KSN pumps

75-800 kW
50 Hz DIN

GRUNDFOS

Table of contents

1. Product introduction 3
Introduction 3

2. Performance range 4

3. Identification. 5
Nameplate 5
Type key 5

4. Product selection 6
Pump type 6
Accessories 6
Controller 6
Custom-built variants 6
Variants 6
Flange force 7

5. Construction. 8
Sectional drawings 8
Exploded views 12
Components and material specifications 13

6. Product description 16
Bearings 16
Shaft seal 16
Testing 16
Motor 16
Cooling system 16
Power cables 16
Control cables 16
Cable entry 17
Sensors 17
Wiring diagrams 18
IO 113 22
SM 113 22
GU02 22
Level controllers 22

7. Operating conditions 23
Pumped liquids 23
Operating mode 23
Motor range 23
Frequency converter operation 23

8. Performance curves and technical data . . . 24
How to read the performance curves 24
Explanation of KSN performance curves 25
Curve conditions 25
Calculation of total head 25
Performance tests 25
Witness test 25
Performance acceptance grades 26
Guarantee point 26
Evaluation of performance 26
Performance test types for end-suction pumps . . . 26
Explanation of Grundfos curve tests 27
Specifying acceptance grades 28
KSN3.120.500.XXX.6.H 29
KSN3.120.500.XXX.8.H 30
KSN4.120.500.XXX.8.M 31
KSN4.120.500.XXX.10.M 32
KSN3.165.600.XXX.8.L 33
KSN3.165.600.XXX.10.L 34
KSN3.170.600.XXX.8.L 35
KSN3.170.600.XXX.10.L 36
KSN4.100.600.XXX.8.H 37
KSN4.100.600.XXX.8.M 38
KSN4.120.600.XXX.8.M 39
KSN3.190.800.XXX.10.L 40
KSN3.195.800.XXX.8.L 41
KSN3.230.800.XXX.10.E 42
KSN3.230.800.XXX.12.E 43
KSN3.230.800.XXX.14.E 44
KSN3.165.800.XXX.8.M 45

9. Dimensions. 46
Pump without accessories 46
Installation on auto-coupling 49
Dry, vertical installation on concrete foundation . . . 54

10. Accessories 58
Auto-coupling kit 58
Base plate installation kit 58
Suction bend kit 59
Upper guide rail bracket dimensions 59
Auto-coupling dimensions 59
Base plate dimensions 59
Suction bend dimensions 60

11. Grundfos Product Center 61

1. Product introduction

Introduction

This data booklet deals with heavy-duty sewage pumps.

TM088935

KSN pump, DN800

The KSN pumps are free-flow channel impeller pumps specifically designed for pumping sewage and wastewater in a wide range of municipal and industrial applications.

The KSN pumps are made of resistant materials, such as cast iron and stainless steel. These materials ensure good durability in waste water applications.

The KSN pumps are DN500,600 and 800 fitted with motors from 75 to 800 kW as standard ranges.

The motors are either 8, 10, 12, 14 or 16-pole motors, depending on the motor size.

The free passage in the pumps is 100 to 230 mm.

The pumps are available for these types of installation:

- Submerged installation on auto-coupling system
- Dry installation, vertical
- Dry installation, horizontal
- Max. submersion depth 20 m when installed on auto Coupling.

Applications

The KSN pumps are designed for wastewater in the following range of applications:

- Raw-water intake
- Wastewater transportation
- Sewage treatment plants
- Municipal pumping stations
- Industries.

The pumps are suitable for both temporary and permanent installation.

Main constructional features

The KSN pumps offer the following benefits:

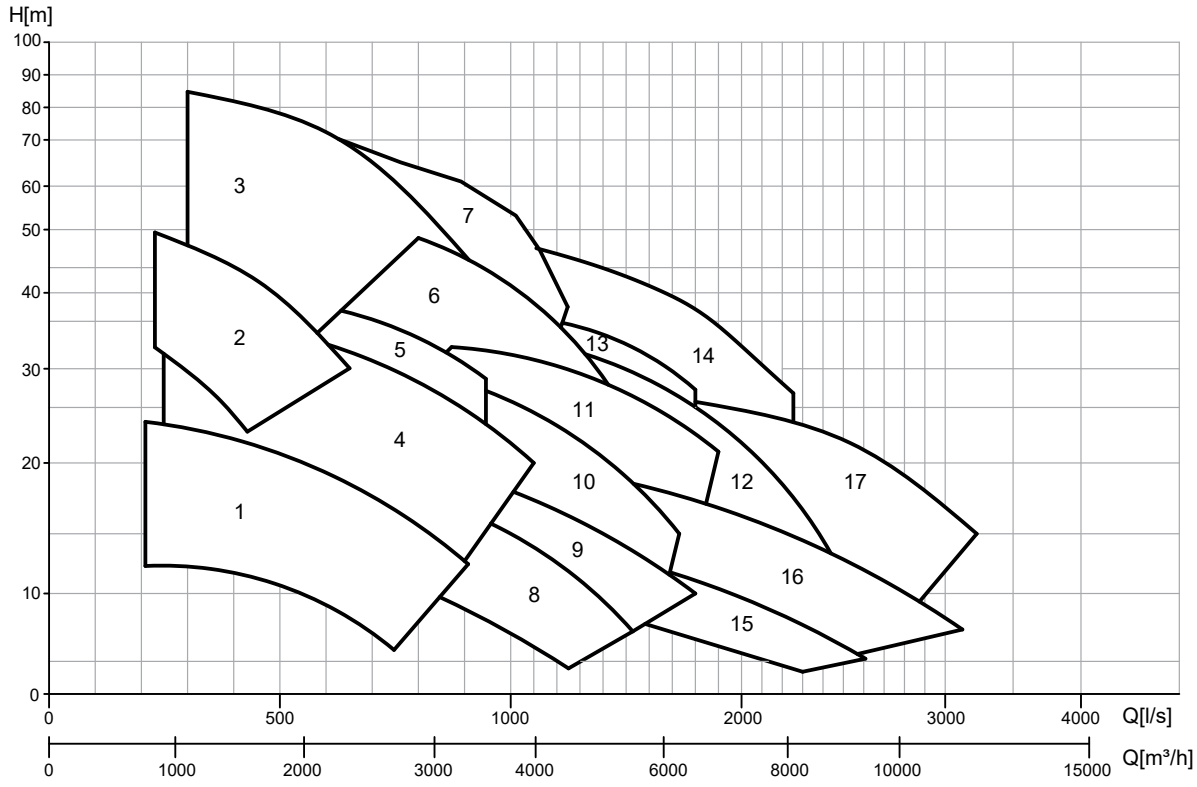
- Compact design ensures easy handling and installation
- Engineered design for easy maintenance
- Double mechanical shaft seal system for reliable sealing between pumped liquid and motor
- Watertight cable entry
- Two moisture switches for continuous monitoring of stator housing and terminal box ensuring automatic disconnection of power in case of ingress of liquid
- Shaft seal condition monitoring via water-in-oil sensor (optional)
- Pt100 sensors in upper and lower bearings
- Pt100 sensor in each winding (one connected, as standard)
- Three thermal bimetallic sensors in stator windings.

Motor options:

- Motor in insulation class F (standard) or class H (optional)
- Temperature rising class F (standard) or class B (optional).

2. Performance range

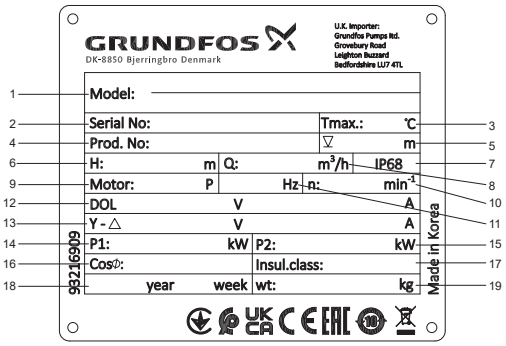
The figure shows the performance range of KSN pumps and give an overview of the various sizes and motor variants.



Position	Pump name
1.	KSN4.120.500.10.M
2.	KSN3.120.500.8.H
3.	KSN3.120.500.6.H
4.	KSN4.120.500.8.M
5.	KSN4.120.600.8.M
6.	KSN4.100.600.8.M
7.	KSN4.100.600.8.H
8.	KSN3.170.600.10.L
9.	KSN3.165.600.10.L
10.	KSN3.170.600.8.L
11.	KSN3.165.600.8.L
12.	KSN3.190.800.10.L
13.	KSN3.195.800.8.L
14.	KSN3.165.800.8.M
15.	KSN3.230.800.14.E
16.	KSN3.230.800.12.E
17.	KSN3.230.800.10.E

3. Identification

Nameplate



TM088845

Nameplate example

Position	Description
1.	Type designation
2.	Serial number
3.	Max. ambient temperature
4.	Product number
5.	Max. installation depth
6.	Duty point flow head
7.	Enclosure class according to IEC 60529
8.	Duty point flow rate
9.	Number of poles
10.	Rated speed
11.	Frequency
12.	Voltage and current, DOL starting
13.	Voltage and current, Y-D starting
14.	Input power
15.	Shaft power
16.	Power factor
17.	Insulation class
18.	Production code (year and week)
19.	Pump weight

Type key

Example: KSN3.120.500.5000.6.H.N.5.38.S.Z

Code	Explanation	Designation
KSN	Grundfos Sewage and wastewater pump	Pump type
3	Three channel	Impeller type
4	Four channel	
120	Maximum solid size [mm]	Pump passage
500	Pump outlet nominal diameter [mm]	Pump outlet
5000	500 kW: P2 x 10	Power [kW]
6	6 poles	Number of poles
8	8 poles	
10	10 poles	
12	12 poles	
14	14 poles	
H	High	Pressure version
M	Medium	
L	Low	
N	Pump without Ex approval	Pump version
5	50Hz	Frequency [Hz]
6	60Hz	
38	380 V	Voltage [V]
41	415 V	
46	460 V	
66	660 V	
2H	3000 V	
3H	3300 V	
4H	4160 V	
6H	6000 V	
7H	6600 V	
10H	10000 V	
S	Standard sensor version	Sensor version
A	Sensor version A	
B	Sensor version B	
F	Sensor version FPV	
Z	Custom-built product	Customization

4. Product selection

Before product selection, consider the following aspects.

Pump type

- Pump as specified in the type key
- 10m cable
- Surface treatment [1)]
- Pt100 sensor in upper and lower bearings
- Pt100 sensor in winding
- Three thermal switches (Klixon), one in each phase
- Two moisture switches; one in terminal box and one in stator housing
- Tested according to ISO 9906:2012 grade 2B
- KSN comes with a DIN flange discharge connection as standard

1) The primary purpose of the surface treatment is to protect the cast iron surface of the product. The painted parts are treated with a two-component epoxy. Thickness average of the dry paint film is 150 µm. Color code is NCS 9000N/RAL 9005 (black), gloss code 30.

Accessories

Depending on the installation type, accessories may be required. Accessories are not included with the product, they can only be ordered separately.

Controller

The following interface modules, frequency converter and controls are available:

- Frequency converter - CUE up to 250 kW
- Dedicated control - DC/DCD control
- Electronic motor protection for pumps - MP 204
- Electrical sensor modules - IO 113 and SM 113
- Monitoring Unit - GU02

For more information see Operating conditions section.

Custom-built variants

The pumps can be customized to meet individual requirements. Many pump features and options are available for customizing, e.g. various cable lengths or special materials.

For more information, please contact Grundfos.

Variants

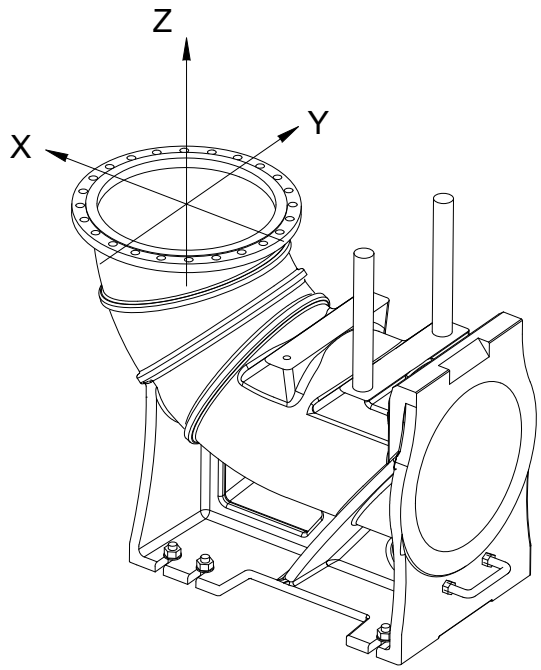
List of variants

The most common variants can be seen in the table below. For other requirements, contact Grundfos.

Motor		
Various cable lengths according to customer specifications		
Special motor	Insulation class H (on request)	
	Temperature rise class B (on request)	
	Special voltage	
	Starting	
	Service Factor 1.15	
Special oil	Univar Process Oil O-420 GF	
Motor protection		
SM 113 built into the junction box		
Vibration sensor in the terminal compartment		
Water-in-oil (WIO) sensor		
Vibration sensor (PVS3)		
Insulated upper bearing for speed-controlled operation use	Can be replaced with SGR depend on the lead time	
Material		
Stainless steel lifting bracket	AISI 316	
Impeller	AISI 304	
	AISI 316	
	Duplex 1B	
Coating		
Special paint thickness	300 µm	
	380 µm	
	450 µm	
Outlet		
Flange	DIN PN16	
	ANSI 150lb	
Test		
Test at specified duty on standard impeller curve		
Trimmed impeller for specified duty test		
Additional test of entire QH curve (including report)	5-10 point on the pump performance curve	
Different test standard	Efficiency guaranteed by Grundfos	ISO 9906:2012 grade 1E tolerances
		ISO 9906:2012 grade 1B tolerances
		ISO 9906:2012 grade 2U tolerances
Vibration test (incl. report)	According to Grundfos factory quality standard	
Witness test	Contact Grundfos	
Miscellaneous		
Special packaging	Contact Grundfos	
Special nameplate	Contact Grundfos	
Other variants	Contact Grundfos	

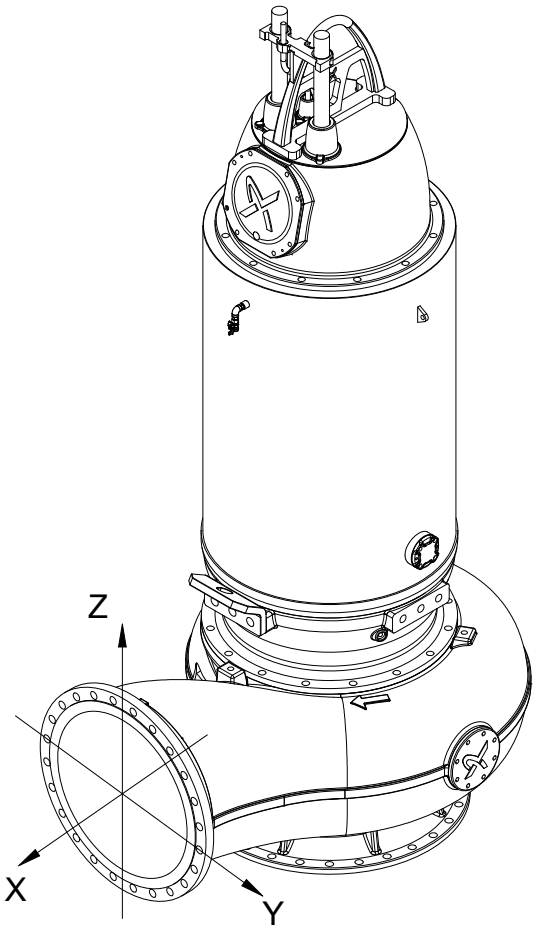
Flange force

Flange forces and torques assumed to be all at maximum levels according to ISO 5199:2002. Values are extrapolated for diameters larger than DN600.



TM089631

Flange diameter [DN]	Force [N]				Moment [Nm]			
	Fy	Fz	Fx	ΣF	My	Mz	Mx	ΣM
500	13450	16600	14950	26050	10250	11800	14450	21300
600	16150	19900	17950	31250	14400	16600	20200	29900
800	21550	26500	23950	41650	16100	18550	31700	47100

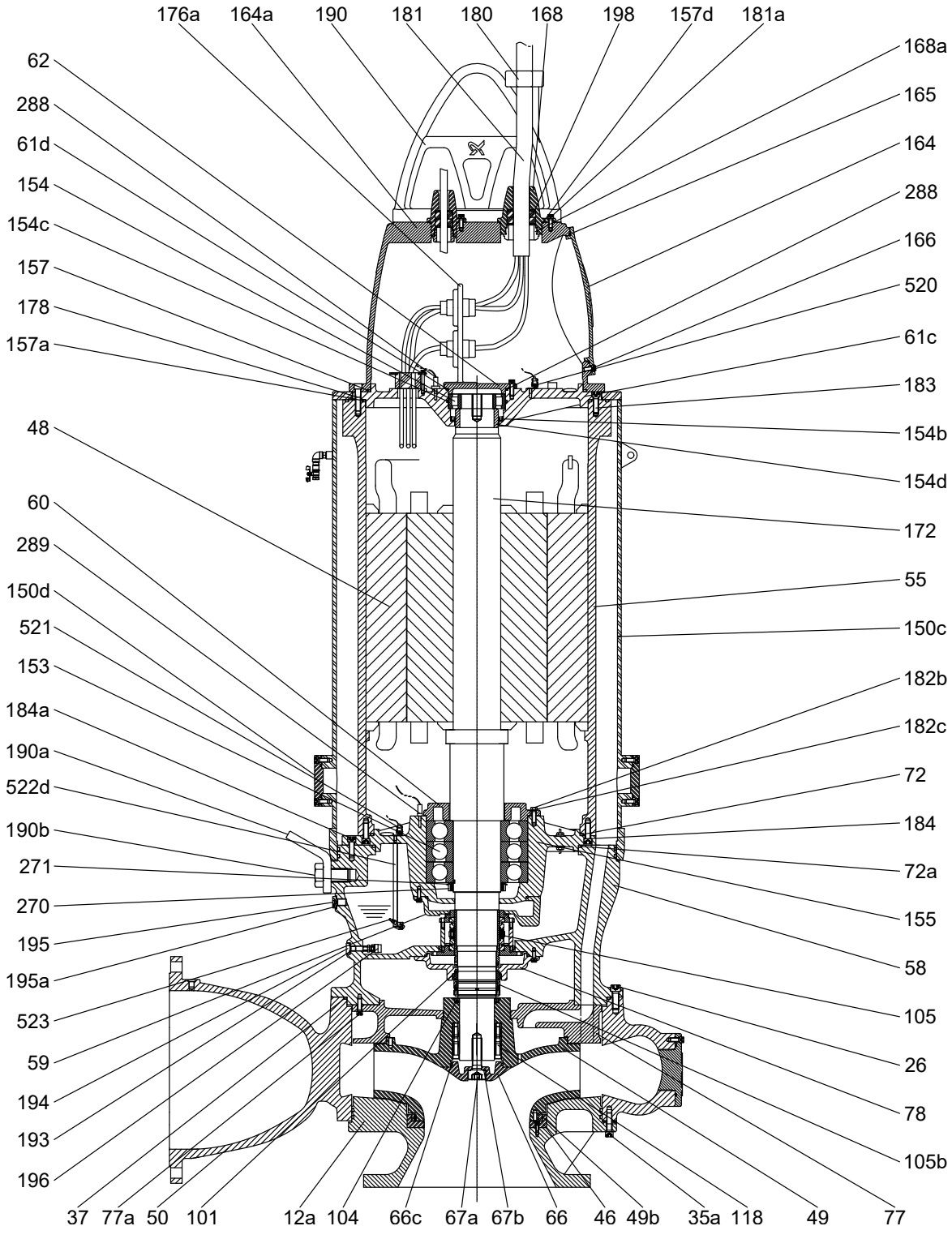


TM089632

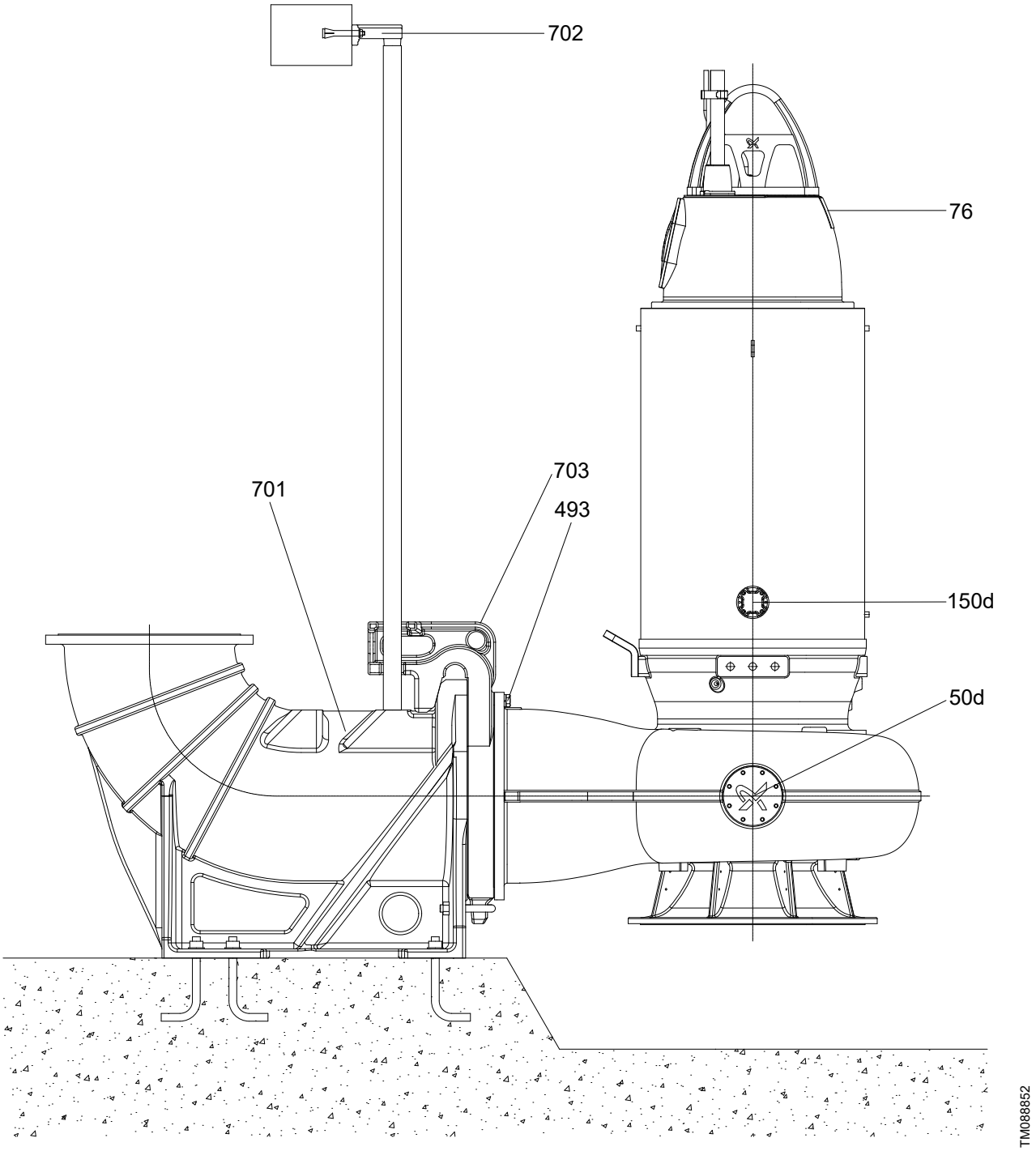
Flange diameter [DN]	Force [N]				Moment [Nm]			
	Fy	Fz	Fx	ΣF	My	Mz	Mx	ΣM
500	14950	16600	13450	26050	14450	14450	11800	21300
600	17950	19900	16150	31250	20200	20200	16600	29900
800	23950	26500	21550	41650	31700	31700	18550	47100

5. Construction

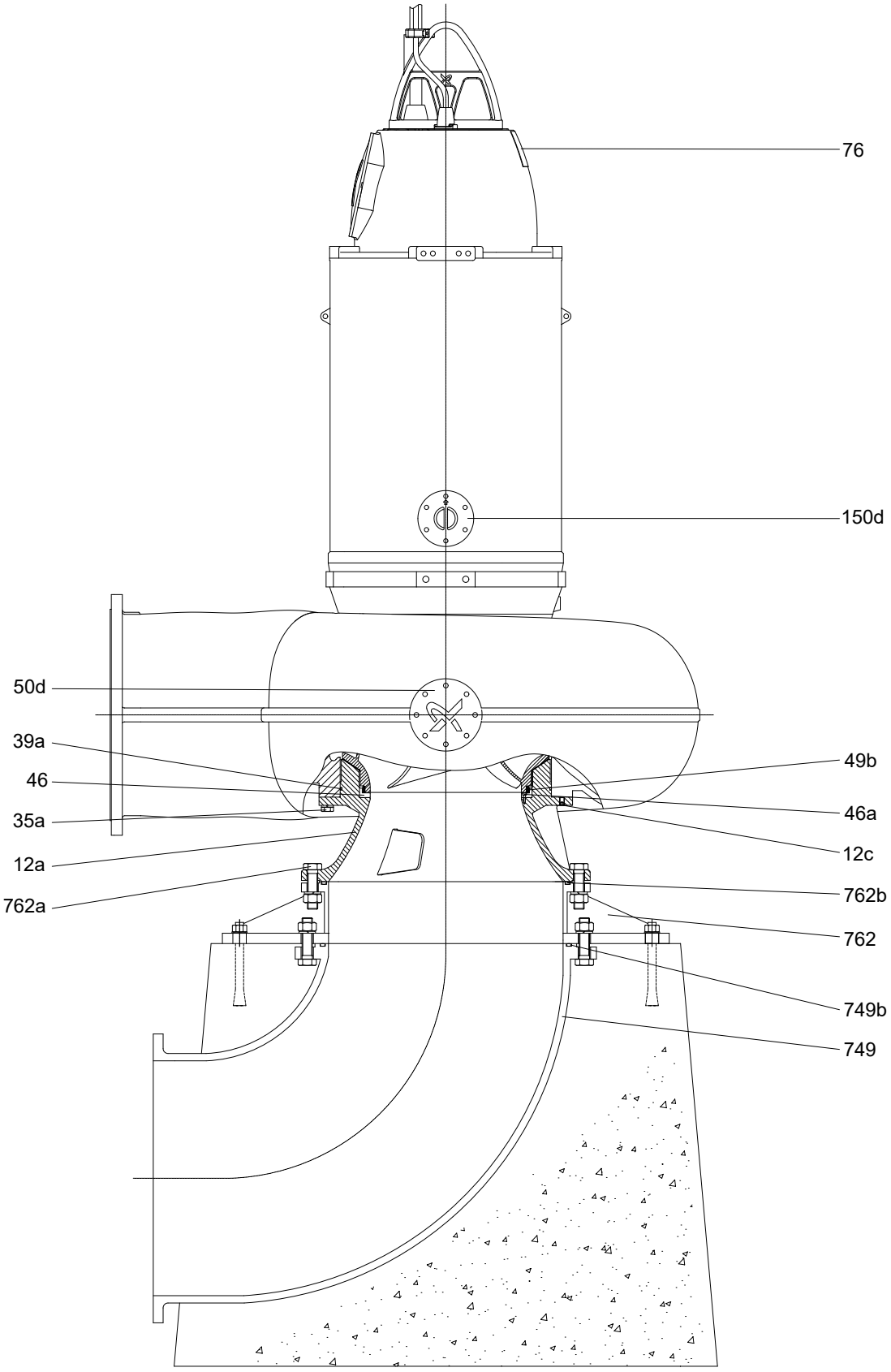
Sectional drawings



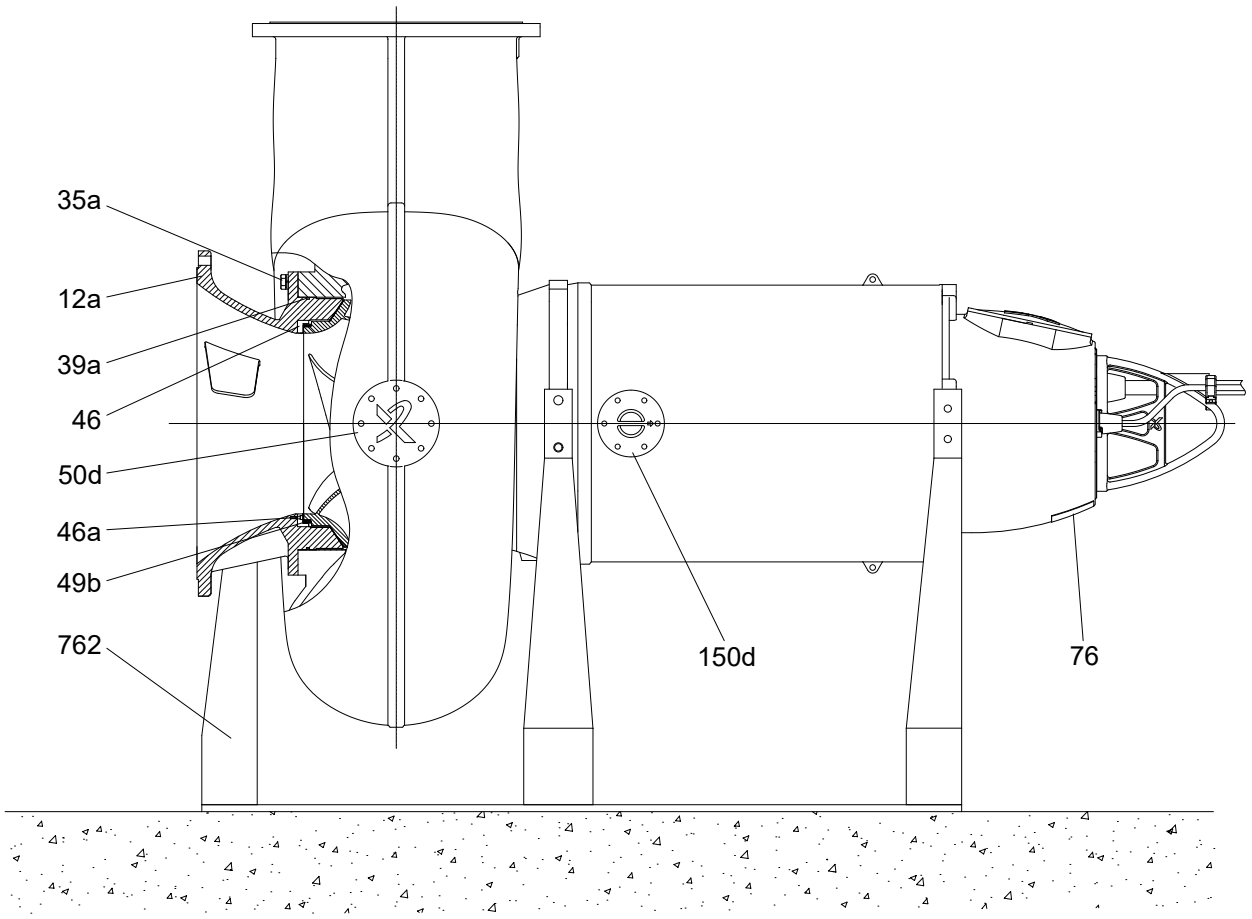
KSN DN500-800 Sectional drawing of internal open loop (with cooling jacket)



KSN DN500-800 Auto coupling installation

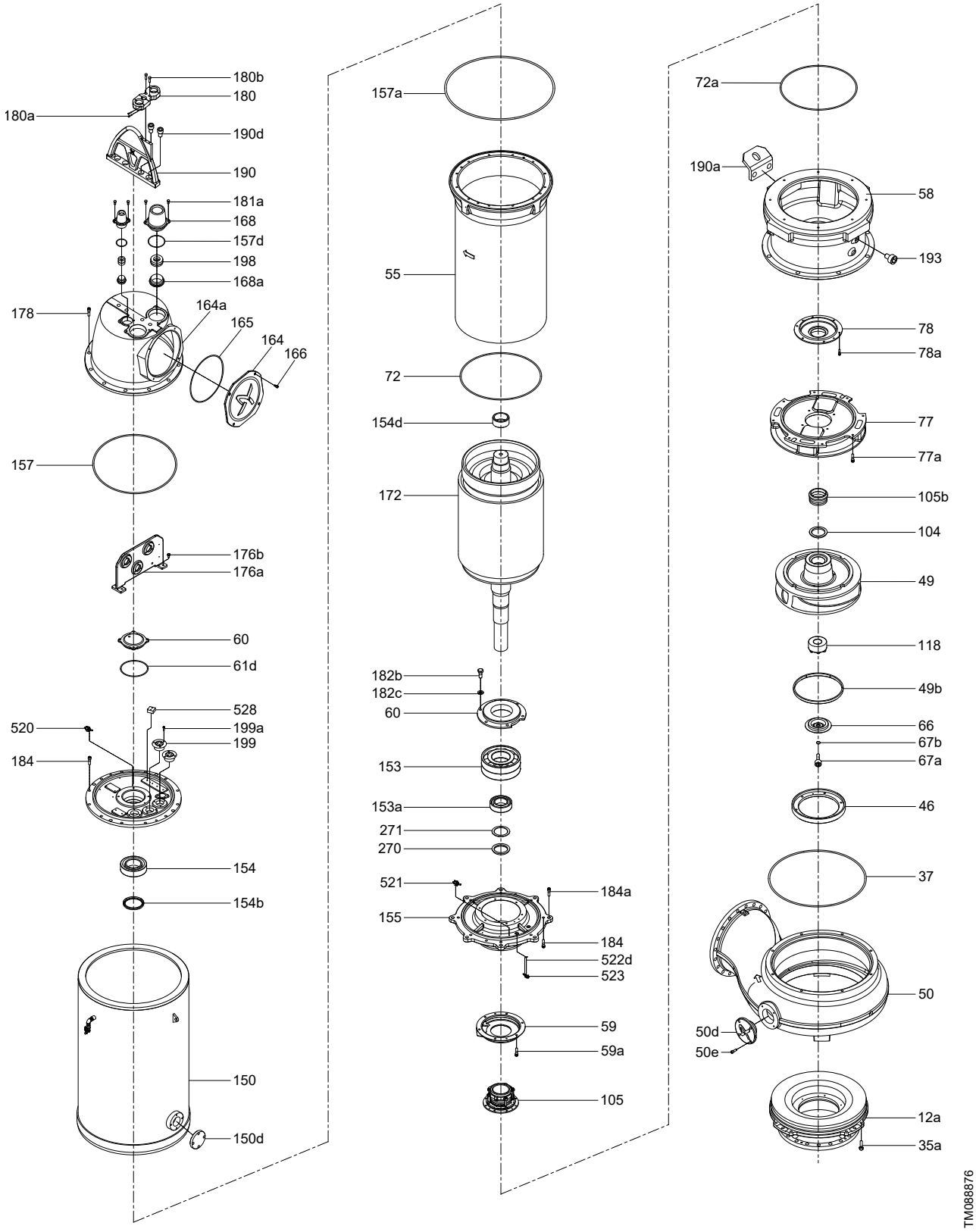


KSN DN500-800 Dry vertical installation



KSN DN500-800 Dry horizontal installation

Exploded views



KSN DN500-600 Exploded view with cooling jacket

Components and material specifications

Position	Description	Material	EN standard	ASTM
12a	Suction casing	Cast iron	EN-GJL-250	A48-CL35
12c	Adjusting Screw	Stainless steel	A2-70	A276-304
26	Screw	Stainless steel	A2-70	A276-304
35a	Screw	Stainless steel	A2-70	A276-304
37	O-ring	NBR rubber		
39a	O-ring	NBR rubber		
46	Wear ring	Bronze		
46a	Screw	Stainless steel	A2-70	A276-304
48	Stator lamination			
49	Impeller	Ductile cast iron	EN-GJS-450-10	A536-65-45-12
49b	Impeller ring	Bronze		
50	Volute casing	Ductile cast iron	EN-GJS-450-10	A536-65-45-12
50d	Clean out port cover	Ductile cast iron	EN-GJS-450-10	A536-65-45-12
50e	Screw	Stainless steel	A2-70	A276-304
55	Stator housing	Cast iron	EN-GJL-250	A48-CL35
58	Bridge	Cast iron	EN-GJL-250	A48-CL35
59	Seal chamber	Cast iron	EN-GJL-250	A48-CL35
59a	Screw	Stainless steel	A2-70	A276-304
60	Bearing bracket cover	Cast iron	EN-GJL-250	A48-CL35
61c	Upper bearing bracket	Cast iron	EN-GJL-250	A48-CL35
61d	O-ring	NBR rubber		
62	Bearing cover, upper	Cast iron	EN-GJL-250	A48-CL35
66	Cap	Ductile cast iron	EN-GJS-450-10	A536-65-45-12
66c	O-ring	NBR rubber		
67a	Screw	Stainless steel	A2-70	A276-304
67b	O-ring	NBR rubber		
72	O-ring	NBR rubber		
72a	O-ring	NBR rubber		
76	Nameplate	Stainless steel		
77	Water chamber	Cast iron	EN-GJL-250	A48-CL35
77a	Screw	Stainless steel	A2-70	A276-304
78	Seal chamber, lower	Cast iron	EN-GJL-250	A48-CL35
78a	Screw	Stainless steel	A2-70	A276-304
101	Seal fixer			
104	Seal ring	Stainless steel	EN 1.4301	A276-304
105	Mechanical seal	SIC/SIC		
105b	Mechanical seal	SIC/SIC		
118	Tapered lock bushing	Steel		
150c	Cooling jacket	Steel		
150d	Cooling inspection cover	Cast iron	EN-GJL-250	A48-CL35
153	Ball bearing	Steel		
154	Ball bearing	Steel		
154b	Rib seal			
154c	O-ring	NBR rubber		
154d	Shaft sleeve	Stainless steel		
155	Lower bearing bracket	Cast iron	EN-GJL-250	A48-CL35
157	O-ring	NBR rubber		
157a	O-ring	NBR rubber		
157d	O-ring	NBR rubber		
164	Junction box cover	Cast iron	EN-GJL-250	A48-CL35
164a	Motor top cover	Cast iron	EN-GJL-250	A48-CL35

Position	Description	Material	EN standard	ASTM
165	O-ring	NBR rubber		
166	Screw	Stainless steel	A2-70	A276-304
168	Cable entry	Stainless steel	EN 1.4308	A743-CF-8
168a	Cable nut	Cast iron	EN-GJL-250	A48-CL35
172	Shaft with rotor	Stainless steel	EN 1.4006	A276-410
176a	Terminal board			
176b	Screw	Stainless steel	A2-70	A276-304
178	Screw	Stainless steel	A2-70	A276-304
180	Cable clamp	Stainless steel	EN 1.4308	A276-304
180a	Screw	Stainless steel	A2-70	A276-304
180b	Screw	Stainless steel	A2-70	A276-304
181	Cable	PNCT		
181a	Screw	Stainless steel	A2-70	A276-304
182b	Screw	Stainless steel	A2-70	A276-304
182c	Washer	Stainless steel	EN 1.4301	A276-304
183	Screw	Stainless steel	A2-70	A276-304
184	Screw	Stainless steel	A2-70	A276-304
184a	Screw	Stainless steel	A2-70	A276-304
190	Lifting bracket	Stainless steel	EN 1.4308	A743-CF-8
190a	Lifting bracket (lower)	Steel		A276-304
190b	Screw	Stainless steel	A2-70	A276-304
190d	Screw	Stainless steel	A2-70	A276-304
193	Oil plug	Stainless steel	EN 1.4301	A276-304
194	O-ring	NBR rubber		
195	Oil plug	Stainless steel	EN 1.4301	A276-304
195a	O-ring	NBR rubber		
196	Non return valve			
198	Washer/rubber seal/washer	Stainless steel/ NBR rubber		
199a	Screw	Stainless steel	A2-70	A276-304
199	cable gland	Cast iron or Stainless steel		
270	Lock nut	Steel		
271	Lock washer	Steel		
288	Bearing temperature sensor			
289	Bearing temperature sensor (lower)			
493	Screw	Stainless steel	A2-70	A276-304
520	Moisture switch, upper			
521	Moisture switch, lower			
522d	Bracket for WIO			
523	Water-in-oil sensor(option)			
528	PVS3 sensor (option)			

Accessories for installation

Position	Description	Material	EN standard	ASTM
701	Auto-coupling base unit	Cast iron	EN-GJL-250	A48-CL35
702	Upper guide rail bracket	Cast iron	EN-GJL-250	A48-CL35
703	Guide claw	Cast iron	EN-GJL-250	A48-CL35
		Ductile cast iron [2]	EN-GJS-450-10	A536-65-45-12
762	Base plate, vertical	Steel		
762a	Screw	Stainless steel	A2-70	A276-304
762b	Flange seal	NBR rubber		
749	Bend	Cast iron	EN-GJL-250	A48-CL35
		Steel [3]		
749b	Flange seal	NBR rubber		
762	Base plate, horizontal	Steel		

2) Use for pumps above 400 kW motor power.

3) Use for 600.L and 800.M/L/E pump types.

6. Product description

Bearings

The bearings are greased for life.

The bearing life span has been calculated as ISO 281:2007. L_{nmh} = minimum 60.000 hours at best efficient point.

Main bearings

Angular contact ball bearings and roller bearing with angle ring.

Support bearings

Single-row deep-groove ball bearing and roller bearing.

Shaft seal

The shaft seal separates the motor from the pumped liquid. It consists of two mechanical seals that are both made of silicon carbide. For convenient service, the two mechanical seals are in a cartridge. This design minimizes the risk of incorrect fitting and makes the assembly length shorter compared to conventional shaft seals.

Testing

All pumps are tested before leaving the factory. The factory test report is based on the ISO 9906:2012, 2B tolerance. Test reports can be ordered directly with the pump or can be ordered separately based on the pump serial number. Other tests or third-party inspection certificates are available on request.

Motor

The motor is watertight and totally enclosed.

Motor stators comply with IEC60034-25.

- Insulation class: F (155 °C)
- Temperature rise class: F (105 °C)
- Enclosure class: IP68
- As standard the pumps are equipped with a bimetallic thermal switch that will cut the circuit when motor temperature reaches 130 °C.

For motor protection and sensors, see Sensors section on page 17.

Cooling system

KSN pumps are fitted with internal open cooling system where the motor is cooled by circulated media between the stator housing and the cooling jacket.

Power cables

The power cable is the 0.6/1KV PNCT-S (screened) type.

The cables are 10 m long as standard. Other cable lengths are available on request.

- Maximum conductor temperature: +90 °C
- Maximum ambient temperature: +40 °C
- Minimum ambient temperature: -20 °C
- Conductor: Stranded plain copper conductor, class 5 (IEC 60228)
- Insulation is extruded EP rubber
- Sheath is extruded black rubber.

Markings:

- 4-conductor: Black, White, Red, Green
- Multi-core: White (Alphabet A-J), Green (PE).

Cable type [mm^2]	Out cable diameter [mm]	Weight [kg/m]	Bending radius [cm]
4x70	49-55	5.2	78
4x95	53-59	5.9	84
4x120	62-68	7.8	97.5
4x150	66-72	9.5	103.5

50Hz 380V

Motor Power [kW]	Number of poles	Cable size [power + control]
75	10	1×4×70 mm^2 + 1×11×2.5 mm^2
90	10	
110	10	1×4×95 mm^2 + 1×11×2.5 mm^2
132	8, 10	
160	8	1×4×120 mm^2 + 1×11×2.5 mm^2
160	10, 14	2×4×70 mm^2 + 1×11× 2.5 mm^2
200	8, 10, 14	2×4×95 mm^2 + 1×11×2.5 mm^2
250	8	
250	10, 12, 14	2×4× 120 mm^2 + 1×11×2.5 mm^2
300	6, 8, 10, 12	
350	6, 8, 10, 12	2×4×150 mm^2 + 1×11×2.5 mm^2
400	6, 8	3×4× 120 mm^2 + 1×11×2.5 mm^2
400	10, 12	3×4×150 mm^2 + 1×11×2.5 mm^2
450	6, 8, 10	
500	6, 8, 10	
550	6, 8, 10	
600	6, 8, 10	
650	8, 10	4×4×150 mm^2 + 1×11×2.5 mm^2
700	8	
750	8	
800	8	

Control cables

The pumps have screened 0.6/1KV PNCT-S (non-combined).

Cable type [mm^2]	Out cable diameter [mm]	Weight [kg/m]	Bending radius [cm]
11×2.5	21.5-24.5	0.75	34.5

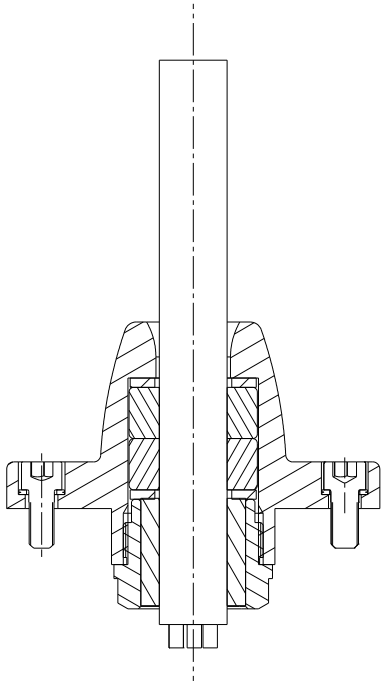
Cable entry

The cable connection to the motor is watertight, the soft shaped stainless steel cable entry has dual sealing system:

- Primary sealing system: two leak-proof rubber bushes and backup rings
- Secondary sealing system: two-component epoxy sealing.

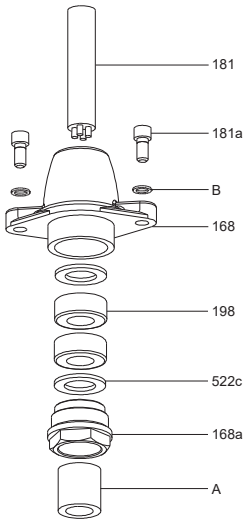
The cable entry enables quick and easy disconnection of the cable. Only two bolts need to be unscrewed to remove the cable inlet.

The cable inlets have conductors cast in a potting material to eliminate the risk for penetration of moisture.



TM077161

Cable inlet sectional view



TM077162

Cable inlet exploded view

Position	Description
181	Cable
181a	Screw
B	Nord lock washer
168	Cable entry
198	Washer/rubber seal
522c	Trust washer
168a	Cable nut
A	Epoxy

Sensors

The table shows the different sensor variants of standard and FPV (factory product variant) products.

FPV sensor versions can be chosen individually from the table.

Sensor	Type	Standard [Qty]	Version A [Qty]	Version B [Qty]
Stator thermal protection	Bi-metal	3	3	3
Stator thermal protection	Pt100	1	1	1
Terminal box moisture sensor	Switch	1	1	1
Motor housing moisture sensor	Switch	1	1	1
Bearing thermal protection (lower)	Pt100	1	1	1
Bearing thermal protection (upper)	Pt100	1	1	1
Water-in-oil sensor (WIO)	Analog		1	1
Vibration sensor (PVS3)	Analog			1

As standard, the pump is equipped with:

- three thermal switches, one in each phase
- one moisture switch below the motor top cover
- one moisture switch in the bottom of stator housing.

Pumps with sensor version A are equipped with:

- all the sensors from the standard pump
- one WIO sensor in oil chamber.

Pumps with sensor version B are equipped with:

- all the sensors from the standard pump
- one WIO sensor in oil chamber
- one vibration sensor (PVS3) below the motor top cover.

Water-in-oil sensor (WIO)

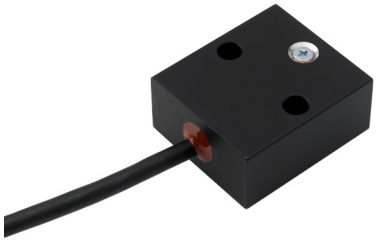
The WIO sensor measures the water content in the oil and converts the value into an analogue current signal. The two sensor conductors are for power supply as well as for carrying the signal to the measuring device or controller. The sensor measures the water content from 0 to 20 %. It also sends a signal if the water content is outside the normal range (warning), or if the oil level is so low that the sensor is in the air (alarm). The sensor is fitted in a stainless steel tube for mechanical protection. The WIO sensor can be connected to the Grundfos IO 113 module.

TM077011

WIO sensor

Vibration sensor (PVS3)

The vibration sensor monitors the vibration level of the pump. A change in the vibration level indicates an abnormal situation. The cause of this can be a clogged impeller, worn bearings, closed outlet valve, etc., indicating that service inspection should be carried out now in order to protect the pump or the pipe system from being damaged.

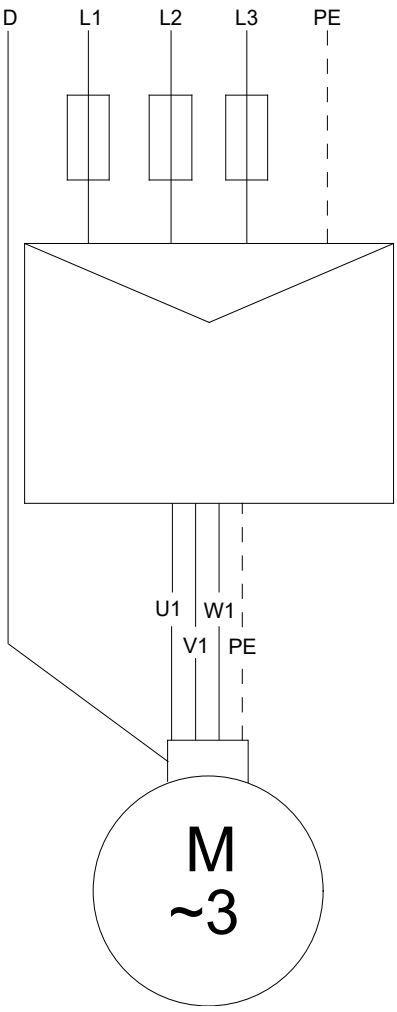


TM077106

PVS3 Vibration sensor

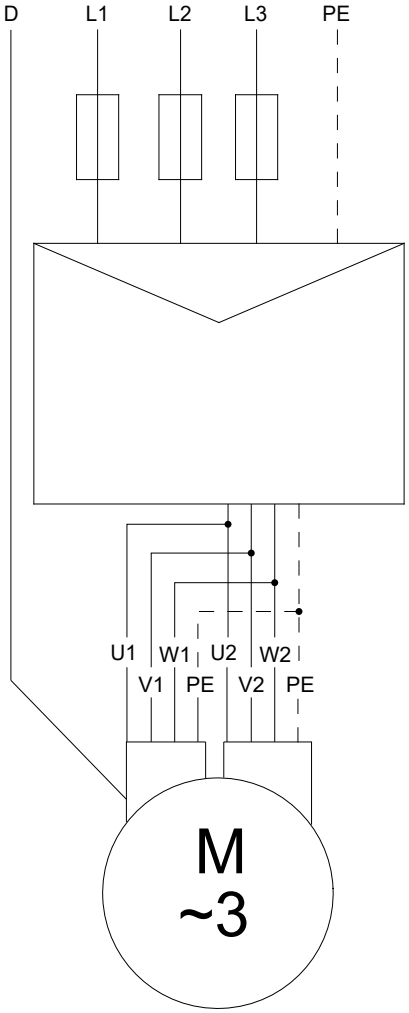
Wiring diagrams

D = Control cable.

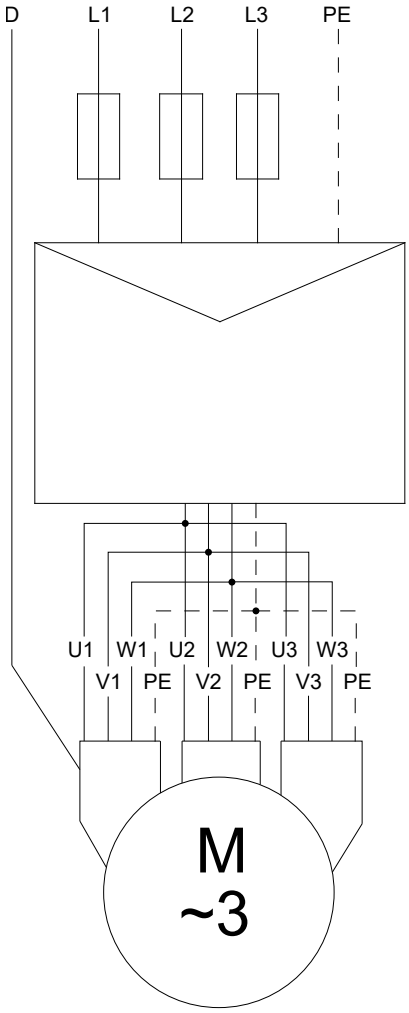


TM056180

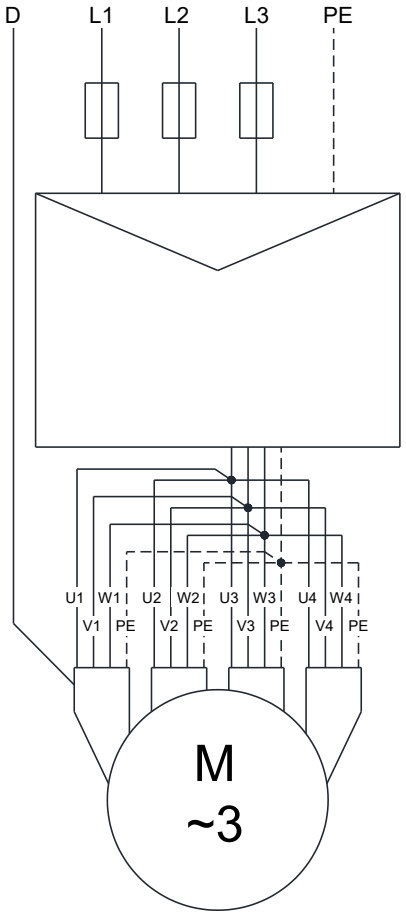
Direct-online-starting, one power cable



Direct-online-starting, two power cables

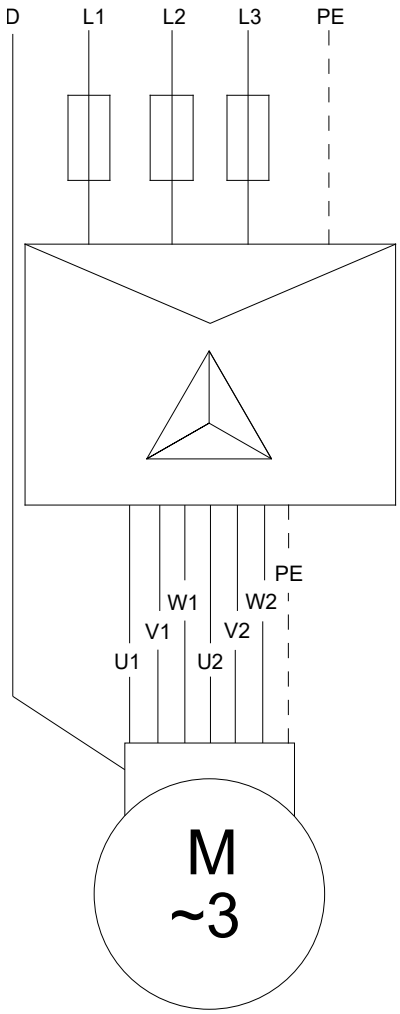


Direct-online-starting, three power cables

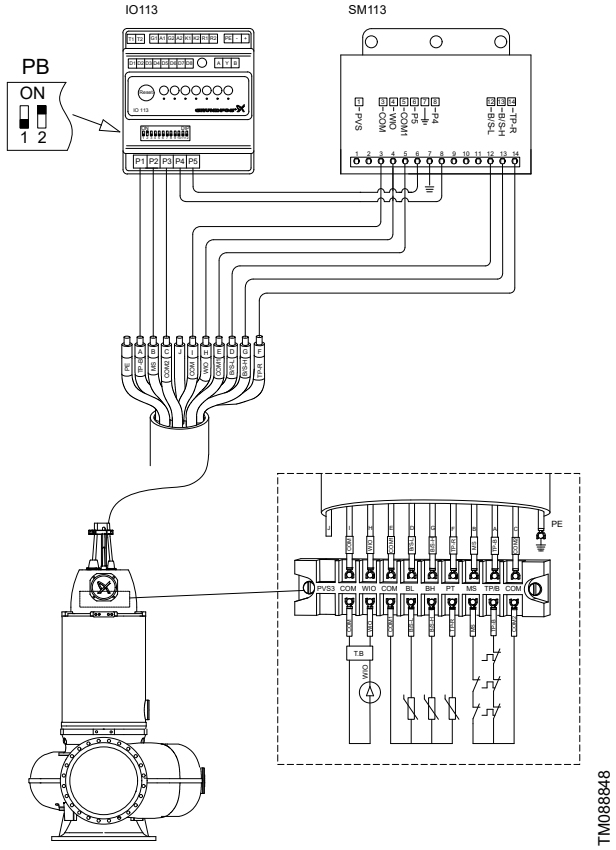


Direct-on-line starting, four power cables

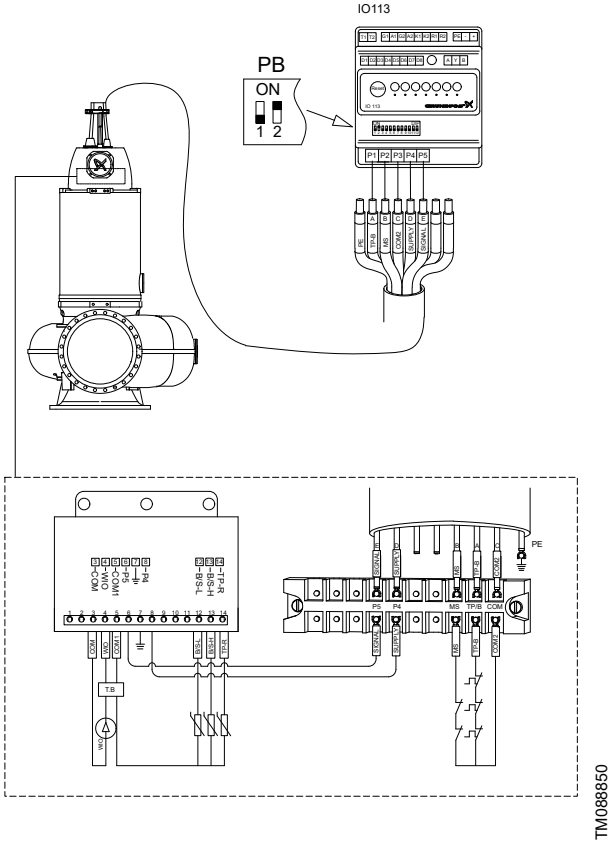
TM089289



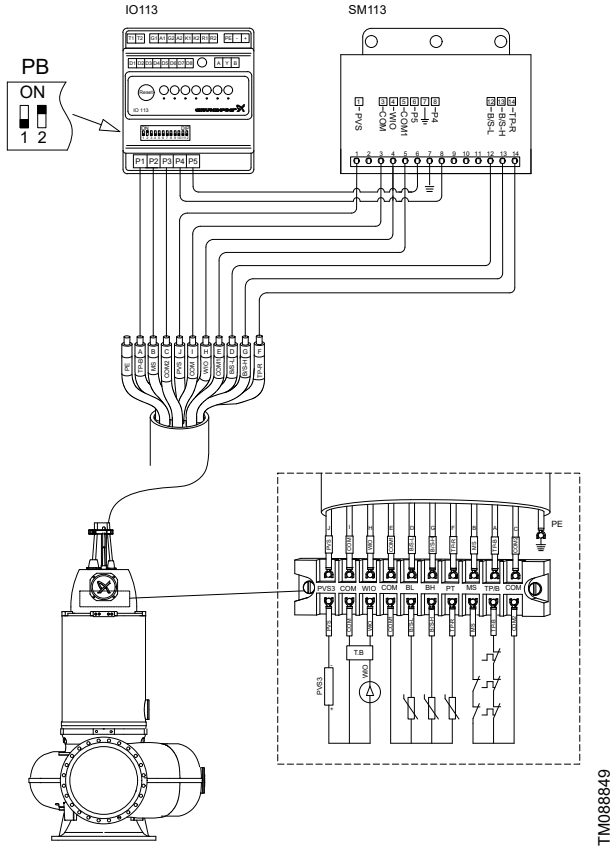
Star-delta-starting, one power cable



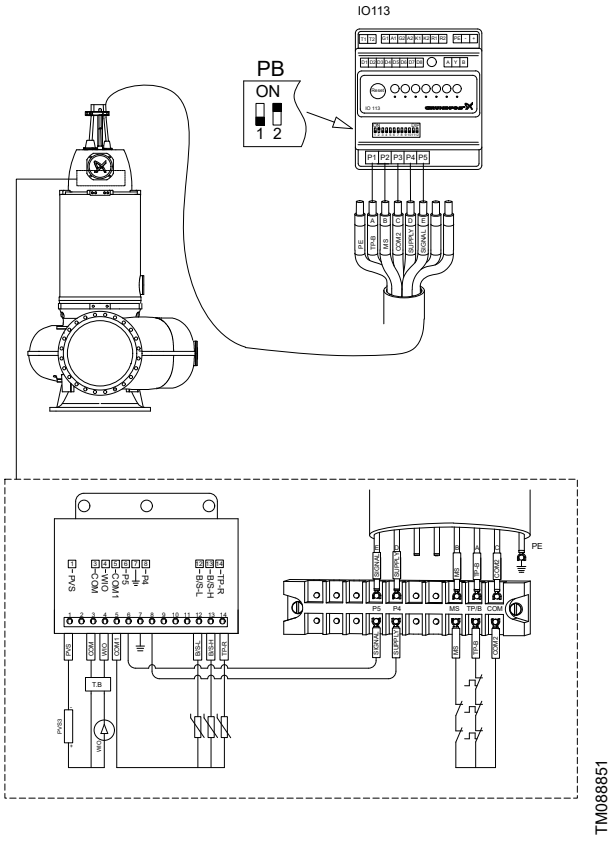
Wiring diagram of IO113 and SM113 (Sensor version A)



Wiring diagram of IO113 and SM113 (Sensor version A)



Wiring diagram of IO113 and SM113 (Sensor version B) with sensor options



Wiring diagram of IO113 and SM113 (Sensor version B) with sensor options

IO 113

GR-1014619

IO113 module

The IO 113 module is the interface between a pump with analogue and digital sensors and the pump controller. The most important sensor data are indicated on the front panel.

One pump can be connected to one IO 113.

With the sensors, IO 113 provides a galvanic separation between the motor voltage in the pump and the connected controller.

IO 113 enables the following functions:

- overtemperature protection
- monitoring the sensors for analogue measurement of:
  - motor temperature
  - leakage (WIO)
  - pump vibrations (PVS3)
  - stator insulation resistance
  - bearing temperature
  - digital measurement of moisture in motor.
- stopping the pump in case of alarm
- monitoring the pump remotely through RS485 communication (Modbus or GENIbus).

SM 113

GR-1014621

SM 113 module

The SM 113 module is used for collecting and transferring sensor data. SM 113 works with IO 113 through power line communication using the Grundfos GENIbus protocol.

SM 113 collects data from the following devices:

- current sensors, 4-20 mA
  - Vibration sensor
  - WIO sensor
  - Water-in-air sensor (WIA)
  - Pt100/Pt1000 thermal sensors.
- Maximum 3 Pt100 thermal sensors
- Maximum 4 Pt1000 thermal sensors.

SM 113 is fitted with a 2.7 kΩ resistor to avoid false sensor alarms in the IO 113.

GU02

GU02 is a complete monitoring unit, it can monitor the pump status by detecting motor overheating, high temperature of bearings, seal leakage and moisture in junction box if there is any problem you can recognize it by alarm sound.

GU02 can monitor:

- Over temperature of stator windings (R, S, T)
- High temperature of bearings (Upper and Lower)
- Moisture in the terminal box
- Seal leakage in bearing housing.

Level controllers

Grundfos offers a wide range of pump controllers to keep a watchful eye on liquid levels in stormwater and wastewater applications, and to ensure correct operation and protection of the pumps.

Controller ranges:

- Dedicated Controls, DC control cabinets
- LC and LCD level controllers.

7. Operating conditions

Pumped liquids

The KSN pumps, ranges DN500, 600 and 800 are specially designed for wastewater in a wide range of applications, such as:

- raw-water intake,
- wastewater transportation,
- sewage treatment plants,
- municipal pumping stations,
- industrial process water.

The pumps are suitable for both temporary and permanent installation.

Liquid:

- pH value: 4-10.
- liquid temperature: 0 °C to +40 °C.

When pumping liquids with a density and/or a kinematic viscosity higher than that of water, use motors with correspondingly higher outputs.

Density and viscosity of pumped liquid:

Maximum density: 1000 kg/m^3, maximum kinematic viscosity: 1 mm^2/s (1cSt).

Operating mode

The pumps are designed for continuous operation with maximum number of starts:

- Pumps with 75-220 kW motors: maximum 10 starts per hour
- Pumps with 220 kW motors and above: maximum 6 starts per hour
- Maximum 5.000 starts per year.

Motor range

Motor power [kW]	Number of poles
75	10
90	10
110	10
132	8
	10
160	8
	10
	14
200	8
	10
	14
250	8
	10
	12
	14
300	6
	8
	10
	12
350	6
	8
	10
	12
400	6
	8
	10
	12
450	6
	8
	10
500	6
	8
	10
550	6
	8
	10
600	6
	8
	10
650	8
	10
700	8
750	8
800	8

Frequency converter operation

In principle, all three-phase pumps can be connected to a frequency converter.

However, frequency converter operation will often expose the motor insulation system to a heavier load and cause the motor to be more noisy than usual due to eddy currents caused by voltage peaks.

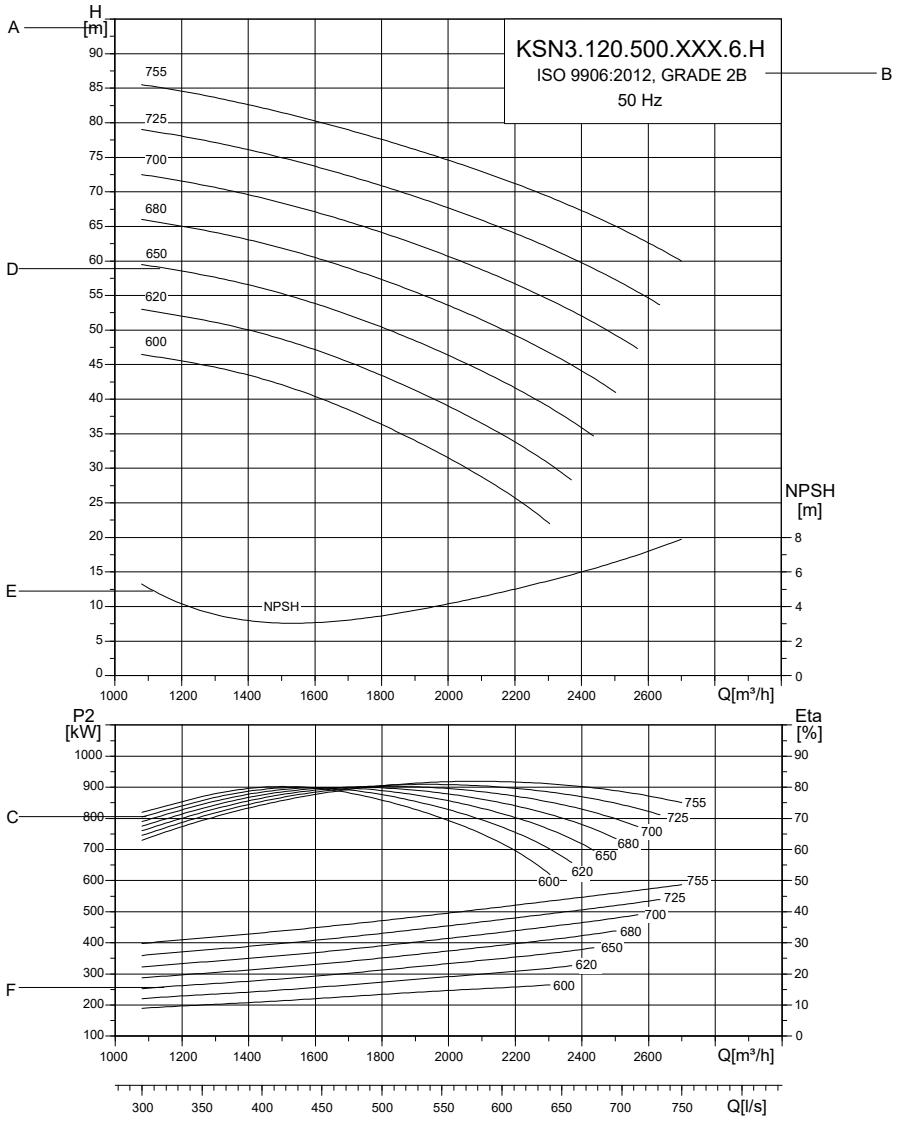
In addition, large motors driven via a frequency converter will be loaded by bearing currents.

Frequency converter operation will also influence the efficiency of the pump system.

For more information, see the installation and operating instructions for the relevant frequency converter at www.grundfos.com.

8. Performance curves and technical data

How to read the performance curves



TM089576

Position	Description
A	Total pump head (H = H_{total})
B	Pump type
C	Hydraulic efficiency
D	Impeller diameter [mm]
E	NPSH curve for all variants. During sizing, add at least 0.5 m as safety margin
F	Pump shaft (P2)

Note that pumps are tested according to ISO 9906:2012, 2B tolerance. Testing equipment and measuring instruments are designed and calibrated according to the mentioned standards.

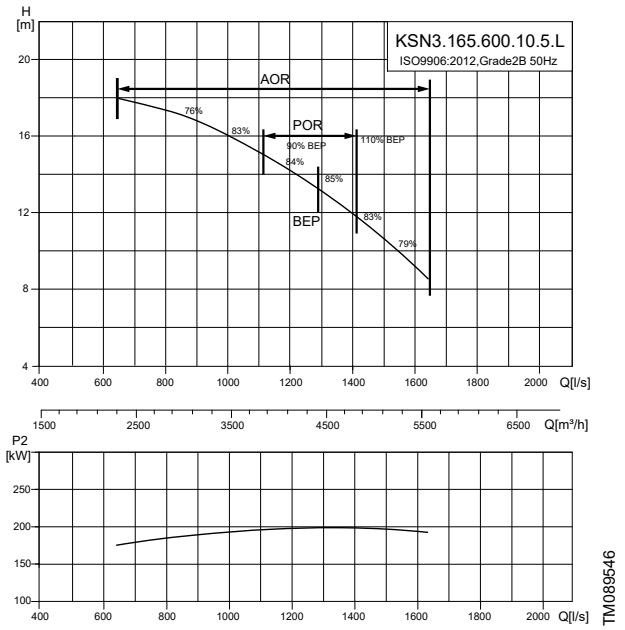
Explanation of KSN performance curves

The curves of KSN pumps are cut in both high head and high flow. The Hydraulic Institute (HI) standard ANSI/HI 9.6.3-2012 define values based on which region on the curve the pump should operate within. There are three definitions that is important in this context:

1. **BEP**: Best Efficiency Point, which is the point on the QH curve where the pump will operate with the highest efficiency
2. **POR**: Preferred Operating Range, which is the range where the pump will have the highest efficiency and lowest vibrations. POR range is typically between 90 to 110% of the flow in BEP. When operating within the POR, the pump requires a smaller NPSH margin.
3. **AOR**: Allowable Operating Range, which is the range where the pump is allowed to operate with shorter time between service intervals, without compromising the lifetime of the pump. AOR for KSN is the entire performance curve range shown in this data booklet.

Operating outside **POR** will:

- reduce the lifetime of the bearings;
- increase the vibration level on the pump and system;
- increase the stress on the shaft seals, cable inlets;
- increase the stress on the cable and cable inlet;
- increase stress in other components of the pump, as well as on the installation accessories and connected piping compared to operating inside the POR range.



Pumped liquid	Water
Liquid temperature during operation	20 °C
Density	998.2 kg/m^3

Curve conditions

The guidelines below apply to the curves indicated in the performance charts in Performance curves and technical data.

- Tolerances according to ISO 9906:2012 grade 2B.
- The curves show pump performance with different impeller diameters at rated speed.
- The curves apply to the pumping of airless water at a temperature of + 20 °C and a kinematic viscosity of 1 mm^2/s (1 cSt).
- 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.
- **NPSH:** the curves show average values calculated under the same conditions as the performance curves.

Calculation of total head

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

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

H_{geo}: Height difference between measuring points.

H_{stat}: Differential head between suction and the discharge side of the pump.

H_{dyn}: Calculated values based on the velocity of the pumped liquid on the suction and the discharge side of the pump.

Performance tests

The requested duty point for every pump is tested according to ISO 9906:2012 grade 2B.

In case of pumps ordered on the basis of impeller diameter only (no requested duty point), the pump will be tested at a duty point (according to ISO 9906:2012 grade 2B).

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

Witness test

According to ISO 9906:2012, the customer can witness the testing procedure.

The witness test is not a certificate and will not result in a written statement from Grundfos. The witness test itself is the only guarantee that everything is carried out as prescribed in the testing procedure.

If a witness test is required, the request must be stated on the order.

Performance acceptance grades

Six-pump-performance-test acceptance grades, 3B, 2B, 2U, 1B, 1E and 1U are defined in ISO 9906:2012.

Acceptance grade	Mandatory measurements		Optional measurements	
	Q	H	P1	Eta-tot
3B	± 9%	± 7%	+ 9%	- 7%
2B	± 8%	± 5%	+ 8%	- 5%
2U	+ 16%	+ 10%	+ 16%	
1B	± 5%	± 3%	+ 4%	- 3%
1E				≥ 0%
1U	+ 10%	+ 6%	+ 10%	

Q: Flow rate

H: Head

P1: Total consumed power

Eta-tot: Total efficiency

These tolerance grades can be used in the contract between the pump manufacturer and the customer, or as part of a default tolerance factor for cases in which no specific tolerance grade has been agreed between the manufacturer and the customer.

Guarantee point

According to ISO 9906:2012, acceptance-grade tolerance applies to one guarantee point.

A guarantee point is defined by a guarantee flow rate and a guaranteed head.

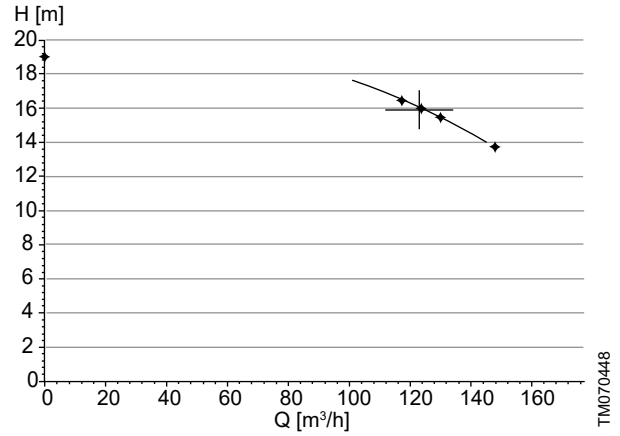
In addition, either minimum total efficiency or maximum total input power may be guaranteed at the specified conditions.

This means that the standard sets guidelines for a duty point guaranteed for the following:

- Q and H, or
- Q, H and Eta-tot, or
- Q, H and P1.

The guarantee point is defined by a minimum of five measured test points.

Example for a duty point test living up to ISO 9906:2012 requirements:

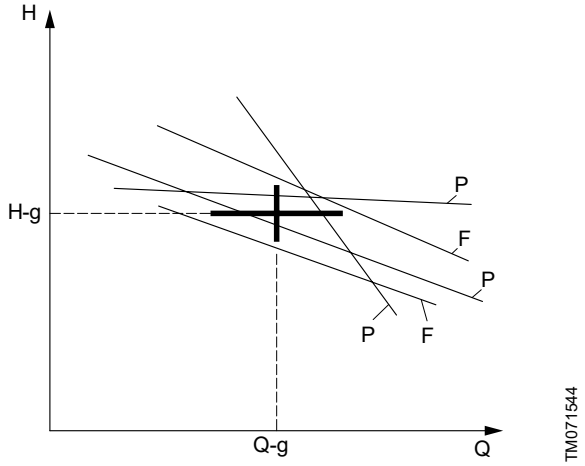


Five measured test points are used for verifying one guarantee point

Evaluation of performance

The test must show that the measured pump curve touches or passes through a tolerance surrounding the guarantee point, as defined by the selected acceptance grade.

Guarantee point evaluation must be made at the rated speed, which for KSN pumps means 50 or 60 Hz.



Pump curves that either pass or fail to cross the tolerance cross of the guarantee point

Position	Description
H	Head
H-g	Guaranteed head
Q	Flow rate
Q-g	Guaranteed flow rate
P	Pass
F	Fail

Performance test types for end-suction pumps

Two types of performance tests are available for KSN pumps:

- duty point verification test
- curve test.

Tests carried out on KSN pumps

Tests are saved for at least 5 years and can be traced using the pump's unique serial number.

It is not possible to change acceptance grade on an already tested and supplied pump. If required, a re-test is made.

Witness testing can be arranged.

Duty point verification test grades 2B, 2U, 1B and 1E

This test method offers the possibility to perform a duty point verification of the following:

- Q and H, or
- Q, H and Eta-tot, or
- Q, H and P1.

Acceptance grade	Mandatory measurements		Optional measurements	
	Q	H	P1	Eta-tot
2B	Standard		On request	
2U	On request			
1B				
1E				

What Grundfos is able to guarantee for the different acceptance grades will be evaluated on a case-by-case basis. For more information, contact your local sales company.

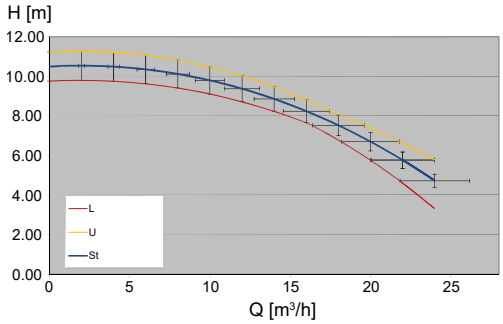
Grundfos performs duty point verification according to ISO 9906:2012 for one guarantee point at full speed on 50 or 60 Hz. The customer must determine which duty point to verify.

The requested duty point is verified by five measured points.

Curve test Grade 2B

This test method is developed by Grundfos and is based on ISO 9906:2012 performance acceptance Grade 2B tolerances:

- Q: ± 8%
- H: ± 5%.



Q-H curve with tolerance crossed on complete performance range

Position	Description
L	Lower limit
U	Upper limit
St	Standard curve

In the chart above tolerance crosses according to Grade 2B have been distributed across the complete performance range of a pump. Grundfos generates the upper and lower limit of the performance curve by drawing two curves at the outlines of these crosses.

When the pump is tested, and the measured point is located within the range between the upper and lower limit, it meets the ISO 9906:2012 Grade 2B tolerances. This way of qualifying the pump performances is stricter than a duty point verification test for Grade 2B.

Explanation of Grundfos curve tests

Grundfos conducts two types of curve tests:

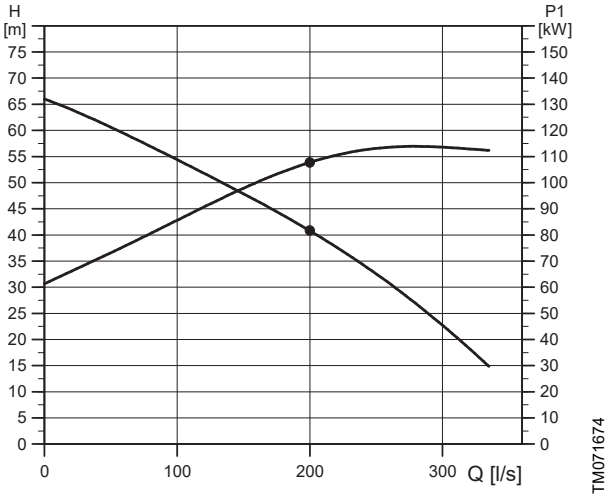
- reference curve test
- performance curve test.

Reference curve test Grade 2B

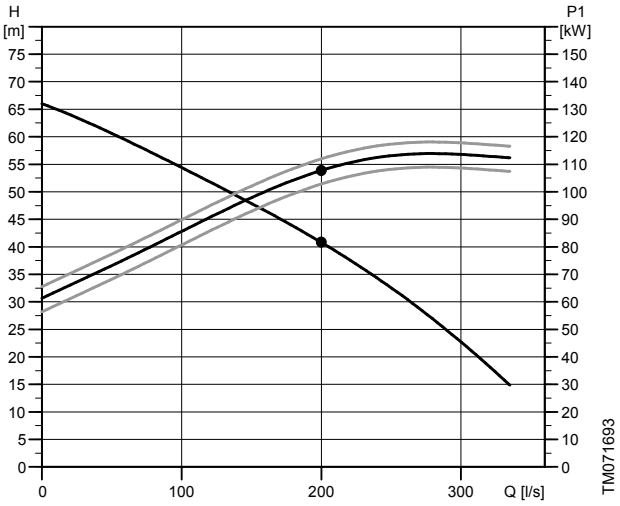
A reference curve test is made when no curve test report is specified with the order. Three or four test points are measured depending on production site, and no curve test report is supplied with the pump.

Measurements are made to maintain and observe continuous quality and to ensure that the supplied pump is within test grade tolerances. Test grade tolerances are set according to Grade 2B, but without certification.

Example for a reference curve test:



Measured values for tested pump



The values in the chart above is calculated to reference speed for comparison to a reference performance curve

If a pump performance report is requested at a later stage, only reference test data are available.

Performance curve test Grade 2B

A performance curve test is carried out when a curve test report is specified in the order.

The pump is tested at pre-specified flow rates, and test grade tolerances are set according to Grade 2B, but without certification.

If the customer requires more points on the curve to be checked, individual measurements must be made, which are not part of the performance curve test.

Static high pressure test

All pumps are static high pressure tested:

- 1.5 x PN (nominal pressure of the pump).

Specifying acceptance grades

The previous graphs show the tolerances as stated in the standard, related to an ordinary pump curve. The graphs also show the expected performance if the customer orders a pump with the same guarantee point for different tolerances (B, E, or U) within the acceptance grades.

In some cases it will not be possible to fulfill the same guarantee point for a unilateral tolerance as for a bilateral tolerance. This is indicated by the lower curve for E and U grades.

If the requested guarantee point is the same for a Grade U pump as for a Grade B pump, the consequence of the production tolerances could be that a larger pump is required to obtain the requested duty point.

Grundfos guarantees that the different acceptance grades will be evaluated on a case-by-case basis. For more information, contact your local sales company.

Acceptance grade B

This acceptance grade refers to grades with a bilateral tolerance on flow rate and head, and with a tolerance on efficiency.

Acceptance grade E

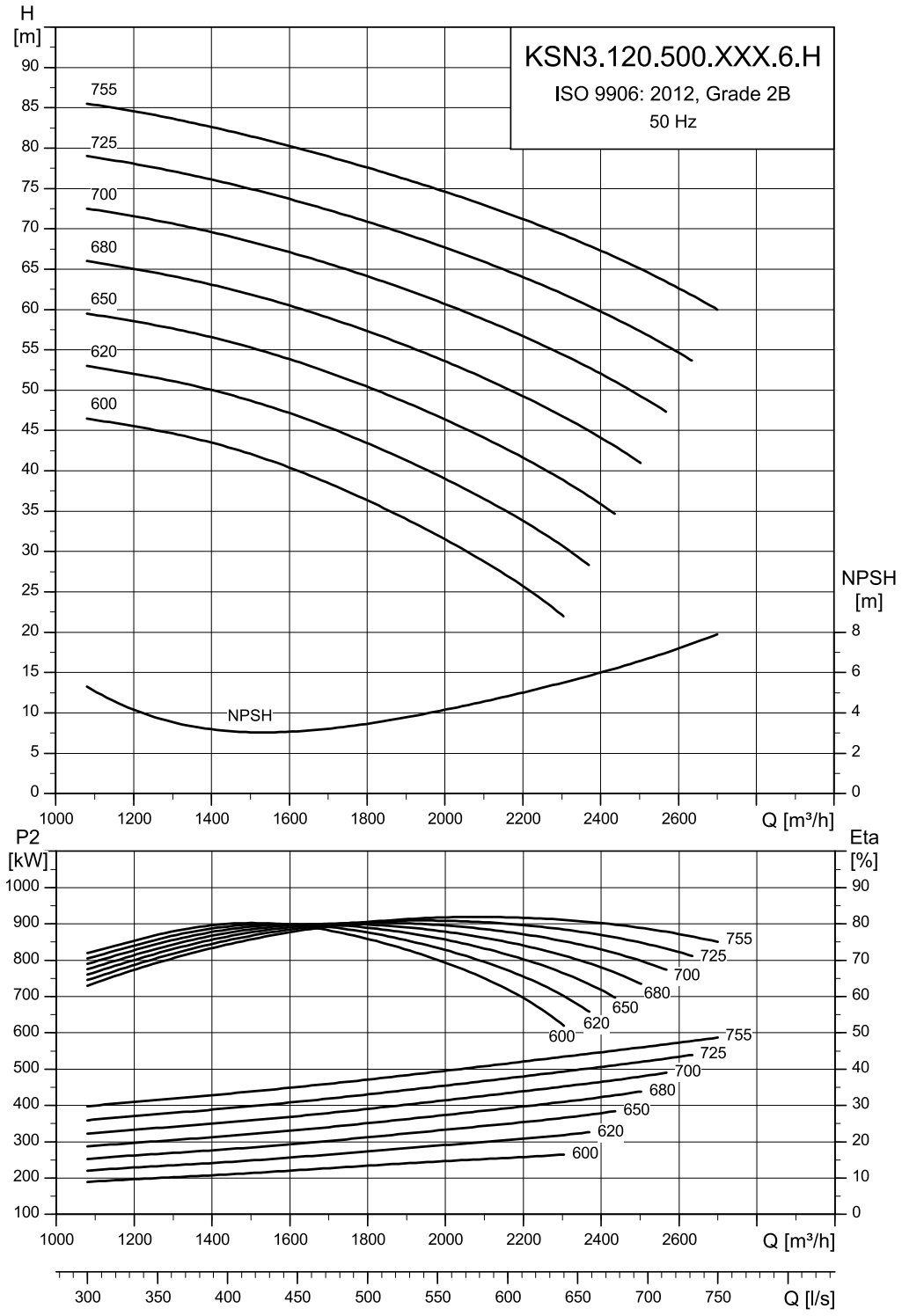
This acceptance grade refers to a grade with a bilateral tolerance on flow rate and head, but without tolerance on efficiency.

Acceptance grade U

This acceptance grade refers to a grade with a unilateral tolerance on flow rate and head. For Grade 2U there is a tolerance on efficiency. For Grade 1U there is no tolerance on efficiency.

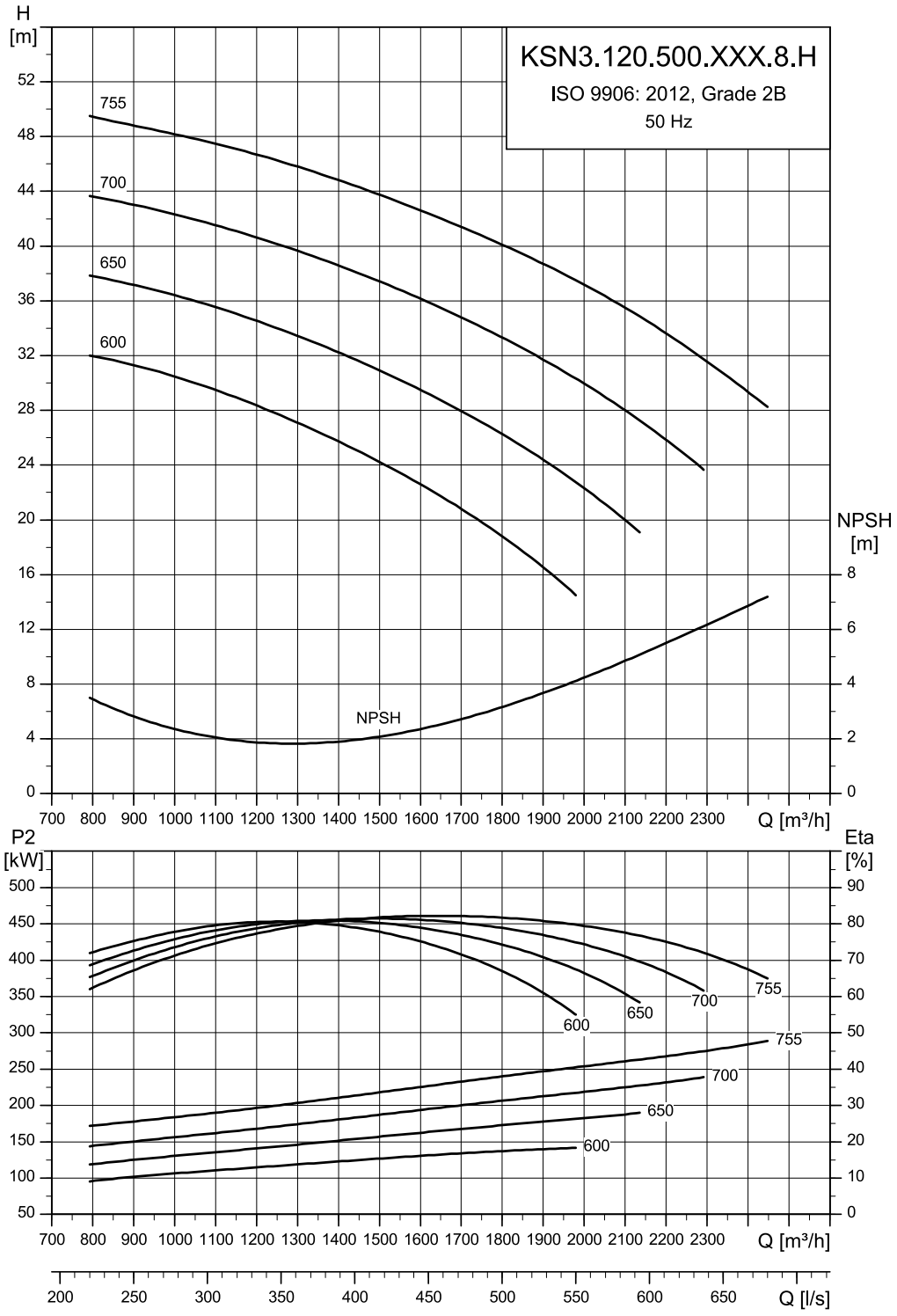
Please note if the acceptance grade changes from Grade 1B to 1U, the customer does not get a more efficient pump, but rather a pump performing always to the positive side of the guarantee point.

KSN3.120.500.XXX.6.H



Model	Motor [kW]	Freq. [Hz]	Rated speed [rpm]	No. of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.120.500.3000.6.H	300	50	950	6	500	PN10	600	120
KSN3.120.500.3500.6.H	350						620	
KSN3.120.500.4000.6.H	400						650	
KSN3.120.500.4500.6.H	450						680	
KSN3.120.500.5000.6.H	500						700	
KSN3.120.500.5500.6.H	550						725	
KSN3.120.500.6000.6.H	600						755	

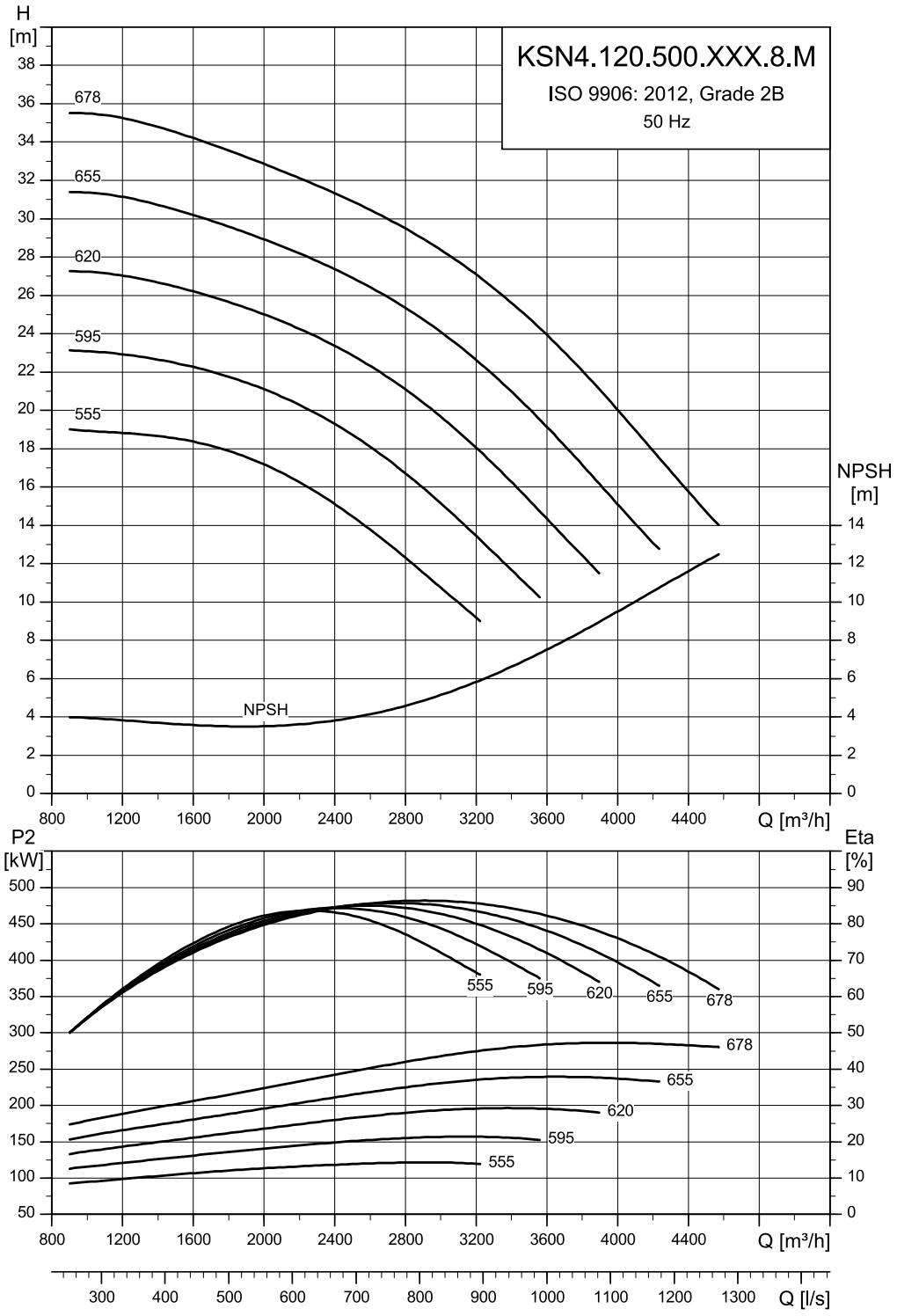
KSN3.120.500.XXX.8.H



TM088497

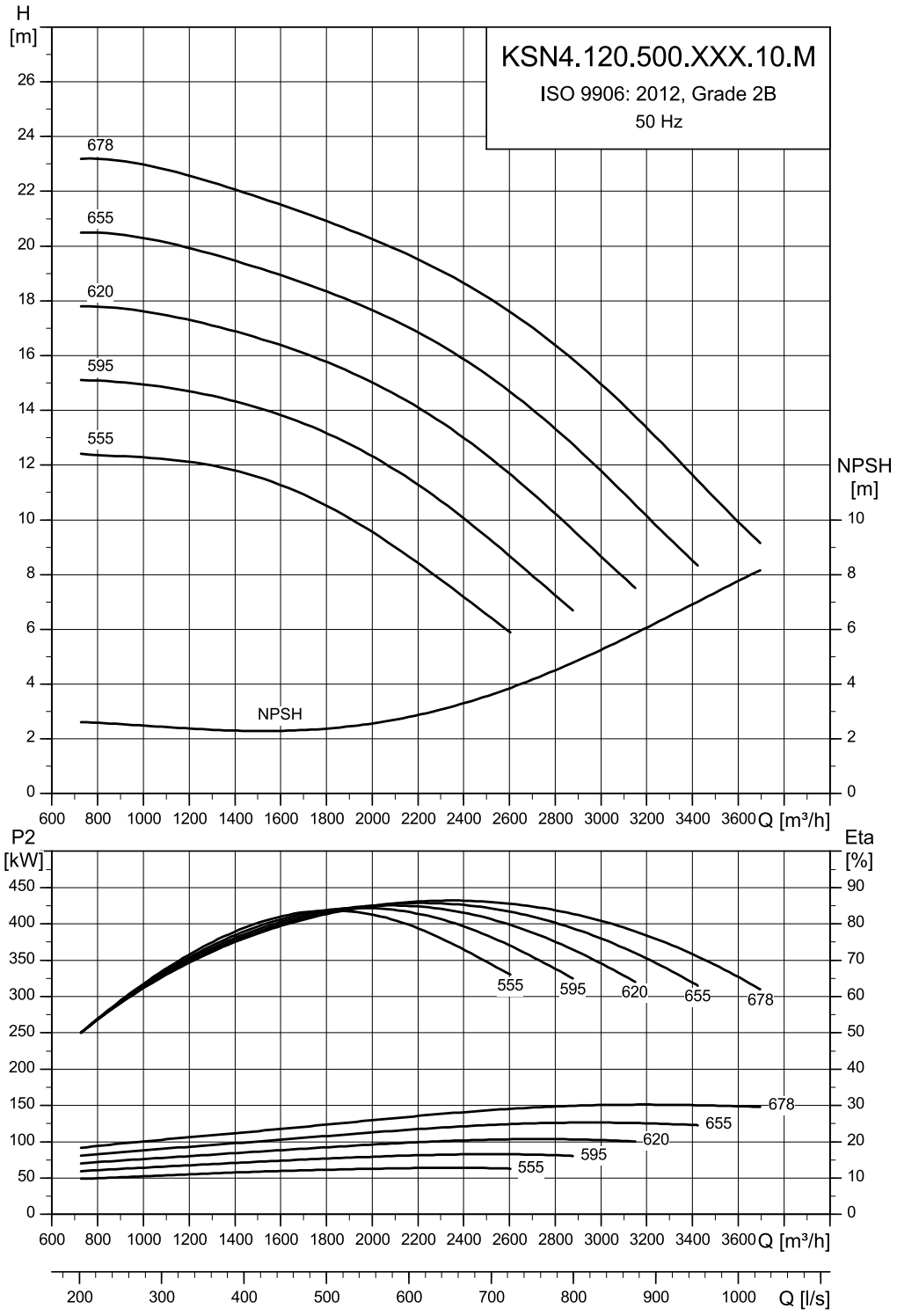
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.120.500.1600.8.H	160	50	720	8	500	PN10	600	120
KSN3.120.500.2000.8.H	200						650	
KSN3.120.500.2500.8.H	250						700	
KSN3.120.500.3000.8.H	300						755	

KSN4.120.500.XXX.8.M



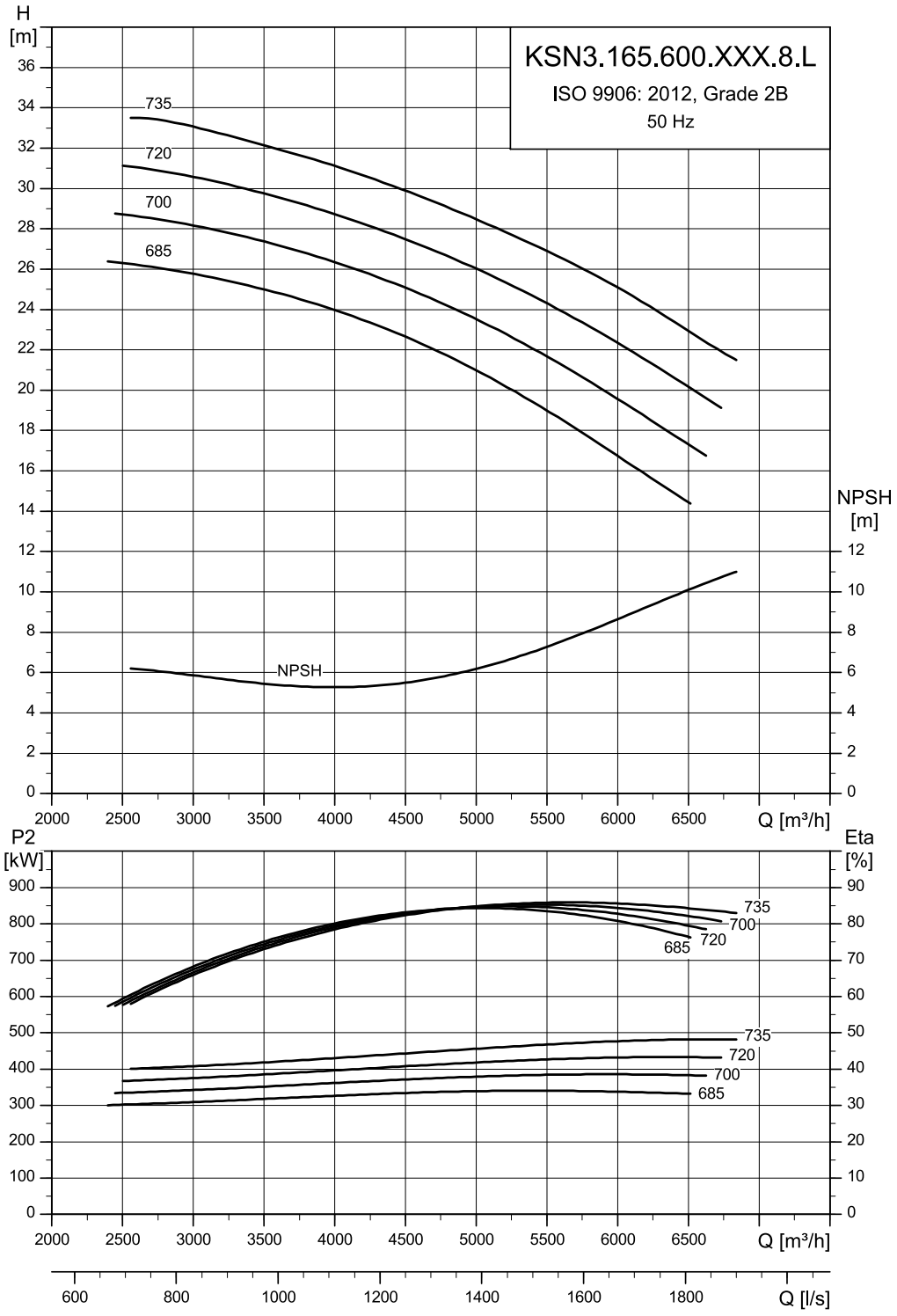
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN4.120.500.1320.8.M	132	50	720	8	500	PN10	555	120
KSN4.120.500.1600.8.M	160						595	
KSN4.120.500.2000.8.M	200						620	
KSN4.120.500.2500.8.M	250						655	
KSN4.120.500.3000.8.M	300						678	

KSN4.120.500.XXX.10.M



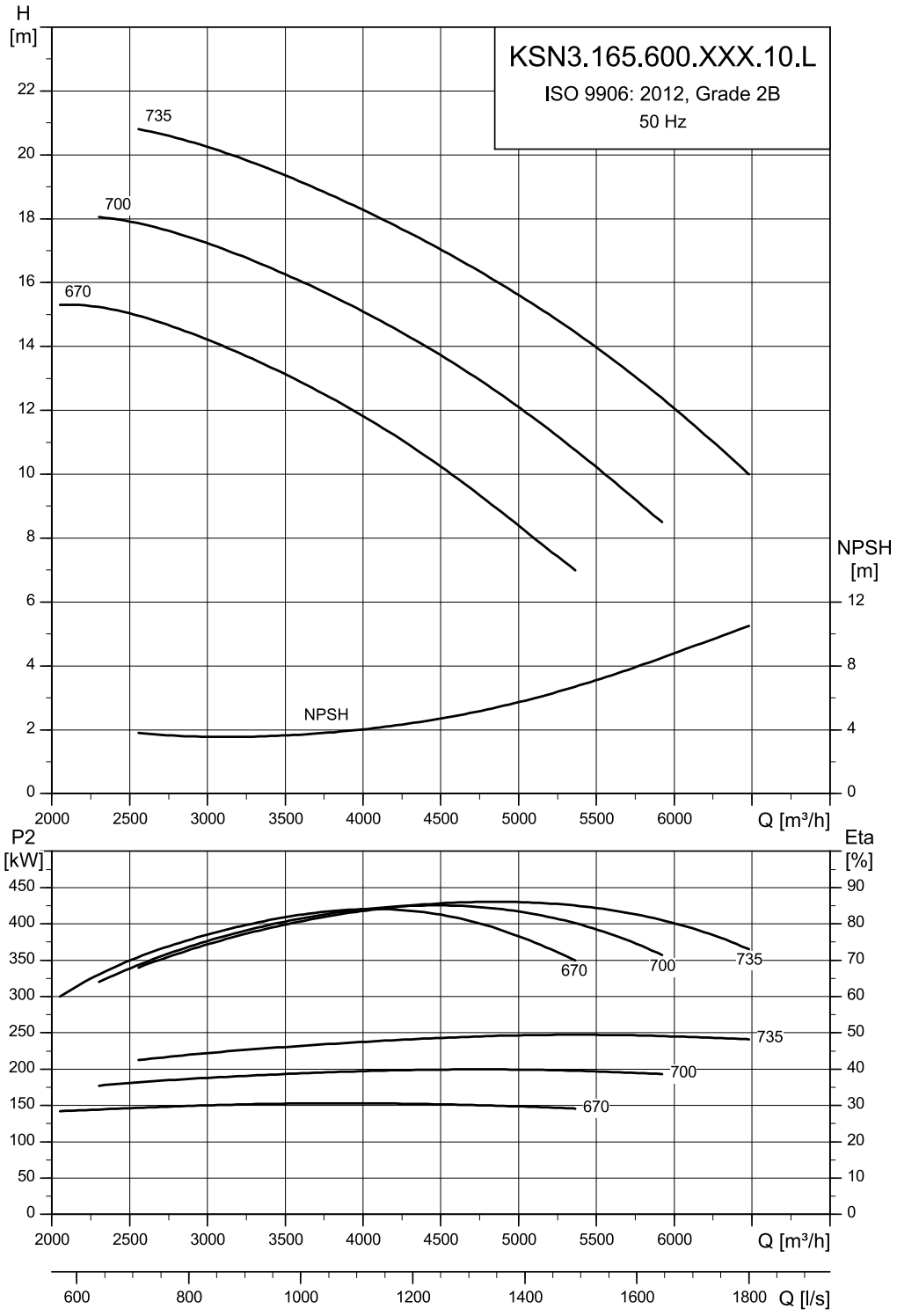
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN4.120.500.750.10.M	75	50	580	10	500	PN10	555	120
KSN4.120.500.900.10.M	90						595	
KSN4.120.500.1100.10.M	110						620	
KSN4.120.500.1320.10.M	132						655	
KSN4.120.500.1600.10.M	160						678	

KSN3.165.600.XXX.8.L



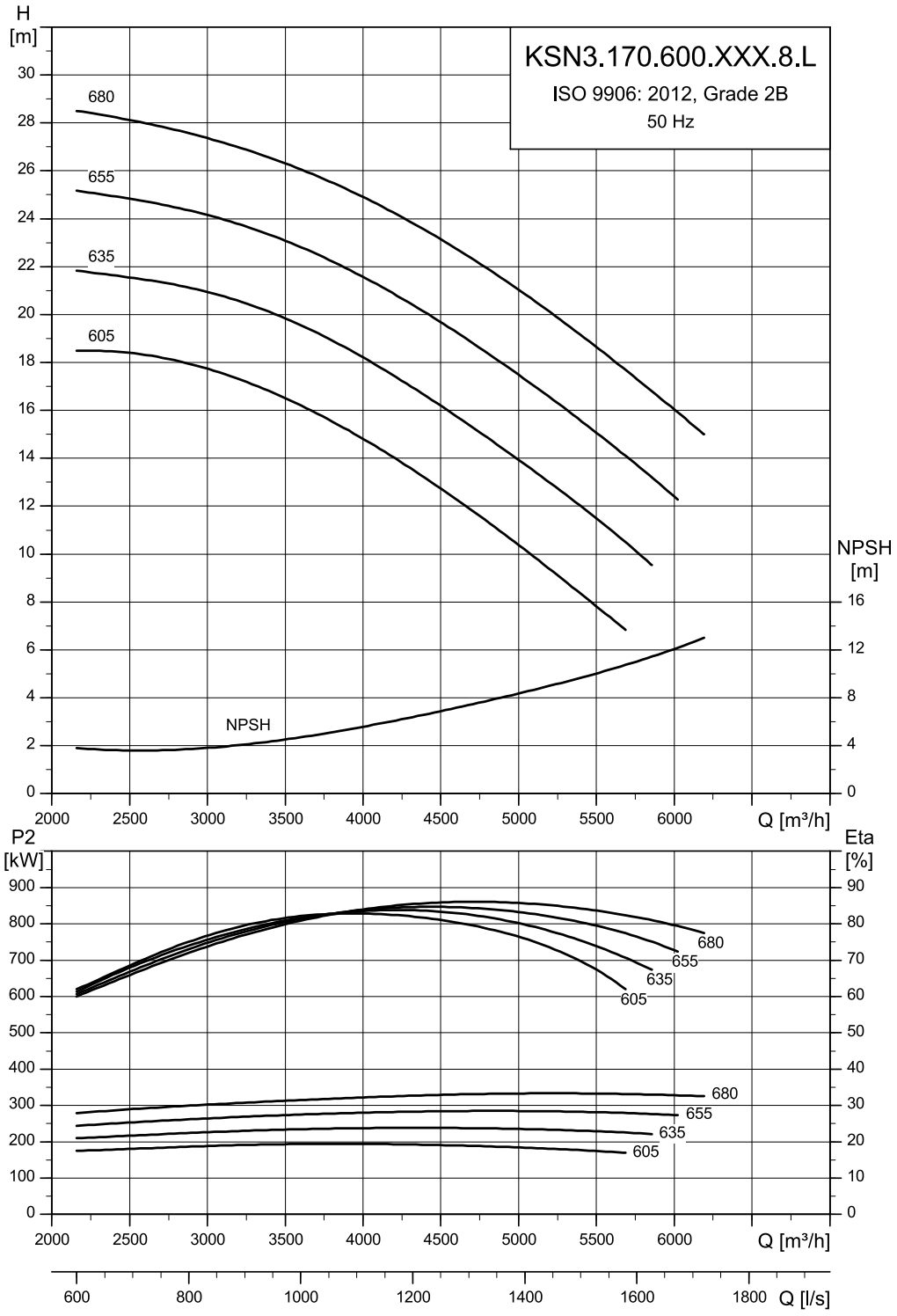
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.165.600.3500.8.L	350	50	720	8	600	PN10	685	165
KSN3.165.600.4000.8.L	400						700	
KSN3.165.600.4500.8.L	450						720	
KSN3.165.600.5000.8.L	500						735	

KSN3.165.600.XXX.10.L



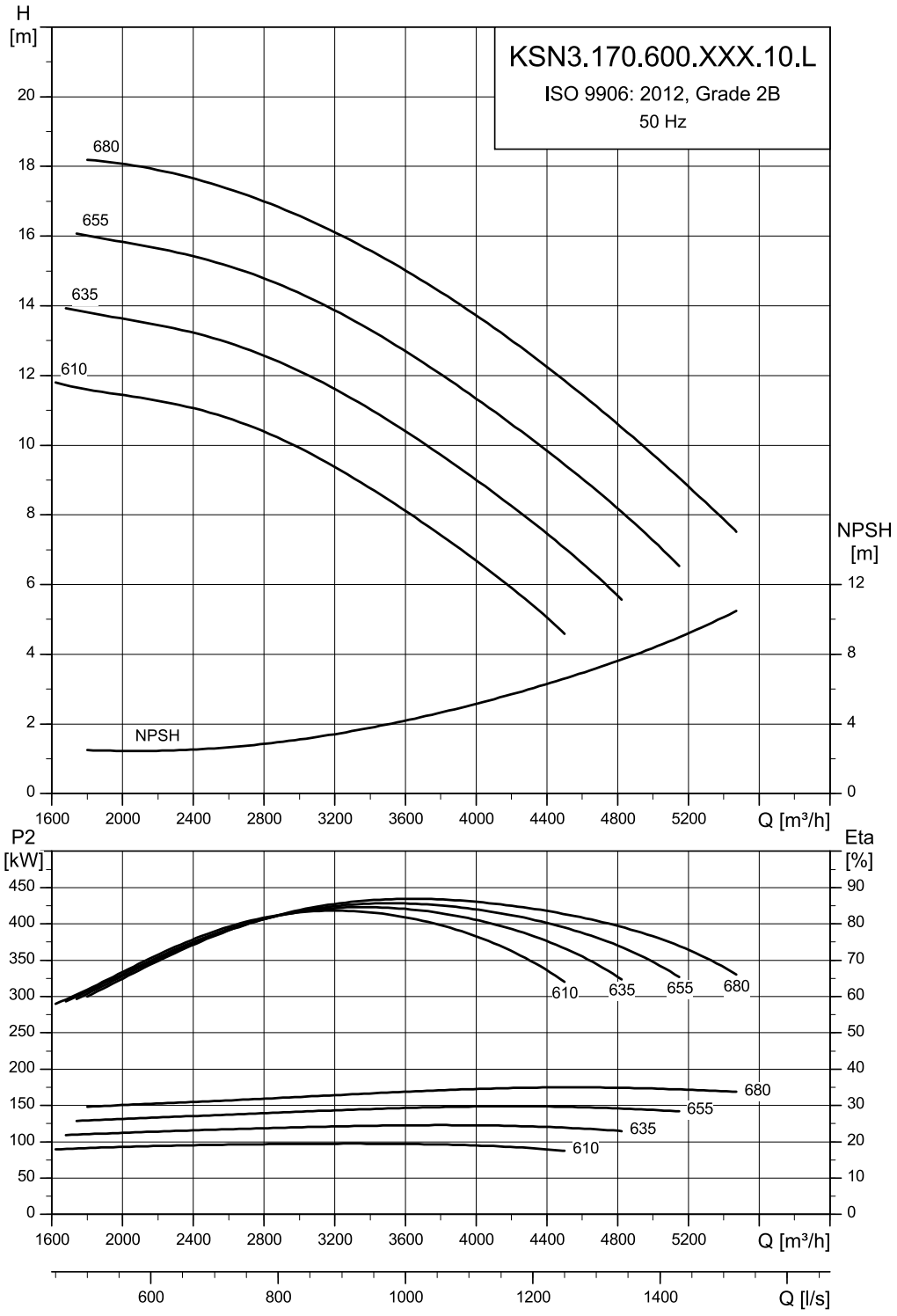
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.165.600.1600.10.L	160	50	580	10	600	PN10	670	165
KSN3.165.600.2000.10.L	200						700	
KSN3.165.600.2500.10.L	250						735	

KSN3.170.600.XXX.8.L



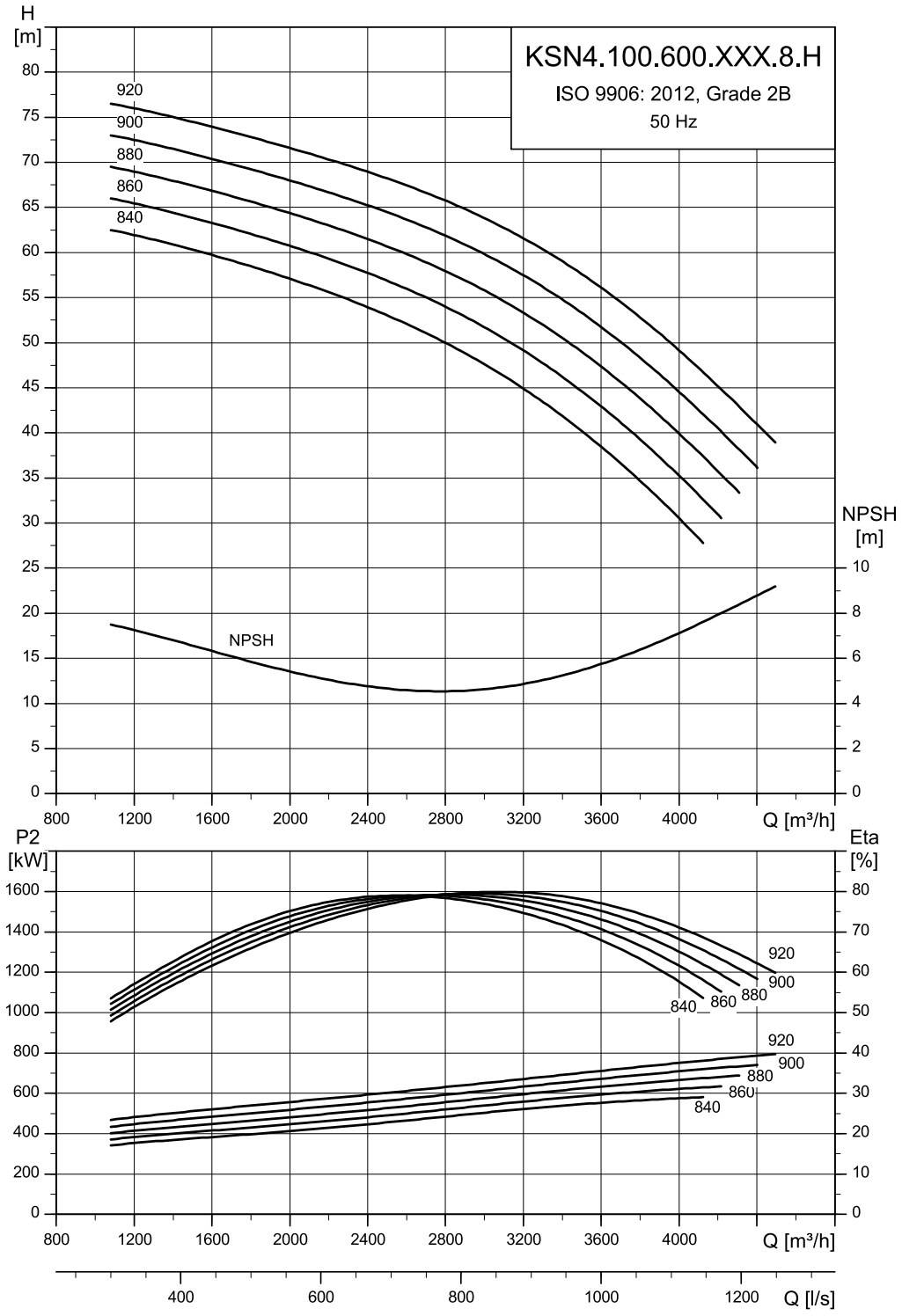
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.170.600.2000.8.L	200	50	720	8	600	PN10	605	170
KSN3.170.600.2500.8.L	250						635	
KSN3.170.600.3000.8.L	300						655	
KSN3.170.600.3500.8.L	350						680	

KSN3.170.600.XXX.10.L



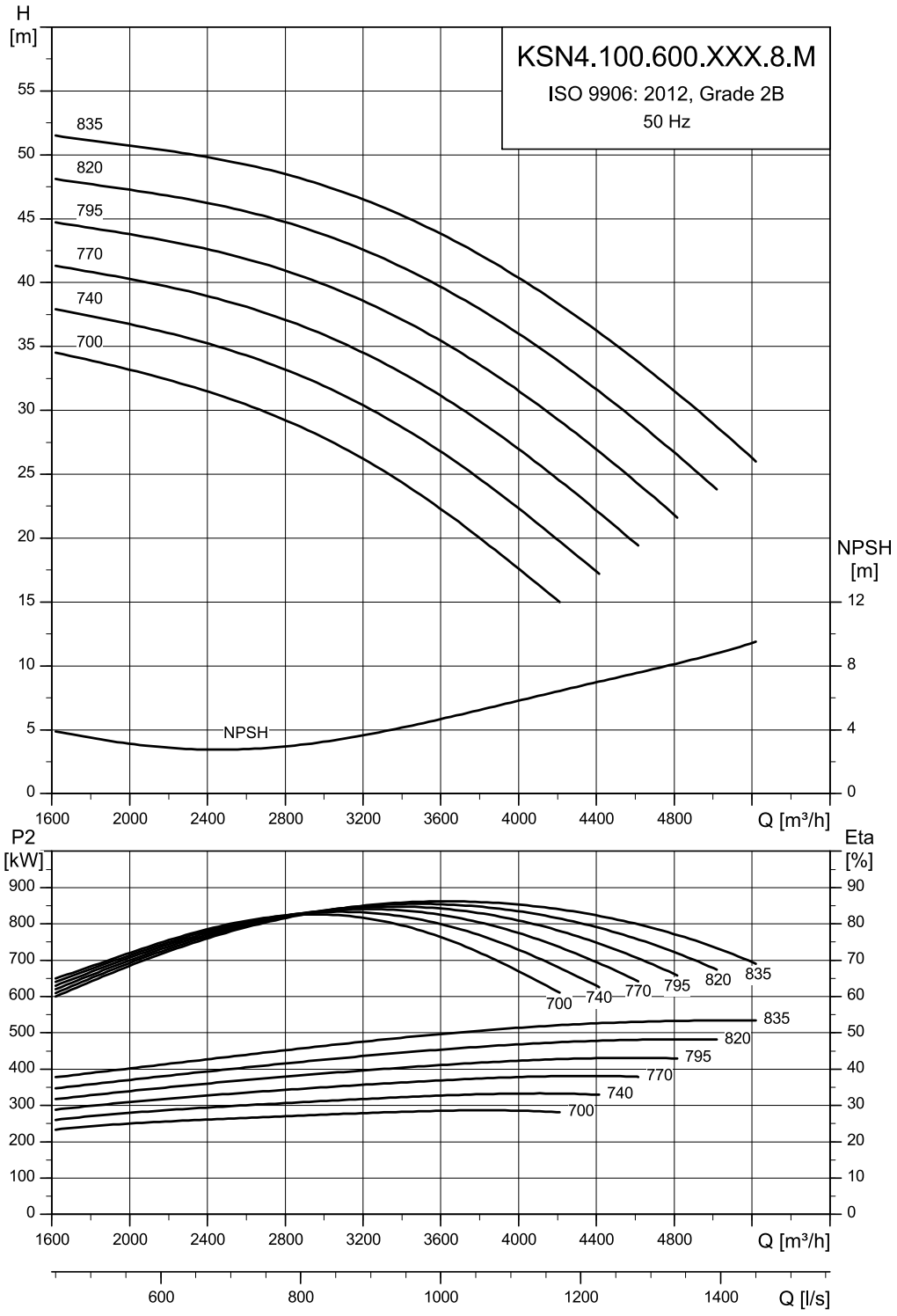
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.170.600.1100.10.L	110	50	580	10	600	PN10	610	170
KSN3.170.600.1320.10.L	132						635	
KSN3.170.600.1600.10.L	160						655	
KSN3.170.600.2000.10.L	200						680	

KSN4.100.600.XXX.8.H



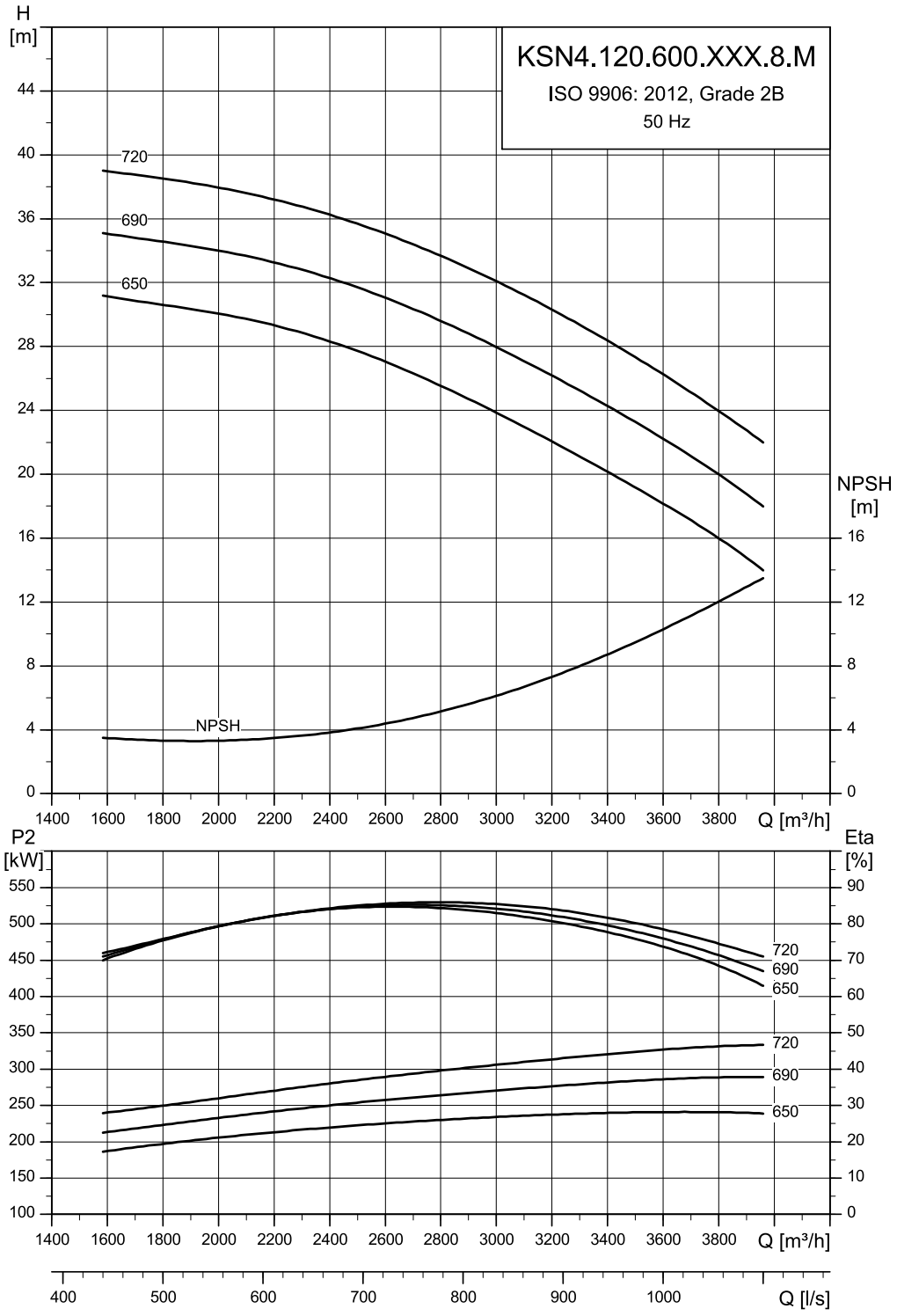
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN4.100.600.6000.8.H	600	50	720	8	600	PN10	840	100
KSN4.100.600.6500.8.H	650						860	
KSN4.100.600.7000.8.H	700						880	
KSN4.100.600.7500.8.H	750						900	
KSN4.100.600.8000.8.H	800						920	

KSN4.100.600.XXX.8.M



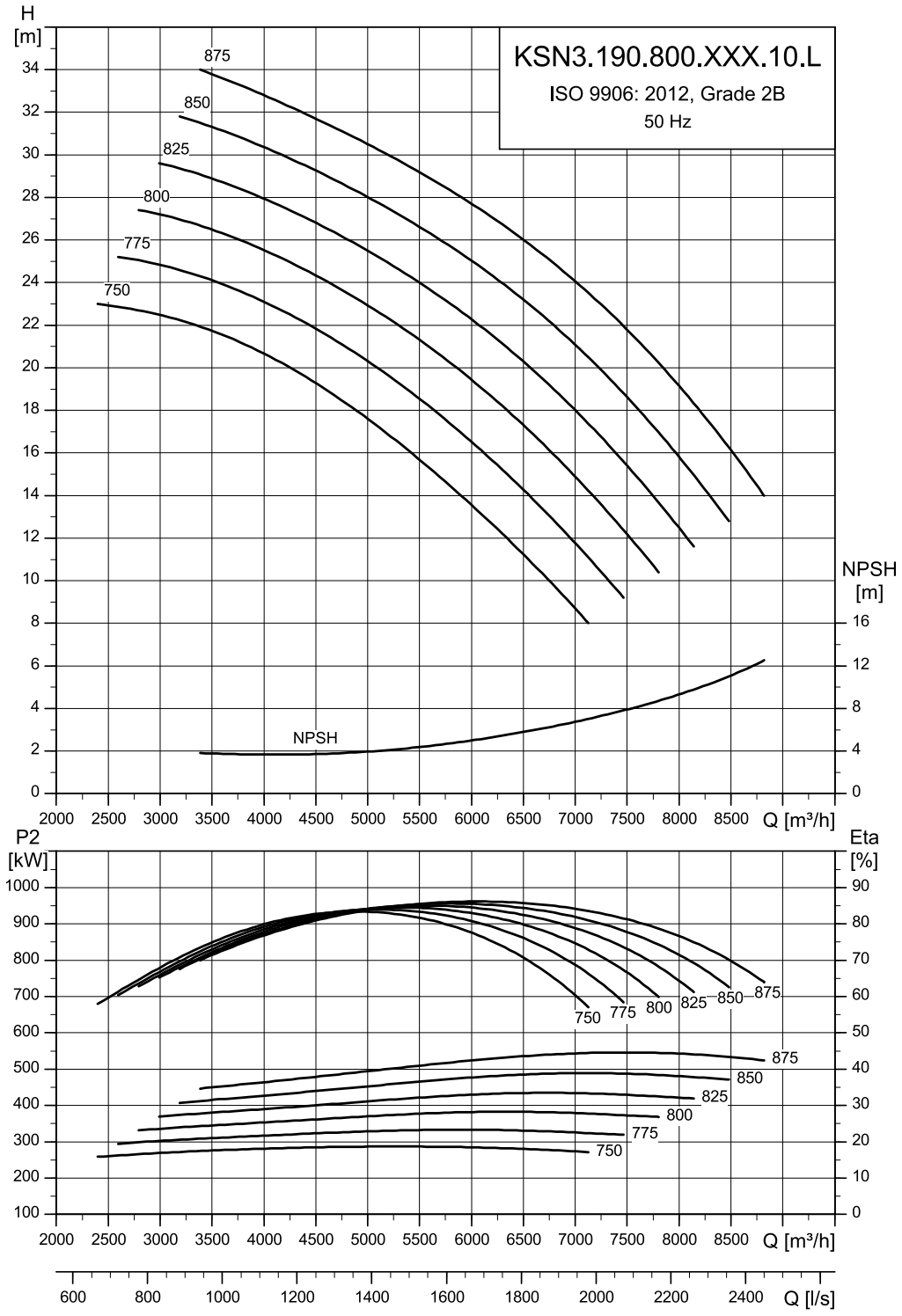
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN4.100.600.3000.8.M	300	50	720	8	600	PN10	700	100
KSN4.100.600.3500.8.M	350						740	
KSN4.100.600.4000.8.M	400						770	
KSN4.100.600.4500.8.M	450						795	
KSN4.100.600.5000.8.M	500						820	
KSN4.100.600.5500.8.M	550						835	

KSN4.120.600.XXX.8.M



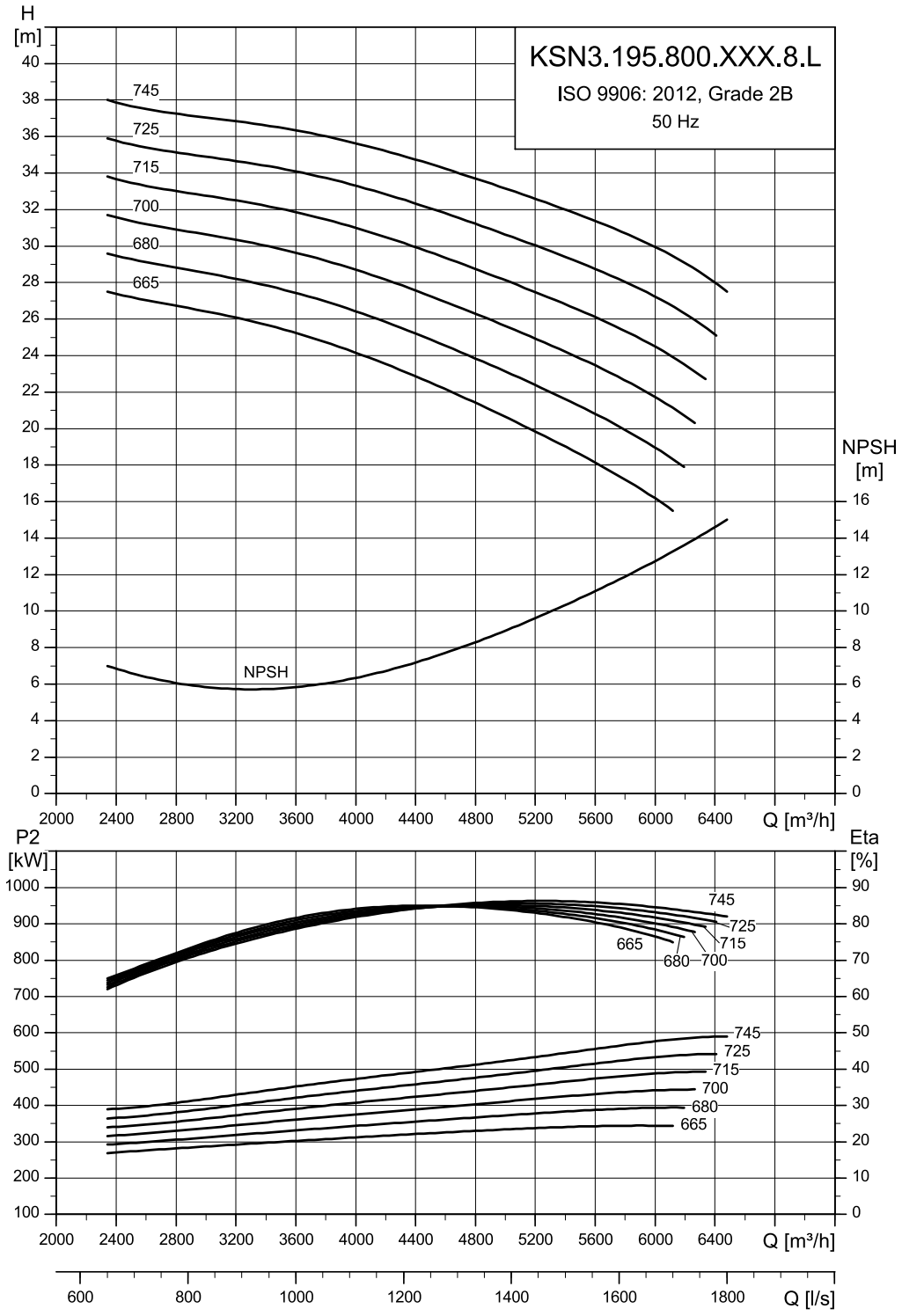
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN4.120.600.2500.8.M	250	50	720	8	600	PN10	650	120
KSN4.120.600.3000.8.M	300						690	
KSN4.120.600.3500.8.M	350						720	

KSN3.190.800.XXX.10.L



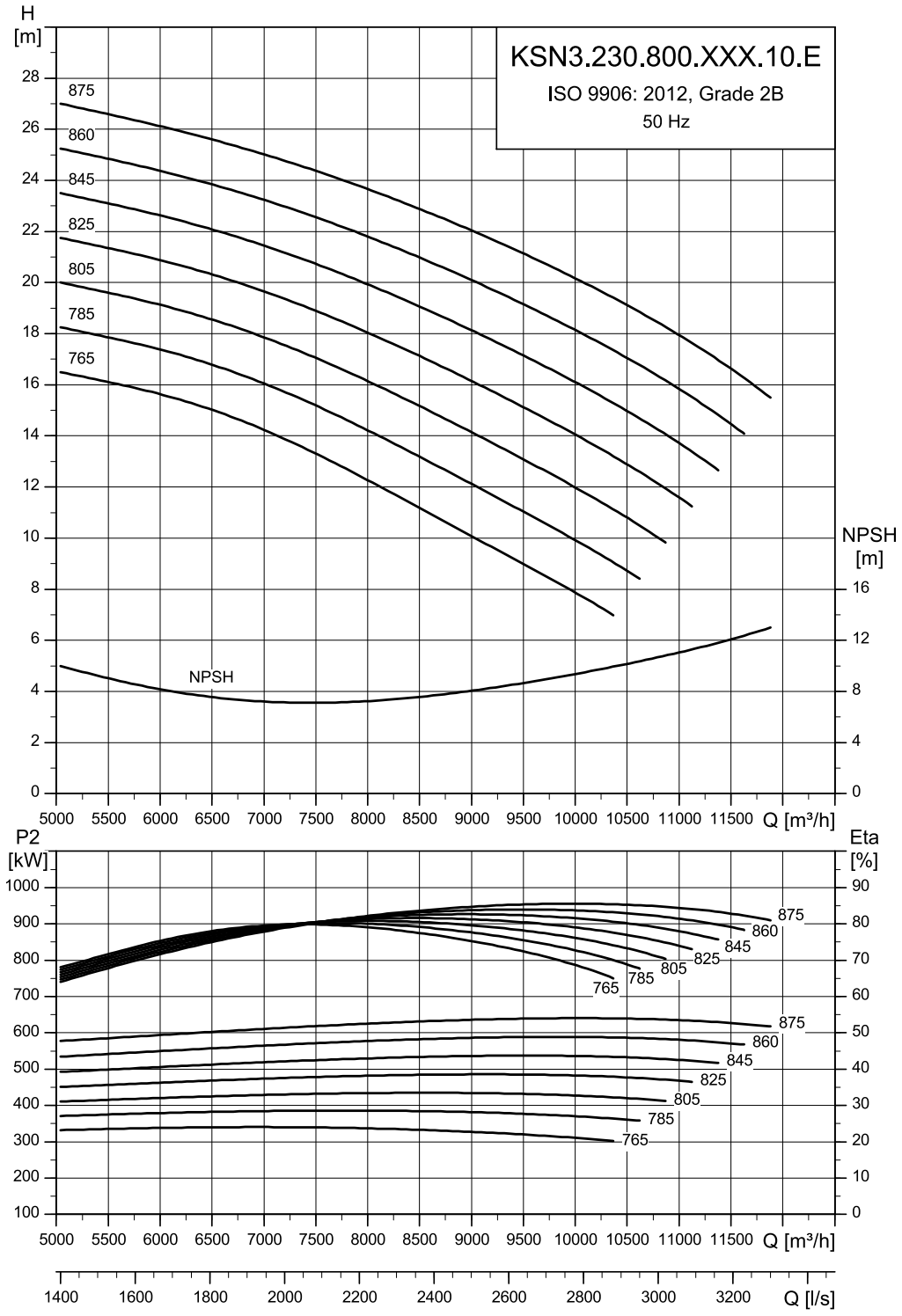
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.190.800.3000.10.L	300	50	580	10	800	PN10	750	190
KSN3.190.800.3500.10.L	350						775	
KSN3.190.800.4000.10.L	400						800	
KSN3.190.800.4500.10.L	450						825	
KSN3.190.800.5000.10.L	500						850	
KSN3.190.800.5500.10.L	550						875	

KSN3.195.800.XXX.8.L



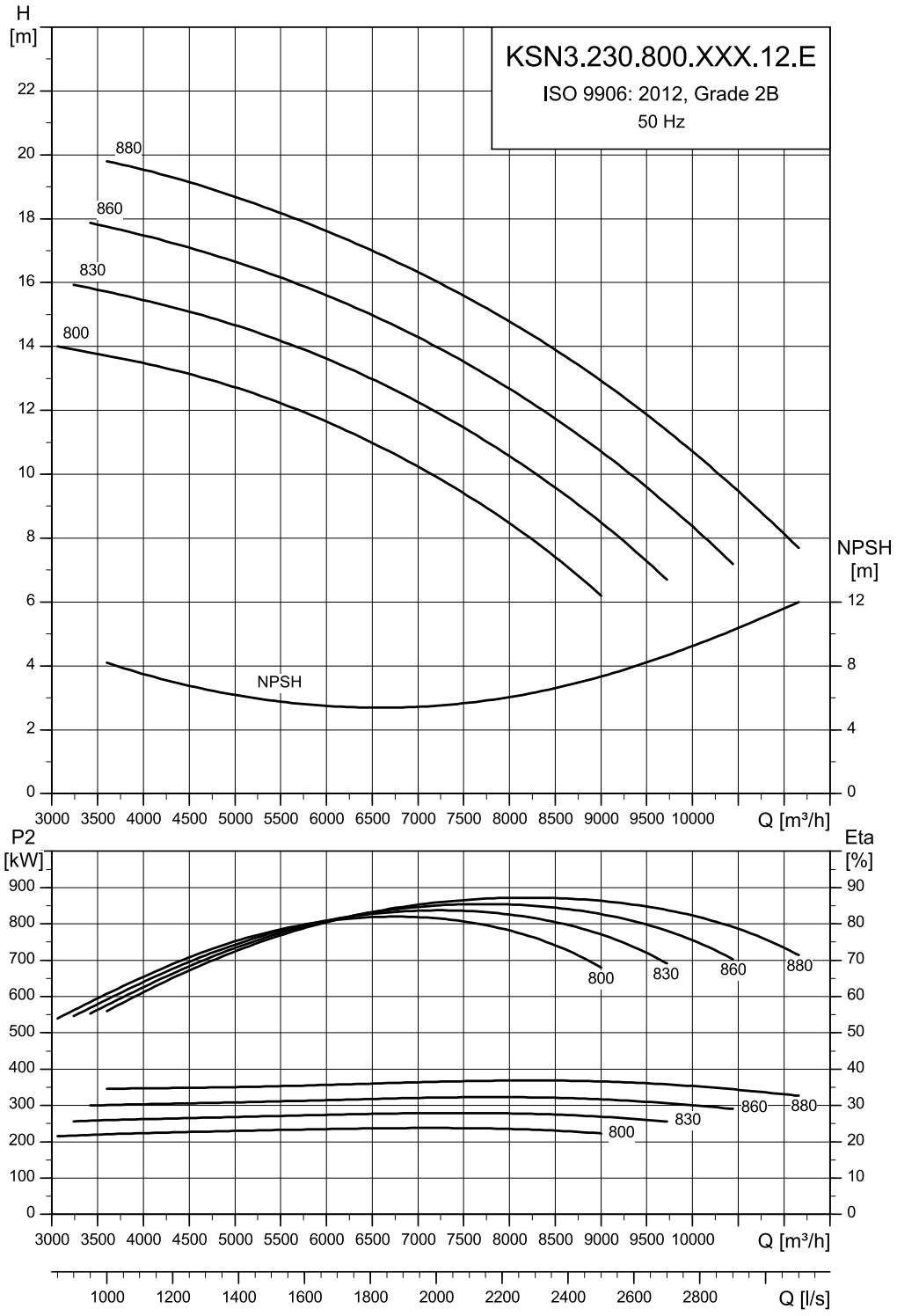
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.195.800.3500.8.L	350	50	720	8	800	PN10	665	195
KSN3.195.800.4000.8.L	400						680	
KSN3.195.800.4500.8.L	450						700	
KSN3.195.800.5000.8.L	500						715	
KSN3.195.800.5500.8.L	550						725	
KSN3.195.800.6000.8.L	600						745	

KSN3.230.800.XXX.10.E



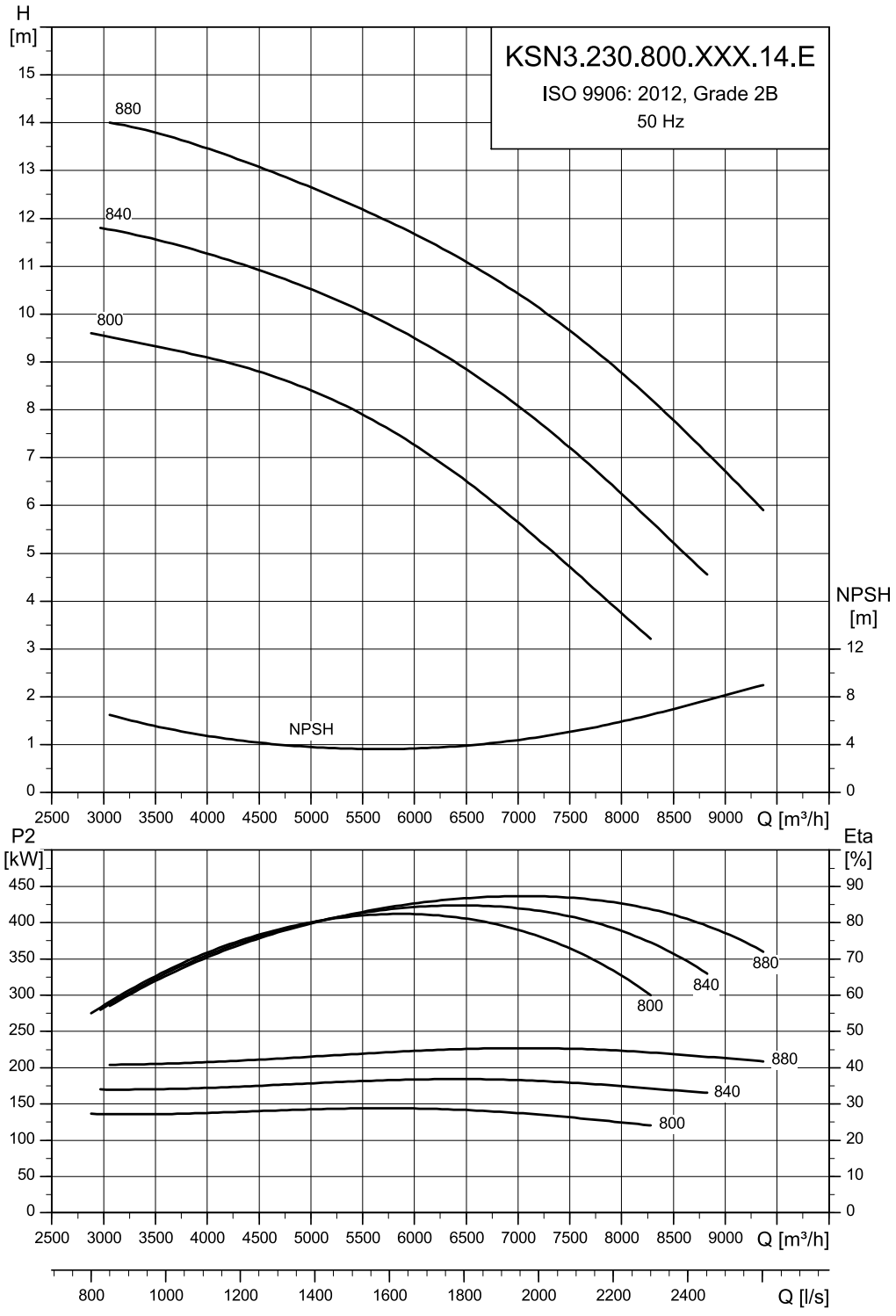
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.230.800.3500.10.E	350	50	580	10	800	PN10	765	230
KSN3.230.800.4000.10.E	400						785	
KSN3.230.800.4500.10.E	450						805	
KSN3.230.800.5000.10.E	500						825	
KSN3.230.800.5500.10.E	550						845	
KSN3.230.800.6000.10.E	600						860	
KSN3.230.800.6500.10.E	650						875	

KSN3.230.800.XXX.12.E



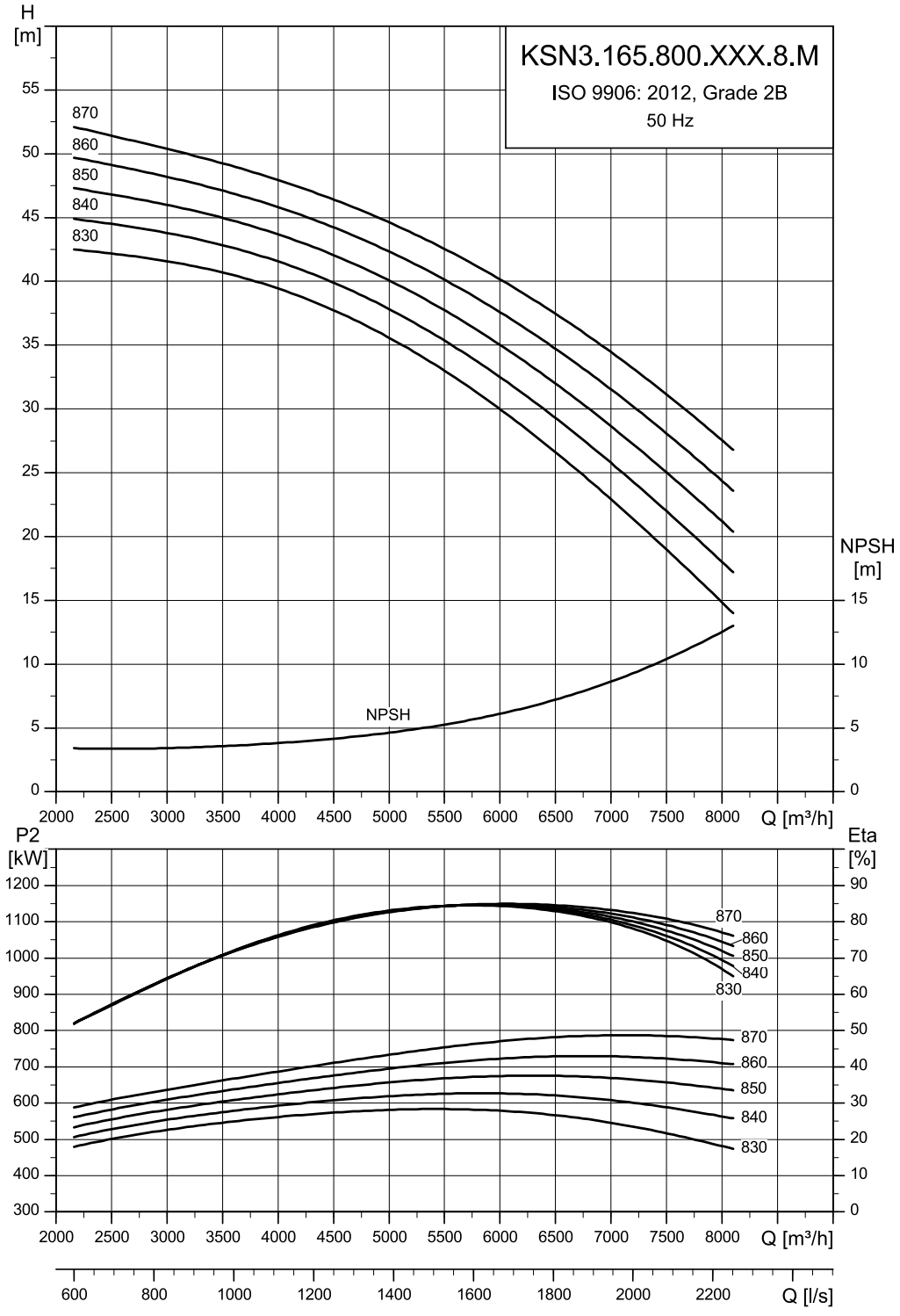
Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.230.800.2500.12.E	250	50	485	12	800	PN10	800	230
KSN3.230.800.3000.12.E	300						830	
KSN3.230.800.3500.12.E	350						860	
KSN3.230.800.4000.12.E	400						880	

KSN3.230.800.XXX.14.E



Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.230.800.1600.14.E	160	50	410	14	800	PN10	800	230
KSN3.230.800.2000.14.E	200						840	
KSN3.230.800.2500.14.E	250						880	

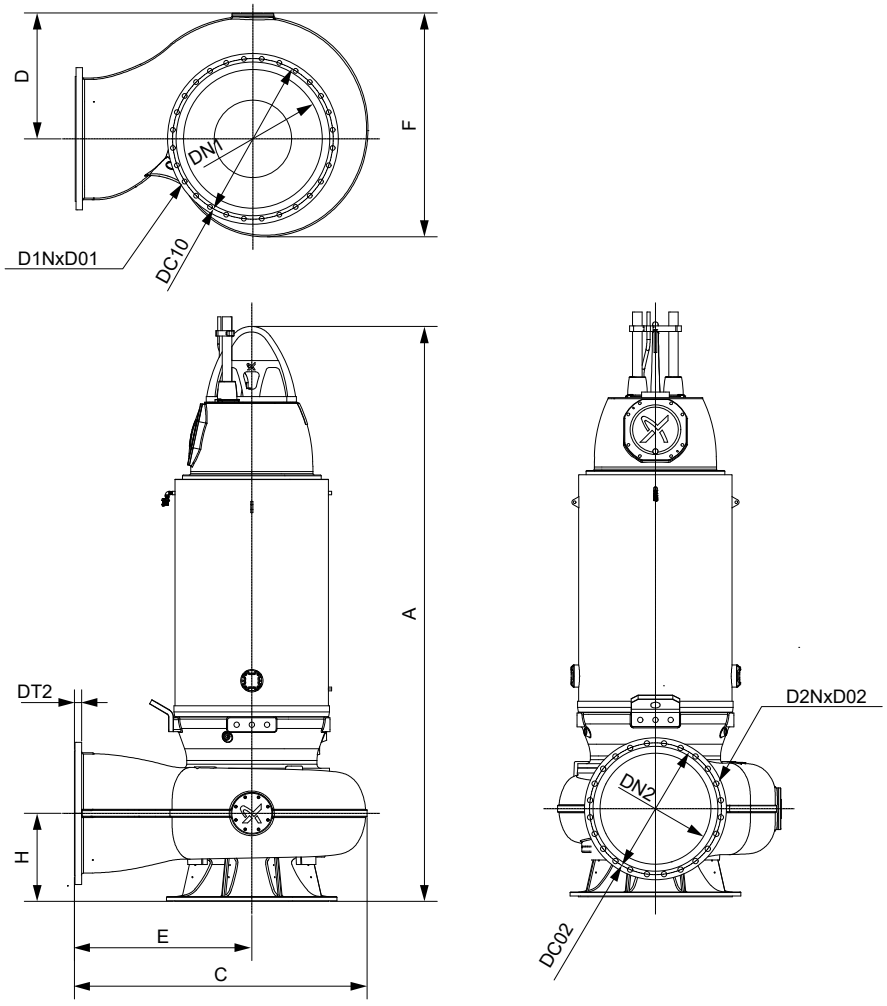
KSN3.165.800.XXX.8.M



Model	Motor [kW]	Frequency [Hz]	Rated speed [rpm]	No.of poles	Pump outlet [mm]	Pump housing pressure	Impeller diameter [mm]	Max. solids size [mm]
KSN3.165.800.6000.8.M	600	50	720	8	800	PN10	830	165
KSN3.165.800.6500.8.M	650						840	
KSN3.165.800.7000.8.M	700						850	
KSN3.165.800.7500.8.M	750						860	
KSN3.165.800.8000.8.M	800						870	

9. Dimensions

Pump without accessories



DN500

Pump type	A	C	D	D01	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H
KSN3.120.500.3000.6.H	3195	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.3500.6.H	3195	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.4000.6.H	3300	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.4500.6.H	3300	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.5000.6.H	3500	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.5500.6.H	3500	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.6000.6.H	3500	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.1600.8.H	2995	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.2000.8.H	2995	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.2500.8.H	3195	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN3.120.500.3000.8.H	3195	1542	650	27	27	20	20	620	620	500	500	40	970	1175	370
KSN4.120.500.1320.8.M	2880	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.1600.8.M	3080	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.2000.8.M	3080	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.2500.8.M	3280	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455

Pump type	A	C	D	D01	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H
KSN4.120.500.3000.8.M	3280	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.750.10.M	2875	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.900.10.M	2875	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.1100.10.M	3080	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.1320.10.M	3080	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455
KSN4.120.500.1600.10.M	3280	1515	670	30	27	20	20	620	725	600	500	40	920	1190	455

DN600

Pump type	A	C	D	D01	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H
KSN4.100.600.6000.8.H	3968	1925	815	33	30	24	20	725	950	800	600	44	1200	1470	510
KSN4.100.600.6500.8.H	3968	1925	815	33	30	24	20	725	950	800	600	44	1200	1470	510
KSN4.100.600.7000.8.H	3968	1925	815	33	30	24	20	725	950	800	600	44	1200	1470	510
KSN4.100.600.7500.8.H	3968	1925	815	33	30	24	20	725	950	800	600	44	1200	1470	510
KSN4.100.600.8000.8.H	3968	1925	815	33	30	24	20	725	950	800	600	44	1200	1470	510
KSN4.120.600.2500.8.M	3333	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.120.600.3000.8.M	3333	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.120.600.3500.8.M	3438	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.3000.8.M	3333	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.3500.8.M	3438	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.4000.8.M	3438	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.4500.8.M	3638	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.5000.8.M	3638	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN4.100.600.5500.8.M	3638	1835	805	30	30	24	20	725	800	700	600	44	1125	1455	510
KSN3.170.600.2000.8.L	3165	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.2500.8.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.3000.8.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.3500.8.L	3470	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.3500.8.L	3470	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.4000.8.L	3470	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.4500.8.L	3670	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.5000.8.L	3670	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.1100.10.L	3165	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.1320.10.L	3165	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.1600.10.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.170.600.2000.10.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.1600.10.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.2000.10.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510
KSN3.165.600.2500.10.L	3365	1865	865	33	30	24	20	725	950	800	600	44	1125	1490	510

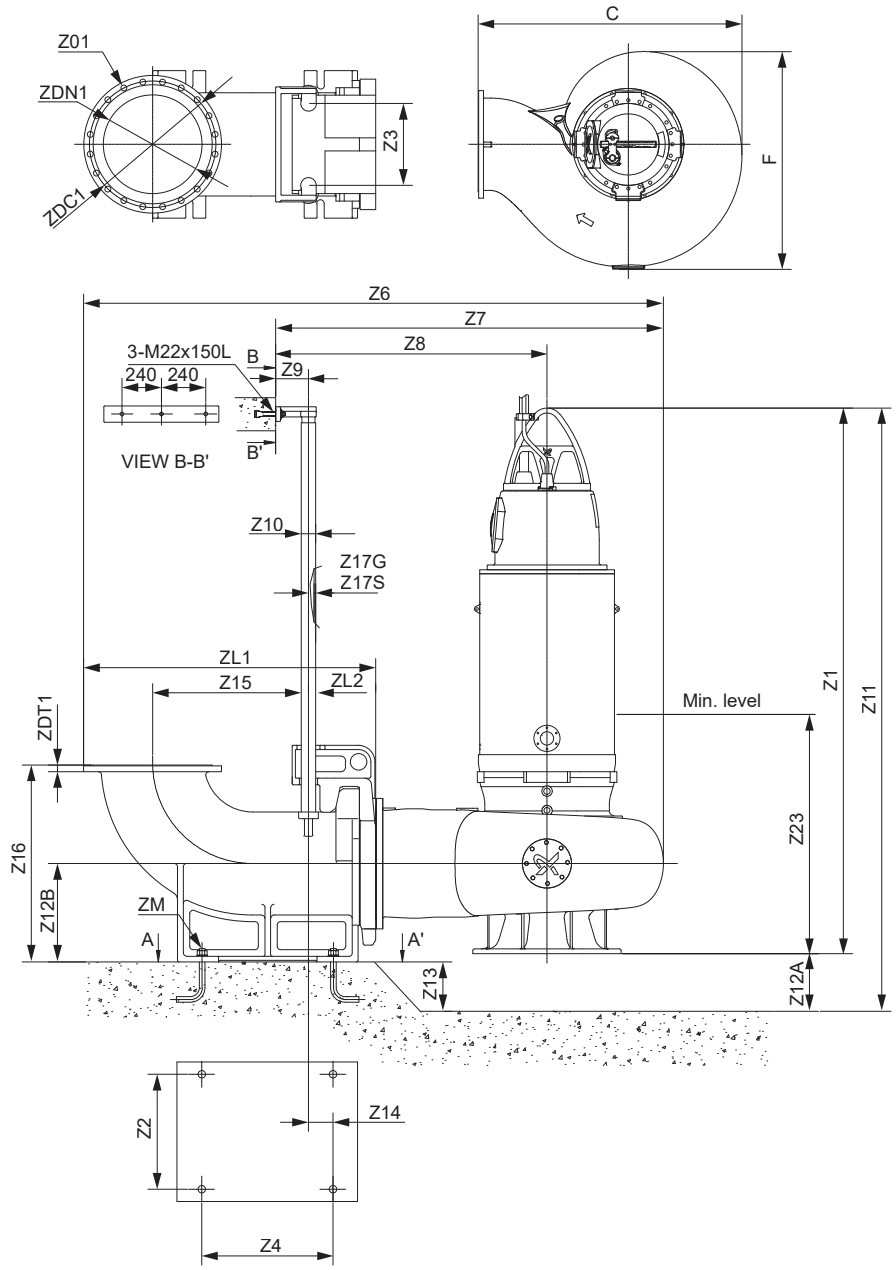
DN800

Pump type	A	C	D	D01	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H
KSN3.165.800.6000.8.M	4093	2240	1025	36	33	28	24	950	1110	1000	800	50	1350	1760	635
KSN3.165.800.6500.8.M	4093	2240	1025	36	33	28	24	950	1110	1000	800	50	1350	1760	635
KSN3.165.800.7000.8.M	4093	2240	1025	36	33	28	24	950	1110	1000	800	50	1350	1760	635
KSN3.165.800.7500.8.M	4093	2240	1025	36	33	28	24	950	1110	1000	800	50	1350	1760	635
KSN3.165.800.8000.8.M	4093	2240	1025	36	33	28	24	950	1110	1000	800	50	1350	1760	635
KSN3.195.800.3500.8.L	3630	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.195.800.4000.8.L	3630	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.195.800.4500.8.L	3830	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.195.800.5000.8.L	3830	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.195.800.5500.8.L	3830	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.195.800.6000.8.L	4135	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.190.800.3000.10.L	3630	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.190.800.3500.10.L	3630	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635

Pump type	A	C	D	D01	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H
KSN3.190.800.4000.10.L	3830	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.190.800.4500.10.L	3830	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.190.800.5000.10.L	4135	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.190.800.5500.10.L	4135	2115	910	36	33	28	24	950	1110	1000	800	52	1280	1615	635
KSN3.230.800.3500.10.E	3657	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.4000.10.E	3857	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.4500.10.E	3857	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.5000.10.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.5500.10.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.6000.10.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.6500.10.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.2500.12.E	3657	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.3000.12.E	3857	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.3500.12.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.4000.12.E	4162	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.1600.14.E	3657	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.2000.14.E	3857	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635
KSN3.230.800.2500.14.E	3857	2515	1191	36	33	28	24	950	1110	1000	800	52	1430	2075	635

The dimensions are based on 380V and may vary depending on conditions.

Installation on auto-coupling



TM088857

DN500 part 1

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN3.120.500.3000.6.H	1542	1175	20×27	3195	700	500	800		3000	2082	1510	200	88.9	3675	480
KSN3.120.500.3500.6.H	1542	1175	20×27	3195	700	500	800		3000	2082	1510	200	88.9	3675	480
KSN3.120.500.4000.6.H	1542	1175	20×27	3300	700	500	800		3000	2082	1510	200	88.9	3780	480
KSN3.120.500.4500.6.H	1542	1175	20×27	3300	700	500	800		3067	2082	1510	200	88.9	3780	480
KSN3.120.500.5000.6.H	1542	1175	20×27	3500	700	500	800		3067	2082	1510	200	88.9	3980	480
KSN3.120.500.5500.6.H	1542	1175	20×27	3500	700	500	800		3067	2082	1510	200	88.9	3980	480
KSN3.120.500.6000.6.H	1542	1175	20×27	3500	700	500	800		3067	2082	1510	200	88.9	3980	480
KSN3.120.500.1600.8.H	1542	1175	20×27	2995	700	500	800		3000	2082	1510	200	88.9	3475	480
KSN3.120.500.2000.8.H	1542	1175	20×27	2995	700	500	800		3000	2082	1510	200	88.9	3475	480
KSN3.120.500.2500.8.H	1542	1175	20×27	3195	700	500	800		3000	2082	1510	200	88.9	3675	480
KSN3.120.500.3000.8.H	1542	1175	20×27	3195	700	500	800		3000	2082	1510	200	88.9	3675	480
KSN4.120.500.1320.8.M	1515	1190	20×27	2880	700	500	800		2973	2055	1460	200	88.9	3275	395

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN4.120.500.1600.8.M	1515	1190	20×27	3080	700	500	800		2973	2055	1460	200	88.9	3475	395
KSN4.120.500.2000.8.M	1515	1190	20×27	3080	700	500	800		2973	2055	1460	200	88.9	3475	395
KSN4.120.500.2500.8.M	1515	1190	20×27	3280	700	500	800		2973	2055	1460	200	88.9	3675	395
KSN4.120.500.3000.8.M	1515	1190	20×27	3280	700	500	800		2973	2055	1460	200	88.9	3675	395
KSN4.120.500.750.10.M	1515	1190	20×27	2875	700	500	800		2973	2055	1460	200	88.9	3270	395
KSN4.120.500.900.10.M	1515	1190	20×27	2875	700	500	800		2973	2055	1460	200	88.9	3270	395
KSN4.120.500.1100.10.M	1515	1190	20×27	3080	700	500	800		2973	2055	1460	200	88.9	3475	395
KSN4.120.500.1320.10.M	1515	1190	20×27	3080	700	500	800		2973	2055	1460	200	88.9	3475	395
KSN4.120.500.1600.10.M	1515	1190	20×27	3280	700	500	800		2973	2055	1460	200	88.9	3675	395

DN500 part 2

Pump type	Z12B	Z13	Z14	Z15	Z16	Z23	Z17G	Z17S	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
KSN3.120.500.3000.6.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.3500.6.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.4000.6.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.4500.6.H	600	250	102	850	1100	1100	4	4	620	500	40	1525	340	4-M42
KSN3.120.500.5000.6.H	600	250	102	850	1100	1100	4	4	620	500	40	1525	340	4-M42
KSN3.120.500.5500.6.H	600	250	102	850	1100	1100	4	4	620	500	40	1525	340	4-M42
KSN3.120.500.6000.6.H	600	250	102	850	1100	1100	4	4	620	500	40	1525	340	4-M42
KSN3.120.500.1600.8.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.2000.8.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.2500.8.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN3.120.500.3000.8.H	600	250	102	780	1100	1100	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.1320.8.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.1600.8.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.2000.8.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.2500.8.M	600	250	102	780	1100	1465	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.3000.8.M	600	250	102	780	1100	1465	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.750.10.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.900.10.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.1100.10.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.1320.10.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42
KSN4.120.500.1600.10.M	600	250	102	780	1100	1165	4	4	620	500	40	1457.5	340	4-M42

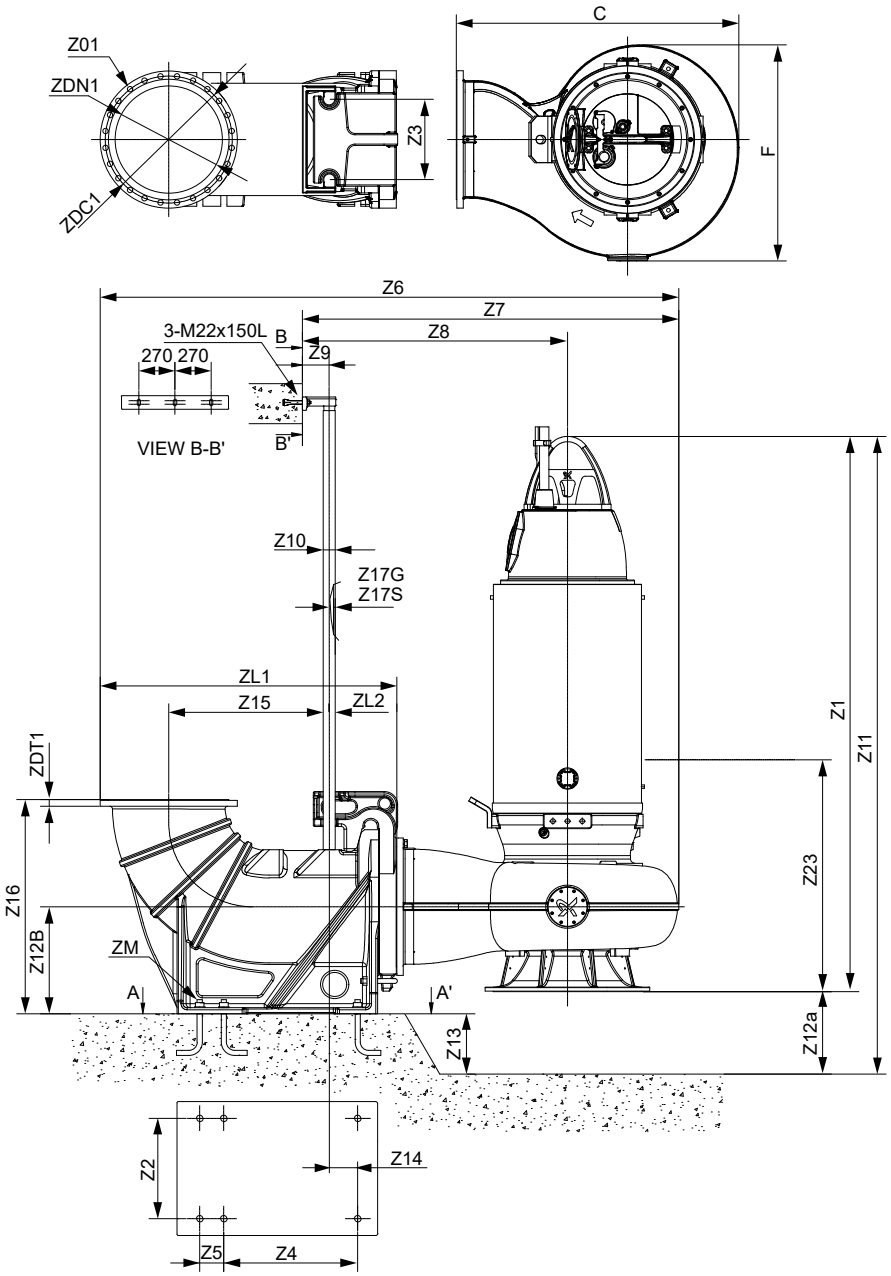
DN600 part 1

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN4.100.600.6000.8.H	1925	1470	20×30	3968	700	500	800		3675	2535	1810	200	88.9	4358	390
KSN4.100.600.6500.8.H	1925	1470	20×30	3968	700	500	800		3675	2535	1810	200	88.9	4358	390
KSN4.100.600.7000.8.H	1925	1470	20×30	3968	700	500	800		3675	2535	1810	200	88.9	4358	390
KSN4.100.600.7500.8.H	1925	1470	20×30	3968	700	500	800		3675	2535	1810	200	88.9	4358	390
KSN4.100.600.8000.8.H	1925	1470	20×30	3968	700	500	800		3675	2535	1810	200	88.9	4358	390
KSN4.120.600.2500.8.M	1835	1455	20×30	3333	700	500	800		3585	2445	1735	200	88.9	3723	390
KSN4.120.600.3000.8.M	1835	1455	20×30	3333	700	500	800		3585	2445	1735	200	88.9	3723	390
KSN4.120.600.3500.8.M	1835	1455	20×30	3438	700	500	800		3585	2445	1735	200	88.9	3828	390
KSN4.100.600.3000.8.M	1835	1455	20×30	3333	700	500	800		3585	2445	1735	200	88.9	3723	390
KSN4.100.600.3500.8.M	1835	1455	20×30	3438	700	500	800		3585	2445	1735	200	88.9	3828	390
KSN4.100.600.4000.8.M	1835	1455	20×30	3438	700	500	800		3585	2445	1735	200	88.9	3828	390
KSN4.100.600.4500.8.M	1835	1455	20×30	3638	700	500	800		3585	2445	1735	200	88.9	4028	390
KSN4.100.600.5000.8.M	1835	1455	20×30	3638	700	500	800		3585	2445	1735	200	88.9	4028	390
KSN4.100.600.5500.8.M	1835	1455	20×30	3638	700	500	800		3585	2445	1735	200	88.9	4028	390
KSN3.170.600.2000.8.L	1865	1490	20×30	3165	700	500	800		3615	2475	1735	200	88.9	3555	390
KSN3.170.600.2500.8.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.170.600.3000.8.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.170.600.3500.8.L	1865	1490	20×30	3470	700	500	800		3615	2475	1735	200	88.9	3860	390

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN3.165.600.3500.8.L	1865	1490	20×30	3470	700	500	800		3615	2475	1735	200	88.9	3860	390
KSN3.165.600.4000.8.L	1865	1490	20×30	3470	700	500	800		3615	2475	1735	200	88.9	3860	390
KSN3.165.600.4500.8.L	1865	1490	20×30	3670	700	500	800		3615	2475	1735	200	88.9	4060	390
KSN3.165.600.5000.8.L	1865	1490	20×30	3670	700	500	800		3615	2475	1735	200	88.9	4060	390
KSN3.170.600.1100.10.L	1865	1490	20×30	3165	700	500	800		3615	2475	1735	200	88.9	3555	390
KSN3.170.600.1320.10.L	1865	1490	20×30	3165	700	500	800		3615	2475	1735	200	88.9	3555	390
KSN3.170.600.1600.10.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.170.600.2000.10.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.165.600.1600.10.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.165.600.2000.10.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390
KSN3.165.600.2500.10.L	1865	1490	20×30	3365	700	500	800		3615	2475	1735	200	88.9	3755	390

DN600 part 2

Pump type	Z12B	Z13	Z14	Z15	Z16	Z23	Z17G	Z17S	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
KSN4.100.600.6000.8.H	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.6500.8.H	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.7000.8.H	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.7500.8.H	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.8000.8.H	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN4.120.600.2500.8.M	600	300	152	950	1200	1310	4	4	725	600	40	1750	410	4-M42
KSN4.120.600.3000.8.M	600	300	152	950	1200	1310	4	4	725	600	40	1750	410	4-M42
KSN4.120.600.3500.8.M	600	300	152	950	1200	1310	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.3000.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.3500.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.4000.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.4500.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.5000.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN4.100.600.5500.8.M	600	300	152	950	1200	1240	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.2000.8.L	600	300	152	950	1200	1510	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.2500.8.L	600	300	152	950	1200	1510	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.3000.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.3500.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.3500.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.4000.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.4500.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.5000.8.L	600	300	152	950	1200	2010	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.1100.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.1320.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.1600.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.170.600.2000.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.1600.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.2000.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42
KSN3.165.600.2500.10.L	600	300	152	950	1200	1270	4	4	725	600	40	1750	410	4-M42



DN800 part 1

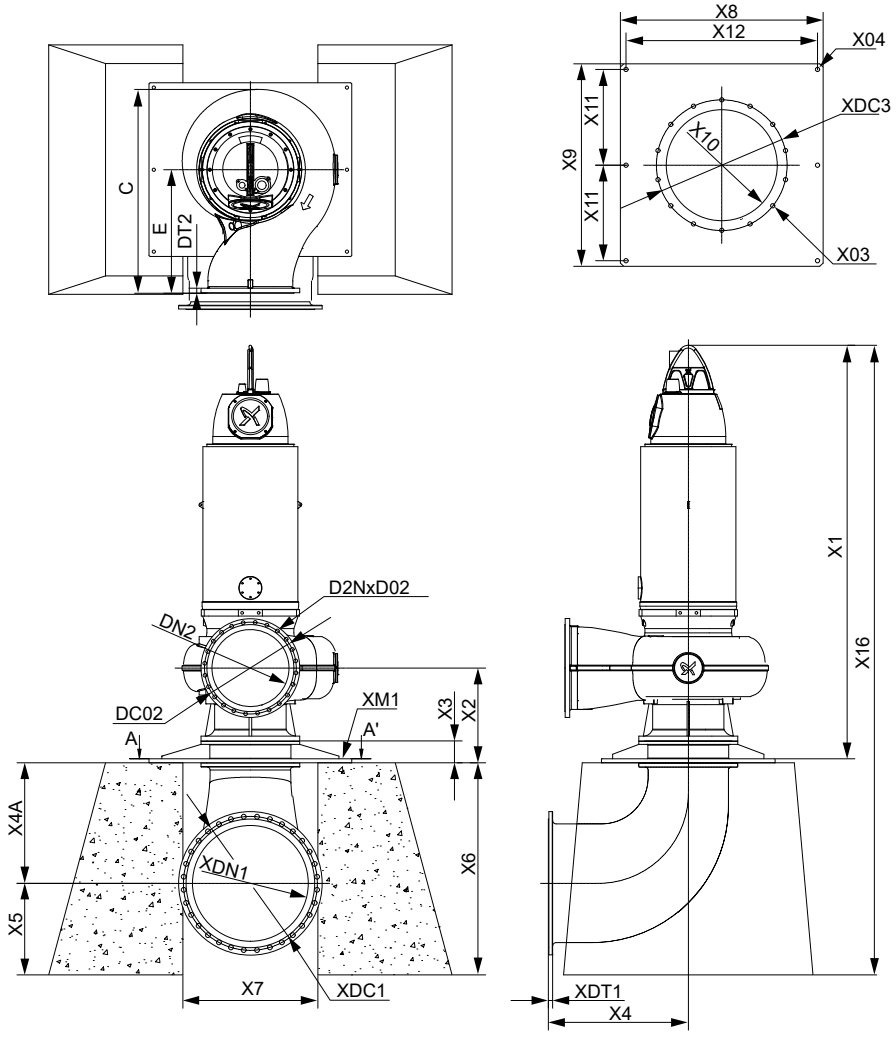
Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN3.165.800.6000.8.M	2240	1760	24×33	4093	800	600	1000	180	4448	2940	2050	200	88.9	4708	615
KSN3.165.800.6500.8.M	2240	1760	24×33	4093	800	600	1000	180	4448	2940	2050	200	88.9	4708	615
KSN3.165.800.7000.8.M	2240	1760	24×33	4093	800	600	1000	180	4448	2940	2050	200	88.9	4708	615
KSN3.165.800.7500.8.M	2240	1760	24×33	4093	800	600	1000	180	4448	2940	2050	200	88.9	4708	615
KSN3.165.800.8000.8.M	2240	1760	24×33	4093	800	600	1000	180	4448	2940	2050	200	88.9	4708	615
KSN3.195.800.3500.8.L	2115	1615	24×33	3630	800	600	1000	180	4323	2815	1980	200	88.9	4245	615
KSN3.195.800.4000.8.L	2115	1615	24×33	3630	800	600	1000	180	4323	2815	1980	200	88.9	4245	615
KSN3.195.800.4500.8.L	2115	1615	24×33	3830	800	600	1000	180	4323	2815	1980	200	88.9	4445	615
KSN3.195.800.5000.8.L	2115	1615	24×33	3830	800	600	1000	180	4323	2815	1980	200	88.9	4445	615
KSN3.195.800.5500.8.L	2115	1615	24×33	3830	800	600	1000	180	4323	2815	1980	200	88.9	4445	615
KSN3.195.800.6000.8.L	2115	1615	24×33	4135	800	600	1000	180	4323	2815	1980	200	88.9	4750	615
KSN3.190.800.3000.10.L	2115	1615	24×33	3630	800	600	1000	180	4323	2815	1980	200	88.9	4245	615
KSN3.190.800.3500.10.L	2115	1615	24×33	3630	800	600	1000	180	4323	2815	1980	200	88.9	4245	615
KSN3.190.800.4000.10.L	2115	1615	24×33	3830	800	600	1000	180	4323	2815	1980	200	88.9	4445	615

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A
KSN3.190.800.4500.10.L	2115	1615	24×33	3830	800	600	1000	180	4323	2815	1980	200	88.9	4445	615
KSN3.190.800.5000.10.L	2115	1615	24×33	4135	800	600	1000	180	4323	2815	1980	200	88.9	4750	615
KSN3.190.800.5500.10.L	2115	1615	24×33	4135	800	600	1000	180	4323	2815	1980	200	88.9	4750	615
KSN3.230.800.3500.10.E	2515	2075	24×33	3657	800	600	1000	180	4723	3215	2130	200	88.9	4272	615
KSN3.230.800.4000.10.E	2515	2075	24×33	3857	800	600	1000	180	4723	3215	2130	200	88.9	4472	615
KSN3.230.800.4500.10.E	2515	2075	24×33	3857	800	600	1000	180	4723	3215	2130	200	88.9	4472	615
KSN3.230.800.5000.10.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.5500.10.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.6000.10.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.6500.10.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.2500.12.E	2515	2075	24×33	3657	800	600	1000	180	4723	3215	2130	200	88.9	4272	615
KSN3.230.800.3000.12.E	2515	2075	24×33	3857	800	600	1000	180	4723	3215	2130	200	88.9	4472	615
KSN3.230.800.3500.12.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.4000.12.E	2515	2075	24×33	4162	800	600	1000	180	4723	3215	2130	200	88.9	4777	615
KSN3.230.800.1600.14.E	2515	2075	24×33	3657	800	600	1000	180	4723	3215	2130	200	88.9	4272	615
KSN3.230.800.2000.14.E	2515	2075	24×33	3857	800	600	1000	180	4723	3215	2130	200	88.9	4472	615
KSN3.230.800.2500.14.E	2515	2075	24×33	3857	800	600	1000	180	4723	3215	2130	200	88.9	4472	615

DN800 part 2

Pump type	Z12B	Z13	Z14	Z15	Z16	Z23	Z17G	Z17S	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
KSN3.165.800.6000.8.M	800	450	212	1200	1600	3635	4	4	950	800	50	2207.5	500	6-M42
KSN3.165.800.6500.8.M	800	450	212	1200	1600	3635	4	4	950	800	50	2207.5	500	6-M42
KSN3.165.800.7000.8.M	800	450	212	1200	1600	3635	4	4	950	800	50	2207.5	500	6-M42
KSN3.165.800.7500.8.M	800	450	212	1200	1600	3635	4	4	950	800	50	2207.5	500	6-M42
KSN3.165.800.8000.8.M	800	450	212	1200	1600	3635	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.3500.8.L	800	450	212	1200	1600	3630	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.4000.8.L	800	450	212	1200	1600	3630	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.4500.8.L	800	450	212	1200	1600	3630	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.5000.8.L	800	450	212	1200	1600	3630	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.5500.8.L	800	450	212	1200	1600	3630	4	4	950	800	50	2207.5	500	6-M42
KSN3.195.800.6000.8.L	800	450	212	1200	1600	4130	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.3000.10.L	800	450	212	1200	1600	1450	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.3500.10.L	800	450	212	1200	1600	1450	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.4000.10.L	800	450	212	1200	1600	1450	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.4500.10.L	800	450	212	1200	1600	1450	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.5000.10.L	800	450	212	1200	1600	1650	4	4	950	800	50	2207.5	500	6-M42
KSN3.190.800.5500.10.L	800	450	212	1200	1600	1850	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.3500.10.E	800	450	212	1200	1600	1640	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.4000.10.E	800	450	212	1200	1600	1640	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.4500.10.E	800	450	212	1200	1600	1640	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.5000.10.E	800	450	212	1200	1600	2140	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.5500.10.E	800	450	212	1200	1600	2140	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.6000.10.E	800	450	212	1200	1600	2640	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.6500.10.E	800	450	212	1200	1600	2640	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.2500.12.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.3000.12.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.3500.12.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.4000.12.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.1600.14.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.2000.14.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42
KSN3.230.800.2500.14.E	800	450	212	1200	1600	1460	4	4	950	800	50	2207.5	500	6-M42

Dry, vertical installation on concrete foundation



DN500 part 1

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN3.120.500.3000.6.H	1542	970	3195	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.3500.6.H	1542	970	3195	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.4000.6.H	1542	970	3300	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.4500.6.H	1542	970	3300	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.5000.6.H	1542	970	3500	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.5500.6.H	1542	970	3500	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.6000.6.H	1542	970	3500	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.1600.8.H	1542	970	2995	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.2000.8.H	1542	970	2995	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.2500.8.H	1542	970	3195	550	180	800	700	500	1200	950	1500	1300	600	600
KSN3.120.500.3000.8.H	1542	970	3195	550	180	800	700	500	1200	950	1500	1300	600	600
KSN4.120.500.1320.8.M	1515	920	2880	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.1600.8.M	1515	920	3080	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.2000.8.M	1515	920	3080	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.2500.8.M	1515	920	3280	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.3000.8.M	1515	920	3280	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.750.10.M	1515	920	2875	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.900.10.M	1515	920	2875	600	145	800	700	500	1200	1000	1500	1300	700	600

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN4.120.500.1100.10.M	1515	920	3080	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.1320.10.M	1515	920	3080	600	145	800	700	500	1200	1000	1500	1300	700	600
KSN4.120.500.1600.10.M	1515	920	3280	600	145	800	700	500	1200	1000	1500	1300	700	600

DN500 part 2

Pump type	X12	X16	XDN1	XDC1	XDT1	XDC3	DN2	DC02	DT2	D02	D2N	X03	X04	XM1
KSN3.120.500.3000.6.H	1400	4395	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.3500.6.H	1400	4395	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.4000.6.H	1400	4500	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.4500.6.H	1400	4500	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.5000.6.H	1400	4700	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.5500.6.H	1400	4700	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.6000.6.H	1400	4700	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.1600.8.H	1400	4195	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.2000.8.H	1400	4195	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.2500.8.H	1400	4395	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN3.120.500.3000.8.H	1400	4395	600	725	40	725	500	620	40	27	20	30	33	6-M30
KSN4.120.500.1320.8.M	1400	4080	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.1600.8.M	1400	4280	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.2000.8.M	1400	4280	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.2500.8.M	1400	4480	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.3000.8.M	1400	4480	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.750.10.M	1400	4075	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.900.10.M	1400	4075	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.1100.10.M	1400	4280	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.1320.10.M	1400	4280	700	840	40	840	500	620	40	27	20	30	33	6-M30
KSN4.120.500.1600.10.M	1400	4480	700	840	40	840	500	620	40	27	20	30	33	6-M30

DN600 part 1

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN4.100.600.6000.8.H	1925	1200	3968	750	240	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.6500.8.H	1925	1200	3968	750	240	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.7000.8.H	1925	1200	3968	750	240	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.7500.8.H	1925	1200	3968	750	240	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.8000.8.H	1925	1200	3968	750	240	900	900	600	1500	1200	1800	1500	800	700
KSN4.120.600.2500.8.M	1835	1125	3333	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.120.600.3000.8.M	1835	1125	3333	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.120.600.3500.8.M	1835	1125	3438	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.3000.8.M	1835	1125	3333	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.3500.8.M	1835	1125	3438	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.4000.8.M	1835	1125	3438	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.4500.8.M	1835	1125	3638	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.5000.8.M	1835	1125	3638	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN4.100.600.5500.8.M	1835	1125	3638	700	190	900	900	600	1500	1200	1800	1500	800	700
KSN3.170.600.2000.8.L	1865	1125	3165	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.2500.8.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.3000.8.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.3500.8.L	1865	1125	3470	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.3500.8.L	1865	1125	3470	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.4000.8.L	1865	1125	3470	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.4500.8.L	1865	1125	3670	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.5000.8.L	1865	1125	3670	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.1100.10.L	1865	1125	3165	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.1320.10.L	1865	1125	3165	750	240	1100	900	700	1600	1300	1800	1500	800	700

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN3.170.600.1600.10.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.170.600.2000.10.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.1600.10.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.2000.10.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700
KSN3.165.600.2500.10.L	1865	1125	3365	750	240	1100	900	700	1600	1300	1800	1500	800	700

DN600 part 2

Pump type	X12	X16	XDN1	XDC1	XDT1	XDC3	DN2	DC02	DT2	D02	D2N	X03	X04	XM1
KSN4.100.600.6000.8.H	1700	5468	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.6500.8.H	1700	5468	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.7000.8.H	1700	5468	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.7500.8.H	1700	5468	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.8000.8.H	1700	5468	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.120.600.2500.8.M	1600	4833	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.120.600.3000.8.M	1600	4833	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.120.600.3500.8.M	1600	4938	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.3000.8.M	1600	4833	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.3500.8.M	1600	4938	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.4000.8.M	1600	4938	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.4500.8.M	1600	5138	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.5000.8.M	1600	5138	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN4.100.600.5500.8.M	1600	5138	800	950	45	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.2000.8.L	1700	4765	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.2500.8.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.3000.8.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.3500.8.L	1700	5070	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.3500.8.L	1700	5070	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.4000.8.L	1700	5070	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.4500.8.L	1700	5270	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.5000.8.L	1700	5270	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.1100.10.L	1700	4765	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.1320.10.L	1700	4765	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.1600.10.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.170.600.2000.10.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.1600.10.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.2000.10.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30
KSN3.165.600.2500.10.L	1700	4965	1000	1160	34	950	600	725	44	30	20	33	33	6-M30

DN800 part 1

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN3.165.800.6000.8.M	2240	1350	4093	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.165.800.6500.8.M	2240	1350	4093	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.165.800.7000.8.M	2240	1350	4093	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.165.800.7500.8.M	2240	1350	4093	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.165.800.8000.8.M	2240	1350	4093	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.3500.8.L	2115	1280	3630	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.4000.8.L	2115	1280	3630	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.4500.8.L	2115	1280	3830	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.5000.8.L	2115	1280	3830	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.5500.8.L	2115	1280	3830	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.195.800.6000.8.L	2115	1280	4135	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.190.800.3000.10.L	2115	1280	3630	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.190.800.3500.10.L	2115	1280	3630	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.190.800.4000.10.L	2115	1280	3830	910	275	1450	1250	950	2200	1500	2100	1800	1000	850

Pump type	C	E	X1	X2	X3	X4	X4A	X5	X6	X7	X8	X9	X10	X11
KSN3.190.800.4500.10.L	2115	1280	3830	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.190.800.5000.10.L	2115	1280	4135	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.190.800.5500.10.L	2115	1280	4135	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.3500.10.E	2515	1430	3657	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.4000.10.E	2515	1430	3857	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.4500.10.E	2515	1430	3857	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.5000.10.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.5500.10.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.6000.10.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.6500.10.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.2500.12.E	2515	1430	3657	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.3000.12.E	2515	1430	3857	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.3500.12.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.4000.12.E	2515	1430	4162	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.1600.14.E	2515	1430	3657	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.2000.14.E	2515	1430	3857	910	275	1450	1250	950	2200	1500	2100	1800	1000	850
KSN3.230.800.2500.14.E	2515	1430	3857	910	275	1450	1250	950	2200	1500	2100	1800	1000	850

DN800 part 2

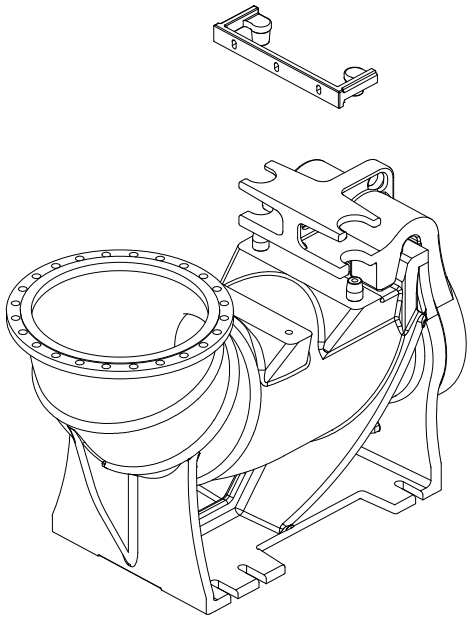
Pump type	X12	X16	XDN1	XDC1	XDT1	XDC3	DN2	DC02	DT2	D02	D2N	X03	X04	XM1
KSN3.165.800.6000.8.M	2000	6293	1200	1380	38	1160	800	950	50	33	24	36	39	6-M36
KSN3.165.800.6500.8.M	2000	6293	1200	1380	38	1160	800	950	50	33	24	36	39	6-M36
KSN3.165.800.7000.8.M	2000	6293	1200	1380	38	1160	800	950	50	33	24	36	39	6-M36
KSN3.165.800.7500.8.M	2000	6293	1200	1380	38	1160	800	950	50	33	24	36	39	6-M36
KSN3.165.800.8000.8.M	2000	6293	1200	1380	38	1160	800	950	50	33	24	36	39	6-M36
KSN3.195.800.3500.8.L	2000	5830	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.195.800.4000.8.L	2000	5830	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.195.800.4500.8.L	2000	6030	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.195.800.5000.8.L	2000	6030	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.195.800.5500.8.L	2000	6030	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.195.800.6000.8.L	2000	6335	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.3000.10.L	2000	5830	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.3500.10.L	2000	5830	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.4000.10.L	2000	6030	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.4500.10.L	2000	6030	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.5000.10.L	2000	6335	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.190.800.5500.10.L	2000	6335	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.3500.10.E	2000	5857	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.4000.10.E	2000	6057	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.4500.10.E	2000	6057	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.5000.10.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.5500.10.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.6000.10.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.6500.10.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.2500.12.E	2000	5857	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.3000.12.E	2000	6057	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.3500.12.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.4000.12.E	2000	6362	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.1600.14.E	2000	5857	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.2000.14.E	2000	6057	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36
KSN3.230.800.2500.14.E	2000	6057	1200	1380	38	1160	800	950	52	33	24	36	39	6-M36

10. Accessories

Auto-coupling kit

The auto-coupling kit consists of the following:

- Cast iron base unit
- Cast iron upper guide rail bracket
- Cast iron guide claw



TM089577

Size	Weight [kg]	Range		PN	Product number
		<400 kW	<800 kW		
DN 500	680	•		10	93187591
DN 500 Heavy [4]	900		•		93187598
DN 600	870	•			93216888
DN 600 Heavy [4]	1350		•		93187600
DN 800 Heavy [4]	2550	•	•		93187602

4) Guide shoe material is ductile cast iron.

Notes:

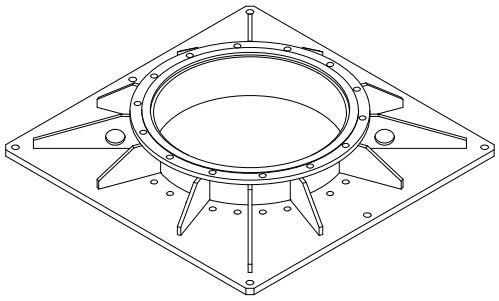
- If the guide rails exceed 6 m, consider using intermediate guide rail holders (IGRH) to support the system
- Guide rail, standard pipes, IGRH, and anchor bolts are not included in the auto-coupling kit, and have to be ordered separately.

Base plate installation kit

Base plate kit consists of:

- Steel, epoxy-coated base plate
- O-ring or gasket
- Bolts for pump.

Please note, anchor bolts for base plate are not included in the kit.



TM089625

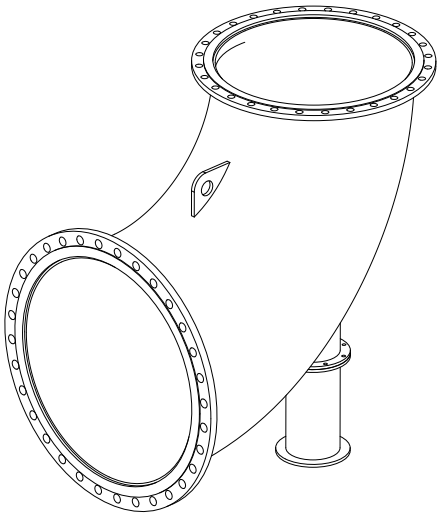
Pump outlet	Weight [kg]	Range				PN	Product number
		H	M	L	E		
DN 500	480	•				10	93216889
	445		•				93216900
DN 600	755	•		•			93216901
	700		•				93216902
DN 800	1340		•	•	•		93216903

Suction bend kit

Suction bend kit consists of:

- Cast iron or steel, epoxy-coated suction bend
- Gasket
- Bolts for base plate.

Please note, bolts for suction pipe is not included in the kit.



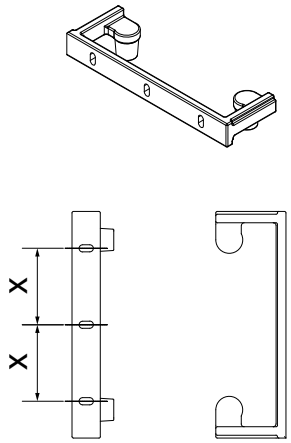
TM089104

Pump outlet	Weight [kg]	Range H M L E	PN	Product number
DN 500	450	•	10	93216904
	435	•		93216905
DN 600	700	• •		93216912
	800	•		93216914 [5]
DN 800	1050	• • •		93216908 [6]

5) 600.L and 800.M/L/E pump types use steel.

6) 600.L and 800.M/L/E pump types use steel.

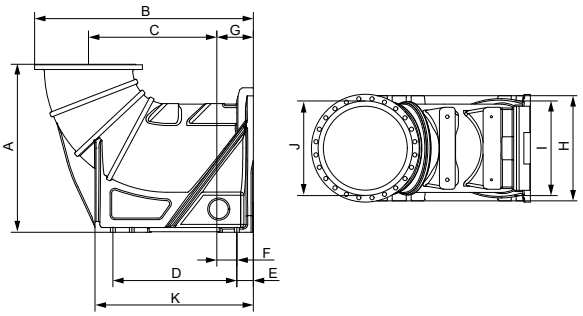
Upper guide rail bracket dimensions



TM089630

Auto-coupling size	X [mm]	Product number
DN 500, DN 600	240	93187591
		93187598
		93216888
		93187600
DN 800	270	93187602

Auto-coupling dimensions

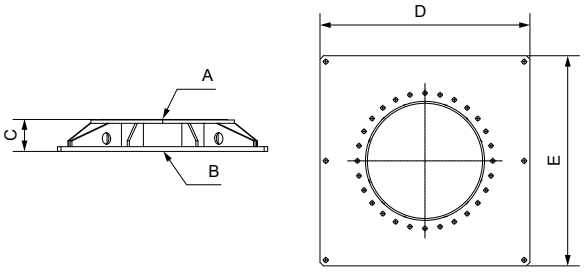


TM089629

Product number	Size	Dimensions (mm)				
		A	B	C	D	E
93187591	DN 500	1100	1377.5	780	800	158
93187598	DN 500 Heavy	1100	1445	850	800	158
93216888	DN 600	1200	1650	950	800	158
93187600	DN 600 Heavy	1200	1650	950	800	158
93187602	DN 800 Heavy	1600	2077.5	1200	1000/180	158

Product number	Size	Dimensions (mm)					
		F	G	H	I	J	K
93187591	DN 500	102	260	850	650	650	1108
93187598	DN 500 Heavy	102	260	850	650	650	1108
93216888	DN 600	152	310	850	650	650	1108
93187600	DN 600 Heavy	152	310	850	650	650	1108
93187602	DN 800 Heavy	212	370	1000	750	750	1508

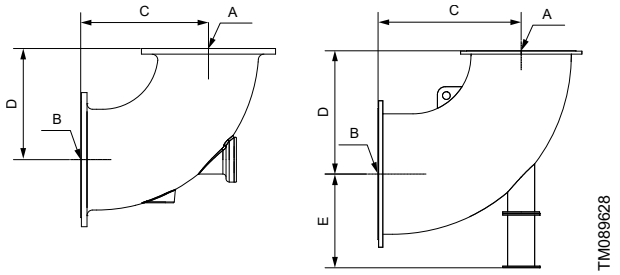
Base plate dimensions



TM089627

Product number	Pump type	A	B	C [mm]	D [mm]	E [mm]
93216889	500.H	DN 500	DN 600	180	1500	1300
93216900	500.M	DN 600	DN 700	145	1500	1300
93216901	600.H/L	DN 800	DN 800	240	1800	1500
93216902	600.M	DN 700	DN 800	190	1800	1500
93216903	800.M/L/E	DN 1000	DN 1000	275	2100	1800

Suction bend dimensions



Product number	Pump type	A	B	C [mm]	D [mm]	E [mm]
93216904	500.H	DN 600	DN 600	800	700	-
93216905	500.M	DN 700	DN 700	800	700	-
93216912	600.H/M	DN 800	DN 800	900	900	-
93216914	600.L	DN 800	DN 1000	1100	900	700
93216908	800.M/L/E	DN 1000	DN 1200	1450	1250	950

11. Grundfos Product Center

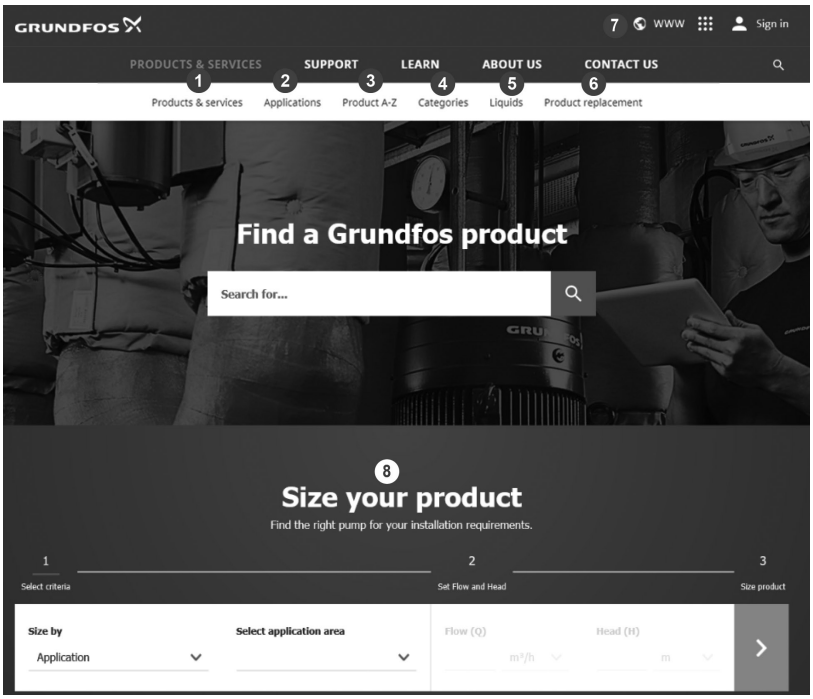
Online search and sizing tool to help you make the right choice.
From the international view, you can select your specific country to view the product range available to you.
International view: *https://product-selection.grundfos.com*

All the information you need in one place

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

Downloads

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



When you select your country, you will see the menus below. Note that some menus may not be available depending on the country.
Example: *https://product-selection.grundfos.com/uk*

Pos.	Description
1	**Products & services** enables you to find products and documents by typing a product number or name into the search field.
2	**Applications** enables you to choose an application to see how Grundfos can help you design and optimise your system.
3	**Products A-Z** enables you to look through a list of all the Grundfos products.
4	**Categories** enables you to look for a product category.
5	**Liquids** enables you to find pumps designed for aggressive, flammable or other special liquids.
6	**Product replacement** enables you to find a suitable replacement.
7	**WWW** enables you to select the country, which changes the language, the available product range and the structure of the website.
8	**Sizing** enables you to size a product based on your application and operating conditions.

93362072 **10.2025.**
ECM: 1436937

GRUNDFOS Holding A/S
Poul Due Jensens Vej 7
DK-8850 Bjerringbro
Tel: +45 87 50 14 00
www.grundfos.com