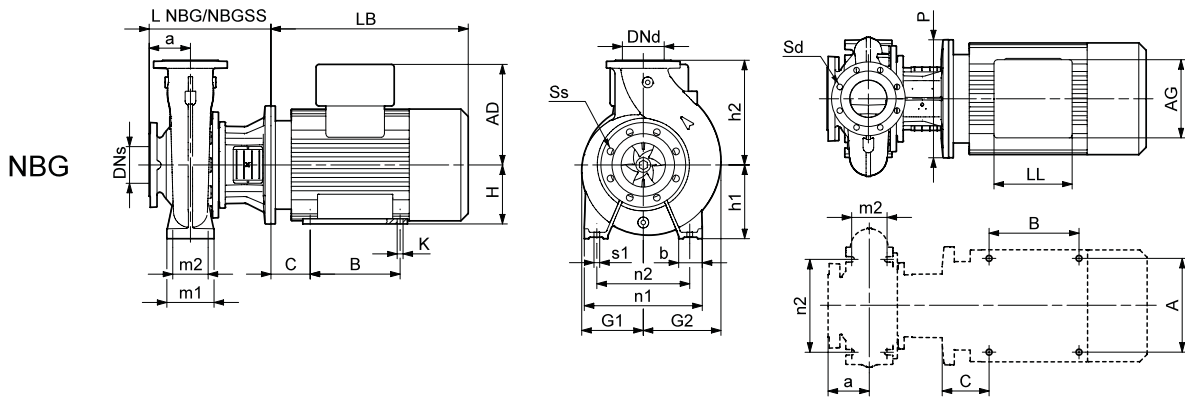
Note: For information about base frames, see page 222.

Performance curves

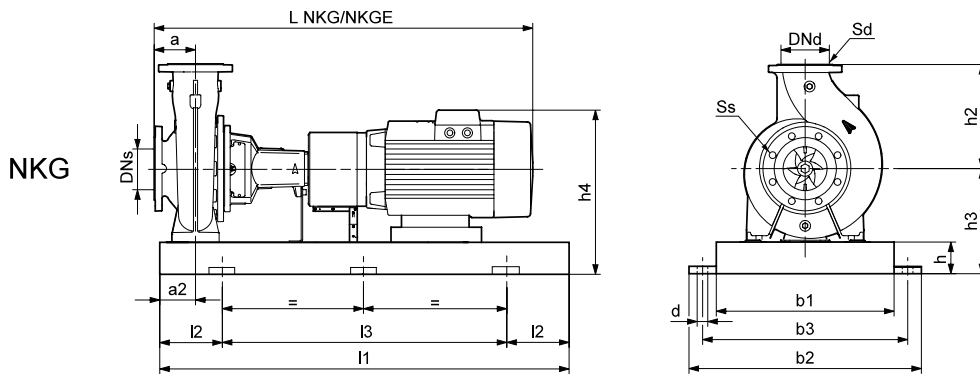
NBG, NKG 150-125-250
4-pole



TM03 5057 3406



TM03 8010 0107



TM03 8012 0107

Pump type		150-125-250/214	150-125-250/224	150-125-250/243	150-125-250/258	150-125-250/269	
Motor type	Premium Motor	Siemens 180M	Siemens 180L	Siemens 200L	Siemens 225S	Siemens 225M	
	E-Motor	MMGE 180M	MMGE 180L	-	-	-	
Common data NBG/NKG	P ₂	[kW]	18.5	22	30	37	45
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	355	355	355	355	355
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1386/1522	1386/1522	1443/1579	1463/1599	1523/1659
	L NKGE	[mm]	1283/1419	1354/1490	-/-	-/-	-/-
	Weight NKG	[mm]	412/404	432/424	540/535	611/607	651/647
	Weight NKGE	[kg]	469/461	503/495	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1600	1600	1600
	l ₂	[mm]	230	230	270	270	270
	l ₃	[mm]	940	940	1060	1060	1060
	b ₁	[mm]	480	480	530	530	530
	b ₂	[mm]	610	610	660	660	660
	b ₃	[mm]	560	560	600	600	600
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	350	350	355	350	350
	h ₄ ¹⁾	[mm]	608/749	608/749	660/-	675/-	675/-
	Base frame no.		7	7	8	8	8
	NBG data	Design		C	C	C ²⁾	C ²⁾
L NBG		[mm]	411	411	411	441	441
L NBG SS		[mm]	-	-	-	-	-
h ₁		[mm]	250	250	250	250	250
G ₁		[mm]	208	208	208	208	208
G ₂		[mm]	264	264	264	264	264
m ₁		[mm]	160	160	160	160	160
m ₂		[mm]	120	120	120	120	120
n ₁		[mm]	400	400	400	400	400
n ₂		[mm]	315	315	315	315	315
b		[mm]	80	80	80	80	80
s ₁		[mm]	M16	M16	M16	M16	M16
H		[mm]	180	180	200	225	225
LB ¹⁾		[mm]	602/499	602/570	659/-	649/-	709/-
AD ¹⁾		[mm]	258/399	258/399	305/-	325/-	325/-
AG ¹⁾		[mm]	152/328	152/328	260/-	260/-	260/-
LL ¹⁾		[mm]	132/456	132/456	192/-	192/-	192/-
P		[mm]	350	350	400	450	450
C		[mm]	121	121	133	149	149
B		[mm]	241	279	305	286	286
A	[mm]	279	279	318	356	356	
K	[mm]	15	15	19	19	19	
Weight NBG ¹⁾	[kg]	260/317	280/351	339/-	440/-	480/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

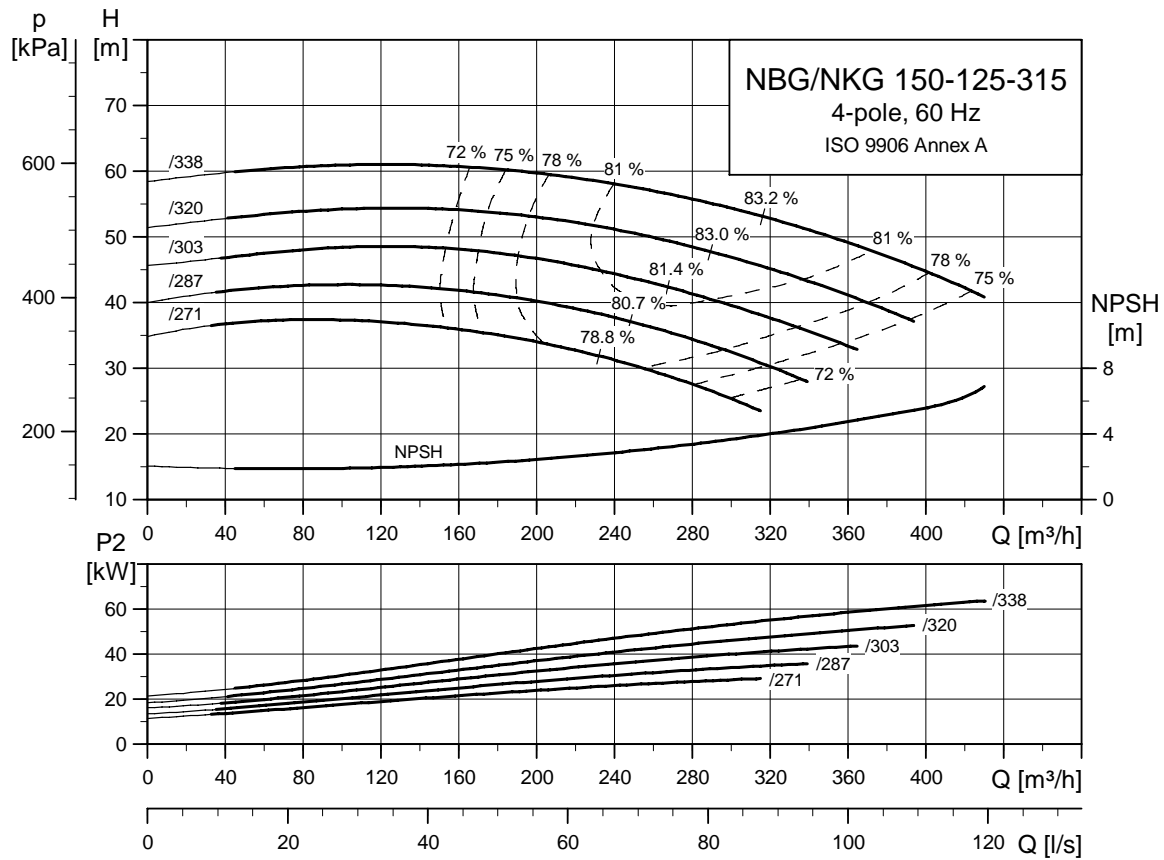
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

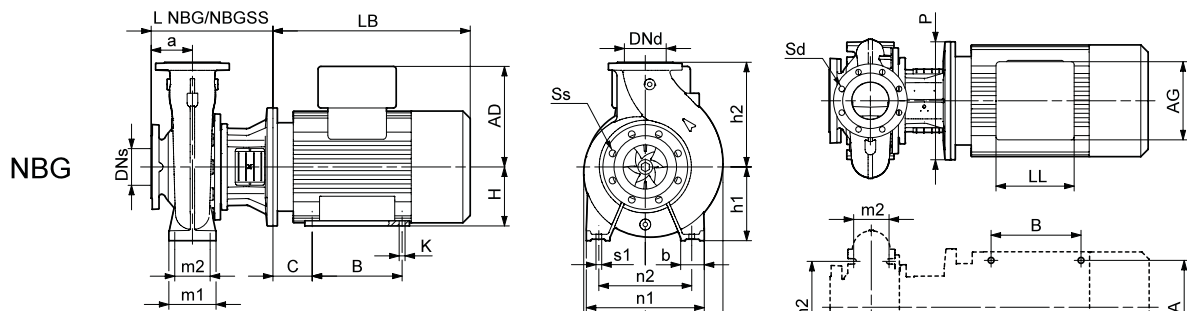
Note: For information about base frames, see page 222.

Performance curves

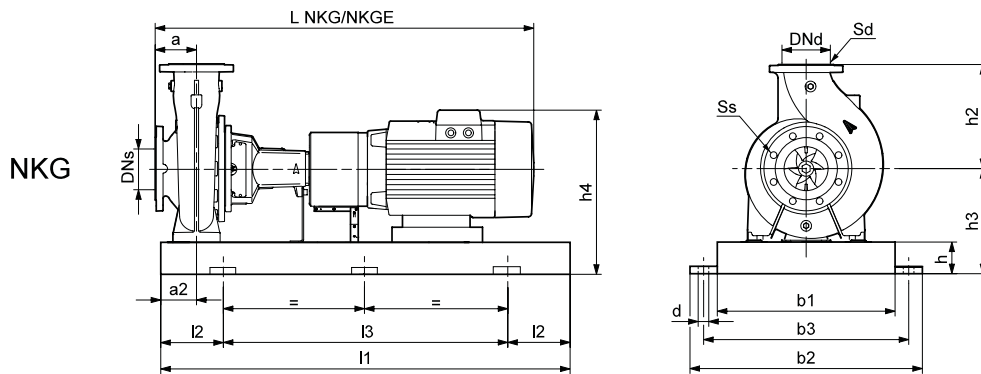
NBG, NKG 150-125-315
4-pole



TM03 5058 3406



TM03 8010 0107



TM03 8012 0107

Pump type		150-125-315/271	150-125-315/287	150-125-315/303	150-125-315/320	150-125-315/338	
Motor type	Premium Motor	Siemens 200L	Siemens 225S	Siemens 225M	Siemens 250M	Siemens 280S	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	30	37	45	55	75
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	355	355	355	355	355
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1443/1579	1463/1599	1523/1659	1631/1767	1634/1770
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	587/582	703/698	743/738	867/866	1120/1114
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	1800	2000
	l ₂	[mm]	300	300	300	300	330
	l ₃	[mm]	1200	1200	1200	1200	1340
	b ₁	[mm]	600	600	600	600	750
	b ₂	[mm]	730	730	730	730	890
	b ₃	[mm]	670	670	670	670	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	100	130
	h ₃	[mm]	380	380	380	380	415
	h ₄ ¹⁾	[mm]	685/-	705/-	705/-	772/-	847/-
Base frame no.		9	9	9	9	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C
	L NBG	[mm]	411	441	441	441	441
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	280	280	280	280	280
	G ₁	[mm]	231	231	231	231	231
	G ₂	[mm]	268	268	268	268	268
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	200	225	225	250	280
	LB ¹⁾	[mm]	659/-	649/-	709/-	817/-	820/-
	AD ¹⁾	[mm]	305/-	325/-	325/-	392/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	260/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	192/-	236/-	236/-
	P	[mm]	400	450	450	550	550
	C	[mm]	133	149	149	168	190
	B	[mm]	305	286	286	349	368
A	[mm]	318	356	356	406	457	
K	[mm]	19	19	19	24	24	
Weight NKG ¹⁾	[kg]	377/-	479/-	519/-	662/-	777/-	
Weight NKG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

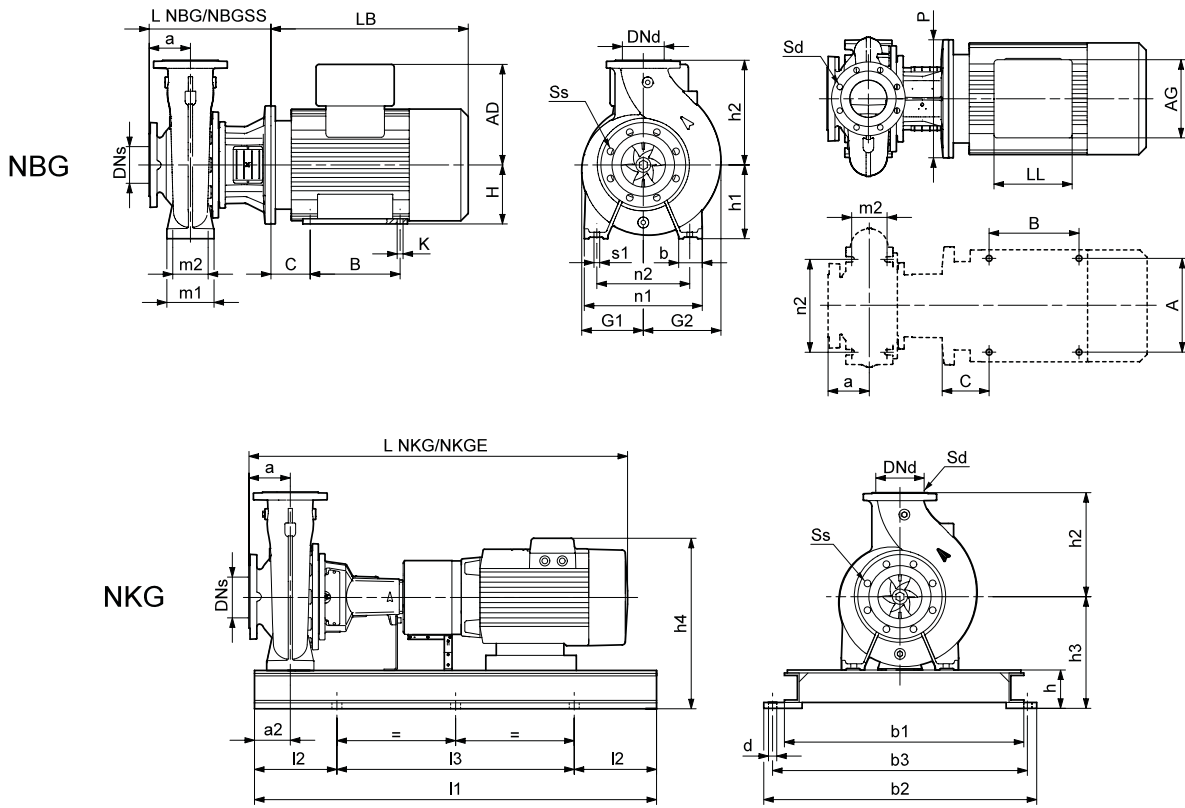
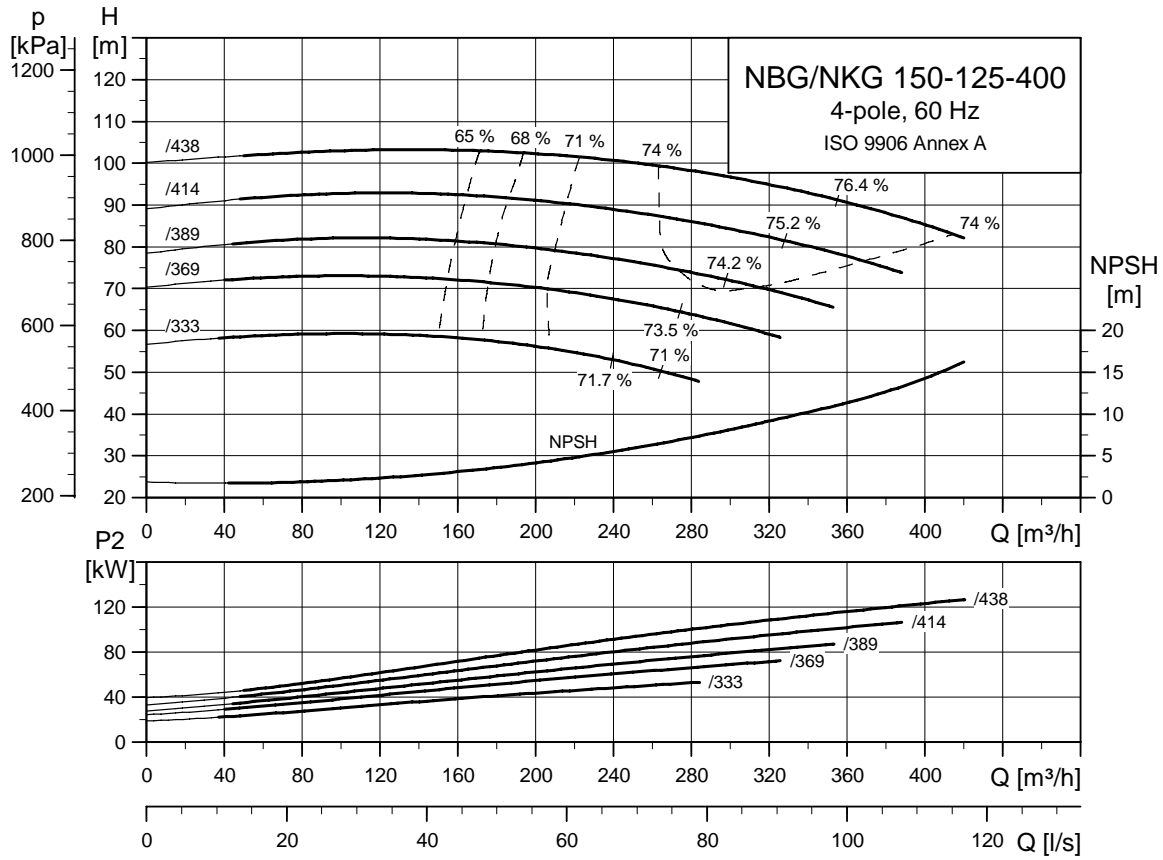
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 150-125-400
4-pole, 60 Hz



TM03 5059 3406

TM03 8010 0107

TM03 8013 0107

Pump type		150-125-400/333	150-125-400/369	150-125-400/389	150-125-400/414	150-125-400/438	
Motor type	Premium Motor	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315MA	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	55	75	90	110	132
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	400	400	400	400	400
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1631/1767	1634/1770	1744/1880	1776/1912	1936/2072
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	915/914	1200/1194	1304/1298	1410/1412	1566/1568
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	2000	2000	2000	2000
	l ₂	[mm]	300	330	330	330	330
	l ₃	[mm]	1200	1340	1340	1340	1340
	b ₁	[mm]	600	750	750	750	750
	b ₂	[mm]	730	890	890	890	890
	b ₃	[mm]	670	830	830	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	130	130	130	130
	h ₃	[mm]	415	445	445	450	450
	h ₄ ¹⁾	[mm]	807/-	877/-	877/-	945/-	945/-
	Base frame no.		9	10	10	10	10
NBG data	Design		C	C	C	C ²⁾	C ²⁾
	L NBG	[mm]	441	441	441	471	471
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	315	315	315	315	315
	G ₁	[mm]	284	284	284	284	284
	G ₂	[mm]	320	320	320	320	320
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	250	280	280	315	315
	LB ¹⁾	[mm]	817/-	820/-	930/-	932/-	1092/-
	AD ¹⁾	[mm]	392/-	432/-	432/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	300/-	300/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	236/-	236/-	307/-	307/-
	P	[mm]	550	550	550	660	660
	C	[mm]	168	190	190	216	216
	B	[mm]	349	368	419	406	457
A	[mm]	406	457	457	508	508	
K	[mm]	24	24	24	28	28	
Weight NBG ¹⁾	[kg]	714/-	829/-	929/-	1105/-	1260/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

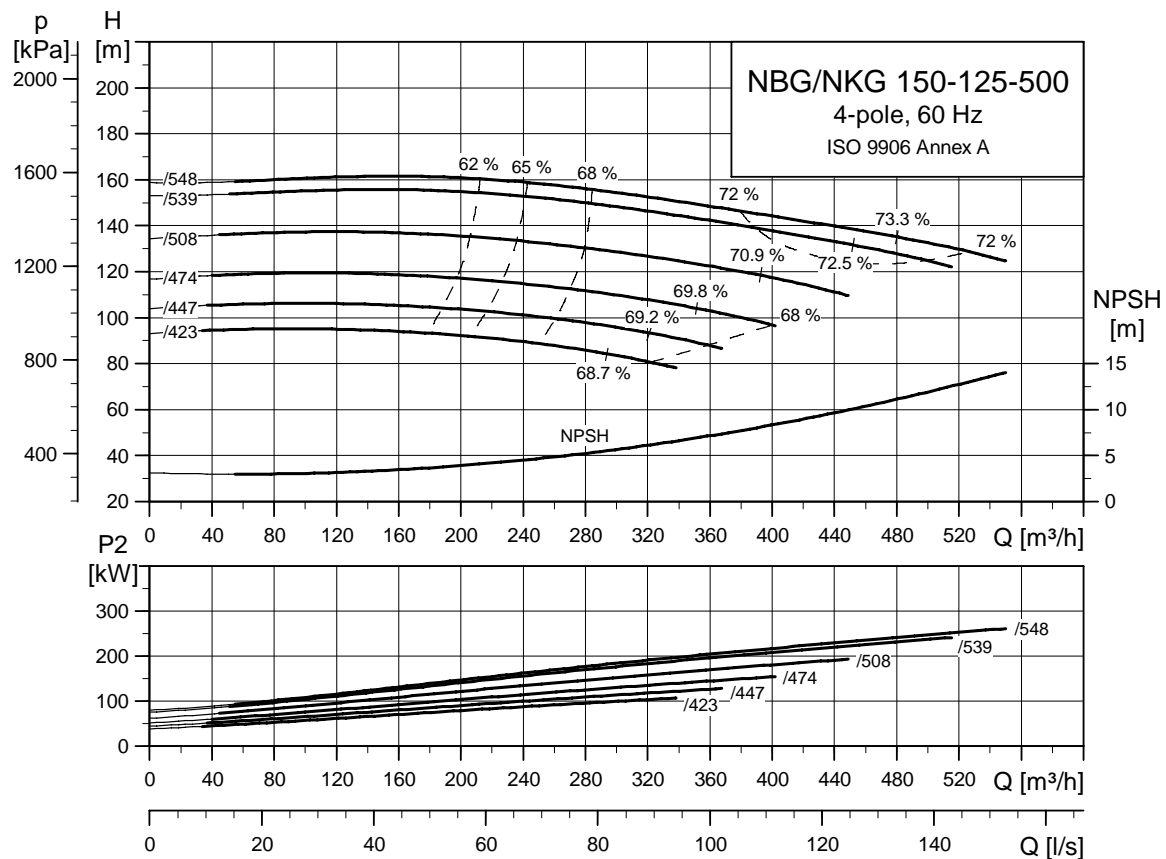
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

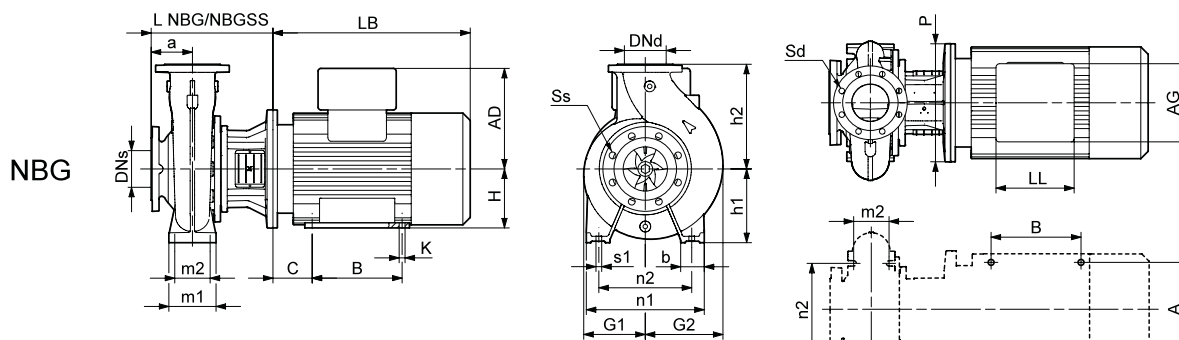
Performance curves

NBG, NKG 150-125-500
4-pole, 60 Hz

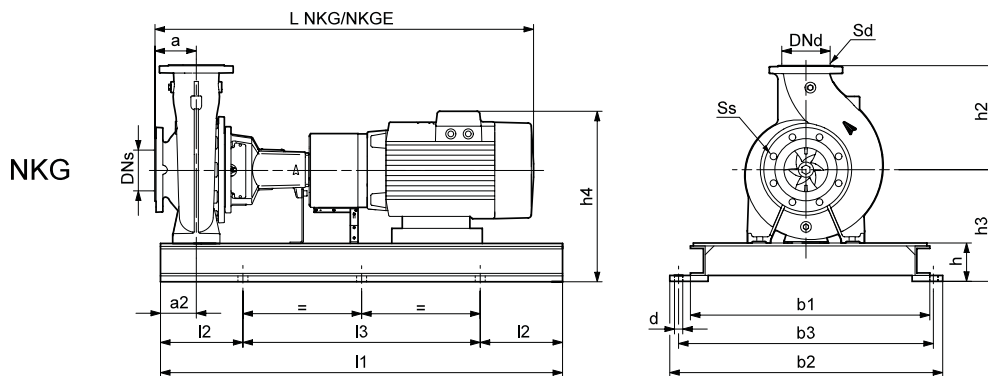
4-pole



TM03 5060 3406



TM03 8010 0107



TM03 8013 0107

Pump type		150-125-500/423	150-125-500/447	150-125-500/474	150-125-500/508	150-125-500/539	150-125-500/548	
Motor type	Premium Motor	Siemens 315S	Siemens 315MA	Siemens 315MB	Siemens 315L	Siemens 315	Siemens 315	
	E-Motor	-	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	110	132	160	200	288	362
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125	125
	a	[mm]	180	180	180	180	180	180
	h2	[mm]	500	500	500	500	500	500
	Ss		8x23	8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1956/2132	2116/2292	2116/2292	2256/2432	2264/2440	2264/2440
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1716/1712	1875/1871	2011/2007	2211/2207	2259/2255	2459/2455
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	2000	2000	2000	2000	2250	2250
	l2	[mm]	330	330	330	330	375	375
	l3	[mm]	1340	1340	1340	1340	1500	1500
	b1	[mm]	750	750	750	750	840	840
	b2	[mm]	890	890	890	890	980	980
	b3	[mm]	830	830	830	830	920	920
	d	[mm]	28	28	28	28	28	28
	a2	[mm]	110	110	110	110	110	110
	h	[mm]	130	130	130	130	130	130
	h3	[mm]	530	530	530	530	530	530
	h4 ¹⁾	[mm]	1025/-	1025/-	1025/-	1025/-	998/-	998/-
Base frame no.		10	10	10	10	11	11	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	-	-
	L NBG	[mm]	554	554	554	554	-	-
	L NBG SS	[mm]	-	-	-	-	-	-
	h1	[mm]	400	400	400	400	-	-
	G1	[mm]	344	344	344	344	-	-
	G2	[mm]	377	377	377	377	-	-
	m1	[mm]	200	200	200	200	-	-
	m2	[mm]	150	150	150	150	-	-
	n1	[mm]	625	625	625	625	-	-
	n2	[mm]	500	500	500	500	-	-
	b	[mm]	125	125	125	125	-	-
	s1	[mm]	M20	M20	M20	M20	-	-
	H	[mm]	315	315	315	315	-	-
	LB ¹⁾	[mm]	932/-	1092/-	1092/-	1232/-	-/-	-/-
	AD ¹⁾	[mm]	495/-	495/-	495/-	495/-	-/-	-/-
	AG ¹⁾	[mm]	379/-	379/-	379/-	379/-	-/-	-/-
	LL ¹⁾	[mm]	307/-	307/-	307/-	307/-	-/-	-/-
	P	[mm]	660	660	660	660	-	-
	C	[mm]	216	216	216	216	-	-
	B	[mm]	406	457	508	457	-	-
A	[mm]	508	508	508	508	-	-	
K	[mm]	28	28	28	28	-	-	
Weight NBG ¹⁾	[kg]	1319/-	1474/-	1614/-	1814/-	-/-	-/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	-/-	

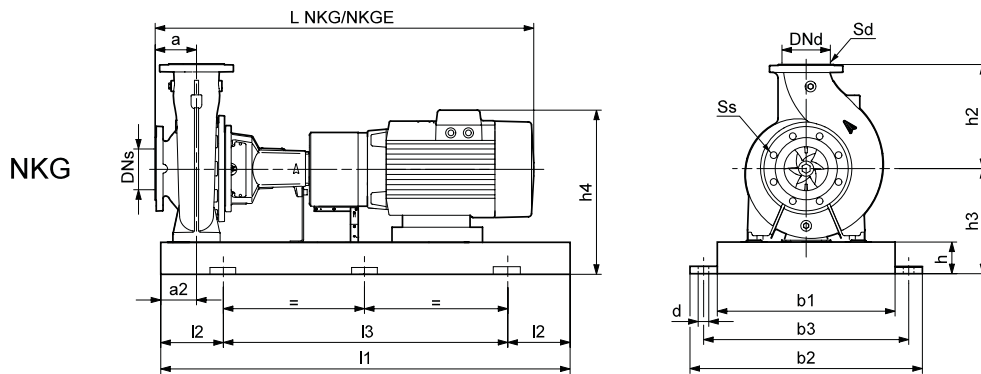
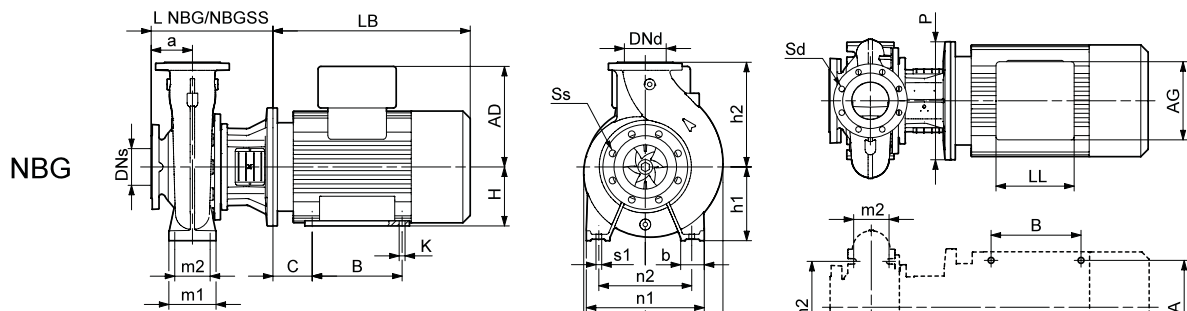
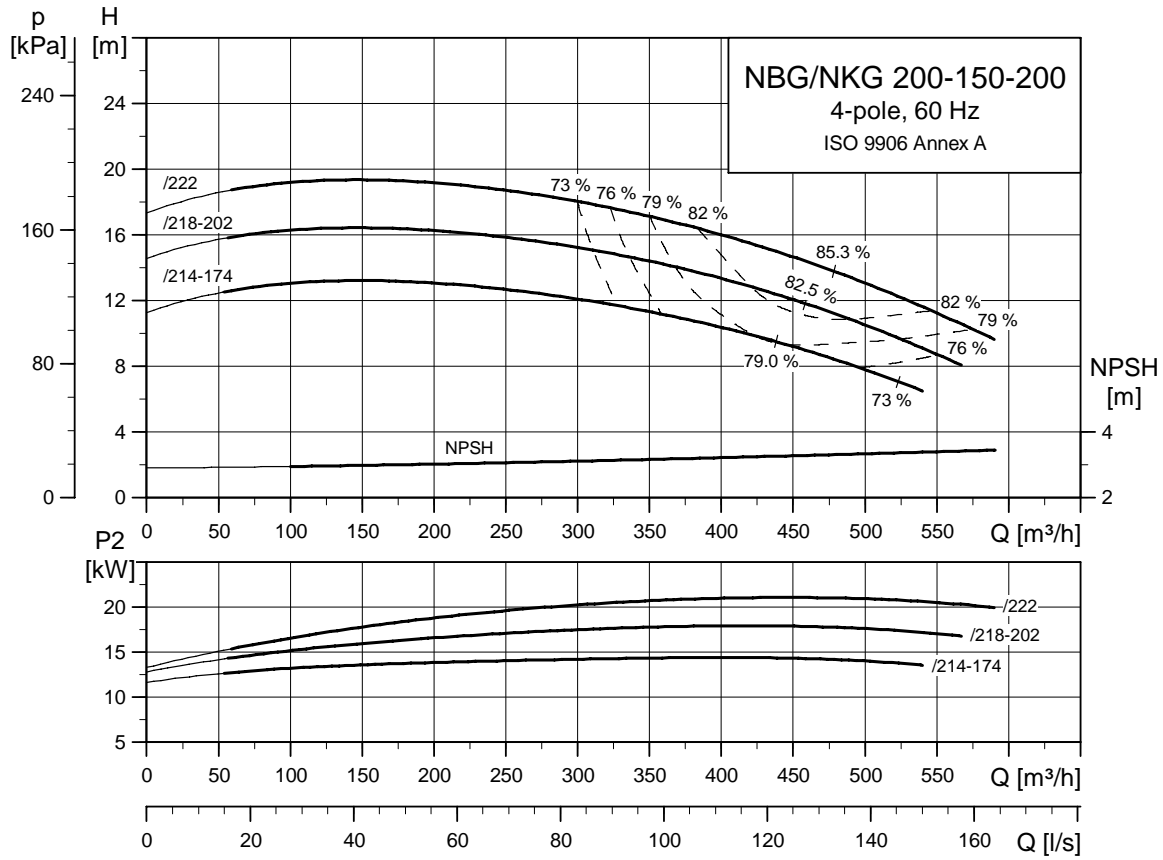
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-200
4-pole



TM03 5061 3406

TM03 8010 0107

TM03 8012 0107

Pump type		200-150-200/214-174	200-150-200/218-202	200-150-200/222	
Motor type	Premium Motor	Siemens 160L	Siemens 180M	Siemens 180L	
	E-Motor	MMGE 160L	MMGE 180M	MMGE 180L	
Common data NBG/NKG	P ₂	[kW]	15	18.5	22
	PN	[bar]	16	16	16
	DNs	[mm]	200	200	200
	DNd	[mm]	150	150	150
	a	[mm]	160	160	160
	h ₂	[mm]	400	400	400
	Ss		8x23	8x23	8x23
Common data NKG standard/ spacer coupling	Sd		8x23	8x23	
	L NKG	[mm]	1292/1468	1376/1552	1376/1552
	L NKGE	[mm]	1273/1449	1273/1449	1344/1520
	Weight NKG	[mm]	493/487	513/505	533/525
	Weight NKGE	[kg]	536/530	570/562	604/596
	Weight NKG SS	[kg]	-/-	-/-	-/-
NKG data	Weight NKGE SS	[kg]	-/-	-/-	-/-
	I ₁	[kg]	1800	1800	1800
	I ₂	[mm]	300	300	300
	I ₃	[mm]	1200	1200	1200
	b ₁	[mm]	600	600	600
	b ₂	[mm]	730	730	730
	b ₃	[mm]	670	670	670
	d	[mm]	28	28	28
	a ₂	[mm]	110	110	110
	h	[mm]	100	100	100
	h ₃	[mm]	380	383	383
NBG data	h ₄ ¹⁾	[mm]	577/757	641/782	641/782
	Base frame no.		9	9	9
	Design		C ²⁾	C	C
	L NBG	[mm]	433	433	433
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	280	280	280
	G ₁	[mm]	230	230	230
	G ₂	[mm]	319	319	319
	m ₁	[mm]	200	200	200
	m ₂	[mm]	150	150	150
	n ₁	[mm]	550	550	550
	n ₂	[mm]	450	450	450
	b	[mm]	100	100	100
	s ₁	[mm]	M20	M20	M20
	H	[mm]	160	180	180
	LB ¹⁾	[mm]	518/499	602/499	602/570
	AD ¹⁾	[mm]	197/377	258/399	258/399
	AG ¹⁾	[mm]	165/296	152/328	152/328
	LL ¹⁾	[mm]	165/410	132/456	132/456
	P	[mm]	350	350	350
C	[mm]	108	121	121	
B	[mm]	254	241	279	
A	[mm]	254	279	279	
K	[mm]	15	15	15	
Weight NBG ¹⁾	[kg]	283/326	302/359	322/393	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

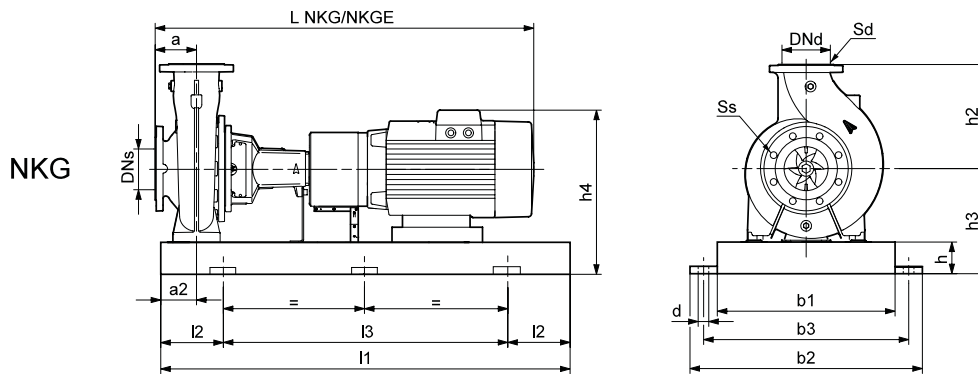
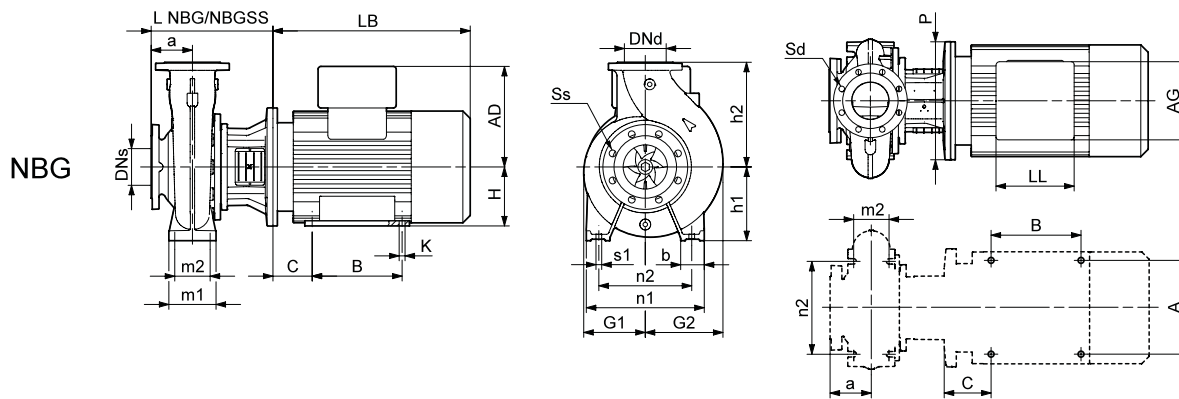
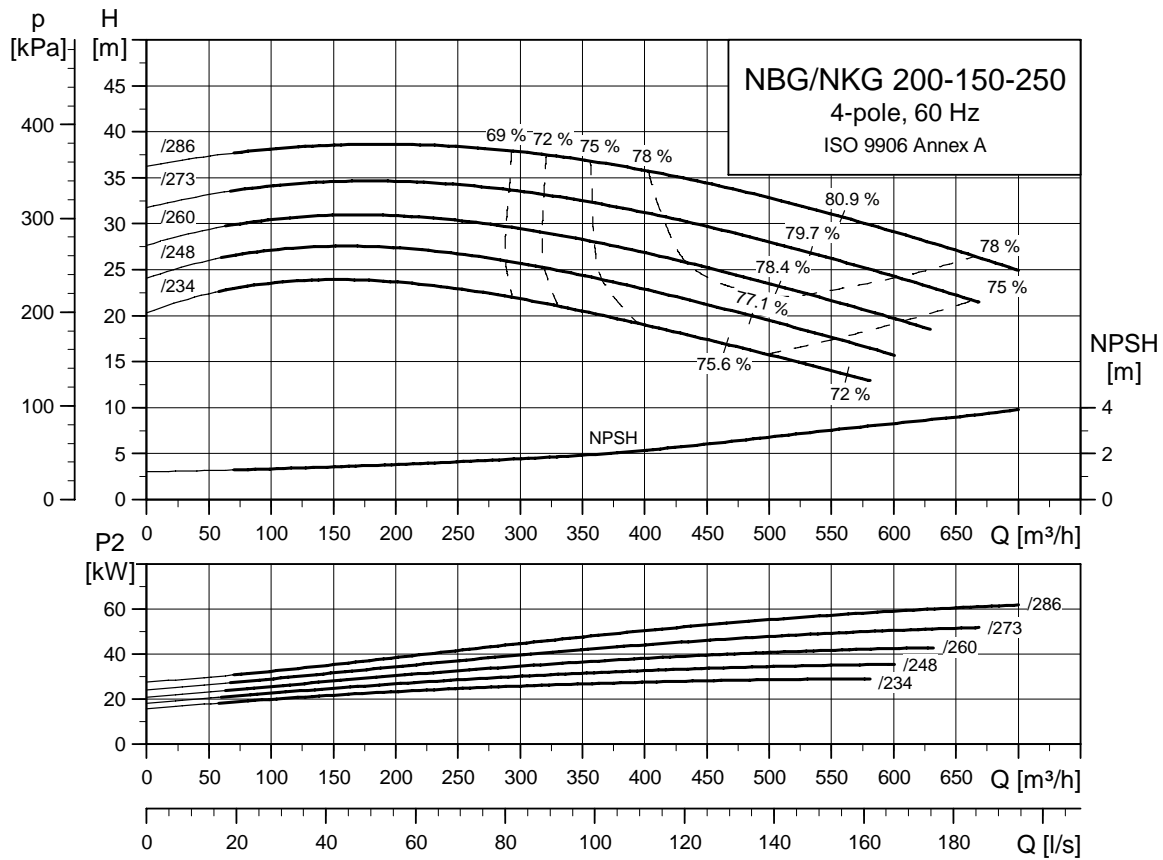
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-250
4-pole, 60 Hz



TM03 5062 3406

TM03 8010 0107

TM03 8012 0107

Pump type		200-150-250/234	200-150-250/248	200-150-250/260	200-150-250/273	200-150-250/286	
Motor type	Premium Motor	Siemens 200L	Siemens 225S	Siemens 225M	Siemens 250M	Siemens 280S	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	30	37	45	55	75
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	200	200	200	200	200
	DNd	[mm]	150	150	150	150	150
	a	[mm]	160	160	160	160	160
	h2	[mm]	375	375	375	375	375
	Ss		12x23	12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1463/1639	1483/1659	1543/1719	1651/1827	1654/1830
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	590/585	706/702	746/742	870/869	1123/1117
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1800	1800	1800	1800	2000
	l2	[mm]	300	300	300	300	330
	l3	[mm]	1200	1200	1200	1200	1340
	b1	[mm]	600	600	600	600	750
	b2	[mm]	730	730	730	730	890
	b3	[mm]	670	670	670	670	830
	d	[mm]	28	28	28	28	28
	a2	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	100	130
	h3	[mm]	380	380	380	380	415
	h4 ¹⁾	[mm]	685/-	705/-	705/-	772/-	847/-
Base frame no.		9	9	9	9	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C
	L NBG	[mm]	431	461	461	461	461
	L NBG SS	[mm]	-	-	-	-	-
	h1	[mm]	280	280	280	280	280
	G1	[mm]	221	221	221	221	221
	G2	[mm]	287	287	287	287	287
	m1	[mm]	200	200	200	200	200
	m2	[mm]	150	150	150	150	150
	n1	[mm]	500	500	500	500	500
	n2	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s1	[mm]	M20	M20	M20	M20	M20
	H	[mm]	200	225	225	250	280
	LB ¹⁾	[mm]	659/-	649/-	709/-	817/-	820/-
	AD ¹⁾	[mm]	305/-	325/-	325/-	392/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	260/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	192/-	236/-	236/-
	P	[mm]	400	450	450	550	550
	C	[mm]	133	149	149	168	190
	B	[mm]	305	286	286	349	368
A	[mm]	318	356	356	406	457	
K	[mm]	19	19	19	24	24	
Weight NBG ¹⁾	[kg]	381/-	482/-	522/-	665/-	780/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

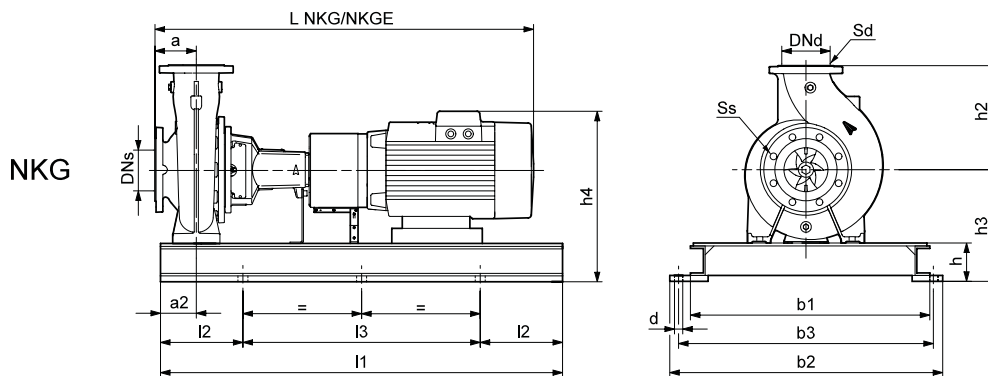
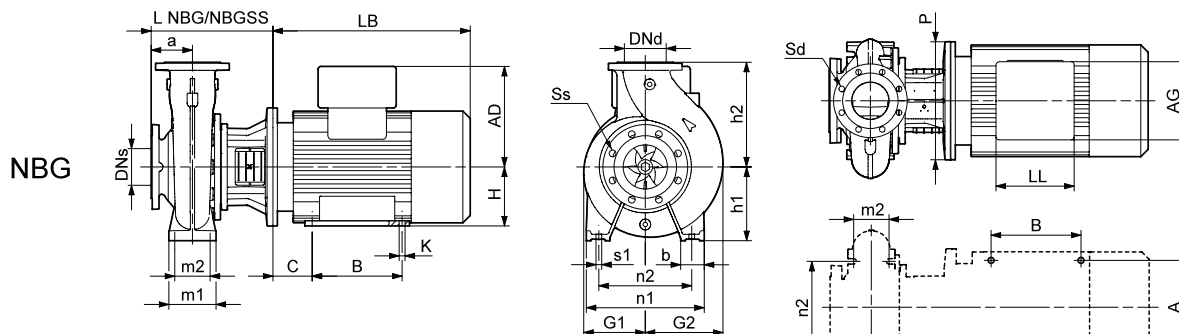
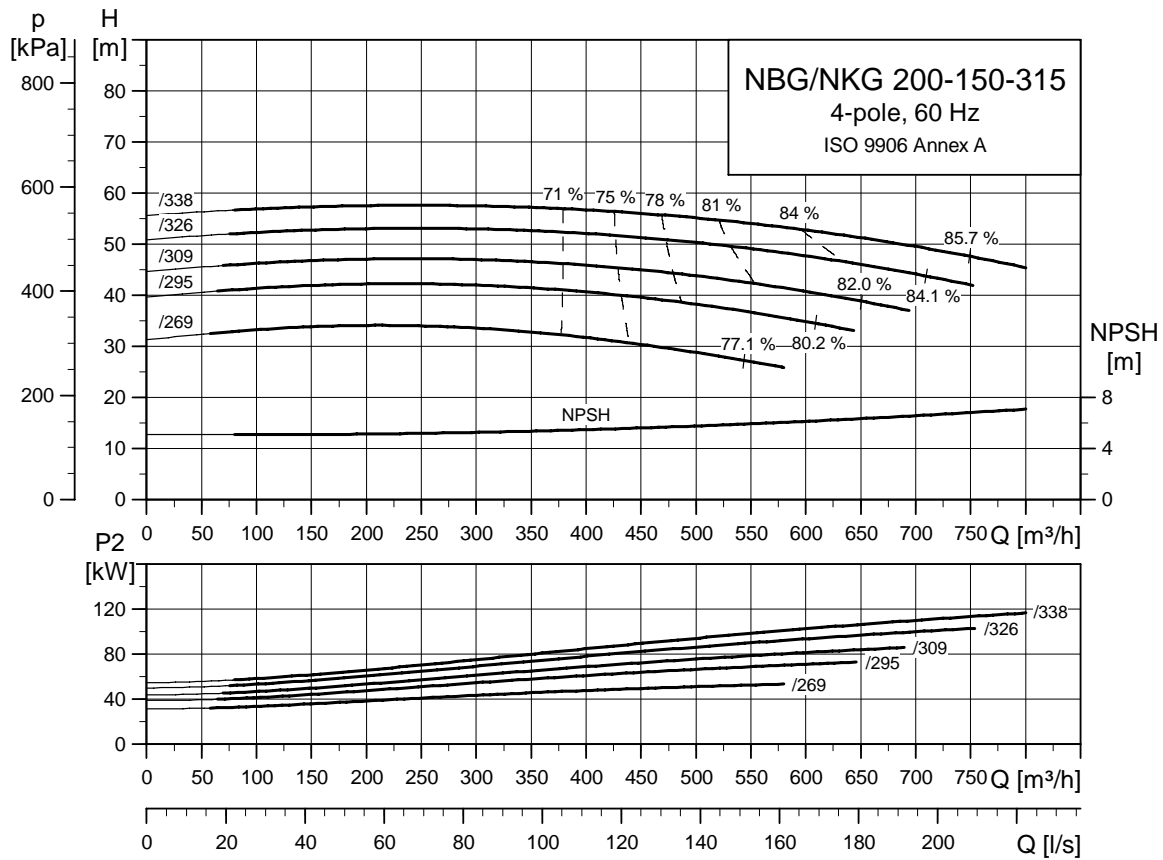
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-315
4-pole, 60 Hz



TM03 5063 3406

TM03 8010 0107

TM03 8013 0107

Pump type		200-150-315/269	200-150-315/295	200-150-315/309	200-150-315/326	200-150-315/338	
Motor type	Premium Motor	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315MA	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	55	75	90	110	132
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	200	200	200	200	200
	DNd	[mm]	150	150	150	150	150
	a	[mm]	160	160	160	160	160
	h2	[mm]	450	450	450	450	450
	Ss		12x23	12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1791/1967	1794/1970	1904/2080	1936/2112	2096/2272
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	996/997	1282/1277	1385/1380	1492/1496	1648/1651
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1800	2000	2000	2000	2000
	l2	[mm]	300	330	330	330	330
	l3	[mm]	1200	1340	1340	1340	1340
	b1	[mm]	600	750	750	750	750
	b2	[mm]	730	890	890	890	890
	b3	[mm]	670	830	830	830	830
	d	[mm]	28	28	28	28	28
	a2	[mm]	110	110	110	110	110
	h	[mm]	100	130	130	130	130
	h3	[mm]	415	445	445	450	450
	h4 ¹⁾	[mm]	807/-	877/-	877/-	945/-	945/-
Base frame no.		9	10	10	10	10	
NBG data	Design		C ²⁾	C	C	C ²⁾	C ²⁾
	L NBG	[mm]	474	474	474	504	504
	L NBG SS	[mm]	-	-	-	-	-
	h1	[mm]	315	315	315	315	315
	G1	[mm]	264	264	264	264	264
	G2	[mm]	331	331	331	331	331
	m1	[mm]	200	200	200	200	200
	m2	[mm]	150	150	150	150	150
	n1	[mm]	550	550	550	550	550
	n2	[mm]	450	450	450	450	450
	b	[mm]	100	100	100	100	100
	s1	[mm]	M20	M20	M20	M20	M20
	H	[mm]	250	280	280	315	315
	LB ¹⁾	[mm]	817/-	820/-	930/-	932/-	1092/-
	AD ¹⁾	[mm]	392/-	432/-	432/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	300/-	300/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	236/-	236/-	307/-	307/-
	P	[mm]	550	550	550	660	660
	C	[mm]	168	190	190	216	216
	B	[mm]	349	368	419	406	457
A	[mm]	406	457	457	508	508	
K	[mm]	24	24	24	28	28	
Weight NBG ¹⁾	[kg]	737/-	852/-	952/-	1128/-	1283/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

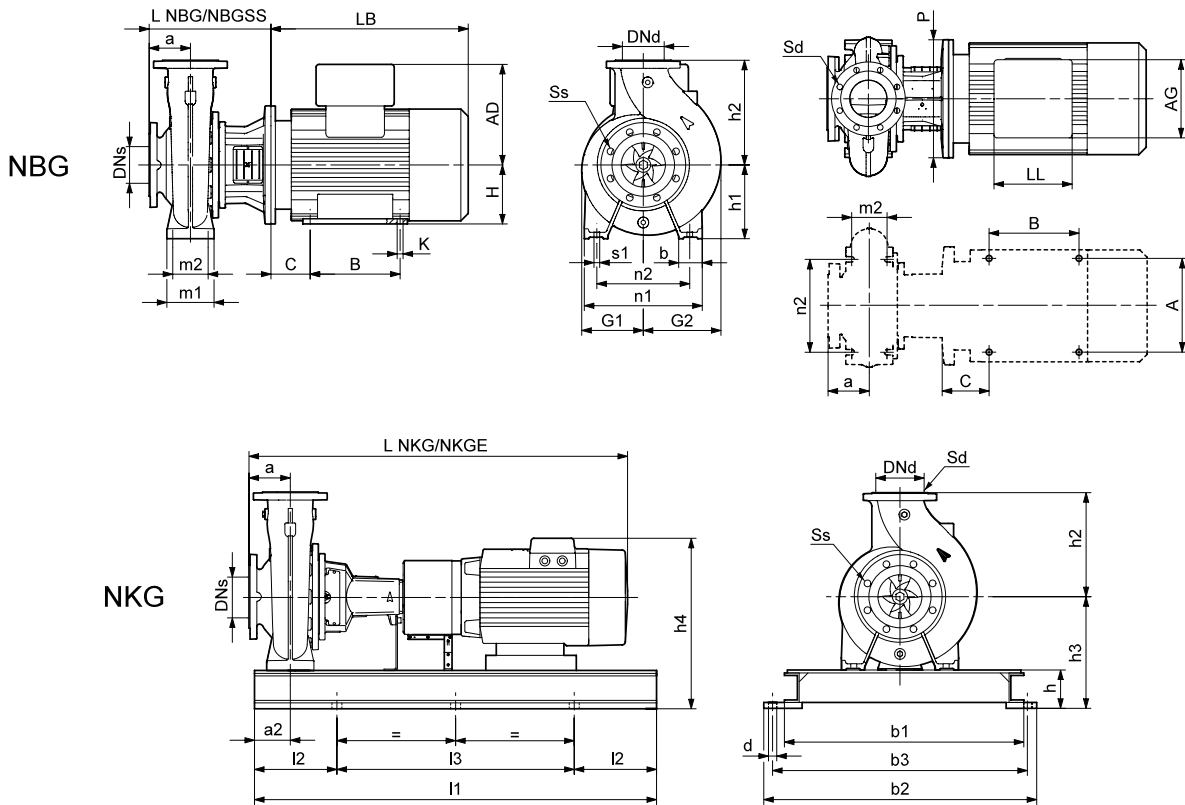
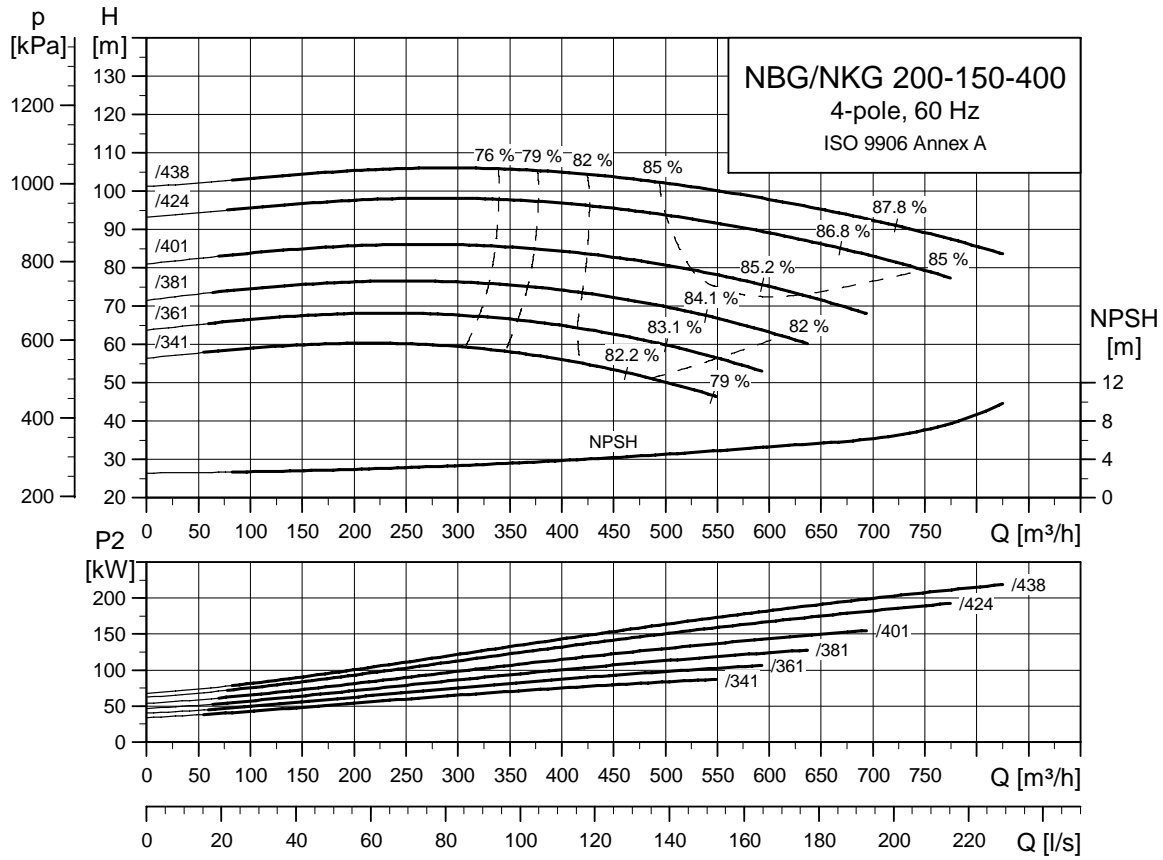
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-400
4-pole



TM03 5064 3406

TM03 8010 0107

TM03 8013 0107

Pump type		200-150-400/341	200-150-400/361	200-150-400/381	200-150-400/401	200-150-400/424	200-150-400/438	
Motor type	Premium Motor	Siemens 280M	Siemens 315S	Siemens 315MA	Siemens 315MB	Siemens 315L	Siemens 315	
	E-Motor	-	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	90	110	132	160	200	288
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	200	200	200	200	200	200
	DNd	[mm]	150	150	150	150	150	150
	a	[mm]	160	160	160	160	160	160
	h2	[mm]	450	450	450	450	450	450
	Ss		12x23	12x23	12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1904/2080	1936/2112	2096/2272	2096/2272	2236/2412	2244/2420
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1424/1419	1531/1535	1687/1690	1826/1830	2026/2030	2067/2071
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	2000	2000	2000	2000	2000	2250
	l2	[mm]	330	330	330	330	330	375
	l3	[mm]	1340	1340	1340	1340	1340	1500
	b1	[mm]	750	750	750	750	750	840
	b2	[mm]	890	890	890	890	890	980
	b3	[mm]	830	830	830	830	830	920
	d	[mm]	28	28	28	28	28	28
	a2	[mm]	110	110	110	110	110	110
	h	[mm]	130	130	130	130	130	130
	h3	[mm]	445	450	450	450	450	450
	h4 ¹⁾	[mm]	877/-	945/-	945/-	945/-	945/-	918/-
Base frame no.		10	10	10	10	10	11	
NBG data	Design		C	C ²⁾	C ²⁾	C ²⁾	C ²⁾	-
	L NBG	[mm]	474	504	504	504	504	-
	L NBG SS	[mm]	-	-	-	-	-	-
	h1	[mm]	315	315	315	315	315	-
	G1	[mm]	291	291	291	291	291	-
	G2	[mm]	339	339	339	339	339	-
	m1	[mm]	200	200	200	200	200	-
	m2	[mm]	150	150	150	150	150	-
	n1	[mm]	550	550	550	550	550	-
	n2	[mm]	450	450	450	450	450	-
	b	[mm]	100	100	100	100	100	-
	s1	[mm]	M20	M20	M20	M20	M20	-
	H	[mm]	280	315	315	315	315	-
	LB ¹⁾	[mm]	930/-	932/-	1092/-	1092/-	1232/-	-/-
	AD ¹⁾	[mm]	432/-	495/-	495/-	495/-	495/-	-/-
	AG ¹⁾	[mm]	300/-	379/-	379/-	379/-	379/-	-/-
	LL ¹⁾	[mm]	236/-	307/-	307/-	307/-	307/-	-/-
	P	[mm]	550	660	660	660	660	-
	C	[mm]	190	216	216	216	216	-
	B	[mm]	419	406	457	508	457	-
	A	[mm]	457	508	508	508	508	-
K	[mm]	24	28	28	28	28	-	
Weight NKG ¹⁾	[kg]	991/-	1167/-	1322/-	1462/-	1662/-	-/-	
Weight NKG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	-/-	

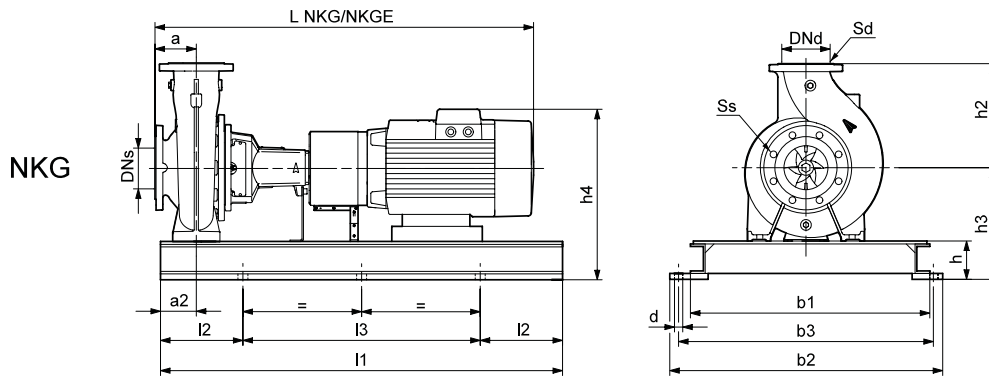
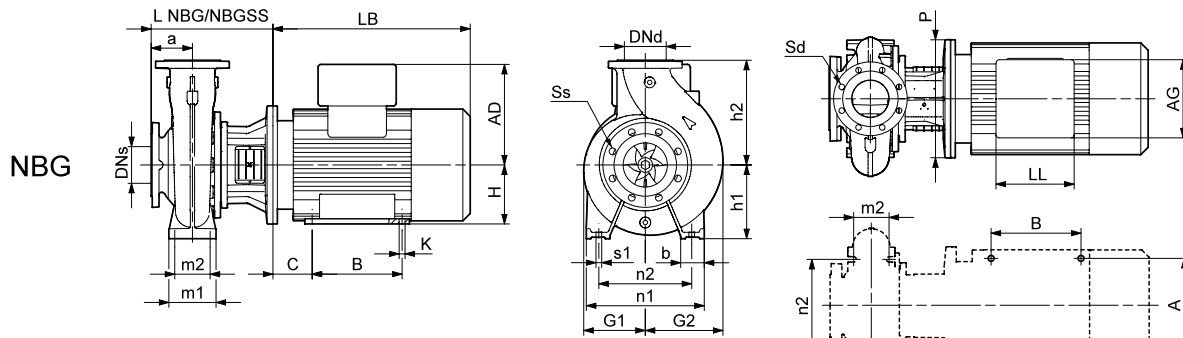
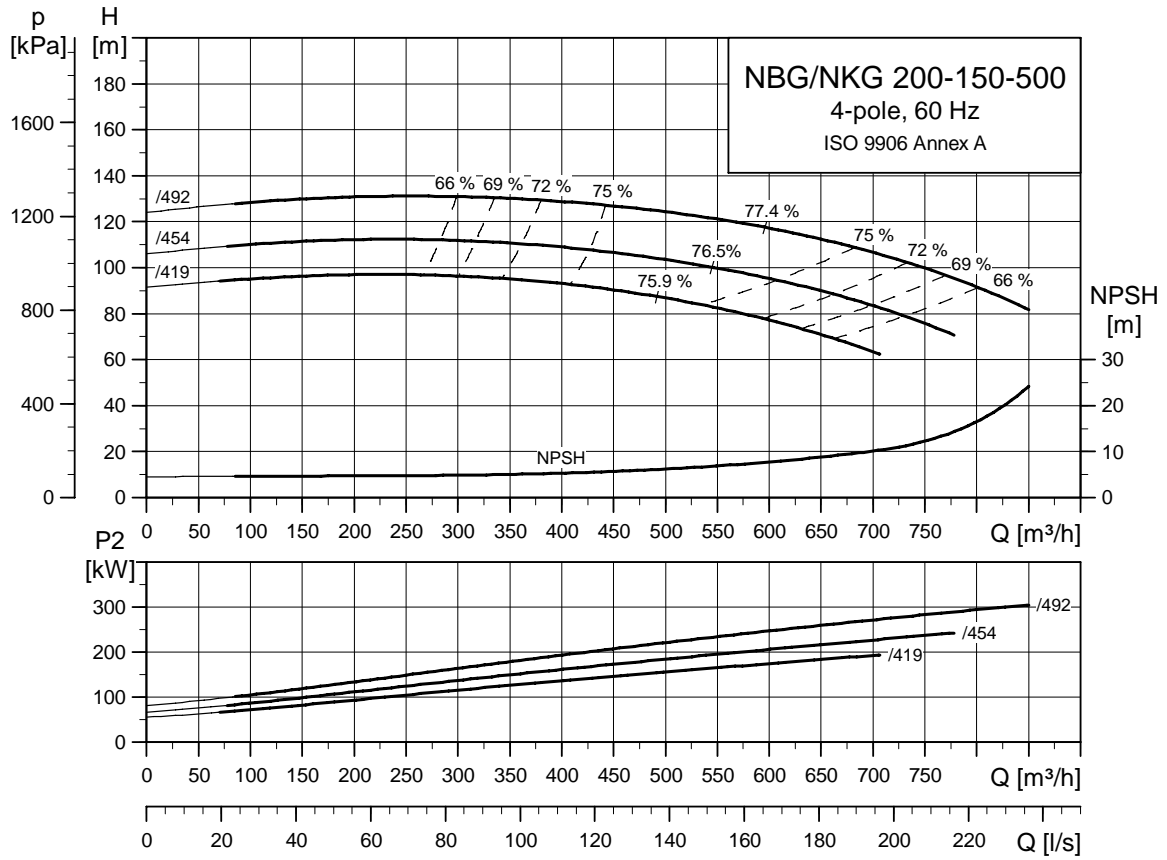
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-500
4-pole



TM03 5065 3406

TM03 8010 0107

TM03 8013 0107

Technical data

NBG, NKG 200-150-500
4-pole

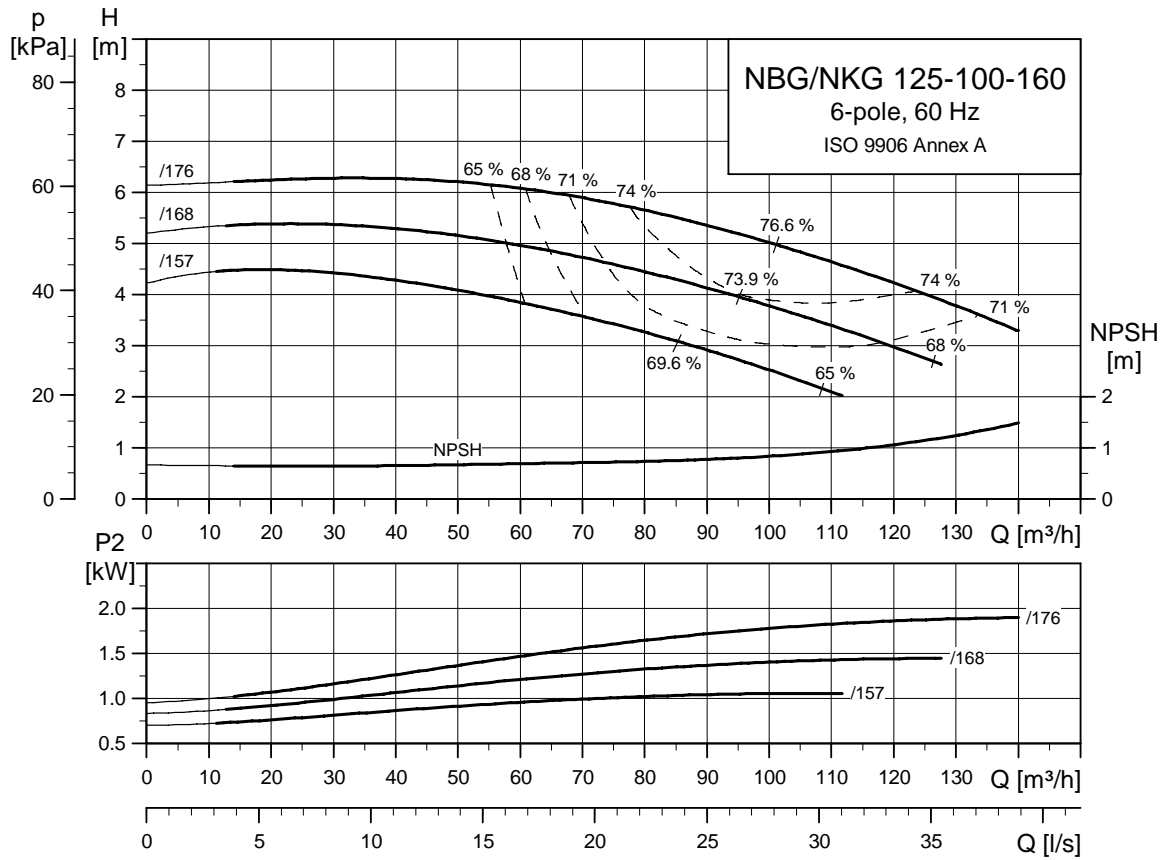
Pump type		200-150-500/419	200-150-500/454	200-150-500/492	
Motor type	Premium Motor	Siemens 315L	Siemens 315	Siemens 315	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	200	288	362
	PN	[bar]	16	16	16
	DNs	[mm]	200	150	150
	DNd	[mm]	150	125	125
	a	[mm]	180	180	180
	h ₂	[mm]	500	500	500
	Ss		12x23	8x23	8x23
	Sd		8x23	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	2256/2432	2264/2440	2264/2440
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	2231/2227	2257/2272	2459/2455
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	2000	2250	2250
	l ₂	[mm]	330	375	375
	l ₃	[mm]	1340	1500	1500
	b ₁	[mm]	750	840	840
	b ₂	[mm]	890	980	980
	b ₃	[mm]	830	920	920
	d	[mm]	28	28	28
	a ₂	[mm]	110	110	110
	h	[mm]	130	130	130
	h ₃	[mm]	530	530	530
	h ₄ ¹⁾	[mm]	1025/-	998/-	998/-
Base frame no.		10	11	11	
NBG data	Design		C ²⁾	-	-
	L NBG	[mm]	554	-	-
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	400	-	-
	G ₁	[mm]	353	-	-
	G ₂	[mm]	396	-	-
	m ₁	[mm]	200	-	-
	m ₂	[mm]	150	-	-
	n ₁	[mm]	625	-	-
	n ₂	[mm]	500	-	-
	b	[mm]	125	-	-
	s ₁	[mm]	M20	-	-
	H	[mm]	315	-	-
	LB ¹⁾	[mm]	1232/-	-/-	-/-
	AD ¹⁾	[mm]	495/-	-/-	-/-
	AG ¹⁾	[mm]	379/-	-/-	-/-
	LL ¹⁾	[mm]	307/-	-/-	-/-
	P	[mm]	660	-	-
	C	[mm]	216	-	-
	B	[mm]	457	-	-
	A	[mm]	508	-	-
	K	[mm]	28	-	-
	Weight NBG ¹⁾	[kg]	1833/-	-/-	-/-
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

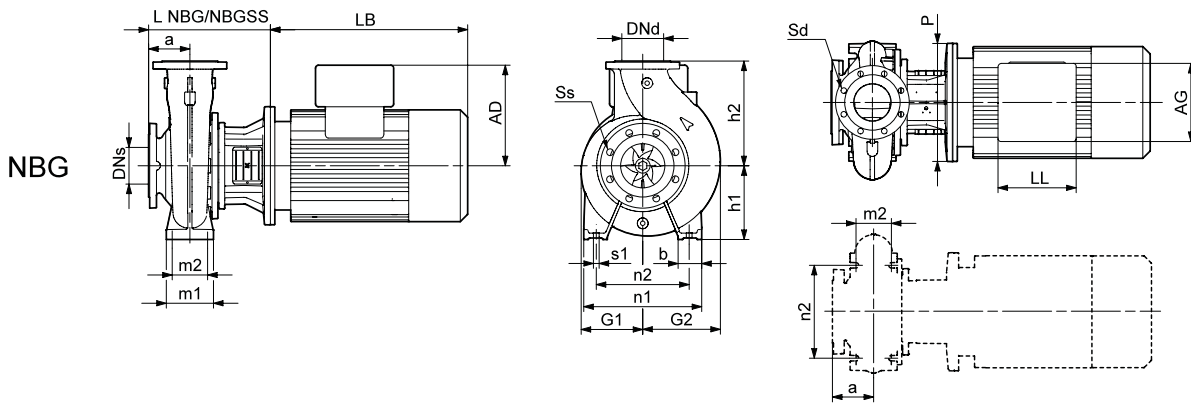
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

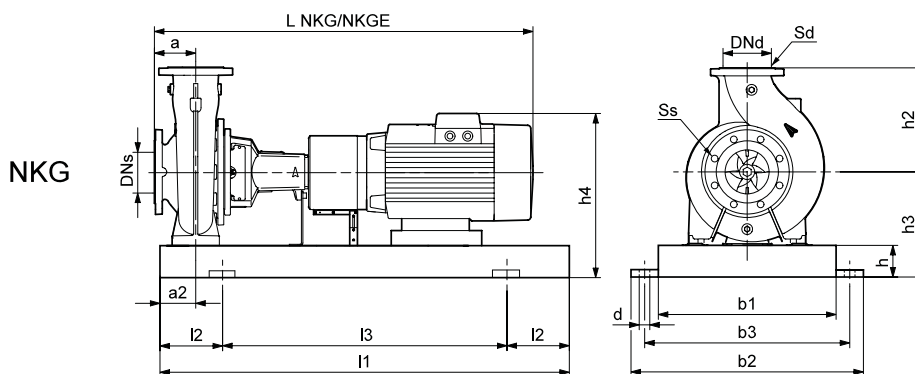
NBG, NKG 6-pole



TM03 5066 3406



TM03 8008 0107



TM03 8011 0107

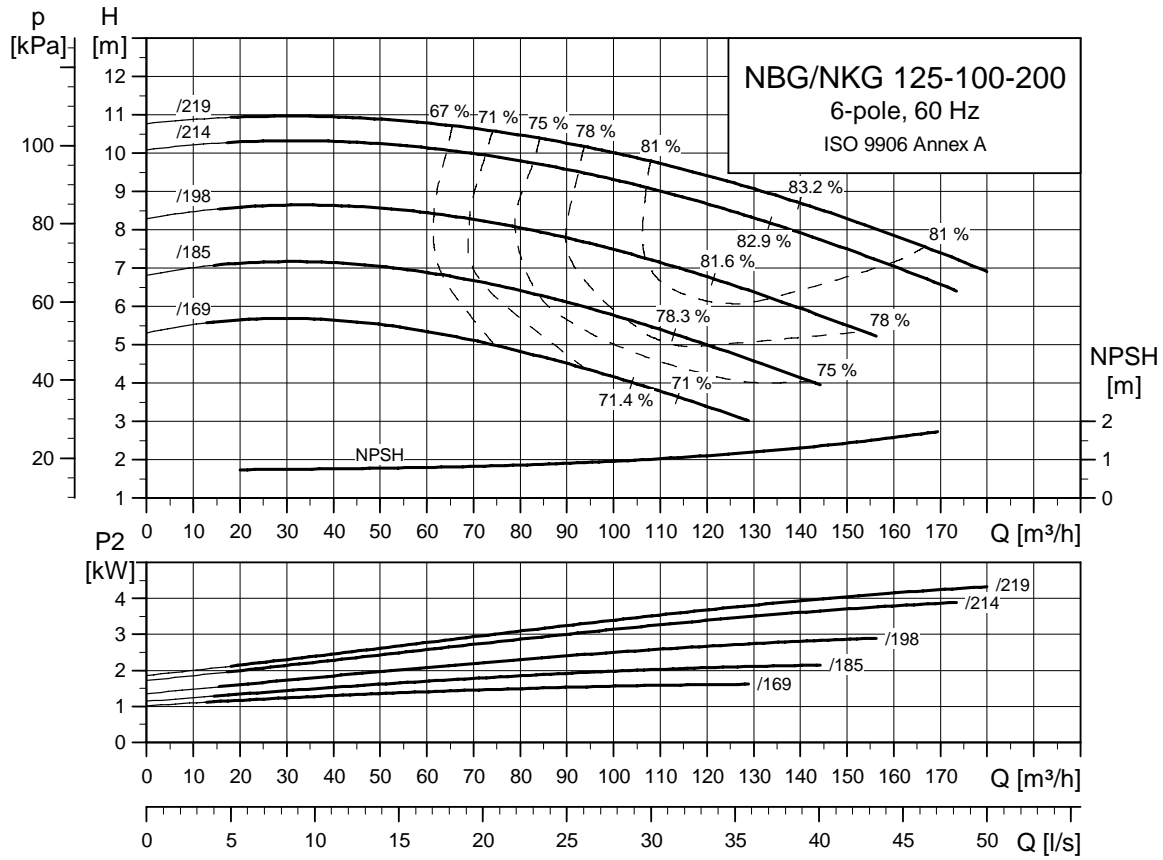
Pump type		125-100-160/157	125-100-160/168	125-100-160/176	
Motor type	Premium Motor	Siemens 90L	Siemens 100L	Siemens 112M	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	1.1	1.5	2.2
	PN	[bar]	16	16	16
	DNs	[mm]	125	125	125
	DNd	[mm]	100	100	100
	a	[mm]	125	125	125
	h ₂	[mm]	280	280	280
	Ss		8x19	8x19	8x19
	Sd		8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1005/1141	1036/1172	1060/1196
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	200/199	212/210	221/219
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	1250	1250	1250
	l ₂	[mm]	205	205	205
	l ₃	[mm]	840	840	840
	b ₁	[mm]	430	430	430
	b ₂	[mm]	540	540	540
	b ₃	[mm]	490	490	490
	d	[mm]	24	24	24
	a ₂	[mm]	90	90	90
	h	[mm]	80	80	80
	h ₃	[mm]	280	280	280
	h ₄ ¹⁾	[mm]	408/-	415/-	428/-
Base frame no.		6	6	6	
NBG data	Design		A	A	A
	L NBG	[mm]	298	318	318
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	200	200	200
	G ₁	[mm]	146	146	146
	G ₂	[mm]	187	187	187
	m ₁	[mm]	160	160	160
	m ₂	[mm]	120	120	120
	n ₁	[mm]	360	360	360
	n ₂	[mm]	280	280	280
	b	[mm]	80	80	80
	s ₁	[mm]	M16	M16	M16
	H	[mm]	-	-	-
	LB ¹⁾	[mm]	326/-	347/-	371/-
	AD ¹⁾	[mm]	128/-	135/-	148/-
	AG ¹⁾	[mm]	75/-	120/-	120/-
	LL ¹⁾	[mm]	75/-	120/-	120/-
	P	[mm]	200	250	250
	C	[mm]	-	-	-
	B	[mm]	-	-	-
A	[mm]	-	-	-	
K	[mm]	-	-	-	
Weight NBG ¹⁾	[kg]	87/-	96/-	108/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

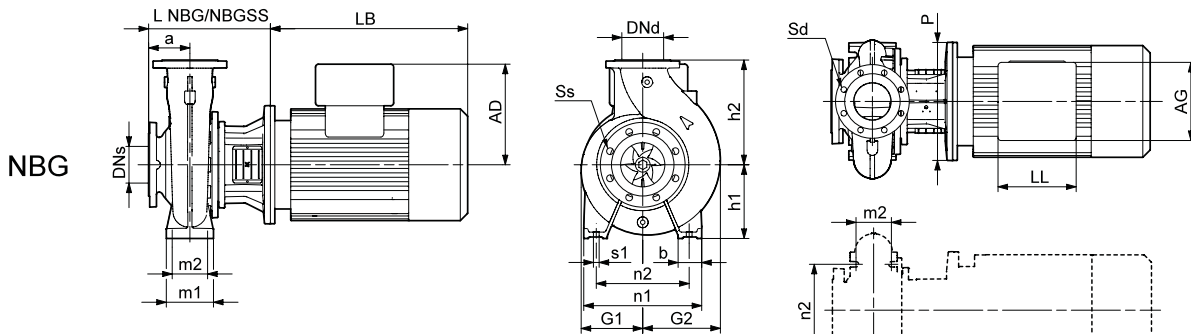
Note: For information about base frames, see page 222.

Performance curves

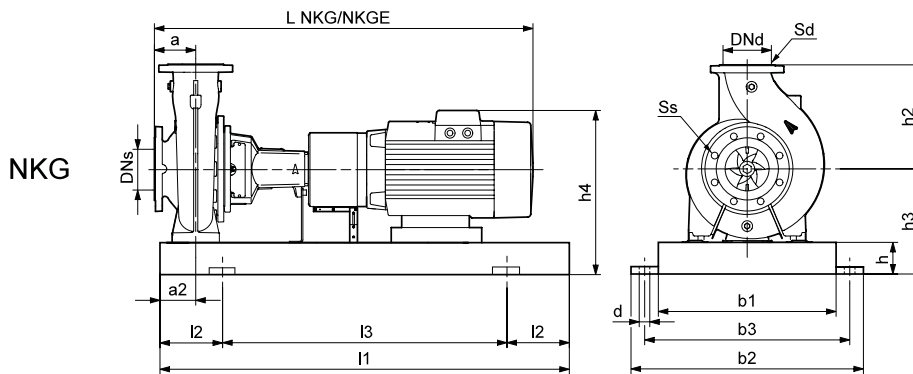
NBG, NKG 125-100-200
6-pole, 60 Hz
ISO 9906 Annex A



TM03 5067 3406



TM03 8008 0107

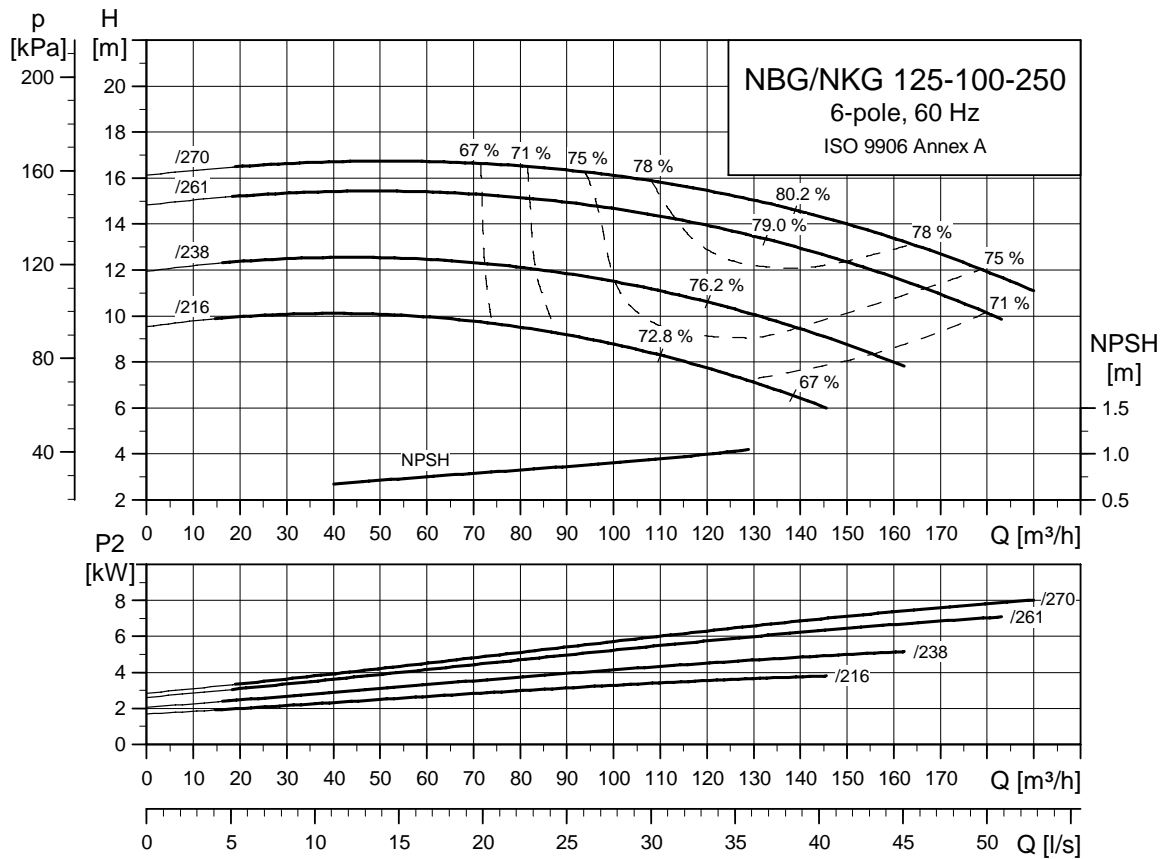


TM03 8011 0107

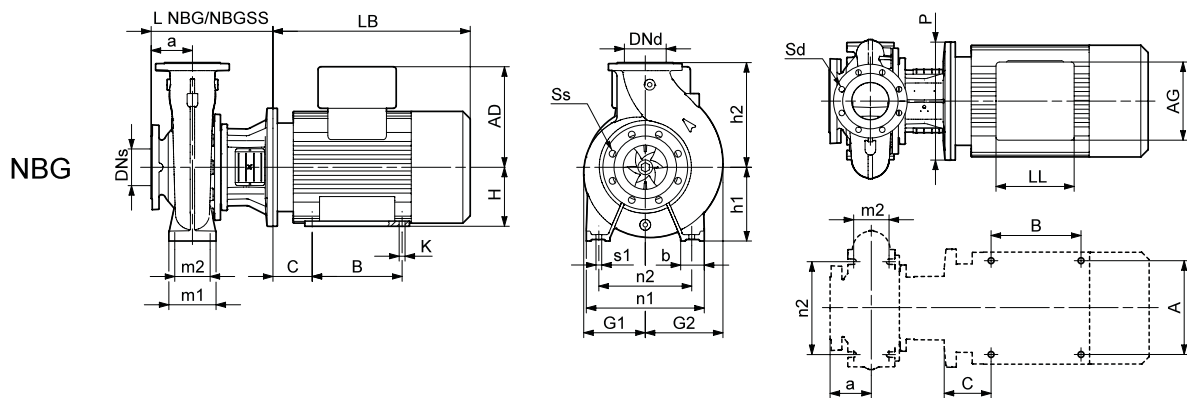
Pump type		125-100-200/169	125-100-200/185	125-100-200/198	125-100-200/214	125-100-200/219	
Motor type	Premium Motor	Siemens 100L	Siemens 112M	Siemens 132SA	Siemens 132MA	Siemens 132MB	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	1.5	2.2	3	4	5.5
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	125	125	125	125	125
	h ₂	[mm]	280	280	280	280	280
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1036/1172	1060/1196	1082/1218	1082/1218	1120/1256
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	224/223	233/232	249/246	249/246	267/264
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1250	1250	1250	1250	1250
	l ₂	[mm]	205	205	205	205	205
	l ₃	[mm]	840	840	840	840	840
	b ₁	[mm]	430	430	430	430	430
	b ₂	[mm]	540	540	540	540	540
	b ₃	[mm]	490	490	490	490	490
	d	[mm]	24	24	24	24	24
	a ₂	[mm]	90	90	90	90	90
	h	[mm]	80	80	80	80	80
	h ₃	[mm]	280	280	280	280	280
h ₄ ¹⁾	[mm]	415/-	428/-	447/-	447/-	447/-	
Base frame no.		6	6	6	6	6	
NBG data	Design		A	A	A	A	A
	L NBG	[mm]	348	348	368	368	368
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	200	200	200	200	200
	G ₁	[mm]	169	169	169	169	169
	G ₂	[mm]	212	212	212	212	212
	m ₁	[mm]	160	160	160	160	160
	m ₂	[mm]	120	120	120	120	120
	n ₁	[mm]	360	360	360	360	360
	n ₂	[mm]	280	280	280	280	280
	b	[mm]	80	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16	M16
	H	[mm]	-	-	-	-	-
	LB ¹⁾	[mm]	347/-	371/-	373/-	373/-	411/-
	AD ¹⁾	[mm]	135/-	148/-	167/-	167/-	167/-
	AG ¹⁾	[mm]	120/-	120/-	140/-	140/-	140/-
	LL ¹⁾	[mm]	120/-	120/-	140/-	140/-	140/-
	P	[mm]	250	250	300	300	300
	C	[mm]	-	-	-	-	-
	B	[mm]	-	-	-	-	-
A	[mm]	-	-	-	-	-	
K	[mm]	-	-	-	-	-	
Weight NBG ¹⁾	[kg]	107/-	119/-	137/-	137/-	155/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

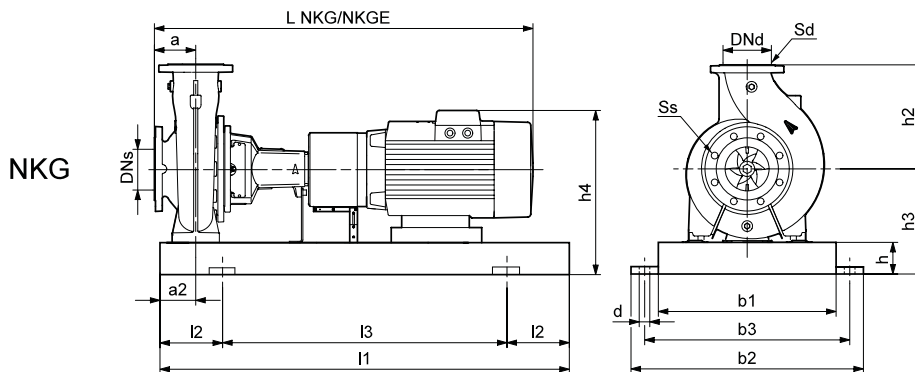
Note: For information about base frames, see page 222.



TM03 5088 3406



TM03 8010 0107



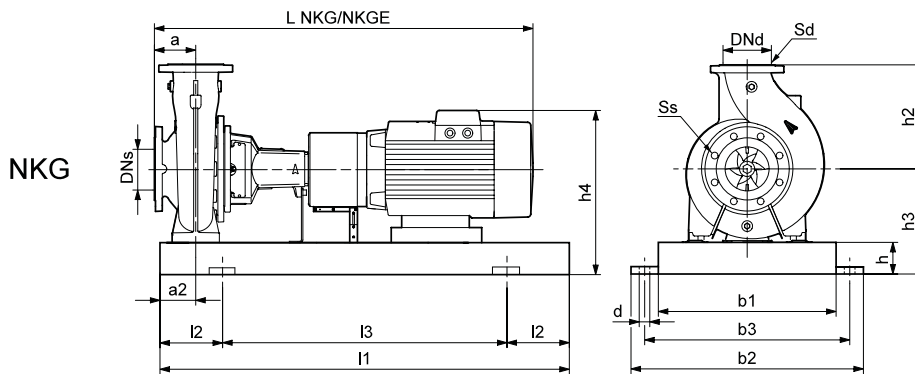
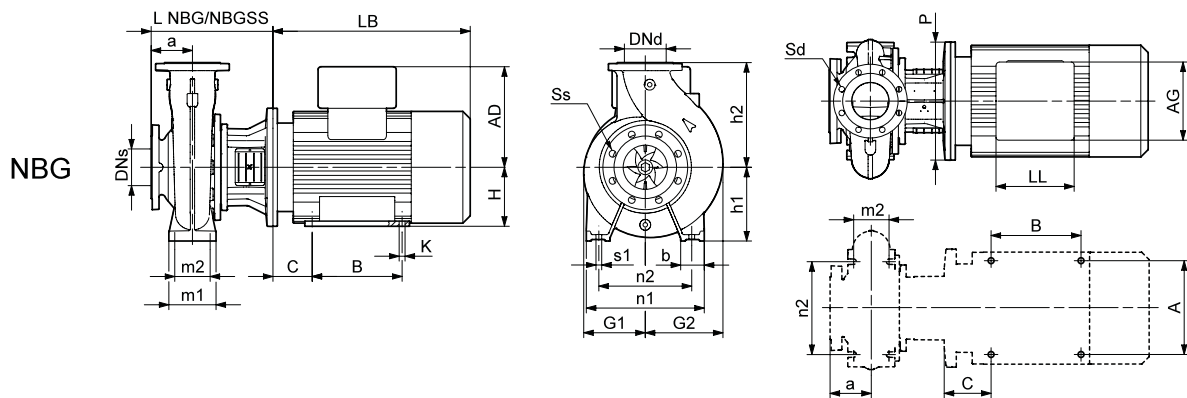
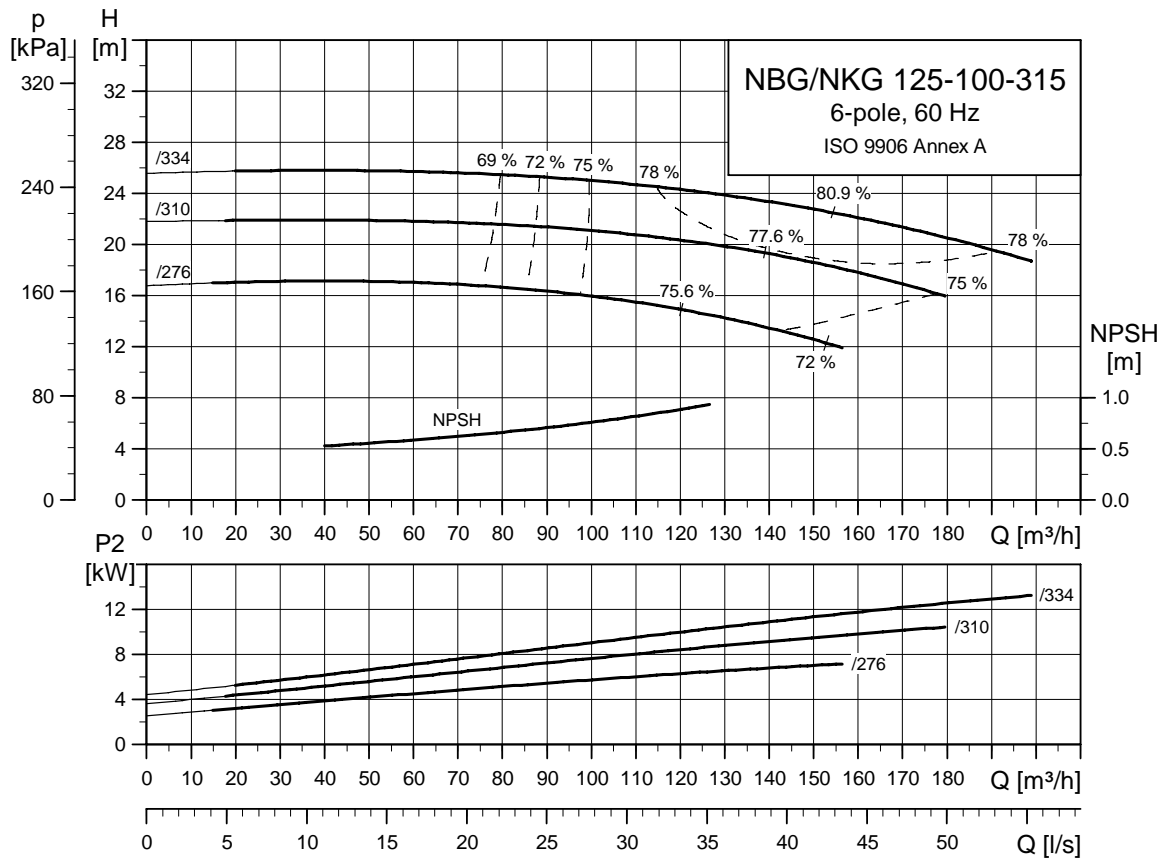
TM03 8011 0107

Pump type		125-100-250/216	125-100-250/238	125-100-250/261	125-100-250/270	
Motor type	Premium Motor	Siemens 132MA	Siemens 132MB	Siemens 160M	Siemens 160L	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5	11
	PN	[bar]	16	16	16	16
	DNs	[mm]	125	125	125	125
	DNd	[mm]	100	100	100	100
	a	[mm]	140	140	140	140
	h2	[mm]	280	280	280	280
	Ss		8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1127/1263	1165/1301	1262/1398	1302/1438
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	302/299	320/317	354/349	361/356
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1400	1400	1400	1400
	l2	[mm]	230	230	230	230
	l3	[mm]	940	940	940	940
	b1	[mm]	480	480	480	480
	b2	[mm]	610	610	610	610
	b3	[mm]	560	560	560	560
	d	[mm]	28	28	28	28
	a2	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h3	[mm]	325	325	325	325
	h4 ¹⁾	[mm]	492/-	492/-	522/-	522/-
Base frame no.		7	7	7	7	
NBG data	Design		A	A	C ²⁾	C ²⁾
	L NBG	[mm]	381	381	411	411
	L NBG SS	[mm]	-	-	-	-
	h1	[mm]	225	225	225	225
	G1	[mm]	188	188	188	188
	G2	[mm]	224	224	224	224
	m1	[mm]	160	160	160	160
	m2	[mm]	120	120	120	120
	n1	[mm]	400	400	400	400
	n2	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s1	[mm]	M16	M16	M16	M16
	H	[mm]	-	-	160	160
	LB ¹⁾	[mm]	373/-	411/-	478/-	518/-
	AD ¹⁾	[mm]	167/-	167/-	197/-	197/-
	AG ¹⁾	[mm]	140/-	140/-	165/-	165/-
	LL ¹⁾	[mm]	140/-	140/-	165/-	165/-
	P	[mm]	300	300	350	350
	C	[mm]	-	-	108	108
	B	[mm]	-	-	210	254
	A	[mm]	-	-	254	254
K	[mm]	-	-	15	15	
Weight NBG ¹⁾	[kg]	153/-	171/-	209/-	216/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.



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TM03 8011 0107

Technical data

NBG, NKG 125-100-315
6-pole

Pump type		125-100-315/276	125-100-315/310	125-100-315/334	
Motor type	Premium Motor	Siemens 160M	Siemens 160L	Siemens 180L	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15
	PN	[bar]	16	16	16
	DNs	[mm]	125	125	125
	DNd	[mm]	100	100	100
	a	[mm]	140	140	140
	h ₂	[mm]	315	315	315
	Ss		8x19	8x19	8x19
	Sd		8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1262/1398	1302/1438	1386/1522
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	384/379	391/386	435/427
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1400
	l ₂	[mm]	230	230	230
	l ₃	[mm]	940	940	940
	b ₁	[mm]	480	480	480
	b ₂	[mm]	610	610	610
	b ₃	[mm]	560	560	560
	d	[mm]	28	28	28
	a ₂	[mm]	90	90	90
	h	[mm]	100	100	100
	h ₃	[mm]	350	350	350
	h ₄ ¹⁾	[mm]	547/-	547/-	608/-
Base frame no.		7	7	7	
NBG data	Design		C ²⁾	C ²⁾	C
	L NBG	[mm]	411	411	411
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	250	250	250
	G ₁	[mm]	208	208	208
	G ₂	[mm]	264	264	264
	m ₁	[mm]	160	160	160
	m ₂	[mm]	120	120	120
	n ₁	[mm]	400	400	400
	n ₂	[mm]	315	315	315
	b	[mm]	80	80	80
	s ₁	[mm]	M16	M16	M16
	H	[mm]	160	160	180
	LB ¹⁾	[mm]	478/-	518/-	602/-
	AD ¹⁾	[mm]	197/-	197/-	258/-
	AG ¹⁾	[mm]	165/-	165/-	152/-
	LL ¹⁾	[mm]	165/-	165/-	132/-
	P	[mm]	350	350	350
	C	[mm]	108	108	121
	B	[mm]	210	254	279
	A	[mm]	254	254	279
K	[mm]	15	15	15	
Weight NBG ¹⁾	[kg]	237/-	244/-	283/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

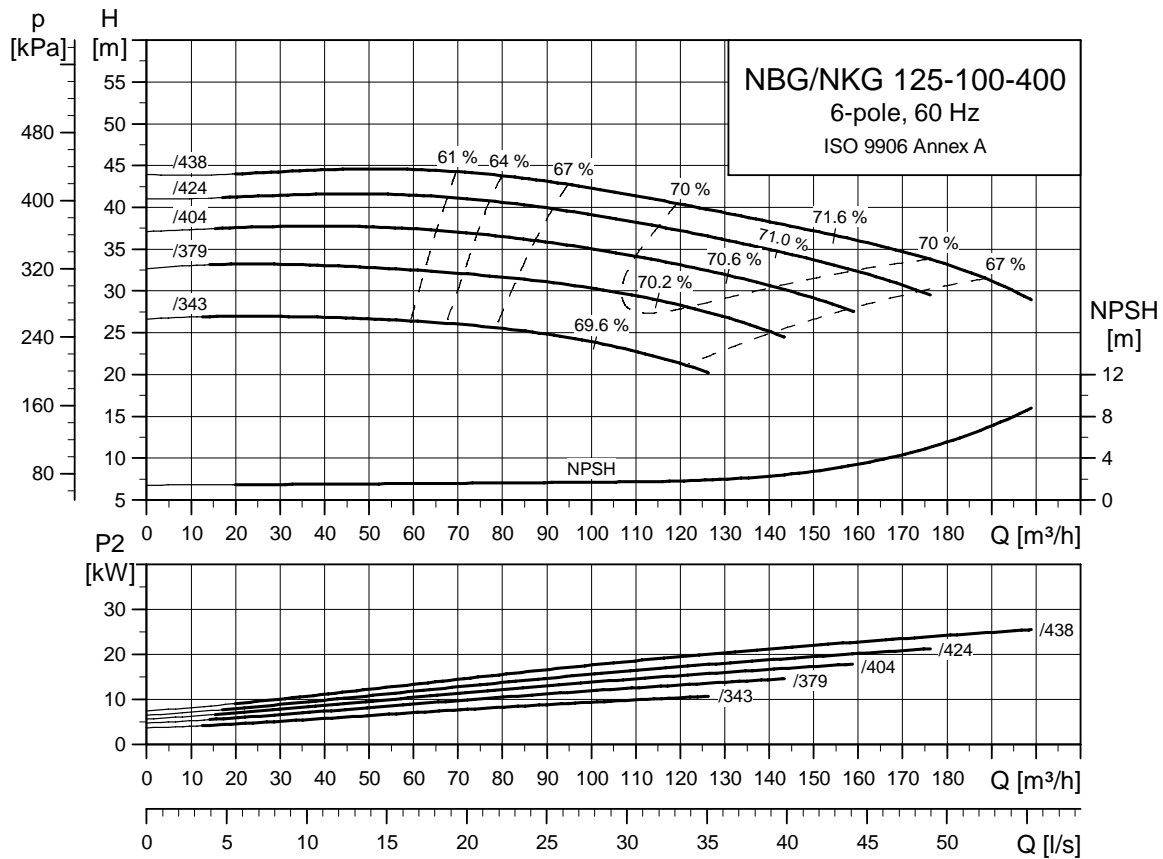
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

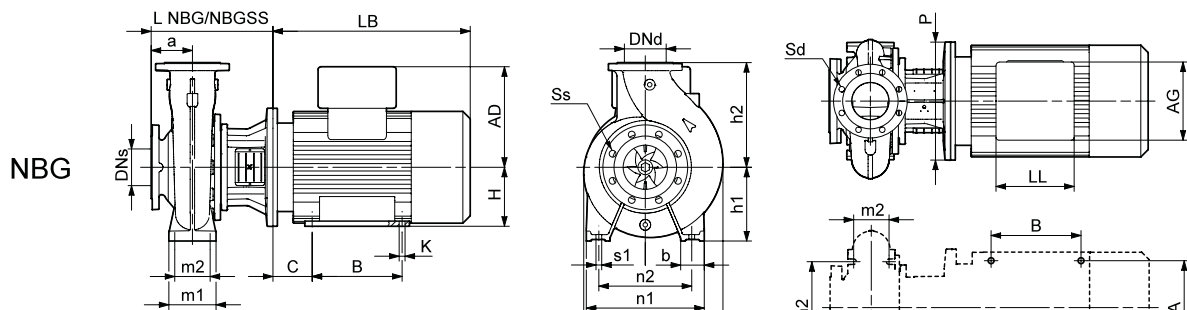
Performance curves

NBG, NKG 125-100-400
6-pole, 60 Hz

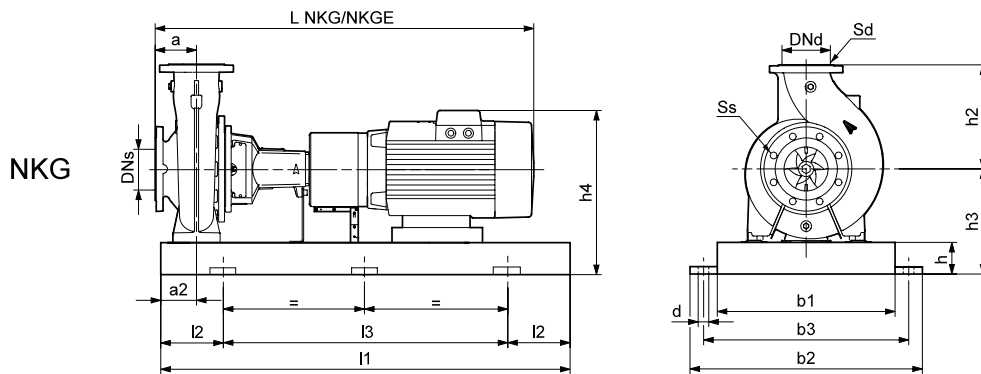
ISO 9906 Annex A



TM03 5070 3406



TM03 8010 0107



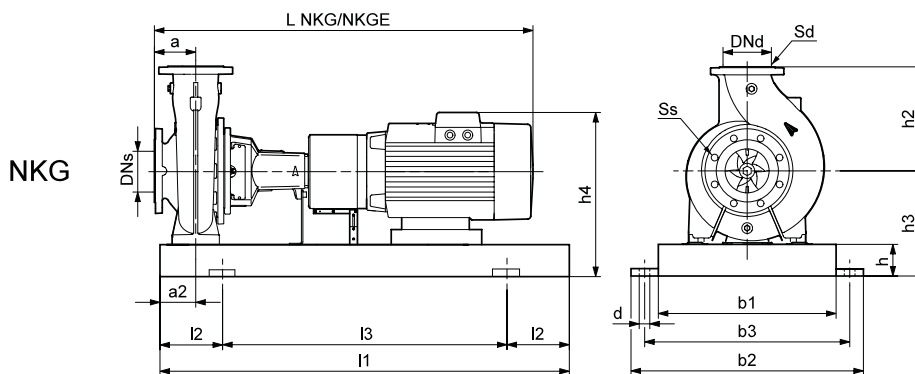
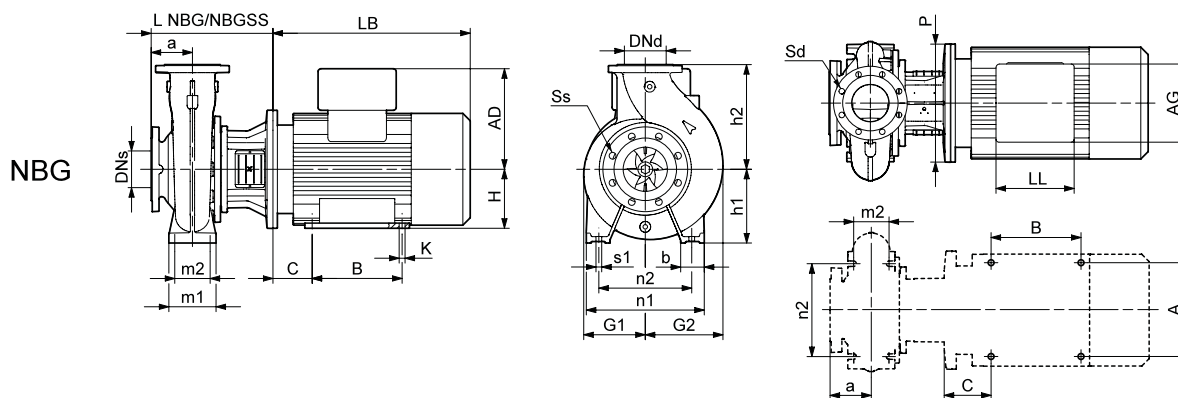
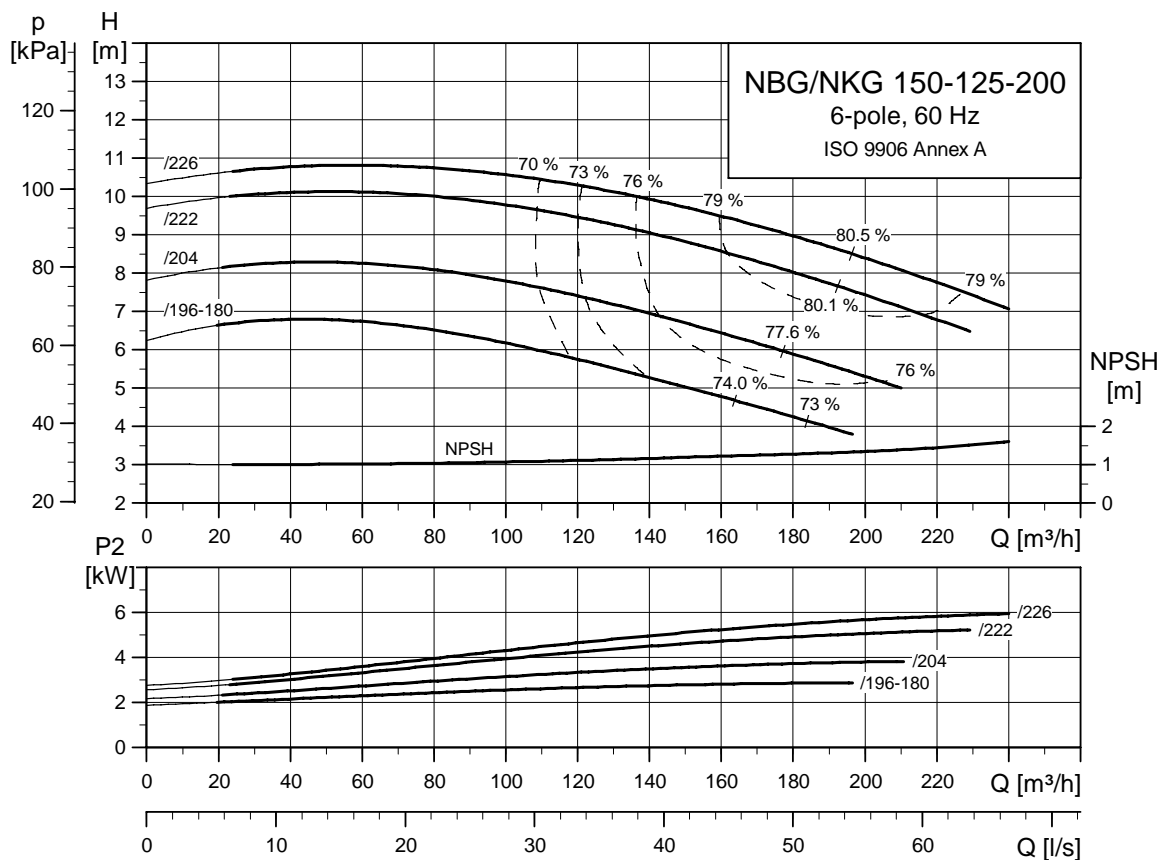
TM03 8012 0107

Pump type		125-100-400/343	125-100-400/379	125-100-400/404	125-100-400/424	125-100-400/438	
Motor type	Premium Motor	Siemens 160L	Siemens 180L	Siemens 200LA	Siemens 200LB	Siemens 225M	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5	22	30
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	125	125	125	125	125
	DNd	[mm]	100	100	100	100	100
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	355	355	355	355	355
	Ss		8x19	8x19	8x19	8x19	8x19
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1302/1438	1386/1522	1443/1579	1443/1579	1523/1659
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	527/522	571/563	614/609	645/640	752/747
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	1800	1800
	l ₂	[mm]	300	300	300	300	300
	l ₃	[mm]	1200	1200	1200	1200	1200
	b ₁	[mm]	600	600	600	600	600
	b ₂	[mm]	730	730	730	730	730
	b ₃	[mm]	670	670	670	670	670
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	380	383	380	380	380
	h ₄ ¹⁾	[mm]	577/-	641/-	685/-	685/-	705/-
Base frame no.		9	9	9	9	9	
NBG data	Design		C ²⁾	C	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	411	411	411	411	441
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	280	280	280	280	280
	G ₁	[mm]	272	272	272	272	272
	G ₂	[mm]	298	298	298	298	298
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	160	180	200	200	225
	LB ¹⁾	[mm]	518/-	602/-	659/-	659/-	709/-
	AD ¹⁾	[mm]	197/-	258/-	305/-	305/-	325/-
	AG ¹⁾	[mm]	165/-	152/-	260/-	260/-	260/-
	LL ¹⁾	[mm]	165/-	132/-	192/-	192/-	192/-
	P	[mm]	350	350	400	400	450
	C	[mm]	108	121	133	133	149
	B	[mm]	254	279	305	305	286
A	[mm]	254	279	318	318	356	
K	[mm]	15	15	19	19	19	
Weight NBG ¹⁾	[kg]	318/-	356/-	405/-	436/-	554/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.



TM03 5071 3406

TM03 8010 0107

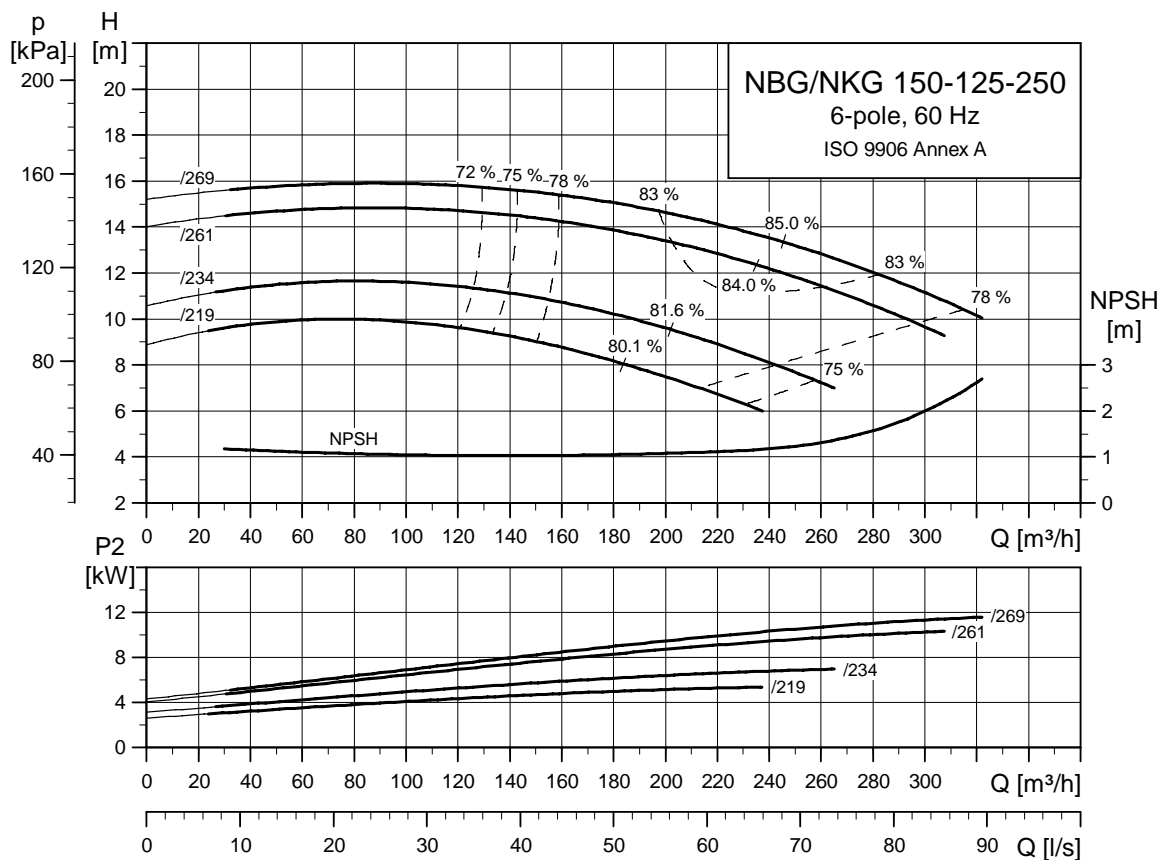
TM03 8011 0107

Pump type		150-125-200/196-180	150-125-200/204	150-125-200/222	150-125-200/226	
Motor type	Premium Motor	Siemens 132SA	Siemens 132MA	Siemens 132MB	Siemens 160M	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	3	4	5.5	7.5
	PN	[bar]	16	16	16	16
	DNs	[mm]	150	150	150	150
	DNd	[mm]	125	125	125	125
	a	[mm]	140	140	140	140
	h ₂	[mm]	315	315	315	315
	Ss		8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1097/1233	1097/1233	1135/1271	1232/1368
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	308/305	308/305	326/323	361/356
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1400	1400
	l ₂	[mm]	230	230	230	230
	l ₃	[mm]	940	940	940	940
	b ₁	[mm]	480	480	480	480
	b ₂	[mm]	610	610	610	610
	b ₃	[mm]	560	560	560	560
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h ₃	[mm]	350	350	350	350
	h ₄ ¹⁾	[mm]	517/-	517/-	517/-	547/-
Base frame no.		7	7	7	7	
NBG data	Design		A	A	A	C ²⁾
	L NBG	[mm]	383	383	383	413
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	250	250	250	250
	G ₁	[mm]	183	183	183	183
	G ₂	[mm]	234	234	234	234
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	400	400	400	400
	n ₂	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	-	-	-	160
	LB ¹⁾	[mm]	373/-	373/-	411/-	478/-
	AD ¹⁾	[mm]	167/-	167/-	167/-	197/-
	AG ¹⁾	[mm]	140/-	140/-	140/-	165/-
	LL ¹⁾	[mm]	140/-	140/-	140/-	165/-
	P	[mm]	300	300	300	350
	C	[mm]	-	-	-	108
	B	[mm]	-	-	-	210
	A	[mm]	-	-	-	254
K	[mm]	-	-	-	15	
Weight NBG ¹⁾	[kg]	165/-	165/-	183/-	219/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

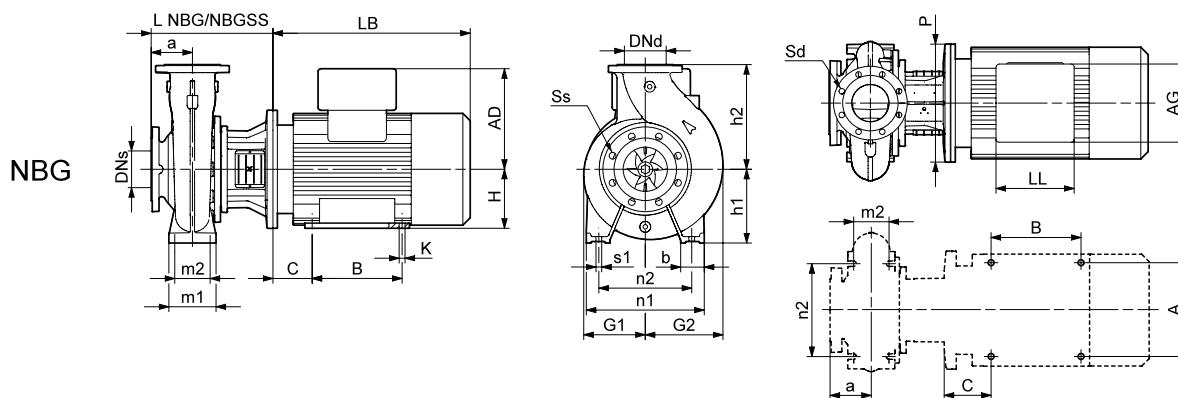
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

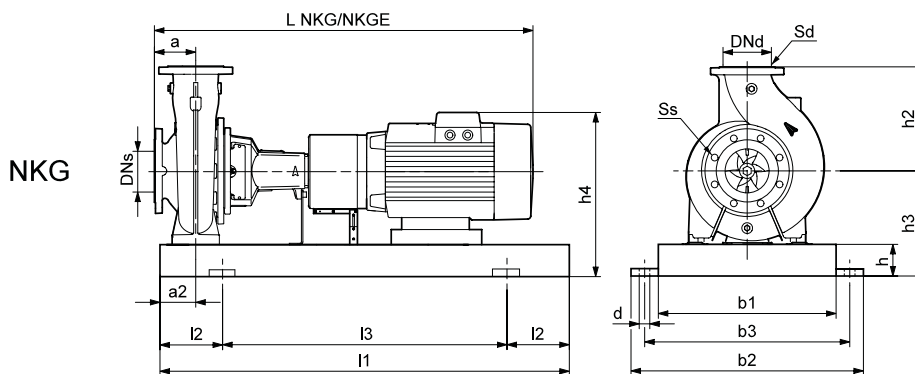
Note: For information about base frames, see page 222.



TM03 5072 3406



TM03 8010 0107



TM03 8011 0107

Technical data

NBG, NKG 150-125-250
6-pole

Pump type		150-125-250/219	150-125-250/234	150-125-250/261	150-125-250/269	
Motor type	Premium Motor	Siemens 132MB	Siemens 160M	Siemens 160L	Siemens 180L	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	5.5	7.5	11	15
	PN	[bar]	16	16	16	16
	DNs	[mm]	150	150	150	150
	DNd	[mm]	125	125	125	125
	a	[mm]	140	140	140	140
	h ₂	[mm]	355	355	355	355
	Ss		8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1165/1301	1262/1398	1302/1438	1386/1522
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	344/341	379/374	386/381	430/422
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1400	1400	1400	1400
	l ₂	[mm]	230	230	230	230
	l ₃	[mm]	940	940	940	940
	b ₁	[mm]	480	480	480	480
	b ₂	[mm]	610	610	610	610
	b ₃	[mm]	560	560	560	560
	d	[mm]	28	28	28	28
	a ₂	[mm]	90	90	90	90
	h	[mm]	100	100	100	100
	h ₃	[mm]	350	350	350	350
	h ₄ ¹⁾	[mm]	517/-	547/-	547/-	608/-
Base frame no.		7	7	7	7	
NBG data	Design		A	C ²⁾	C ²⁾	C
	L NBG	[mm]	381	411	411	411
	L NBG SS	[mm]	-	-	-	-
	h ₁	[mm]	250	250	250	250
	G ₁	[mm]	208	208	208	208
	G ₂	[mm]	264	264	264	264
	m ₁	[mm]	160	160	160	160
	m ₂	[mm]	120	120	120	120
	n ₁	[mm]	400	400	400	400
	n ₂	[mm]	315	315	315	315
	b	[mm]	80	80	80	80
	s ₁	[mm]	M16	M16	M16	M16
	H	[mm]	-	160	160	180
	LB ¹⁾	[mm]	411/-	478/-	518/-	602/-
	AD ¹⁾	[mm]	167/-	197/-	197/-	258/-
	AG ¹⁾	[mm]	140/-	165/-	165/-	152/-
	LL ¹⁾	[mm]	140/-	165/-	165/-	132/-
	P	[mm]	300	350	350	350
	C	[mm]	-	108	108	121
	B	[mm]	-	210	254	279
A	[mm]	-	254	254	279	
K	[mm]	-	15	15	15	
Weight NBG ¹⁾	[kg]	194/-	232/-	239/-	278/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

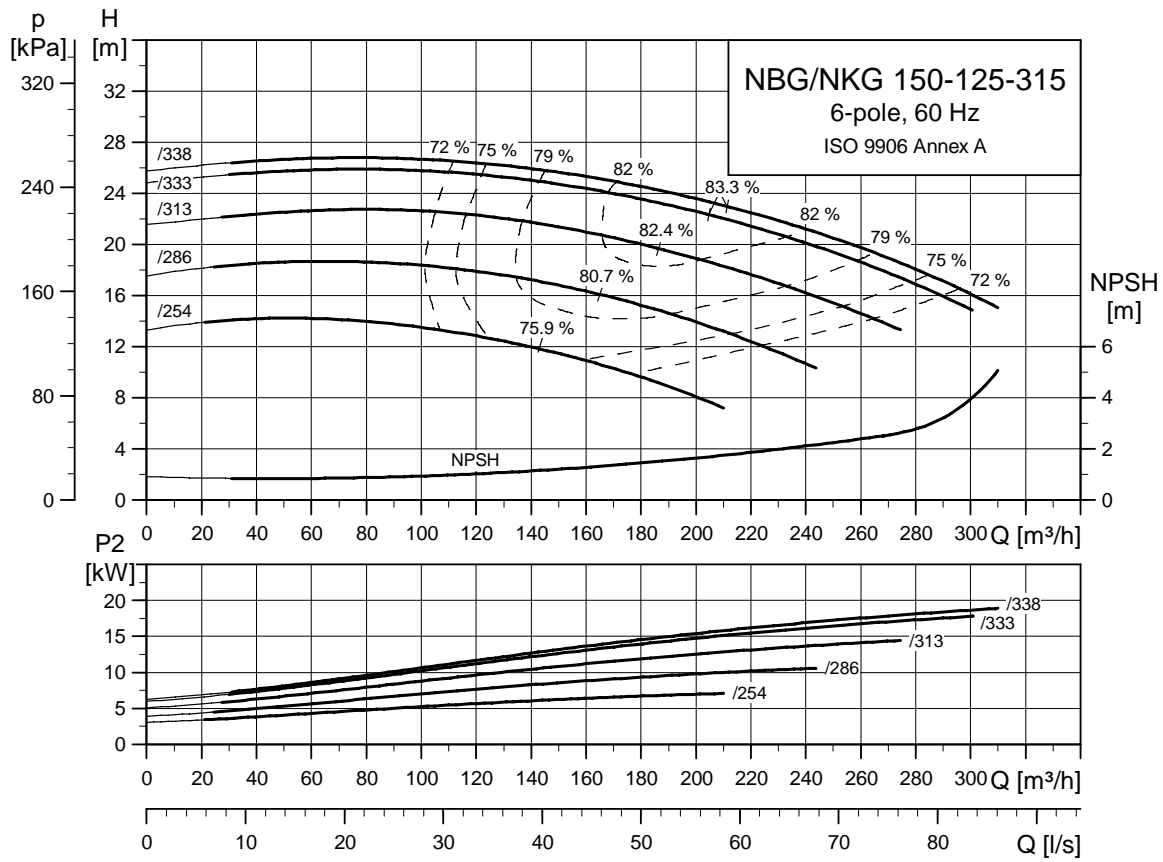
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

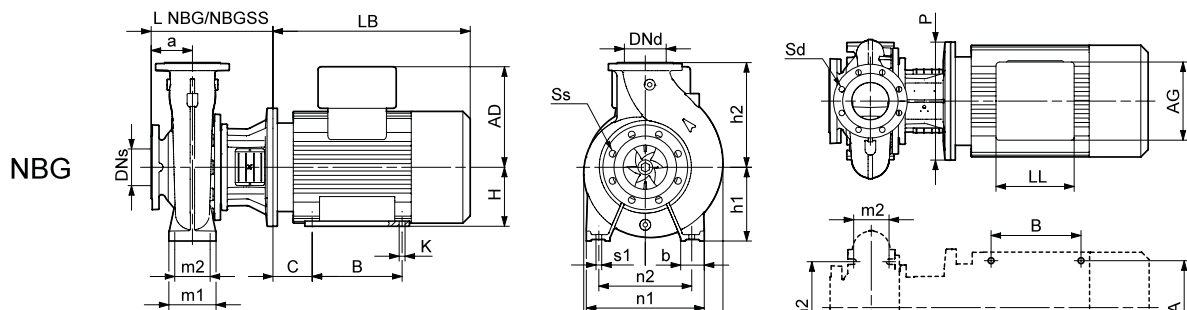
Performance curves

NBG, NKG 150-125-315
6-pole, 60 Hz

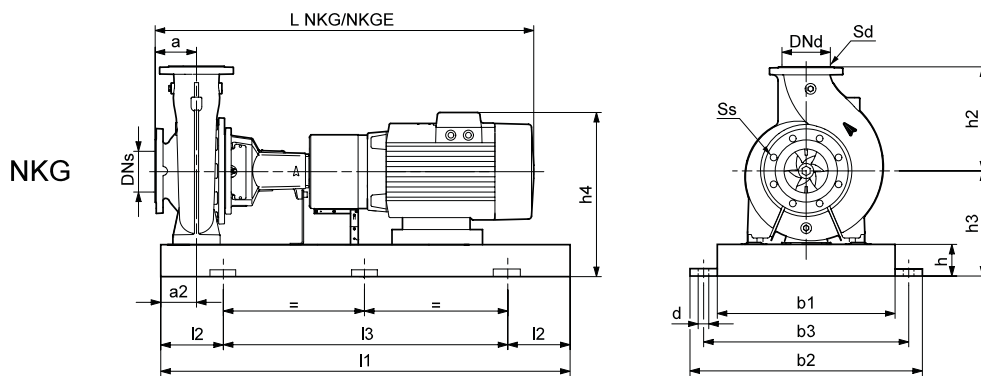
6-pole



TM03 5073 3406



TM03 8010 0107



TM03 8012 0107

Pump type		150-125-315/254	150-125-315/286	150-125-315/313	150-125-315/333	150-125-315/338	
Motor type	Premium Motor	Siemens 160M	Siemens 160L	Siemens 180L	Siemens 200LA	Siemens 200LB	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	7.5	11	15	18.5	22
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	355	355	355	355	355
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1262/1398	1302/1438	1386/1522	1443/1579	1443/1579
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	479/474	486/481	531/523	574/569	605/600
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	1800	1800
	l ₂	[mm]	300	300	300	300	300
	l ₃	[mm]	1200	1200	1200	1200	1200
	b ₁	[mm]	600	600	600	600	600
	b ₂	[mm]	730	730	730	730	730
	b ₃	[mm]	670	670	670	670	670
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	100	100
	h ₃	[mm]	380	380	383	380	380
	h ₄ ¹⁾	[mm]	577/-	577/-	641/-	685/-	685/-
Base frame no.		9	9	9	9	9	
NBG data	Design		C ²⁾	C ²⁾	C	C ²⁾	C ²⁾
	L NBG	[mm]	411	411	411	411	411
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	280	280	280	280	280
	G ₁	[mm]	231	231	231	231	231
	G ₂	[mm]	268	268	268	268	268
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	160	160	180	200	200
	LB ¹⁾	[mm]	478/-	518/-	602/-	659/-	659/-
	AD ¹⁾	[mm]	197/-	197/-	258/-	305/-	305/-
	AG ¹⁾	[mm]	165/-	165/-	152/-	260/-	260/-
	LL ¹⁾	[mm]	165/-	165/-	132/-	192/-	192/-
	P	[mm]	350	350	350	400	400
	C	[mm]	108	108	121	133	133
	B	[mm]	210	254	279	305	305
	A	[mm]	254	254	279	318	318
K	[mm]	15	15	15	19	19	
Weight NBG ¹⁾	[kg]	271/-	278/-	316/-	364/-	395/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

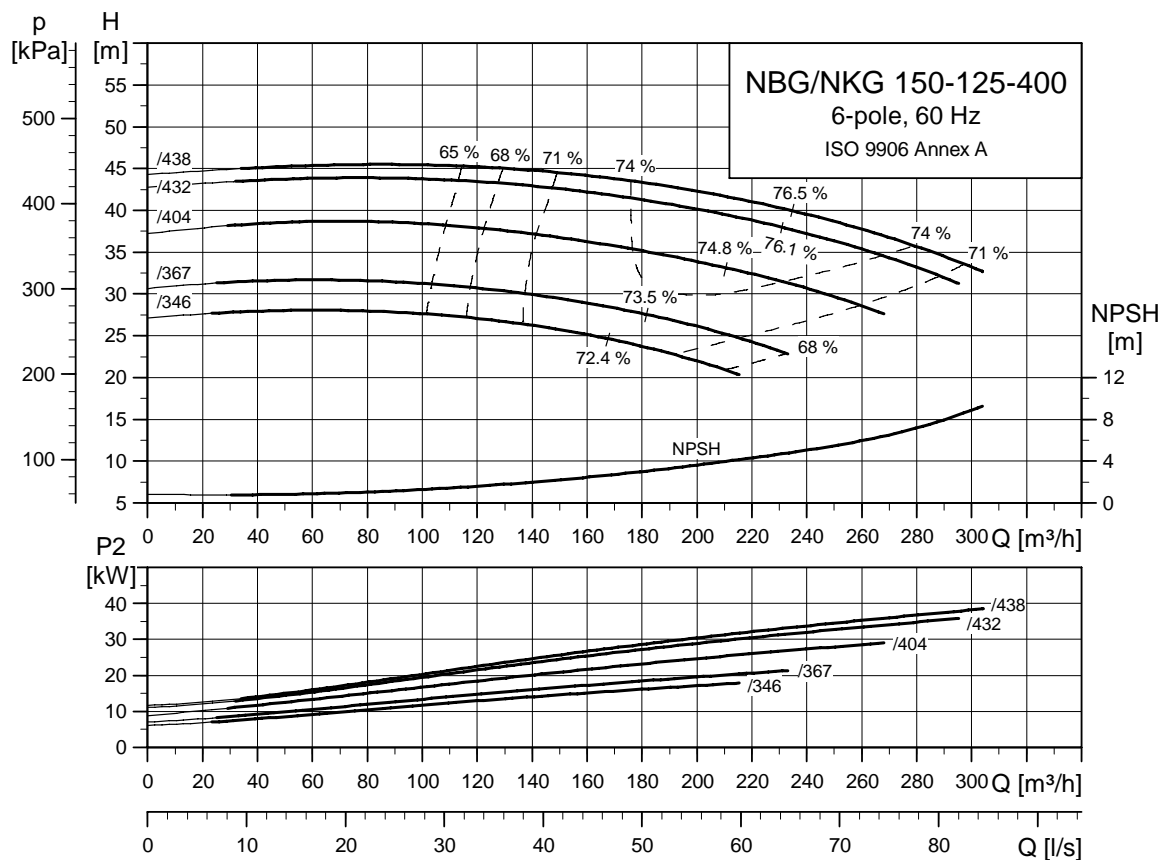
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

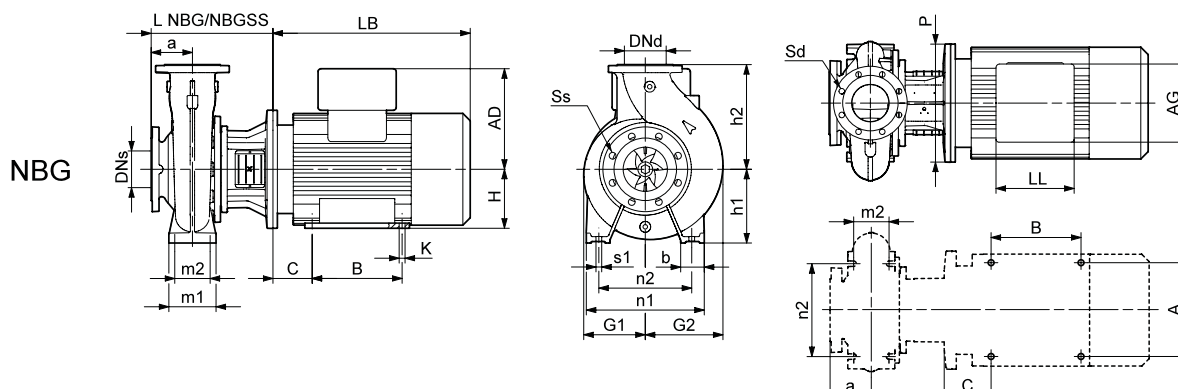
Performance curves

NBG, NKG 150-125-400
6-pole, 60 Hz

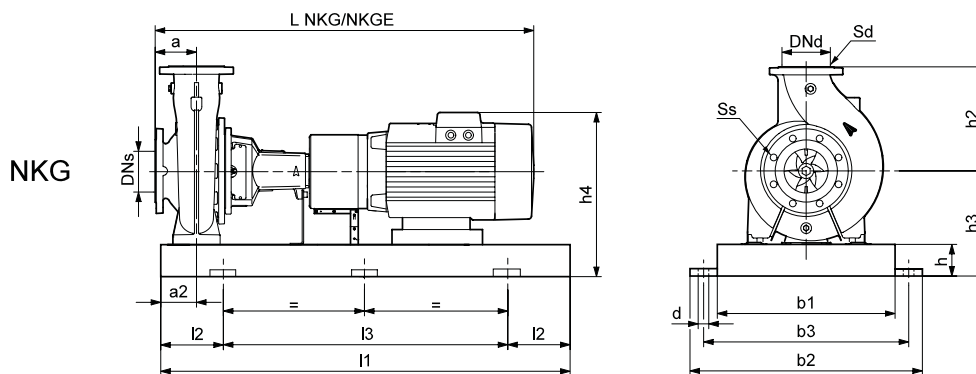
6-pole



TM03 5074 3406



TM03 8010 0107



TM03 8012 0107

Pump type		150-125-400/346	150-125-400/367	150-125-400/404	150-125-400/432	150-125-400/438	
Motor type	Premium Motor	Siemens 200LA	Siemens 200LB	Siemens 225M	Siemens 250M	Siemens 280S	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	18.5	22	30	37	45
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	140	140	140	140	140
	h ₂	[mm]	400	400	400	400	400
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1443/1579	1443/1579	1523/1659	1561/1697	1634/1770
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	631/626	662/657	766/761	860/859	1145/1139
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	1800	2000
	l ₂	[mm]	300	300	300	300	330
	l ₃	[mm]	1200	1200	1200	1200	1340
	b ₁	[mm]	600	600	600	600	750
	b ₂	[mm]	730	730	730	730	890
	b ₃	[mm]	670	670	670	670	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	100	100	100	100	130
	h ₃	[mm]	415	415	415	415	445
	h ₄ ¹⁾	[mm]	720/-	720/-	740/-	807/-	877/-
Base frame no.		9	9	9	9	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾	C
	L NBG	[mm]	411	411	441	441	441
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	315	315	315	315	315
	G ₁	[mm]	284	284	284	284	284
	G ₂	[mm]	320	320	320	320	320
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	500	500	500	500	500
	n ₂	[mm]	400	400	400	400	400
	b	[mm]	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	200	200	225	250	280
	LB ¹⁾	[mm]	659/-	659/-	709/-	747/-	820/-
	AD ¹⁾	[mm]	305/-	305/-	325/-	392/-	432/-
	AG ¹⁾	[mm]	260/-	260/-	260/-	300/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	192/-	236/-	236/-
	P	[mm]	400	400	450	550	550
	C	[mm]	133	133	149	168	190
	B	[mm]	305	305	286	349	368
	A	[mm]	318	318	356	406	457
K	[mm]	19	19	19	24	24	
Weight NBG ¹⁾	[kg]	416/-	447/-	566/-	659/-	774/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

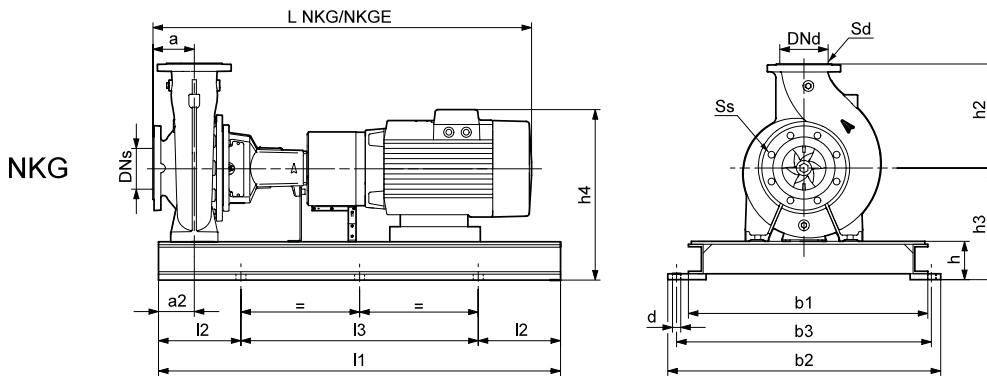
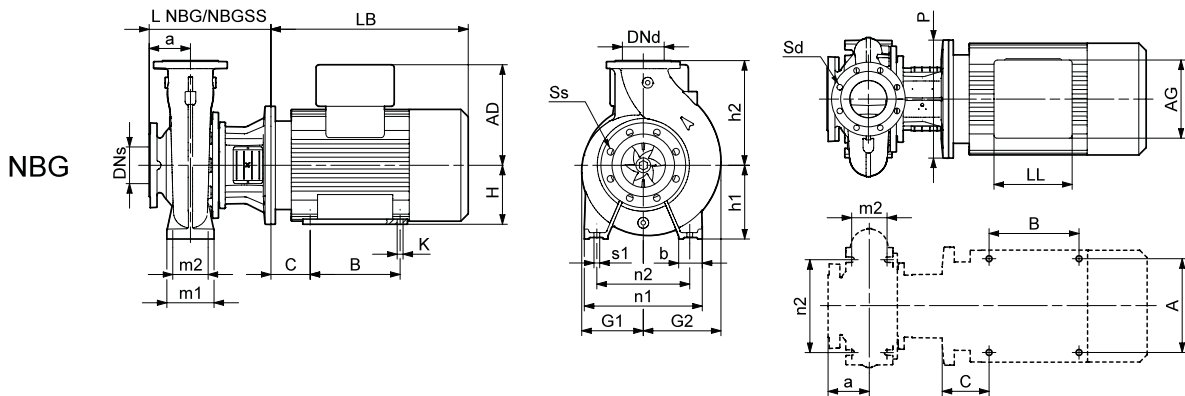
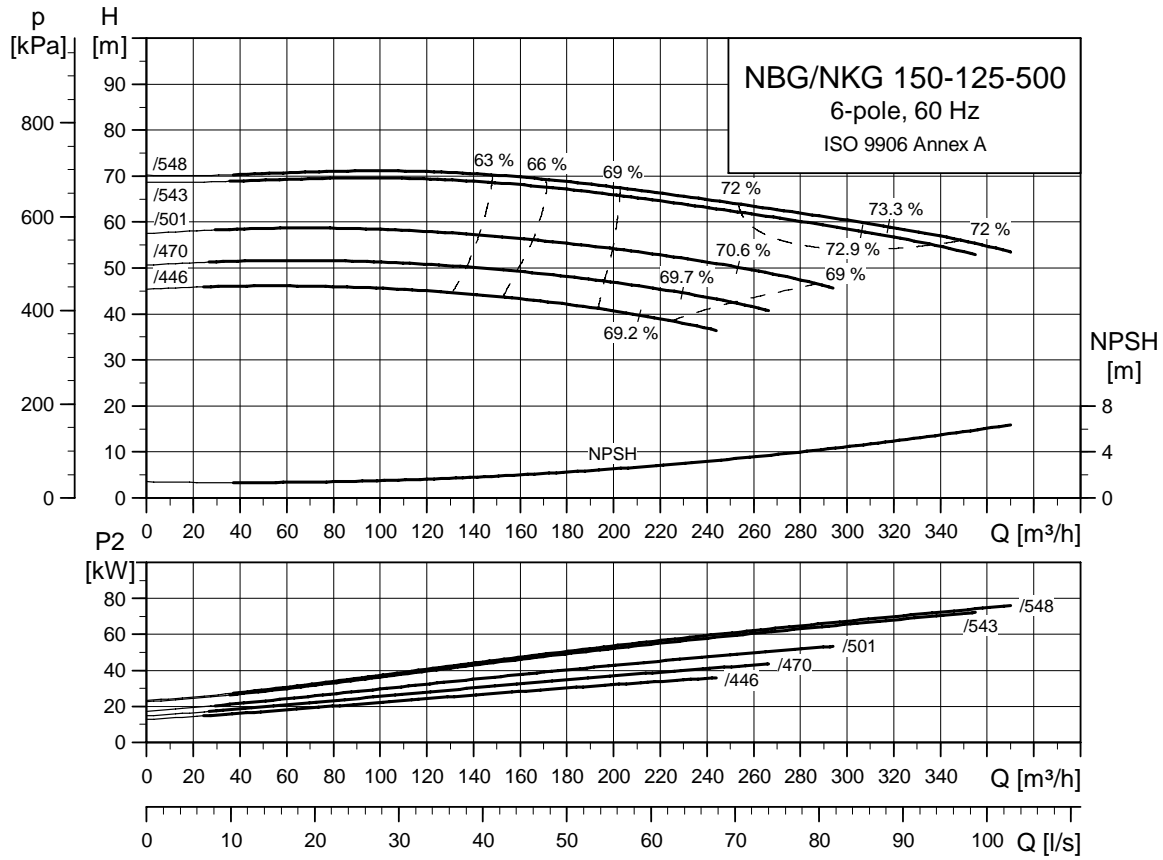
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 150-125-500
6-pole, 60 Hz

6-pole



TM03 5075 3406

TM03 8010 0107

TM03 8013 0107

Pump type		150-125-500/446	150-125-500/470	150-125-500/501	150-125-500/543	150-125-500/548	
Motor type	Premium Motor	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	Siemens 315MA	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	37	45	55	75	90
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	150	150	150	150	150
	DNd	[mm]	125	125	125	125	125
	a	[mm]	180	180	180	180	180
	h ₂	[mm]	500	500	500	500	500
	Ss		8x23	8x23	8x23	8x23	8x23
	Sd		8x19	8x19	8x19	8x19	8x19
Common data NKG standard/ spacer coupling	L NKG	[mm]	1741/1917	1814/1990	1924/2100	1956/2132	2116/2292
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1312/1309	1423/1419	1477/1473	1666/1662	1845/1841
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	2000	2000	2000	2000	2000
	l ₂	[mm]	330	330	330	330	330
	l ₃	[mm]	1340	1340	1340	1340	1340
	b ₁	[mm]	750	750	750	750	750
	b ₂	[mm]	890	890	890	890	890
	b ₃	[mm]	830	830	830	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	130	130	130	130	130
	h ₃	[mm]	530	530	530	530	530
	h ₄ ¹⁾	[mm]	922/-	962/-	962/-	1025/-	1025/-
Base frame no.		10	10	10	10	10	
NBG data	Design		C ²⁾	C	C	C ²⁾	C ²⁾
	L NBG	[mm]	524	524	524	554	554
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	400	400	400	400	400
	G ₁	[mm]	344	344	344	344	344
	G ₂	[mm]	377	377	377	377	377
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	625	625	625	625	625
	n ₂	[mm]	500	500	500	500	500
	b	[mm]	125	125	125	125	125
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	250	280	280	315	315
	LB ¹⁾	[mm]	747/-	820/-	930/-	932/-	1092/-
	AD ¹⁾	[mm]	392/-	432/-	432/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	300/-	300/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	236/-	236/-	307/-	307/-
	P	[mm]	550	550	550	660	660
	C	[mm]	168	190	190	216	216
	B	[mm]	349	368	419	406	457
A	[mm]	406	457	457	508	508	
K	[mm]	24	24	24	28	28	
Weight NKG ¹⁾	[kg]	872/-	987/-	1037/-	1269/-	1444/-	
Weight NKG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

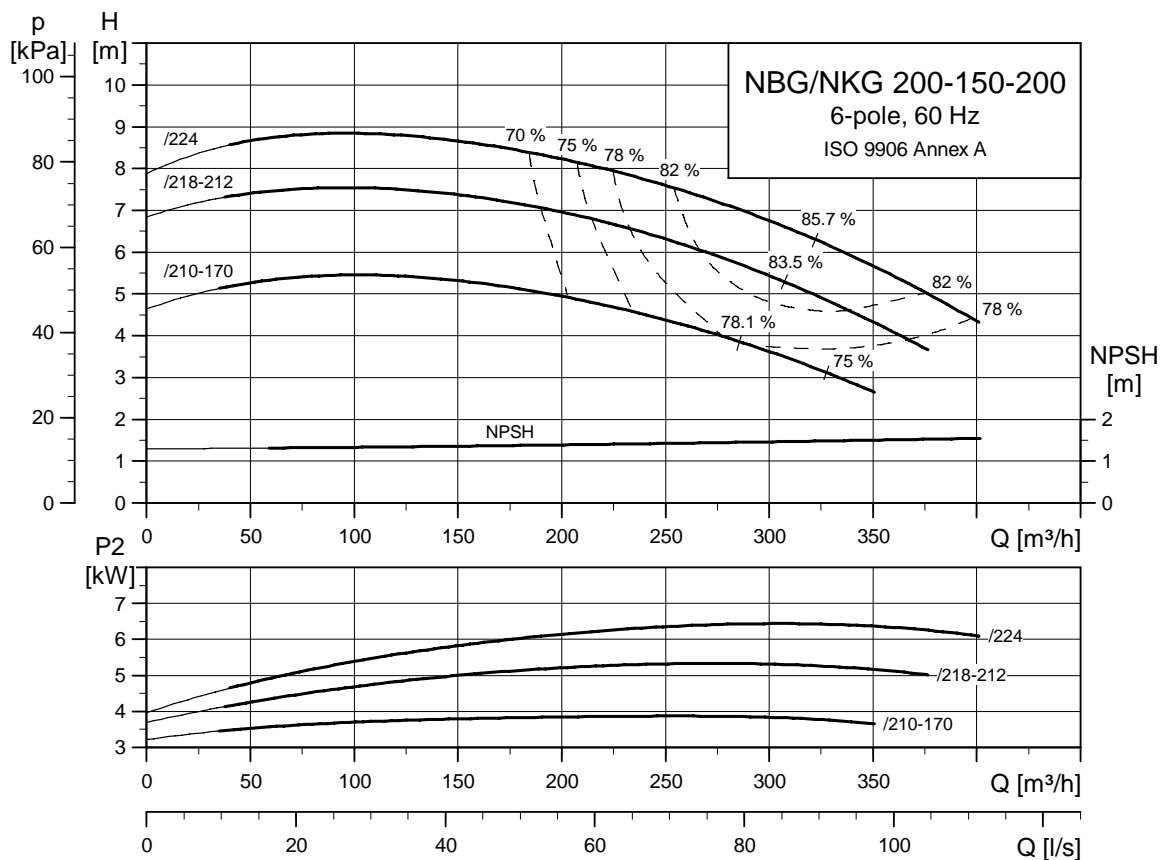
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

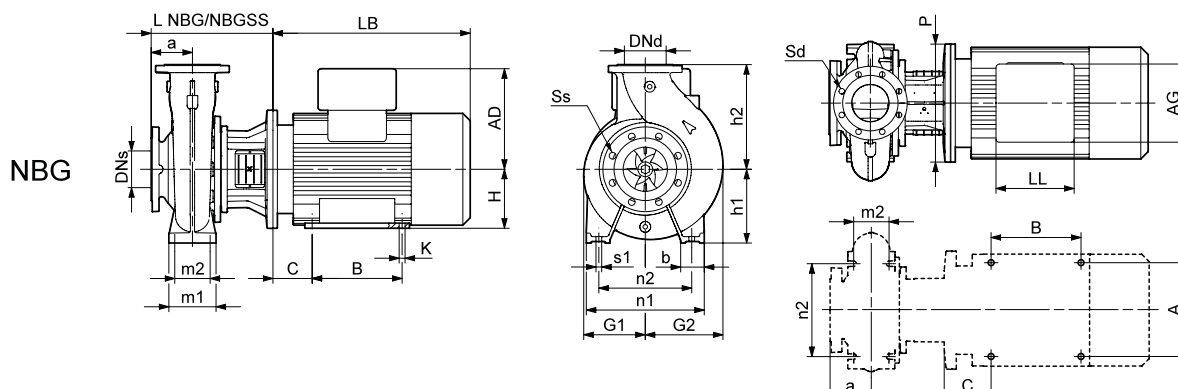
Note: For information about base frames, see page 222.

Performance curves

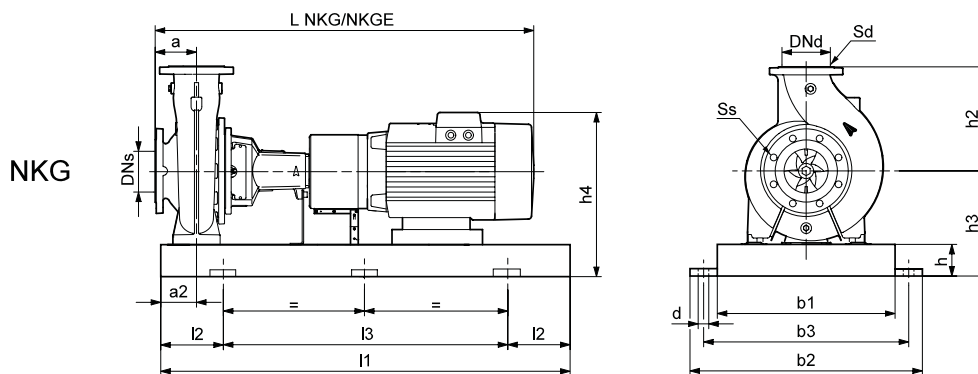
NBG, NKG 200-150-200
6-pole, 60 Hz
ISO 9906 Annex A



TM03 5076 3406



TM03 8010 0107



TM03 8012 0107

Pump type		200-150-200/210-170	200-150-200/218-212	200-150-200/224	
Motor type	Premium Motor	Siemens 132MA	Siemens 132MB	Siemens 160M	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	4	5.5	7.5
	PN	[bar]	16	16	16
	DNs	[mm]	200	200	200
	DNd	[mm]	150	150	150
	a	[mm]	160	160	160
	h ₂	[mm]	400	400	400
	Ss		8x23	8x23	8x23
Common data NKG standard/ spacer coupling	Sd		8x23	8x23	
	L NKG	[mm]	1117/1293	1155/1331	1252/1428
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	435/432	453/450	478/473
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-
NKG data	Weight NKGE SS	[kg]	-/-	-/-	-/-
	l ₁	[kg]	1800	1800	1800
	l ₂	[mm]	300	300	300
	l ₃	[mm]	1200	1200	1200
	b ₁	[mm]	600	600	600
	b ₂	[mm]	730	730	730
	b ₃	[mm]	670	670	670
	d	[mm]	28	28	28
	a ₂	[mm]	110	110	110
	h	[mm]	100	100	100
	h ₃	[mm]	385	385	380
NBG data	h ₄ ¹⁾	[mm]	552/-	552/-	577/-
	Base frame no.		9	9	9
	Design		A	A	C ²⁾
	L NBG	[mm]	403	403	433
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	280	280	280
	G ₁	[mm]	230	230	230
	G ₂	[mm]	319	319	319
	m ₁	[mm]	200	200	200
	m ₂	[mm]	150	150	150
	n ₁	[mm]	550	550	550
	n ₂	[mm]	450	450	450
	b	[mm]	100	100	100
	s ₁	[mm]	M20	M20	M20
	H	[mm]	-	-	160
	LB ¹⁾	[mm]	373/-	411/-	478/-
	AD ¹⁾	[mm]	167/-	167/-	197/-
	AG ¹⁾	[mm]	140/-	140/-	165/-
	LL ¹⁾	[mm]	140/-	140/-	165/-
	P	[mm]	300	300	350
C	[mm]	-	-	108	
B	[mm]	-	-	210	
A	[mm]	-	-	254	
K	[mm]	-	-	15	
Weight NBG ¹⁾	[kg]	219/-	237/-	274/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

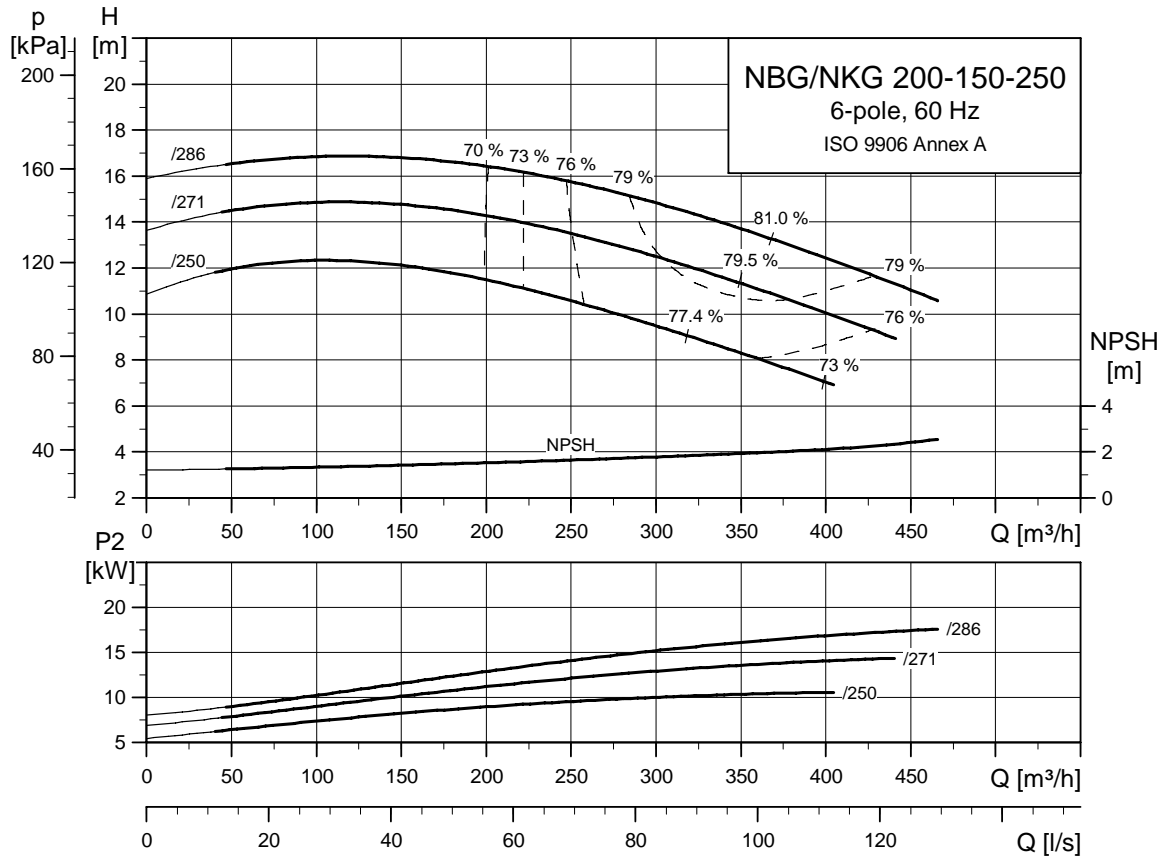
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

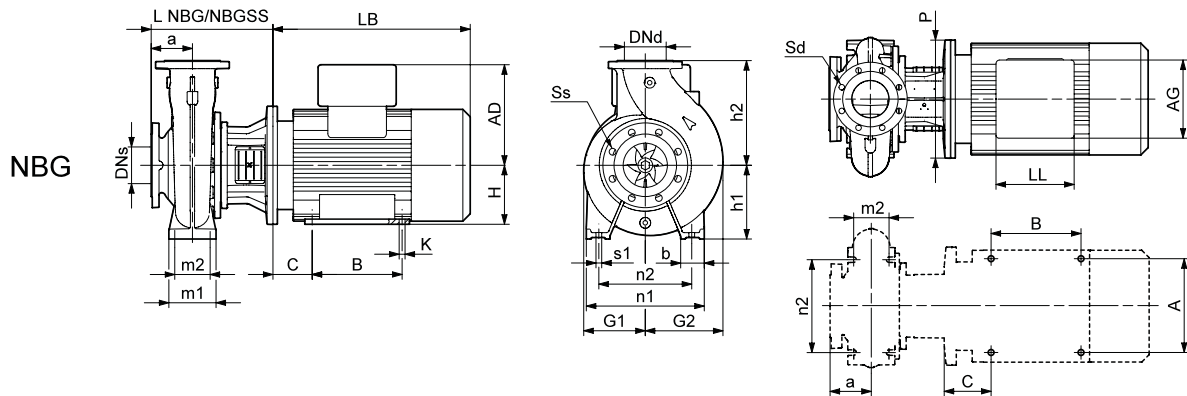
Note: For information about base frames, see page 222.

Performance curves

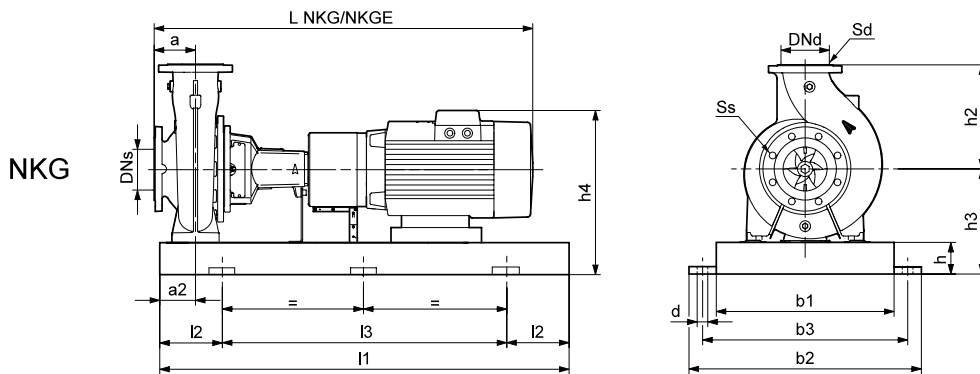
NBG, NKG 200-150-250
6-pole, 60 Hz



TM03 5077 3406



TM03 8010 0107



TM03 8012 0107

Pump type		200-150-250/250	200-150-250/271	200-150-250/286	
Motor type	Premium Motor	Siemens 160L	Siemens 180L	Siemens 200LA	
	E-Motor	-	-	-	
Common data NBG/NKG	P ₂	[kW]	11	15	18.5
	PN	[bar]	16	16	16
	DNs	[mm]	200	200	200
	DNd	[mm]	150	150	150
	a	[mm]	160	160	160
	h ₂	[mm]	375	375	375
	Ss		12x23	12x23	12x23
Common data NKG standard/ spacer coupling	Sd		8x23	8x23	
	L NKG	[mm]	1322/1498	1406/1582	1463/1639
	L NKGE	[mm]	-/-	-/-	-/-
	Weight NKG	[mm]	490/485	534/526	577/572
	Weight NKGE	[kg]	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800
	l ₂	[mm]	300	300	300
	l ₃	[mm]	1200	1200	1200
	b ₁	[mm]	600	600	600
	b ₂	[mm]	730	730	730
	b ₃	[mm]	670	670	670
	d	[mm]	28	28	28
	a ₂	[mm]	110	110	110
	h	[mm]	100	100	100
	h ₃	[mm]	380	383	380
	h ₄ ¹⁾	[mm]	577/-	641/-	685/-
Base frame no.		9	9	9	
NBG data	Design		C ²⁾	C	C ²⁾
	L NBG	[mm]	431	431	431
	L NBG SS	[mm]	-	-	-
	h ₁	[mm]	280	280	280
	G ₁	[mm]	221	221	221
	G ₂	[mm]	287	287	287
	m ₁	[mm]	200	200	200
	m ₂	[mm]	150	150	150
	n ₁	[mm]	500	500	500
	n ₂	[mm]	400	400	400
	b	[mm]	100	100	100
	s ₁	[mm]	M20	M20	M20
	H	[mm]	160	180	200
	LB ¹⁾	[mm]	518/-	602/-	659/-
	AD ¹⁾	[mm]	197/-	258/-	305/-
	AG ¹⁾	[mm]	165/-	152/-	260/-
	LL ¹⁾	[mm]	165/-	132/-	192/-
	P	[mm]	350	350	400
	C	[mm]	108	121	133
	B	[mm]	254	279	305
A	[mm]	254	279	318	
K	[mm]	15	15	19	
Weight NBG ¹⁾	[kg]	281/-	320/-	368/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

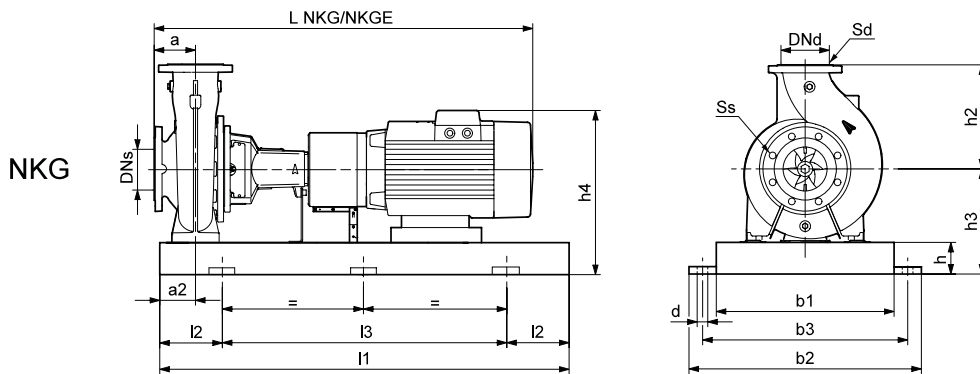
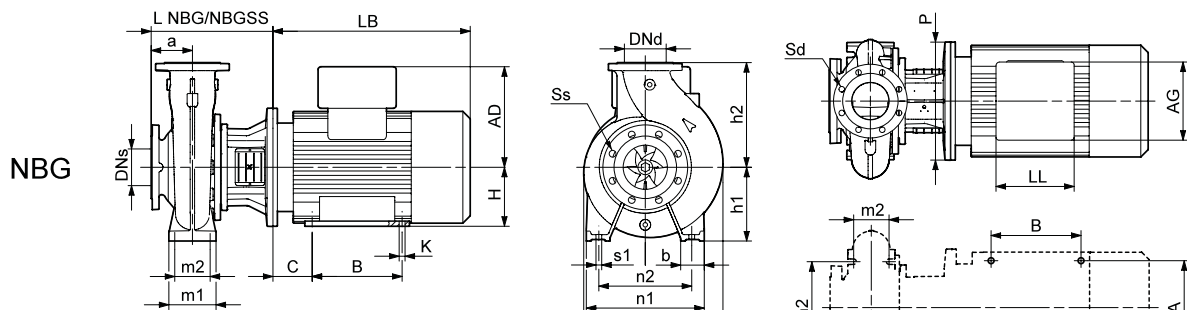
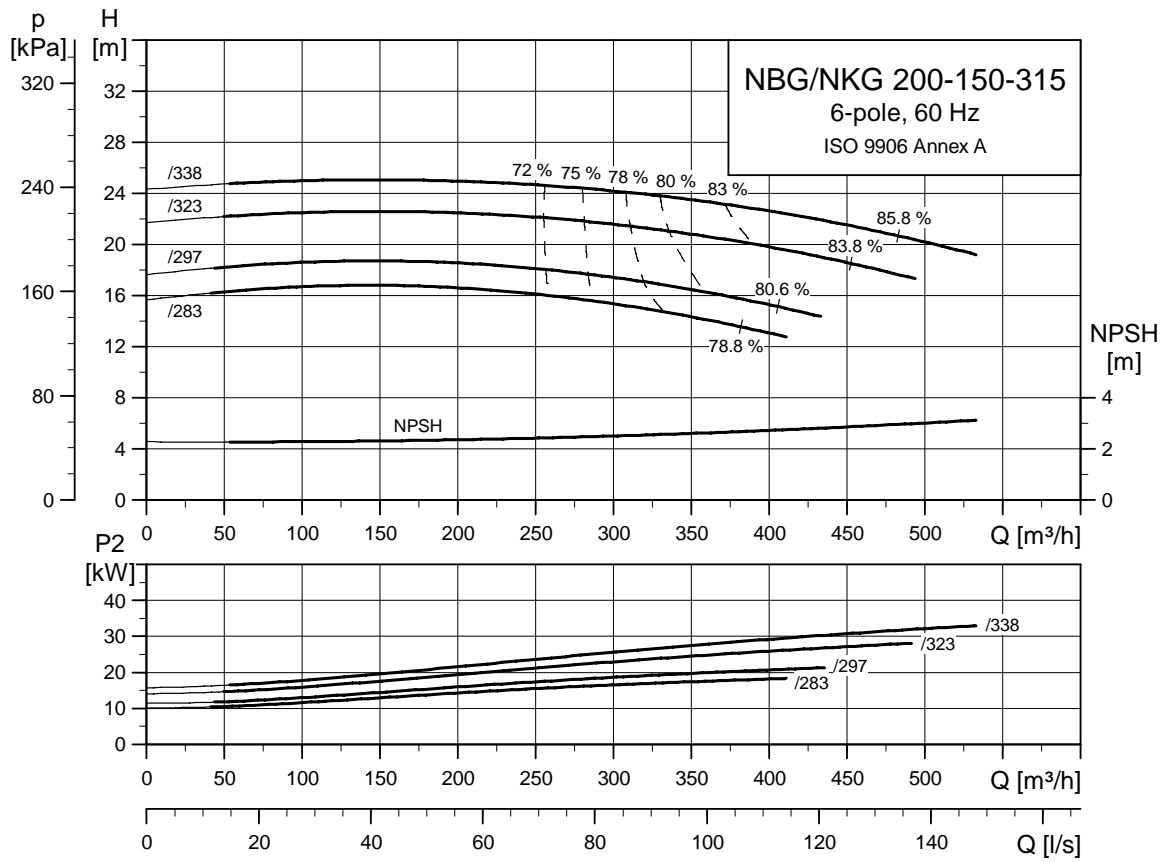
2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-315
6-pole, 60 Hz

ISO 9906 Annex A



TM03 5078 3406

TM03 8010 0107

TM03 8012 0107

Pump type		200-150-315/283	200-150-315/297	200-150-315/323	200-150-315/338	
Motor type	Premium Motor	Siemens 200LA	Siemens 200LB	Siemens 225M	Siemens 250M	
	E-Motor	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	18.5	22	30	37
	PN	[bar]	16	16	16	16
	DNs	[mm]	200	200	200	200
	DNd	[mm]	150	150	150	150
	a	[mm]	160	160	160	160
	h2	[mm]	450	450	450	450
	Ss		12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1603/1779	1603/1779	1683/1859	1721/1897
	L NKGE	[mm]	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	713/709	744/740	847/844	941/942
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-
NKG data	l1	[kg]	1800	1800	1800	1800
	l2	[mm]	300	300	300	300
	l3	[mm]	1200	1200	1200	1200
	b1	[mm]	600	600	600	600
	b2	[mm]	730	730	730	730
	b3	[mm]	670	670	670	670
	d	[mm]	28	28	28	28
	a2	[mm]	110	110	110	110
	h	[mm]	100	100	100	100
	h3	[mm]	415	415	415	415
	h4 ¹⁾	[mm]	720/-	720/-	740/-	807/-
Base frame no.		9	9	9	9	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	444	444	474	474
	L NBG SS	[mm]	-	-	-	-
	h1	[mm]	315	315	315	315
	G1	[mm]	264	264	264	264
	G2	[mm]	331	331	331	331
	m1	[mm]	200	200	200	200
	m2	[mm]	150	150	150	150
	n1	[mm]	550	550	550	550
	n2	[mm]	450	450	450	450
	b	[mm]	100	100	100	100
	s1	[mm]	M20	M20	M20	M20
	H	[mm]	200	200	225	250
	LB ¹⁾	[mm]	659/-	659/-	709/-	747/-
	AD ¹⁾	[mm]	305/-	305/-	325/-	392/-
	AG ¹⁾	[mm]	260/-	260/-	260/-	300/-
	LL ¹⁾	[mm]	192/-	192/-	192/-	236/-
	P	[mm]	400	400	450	550
	C	[mm]	133	133	149	168
	B	[mm]	305	305	286	349
A	[mm]	318	318	356	406	
K	[mm]	19	19	19	24	
Weight NBG ¹⁾	[kg]	432/-	463/-	583/-	682/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	

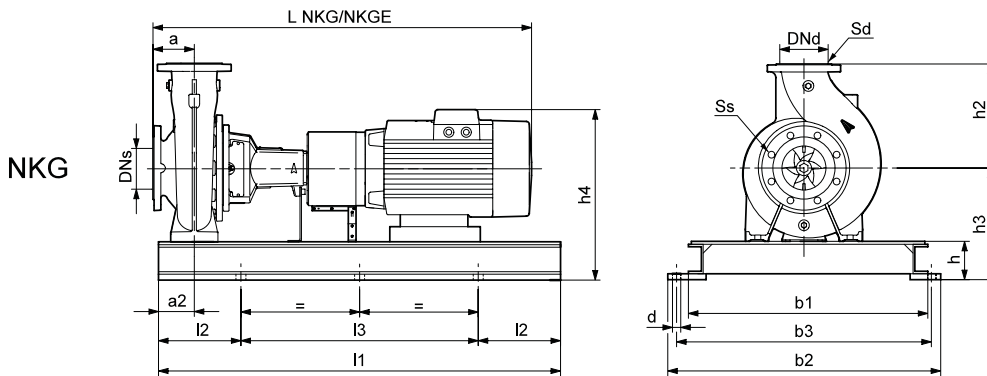
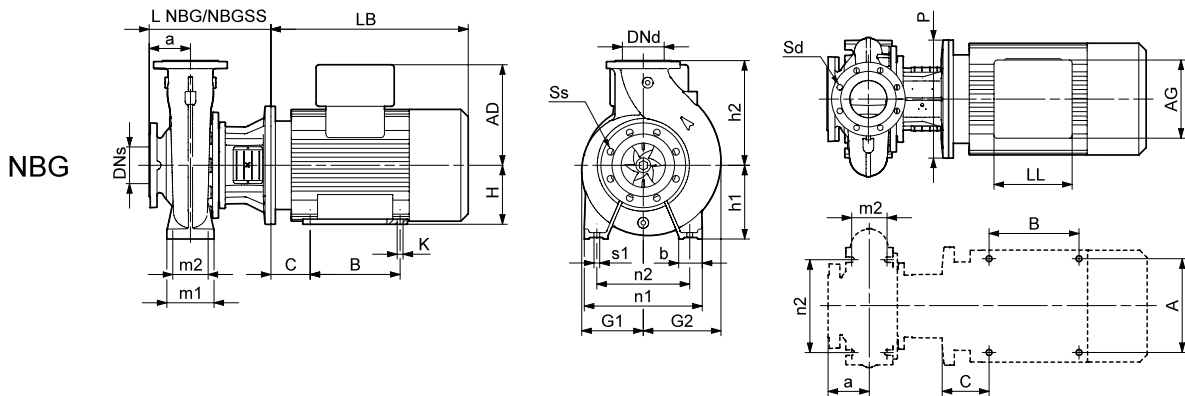
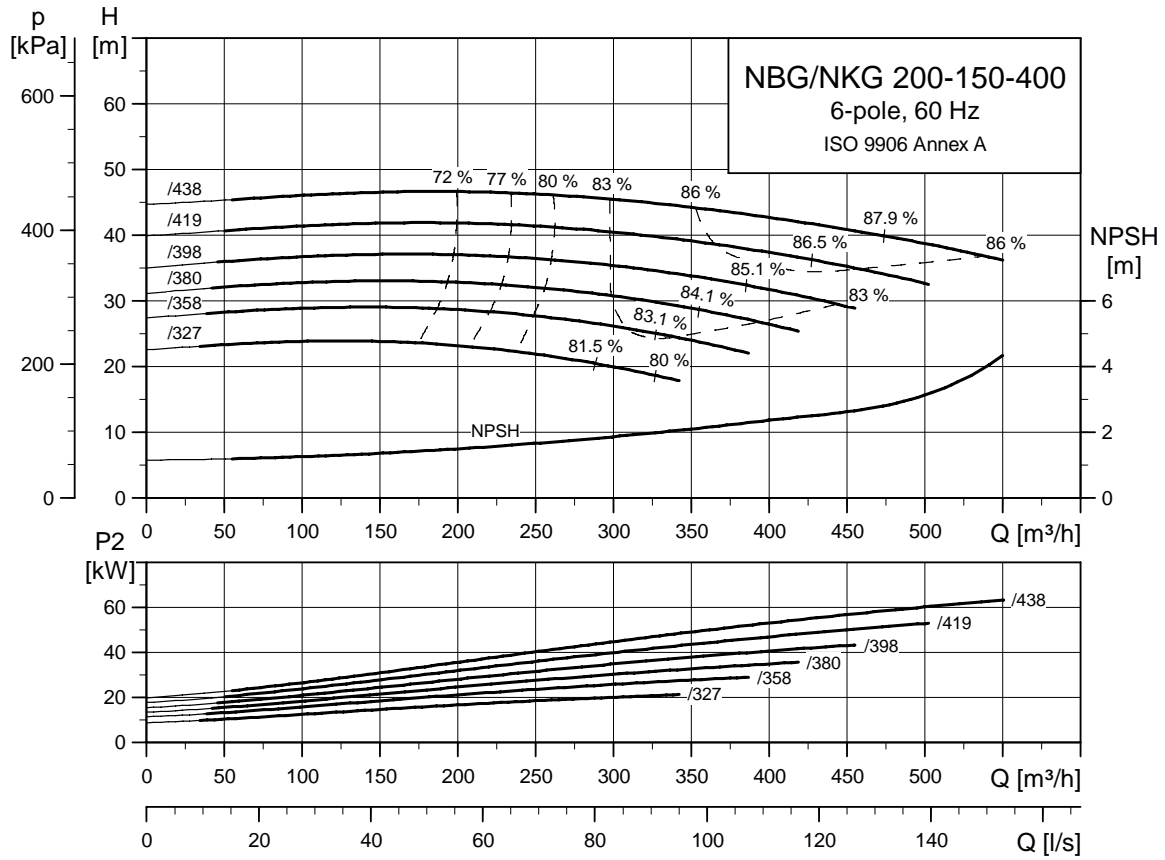
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h1 and H dimensions.

Note: For information about base frames, see page 222.

Performance curves

NBG, NKG 200-150-400
6-pole, 60 Hz



TM03 5079 3406

TM03 8010 0107

TM03 8013 0107

Pump type		200-150-400/327	200-150-400/358	200-150-400/380	200-150-400/398	200-150-400/419	200-150-400/438	
Motor type	Premium Motor	Siemens 200LB	Siemens 225M	Siemens 250M	Siemens 280S	Siemens 280M	Siemens 315S	
	E-Motor	-	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	22	30	37	45	55	75
	PN	[bar]	16	16	16	16	16	16
	DNs	[mm]	200	200	200	200	200	200
	DNd	[mm]	150	150	150	150	150	150
	a	[mm]	160	160	160	160	160	160
	h ₂	[mm]	450	450	450	450	450	450
	Ss		12x23	12x23	12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1603/1779	1683/1859	1721/1897	1794/1970	1904/2080	1936/2112
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	783/779	887/883	981/981	1266/1261	1319/1314	1481/1485
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	1800	1800	1800	2000	2000	2000
	l ₂	[mm]	300	300	300	330	330	330
	l ₃	[mm]	1200	1200	1200	1340	1340	1340
	b ₁	[mm]	600	600	600	750	750	750
	b ₂	[mm]	730	730	730	890	890	890
	b ₃	[mm]	670	670	670	830	830	830
	d	[mm]	28	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110	110
	h	[mm]	100	100	100	130	130	130
	h ₃	[mm]	415	415	415	445	445	450
	h ₄ ¹⁾	[mm]	720/-	740/-	807/-	877/-	877/-	945/-
Base frame no.		9	9	9	10	10	10	
NBG data	Design		C ²⁾	C ²⁾	C ²⁾	C	C	C ²⁾
	L NBG	[mm]	444	474	474	474	474	504
	L NBG SS	[mm]	-	-	-	-	-	-
	h ₁	[mm]	315	315	315	315	315	315
	G ₁	[mm]	291	291	291	291	291	291
	G ₂	[mm]	339	339	339	339	339	339
	m ₁	[mm]	200	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150	150
	n ₁	[mm]	550	550	550	550	550	550
	n ₂	[mm]	450	450	450	450	450	450
	b	[mm]	100	100	100	100	100	100
	s ₁	[mm]	M20	M20	M20	M20	M20	M20
	H	[mm]	200	225	250	280	280	315
	LB ¹⁾	[mm]	659/-	709/-	747/-	820/-	930/-	932/-
	AD ¹⁾	[mm]	305/-	325/-	392/-	432/-	432/-	495/-
	AG ¹⁾	[mm]	260/-	260/-	300/-	300/-	300/-	379/-
	LL ¹⁾	[mm]	192/-	192/-	236/-	236/-	236/-	307/-
	P	[mm]	400	450	550	550	550	660
	C	[mm]	133	149	168	190	190	216
	B	[mm]	305	286	349	368	419	406
	A	[mm]	318	356	406	457	457	508
K	[mm]	19	19	24	24	24	28	
Weight NBG ¹⁾	[kg]	502/-	623/-	721/-	836/-	886/-	1117/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	-/-	

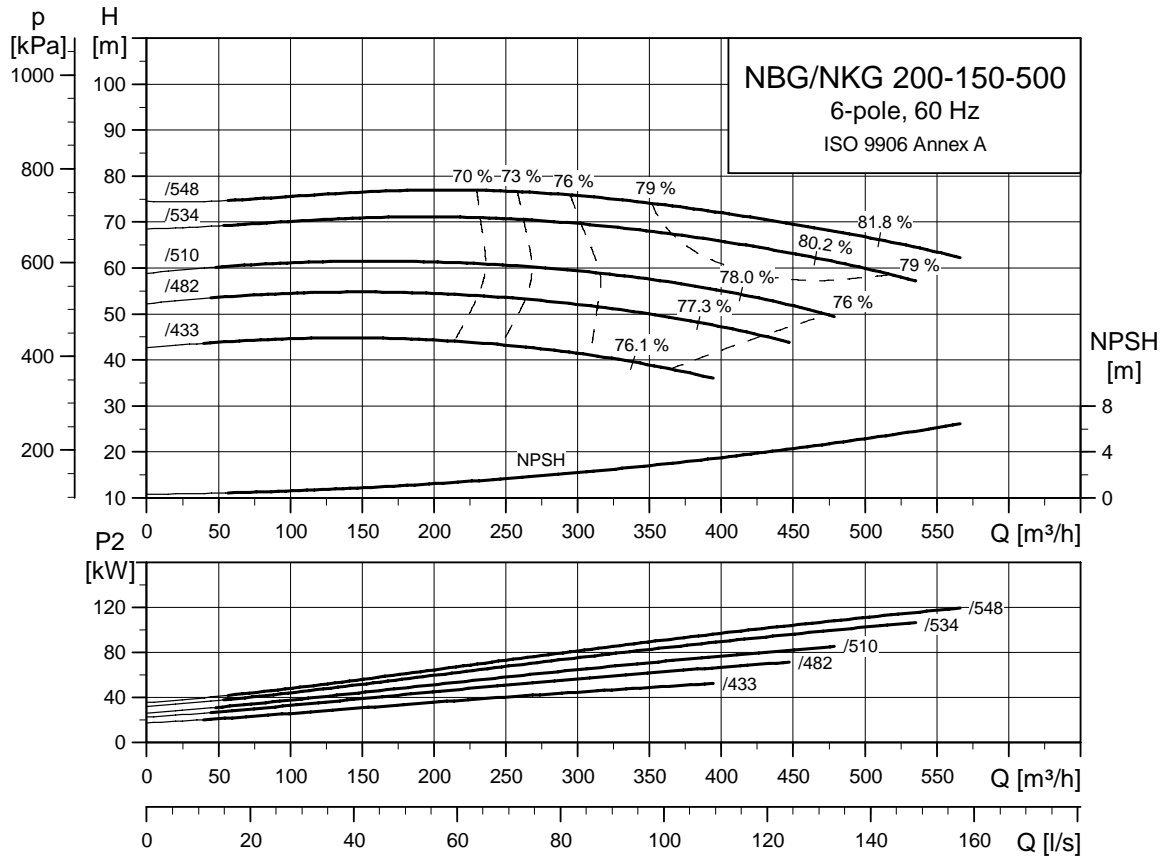
1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

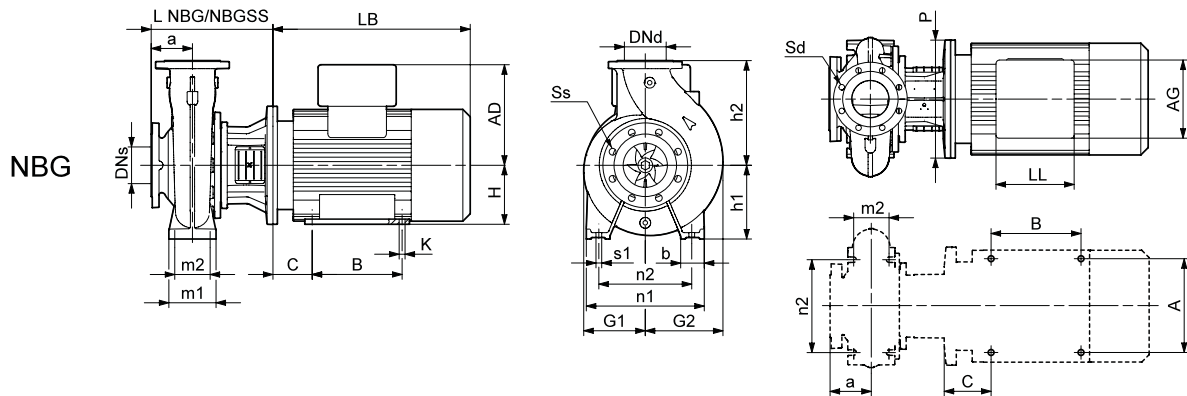
Note: For information about base frames, see page 222.

Performance curves

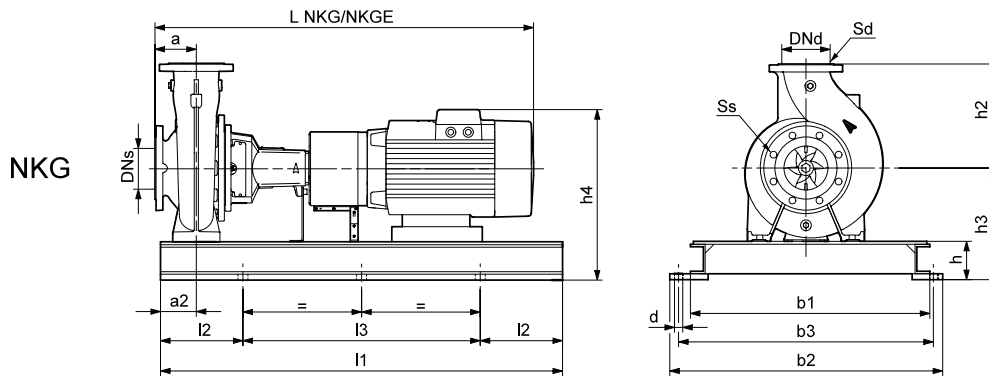
NBG, NKG 200-150-500
6-pole
ISO 9906 Annex A



TM03 5080 3406



TM03 8010 0107



TM03 8013 0107

Pump type		200-150-500/433	200-150-500/482	200-150-500/510	200-150-500/534	200-150-500/548	
Motor type	Premium Motor	Siemens 280M	Siemens 315S	Siemens 315MA	Siemens 315MB	Siemens 315L	
	E-Motor	-	-	-	-	-	
Common data NBG/NKG	P ₂	[kW]	55	75	90	110	132
	PN	[bar]	16	16	16	16	16
	DNs	[mm]	200	200	200	200	200
	DNd	[mm]	150	150	150	150	150
	a	[mm]	180	180	180	180	180
	h ₂	[mm]	500	500	500	500	500
	Ss		12x23	12x23	12x23	12x23	12x23
	Sd		8x23	8x23	8x23	8x23	8x23
Common data NKG standard/ spacer coupling	L NKG	[mm]	1924/2100	1956/2132	2116/2292	2116/2292	2256/2432
	L NKGE	[mm]	-/-	-/-	-/-	-/-	-/-
	Weight NKG	[mm]	1497/1493	1686/1682	1865/1860	1936/1932	2106/2102
	Weight NKGE	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKG SS	[kg]	-/-	-/-	-/-	-/-	-/-
	Weight NKGE SS	[kg]	-/-	-/-	-/-	-/-	-/-
NKG data	l ₁	[kg]	2000	2000	2000	2000	2000
	l ₂	[mm]	330	330	330	330	330
	l ₃	[mm]	1340	1340	1340	1340	1340
	b ₁	[mm]	750	750	750	750	750
	b ₂	[mm]	890	890	890	890	890
	b ₃	[mm]	830	830	830	830	830
	d	[mm]	28	28	28	28	28
	a ₂	[mm]	110	110	110	110	110
	h	[mm]	130	130	130	130	130
	h ₃	[mm]	530	530	530	530	530
	h ₄ ¹⁾	[mm]	962/-	1025/-	1025/-	1025/-	1025/-
Base frame no.		10	10	10	10	10	
NBG data	Design		C	C ²⁾	C ²⁾	C ²⁾	C ²⁾
	L NBG	[mm]	524	554	554	554	554
	L NBG SS	[mm]	-	-	-	-	-
	h ₁	[mm]	400	400	400	400	400
	G ₁	[mm]	353	353	353	353	353
	G ₂	[mm]	396	396	396	396	396
	m ₁	[mm]	200	200	200	200	200
	m ₂	[mm]	150	150	150	150	150
	n ₁	[mm]	625	625	625	625	625
	n ₂	[mm]	500	500	500	500	500
	b	[mm]	125	125	125	125	125
	s ₁	[mm]	M20	M20	M20	M20	M20
	H	[mm]	280	315	315	315	315
	LB ¹⁾	[mm]	930/-	932/-	1092/-	1092/-	1232/-
	AD ¹⁾	[mm]	432/-	495/-	495/-	495/-	495/-
	AG ¹⁾	[mm]	300/-	379/-	379/-	379/-	379/-
	LL ¹⁾	[mm]	236/-	307/-	307/-	307/-	307/-
	P	[mm]	550	660	660	660	660
	C	[mm]	190	216	216	216	216
	B	[mm]	419	406	457	508	457
A	[mm]	457	508	508	508	508	
K	[mm]	24	28	28	28	28	
Weight NBG ¹⁾	[kg]	1057/-	1288/-	1463/-	1538/-	1708/-	
Weight NBG SS ¹⁾	[kg]	-/-	-/-	-/-	-/-	-/-	

1) Dimension of pump with premium range motor/built-in frequency converter.

2) Support blocks are needed because of the P, h₁ and H dimensions.

Note: For information about base frames, see page 222.

Base frames

The dimensional sketches below show the dimensions of the base frames fitted to NKG, NKGE pumps.

The type number of the base frame is stated for each NKG, NKGE pump mentioned in the section Technical data/performance curves.

Base frame type No	Base frame
2	
3	
4	
5	
6	

Base frames

NBG, NBGE, NKG, NKGE

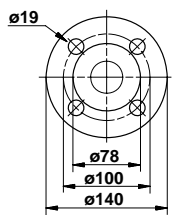
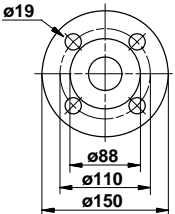
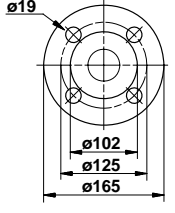
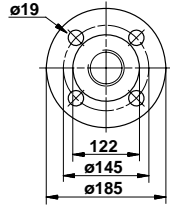
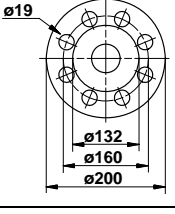
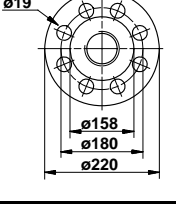
Base frame type No	Base frame	
7		TM03 7719 4806
8		TM03 7720 4806
9		TM03 7721 4806
10		TM03 7722 0807
11		TM03 7723 0807

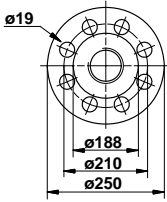
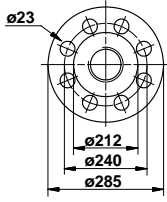
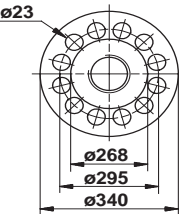
Counter flanges

Cast iron pumps

Counter flanges for NBG(E) and NKG(E) 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.

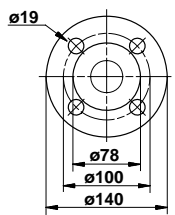
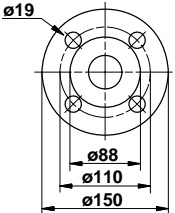
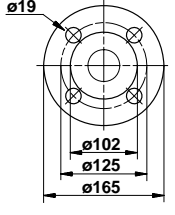
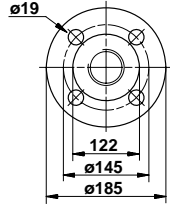
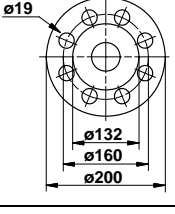
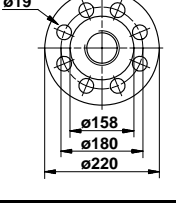
Counter flange	Flange size	Description	Rated pressure	Pipework connection	Product number
 TM03 0400 5004	DN 32	Threaded	10/16 bar, EN 1092-2	Rp 1¼	419901
		For welding	10/16 bar, EN 1092-2	32 mm	419902
 TM03 0401 5004	DN 40	Threaded	10/16 bar, EN 1092-2	Rp 1½	429902
		For welding	10/16 bar, EN 1092-2	40 mm	429901
 TM03 0402 5004	DN 50	Threaded	10/16 bar, EN 1092-2	Rp 2	339903
		For welding	10/16 bar, EN 1092-2	50 mm	339901
 TM03 0403 5004	DN 65	Threaded	10/16 bar, EN 1092-2	Rp 2½	349902
		For welding	10/16 bar, EN 1092-2	65 mm	349904
 TM03 2117 3705	DN 80	Threaded	10/16 bar, EN 1092-2	Rp 3	350540
		For welding	10/16 bar, EN 1092-2	80 mm	350541
 TM03 0405 5004	DN 100	Threaded	10/16 bar, EN 1092-2	Rp 4	369901
		For welding	10/16 bar, EN 1092-2	100 mm	369902

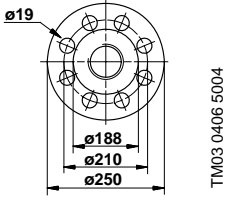
Counter flange	Flange size	Description	Rated pressure	Pipework connection	Product number
 <p>TM03 0406 5004</p>	DN 125	For welding	10/16 bar, EN 1092-2	125 mm	96414677
 <p>TM03 0407 5004</p>	DN 150	For welding	10/16 bar, EN 1092-2	150 mm	96414676
 <p>TM03 0408 0807</p>	DN 200	For welding	16 bar, EN 1092-2	200 mm	96691093

Stainless steel pumps

Counter flanges for NB(E) and NK(E) stainless steel 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	Pipework connection	Product number
 TM03 0400 5004	DN 32	Threaded	10/16 bar, EN 1092-2	Rp 1½	415304
		For welding	10/16 bar, EN 1092-2	32 mm	415305
 TM03 0401 5004	DN 40	Threaded	10/16 bar, EN 1092-2	Rp 1½	425245
		For welding	10/16 bar, EN 1092-2	40 mm	425246
 TM03 0402 5004	DN 50	Threaded	10/16 bar, EN 1092-2	Rp 2	335254
		For welding	10/16 bar, EN 1092-2	50 mm	335255
 TM03 0403 5004	DN 65	Threaded	10/16 bar, EN 1092-2	Rp 2½	349910
		For welding	10/16 bar, EN 1092-2	65 mm	349906
 TM03 2117 3705	DN 80	Threaded	10/16 bar, EN 1092-2	Rp 3	350543
		For welding	10/16 bar, EN 1092-2	80 mm	350544
 TM03 0405 5004	DN 100	Threaded	10/16 bar, EN 1092-2	Rp 4	369904
		For welding	10/16 bar, EN 1092-2	100 mm	369903

Counter flange	Flange size	Description	Rated pressure	Pipework connection	Product number
 <p>TM03 0406 5004</p>	DN 125	For welding	16 bar, EN 1092-2	125 mm	96694017

Sensors

Accessory	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°C to +25°C	96432591
Temperature sensor	TTA (-25) 25	Carlo Gavazzi	-25°C to +25°C	96430194
Temperature sensor	TTA (50) 100	Carlo Gavazzi	50°C to +100°C	96432592
Temperature sensor	TTA (0) 150	Carlo Gavazzi	0°C to +150°C	96430195
Accessory for temperature sensor. All with ½ RG connection.	Protecting tube ø9 x 50 mm	Carlo Gavazzi		96430201
	Protecting tube ø9 x 100 mm	Carlo Gavazzi		96430202
	Cutting ring bush	Carlo Gavazzi		96430203
Temperature sensor, ambient temperature	WR 52	tmg (DK: Plesner)	-50°C to +50°C	ID8295
Differential temperature sensor	ETSD	Honsberg	0°C to +20°C	96409362
Differential temperature sensor	ETSD	Honsberg	0°C to +50°C	96409363

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

Sensors for boosting applications

Danfoss pressure sensor kit	Pressure range	Product number
<ul style="list-style-type: none"> • Connection: G ½ A (DIN 16288 - B6kt) • Electrical connection: Plug (DIN 43650) 	0 - 2.5 bar	96478188
	0 - 4 bar	91072075
	0 - 6 bar	91072076
	0 - 10 bar	91072077
	0 - 16 bar	91072078
<ul style="list-style-type: none"> • Pressure sensor, type MBS 3000, with 2 m screened cable • Connection: G ¼ A (DIN 16288 - B6kt) • 5 cable clips (black) • Fitting instructions PT (00400212) 	0 - 2.5 bar	405159
	0 - 4 bar	405160
	0 - 6 bar	405161
	0 - 10 bar	405162
	0 - 16 bar	405163

Sensors for circulation applications

Grundfos differential pressure sensor, DPI	Pressure range	Product number
<ul style="list-style-type: none"> • 1 sensor incl. 0.9 m screened cable (7/16" connections) • 1 original DPI bracket (for wall mounting) • 1 Grundfos bracket (for mounting on motor) • 2 M4 screws for mounting of sensor on bracket • 1 M6 screw (self-cutting) for mounting on MGE 90/100 • 1 M8 screw (self-cutting) for mounting on MGE 112/132 • 1 M10 screw (self-cutting) for mounting on MMGE 160 • 1 M12 screw (self-cutting) for mounting on MMGE 180 • 3 capillary tubes (short/long) • 2 fittings (1/4" - 7/16") • 5 cable clips (black) • Installation and operating instructions • Service kit instruction 	0 - 0.6 bar	96611522
	0 - 1.0 bar	96611523
	0 - 1.6 bar	96611524
	0 - 2.5 bar	96611525
	0 - 4.0 bar	96611526
	0 - 6.0 bar	96611527
	0 - 10 bar	96611550

Select the differential pressure sensor so that the maximum pressure of the sensor is higher than the maximum differential pressure of the pump.

Potentiometer

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

Product	Product number
External potentiometer with cabinet for wall mounting	625468

R100

R100 is used for wireless communication. The communication takes place by means of infrared light.

Product	Product number
R100	625333

G10-LON interface

The G10-LON interface is used for data transmission between a Locally Operating Network (LON) and electronically controlled Grundfos pumps via the Grundfos GENibus protocol.

Product	Product number
G10-LON interface	00605726

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.

The product numbers in the tables below refer to a set of two support blocks with the dimensions specified.

Hexagon head bolts, washers and nuts are supplied together with support blocks higher than 20 mm.

NBG 60 Hz, 2-pole

Pump type	P ₂ [kW]	Dimensions W x L x H [mm]	Support block No	Product number
50-32-125	3			
50-32-160	5.5	50x100x20	2	96434610
		80x332x20		96434611
50-32-200	11	50x100x20	3	96434610
50-32-250	11	80x332x20	1	96434611
50-32-250	15			
65-40-200	11			
65-40-200	15			
65-40-250	11	80x332x20	1	96434611
65-40-250	15			
65-40-250	18.5			
65-50-125	3			
65-50-125	4			
65-50-160	5.5	50x100x20	2	96434610
65-50-160	7.5			
80-50-200	11			
80-50-200	15			
80-50-200	18.5	80x332x20	1	96434611
80-50-250	15			
80-50-250	18.5			
80-65-125	5.5			
80-65-125	7.5	50x100x20	2	96434610
80-65-160	11			
80-65-160	15			
100-65-200	11	80x332x20	1	96434611
100-65-200	15			
100-65-200	18.5			
100-80-125	11			
100-80-160	11	80x332x20		96434611
100-80-160	15	70x125x20	3	96434612
100-80-160	18.5			
125-80-160	11			
125-80-160	15	80x332x20	1	96434611
125-80-160	18.5			
125-80-200	30	70x125x20	2	96434612
125-80-200	37			

NBG 60 Hz, 4-pole

Pump type	P ₂ [kW]	Dimensions W x L x H [mm]	Support block No	Product number
80-50-315	11			
100-65-315	11	90x335x65		96434605
100-65-315	15			
125-80-250	11	100x332x40		96434609
125-80-315	11	90x335x90		96434606
125-80-315	15			
125-80-315	18.5	100x320x70		96434607
125-80-315	22			
125-100-200	11	100x332x40		96434609
125-100-250	11			
125-100-250	15	90x335x65	1	96434605
125-100-315	15	90x335x90		96434606
125-100-315	18.5			
125-100-315	22	100x320x70		96434607
150-125-200	11			
150-125-200	15	90x335x90		96434606
150-125-250	11			
150-125-250	15			
150-125-250	18.5	100x320x70		96434607
150-125-250	22			
200-150-200	11	80x290x120		96434608

NBG 60 Hz, 6-pole

Pump type	P ₂ [kW]	Dimensions W x L x H [mm]	Support block No	Product number
125-100-315	7.5	90x335x90		96434606
125-100-315	11			
125-100-400	7.5	80x290x120	1	96434608
150-125-250	7.5	90x335x90		96434606
150-125-315	7.5			
200-150-250	7.5	80x290x120		96434608

Key to support block number

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

Electrical data

The below tables show the electrical data of the following mains-operated motors

- MMG model E
- TECO, EFF2/standard efficiency
- TECO EFF1/high efficiency.

MMG model E, 2-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/I} [A]	η [%]	Cos φ _{1/I}	n [min ⁻¹]	I _{start} / I ₁
MMG	80	220-255Δ/380-440Y	1.1	4.15-/2.4-2.08	79.4-80.7	0.87-0.79	3340-3390	5.2-5.2
MMG	90S	220-277Δ/380-480Y	1.5	5.75-4.85/3.3-2.8	78.6-0.8	0.88-0.8	3360-3460	5.7-9.1
MMG	90L		2.2	8.15-6.7/4.6-3.8	80.2-83.9	0.88-0.82	3380-3470	5.7-9.5
MMG	100L		3	10.8-8.7/6.2-5	81.4-84.7	0.91-0.85	3400-3490	5.7-9.3
MMG	112M		4	13.6-11.6/7.8-6.7	84.5-85.5	0.92-0.84	3440-3500	6.4-9.7
MMG	90L		2.2	4.6-3.8	80.9-83.9	0.89-0.82	3380-3470	5.7-9.5
MMG	100L	3x380-480Δ	3	6.2-5	81.4-84.7	0.91-0.85	3400-3490	5.7-9.3
MMG	112M		4	7.8-6.7	84.9-85.5	0.92-0.84	3440-3500	6.4-9.7
MMG	132S		5.5	10.6-8.7	87.6-88.7	0.91-0.86	3470-3530	6.3-10
MMG	132S		7.5	14.8-11.4	88.6-90.1	0.92-0.88	3460-3520	5.9-9.8

MMG model E, 4-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/I} [A]	η [%]	Cos φ _{1/I}	n [min ⁻¹]	I _{start} / I ₁
MMG	-	220-255Δ/380-440Y	0.25	1.2/0.69	68.2-68.2	0.81-0.81	1590-1590	3.6-3.6
MMG	-		0.37	1.66/0.96	69.4-69.4	0.85-0.85	1560-1560	3.6-3.6
MMG	-		0.55	2.26/1.3	77.2-77.2	0.82-0.82	1710-1710	4.7-4.7
MMG	-		0.75	3.15/1.8	76.3-77.1	0.83-0.83	1660-1670	4.4-4.7
MMG	-		1.1	4.35-3.8/2.5-2.2	77.4-80.5	0.86-0.75	1650-1710	4.4-7
MMG	-	220-277Δ/380-480Y	1.5	5.9-5.2/3.4-3	78.9-81.7	0.85-0.73	1660-1730	4.5-7
MMG	-		2.2	8.15-6.95/4.6-4	81.5-83	0.87-0.79	1700-1740	5.3-8.3
MMG	-		3	11-10.4/6.3-6	83.9-83.8	0.86-0.72	1710-1750	6.5-9.2
MMG	-		4	14-12.2/8.1-7	85.5-86.5	0.88-0.80	1710-1750	6.1-9.5
MMG	-		2.2	4.6-4	82.9-84.6	0.87-0.77	1690-1740	5.5-8.4
MMG	-	3x380-480Δ	3	6.3-6	83.9-83.8	0.86-0.72	1710-1750	6.5-9.2
MMG	-		4	8.1-7	85.5-86.5	0.88-0.8	1710-1750	6.1-9.5
MMG	-		5.5	11-9.1	86.3-88.5	0.88-0.82	1720-1760	5.7-9.4

TECO – EFF2/standard efficiency, 2-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	$\frac{I_{start}}{I_{1/1}}$
TECO	80	220-255Δ/380-440Y	1.1	4.3-3.7/2.5-2.14	79.8-80	0.87-0.86	3360-3400	6.9-8
TECO	90S	220-277Δ/380-480Y	1.5	5.75-4.55/3.35-2.65	80.8-81.4	0.87-0.85	3390-3440	6.5-8.2
TECO	90L		2.2	8.35-6.6/4.8-3.8	83.1-83.7	0.86-0.84	3410-3460	6.9-8.7
TECO	100L		3	10.8-8.6/6.25-4.95	84.2-84.9	0.89-0.87	3420-3470	6.6-8.4
TECO	112M		4	14-11.2/8.1-6.4	85.7-86.4	0.9-0.88	3430-3480	7.2-9.1
TECO	90L		2.2	4.7-3.8	83.1-83.7	0.86-0.84	3410-3460	6.9-8.7
TECO	100L	3x380-480Δ	3	6.1-4.9	84.2-84.9	0.89-0.87	3420-3470	6.6-8.4
TECO	112M		4	7.9-6.35	85.7-86.4	0.9-0.88	3430-3480	7.2-9.1
TECO	132S		5.5	10.8-8.8	85.2-86.6	0.91-0.87	3450-3510	5-8.1
TECO	132S		7.5	14.6-11.6	87.1-89	0.9-0.88	3430-3550	5.2-8.4
TECO	160M		11	20.6-16.6/11.8-11.6	89.4-91	0.91-0.87	3520-3550	6.3-10.1
TECO	160M		15	28-21.6/16-15.2	89.5-91.3	0.92-0.91	3490-3530	5.5-9
TECO	160L		18.5	33.5-26/19.2-18.2	90.4-91.9	0.93-0.92	3490-3530	6.1-10.1
TECO	180MA		22	40-33/23-23	91.7-92.6	0.91-0.87	3520-3550	5.8-9.4
TECO	200LA		30	56.5-49.5/32.5-34.5	90.5-90.8	0.89-0.8	3540-3560	5.6-8.6
TECO	200LA		37	68.5-54.5/39.5-38	91.6-92.4	0.9-0.88	3530-3560	5.1-8.5
TECO	225MA	45	79-67.5/45.5-47	92-92.5	0.94-0.87	3530-3560	5.1-7.4	
TECO	250SA	3x380-480Δ/660-690Y	55	96.5-86/55.5-60	91.3-91.4	0.95-0.84	3540-3560	5.2-7.7
TECO	250MA		75	130-106/75.5-74	93.2-93.7	0.93-0.91	3540-3570	5.2-8.4
TECO	280SA		90	162-128/93-89	93.2-93.5	0.91-0.9	3550-3560	5.2-8.1
TECO	280MA		110	198-156/114-108	93.2-93.5	0.91-0.91	3550-3560	5.1-8.1
TECO	315SA		132	236-186/136-130	93.5-94	0.9-0.91	3550-3560	5.2-8.1
TECO	315MA		160	285-226/164-156	93.5-94	0.91-0.91	3560-3560	5.2-8.1
TECO	315MA		200	355-280/204-194	94-94.5	0.92-0.92	3560-3560	6-8
TECO	315MA		250	425-335/246-232	96-96	0.93-0.93	3570-3570	7-7.1
TECO	355LA		315	530-420/305-290	96.5-96.5	0.94-0.94	3570-3570	7-7

TECO – EFF2/standard efficiency, 4-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
TECO	71	220-255Δ/380-440Y	0.25	1.34-1.16/0.77-0.67	69.5-69.5	0.71-0.71	1690-1690	5.2-5.2
TECO	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
TECO	80		0.55	2.65-2.3/1.52-1.32	74.3-74.5	0.74-0.73	1680-1710	5-5.8
TECO	80		0.75	3.45-3/2-1.74	76.1-76.3	0.75-0.74	1680-1710	5-5.8
TECO	90S	220-277Δ/380-480Y	1.1	4.7-3.8/2.75-2.2	78.6-79.2	0.78-0.76	1680-1730	5.4-6.9
TECO	90L		1.5	6.05-4.85/3.5-2.8	80.8-81.4	0.81-0.79	1680-1730	5.6-7.1
TECO	100L		2.2	8.6-6.95/5-4	83.1-83.7	0.81-0.79	1690-1740	6-7.6
TECO	100L		3	11.4-9.30/6.65-5.35	83.7-84.4	0.82-0.8	1690-1740	6-7.6
TECO	112M	3x380-480Δ	4	15-12/8.65-7	85.7-86.4	0.82-0.8	1700-1750	6.6-8.3
TECO	100L		2.2	4.75-3.65	84-86.5	0.84-0.84	1740-1740	6.7-6.7
TECO	100L		3	6.25-5.05	86-84.5	0.84-0.85	1740-1740	7.4-7.4
TECO	112M		4	8.55-6.85	85-84.5	0.83-0.83	1750-1750	7.1-7.1
TECO	132S	3x380-480Δ/660-690Y	5.5	11-8.9	88-87.5	0.86-0.85	1750-1750	6.6-6.6
TECO	132M		7.5	14.2-12/8.15-7.9	87.8-88.9	0.91-0.85	1730-1760	5.9-9.4
TECO	160M		11	21-17.2/12-11.6	89.2-90.6	0.89-0.85	1740-1770	5-8.2
TECO	160L		15	28.5-24.6/16.4-15.8	90.8-91.8	0.87-0.81	1750-1780	6.3-10
TECO	180MC	3x380-480Δ/660-690Y	18.5	35.5-30.5/20.6-19.8	90.7-92.1	0.87-0.79	1740-1770	4.4-7.1
TECO	180LC		22	43.5-37/25-24	90.7-91.5	0.84-0.78	1750-1770	5.1-8.4
TECO	200LC		30	55.5-45.5/32-30.5	91.8-92.6	0.89-0.86	1760-1770	5.7-9.2
TECO	225SC		37	68.5-60.5/39.5-38	92.5-93	0.88-0.79	1760-1770	4.7-7.4
TECO	225MC	3x380-480Δ/660-690Y	45	82.5-69.5/47.5-45.5	92-92	0.9-0.84	1760-1770	4.6-7.4
TECO	250SC		55	94.5-81.5/54.5-52.5	93.9-93.9	0.93-0.87	1780-1790	6.4-10.3
TECO	250MC		75	134-126/77.5-87.5	94.9-94.9	0.89-0.75	1770-1780	4.7-7.7
TECO	280SC		90	164-132/94-92	94-94	0.89-0.87	1780-1780	6-7.7
TECO	280MC	3x380-480Δ/660-690Y	110	200-160/116-110	94-94	0.89-0.88	1780-1780	6-7.7
TECO	315SC		132	240-192/138-132	94-94	0.89-0.88	1780-1780	6-7.7
TECO	315MC		160	290-228/166-160	94.5-94.5	0.89-0.89	1780-1780	6-8
TECO	315MB		185	335-265/192-182	94.5-94.5	0.89-0.89	1780-1780	6-7.8
TECO	315MB	3x380-480Δ/660-690Y	200	350-285/204-196	94.8-94.8	0.91-0.89	1780-1780	6.2-8.2
TECO	355MB		220	380-300/220-208	96.2-96.2	0.92-0.92	1790-1790	6.9-6.9
TECO	355MB		250	430-340/250-236	96.2-96.2	0.92-0.92	1790-1790	6.9-6.9
TECO	355LB		300	500-395/290-275	96.6-96.6	0.94-0.94	1790-1790	6.9-6.9
TECO	355LB	3x380-480Δ/660-690Y	315	525-415/305-290	96.6-96.6	0.94-0.94	1790-1790	6.9-6.9

TECO – Standard efficiency, 6-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} I _{1/1}
TECO	90L	220-277Δ/380-480Y	1.1	5.8-4.6/3.35-2.65	74.8-75.4	0.69-0.67	1090-1140	4.5-5.7
TECO	100L		1.5	7.1-5.6/4.1-3.25	79.8-80.4	0.72-0.7	1100-1150	5.4-6.4
TECO	112M		2.2	9.8-7.75/5.65-4.5	82.4-83	0.74-0.72	1120-1170	5.4-6.9
TECO	132S		3	12.8-14.6/7.4-8.4	79-76.4	0.78-0.56	1160-1170	4.4-5.4
TECO	132M		4	16.4-19.4/9.3-11.2	81.6-79.5	0.82-0.56	1150-1160	5.7-6.5
TECO	112M		2.2	5.5-4.45/3.15-3.05	82.4-83	0.74-0.72	1120-1170	6.5-6.5
TECO	132S		3	7.25-6.3/4.2-4.05	78.1-78.7	0.8-0.73	1140-1170	6.3-6.3
TECO	132M		4	8.8-8.65/5.05-6	84.1-83.1	0.82-0.67	1150-1170	6.3-6.3
TECO	132M		5.5	11.8-10.8/6.8-7.5	84.4-84.4	0.84-0.73	1140-1160	7-7
TECO	160M		7.5	15-13.8/8.65-9.6	87.4-87.5	0.87-0.75	1160-1180	6.3-6.3
TECO	160L	11	22-19.4/12.8-12.4	88.3-88.9	0.85-0.77	1160-1170	6.9-6.9	
TECO	180LC	15	31-23.6/17.8-16.8	88.5-91	0.84-0.84	1160-1180	6.9-6.9	
TECO	200LC	18.5	35.5-29/20.6-19.6	90-91.2	0.89-0.84	1160-1170	6.7-6.7	
TECO	200LC	3x380-480Δ/660-690Y	22	41.5-33.5/24-23	91-92.2	0.88-0.85	1160-1170	6.8-6.8
TECO	225MC		30	54.5-54/31.5-31	91.7-90.9	0.92-0.73	1180-1190	6.4-6.4
TECO	250SC		37	68-59/39-38	92.5-93	0.89-0.81	1170-1190	6.5-6.5
TECO	250MC		45	82-74/47-51.5	92.9-93.2	0.9-0.78	1180-1190	6.3-6.3
TECO	280SC		55	104-85/60-58	93-93.4	0.86-0.83	1180-1180	6.3-6.8
TECO	280MC		75	140-116/81-78.5	94-94	0.86-0.83	1180-1180	6.5-7
TECO	315SC		90	170-138/97.5-94	94-94.2	0.86-0.84	1180-1180	6.5-7
TECO	315MC		110	206-166/118-116	94.2-94.7	0.86-0.84	1180-1180	6.2-6.7
TECO	315MC		132	248-200/142-138	94.2-95	0.86-0.84	1180-1180	6.2-6.7

TECO – EFF1/high efficiency, 2-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} I _{1/1}
TECO	80	220-277Δ/380-480Y	1.1	4-3.25/2.3-1.88	83.7-84.4	0.86-0.84	3400-3450	6.7-6.7
TECO	90S		1.5	5.4-4.35/3.1-2.5	84.2-84.9	0.87-0.85	3400-3450	7.2-7.2
TECO	90L		2.2	7.85-6.35/4.55-3.65	85.7-86.4	0.86-0.84	3420-3470	7.3-7.3
TECO	100L		3	10.2-8.25/5.9-4.75	86.7-87.4	0.89-0.87	3430-3480	8.6-8.6
TECO	112M		4	13.4-10.8/7.75-6.25	88.2-88.9	0.89-0.87	3440-3490	8.3-8.3
TECO	90L	3x380-480Δ	2.2	4.55-3.65	85.7-86.4	0.86-0.84	3420-3470	7.3-7.3
TECO	100L		3	5.9-4.75	86.7-87.4	0.89-0.87	3430-3480	8.6-8.6
TECO	112M		4	7.75-6.25	88.2-88.9	0.89-0.87	3440-3490	8.3-8.3
TECO	132S		5.5	10.2-8.35	90.5-91.4	0.9-0.87	3480-3530	7.2-7.2
TECO	132S		7.5	14.2-11.8	89.8-91.4	0.90-0.84	3450-3520	6.7-6.7
TECO	160M	3x380-480Δ/660-690Y	11	20.6-16.2/11.8-11.2	89.1-91.4	0.91-0.9	3500-3540	7.2-7.2
TECO	160M		15	28-22.6/16-15.6	90.1-92.1	0.91-0.88	3500-3540	7.1-7.1
TECO	160L		18.5	33.5-26.5/19.2-18.4	91.4-93.2	0.92-0.9	3510-3550	8.4-8.4
TECO	180MA		22	40-34/23-24	92.6-93.5	0.9-0.83	3520-3550	8.6-8.6
TECO	200LA		30	56-44.5/32.5-31	92.2-93.6	0.88-0.86	3520-3560	8.6-8.6
TECO	200LA		37	67-52.5/38.5-36.5	93.8-95	0.89-0.89	3540-3570	8.6-8.6
TECO	225MA		45	78.5-63/45-44	93.3-94.3	0.94-0.91	3540-3560	8.4-8.4
TECO	250SA		55	95.5-76.5/55-53	94-94	0.93-0.92	3550-3570	7.4-7.4
TECO	250MA		75	128-102/73.5-71.5	94.6-94.6	0.94-0.93	3560-3570	7.5-7.5
TECO	280SA		90	154-124/88-85.5	95-95	0.94-0.93	3560-3580	7-7
TECO	280MA		110	190-150/108-104	95.5-95.5	0.93-0.93	3570-3580	7.6-7.6
TECO	315SA		132	226-178/128-124	95-96	0.94-0.93	3570-3580	7.5-7.5
TECO	315MA		160	265-216/154-150	96-96.2	0.95-0.93	3570-3580	7-7
TECO	315MA		200	355-280/206-194	96-96	0.9-0.9	3570-3570	8-8
TECO	315CA		250	445-350/255-244	95-95.2	0.9-0.9	3570-3570	5.4-8.3
TECO	355DA	315	550-435/315-305	95.4-95.5	0.91-0.91	3580-3580	5.5-8.5	

TECO – EFF1/high efficiency, 4-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
TECO	80	220-255Δ/380-440Y	0.55	2.5-2.16/1.46-	82.0-82	0.7-0.7	1680-1700	7-7
TECO	80		0.75	3.25-2.85/1.9-	82.8-83	0.73-0.72	1680-1710	6.6-7.6
TECO	90S	220-277Δ/380-480Y	1.1	4.35-3.50/2.5-2.06	84.2-84.9	0.79-0.77	1690-1740	6.7-8.5
TECO	90L		1.5	5.75-4.65/3.35-2.7	85.7-86.4	0.8-0.78	1690-1740	6.7-8.5
TECO	100L	220-277Δ/380-480Y	2.2	7.8-6.3/4.5-3.65	87.2-87.9	0.85-0.83	1700-1750	7.6-9.6
TECO	100L		3	10.8-8.75/6.25-5.05	87.7-88.4	0.83-0.81	1700-1750	7.8-9.8
TECO	112M	3x380-480Δ	4	13.8-11.2/8.05-6.45	89.2-89.9	0.85-0.83	1710-1760	7.8-9.8
TECO	100L		2.2	4.5-3.65	87.2-87.9	0.85-0.83	1700-1750	9.6-9.6
TECO	100L	3x380-480Δ	3	6.25-5.05	87.7-88.4	0.83-0.81	1700-1750	9.8-9.8
TECO	112M		4	8.05-6.45	89.2-89.9	0.85-0.83	1710-1760	9.8-9.8
TECO	132S	3x380-480Δ/660-690Y	5.5	10.8-8.5/6.2-5.95	90.6-91.5	0.86-0.85	1740-1760	9.8-9.8
TECO	132M		7.5	14.4-11.6/8.35-8.1	90.7-91.5	0.87-0.85	1730-1770	8.7-8.7
TECO	160M	3x380-480Δ/660-690Y	11	20.6-16.4/11.6-11.4	92.7-93.5	0.89-0.87	1730-1770	8.7-8.7
TECO	160L		15	27-22/15.6-15.2	93.2-94	0.9-0.88	1740-1780	8.6-8.6
TECO	180MC	3x380-480Δ/660-690Y	18.5	34.5-28/19.8-19.4	93.7-94.5	0.87-0.85	1740-1780	8.8-8.8
TECO	180LC		22	41-33/23.6-23	93.7-94.5	0.87-0.85	1740-1780	8.3-8.3
TECO	200LC	3x380-480Δ/660-690Y	30	54-43.5/31-30.5	94.2-95	0.89-0.87	1750-1790	9.3-9.3
TECO	225SC		37	68.5-55/39.5-38.5	94.7-95.5	0.87-0.85	1750-1790	7.8-7.8
TECO	225MC	3x380-480Δ/660-690Y	45	82.5-66.5/47.5-46.5	94.7-95.5	0.87-0.85	1750-1790	7.4-7.4
TECO	250SC		55	104-80/60-55.5	94.9-96	0.85-0.86	1750-1790	7.4-7.4
TECO	250MC	3x380-480Δ/660-690Y	75	142-110/81.5-76	94.7-96	0.85-0.86	1750-1790	7.3-7.3
TECO	280SC		90	170-130/97.5-91	95-96	0.85-0.86	1750-1790	7-7
TECO	280MC	3x380-480Δ/660-690Y	110	206-160/120-112	95.5-96	0.85-0.86	1750-1790	6.8-6.8
TECO	315SC		132	250-190/142-132	95.1-96	0.85-0.87	1770-1790	6-6
TECO	315MCB	3x380-480Δ/660-690Y	160	300-230/172-160	95.1-96	0.86-0.87	1770-1790	6-6
TECO	315MB		200	365-290/210-166	95.8-95.8	0.88-0.88	1780-1780	7.8-7.8
TECO	315CB	3x380-480Δ/660-690Y	250	455-355/260-246	94.5-95.2	0.89-0.89	1780-1780	5.5-8.3
TECO	315DB		315	575-445/330-310	94.5-95.2	0.88-0.9	1780-1780	5.5-8.3

TECO – high efficiency, 6-pole

Motor	Frame size	Voltage	P2 [kW]	I _{1/1} [A]	η [%]	Cos φ _{1/1}	n [min ⁻¹]	I _{start} I _{1/1}
TECO	90L	220-277Δ/380-480Y	1.1	5.4-4.35/3.15-2.5	80.2-80.8	0.67-0.65	1100-1150	5.3-6.7
TECO	100L		1.5	6.95-5.6/4-3.25	82.8-83.4	0.69-0.67	1100-1160	5.6-7.1
TECO	112M		2.2	9-7.25/5.2-4.2	83.7-84.4	0.77-0.75	1100-1160	5.6-7.1
TECO	132S		3	11.2-11/6.45-6.4	87.4-85.9	0.81-0.66	1170-1180	6.5-8.8
TECO	132M		4	14.8-12/8.5-6.95	84.5-89.4	0.85-0.78	1160-1180	5.2-7.9
TECO	112M		2.2	5.2-4.2/3-2.9	83.7-84.4	0.77-0.75	1110-1160	5.6-7.1
TECO	132S		3	6.45.55/3.7-3.85	87.6-87.4	0.82-0.75	1140-1180	6.4-8
TECO	132M		4	8.6-7.2/4.95-5	86.1-87.7	0.82-0.76	1140-1170	4.5-7.3
TECO	132M		5.5	11-9.95/6.4-6.9	88.8-89.6	0.85-0.74	1150-1160	5.2-7.9
TECO	160M		7.5	15-13.2/8.65-9.15	90.5-91.3	0.84-0.75	1160-1170	5.8-8.9
TECO	160L	11	21-19.6/12.2-13.6	90.7-90.8	0.87-0.74	1160-1180	6.1-9.2	
TECO	180LC	15	29.5-24/17-16.8	91.6-93.1	0.85-0.81	1170-1180	5.2-8.3	
TECO	200LC	18.5	37-30.5/21.6-21	92.2-93.5	0.82-0.78	1170-1180	4.6-7.6	
TECO	200LC	3x380-480Δ/660-690Y	22	43.5-35.5/25-24.6	92.3-93.8	0.83-0.8	1170-1180	4.6-7.7
TECO	225MC		30	56-46.5/32.5-32	93.5-94.2	0.87-0.83	1170-1180	4.6-7.3
TECO	250SC		37	68-56.5/39-39.5	94-94.8	0.88-0.83	1180-1190	5.4-8.7
TECO	250MC		45	82.5-67.5/47.5-47	94.1-94.9	0.88-0.84	1180-1190	5.4-8.8
TECO	280SC		55	99.5-78.5/57-54.5	95-95	0.89-0.89	1180-1180	5.3-8.3
TECO	280MC		75	136-108/78-74.5	95-95	0.89-0.89	1180-1180	6.0-8.5
TECO	315SC		90	160-126/92.5-88.5	95.2-95.2	0.9-0.9	1180-1180	6.0-8.3
TECO	315MB		110	196-156/114-108	95.2-95.2	0.89-0.89	1190-1190	5.1-8.2
TECO	315MB		132	236-184/134-128	95.2-95.2	0.9-0.9	1190-1190	5.5-8

Correction tables

The below tables show the dimensions of the following mains-operated motors

- MG EFF2
- MMG model E
- TECO, EFF2/standard efficiency
- TECO, EFF1/high efficiency.

MG EFF2

If MG EFF2 motors are selected, the dimension in Technical data on page 50 to 191 must be corrected according to the tables below.

2-pole

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight [kg]	NB weight [kg]
0.55	MG 71B-C	MG 71B-C	0	0	0	0	0	0	0	0	0	0	0	0
0.75	MG 80A-C	MG 80A-C	0	0	0	0	0	0	0	0	0	0	0	0
1.1	MG 90SA-D	MG 80B-C	-50	-10	-1	-80	-21	0	-15	0	-6	0	-5.4	-5
1.5	MG 90SB-D	MG 90SA-C	0	0	0	0	0	0	0	0	0	0	0	-1
2.2	MG 90LC-D	MG 90LA-C	-40	0	0	0	0	0	0	0	0	0	-3	-3
3	MG 100LC-D	MG 100LA-C	0	0	0	0	0	0	0	0	0	0	-2	-2
4	MG 112MC-D	MG 112MB-C	0	0	0	0	0	0	0	0	0	0	-9	-9
5.5	MG 132SC-D	MG 132SB-C	0	0	0	0	0	0	0	0	0	0	0	0
7.5	MG 132SD-D	MG 132SC-C	0	0	0	0	0	0	0	0	0	0	2	2

Note:

The 'L' and 'h4' dimensions refer to NKG pumps.
The 'LB' and 'AD' dimensions refer to NBG pumps.

4-pole

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight [kg]	NB weight [kg]
0.25	MG 71A-C	MG 71A-C	0	0	0	0	0	0	0	0	0	0	0	0
0.37	MG 71B-C	MG 71B-C	0	0	0	0	0	0	0	0	0	0	0	0
0.55	MG 80A-C	MG 80A-C	0	0	0	0	0	0	0	0	0	0	0	0
0.75	MG 80B-C	MG 80B-C	0	0	0	0	0	0	0	0	0	0	0	0
1.1	MG 90SB-D	MG 90SA-C	0	0	0	0	0	0	0	0	0	0	-5	-6
1.5	MG 90LC-D	MG 90LA-C	-40	0	0	0	0	0	0	0	0	0	-4	-5
2.2	MG 100LB-D	MG 100LA-C	0	0	0	0	0	0	0	0	0	0	-1	-4
3	MG 100LC-D	MG 100LB-C	0	0	0	0	0	0	0	0	0	0	-2	-2
4	MG 112MC-D	MG 112MB-C	0	0	0	0	0	0	0	0	0	0	-7	-7
5.5	Siemens 132S	MG 132SC-C	18.5	0	-33	62	-37	0	0	0	0	0	-3	-1

Note:

The 'L' and 'h4' dimensions refer to NKG pumps.
The 'LB' and 'AD' dimensions refer to NBG pumps.

MMG model E motors

If MMG model E motors are selected, the dimension in Technical data on page 50 to 221 must be corrected according to the tables below.

2-pole

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight [kg]	NB weight [kg]
1.1	MG 90SA-D	MMG 80B-E	-37	-10	23	-70	-11	0	-15	0	-6	0	2	2
1.5	MG 90SB-D	MMG 90S-E	-21	0	36	-56	-3	0	0	0	3	0	9	10
2.2	MG 90LC-D	MMG 90L-E	-36	0	36	-56	-3	3	0	0	3	0	7	11
3	MG 100LC-D	MMG 100L-E	-18	0	40	-66	3	-1	0	0	0	0	9	1
4	MG 112MC-D	MMG 112M-E	-41	0	46	-86	15	0	0	0	0	0	3	2
5.5	MG 132SC-D	MMG 132SA-E	-8	0	66	-86	15	0	0	0	0	0	26	24
7.5	MG 132SD-D	MMG 132SB-E	-8	0	66	-86	15	0	0	0	0	0	26	24
11	Siemens 160M	MMG 160MA-E	20	0	51	-5	-15	-1	0	0	0	0	42	44
15	Siemens 160M	MMG 160MB-E	20	0	51	-5	-15	-1	0	0	0	0	41	43
18.5	Siemens 160L	MMG 160L-E	24	0	51	-5	-15	-1	0	0	0	0	44	46
22	Siemens 180M	MMG 180M-E	-22	0	6	8	18	0	0	0	0	0	52	54
30	Siemens 200L	MMG 200LA-E	-11.5	0	-8	-32	-4	-1	0	0	0	0	34	34
37	Siemens 200L	MMG 200LB-E	-11.5	0	-8	-32	-4	-1	0	0	0	0	56	58
45	Siemens 225M	MMG 225M-E	-12	0	-5	-32	-4	-1	0	0	1	0	16	20
55	Siemens 250M	MMG 250M-E	23	0	-33	-54	-20	0	0	0	0	0	42	48
75	Siemens 280S	MMG 280S-E	-17	0	-46	-54	-20	0	0	0	-0.5	0	-5	0
90	Siemens 280M	MMG 280M-E	-76	0	-46	-54	-20	0	0	0	-0.5	0	-25	-15
110	Siemens 315S	MMG 315S-E	105	0	-24	-59	-27	0	0	0	-1	0	163	165
132	Siemens 315M	MMG 315M-E	55	0	-24	-59	-27	0	0	0	-1	0	132	132
160	Siemens 315L	MMG 315LA-E	55	0	-24	-59	-27	0	0	0	-1	0	95	95
200	Siemens 315L	MMG 315LB-E	-85	0	-24	-59	-27	0	0	0	-1	0	-20	-20
250	Siemens 315	MMG 355M-E	106	40	171	-	22	100	50	-70	74	2	300	300
315	Siemens 315	MMG 355L-E	106	40	171	-	22	100	50	0	74	2	400	-
355	Siemens 355	MMG 355L-E	-119	0	98	-	0	0	-20	-170	54	-5	400	-

Note:

The 'L' and 'h4' dimensions refer to NKG pumps.

The 'LB' and 'AD' dimensions refer to NBG pumps.

4-pole

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight [kg]	NB weight [kg]
0.25	MG 71A-C	MMG 71A-E	21	0	12	10	10	0	0	0	0	0	4.8	4.5
0.37	MG 71B-C	MMG 71B-E	21	0	12	10	10	0	0	0	0	0	5.3	5
0.55	MG 80A-C	MMG 80A-E	13	0	24	10	10	0	0	0	0	0	9.7	8.9
0.75	MG 80B-C	MMG 80B-E	13	0	24	10	10	0	0	0	0	0	8.5	8
1.1	MG 90SB-D	MMG 90S-E	-21	0	36	-56	-3	0	0	0	3	0	5	6
1.5	MG 90LC-D	MMG 90L-E	-36	0	36	-56	-3	3	0	0	3	0	6	10
2.2	MG 100LB-D	MMG 100LA-E	-18	0	40	-66	3	-1	0	0	0	0	10	-1
3	MG 100LC-D	MMG 100LB-E	-18	0	40	-66	3	-1	0	0	0	0	5	-3
4	MG 112MC-D	MMG 112M-E	-41	0	46	-86	15	0	0	0	0	0	2	1
5.5	Siemens_132S	MMG 132S-E	10.5	0	33	-24	-22	0	0	0	0	0	21	21
7.5	Siemens 132M	MMG 132M-E	10.5	0	33	-24	-22	0	0	0	0	0	21	21
11	Siemens 160M	MMG 160MA-E	20	0	51	-5	-15	-1	0	0	0	0	48	54
15	Siemens 160L	MMG 160L-E	24	0	51	-5	-15	-1	0	0	0	0	38	41
18.5	Siemens 180M	MMG 180M-E	-22	0	6	8	18	0	0	0	0	0	54	58
22	Siemens 180L	MMG 180L-E	-22	0	6	8	18	0	0	0	0	0	61	66
30	Siemens 200L	MMG 200L-E	-11.5	0	-8	-32	-4	-1	0	0	0	0	66	74
37	Siemens 225S	MMG 225M-E	23	0	-5	-32	-4	-1	0	0	1	0	35	40
45	Siemens 225M	MMG 225M-E	-12	0	-5	-32	-4	-1	0	25	1	0	20	25
55	Siemens 250M	MMG 250M-E	-47	0	-33	-54	-20	0	0	0	0	0	10	15
75	Siemens 280S	MMG 280S-E	-17	0	-46	-54	-20	0	0	0	-0.5	0	-21	-15
90	Siemens 280M	MMG 280M-E	-76	0	-46	-54	-20	0	0	0	-0.5	0	-75	-65
110	Siemens 315S	MMG 315S-E	102	0	-24	-59	-27	0	0	0	-1	0	155	155

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight	NB weight
													[kg]	[kg]
132	Siemens 315MA	MMG 315M-E	55	0	-24	-59	-27	0	0	0	-1	0	155	155
160	Siemens 315MB	MMG 315LA-E	55	0	-24	-59	-27	0	0	0	-1	0	95	95
200	Siemens 315L	MMG 315LB-E	-85	0	-24	-59	-27	0	0	51	-1	0	-10	-10
250	Siemens 315	MMG 355M-E	106	40	171	-	22	100	50	-70	74	2	350	350
315	Siemens 315	MMG 355L-E	106	40	171	-	22	100	50	0	74	2	450	-

Note:

The 'L' and 'h4' dimensions refer to NKG pumps.

The 'LB' and 'AD' dimensions refer to NBG pumps.

6-pole

P ₂ [kW]	EFF1 motor	EFF2 motor	L/LB	H	h4/AD	AG	LL	P	A	B	C	K	NK weight	NB weight
													[kg]	[kg]
1.1	Siemens 90L	MMG 90L-E	-41	0	18	31	25	3	0	0	3	0	8	13
1.5	Siemens 100L	MMG 100L-E	-30	0	25	-24	-14	-1	0	0	0	0	7	1
2.2	Siemens 112M	MMG 112M-E	-40	0	32	-4	-2	0	0	0	0	0	8	8
3	Siemens 132SA	MMG 132S-E	10.5	0	33	-24	-22	0	0	-38	0	0	17	17
4	Siemens 132MA	MMG 132MA-E	48.5	0	33	-24	-22	0	0	0	0	0	27	27
5.5	Siemens 132MB	MMG 132MB-E	10.5	0	33	-24	-22	0	0	0	0	0	17	17
7.5	Siemens 160M	MMG 160M-E	20	0	51	-5	-15	-1	0	0	0	0	24	29
11	Siemens 160L	MMG 160L-E	24	0	51	-5	-15	-1	0	0	0	0	40	45
15	Siemens 180L	MMG 180L-E	-22	0	6	8	18	0	0	0	0	0	40	45
18.5	Siemens 200LA	MMG 200LA-E	-11.5	0	-8	-32	-4	-1	0	0	0	0	47	47
22	Siemens 200LB	MMG 200LB-E	-11.5	0	-8	-32	-4	-1	0	0	0	0	31	31
30	Siemens 225M	MMG 225M-E	-12	0	-5	-32	-4	-1	0	25	1	0	-29	-29
37	Siemens 250M	MMG 250M-E	23	0	-33	-54	-20	0	0	0	0	0	-17	-15
45	Siemens 280S	MMG 280S-E	-17	0	-46	-54	-20	0	0	0	-0.5	0	-2	-2
55	Siemens 280M	MMG 280M-E	-76	0	-46	-54	-20	0	0	0	-0.5	0	16	16
75	Siemens 315S	MMG 315S-E	102	0	-24	-59	-27	0	0	0	-1	0	232	232
90	Siemens 315MA	MMG 315M-E	55	0	-24	-59	-27	0	0	0	-1	0	115	115
110	Siemens 315MB	MMG 315LA-E	55	0	-24	-59	-27	0	0	0	-1	0	100	100
132	Siemens 315L	MMG 315LB-E	-85	0	-24	-59	-27	0	0	51	-1	0	31	31

Note:

The 'L' and 'h4' dimensions refer to NKG pumps.

The 'LB' and 'AD' dimensions refer to NBG pumps.

TECO EFF2/EFF1 motors

If TECO EFF2/EFF1 motors are selected, the dimension in Technical data on page 50 to 221 must be corrected according to the tables below.

2-pole

P ₂ [kW]	EFF1 motor	TECO motor	L (NB)	L(NK/LB(NK))	H	h4/AD	AG	LL	P	A	B	C	K	EFF2 motor		EFF1 motor	
														NK weight [kg]	NB weight [kg]	NK weight [kg]	NB weight [kg]
														[mm]			
1.1	MG 90SA-D	Teco 80	0	-38.5	-10	48	-	-	0	-15	0	-6	0	1.6	1.6	1	1
1.5	MG 90SB-D	Teco 90S	0	-23.5	0	60	-	-	0	0	0	0	0	5.5	4.5	5	4
2.2	MG 90LC-D	Teco 90L	0	-38.5	0	60	-	-	0	0	0	0	0	6.5	5.5	5	4
3	MG 100LC-D	Teco 100L	0	-20.5	0	60	-	-	0	0	0	0	0	12	10	12	10
4	MG 112MC-D	Teco 112M	0	-40.5	0	55	-	-	0	0	0	0	0	2	1	4	3
5.5	MG 132SC-D	Teco 132S	0	-17	0	91	-	-	0	0	0	0	0	25	23	35	33
7.5	MG 132SD-D	Teco 132S	0	-17	0	91	-	-	0	0	0	0	0	30	28	35	33
11	Siemens 160M	Teco 160M	0	20	0	66	-	-	0	0	0	0	-0.5	35	35	57	57
15	Siemens 160M	Teco 160M	0	20	0	66	-	-	0	0	0	0	-0.5	40	40	48	48
18.5	Siemens 160L	Teco 160L	0	24	0	66	-	-	0	0	0	0	-0.5	36	36	56	56
22	Siemens 180M	Teco 180L	0	-40	0	47	-	-	0	0	0	0	-0.5	55	55	49	49
30	Siemens 200L	Teco 200L	0	1.5	0	69	-	-	0	0	0	0	-0.5	56	56	66	66
37	Siemens 200L	Teco 200L	0	1.5	0	69	-	-	0	0	0	0	-0.5	76	76	66	66
45	Siemens 225M	Teco 225M	0	-8	0	102	-	-	0	0	0	0	-0.5	15	15	25	25
55	Siemens 250M	Teco 250S	0	-4.5	0	101	-	-	0	0	-38	0	0	30	30	50	50
75	Siemens 280S	Teco 250M	0	-39.5	-30	61	-	-	0	-51	-19	-22	0	-5	-5	10	10
90	Siemens 280M	Teco 280S	0	-78	0	91	-	-	0	0	-51	0	0	-15	-15	15	15
110	Siemens 315S	Teco 280M	-30	-30	-35	28	-	-	-110	-51	13	-26	-4	-90	-127	-90	-127
132	Siemens 315M	Teco 315S	0	-146	0	53	-	-	0	0	-51	0	0	5	5	-75	-75
160	Siemens 315L	Teco 315M	0	-95	0	53	-	-	0	0	-51	0	0	145	145	-110	-110
200	Siemens 315L	Teco 315M	0	-235	0	53	-	-	0	0	-51	0	0	105	135	125	155
250	Siemens 315	Teco 355MA	-	120	40	182	-	-	-	50	-70	74	2	800	-	-	-
250	Siemens 315	Teco 315CA	-	371	0	-	-	-	-	-52	80	36	2	-	-	400	-
315	Siemens 315	Teco 355LA	-	120	40	182	-	-	-	50	0	74	2	600	-	-	-
315	Siemens 315	Teco 315DA	-	571	0	-	-	-	-	-52	280	36	2	-	-	500	-

4-pole

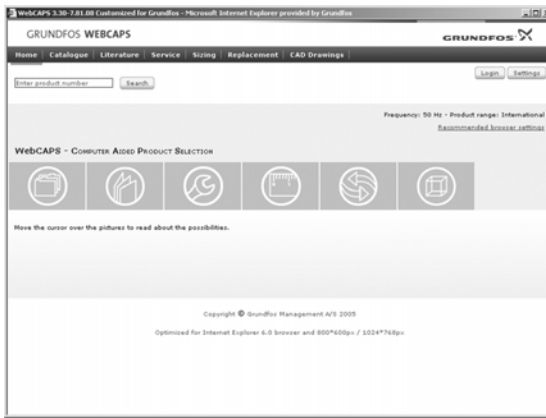
P ₂ [kW]	EFF1 motor	TECO motor	L (NB)	L(NK/LB(NK))	H	h4/AD	AG	LL	P	A	B	C	K	EFF2 motor		EFF1 motor	
														NK weight [kg]	NB weight [kg]	NK weight [kg]	NB weight [kg]
														[mm]			
0.25	MG 71A-C	Teco 63	0	5	-8	13	-	-	0	-12	-10	-5	0	5.8	5.5	5.8	5.5
0.37	MG 71B-C	Teco 71	0	29.5	0	23	-	-	0	0	0	0	0	5.3	5	5.3	5
0.55	MG 80A-C	Teco 80	0	11.5	0	49	-	-	0	0	0	0	0	5.7	4.9	6.7	5.9
0.75	MG 80B-C	Teco 80	0	11.5	0	49	-	-	0	0	0	0	0	7.5	7	7.5	7
1.1	MG 90SB-D	Teco 90S	0	-23.5	0	60	-	-	0	0	0	0	0	-0.4	-1.4	1	0
1.5	MG 90LC-D	Teco 90L	0	-38.5	0	60	-	-	0	0	0	0	0	2.5	1.5	4	3
2.2	MG 100LB-D	Teco 100L	0	-20.5	0	60	-	-	0	0	0	0	0	10	5	13	8
3	MG 100LC-D	Teco 100L	0	-20.5	0	60	-	-	0	0	0	0	0	9	7	8	6
4	MG 112MC-D	Teco 112M	0	-40.5	0	55	-	-	0	0	0	0	0	0	-1	3	2
5.5	Siemens 132S	Teco 132S	0	1.5	0	58	-	-	0	0	0	0	0	18	18	30	30
7.5	Siemens 132M	Teco 132M	0	1.5	0	58	-	-	0	-1	0	0	0	17	17	22	22
11	Siemens 160M	Teco 160M	0	20	0	66	-	-	0	0	0	0	-0.5	35	35	49	49
15	Siemens 160L	Teco 160L	0	24	0	66	-	-	0	0	0	0	-0.5	25	25	51	51
18.5	Siemens 180M	Teco 180M	0	-40	0	47	-	-	0	0	0	0	-0.5	46	46	40	40
22	Siemens 180L	Teco 180M	0	-2	0	47	-	-	0	0	0	0	-0.5	59	59	59	59
30	Siemens 200L	Teco 200L	0	1.5	0	69	-	-	0	0	0	0	-0.5	81	81	81	81
37	Siemens 225S	Teco 225S	0	27	0	102	-	-	0	0	0	0	-0.5	35	35	30	30
45	Siemens 225M	Teco 225M	0	-8	0	102	-	-	0	0	25	0	-0.5	20	20	30	30
55	Siemens 250M	Teco 250S	0	-74.5	0	101	-	-	0	0	-38	0	0	15	15	50	50
75	Siemens 280S	Teco 250M	0	-39.5	-30	61	-	-	0	-51	-19	-22	0	-25	-25	-10	-10
90	Siemens 280M	Teco 280S	30	-48	0	91	-	-	0	0	-51	0	0	-15	-15	5	5

P ₂ [kW]	EFF1 motor	TECO motor	L (NB)	L(NK/LB(NK))	H	h4/AD	AG	LL	P	A	B	C	K	EFF2 motor		EFF1 motor	
														NK weight [kg]	NB weight [kg]	NK weight [kg]	NB weight [kg]
110	Siemens 315S	Teco 280M	0	0	-35	28	-	-	-110	-51	13	-26	-4	-90	-130	-50	-90
132	Siemens 315MA	Teco 315S	0	-146	0	53	-	-	0	0	-51	0	0	-45	-45	-35	-35
160	Siemens 315MB	Teco 315M	0	-95	0	53	-	-	0	0	-51	0	0	95	95	-85	-85
200	Siemens 315L	Teco 315M	0	-235	0	53	-	-	0	0	0	0	0	-55	-25	-35	-5
250	Siemens 315	Teco 355M	-	120	40	182	-	-	-	50	-70	74	2	800	-	-	-
250	Siemens 315	Teco 315CB	-	236	0	-	-	-	-	-52	80	36	2	-	-	400	-
315	Siemens 315	Teco 355L	-	120	40	182	-	-	-	50	0	74	2	600	-	-	-
315	Siemens 315	Teco 315DB	-	436	0	-	-	-	-	-52	280	36	2	-	-	200	-

6-pole

P ₂ [kW]	EFF1 motor	TECO motor	L (NB)	L(NK/LB(NK))	H	h4/AD	AG	LL	P	A	B	C	K	EFF2 motor		EFF1 motor	
														NK weight [kg]	NB weight [kg]	NK weight [kg]	NB weight [kg]
1.1	Siemens 90L	Teco 90L	0	-43.5	0	42	-	-	0	0	0	0	0	6	6	6	6
1.5	Siemens 100L	Teco 100L	0	-32.5	0	45	-	-	0	0	0	0	0	8	8	10	10
2.2	Siemens 112M	Teco 112M	0	-39.5	0	41	-	-	0	0	0	0	0	4	4	9	9
3	Siemens 132SA	Teco 132S	0	1.5	0	58	-	-	0	0	-38	0	0	11	11	26	26
4	Siemens 132MA	Teco 132M	0	39.5	0	58	-	-	0	-1	0	0	0	16	16	33	33
5.5	Siemens 132MB	Teco 132M	0	1.5	0	58	-	-	0	-1	0	0	0	13	13	15	15
7.5	Siemens 160M	Teco 160M	0	20	0	66	-	-	0	0	0	0	-0,5	16	16	32	32
11	Siemens 160L	Teco 160L	0	24	0	66	-	-	0	0	0	0	-0,5	39	39	53	53
15	Siemens 180L	Teco 180M	0	-2	0	47	-	-	0	0	0	0	-0,5	66	66	61	61
18.5	Siemens 200LA	Teco 200L	0	1.5	0	69	-	-	0	0	0	0	-0,5	84	84	94	94
22	Siemens 200LB	Teco 200L	0	1.5	0	69	-	-	0	0	0	0	-0,5	63	63	63	63
30	Siemens 225M	Teco 225M	0	-8	0	102	-	-	0	0	25	0	-0,5	20	20	35	35
37	Siemens 250M	Teco 250S	0	-4.5	0	101	-	-	0	0	-38	0	0	0	0	105	105
45	Siemens 280S	Teco 250M	0	-39.5	-30	61	-	-	0	-51	-19	-22	0	-80	-80	45	45
55	Siemens 280M	Teco 280S	30	-48	0	91	-	-	0	0	-51	0	0	40	40	80	80
75	Siemens 315S	Teco 280M	0	0	-35	28	-	-	-110	-51	13	-26	-4	-50	-90	-30	-70
90	Siemens 315MA	Teco 315S	0	-146	0	53	-	-	0	0	-51	0	0	-65	-65	-15	-15
110	Siemens 315MB	Teco 315M	0	-95	0	53	-	-	0	0	-51	0	0	-10	-10	10	10
132	Siemens 315L	Teco 315M	0	-235	0	53	-	-	0	0	0	0	0	-80	-80	-140	-140

WebCAPS

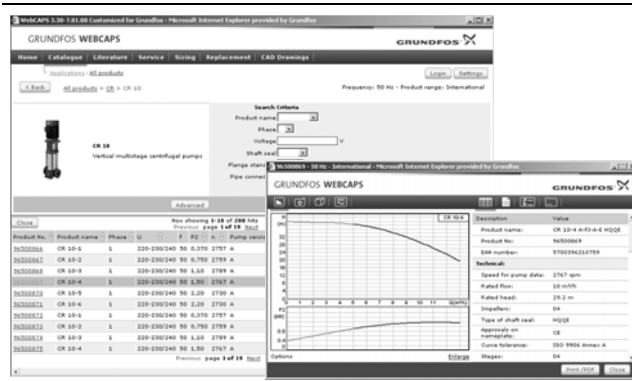


WebCAPS is a **Web**-based **Computer Aided Product Selection** program available on www.grundfos.com.

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into 6 sections:

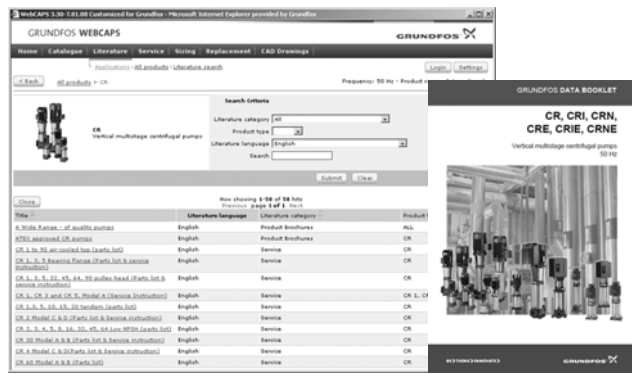
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



Catalogue

This section is based on fields of application and pump types, and contains

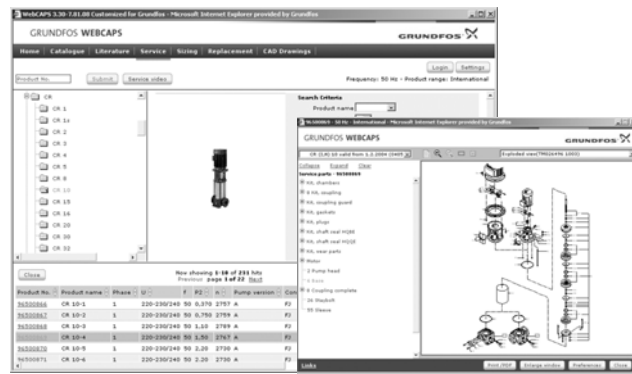
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

In this section you can access all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.



Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, this section contains service videos showing you how to replace service parts.



Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

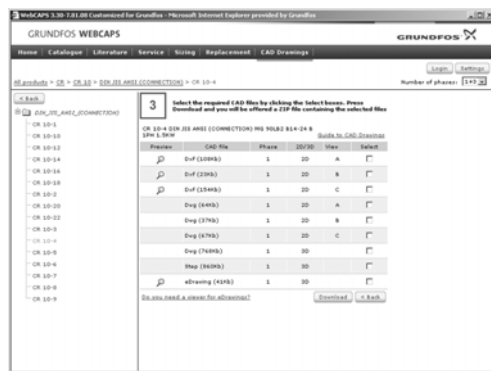
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

- 2-dimensional drawings:
- .dxf, wireframe drawings
 - .dwg, wireframe drawings.
- 3-dimensional drawings:
- .dwg, wireframe drawings (without surfaces)
 - .stp, solid drawings (with surfaces)
 - .eprt, E-drawings.

WinCAPS



Fig. 32 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.

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Subject to alterations.