

S pumps, ranges 72, 74, 78

90 to 520 kW

50 Hz



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1. Introduction

Introduction

This data booklet deals with Grundfos heavy-duty sewage pumps, type S, ranges 72, 74 and 78.



S pump, range 72



S pump, range 74



S pump, range 78

S pumps, ranges 72, 74 and 78, are a range of free-flow channel impeller pumps specifically designed for pumping sewage and wastewater in a wide range of municipal and industrial applications.

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

The pumps are fitted with motors from 90 to 520 kW. The motors are either 4-, 6-, 8-, 10- or 12-pole motors, depending on the motor size.

The free passage in the pumps is 90 to 145 mm.

The pumps are available for these types of installation:

- submerged installation on auto-coupling system
- dry installation, vertical
- dry installation, horizontal
- installation in column pipe.

Applications

S pumps are designed for applications such as these:

- raw-water intake
- wastewater treatment plants
- municipal pumping stations
- public buildings
- block of flatsflow rate
- industries
- garages
- underground car parks
- car-wash areas
- restaurants and hotels.

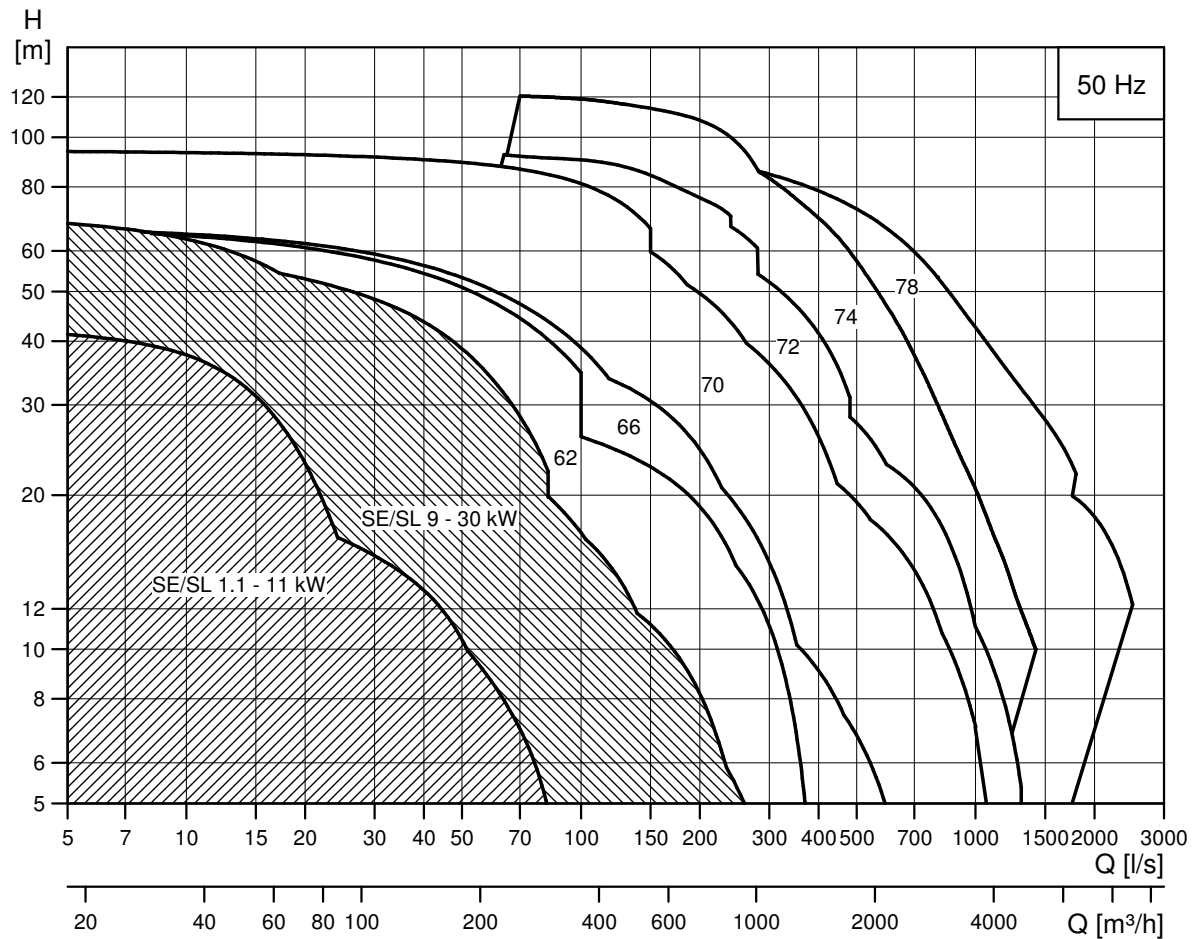
The pumps are suitable for both temporary and permanent installation. The lifting bracket fitted on the pumps facilitates easy transportation as well as installation at the installation site.

Main constructional features

- Leak-proof connection on auto coupling via the Grundfos a sealing system
- double mechanical shaft seal system for reliable sealing between pumped liquid and motor
- watertight cable entry
- two moisture switches for continuous monitoring of motor housing and terminal box ensuring automatic cut-off of power in case of ingress of liquid
- self-cleaning channel impeller with long vanes reducing the risk of jamming or clogging
- SmartTrim system allowing easy adjustment of impeller clearance and maintaining maximum pump efficiency over pump lifetime
- motor in insulation class F (155 °C), enclosure class IP68 with three thermal sensors in stator windings
- shaft seal condition monitoring via water-in-oil sensor
- explosion-proof motors for applications involving potential risk of explosion
- Pt100 sensors in upper and lower bearings
- Pt100 sensor in stator
- three stainless steel versions for use in corrosive or aggressive liquids:
 - stainless steel impeller, cast iron pump and motor housing
 - stainless steel pump housing, flange and impeller, cast iron motor housing made entirely of corrosion-resistant stainless steel.

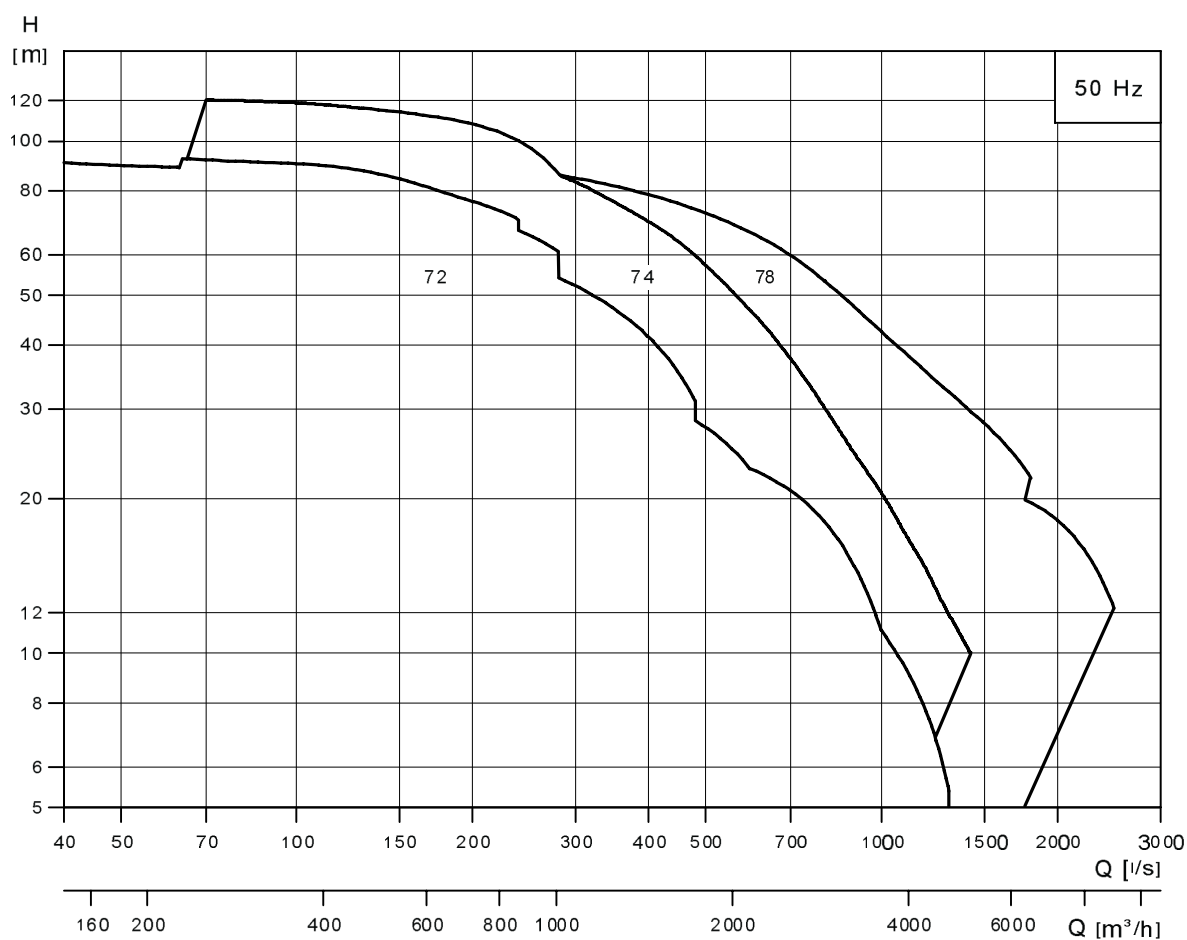
2. Performance range

Performance range overview, S pumps



TM053391

Performance range, S pumps, ranges 72, 74, 78



TM046183

List of pump curves

Range 72

Pump type	Poles	Pressure range	Curve chart
S3.135.600.xxxx	8, 10	Extra-low	S3.135.600.900.10 , S3.135.600.1100.10 , S3.135.600.1300.10 and S3.135.600.1600.8
S1.150.500.xxxx	6, 8	Low	S3.135.500.1250.8 , S3.135.500.1600.8 and S3.135.500.1800.6
S2.100.300.xxxx	4	Medium	S2.100.300.1750.4 and S2.100.300.2250.4
S3.120.500.xxxx	6, 8		S3.120.500.1250.8 , S3.120.500.1600.8 and S3.120.500.1800.6
S2.100.250.xxxx	4	High	S2.100.250.1750.4 and S2.100.250.2250.4
S3.110.300.xxxx	6, 8		S3.110.300.1600.8 and S3.110.300.1800.6
S2.90.250.xxxx	4	Super-high	S2.90.250.2250.4

Range 74

Pump type	Poles	Pressure range	Curve chart
S2.135.600.xxxx	8	Extra-low	S3.135.600.2000.8 and S3.135.600.2500.8
S3.135.500.xxxx	6	Low	S3.135.500.2000.6 , S3.135.500.2500.6 and S3.135.500.3150.6
S2.100.300.xxxx	4	Medium	S2.100.300.2500.4 and S2.100.300.3150.4
S3.120.500.xxxx	6		S3.120.500.2000.6 , S3.120.500.2500.6 and S3.120.500.3150.6
S2.100.300.xxxx	4	High	S2.100.300.2500.4 and S2.100.300.3150.4
S3.110.300.xxxx	6		S3.110.300.2000.6 , S3.110.300.2500.6 and S3.110.300.3150.6
S2.90.300.xxxx	4	Super-high	S2.90.300.2500.4 and S2.90.300.3150.4

Range 78

Pump type	Poles	Pressure range	Curve chart
S4.135.600.xxxx	10, 12	Extra-low	S4.135.600.1300.12 , S4.135.600.1600.12 , S4.135.600.2000.10 , S4.135.600.2500.10 and S4.135.600.3150.10
S4.135.600.xxxx	8		S4.135.600.3150.8 , S4.135.600.4000.8 , S4.135.600.4500.8 , S4.135.600.5000.8 and S4.135.600.5200.8
S3.145.500.xxxx	10	Low	S3.145.500.1600.10 , S3.145.500.2000.10 , S3.145.500.2500.10 , S3.145.500.3150.10 and S3.145.500.3500.10
S3.145.500.xxxx	8		S3.145.500.3150.8 , S3.145.500.3500.8 , S3.145.500.4000.8 , S3.145.500.4500.8 , S3.145.500.5000.8 and S3.145.500.5200.8
S3.130.500.xxxx	10	Medium	S3.130.500.2500.10 , S3.130.500.3150.10 , S3.130.500.3500.10 and S3.130.500.4000.10
S3.130.500.xxxx	8		S3.130.500.3150.8 , S3.130.500.3500.8 , S3.130.500.4000.8 , S3.130.500.4500.8 , S3.130.500.5000.8 and S3.130.500.5200.8
S3.115.500.xxxx	8	High	S3.115.500.3150.8 , S3.115.500.3500.8 and S3.115.500.4000.8

3. Identification

Type key

Please note that the pump type described in this booklet is not necessarily available in all variants.

Example **S2.90.250.2250.4.72S.C.496.G.N.D.513.Z**

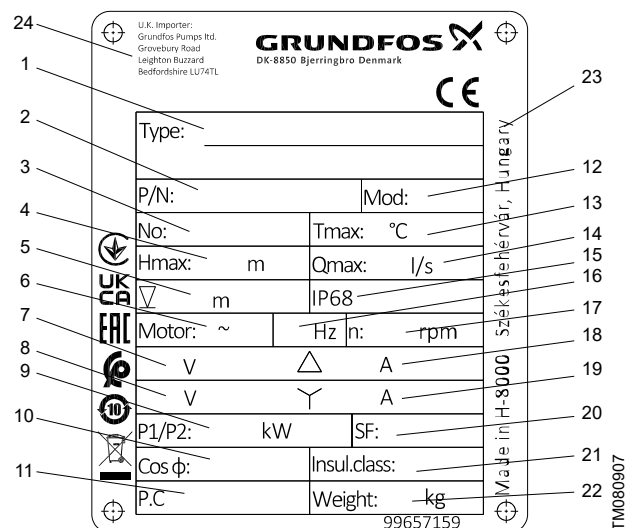
Code	Explanation	Designation
S	Grundfos sewage and wastewater pump	Pump type
2	Two-channel impeller	Impeller type
3	Three-channel impeller	
4	Four-channel impeller	
90	Maximum solid size [mm]	Pump passage
250	Nominal diameter of pump outlet port [mm]	Pump outlet, S-type
2250	Power output, P2 / 10	Power output [kW] ¹
4	4-pole motor	Number of poles
6	6-pole motor	
8	8-pole motor	
10	10-pole motor	
12	12-pole motor	
14	14-pole motor	Pump range
72	Range 72	
74	Range 74	
78	Range 78	
S	Super-high	Pressure version
H	High	
M	Medium	
L	Low	
E	Extra-low	
F	Super-low	
S	Submersible installation without cooling jacket	Installation type
C	Submersible installation with cooling jacket	
D	Dry installation, vertical	
H	Dry installation, horizontal	
496	Impeller diameter [mm]	Impeller diameter (mean)
G	Cast iron impeller, pump housing and stator housing	Material code for impeller, pump housing and stator housing
Q	Stainless steel impeller, DIN W.-Nr. 1.4408	
N	Non-explosion-proof pump	Pump version
Ex	Pump with explosion-proof motor	
B	S pump with built-in SM 113 ²	Sensor version
D	S pump without built-in SM 113	
5	50 Hz	Frequency [Hz]
6	60 Hz	

Code	Explanation	Designation
	50 Hz:	
13	3 x 415 V, Y/D	Voltage code and connection
18	3 x 380-400 / 660-690 V, Y/D	
1G	3 x 380 / 660 V, Y/D	
1B	3 x 400-415 / 690 V, Y/D	
1D	3 x 380-415 / 660-690 V, Y/D	60 Hz:
1G	3 x 380 / 660 V, Y/D	
1H	3 x 460 V, Y/D	
Z	Custom-built products	Customisation

¹ The power output (P2) indicated in the type key, which is used to indicate the motor size, can deviate from the actual power output. Please refer to the nameplate or the chapter for the exact power output.

² PTC sensors are connected directly to IO 113 or other PTC relay.

Pump nameplate



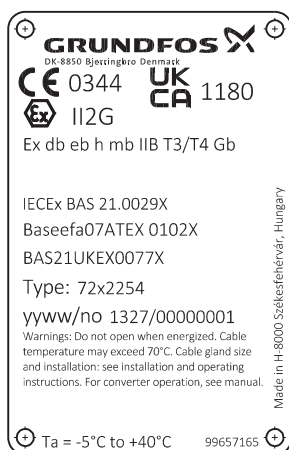
Pump nameplate

Pos.	Description
1	Type designation
2	Product number
3	Serial number
4	Maximum head [m]
5	Maximum installation depth [m]
6	Number of phases
7	Rated voltage, delta connection
8	Rated voltage, star connection
9	Rated power input / output [kW]
10	Cos φ, 1/1 load
11	Production code, year and week
12	Production number
13	Maximum liquid temperature [°C]
14	Maximum flow rate [l/s]

S pumps, ranges 72, 74, 78

15	Enclosure class
16	Frequency [Hz]
17	Rated speed
18	Rated current, delta connection
19	Rated current, star connection
20	Safety factor
21	Insulation class
22	Net weight [kg]
23	Place of production
24	UK importer address for UK market

Ex approval plates



TM080581

Approval plate of range 72 explosion-proof pumps, T3 and T4 classification



TM080582

Approval plate of range 74 and 78 explosion-proof pumps

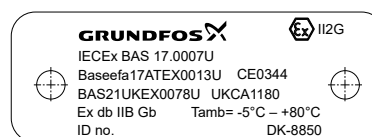
The approval plates provide the following details:

	The equipment conforms to harmonised European standard.
II	Equipment group (II = non-mining)
2	Equipment category (high protection)
G	Type of explosive atmosphere (gas)
CE	CE mark
UKCA	UKCA mark
0344	Number of quality assurance notified body

1180	Number of quality assurance notified body
Ex	Marking of explosion protection
db	Flameproof enclosure, Zone 1
eb	WIO sensor protection by increased safety
h	Constructional safety "c", Control of ignition sources "b" and Liquid immersion "k" according to EN ISO 80079-36:2016 and EN ISO 80079-37:2016
mb	WIO sensor protection by enclosure
IIB	Gas group (ethylene)
T3	Maximum surface temperature of the motor is 200 °C*.
T4	Maximum surface temperature of the motor is 135 °C.
Gb	Equipment protection level, zone 1

* For pumps operated by a frequency converter, the maximum surface temperature must not exceed T3 temperature class (200 °C).

Cable entry approval plate



TM080590

Cable entry approval plate

The cable entry approval plate provides the following details:

Pos.	Description
0344	Number of quality assurance notified body
	The equipment conforms to harmonised European standard.
II	Equipment group (II = non-mining)
2	Equipment category (high protection)
G	Type of explosive atmosphere (gas)
CE	CE mark
UKCA	UKCA mark
0344	Number of quality assurance notified body
1180	Number of quality assurance notified body
Ex	Marking of explosion protection
db	Flameproof, Zone 1
IIB	Gas group (Ethylene)
Gb	Equipment protection level, zone 1
T _{amb}	Ambient temperature
ID no	Cable entry identification number
DK-8850	Country and postcode (Bjerringbro, Denmark)

4. Selection of product

Ordering the product

When ordering the product, you need to take the following four aspects into consideration:

1. pump
2. custom-built variation (option)
3. accessories
4. controller.

Pump

Use [Product range](#) and [Type key](#) to identify the pump that best fulfils your needs. The list below is a detailed description of the product you get if you order the following pump:

Pump	Product No
S3.120.300.2000.6.74M.H.531.G.N.D	96980994

- Pump as specified in the type key
- 10 m cable
- Paint: black, NCS 9000N/RAL 9005, gloss 30, thickness 150 µm
- Water-in-oil sensor
- 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
- Test according to ISO 9906:2012 grade 3B.

See [Performance curves and technical data](#) for selection of a standard pump.

Note: Product-specific data for the pump can also be found in Grundfos Product Center using the product number 96980994.

Related information

[Type key](#)

Custom-built variants

The S pumps can be customised to meet individual requirements. Many pump features and options are available for customisation, e.g. explosion-proof versions, various cable lengths or special materials.

Variants can be seen in List of variants. For requirements or designs not included in the list, contact Grundfos.

Related information

[List of variants](#)

Accessories

Depending on the installation type, you may need to order accessories.

Note: Ordered accessories are not fitted from factory.

Related information

[11. Accessories](#)

Controller

The following controllers are available:

- CUE up to 250 kW (frequency converter)
- DC/DCD control (Dedicated Controls)
- MP 204 (electronic motor protection for pumps)
- IO 113 and SM 113 (electrical sensor modules).

For more information about controllers, see [Level controllers](#).

Related information

[Level controllers](#)

5. Product range

Standard pumps - cast iron

Range 72

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S2.90.250.2250.4.72S.S.496.G.N.D...	96856525	96856526		96782483
S2.90.250.2250.4.72S.C.496.G.N.D...	96856527	96856528		96782483
S2.90.250.2250.4.72S.D.496.G.N.D...	96856529	96856530		96256023
S2.90.250.2250.4.72S.H.496.G.N.D...	96856531	96856532	96256030	
S2.90.250.2250.4.72S.S.488.G.N.D...	96856533	96856534		96782483
S2.90.250.2250.4.72S.C.488.G.N.D...	96856535	96856536		96782483
S2.90.250.2250.4.72S.D.488.G.N.D...	96856537	96856538		96256023
S2.90.250.2250.4.72S.H.488.G.N.D...	96856539	96856540	96256030	
S2.90.250.2250.4.72S.S.478.G.N.D...	96856541	96856542		96782483
S2.90.250.2250.4.72S.C.478.G.N.D...	96856543	96856544		96782483
S2.90.250.2250.4.72S.D.478.G.N.D...	96856545	96856546		96256023
S2.90.250.2250.4.72S.H.478.G.N.D...	96856547	96856548	96256030	
S2.100.250.1750.4.72H.S.446.G.N.D...	96856581	96856582		96782483
S2.100.250.1750.4.72H.C.446.G.N.D...	96856583	96856584		96782483
S2.100.250.1750.4.72H.D.446.G.N.D...	96856585	96856586		96256023
S2.100.250.1750.4.72H.H.446.G.N.D...	96856587	96856588	96256030	
S2.100.250.1750.4.72H.S.434.G.N.D...	96856589	96856590		96782483
S2.100.250.1750.4.72H.C.434.G.N.D...	96856591	96856592		96782483
S2.100.250.1750.4.72H.D.434.G.N.D...	96856593	96856594		96256023
S2.100.250.1750.4.72H.H.434.G.N.D...	96856595	96856596	96256030	
S2.100.250.1750.4.72H.S.423.G.N.D...	96856597	96856598		96782483
S2.100.250.1750.4.72H.C.423.G.N.D...	96856599	96856600		96782483
S2.100.250.1750.4.72H.D.423.G.N.D...	96856601	96856602		96256023
S2.100.250.1750.4.72H.H.423.G.N.D...	96856603	96856604	96256030	
S2.100.250.1750.4.72H.S.412.G.N.D...	96856605	96856606		96782483
S2.100.250.1750.4.72H.C.412.G.N.D...	96856607	96856608		96782483
S2.100.250.1750.4.72H.D.412.G.N.D...	96856609	96856610		96256023
S2.100.250.1750.4.72H.H.412.G.N.D...	96856611	96856612	96256030	
S2.100.250.2250.4.72H.S.487.G.N.D...	96856549	96856550		96782483
S2.100.250.2250.4.72H.C.487.G.N.D...	96856551	96856552		96782483
S2.100.250.2250.4.72H.D.487.G.N.D...	96856553	96856554		96256023
S2.100.250.2250.4.72H.H.487.G.N.D...	96856555	96856556	96256030	
S2.100.250.2250.4.72H.S.478.G.N.D...	96856557	96856558		96782483
S2.100.250.2250.4.72H.C.478.G.N.D...	96856559	96856560		96782483
S2.100.250.2250.4.72H.D.478.G.N.D...	96856561	96856562		96256023
S2.100.250.2250.4.72H.H.478.G.N.D...	96856563	96856564	96256030	
S2.100.250.2250.4.72H.S.469.G.N.D...	96856565	96856566		96782483
S2.100.250.2250.4.72H.C.469.G.N.D...	96856567	96856568		96782483
S2.100.250.2250.4.72H.D.469.G.N.D...	96856569	96856570		96256023
S2.100.250.2250.4.72H.H.469.G.N.D...	96856571	96856572	96256030	
S2.100.250.2250.4.72H.S.458.G.N.D...	96856573	96856574		96782483
S2.100.250.2250.4.72H.C.458.G.N.D...	96856575	96856576		96782483
S2.100.250.2250.4.72H.D.458.G.N.D...	96856577	96856578		96256023

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S2.100.250.2250.4.72H.H.458.G.N.D...	96856579	96856580	96256030	
S2.100.300.1750.4.72M.S.441.G.N.D...	96856637	96856638		96782484
S2.100.300.1750.4.72M.C.441.G.N.D...	96856639	96856640		96782484
S2.100.300.1750.4.72M.D.441.G.N.D...	96856641	96856642		96256023
S2.100.300.1750.4.72M.H.441.G.N.D...	96856643	96856644	96256030	
S2.100.300.1750.4.72M.S.430.G.N.D...	96856645	96856646		96782484
S2.100.300.1750.4.72M.C.430.G.N.D...	96856647	96856648		96782484
S2.100.300.1750.4.72M.D.430.G.N.D...	96856649	96856650		96256023
S2.100.300.1750.4.72M.H.430.G.N.D...	96856651	96856652	96256030	
S2.100.300.1750.4.72M.S.418.G.N.D...	96856653	96856654		96782484
S2.100.300.1750.4.72M.C.418.G.N.D...	96856655	96856656		96782484
S2.100.300.1750.4.72M.D.418.G.N.D...	96856657	96856658		96256023
S2.100.300.1750.4.72M.H.418.G.N.D...	96856659	96856660	96256030	
S2.100.300.2250.4.72M.S.466.G.N.D...	96856613	96856614		96782484
S2.100.300.2250.4.72M.C.466.G.N.D...	96856615	96856616		96782484
S2.100.300.2250.4.72M.D.466.G.N.D...	96856617	96856618		96256023
S2.100.300.2250.4.72M.H.466.G.N.D...	96856619	96856620	96256030	
S2.100.300.2250.4.72M.S.459.G.N.D...	96856621	96856622		96782484
S2.100.300.2250.4.72M.C.459.G.N.D...	96856623	96856624		96782484
S2.100.300.2250.4.72M.D.459.G.N.D...	96856625	96856626		96256023
S2.100.300.2250.4.72M.H.459.G.N.D...	96856627	96856628	96256030	
S2.100.300.2250.4.72M.S.450.G.N.D...	96856629	96856630		96782484
S2.100.300.2250.4.72M.C.450.G.N.D...	96856631	96856632		96782484
S2.100.300.2250.4.72M.D.450.G.N.D...	96856633	96856634		96256023
S2.100.300.2250.4.72M.H.450.G.N.D...	96856635	96856636	96256030	
S3.110.300.1600.8.72H.S.630.G.N.D...	96856520	96856521		96782484
S3.110.300.1600.8.72H.C.630.G.N.D...	96856752	96856753		96782484
S3.110.300.1600.8.72H.D.630.G.N.D...	96856754	96856755		96256023
S3.110.300.1600.8.72H.H.630.G.N.D...	96856756	96856757	96256030	
S3.110.300.1600.8.72H.S.610.G.N.D...	96856758	96856759		96782484
S3.110.300.1600.8.72H.C.610.G.N.D...	96856760	96856761		96782484
S3.110.300.1600.8.72H.D.610.G.N.D...	96856762	96856763		96256023
S3.110.300.1600.8.72H.H.610.G.N.D...	96856764	96856765	96256030	
S3.110.300.1800.6.72H.S.546.G.N.D...	96856673	96856674		96782484
S3.110.300.1800.6.72H.C.546.G.N.D...	96856675	96856676		96782484
S3.110.300.1800.6.72H.D.546.G.N.D...	96856677	96856678		96256023
S3.110.300.1800.6.72H.H.546.G.N.D...	96856679	96856680	96256030	
S3.110.300.1800.6.72H.S.533.G.N.D...	96856681	96856682		96782484
S3.110.300.1800.6.72H.C.533.G.N.D...	96856683	96856684		96782484
S3.110.300.1800.6.72H.D.533.G.N.D...	96856685	96856686		96256023
S3.110.300.1800.6.72H.H.533.G.N.D...	96856687	96856688	96256030	
S3.110.300.1800.6.72H.S.518.G.N.D...	96856689	96856690		96782484
S3.110.300.1800.6.72H.C.518.G.N.D...	96856691	96856692		96782484
S3.110.300.1800.6.72H.D.518.G.N.D...	96856693	96856694		96256023
S3.110.300.1800.6.72H.H.518.G.N.D...	96856695	96856696	96256030	
S3.110.300.1800.6.72H.S.506.G.N.D...	96856697	96856698		96782484
S3.110.300.1800.6.72H.C.506.G.N.D...	96856699	96856700		96782484
S3.110.300.1800.6.72H.D.506.G.N.D...	96856701	96856702		96256023
S3.110.300.1800.6.72H.H.506.G.N.D...	96856703	96856704	96256030	
S3.120.500.1250.8.72M.S.574.G.N.D...	96856782	96856783		96782485
S3.120.500.1250.8.72M.C.574.G.N.D...	96856784	96856785		96782485
S3.120.500.1250.8.72M.D.574.G.N.D...	96856786	96856787		96256023

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S3.120.500.1250.8.72M.H.574.G.N.D...	96856788	96856789	96256031	
S3.120.500.1600.8.72M.S.596.G.N.D...	96856766	96856767		96782485
S3.120.500.1600.8.72M.C.596.G.N.D...	96856768	96856769		96782485
S3.120.500.1600.8.72M.D.596.G.N.D...	96856770	96856771		96256023
S3.120.500.1600.8.72M.H.596.G.N.D...	96856772	96856773	96256031	
S3.120.500.1600.8.72M.S.584.G.N.D...	96856774	96856775		96782485
S3.120.500.1600.8.72M.C.584.G.N.D...	96856776	96856777		96782485
S3.120.500.1600.8.72M.D.584.G.N.D...	96856778	96856779		96256023
S3.120.500.1600.8.72M.H.584.G.N.D...	96856780	96856781	96256031	
S3.120.500.1800.6.72M.S.522.G.N.D...	96856705	96856706		96782485
S3.120.500.1800.6.72M.C.522.G.N.D...	96856707	96856708		96782485
S3.120.500.1800.6.72M.D.522.G.N.D...	96856709	96856710		96256023
S3.120.500.1800.6.72M.H.522.G.N.D...	96856711	96856712	96256031	
S3.120.500.1800.6.72M.S.506.G.N.D...	96856713	96856714		96782485
S3.120.500.1800.6.72M.C.506.G.N.D...	96856715	96856716		96782485
S3.120.500.1800.6.72M.D.506.G.N.D...	96856717	96856718		96256023
S3.120.500.1800.6.72M.H.506.G.N.D...	96856719	96856720	96256031	
S3.135.500.1250.8.72L.S.567.G.N.D...	96856798	96856799		96782485
S3.135.500.1250.8.72L.C.567.G.N.D...	96856800	96856801		96782485
S3.135.500.1250.8.72L.D.567.G.N.D...	96856802	96856803		96256024
S3.135.500.1250.8.72L.H.567.G.N.D...	96856804	96856805	96256032	
S3.135.500.1250.8.72L.S.556.G.N.D...	96856806	96856807		96782485
S3.135.500.1250.8.72L.C.556.G.N.D...	96856808	96856809		96782485
S3.135.500.1250.8.72L.D.556.G.N.D...	96856810	96856811		96256024
S3.135.500.1250.8.72L.H.556.G.N.D...	96856812	96856813	96256032	
S3.135.500.1250.8.72L.S.542.G.N.D...	96856814	96856815		96782485
S3.135.500.1250.8.72L.C.542.G.N.D...	96856816	96856817		96782485
S3.135.500.1250.8.72L.D.542.G.N.D...	96856818	96856819		96256024
S3.135.500.1250.8.72L.H.542.G.N.D...	96856820	96856821	96256032	
S3.135.500.1600.8.72L.S.580.G.N.D...	96856790	96856791		96782485
S3.135.500.1600.8.72L.C.580.G.N.D...	96856792	96856793		96782485
S3.135.500.1600.8.72L.D.580.G.N.D...	96856794	96856795		96256024
S3.135.500.1600.8.72L.H.580.G.N.D...	96856796	96856797	96256032	
S3.135.500.1800.6.72L.S.500.G.N.D...	96856721	96856722		96782485
S3.135.500.1800.6.72L.C.500.G.N.D...	96856723	96856724		96782485
S3.135.500.1800.6.72L.D.500.G.N.D...	96856725	96856726		96256024
S3.135.500.1800.6.72L.H.500.G.N.D...	96856727	96856728	96256032	
S3.135.500.1800.6.72L.S.488.G.N.D...	96856729	96856730		96782485
S3.135.500.1800.6.72L.C.488.G.N.D...	96856731	96856732		96782485
S3.135.500.1800.6.72L.D.488.G.N.D...	96856733	96856734		96256024
S3.135.500.1800.6.72L.H.488.G.N.D...	96856735	96856736	96256032	
S3.135.500.1800.6.72L.S.474.G.N.D...	96856737	96856738		96782485
S3.135.500.1800.6.72L.C.474.G.N.D...	96856739	96856740		96782485
S3.135.500.1800.6.72L.D.474.G.N.D...	96856741	96856742		96256024
S3.135.500.1800.6.72L.H.474.G.N.D...	96856743	96856744	96256032	
S3.135.600.900.10.72E.S.560.G.N.D...	96856863	96856864		96782486
S3.135.600.900.10.72E.C.560.G.N.D...	96856865	96856866		96782486
S3.135.600.900.10.72E.D.560.G.N.D...	96856867	96856868		96256025
S3.135.600.900.10.72E.H.560.G.N.D...	96856869	96856870	96256033	
S3.135.600.1100.10.72E.S.606.G.N.D...	96856847	96856848		96782486
S3.135.600.1100.10.72E.C.606.G.N.D...	96856849	96856850		96782486
S3.135.600.1100.10.72E.D.606.G.N.D...	96856851	96856852		96256025

Pump type	Pump			Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	Horizontal base stand ¹	To be ordered separately	
				Vertical base plate	Auto-coupling system ²
S3.135.600.1100.10.72E.H.606.G.N.D...	96856853	96856854	96256033		
S3.135.600.1100.10.72E.S.580.G.N.D...	96856855	96856856			96782486
S3.135.600.1100.10.72E.C.580.G.N.D...	96856857	96856858			96782486
S3.135.600.1100.10.72E.D.580.G.N.D...	96856859	96856860		96256025	
S3.135.600.1100.10.72E.H.580.G.N.D...	96856861	96856862	96256033		
S3.135.600.1300.10.72E.S.657.G.N.D...	96856751	96856832			96782486
S3.135.600.1300.10.72E.C.657.G.N.D...	96856833	96856834			96782486
S3.135.600.1300.10.72E.D.657.G.N.D...	96856835	96856836		96256025	
S3.135.600.1300.10.72E.H.657.G.N.D...	96856837	96856838	96256033		
S3.135.600.1300.10.72E.S.635.G.N.D...	96856839	96856840			96782486
S3.135.600.1300.10.72E.C.635.G.N.D...	96856841	96856842			96782486
S3.135.600.1300.10.72E.D.635.G.N.D...	96856843	96856844		96256025	
S3.135.600.1300.10.72E.H.635.G.N.D...	96856845	96856846	96256033		
S3.135.600.1600.8.72E.S.560.G.N.D...	96856822	96856823			96782486
S3.135.600.1600.8.72E.C.560.G.N.D...	96856824	96856825			96782486
S3.135.600.1600.8.72E.D.560.G.N.D...	96856826	96856827		96256025	
S3.135.600.1600.8.72E.H.560.G.N.D...	96856828	96856829	96256033		

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

Range 74

Pump type	Pump				Accessories		
	3 x 380-415 / 660-690 V	3 x 380-400 / 660-690 V	3 x 415 V	Horizontal base stand ¹	To be ordered separately		
					Vertical base plate	Auto-coupling system ²	Seat ring cpl.
S2.90.300.2500.4.74S.C.506.G.N.D...	96980962					97500267	
S2.90.300.2500.4.74S.D.506.G.N.D...	96980963				96256023		
S2.90.300.2500.4.74S.H.506.G.N.D...	96980964			97500945			
S2.90.300.3150.4.74S.C.550.G.N.D...	96980965					97500267	
S2.90.300.3150.4.74S.D.550.G.N.D...	96980966				96256023		
S2.90.300.3150.4.74S.H.550.G.N.D...	96980967			97500946			
S2.100.300.2500.4.74H.C.490.G.N.D...	96980968					97500267	
S2.100.300.2500.4.74H.D.490.G.N.D...	96980969				96256023		
S2.100.300.2500.4.74H.H.490.G.N.D...	96980970			97500945			
S2.100.300.2500.4.74M.C.483.G.N.D...	96980974					96782484	
S2.100.300.2500.4.74M.D.483.G.N.D...	96980975				96256023		
S2.100.300.2500.4.74M.H.483.G.N.D...	96980976			97500945			
S2.100.300.3150.4.74H.C.518.G.N.D...	96980971					97500267	
S2.100.300.3150.4.74H.D.518.G.N.D...	96980972				96256023		
S2.100.300.3150.4.74H.H.518.G.N.D...	96980973			97500946			
S2.100.300.3150.4.74M.C.514.G.N.D...	96980977					96782484	
S2.100.300.3150.4.74M.D.514.G.N.D...	96980978				96256023		
S2.100.300.3150.4.74M.H.514.G.N.D...	96980979			97500946			
S3.110.300.2000.6.74H.C.549.G.N.D...	96980980					96782484	
S3.110.300.2000.6.74H.D.549.G.N.D...	96980981				96256023		
S3.110.300.2000.6.74H.H.549.G.N.D...	96980982			97500945			
S3.110.300.2500.6.74H.C.596.G.N.D...	96980983					96782484	
S3.110.300.2500.6.74H.D.596.G.N.D...	96980984				96256023		
S3.110.300.2500.6.74H.H.596.G.N.D...	96980985			97500945			
S3.110.300.3150.6.74H.C.620.G.N.D...		96980986	96980989			96782484	
S3.110.300.3150.6.74H.D.620.G.N.D...		96980987	96980990		96256023		
S3.110.300.3150.6.74H.H.620.G.N.D...		96980988	96980991	97500946			
S3.120.500.2000.6.74M.C.531.G.N.D...	96980992					96782485	
S3.120.500.2000.6.74M.D.531.G.N.D...	96980993				96256023		
S3.120.500.2000.6.74M.H.531.G.N.D...	96980994			97500945			
S3.120.500.2500.6.74M.C.560.G.N.D...	96980995					96782485	
S3.120.500.2500.6.74M.D.560.G.N.D...	96980996				96256023		
S3.120.500.2500.6.74M.H.560.G.N.D...	96980997			97500945			
S3.120.500.3150.6.74M.C.584.G.N.D...		96980998	96981001			96782485	
S3.120.500.3150.6.74M.D.584.G.N.D...		96980999	96981002		96256023		
S3.120.500.3150.6.74M.H.584.G.N.D...		96981000	96981003	97500946			
S3.135.500.2000.6.74L.C.513.G.N.D...	96981004					96782485	
S3.135.500.2000.6.74L.D.513.G.N.D...	96981005				96256024		
S3.135.500.2000.6.74L.H.513.G.N.D...	96981006			97500949			
S3.135.500.2500.6.74L.C.550.G.N.D...	96981007					96782485	
S3.135.500.2500.6.74L.D.550.G.N.D...	96981008				96256024		
S3.135.500.2500.6.74L.H.550.G.N.D...	96981009			97500949			
S3.135.500.3150.6.74L.C.576.G.N.D...		96981010	96981013			96782485	
S3.135.500.3150.6.74L.D.576.G.N.D...		96981011	96981014		96256024		
S3.135.500.3150.6.74L.H.576.G.N.D...		96981012	96981015	97500961			
S3.135.600.2000.8.74E.C.616.G.N.D...	96981016					96782486	
S3.135.600.2000.8.74E.D.616.G.N.D...	96981017				96256025		
S3.135.600.2000.8.74E.H.616.G.N.D...	96981018			97500963			

Pump type	Pump				Accessories		
	3 x	3 x	3 x	Horizontal base stand ¹	To be ordered separately		
	380-415 / 660-690 V	380-400 / 660-690 V	415 V		Vertical base plate	Auto-coupling system ²	Seat ring cpl.
S3.135.600.2500.8.74E.C.664.G.N.D...	96981019					96782486	
S3.135.600.2500.8.74E.D.664.G.N.D...	96981020				96256025		
S3.135.600.2500.8.74E.H.664.G.N.D...	96981021			97500967			

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

Range 78

Pump type	Pump					Accessories			
	3 x 380-415 / 660 690 V	3 x 380-400 / 60 690 V	3 x 415 V	3 x 400-415 / 90 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately		
							Vertical base plate	Auto- coupling system 2	Seat ring cpl.
S3.115.500.3150.8.78H.C.778.G.N.D...	96981028							96782485	
S3.115.500.3150.8.78H.D.778.G.N.D...	96981029						97500283		
S3.115.500.3150.8.78H.H.778.G.N.D...	96981030					97500968			
S3.115.500.3500.8.78H.C.824.G.N.D...	96981031							96782485	
S3.115.500.3500.8.78H.D.824.G.N.D...	96981042						97500283		
S3.115.500.3500.8.78H.H.824.G.N.D...	96981043					97500968			
S3.115.500.4000.8.78H.C.860.G.N.D...	96981044							96782485	
S3.115.500.4000.8.78H.D.860.G.N.D...	96981045						97500283		
S3.115.500.4000.8.78H.H.860.G.N.D...	96981046					97500968			
S3.115.500.4500.8.78H.C.883.G.N.D...	96981047							96782485	
S3.115.500.4500.8.78H.D.883.G.N.D...	96981048						97500283		
S3.115.500.4500.8.78H.H.883.G.N.D...	96981049					97500968			
S3.115.500.5000.8.78H.C.902.G.N.D...	96981050							96782485	
S3.115.500.5000.8.78H.D.902.G.N.D...	96981051						97500283		
S3.115.500.5000.8.78H.H.902.G.N.D...	96981052					97500968			
S3.115.500.5200.8.78H.C.913.G.N.D...				96981056	96981053			96782485	
S3.115.500.5200.8.78H.D.913.G.N.D...				96981057	96981054		97500283		
S3.115.500.5200.8.78H.H.913.G.N.D...				96981058	96981055	97500968			
S3.130.500.2500.10.78M.C.814.G.N.D...	96981080							96782485	
S3.130.500.2500.10.78M.D.814.G.N.D...	96981081						97500283		
S3.130.500.2500.10.78M.H.814.G.N.D...	96981082					97500968			
S3.130.500.3150.8.78M.C.744.G.N.D...	96981059							96782485	
S3.130.500.3150.8.78M.D.744.G.N.D...	96981060						97500283		
S3.130.500.3150.8.78M.H.744.G.N.D...	96981061					97500968			
S3.130.500.3150.10.78M.C.856.G.N.D...	96981083							96782485	
S3.130.500.3150.10.78M.D.856.G.N.D...	96981084						97500283		
S3.130.500.3150.10.78M.H.856.G.N.D...	96981085					97500968			
S3.130.500.3500.8.78M.C.758.G.N.D...	96981062							96782485	
S3.130.500.3500.8.78M.D.758.G.N.D...	96981063						97500283		
S3.130.500.3500.8.78M.H.758.G.N.D...	96981064					97500968			
S3.130.500.3500.10.78M.C.886.G.N.D...	96981086							96782485	
S3.130.500.3500.10.78M.D.886.G.N.D...	96981087						97500283		
S3.130.500.3500.10.78M.H.886.G.N.D...	96981088					97500968			
S3.130.500.4000.8.78M.C.776.G.N.D...	96981065							96782485	
S3.130.500.4000.8.78M.D.776.G.N.D...	96981066						97500283		
S3.130.500.4000.8.78M.H.776.G.N.D...	96981067					97500968			
S3.130.500.4000.10.78M.C.936.G.N.D...		96981089	96981092					96782485	
S3.130.500.4000.10.78M.D.936.G.N.D...		96981090	96981093				97500283		
S3.130.500.4000.10.78M.H.936.G.N.D...		96981091	96981094			97500968			
S3.130.500.4500.8.78M.C.792.G.N.D...	96981068							96782485	
S3.130.500.4500.8.78M.D.792.G.N.D...	96981069						97500283		
S3.130.500.4500.8.78M.H.792.G.N.D...	96981070					97500968			
S3.130.500.5000.8.78M.C.808.G.N.D...	96981071							96782485	
S3.130.500.5000.8.78M.D.808.G.N.D...	96981072						97500283		
S3.130.500.5000.8.78M.H.808.G.N.D...	96981073					97500968			
S3.130.500.5200.8.78M.C.822.G.N.D...				96981077	96981074			96782485	
S3.130.500.5200.8.78M.D.822.G.N.D...				96981078	96981075		97500283		
S3.130.500.5200.8.78M.H.822.G.N.D...				96981079	96981076	97500968			
S3.145.500.1600.10.78L.C.717.G.N.D...	96981116							96782485	

Pump type	Pump					Accessories			
	3 x 380-415 /66 0 690 V	3 x 380-400 /6 60 690 V	3 x 415 V	3 x 400-415 /6 90 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately		
							Vertical base plate	Auto- coupling system 2	Seat ring cpl.
S3.145.500.1600.10.78L.D.717.G.N.D...	96981117						97500283		
S3.145.500.1600.10.78L.H.717.G.N.D...	96981118					97500968			
S3.145.500.2000.10.78L.C.760.G.N.D...	96981119							96782485	
S3.145.500.2000.10.78L.D.760.G.N.D...	96981120						97500283		
S3.145.500.2000.10.78L.H.760.G.N.D...	96981121					97500968			
S3.145.500.2500.10.78L.C.806.G.N.D...	96981122							96782485	
S3.145.500.2500.10.78L.D.806.G.N.D...	96981123						97500283		
S3.145.500.2500.10.78L.H.806.G.N.D...	96981124					97500968			
S3.145.500.3150.8.78L.C.717.G.N.D...	96981095							96782485	
S3.145.500.3150.8.78L.D.717.G.N.D...	96981096						97500283		
S3.145.500.3150.8.78L.H.717.G.N.D...	96981097					97500968			
S3.145.500.3150.10.78L.C.858.G.N.D...	96981125							96782485	
S3.145.500.3150.10.78L.D.858.G.N.D...	96981126						97500283		
S3.145.500.3150.10.78L.H.858.G.N.D...	96981127					97500968			
S3.145.500.3500.8.78L.C.736.G.N.D...	96981098							96782485	
S3.145.500.3500.8.78L.D.736.G.N.D...	96981099						97500283		
S3.145.500.3500.8.78L.H.736.G.N.D...	96981100					97500968			
S3.145.500.3500.10.78L.C.878.G.N.D...	96981128							96782485	
S3.145.500.3500.10.78L.D.878.G.N.D...	96981129						97500283		
S3.145.500.3500.10.78L.H.878.G.N.D...	96981130								
S3.145.500.4000.8.78L.C.774.G.N.D...	96981101							96782485	
S3.145.500.4000.8.78L.D.774.G.N.D...	96981102						97500283		
S3.145.500.4000.8.78L.H.774.G.N.D...	96981103					97500968			
S3.145.500.4500.8.78L.C.812.G.N.D...	96981104							96782485	
S3.145.500.4500.8.78L.D.812.G.N.D...	96981105						97500283		
S3.145.500.4500.8.78L.H.812.G.N.D...	96981106					97500968			
S3.145.500.5000.8.78L.C.832.G.N.D...	96981107							96782485	
S3.145.500.5000.8.78L.D.832.G.N.D...	96981108						97500283		
S3.145.500.5000.8.78L.H.832.G.N.D...	96981109					97500968			
S3.145.500.5200.8.78L.C.844.G.N.D...				96981113	96981110			96782485	
S3.145.500.5200.8.78L.D.844.G.N.D...				96981114	96981111		97500283		
S3.145.500.5200.8.78L.H.844.G.N.D...				96981115	96981112	97500968			
S4.135.600.1300.12.78E.C.746.G.N.D...	96981161							96782486	
S4.135.600.1300.12.78E.D.746.G.N.D...	96981162						97500287		
S4.135.600.1300.12.78E.H.746.G.N.D...	96981163					97500970			
S4.135.600.1600.12.78E.C.792.G.N.D...	96981164							96782486	
S4.135.600.1600.12.78E.D.792.G.N.D...	96981165						97500287		
S4.135.600.1600.12.78E.H.792.G.N.D...	96981166					97500970			
S4.135.600.2000.10.78E.C.724.G.N.D...	96981152							96782486	
S4.135.600.2000.10.78E.D.724.G.N.D...	96981153						97500287		
S4.135.600.2000.10.78E.H.724.G.N.D...	96981154					97500970			
S4.135.600.2500.10.78E.C.770.G.N.D...	96981155							96782486	
S4.135.600.2500.10.78E.D.770.G.N.D...	96981156						97500287		
S4.135.600.2500.10.78E.H.770.G.N.D...	96981157					97500970			
S4.135.600.3150.8.78E.C.662.G.N.D...	96981131							96782486	
S4.135.600.3150.8.78E.D.662.G.N.D...	96981132						97500287		
S4.135.600.3150.8.78E.H.662.G.N.D...	96981133					97500970			
S4.135.600.3150.10.78E.C.815.G.N.D...	96981158							96782486	
S4.135.600.3150.10.78E.D.815.G.N.D...	96981159						97500287		
S4.135.600.3150.10.78E.H.815.G.N.D...	96981160					97500970			
S4.135.600.3500.8.78E.C.700.G.N.D...	96981134							96782486	

Pump type	Pump					Accessories			
	3 x 380-415 /66 0 690 V	3 x 380-400 /6 60 690 V	3 x 415 V	3 x 400-415 /6 90 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately		
							Vertical base plate	Auto- coupling system 2	Seat ring cpl.
S4.135.600.3500.8.78E.D.700.G.N.D...	96981135						97500287		
S4.135.600.3500.8.78E.H.700.G.N.D...	96981136					97500970			
S4.135.600.4000.8.78E.C.720.G.N.D...	96981137							96782486	
S4.135.600.4000.8.78E.D.720.G.N.D...	96981138						97500287		
S4.135.600.4000.8.78E.H.720.G.N.D...	96981139					97500970			
S4.135.600.4500.8.78E.C.750.G.N.D...	96981140							96782486	
S4.135.600.4500.8.78E.D.750.G.N.D...	96981141						97500287		
S4.135.600.4500.8.78E.H.750.G.N.D...	96981142					97500970			
S4.135.600.5000.8.78E.C.779.G.N.D...	96981143							96782486	
S4.135.600.5000.8.78E.D.779.G.N.D...	96981144						97500287		
S4.135.600.5000.8.78E.H.779.G.N.D...	96981145					97500970			
S4.135.600.5200.8.78E.C.788.G.N.D...				96981149	96981146			96782486	
S4.135.600.5200.8.78E.D.788.G.N.D...				96981150	96981147		97500287		
S4.135.600.5200.8.78E.H.788.G.N.D...				96981151	96981148	97500970			

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

Explosion-proof pumps - cast iron

Range 72

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S2.90.250.2250.4.72S.S.496.G.EX.D...	95114500	95114501		96782483
S2.90.250.2250.4.72S.C.496.G.EX.D...	95114534	95114535		96782483
S2.90.250.2250.4.72S.D.496.G.EX.D...	95114568	95114569		96256023
S2.90.250.2250.4.72S.H.496.G.EX.D...	96856872	96856873	96256030	
S2.90.250.2250.4.72S.S.488.G.EX.D...	95114502	95114503		96782483
S2.90.250.2250.4.72S.C.488.G.EX.D...	95114536	95114537		96782483
S2.90.250.2250.4.72S.D.488.G.EX.D...	95114570	95114571		96256023
S2.90.250.2250.4.72S.H.488.G.EX.D...	96856874	96856875	96256030	
S2.90.250.2250.4.72S.S.478.G.EX.D...	95114504	95114505		96782483
S2.90.250.2250.4.72S.C.478.G.EX.D...	95114538	95114539		96782483
S2.90.250.2250.4.72S.D.478.G.EX.D...	95114572	95114573		96256023
S2.90.250.2250.4.72S.H.478.G.EX.D...	96856876	96856877	96256030	
S2.100.250.1750.4.72H.S.446.G.EX.D...	95114514	95114515		96782483
S2.100.250.1750.4.72H.C.446.G.EX.D...	95114548	95114549		96782483
S2.100.250.1750.4.72H.D.446.G.EX.D...	95114582	95114583		96256023
S2.100.250.1750.4.72H.H.446.G.EX.D...	96856886	96856887	96256030	
S2.100.250.1750.4.72H.S.434.G.EX.D...	95114516	95114517		96782483
S2.100.250.1750.4.72H.C.434.G.EX.D...	95114550	95114551		96782483
S2.100.250.1750.4.72H.D.434.G.EX.D...	95114584	95114585		96256023
S2.100.250.1750.4.72H.H.434.G.EX.D...	96856888	96856889	96256030	
S2.100.250.1750.4.72H.S.423.G.EX.D...	95114518	95114519		96782483
S2.100.250.1750.4.72H.C.423.G.EX.D...	95114552	95114553		96782483
S2.100.250.1750.4.72H.D.423.G.EX.D...	95114586	95114587		96256023
S2.100.250.1750.4.72H.H.423.G.EX.D...	96856890	96856891	96256030	
S2.100.250.1750.4.72H.S.412.G.EX.D...	95114520	95114521		96782483
S2.100.250.1750.4.72H.C.412.G.EX.D...	95114554	95114555		96782483
S2.100.250.1750.4.72H.D.412.G.EX.D...	95114588	95114589		96256023
S2.100.250.1750.4.72H.H.412.G.EX.D...	96856892	96856893	96256030	
S2.100.250.2250.4.72H.S.487.G.EX.D...	95114506	95114507		96782483
S2.100.250.2250.4.72H.C.487.G.EX.D...	95114540	95114541		96782483
S2.100.250.2250.4.72H.D.487.G.EX.D...	95114574	95114575		96256023
S2.100.250.2250.4.72H.H.487.G.EX.D...	96856878	96856879	96256030	
S2.100.250.2250.4.72H.S.478.G.EX.D...	95114508	95114509		96782483
S2.100.250.2250.4.72H.C.478.G.EX.D...	95114542	95114543		96782483
S2.100.250.2250.4.72H.D.478.G.EX.D...	95114576	95114577		96256023
S2.100.250.2250.4.72H.H.478.G.EX.D...	96856880	96856881	96256030	
S2.100.250.2250.4.72H.S.469.G.EX.D...	95114510	95114511		96782483
S2.100.250.2250.4.72H.C.469.G.EX.D...	95114544	95114545		96782483
S2.100.250.2250.4.72H.D.469.G.EX.D...	95114578	95114579		96256023
S2.100.250.2250.4.72H.H.469.G.EX.D...	96856882	96856883	96256030	
S2.100.250.2250.4.72H.S.458.G.EX.D...	95114512	95114513		96782483
S2.100.250.2250.4.72H.C.458.G.EX.D...	95114546	95114547		96782483
S2.100.250.2250.4.72H.D.458.G.EX.D...	95114580	95114581		96256023
S2.100.250.2250.4.72H.H.458.G.EX.D...	96856884	96856885	96256030	
S2.100.300.1750.4.72M.S.441.G.EX.D...	95114528	95114529		96782484
S2.100.300.1750.4.72M.C.441.G.EX.D...	95114562	95114563		96782484

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S2.100.300.1750.4.72M.D.441.G.EX.D...	95114596	95114597		96256023
S2.100.300.1750.4.72M.H.441.G.EX.D...	96856900	96856901	96256030	
S2.100.300.1750.4.72M.S.430.G.EX.D...	95114530	95114531		96782484
S2.100.300.1750.4.72M.C.430.G.EX.D...	95114564	95114565		96782484
S2.100.300.1750.4.72M.D.430.G.EX.D...	95114598	95114599		96256023
S2.100.300.1750.4.72M.H.430.G.EX.D...	96856902	96856903	96256030	
S2.100.300.1750.4.72M.S.418.G.EX.D...	95114532	95114533		96782484
S2.100.300.1750.4.72M.C.418.G.EX.D...	95114566	95114567		96782484
S2.100.300.1750.4.72M.D.418.G.EX.D...	95114600	95114601		96256023
S2.100.300.1750.4.72M.H.418.G.EX.D...	96856904	96856905	96256030	
S2.100.300.2250.4.72M.S.466.G.EX.D...	95114522	95114523		96782484
S2.100.300.2250.4.72M.C.466.G.EX.D...	95114556	95114557		96782484
S2.100.300.2250.4.72M.D.466.G.EX.D...	95114590	95114591		96256023
S2.100.300.2250.4.72M.H.466.G.EX.D...	96856894	96856895	96256030	
S2.100.300.2250.4.72M.S.459.G.EX.D...	95114524	95114525		96782484
S2.100.300.2250.4.72M.C.459.G.EX.D...	95114558	95114559		96782484
S2.100.300.2250.4.72M.D.459.G.EX.D...	95114592	95114593		96256023
S2.100.300.2250.4.72M.H.459.G.EX.D...	96856896	96856897	96256030	
S2.100.300.2250.4.72M.S.450.G.EX.D...	95114526	95114527		96782484
S2.100.300.2250.4.72M.C.450.G.EX.D...	95114560	95114561		96782484
S2.100.300.2250.4.72M.D.450.G.EX.D...	95114594	95114595		96256023
S2.100.300.2250.4.72M.H.450.G.EX.D...	96856898	96856899	96256030	
S3.110.300.1600.8.72H.S.630.G.EX.D...	95114692	95114693		96782484
S3.110.300.1600.8.72H.C.630.G.EX.D...	95114712	95114713		96782484
S3.110.300.1600.8.72H.D.630.G.EX.D...	95114732	95114733		96256023
S3.110.300.1600.8.72H.H.630.G.EX.D...	96856933	96856934	96256030	
S3.110.300.1600.8.72H.S.610.G.EX.D...	95114694	95114695		96782484
S3.110.300.1600.8.72H.C.610.G.EX.D...	95114714	95114715		96782484
S3.110.300.1600.8.72H.D.610.G.EX.D...	95114734	95114735		96256023
S3.110.300.1600.8.72H.H.610.G.EX.D...	96856935	96856936	96256030	
S3.110.300.1800.6.72H.S.546.G.EX.D...	95114608	95114609		96782484
S3.110.300.1800.6.72H.C.546.G.EX.D...	95114626	95114627		96782484
S3.110.300.1800.6.72H.D.546.G.EX.D...	95114644	95114645		96256023
S3.110.300.1800.6.72H.H.546.G.EX.D...	96856912	96856913	96256030	
S3.110.300.1800.6.72H.S.533.G.EX.D...	95114610	95114611		96782484
S3.110.300.1800.6.72H.C.533.G.EX.D...	95114628	95114629		96782484
S3.110.300.1800.6.72H.D.533.G.EX.D...	95114646	95114647		96256023
S3.110.300.1800.6.72H.H.533.G.EX.D...	96856914	96856915	96256030	
S3.110.300.1800.6.72H.S.518.G.EX.D...	95114612	95114613		96782484
S3.110.300.1800.6.72H.C.518.G.EX.D...	95114630	95114631		96782484
S3.110.300.1800.6.72H.D.518.G.EX.D...	95114648	95114649		96256023
S3.110.300.1800.6.72H.H.518.G.EX.D...	96856916	96856917	96256030	
S3.110.300.1800.6.72H.S.506.G.EX.D...	95114614	95114615		96782484
S3.110.300.1800.6.72H.C.506.G.EX.D...	95114632	95114633		96782484
S3.110.300.1800.6.72H.D.506.G.EX.D...	95114650	95114651		96256023
S3.110.300.1800.6.72H.H.506.G.EX.D...	96856918	96856919	96256030	
S3.120.500.1250.8.72M.S.574.G.EX.D...	95114700	95114701		96782485
S3.120.500.1250.8.72M.C.574.G.EX.D...	95114720	95114721		96782485
S3.120.500.1250.8.72M.D.574.G.EX.D...	95114740	95114741		96256023
S3.120.500.1250.8.72M.H.574.G.EX.D...	96856941	96856942	96256031	
S3.120.500.1600.8.72M.S.596.G.EX.D...	95114696	95114697		96782485
S3.120.500.1600.8.72M.C.596.G.EX.D...	95114716	95114717		96782485

Pump type	Pump		Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	To be ordered separately	
			Horizontal base stand ¹	Vertical base plate Auto-coupling system ²
S3.120.500.1600.8.72M.D.596.G.EX.D...	95114736	95114737		96256023
S3.120.500.1600.8.72M.H.596.G.EX.D...	96856937	96856938	96256031	
S3.120.500.1600.8.72M.S.584.G.EX.D...	95114698	95114699		96782485
S3.120.500.1600.8.72M.C.584.G.EX.D...	95114718	95114719		96782485
S3.120.500.1600.8.72M.D.584.G.EX.D...	95114738	95114739		96256023
S3.120.500.1600.8.72M.H.584.G.EX.D...	96856939	96856940	96256031	
S3.120.500.1800.6.72M.S.522.G.EX.D...	95114616	95114617		96782485
S3.120.500.1800.6.72M.C.522.G.EX.D...	95114634	95114635		96782485
S3.120.500.1800.6.72M.D.522.G.EX.D...	95114652	95114653		96256023
S3.120.500.1800.6.72M.H.522.G.EX.D...	96856920	96856921	96256031	
S3.120.500.1800.6.72M.S.506.G.EX.D...	95114618	95114619		96782485
S3.120.500.1800.6.72M.C.506.G.EX.D...	95114636	95114637		96782485
S3.120.500.1800.6.72M.D.506.G.EX.D...	95114654	95114655		96256023
S3.120.500.1800.6.72M.H.506.G.EX.D...	96856922	96856923	96256031	
S3.135.500.1250.8.72L.S.567.G.EX.D...	95114704	95114705		96782485
S3.135.500.1250.8.72L.C.567.G.EX.D...	95114724	95114725		96782485
S3.135.500.1250.8.72L.D.567.G.EX.D...	96308011	96308012		96256024
S3.135.500.1250.8.72L.H.567.G.EX.D...	96856945	96856946	96256032	
S3.135.500.1250.8.72L.S.556.G.EX.D...	95114706	95114707		96782485
S3.135.500.1250.8.72L.C.556.G.EX.D...	95114726	95114727		96782485
S3.135.500.1250.8.72L.D.556.G.EX.D...	96308013	96308014		96256024
S3.135.500.1250.8.72L.H.556.G.EX.D...	96856947	96856948	96256032	
S3.135.500.1250.8.72L.S.542.G.EX.D...	95114708	95114709		96782485
S3.135.500.1250.8.72L.C.542.G.EX.D...	95114728	95114729		96782485
S3.135.500.1250.8.72L.D.542.G.EX.D...	96308015	96308016		96256024
S3.135.500.1250.8.72L.H.542.G.EX.D...	96856949	96856950	96256032	
S3.135.500.1600.8.72L.S.580.G.EX.D...	95114702	95114703		96782485
S3.135.500.1600.8.72L.C.580.G.EX.D...	95114722	95114723		96782485
S3.135.500.1600.8.72L.D.580.G.EX.D...	95114742	95114743		96256024
S3.135.500.1600.8.72L.H.580.G.EX.D...	96856943	96856944	96256032	
S3.135.500.1800.6.72L.S.500.G.EX.D...	95114620	95114621		96782485
S3.135.500.1800.6.72L.C.500.G.EX.D...	95114638	95114639		96782485
S3.135.500.1800.6.72L.D.500.G.EX.D...	95114656	95114657		96256024
S3.135.500.1800.6.72L.H.500.G.EX.D...	96856924	96856925	96256032	
S3.135.500.1800.6.72L.S.488.G.EX.D...	95114622	95114623		96782485
S3.135.500.1800.6.72L.C.488.G.EX.D...	95114640	95114641		96782485
S3.135.500.1800.6.72L.D.488.G.EX.D...	95114658	95114659		96256024
S3.135.500.1800.6.72L.H.488.G.EX.D...	96856926	96856927	96256032	
S3.135.500.1800.6.72L.S.474.G.EX.D...	95114624	95114625		96782485
S3.135.500.1800.6.72L.C.474.G.EX.D...	95114642	95114643		96782485
S3.135.500.1800.6.72L.D.474.G.EX.D...	95114660	95114661		96256024
S3.135.500.1800.6.72L.H.474.G.EX.D...	96856928	96856929	96256032	
S3.135.600.900.10.72E.S.560.G.EX.D...	96308031	96308032		96782486
S3.135.600.900.10.72E.C.560.G.EX.D...	96308041	96308042		96782486
S3.135.600.900.10.72E.D.560.G.EX.D...	96308051	96308052		96256025
S3.135.600.900.10.72E.H.560.G.EX.D...	96856961	96856962	96256033	
S3.135.600.1100.10.72E.S.606.G.EX.D...	96308027	96308028		96782486
S3.135.600.1100.10.72E.C.606.G.EX.D...	96308037	96308038		96782486
S3.135.600.1100.10.72E.D.606.G.EX.D...	96308047	96308048		96256025
S3.135.600.1100.10.72E.H.606.G.EX.D...	96856957	96856958	96256033	
S3.135.600.1100.10.72E.S.580.G.EX.D...	96308029	96308030		96782486
S3.135.600.1100.10.72E.C.580.G.EX.D...	96308039	96308040		96782486

Pump type	Pump			Accessories	
	3 x 380-400 / 660-690 V	3 x 415 V	Horizontal base stand ¹	To be ordered separately	
				Vertical base plate	Auto-coupling system ²
S3.135.600.1100.10.72E.D.580.G.EX.D...	96308049	96308050		96256025	
S3.135.600.1100.10.72E.H.580.G.EX.D...	96856959	96856960	96256033		
S3.135.600.1300.10.72E.S.657.G.EX.D...	96308023	96308024			96782486
S3.135.600.1300.10.72E.C.657.G.EX.D...	96308033	96308034			96782486
S3.135.600.1300.10.72E.D.657.G.EX.D...	96308043	96308044		96256025	
S3.135.600.1300.10.72E.H.657.G.EX.D...	96856953	96856954	96256033		
S3.135.600.1300.10.72E.S.635.G.EX.D...	96308025	96308026			96782486
S3.135.600.1300.10.72E.C.635.G.EX.D...	96308035	96308036			96782486
S3.135.600.1300.10.72E.D.635.G.EX.D...	96308045	96308046		96256025	
S3.135.600.1300.10.72E.H.635.G.EX.D...	96856955	96856956	96256033		
S3.135.600.1600.8.72E.S.560.G.EX.D...	95114710	95114711			96782486
S3.135.600.1600.8.72E.C.560.G.EX.D...	95114730	95114731			96782486
S3.135.600.1600.8.72E.D.560.G.EX.D...	96308017	96308018		96256025	
S3.135.600.1600.8.72E.H.560.G.EX.D...	96856951	96856952	96256033		

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

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Pump type	Pump				Accessories		
	3 x 380-415 / 660-690 V	3 x 380-400 / 660-690 V	3 x 415 V	Horizontal base stand ¹	To be ordered separately		
					Vertical base plate	Auto-coupling system ²	Seat ring cpl.
S2.90.300.2500.4.74S.C.506.G.EX.D...	99156287					97500267	
S2.90.300.2500.4.74S.D.506.G.EX.D...	99156288				96256023		
S2.90.300.2500.4.74S.H.506.G.EX.D...	99156289			97500945			
S2.90.300.3150.4.74S.C.550.G.EX.D...	99156290					97500267	
S2.90.300.3150.4.74S.D.550.G.EX.D...	99156291				96256023		
S2.90.300.3150.4.74S.H.550.G.EX.D...	99156292			97500946			
S2.100.300.2500.4.74M.C.483.G.EX.D...	99156310					97500267	
S2.100.300.2500.4.74M.D.483.G.EX.D...	99156311				96256023		
S2.100.300.2500.4.74M.H.483.G.EX.D...	99156312			97500945			
S2.100.300.2500.4.74H.C.490.G.EX.D...	99156304					96782484	
S2.100.300.2500.4.74H.D.490.G.EX.D...	99156305				96256023		
S2.100.300.2500.4.74H.H.490.G.EX.D...	99156306			97500945			
S2.100.300.3150.4.74M.C.514.G.EX.D...	99156313					97500267	
S2.100.300.3150.4.74M.D.514.G.EX.D...	99156314				96256023		
S2.100.300.3150.4.74M.H.514.G.EX.D...	99156315			97500946			
S2.100.300.3150.4.74H.C.518.G.EX.D...	99156307					96782484	
S2.100.300.3150.4.74H.D.518.G.EX.D...	99156308				96256023		
S2.100.300.3150.4.74H.H.518.G.EX.D...	99156309			97500946			
S3.110.300.2000.6.74H.C.549.G.EX.D...	99156316					96782484	
S3.110.300.2000.6.74H.D.549.G.EX.D...	99156317				96256023		
S3.110.300.2000.6.74H.H.549.G.EX.D...	99156318			97500945			
S3.110.300.2500.6.74H.C.596.G.EX.D...	99156297					96782484	
S3.110.300.2500.6.74H.D.596.G.EX.D...	99156298				96256023		
S3.110.300.2500.6.74H.H.596.G.EX.D...	99156299			97500945			
S3.110.300.3150.6.74H.C.620.G.EX.D...		99156300	99156363			96782484	
S3.110.300.3150.6.74H.D.620.G.EX.D...		99156301	99156364		96256023		
S3.110.300.3150.6.74H.H.620.G.EX.D...		99156302	99156365	97500946			
S3.120.500.2000.6.74M.C.531.G.EX.D...	99156366					96782485	
S3.120.500.2000.6.74M.D.531.G.EX.D...	99156367				96256023		
S3.120.500.2000.6.74M.H.531.G.EX.D...	99156368			97500945			
S3.120.500.2500.6.74M.C.560.G.EX.D...	99156369					96782485	
S3.120.500.2500.6.74M.D.560.G.EX.D...	99156370				96256023		
S3.120.500.2500.6.74M.H.560.G.EX.D...	99156371			97500945			
S3.120.500.3150.6.74M.C.584.G.EX.D...		99156372	99156375			96782485	
S3.120.500.3150.6.74M.D.584.G.EX.D...		99156373	99156376		96256023		
S3.120.500.3150.6.74M.H.584.G.EX.D...		99156374	99156377	97500946			
S3.135.500.2000.6.74L.C.513.G.EX.D...	99156378					96782485	
S3.135.500.2000.6.74L.D.513.G.EX.D...	99156379				96256024		
S3.135.500.2000.6.74L.H.513.G.EX.D...	99156380			97500949			
S3.135.500.2500.6.74L.C.550.G.EX.D...	99156381					96782485	
S3.135.500.2500.6.74L.D.550.G.EX.D...	99156382				96256024		
S3.135.500.2500.6.74L.H.550.G.EX.D...	99156383			97500949			
S3.135.500.3150.6.74L.C.576.G.EX.D...		99156384	99156387			96782485	
S3.135.500.3150.6.74L.D.576.G.EX.D...		99156385	99156388		96256024		
S3.135.500.3150.6.74L.H.576.G.EX.D...		99156386	99156389	97500961			
S3.135.600.2000.8.74E.C.616.G.EX.D...	99156390					96782486	
S3.135.600.2000.8.74E.D.616.G.EX.D...	99156391				96256025		
S3.135.600.2000.8.74E.H.616.G.EX.D...	99156392			97500963			

Pump type	Pump				Accessories		
	3 x 380-415 / 660-690 V	3 x 380-400 / 660-690 V	3 x 415 V	Horizontal base stand ¹	To be ordered separately		
					Vertical base plate	Auto-coupling system ²	Seat ring cpl.
S3.135.600.2500.8.74E.C.664.G.EX.D...	99156393					96782486	
S3.135.600.2500.8.74E.D.664.G.EX.D...	99156394				96256025		
S3.135.600.2500.8.74E.H.664.G.EX.D...	99156395			97500967			

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

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Pump type	Pump					Accessories			
	3 x 380-415 /66 0 690 V	3 x 380-400 /66 0 690 V	3 x 415 V	3 x 400-415 /69 0 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately		
							Vertical base plate	Auto- coupling system 2	Seat ring cpl.
S3.115.500.3150.8.78H.C.778.G.EX.D...	99156399							96782485	
S3.115.500.3150.8.78H.D.778.G.EX.D...	99156400						97500283		
S3.115.500.3150.8.78H.H.778.G.EX.D...	99156401					97500968			
S3.115.500.3500.8.78H.C.824.G.EX.D...	99156402							96782485	
S3.115.500.3500.8.78H.D.824.G.EX.D...	99156403						97500283		
S3.115.500.3500.8.78H.H.824.G.EX.D...	99156404					97500968			
S3.115.500.4000.8.78H.C.860.G.EX.D...	99156405							96782485	
S3.115.500.4000.8.78H.D.860.G.EX.D...	99156406						97500283		
S3.115.500.4000.8.78H.H.860.G.EX.D...	99156407					97500968			
S3.115.500.4500.8.78H.C.883.G.EX.D...	99156408							96782485	
S3.115.500.4500.8.78H.D.883.G.EX.D...	99156409						97500283		
S3.115.500.4500.8.78H.H.883.G.EX.D...	99156410					97500968			
S3.115.500.5000.8.78H.C.902.G.EX.D...	99156411							96782485	
S3.115.500.5000.8.78H.D.902.G.EX.D...	99156412						97500283		
S3.115.500.5000.8.78H.H.902.G.EX.D...	99156413					97500968			
S3.115.500.5200.8.78H.C.913.G.EX.D...				99156417	99156414			96782485	
S3.115.500.5200.8.78H.D.913.G.EX.D...				99156418	99156415		97500283		
S3.115.500.5200.8.78H.H.913.G.EX.D...				99156419	99156416	97500968			
S3.130.500.2500.10.78M.C.814.G.EX.D...	99156441							96782485	
S3.130.500.2500.10.78M.D.814.G.EX.D...	99156442						97500283		
S3.130.500.2500.10.78M.H.814.G.EX.D...	99156443					97500968			
S3.130.500.3150.8.78M.C.744.G.EX.D...	99156420							96782485	
S3.130.500.3150.8.78M.D.744.G.EX.D...	99156421						97500283		
S3.130.500.3150.8.78M.H.744.G.EX.D...	99156422					97500968			
S3.130.500.3150.10.78M.C.856.G.EX.D...	99156444							96782485	
S3.130.500.3150.10.78M.D.856.G.EX.D...	99156445						97500283		
S3.130.500.3150.10.78M.H.856.G.EX.D...	99156446					97500968			
S3.130.500.3500.8.78M.C.758.G.EX.D...	99156423							96782485	
S3.130.500.3500.8.78M.D.758.G.EX.D...	99156424						97500283		
S3.130.500.3500.8.78M.H.758.G.EX.D...	99156425					97500968			
S3.130.500.3500.10.78M.C.886.G.EX.D...			99156447					96782485	
S3.130.500.3500.10.78M.D.886.G.EX.D...			99156448				97500283		
S3.130.500.3500.10.78M.H.886.G.EX.D...			99156449			97500968			
S3.130.500.4000.8.78M.C.776.G.EX.D...	99156426							96782485	
S3.130.500.4000.8.78M.D.776.G.EX.D...	99156427						97500283		
S3.130.500.4000.8.78M.H.776.G.EX.D...	99156428					97500968			
S3.130.500.4000.10.78M.C.936.G.EX.D...		99156450	99156453					96782485	
S3.130.500.4000.10.78M.D.936.G.EX.D...		99156451	99156454				97500283		
S3.130.500.4000.10.78M.H.936.G.EX.D...		99156452	99156455			97500968			
S3.130.500.4500.8.78M.C.792.G.EX.D...	99156429							96782485	
S3.130.500.4500.8.78M.D.792.G.N.D...	99156430						97500283		
S3.130.500.4500.8.78M.H.792.G.EX.D...	99156431					97500968			
S3.130.500.5000.8.78M.C.808.G.EX.D...	99156432							96782485	
S3.130.500.5000.8.78M.D.808.G.EX.D...	99156433						97500283		
S3.130.500.5000.8.78M.H.808.G.EX.D...	99156434					97500968			
S3.130.500.5200.8.78M.C.822.G.EX.D...				99156438	99156435			96782485	
S3.130.500.5200.8.78M.D.822.G.EX.D...				99156439	99156436		97500283		
S3.130.500.5200.8.78M.H.822.G.EX.D...				99156440	99156437	97500968			
S3.145.500.1600.10.78L.C.717.G.EX.D...	99156477							96782485	

Pump type	Pump					Accessories			
	3 x 380-415 / 66 0 690 V	3 x 380-400 / 66 0 690 V	3 x 415 V	3 x 400-415 / 69 0 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately		
							Vertical base plate	Auto- coupling system 2	Seat ring cpl.
S3.145.500.1600.10.78L.D.717.G.EX.D...	99156478						97500283		
S3.145.500.1600.10.78L.H.717.G.EX.D...	99156479					97500968			
S3.145.500.2000.10.78L.C.760.G.EX.D...	99156480							96782485	
S3.145.500.2000.10.78L.D.760.G.EX.D...	99156481						97500283		
S3.145.500.2000.10.78L.H.760.G.EX.D...	99156482					97500968			
S3.145.500.2500.10.78L.C.806.G.EX.D...	99156483							96782485	
S3.145.500.2500.10.78L.D.806.G.EX.D...	99156484						97500283		
S3.145.500.2500.10.78L.H.806.G.EX.D...	99156485					97500968			
S3.145.500.3150.8.78L.C.717.G.EX.D...	99156456							96782485	
S3.145.500.3150.8.78L.D.717.G.EX.D...	99156457						97500283		
S3.145.500.3150.8.78L.H.717.G.EX.D...	99156458					97500968			
S3.145.500.3150.10.78L.C.858.G.EX.D...	99156486							96782485	
S3.145.500.3150.10.78L.D.858.G.EX.D...	99156487						97500283		
S3.145.500.3150.10.78L.H.858.G.EX.D...	99156488					97500968			
S3.145.500.3500.8.78L.C.736.G.EX.D...	99156459							96782485	
S3.145.500.3500.8.78L.D.736.G.EX.D...	99156460						97500283		
S3.145.500.3500.8.78L.H.736.G.EX.D...	99156461					97500968			
S3.145.500.3500.10.78L.C.878.G.EX.D...			99156489					96782485	
S3.145.500.3500.10.78L.D.878.G.EX.D...			99156490				97500283		
S3.145.500.3500.10.78L.H.878.G.EX.D...			99156491						
S3.145.500.4000.8.78L.C.774.G.EX.D...	99156462							96782485	
S3.145.500.4000.8.78L.D.774.G.EX.D...	99156463						97500283		
S3.145.500.4000.8.78L.H.774.G.EX.D...	99156464					97500968			
S3.145.500.4500.8.78L.C.812.G.EX.D...	99156465							96782485	
S3.145.500.4500.8.78L.D.812.G.EX.D...	99156466						97500283		
S3.145.500.4500.8.78L.H.812.G.EX.D...	99156467					97500968			
S3.145.500.5000.8.78L.C.832.G.EX.D...	99156468							96782485	
S3.145.500.5000.8.78L.D.832.G.EX.D...	99156469						97500283		
S3.145.500.5000.8.78L.H.832.G.EX.D...	99156470					97500968			
S3.145.500.5200.8.78L.C.844.G.EX.D...				99156474	99156471			96782485	
S3.145.500.5200.8.78L.D.844.G.EX.D...				99156475	99156472		97500283		
S3.145.500.5200.8.78L.H.844.G.EX.D...				99156476	99156473	97500968			
S4.135.600.1300.12.78E.C.746.G.EX.D...	99156522							96782486	
S4.135.600.1300.12.78E.D.746.G.EX.D...	99156523						97500287		
S4.135.600.1300.12.78E.H.746.G.EX.D...	99156524					97500970			
S4.135.600.1600.12.78E.C.792.G.EX.D...	99156525							96782486	
S4.135.600.1600.12.78E.D.792.G.EX.D...	99156527						97500287		
S4.135.600.1600.12.78E.H.792.G.EX.D...	99156528					97500970			
S4.135.600.2000.10.78E.C.724.G.EX.D...	99156513							96782486	
S4.135.600.2000.10.78E.D.724.G.EX.D...	99156514						97500287		
S4.135.600.2000.10.78E.H.724.G.EX.D...	99156515					97500970			
S4.135.600.2500.10.78E.C.770.G.EX.D...	99156516							96782486	
S4.135.600.2500.10.78E.C.770.G.EX.D...	99156517						97500287		
S4.135.600.2500.10.78E.D.770.G.EX.D...	99156518					97500970			
S4.135.600.3150.8.78E.C.662.G.EX.D...	99156492							96782486	
S4.135.600.3150.8.78E.D.662.G.EX.D...	99156493						97500287		
S4.135.600.3150.8.78E.H.662.G.EX.D...	99156494					97500970			
S4.135.600.3150.10.78E.C.815.G.EX.D...	99156519							96782486	
S4.135.600.3150.10.78E.D.815.G.EX.D...	99156520						97500287		
S4.135.600.3150.10.78E.H.815.G.EX.D...	99156521					97500970			
S4.135.600.3500.8.78E.C.700.G.EX.D...	99156495							96782486	

Pump type	Pump					Accessories		
	3 x 380-415 /66 0 690 V	3 x 380-400 /66 0 690 V	3 x 415 V	3 x 400-415 /69 0 V	3 x 380/660 V	Horizontal base stand 1	To be ordered separately	
							Vertical base plate	Auto- coupling system 2 Seat ring cpl.
S4.135.600.3500.8.78E.D.700.G.EX.D...	99156496						97500287	
S4.135.600.3500.8.78E.H.700.G.EX.D...	99156497					97500970		
S4.135.600.4000.8.78E.C.720.G.EX.D...	99156498							96782486
S4.135.600.4000.8.78E.D.720.G.EX.D...	99156499						97500287	
S4.135.600.4000.8.78E.H.720.G.EX.D...	99156500					97500970		
S4.135.600.4500.8.78E.C.750.G.EX.D...	99156501							96782486
S4.135.600.4500.8.78E.D.750.G.EX.D...	99156502						97500287	
S4.135.600.4500.8.78E.H.750.G.EX.D...	99156503					97500970		
S4.135.600.5000.8.78E.C.779.G.EX.D...	99156504							96782486
S4.135.600.5000.8.78E.D.779.G.EX.D...	99156505						97500287	
S4.135.600.5000.8.78E.H.779.G.EX.D...	99156506					97500970		
S4.135.600.5200.8.78E.C.788.G.EX.D...				99156510	99156507			96782486
S4.135.600.5200.8.78E.D.788.G.EX.D...				99156511	99156508		97500287	
S4.135.600.5200.8.78E.H.788.G.EX.D...				99156512	99156509	97500970		

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Installation type S and C pumps with outlet flange size DN 250 and higher are supplied with a guide claw mounted on the flange.

6. Variants

List of variants

Motor		
Various cable lengths		15 m
		25 m
		50 m
EMC power cables	Screened power cables for variable-speed drives	10 m
		15 m
		25 m
		50 m
Special motor		Insulation class H
		Special voltage
		Reinforced insulation for frequency converter operation (motors above 500 V)
Special oil	Non-toxic Shell Ondina X 420 ¹	
Motor protection		
SM 113 built into the junction box		Sensor version B
Vibration sensor in the terminal compartment		
Pt100 sensors in all three windings		
PTC thermistors in windings		
Insulated upper bearing for VSD use	Recommended for motors above 75 kW ²	
Pt100 on lower bearing + Pt100 on windings	Ranges 72 and 74	Sensor set 1
Pt100 on lower bearing + Pt100 on upper bearing + Pt100 on windings	All	Sensor set 2
Pt100 on lower bearing + Pt100 on upper bearing + Pt100 on windings + PVS3 vibration sensor	Ranges 74 and 78	Sensor set 3
External water-in-oil sensor		WIO
Coating		
Special paint thickness	300 µm (painted twice)	
	450 µm (painted three times)	
Impeller (external surface)	Epoxy coating (NCS 900N/RAL 9005 gloss 30, black)	
	Belzona 1321 coating (brush painted, blue)	
Impeller (internal surface)	Chesterton ARC 855 ceramic coating (grey)	
Pump housing (internal)	Epoxy coating (NCS 900N/RAL 9005 gloss 30, black)	
	Belzona 1321 coating (brush painted, blue)	
	Chesterton ARC 855 ceramic coating (grey)	
Inlet cover	Epoxy coating (NCS 900N/RAL 9005 gloss 30, black)	
	Belzona 1321 coating (brush painted, blue)	
	Chesterton ARC 855 ceramic coating (grey)	
Zinc anodes (outside of inlet cover / volute)	3 pcs.	
Materials		
Stainless steel lifting bracket	AISI 316	
Stainless steel shaft	AISI 329	
Impeller	Stainless steel 1.4408	Ranges 72 and 78
	Duplex stainless steel ASTM A890 Grade 3A	Ranges 74 and 78

¹ For pumps with a WIO sensor, Shell Ondina is not an option.

² Recommendation from the motor supplier. Grundfos can supply insulated bearings for smaller motors as well if required.

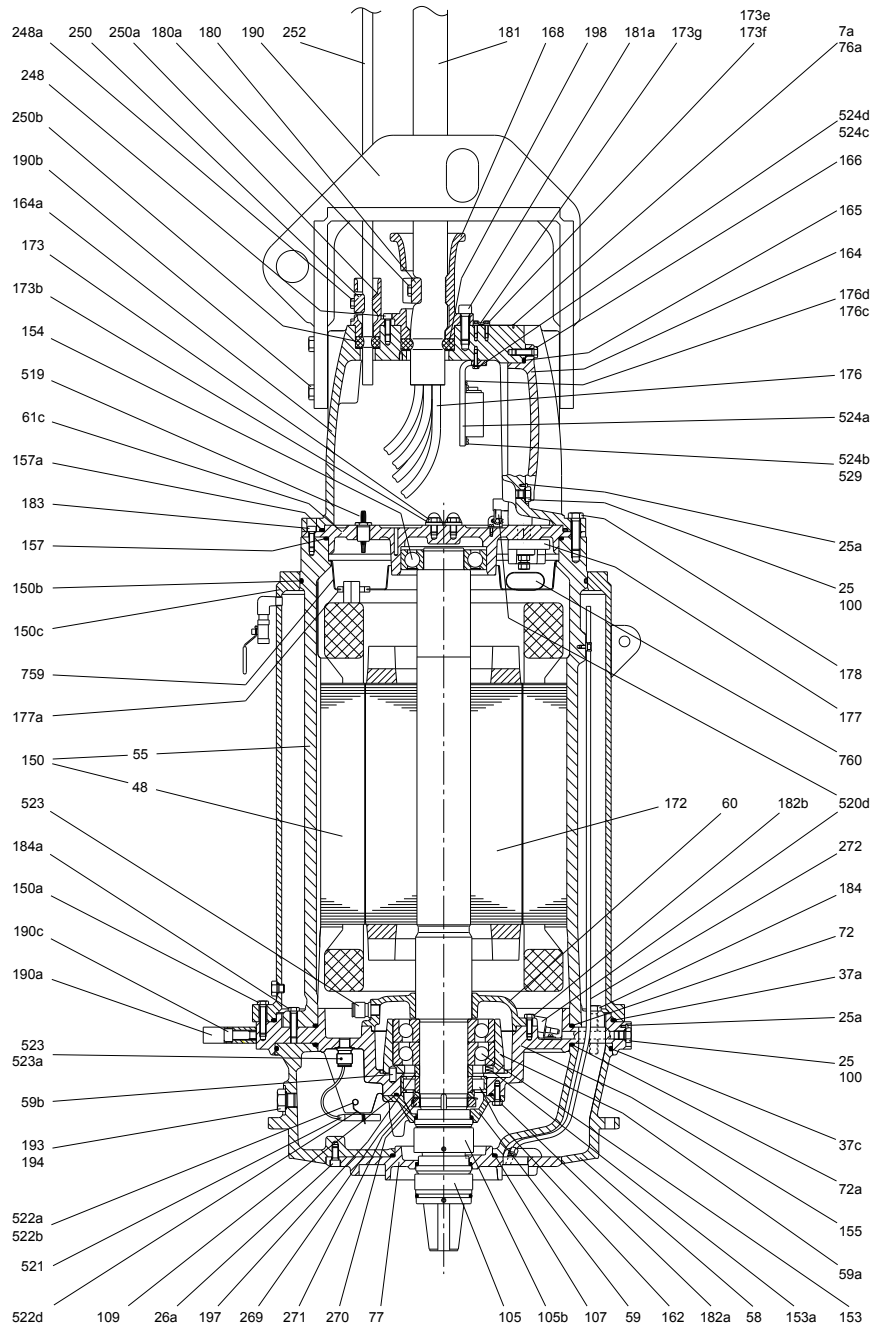
Note: Other variants may be available. Please contact Grundfos.

Tests		
Test at specified duty on standard impeller curve		
Trimmed impeller for specified duty test		
An additional test of the entire QH curve (including the report)	5-10 points on the pump performance curve	
Different test standard	Efficiency guaranteed by Grundfos	ISO 9906:2012 grade 1E tolerances
		ISO 9906:2012 grade 1B/1U tolerances
		ISO 9906:2012 grade 2B/2U tolerances
Vibration test (including report)	According to Grundfos factory quality standard	
Performance test on dry test stand	Contact Grundfos	
NPSHr test	Contact Grundfos	
String test	Contact Grundfos	
Witness test	Contact Grundfos	
Miscellaneous		
Special packaging	Contact Grundfos	
Special nameplate	Contact Grundfos	
Old UK-guide shoe	Factory-installed	
Other variants	Contact Grundfos	

7. Construction

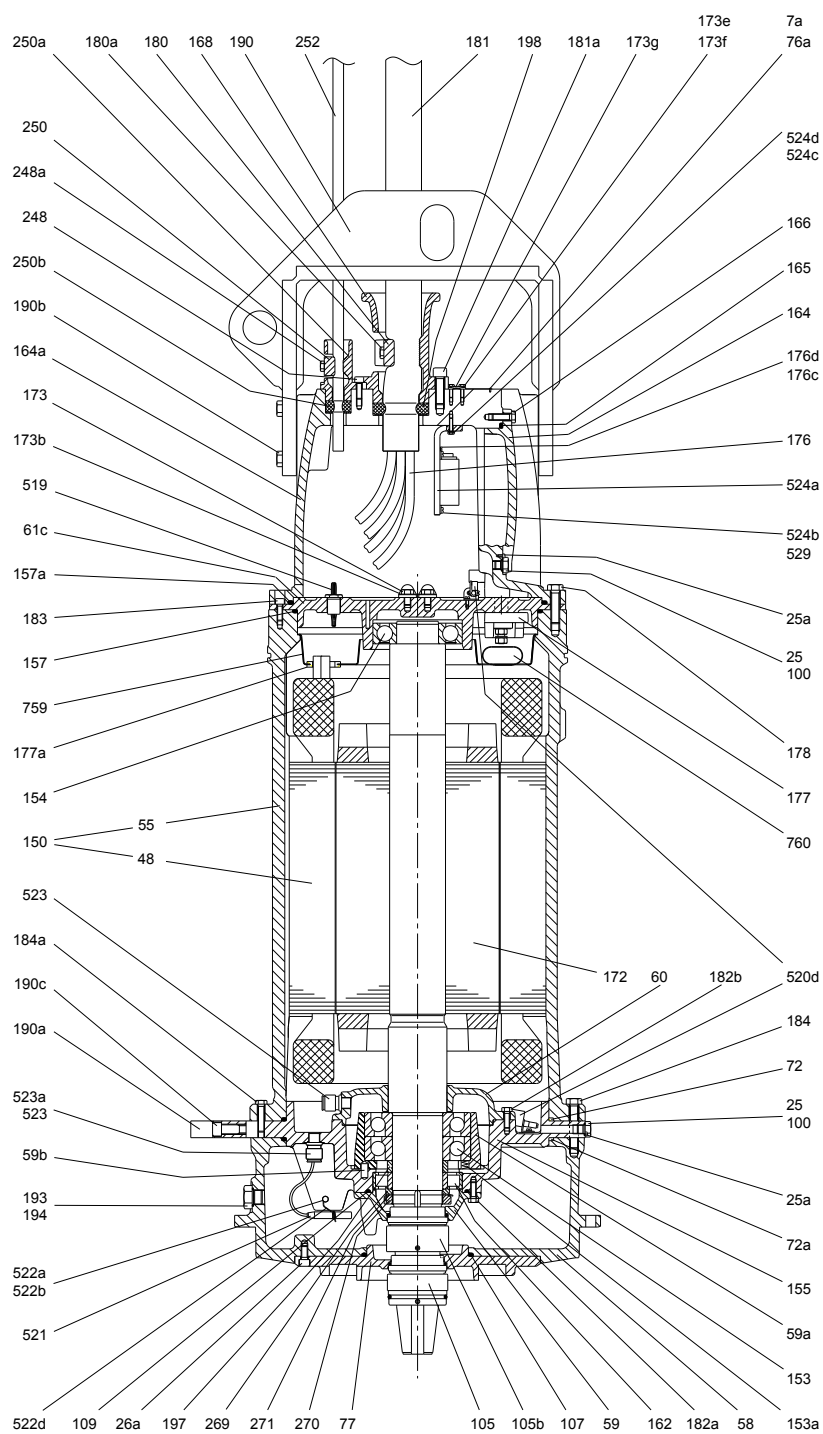
Sectional drawings, motors

Range 72



TM046473

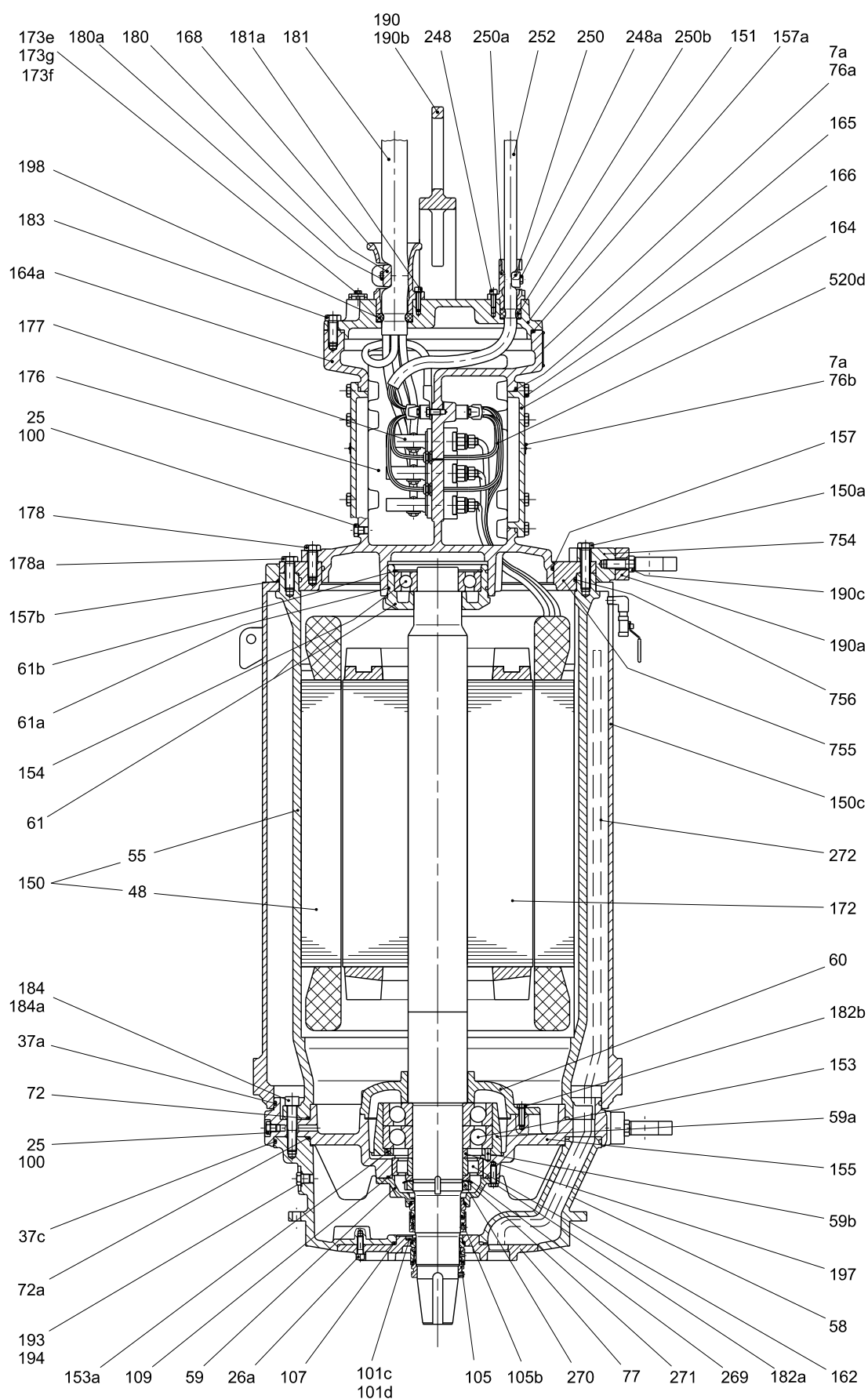
Motor with cooling jacket



Motor without cooling jacket

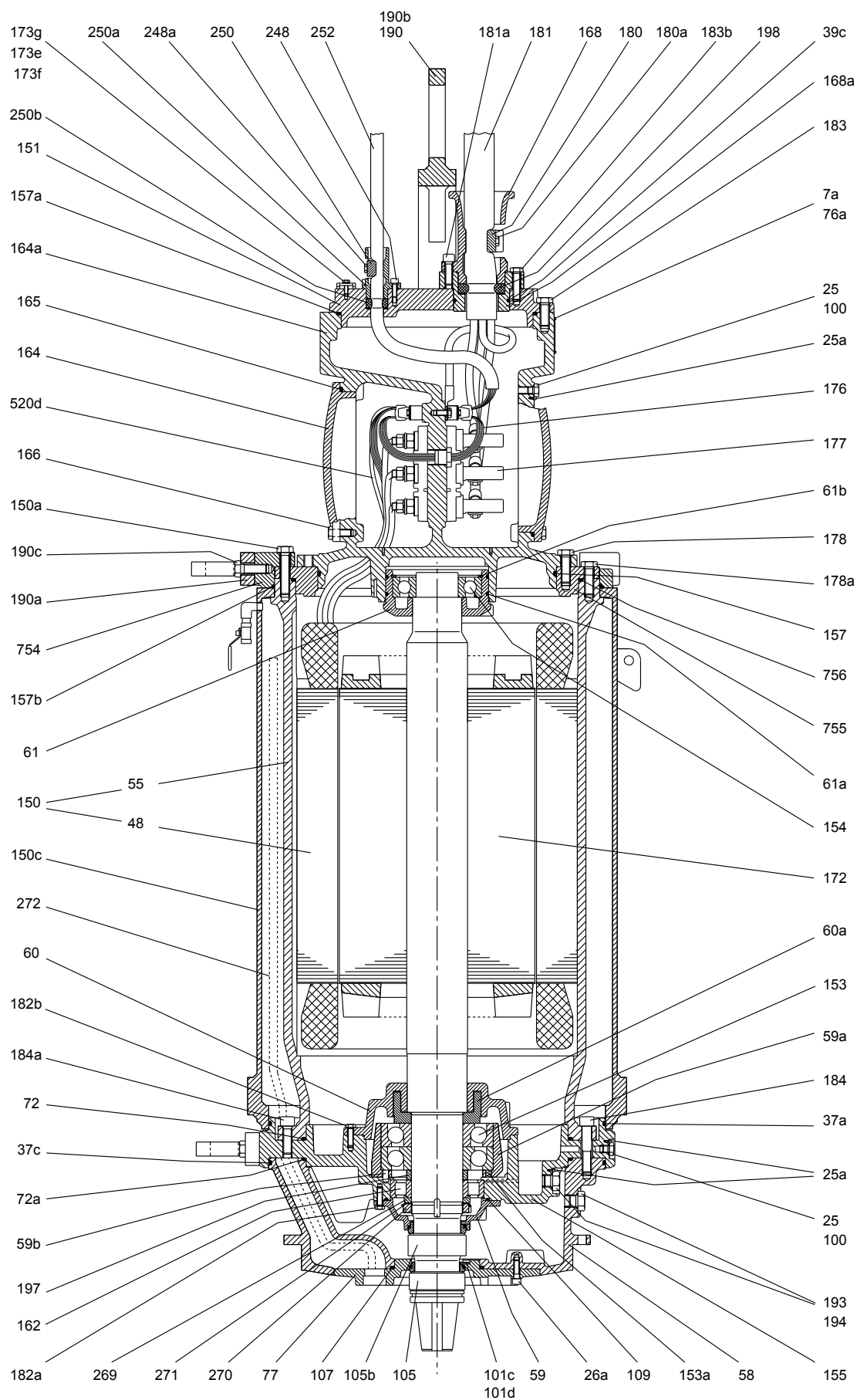
TM046474

Range 74



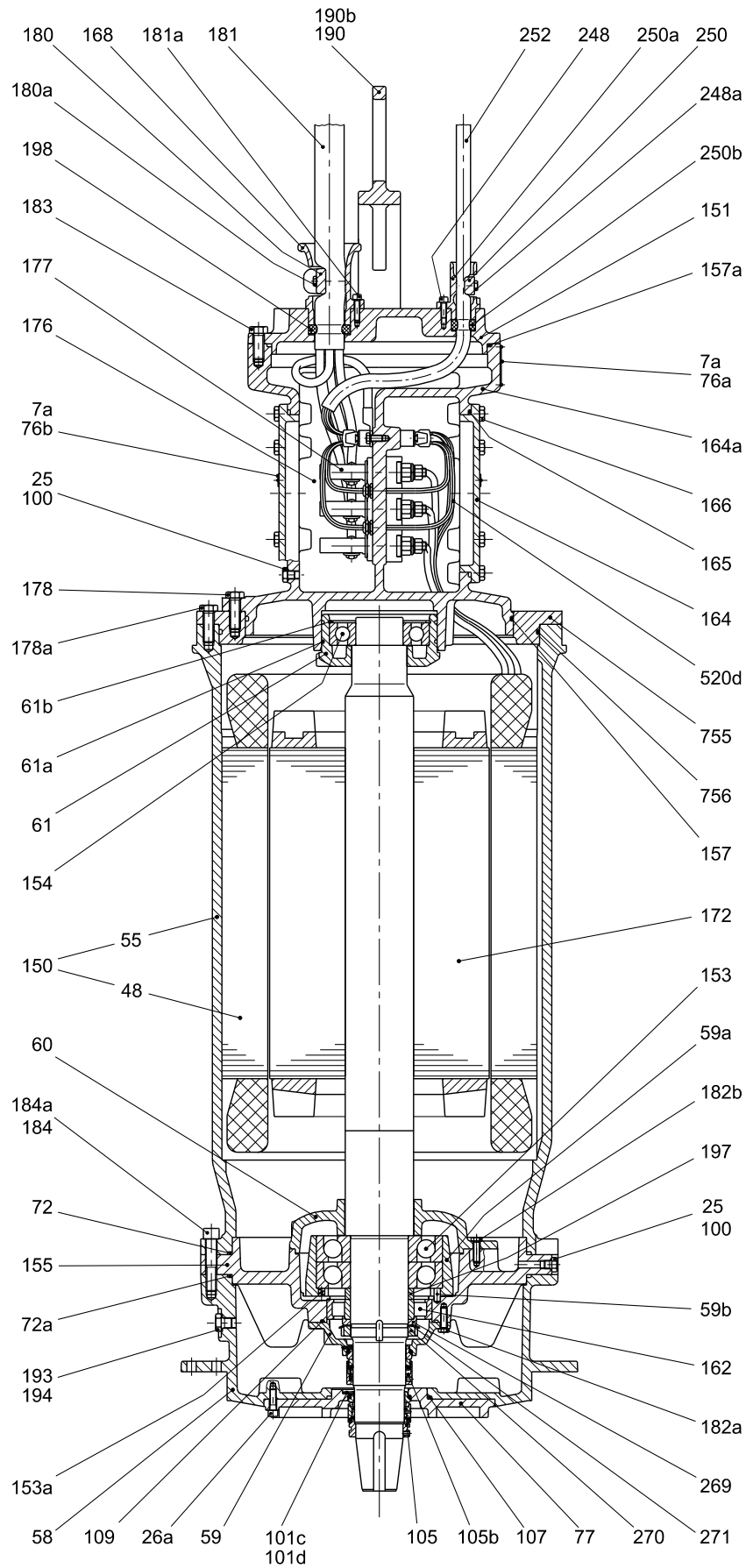
TM046061

Non-explosion-proof motor with cooling jacket



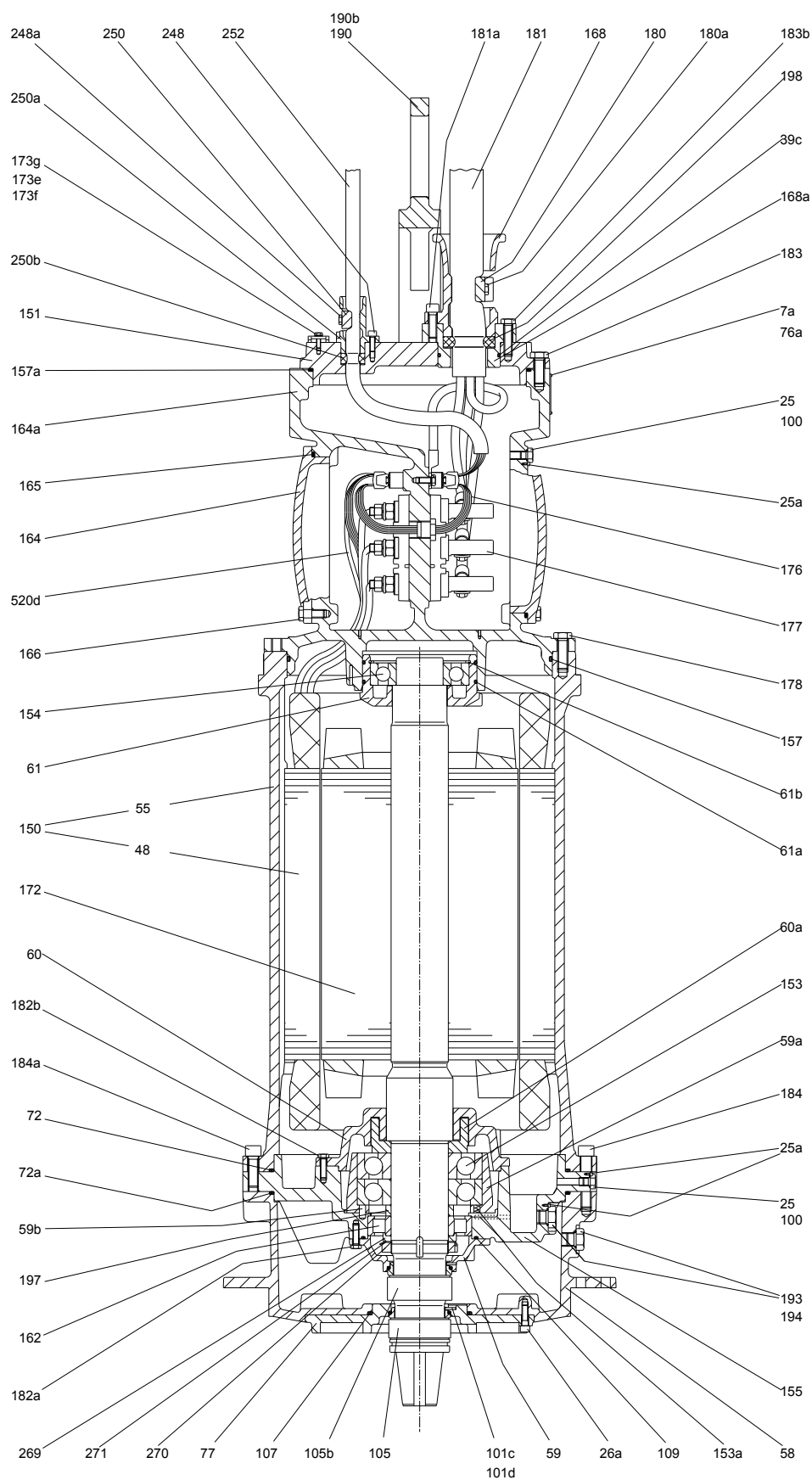
TM068230

Explosion-proof motor, with cooling jacket



TM046699

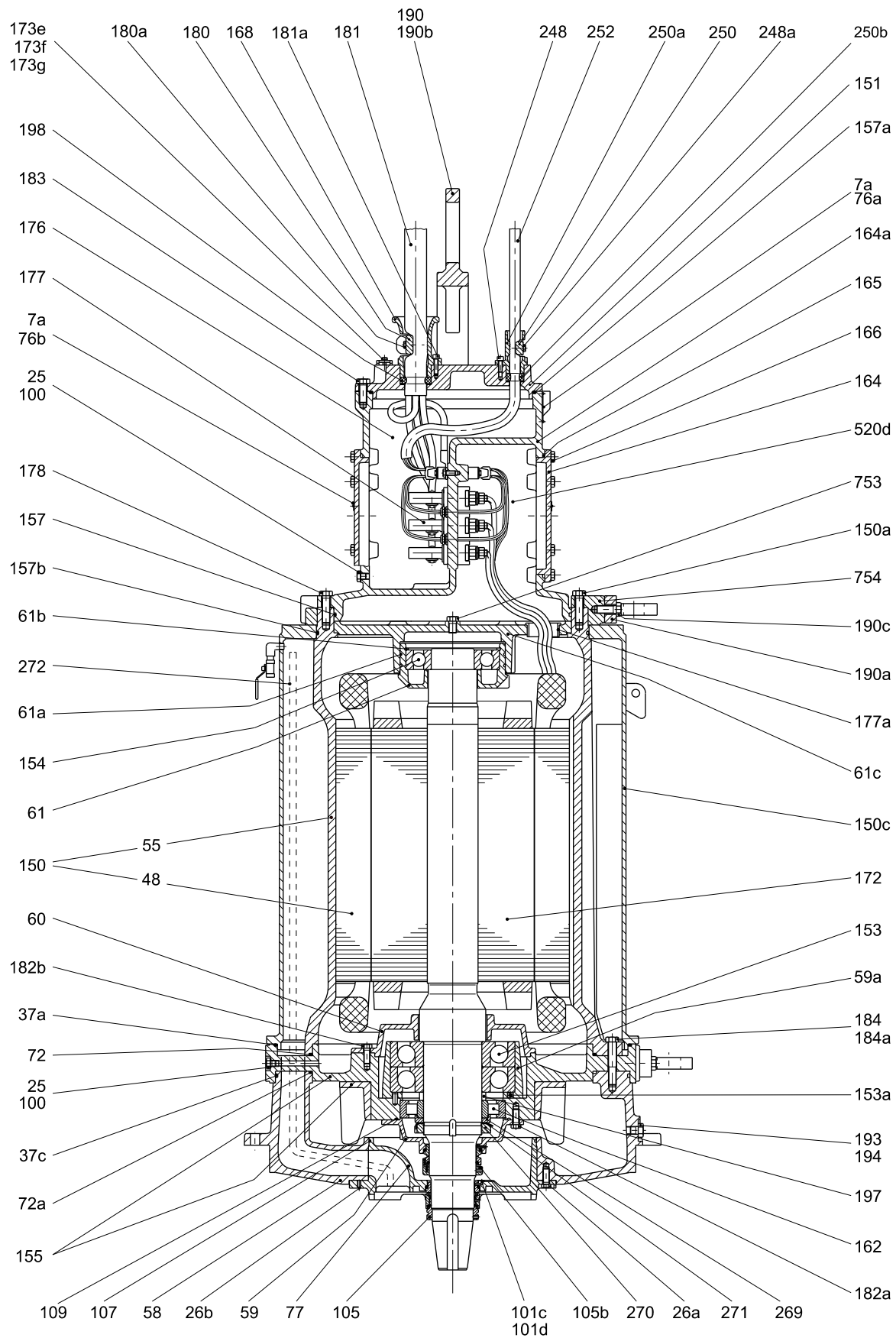
Column pipe (ST) installation - non-explosion-proof motor



TM068578

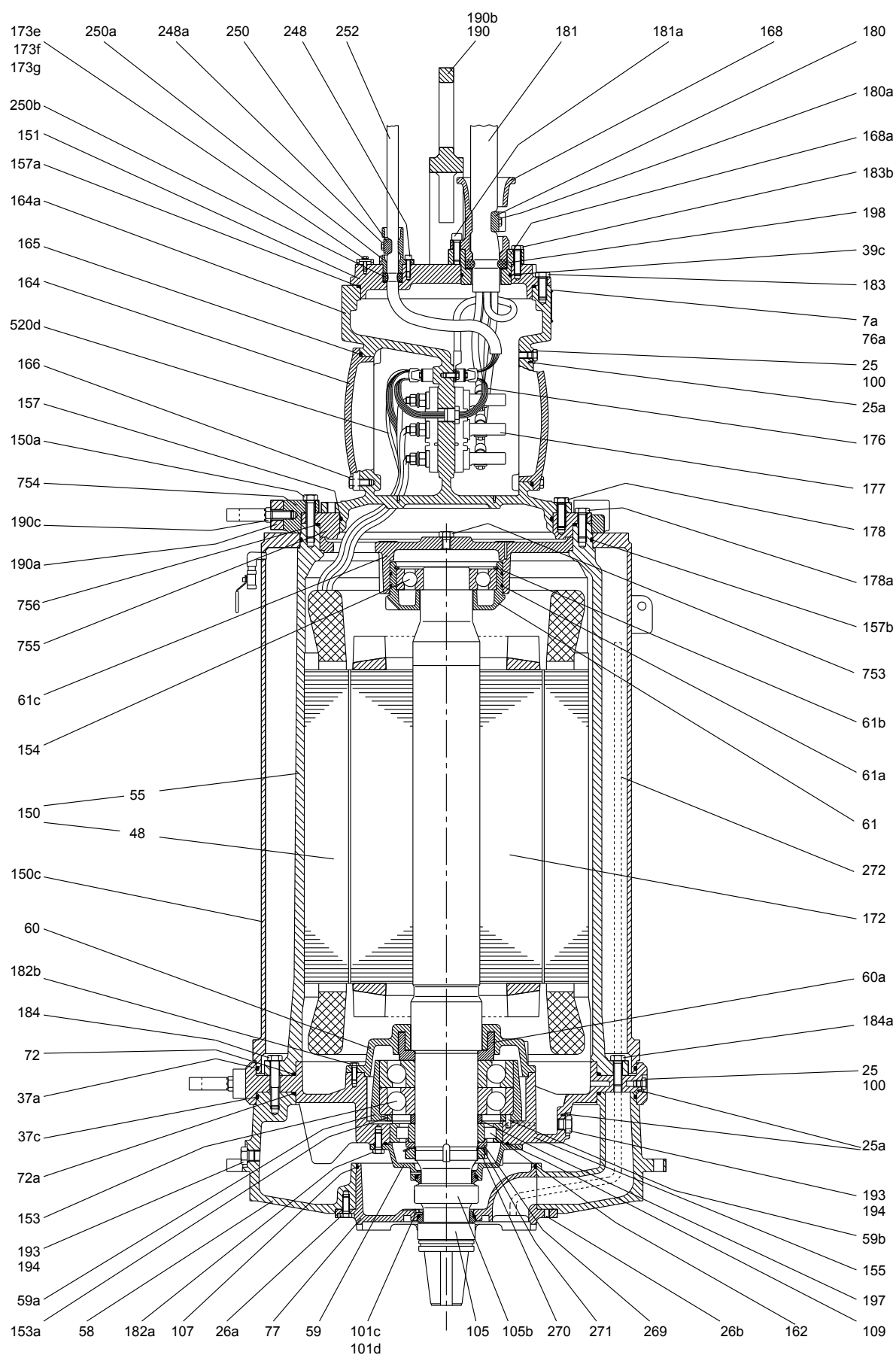
Column pipe (ST) installation - explosion-proof motor

Range 78



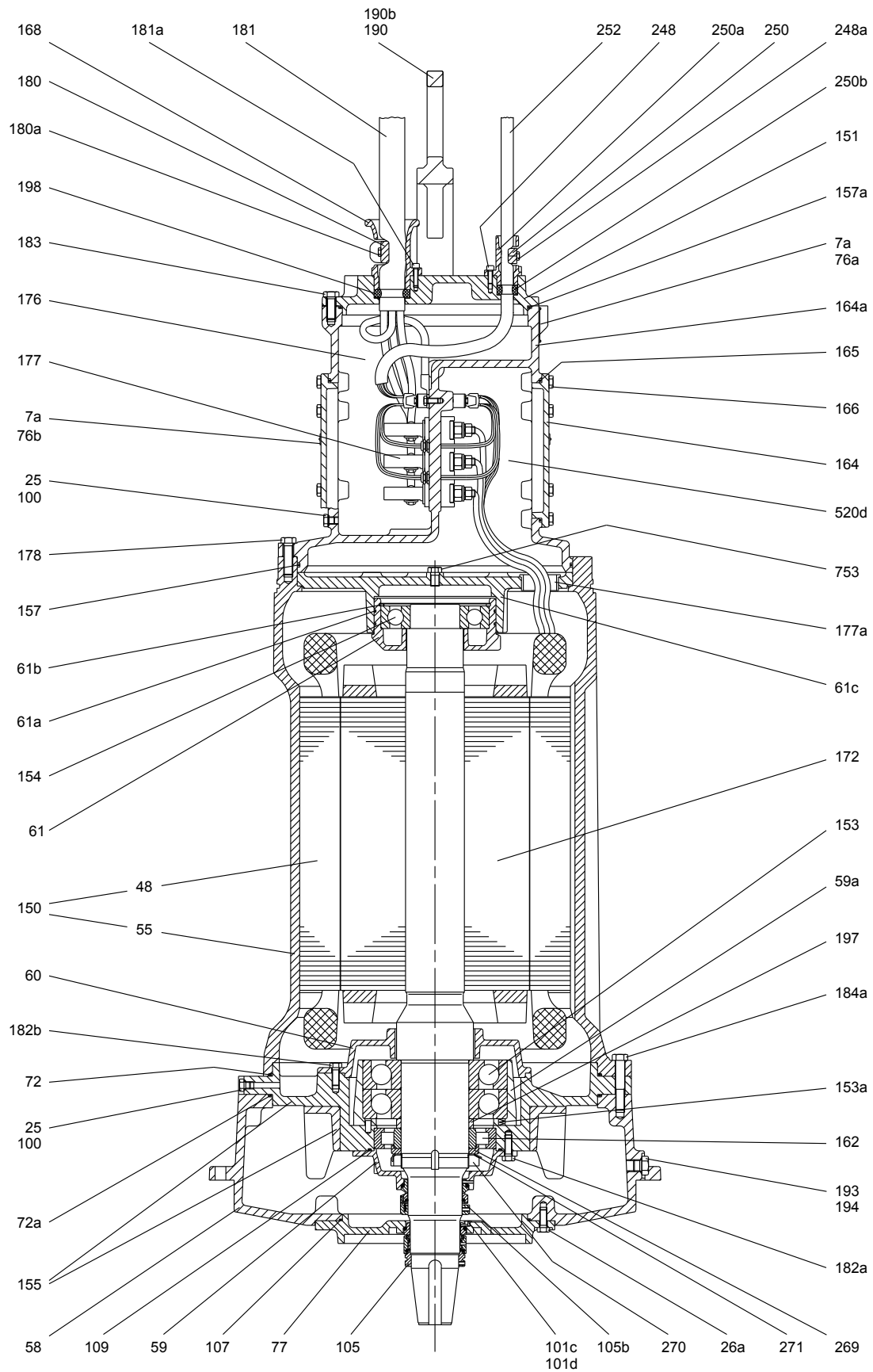
TM046700

Non-explosion proof motor with cooling jacket



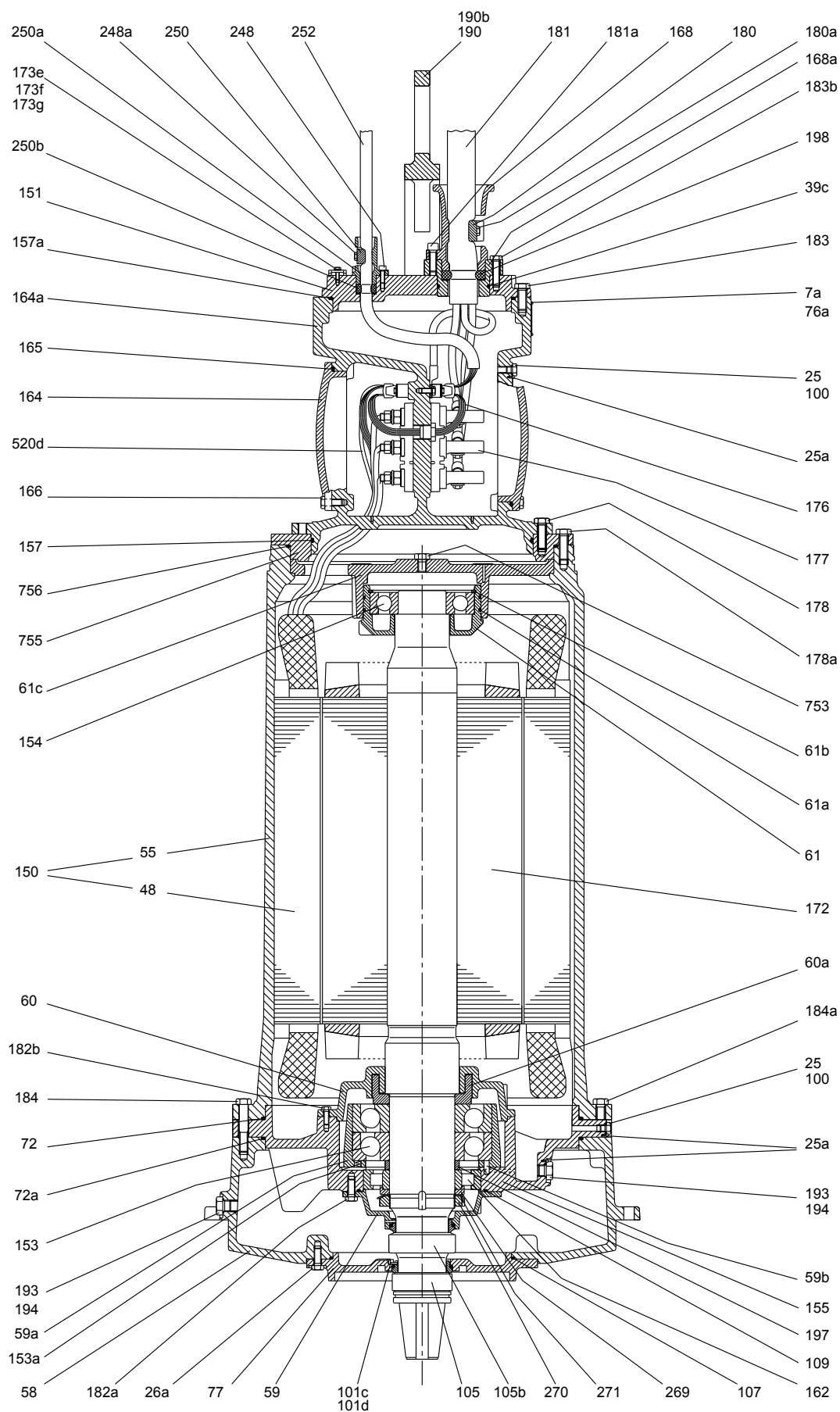
TM068232

Explosion-proof motor with cooling jacket



TM046701

Column pipe (ST) installation - non-explosion-proof motor

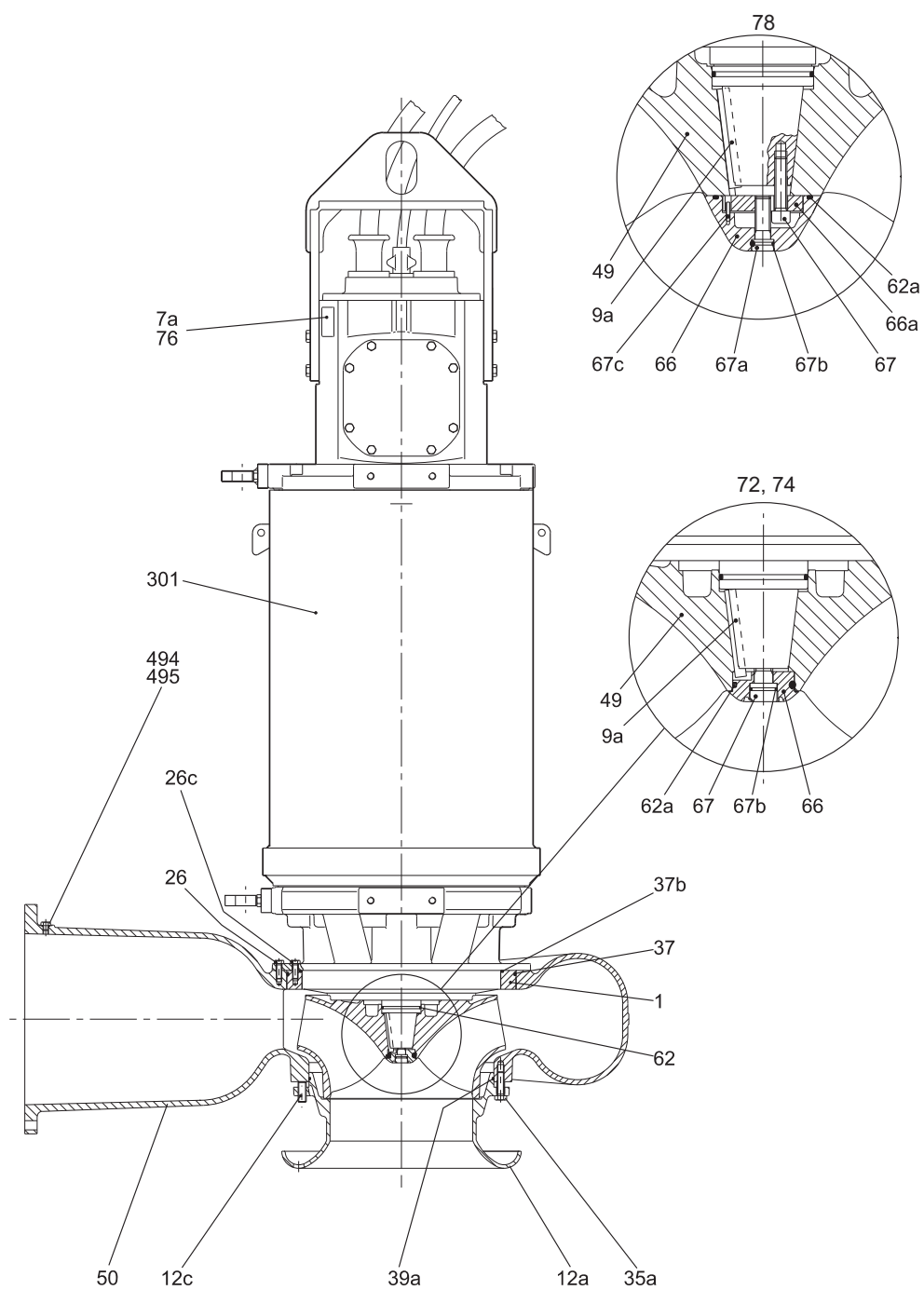


TM068262

Column pipe (ST) installation - explosion-proof motor

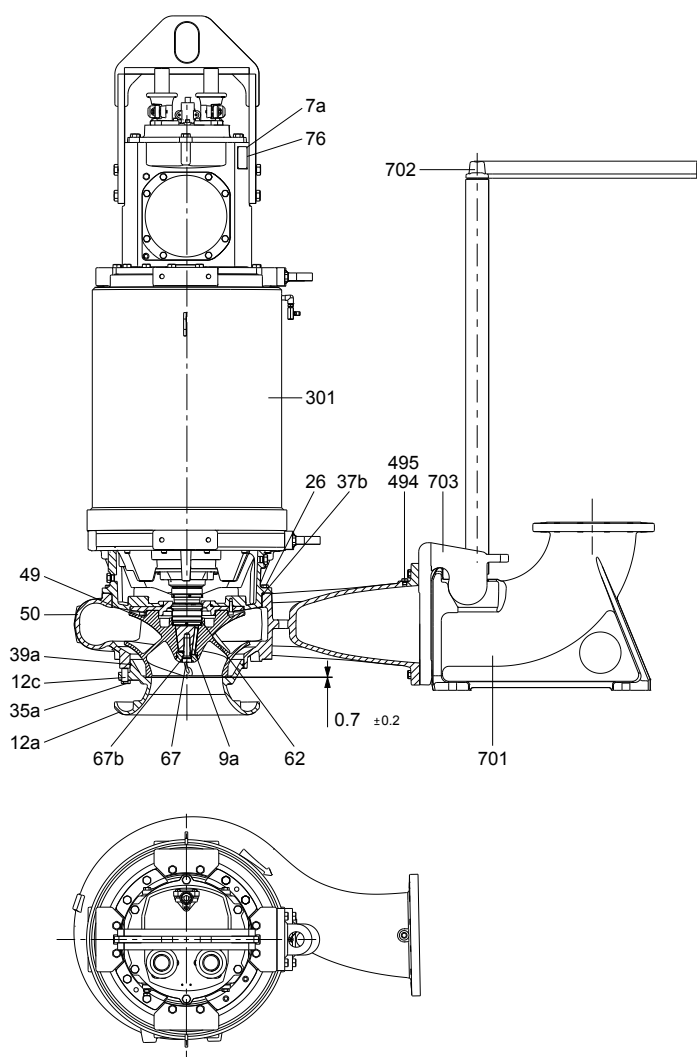
Sectional drawings

Pump



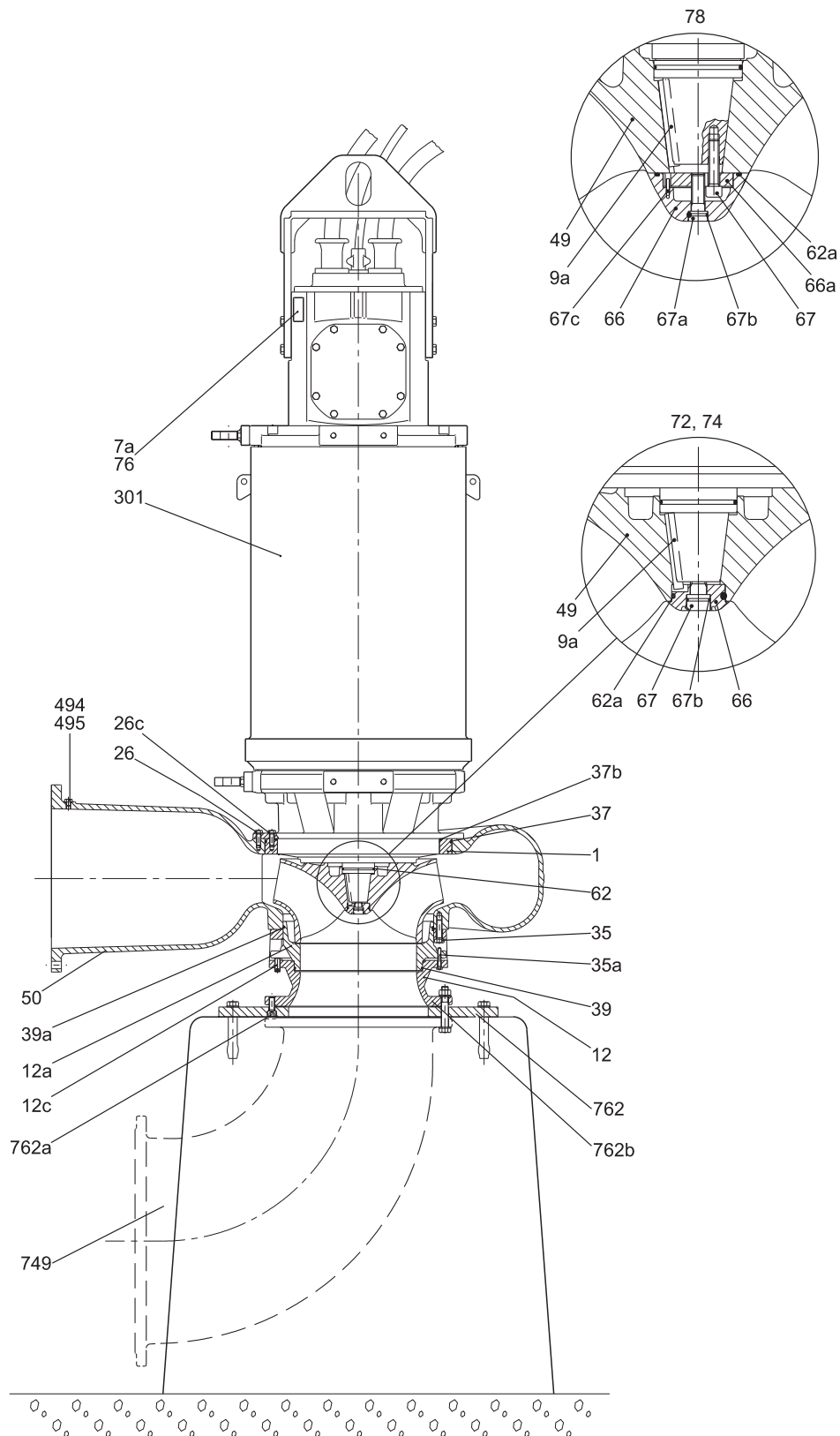
TM046063

Basic pump



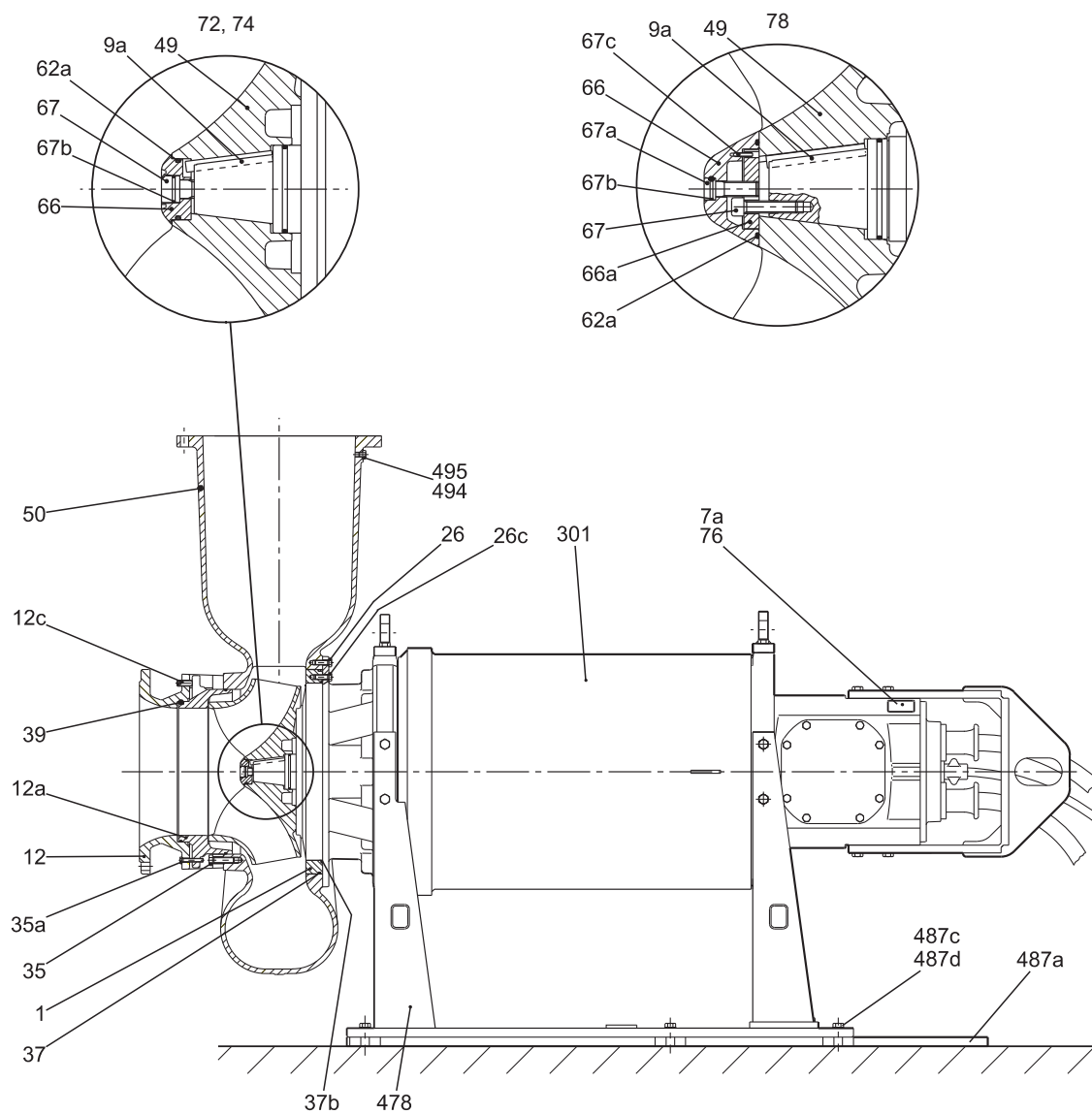
Installation types S and C on auto coupling

TM071932



TM046065

Installation type D, dry, vertical installation on base plate (on concrete foundation)



TM046064

Installation type H, dry, horizontal installation on base stand

Components and material specification

Motor

Pos.	Component	Material	DIN W.Nr./ EN standard	AISI/ ASTM
3	Screw			
7a	Rivet	Stainless steel	1.4436	316
25	Pressure test plug	Stainless steel	1.4436	316
25a	Locking screw ¹	Stainless steel	1.4436	316
26a	Screw	Stainless steel	1.4436	316
26b	Screw	Stainless steel	1.4436	316
37a	O-ring	NBR rubber		
37c	O-ring	NBR rubber		
39c	O-ring	NBR rubber		
48	Stator package			
55	Stator housing	Cast iron	EN-GJL-250	
58	Seal housing	Cast iron		
59	Bearing bracket cover (lower)	Cast iron		
59a	Locking ring	Aluminium		
59b	Pin	Steel		
60	Bearing bracket cover (upper)	Cast iron		
60a	Labyrinth seal ¹			
61	Bearing housing	Cast iron		
61a	O-ring	Viton rubber		
61b	Circlip	Steel		
61c	Upper bearing bracket	Cast iron		
72	O-ring	NBR rubber		
72a	O-ring	NBR rubber		
76a	Approval plate (pump) ¹	Stainless steel		
76b	Approval plate (cable) ¹	Stainless steel		
77	Seal housing cover	Cast iron		
100	O-ring	NBR rubber		
101c	Locking pin	Stainless steel		
101d	Screw	Stainless steel		
105	Mechanical seal	SiC/SiC, stainless steel		
105b	Mechanical seal	SiC/carbon, stainless steel		
107	O-ring	NBR rubber		
109	O-ring	Viton rubber		
150	Stator in housing complete			
150a	Screw	Stainless steel		
150b	O-ring	NBR rubber		
150c	Cooling jacket	Galvanized steel		
151	Motor top cover	Cast iron		
153	Angular contact ball bearing	Steel, brass or steel cage		
153a	Spring	Steel		
154	Ball bearing	Steel, brass or steel cage		
155	Lower bearing bracket	Cast iron		
157	O-ring	NBR rubber		
157a	O-ring	NBR rubber		
157b	O-ring	NBR rubber		
162	Roller bearing	Steel, brass or steel cage		
164	Junction box cover	Cast iron		
164a	Motor top cover / junction box	Cast iron		
165	O-ring	NBR rubber		
166	Screw	Stainless steel		

Pos.	Component	Material	DIN W.Nr./ EN standard	AISI/ ASTM
168	Cable entry	Cast iron		
168a	Adapter flange	Cast iron	EN-JS1050	
172	Shaft with rotor	Tempered steel		
173	Screw	Stainless steel	1.4436	316
173b	Earth terminal	Steel		
173e	Screw ¹	Stainless steel	1.4436	316
173f	Spring washer ¹	Stainless steel	1.4436	316
173g	Earth connector ¹	Steel		
176	Connector set			
176c	Terminal block			
176d	Screw	Stainless steel	1.4436	316
177	Connection parts			
177a	Protection sleeve	Rubber or plastic		
178	Screw	Stainless steel	1.4436	316
178a	Screw	Stainless steel	1.4436	316
180	Cable clamp	Ductile iron		
180a	Screw	Stainless steel	1.4436	316
181	Cable	Copper, EPR-insulated		
181a	Screw	Stainless steel	1.4436	316
182a	Screw	Stainless steel	1.4436	316
182b	Screw	Stainless steel	1.4436	316
183	Screw	Stainless steel	1.4436	316
183b	Screw	Stainless steel	1.4436	316
184	Screw	Stainless steel	1.4436	316
184a	Screw	Stainless steel	1.4436	316
190	Lifting bracket	Stainless steel		
190a	Lifting bracket (lower)	Galvanized steel		
190b	Screw	Stainless steel	1.4436	316
190c	Screw	Stainless steel	1.4436	316
193	Plug	Stainless steel	1.4408	316
194	O-ring	NBR rubber		
197	Washer	Steel		
198	Rubber seal	Neoprene rubber		
248	Screw	Stainless steel	1.4436	316
248a	Screw	Stainless steel	1.4436	316
250	Cable clamp	Cast iron		
250a	Cable entry	Cast iron		
250b	Rubber seal	Neoprene rubber		
252	Cable	Copper, EPR-insulated		
269	Angle ring	Steel		
270	Lock nut	Steel		
271	Lock washer	Steel		
272	Vent pipe ¹			
518	Transient barrier			
518a	Screw			
518b	Washer			
519	Conductor bushing			
520d	Protection sensors			
521	Water-in-oil sensor			
522a	Moisture switch	Steel		
522b	Washer	Steel		
522d	Pipe-retaining clips	Steel		
523	Cable gland	Steel / rubber		
523a	O-ring	NBR rubber		

Pos.	Component	Material	DIN W.Nr./ EN standard	AISI/ ASTM
524a	Bracket for SM113	Aluminium		
524b	Screw	Steel		
524c	Screw	Steel		
524d	Spring washer	Steel		
529	SM 113			
753	Screw	Steel		
754	Locking ring	Cast iron		
755	Intermediate ring	Cast iron		
756	O-ring	NBR rubber		
759	Protection ring	Aluminium		
760	Drying bag	Zeolite absorbent		

¹ Only in Ex pumps

Pump

Pos.	Component	Material	DIN W.Nr./ EN standard	AISI/ ASTM
1	Intermediate ring	Cast iron		
7a	Rivet	Stainless steel		
9a	Key	Steel		
12	Flange	Cast iron		
12a	Inlet cover	Cast iron		
12c	Adjusting screw	Stainless steel	1.4436	316
26	Screw	Stainless steel	1.4436	316
26c	Screw	Stainless steel	1.4436	316
35	Screw	Stainless steel		
35a	Screw	Stainless steel		
37	O-ring	NBR rubber		
37b	O-ring	NBR rubber		
39	O-ring	NBR rubber		
39a	O-ring	NBR rubber		
49	Impeller	Ductile iron ¹		
50	Pump housing	Ductile iron ¹		
62	O-ring	NBR rubber		
62a	O-ring	NBR rubber		
66	Cap	Cast iron or stainless steel		
66a	Washer	Steel		
67	Impeller screw	Stainless steel		
67a	Screw	Stainless steel		
67b	O-ring	NBR rubber		
67c	Parallel pin	Steel		
76	Nameplate	Stainless steel		
301	Motor unit			
478	Base stand	Steel		
487a	Base plate	Steel		
487c	Screw	Steel zinc		
487d	Washer	Steel zinc		
488	O-ring	NBR rubber		
492	Guide claw	Cast iron ²		
492a	Rubber seal	Neoprene rubber		
494	Plug	Stainless steel	1.4436	316
495	O-ring	NBR rubber		

¹ Available in stainless steel (custom-built option).

² Guide claws for DN 250 or bigger are factory-fitted.

Accessories

Pos.	Component	Material
478	Base stand, horizontal ¹	Steel
701	Auto-coupling base unit	Cast iron ²
702	Upper guide rail bracket	Cast iron ²
703	Guide claw ³	Cast iron ²
749	Bend	Cast iron
762	Base plate, vertical	Cast iron or steel

¹ Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

² Available in stainless steel (custom-built option).

³ Guide claws for DN 250 outlets or bigger are factory - fitted.

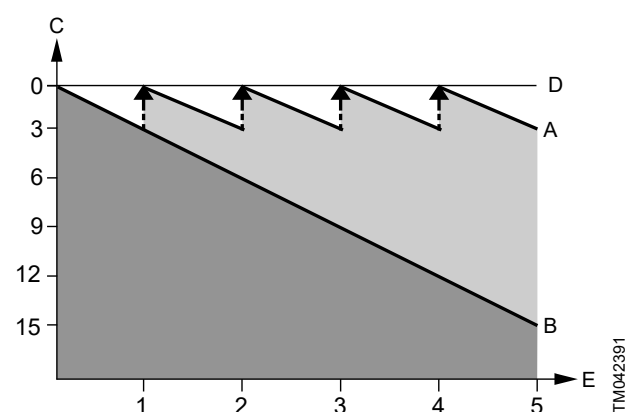
8. Product description

Features

SmartTrim

On conventional pumps, maintaining factory-set impeller clearance is a time-consuming and costly task. The pumps need to be disconnected from the pipes and to be totally dismantled, and new parts need to be fitted in order to maintain full pumping efficiency. Not so with Grundfos SmartTrim!

All Grundfos heavy-duty channel-impeller pumps, whether for submerged or dry installation, are equipped with the unique SmartTrim impeller clearance adjustment system. This enables you to easily restore factory-set impeller clearance and maintain peak pumping efficiency. All you need to do is to tighten the adjustment screws on the exterior of the impeller housing. This can be done on site, quickly and easily, without dismantling the pump and without using special tools.



Impeller clearance adjustment cycle

Pos.	Description
A	With Grundfos SmartTrim impeller clearance adjustment system
B	Without impeller clearance adjustment system
C	Efficiency drop in %
D	Factory-set impeller clearance
E	Years

SmartSeal

For pumps with DN 250 outlet and larger, the Grundfos SmartSeal auto-coupling sealing mounted on the pump outlet flange provides a completely leak-proof connection between the pump and the base unit of the auto-coupling system. This optimises the efficiency of the entire pumping system and keeps operating costs at a minimum.

Bearings

The bearings are greased for life.

Main bearings

Two angular contact ball bearings and one roller bearing with an angle ring.

Support bearings

Single-row deep-groove ball bearing.

Shaft seals

The pumps have a primary and a secondary shaft seal. The material combination of the primary shaft seal of all pump types is silicon carbide/silicon carbide. For the secondary shaft seal, the material combination is silicon carbide/carbon.

The shaft seals are placed in the oil chamber of the pump. The oil chamber provides reliable sealing between the pumped liquid and the motor.

The shaft seals have no springs or other parts in direct contact with the pumped liquid. This prevents rags and fibres from getting caught. The shaft seals are bidirectional, meaning that they can operate in either direction, thus allowing for opposite rotation caused by back-flow of liquid through the pump.

Motor

The motor is a watertight, totally encapsulated motor.

- Insulation class: F (155 °C).
- Temperature rise Range 72: Class F (maximum 105 K). Ranges 74 and 78: Class B (maximum 80 K).
- Enclosure class: IP68.

For motor protection and sensors, see [Sensors](#).

Cables

The pumps have H07RN-F/H07BB-F 450/750 V power cables as standard or screened EMV-FC S1BC4N8-F 0.6/1 kV or EMC VSCCB 0.6/1 kV power cables on request.

The pumps have H07RN-F 450/750 V control cables as standard or screened ATON VSCB 450/750 V control cables on request.

The cables are 10 or 15 m long as standard. Other cable lengths are available on request. See [6.1 List of variants](#).

The number and dimensions of cables depend on the motor size and number of poles.

Range 72

Motor power [kW]	Voltage	Cable size [power + control]
90	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
110		
125		2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
130		2 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
160		2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
175		2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
180		2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
225		2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²

Range 74

Motor power [kW]	Voltage	Cable size [power + control]
200	3 x 380-415 / 660-690 V 3 x 380-400 / 660-690 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
250		4 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
315		4 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²

Range 78

Motor power [kW]	Pole	Voltage	Cable size [power + control]
130	12	3 x 380-415/660-690 V	2 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
160	10		2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
	12		
200	10		2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
250	10		4 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
315	8		4 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
	10		
350	8		2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
	10	3 x 380-415/660-690 V	
		3 x 415 V	
400	10	3 x 380-400/660-690 V	4 x 4 x 150 mm ² + 1 x 10 x 1.5 mm ²
	8		
450	8	3 x 380-415/660-690 V	
500	8		
		3 x 380/660 V	4 x 4 x 185 mm ² + 1 x 10 x 1.5 mm ²
520	8	3 x 380-415/660-690 V	

Power cable

- 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: Extruded EP rubber.
- Sheath: Extruded black rubber (EPDM).
- Markings:
 - 4-conductor: green/yellow, brown, black, grey
 - multi-core: green/yellow, number 1, 2, 3.

Cable type [mm ²]	Outer cable diameter [mm]	Weight [kg/m]	Bending radius [cm]
4 x 70	42.7 - 45.4	4.3	27
4 x 95	52.0 - 56.0	5.7	33
4 x 120	57.0 - 61.0	6.9	36
4 x 150	64.0 - 69.0	8.7	40
4 x 185	70.0 - 75.0	10.5	44

Control cable

Cable type [mm ²]	Outer cable diameter [mm]	Weight [kg/m]	Minimum bending radius
10 x 1.5	18.0 - 20.0	0.5	6 x D

Cable entry

Watertight cast iron cable entry with soft shape and sealing rings to prevent damage of the cable or leaks.

Sensors

As standard, the pump is equipped with these switches and sensors:

- Three thermal switches (Klixon), one in each phase.
- Two moisture switches:
 - one in terminal box
 - one in stator housing.
- WIO (water-in-oil) sensor The WIO sensor measures the water content in the oil and converts the value into an analog 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 there is air in the oil chamber (alarm). The sensor is fitted in a stainless steel tube for mechanical protection. The sensor is either built-in with the motor (Ex) or installed as an accessory. If the sensor is installed externally, it is fitted in a plastic hose for mechanical protection. The WIO sensor is connected to Grundfos IO 113.
- Main and support bearing temperature sensors.
- One Pt100 sensor in the winding.

Customised sensor options

- PVS3 (pump vibration sensor) The vibration sensor monitors the vibration level of the pump by using measurements of three axes and combining them into a single measurement outputted in an analog current signal. The sensor acts only as a general indicator of changes in the vibration levels. PVS3 is to be connected to the Grundfos IO 113 and SM 113 modules. A substantial increase in vibrations will trigger a warning or an alarm. An increase in vibrations can be caused by a clogged impeller, worn bearings, closed force main valves etc. indicating that service inspection must be carried out quickly in order to protect the pump or the pipes from being damaged.
- Three Pt100 sensors, one in each phase.
- Three thermistors, one in each phase.

Testing

All pumps are tested before leaving the factory. The factory test report is based on ISO 9906:2012 grade 3B. 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. See [6.1 List of variants](#).

Related information

[List of variants](#)

Operating conditions

Pumps without cooling jacket in submerged installation (type S) - only range 72:

- Continuous operation when the pump is fully submerged to the top of the motor with maximum 15 starts per hour.
- Short periods of operation with water level down to the middle of the motor. **Warning:** A motor protection device must be used to cut off power supply in case of overheating.

Note: Explosion-proof pumps without cooling jacket must always be fully submerged.

Pumps with cooling jacket in submerged and dry installation (types C, D and H):

- Continuous operation with maximum 15 starts per hour for range 72 and maximum 10 starts per hour for ranges 74 and 78.
- For submerged pumps, the minimum water level is the top of the pump housing.

Pumped liquids

pH value: 6-12

Liquid temperature: 0-40 °C

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

Sound pressure

The sound pressure level of the pump is lower than the limiting values stated in Machinery Directive, 2006/42/EC.

Motor range

Range 72	
Motor power [kW]	Number of poles
90	10
110	10
125	8
130	10
160	8
175	4
180	6
225	4
Range 74	
Motor power [kW]	Number of poles
200	6
	8
	4
250	6
	8
	4
315	4
	6
Range 78	
Motor power [kW]	Number of poles
130	12
	14
160	10
	12
	14
	10
200	12
	14
250	10
	12
315	8
	10
350	8
	10
400	8
	10
450	8
500	8
520	8

Explosion-proof pumps

The explosion-proof pumps can be used in hazardous areas classified as zone 1 or zone 2.

Use explosion-proof pumps in potentially explosive environments.

Note: All installations must be approved by the local authorities.

Range 72

Relevant standards/regulations

- EN ISO 80079-36
- EN ISO 80079-37
- EN 60079-0
- EN 60079-1
- IEC 60079-0
- IEC 60079-1.
-

Explosion protection classification (ATEX)

- Group II, Category 2, Gas or vapor environment
- Ex db eb h mb IIB T3 or T4 Gb ($T_{amb} = -5\text{ °C to }+40\text{ °C}$)

Operation with frequency converter

Only temperature class T3.

Notified body

SGS Baseefa for UKEX and IECEx.

SGS Fimko for ATEX.

Ranges 74 and 78

Relevant standards/regulations

- EN 60079-0
- EN 60079-1
- EN ISO 80079-36
- EN ISO 80079-37
- IEC 60079-0
- IEC 60079-1.

Explosion protection classification (IECEx & ATEX)

- Group II, Category 2, Gas or vapor environment
- Ex db IIB T3 or T4 Gb & Ex h IIB T3 or T4 Gb ($T_{amb} = 0\text{ °C to }+40\text{ °C}$)

Operation with frequency converter

Only temperature class T3.

Notified body

FM Approvals.

Level controllers

Grundfos offers dedicated pump controllers for monitoring liquid levels in the wastewater collecting tanks to ensure correct operation and protection of the pumps.

Grundfos pump controllers are ideally suited to Grundfos S pumps, and include:

- Grundfos Dedicated Controls (DC)
- Grundfos LC controllers

Grundfos DC Controllers



Grundfos Dedicated Controls control cabinet

Grundfos Dedicated Controls (DC) is a control system designed for installation in municipal wastewater transport, commercial buildings or network pumping stations with up to six wastewater pumps and an optional mixer or a flush valve.

Advanced control and data communication are also possible with the Grundfos Dedicated Controls system. The control cabinets are delivered with a built-in main switch and thermal magnetic circuit breaker.

Features and benefits:

- advanced flow calculation
- automatic energy optimisation
- easy installation and configuration
- configuration wizard
- electrical overview
- advanced data communication
- advanced alarm and warning priority
- supports several languages
- daily emptying
- mixer control or flush valve
- user-defined functions
- anti-blocking
- start level variation
- advanced pump alternation with pump groups
- SMS scheduling
- communication to SCADA, BMS, GRM or cell phone.

Dedicated Controls is ordered either with or without a built-in communication interface module (CIM).

The communication module enables the possibility for fieldbus protocol (e.g. PROFIBUS DP, Modbus RTU and PROFINET IO/Modbus TCP) and the communication line.

For further information, see the Grundfos Product Center:

- Grundfos Dedicated Controls, brochure <http://net.grundfos.com/qr/i/96925597>
- Grundfos iSolutions, brochure <http://net.grundfos.com/qr/i/99249771>
- Grundfos Controls Guide, product guide <http://net.grundfos.com/qr/i/97954965>

Additional features, CUE or VFD

The CUE/VFD (optional), which is either a Grundfos variable frequency drive or a general variable frequency drive, offers better pump protection and a steadier flow through the pipe system.

Features and benefits:

- anti-blocking
- automatic energy optimisation
- specific-energy test
- output frequency
- monitoring of:
 - voltage¹⁾
 - current¹⁾
 - phase sequence¹⁾
 - power¹⁾
 - energy¹⁾
 - torque¹⁾
- reverse start²⁾
- run flushing
- stop flushing
- PID control.

¹⁾ These functions are only available with a Grundfos CUE.

²⁾ Do not reverse at full speed at any time. When reduced reverse operation settings are set, make sure that constant torque is enabled in Variable Frequency Drive (VFD) (i.e. Grundfos CUE, Siemens Simatic, ABB, Schneider Electric or similar brands) to have maximum torque available when reversing.

Grundfos LC controllers

The LC 231 pump controller is designed for level control, monitoring and protection of Grundfos pumping stations featuring one pump or two pumps, starting direct-on-line. The LC 231 controller is integrated in a polymer cabinet.

The LC 241 is a modular pump controller that has a metal or polymer cabinet and can be customised according to your needs.

It is designed for level control, monitoring and protection of Grundfos pumping stations featuring one pump or two pumps, starting direct-on-line with 0-23 A, star-delta with 0-59 A or soft starter with 0-72 A.

IO 113

The IO 113 module is a protection module for Grundfos wastewater pumps.

IO 113 has inputs for digital and analog pump sensors and can stop the pump if a sensor indicates a pump fault.

IO 113 can be connected to the Grundfos Dedicated Controls system and allows advanced monitoring functions:

- motor temperature
- moisture in motor
- water in oil
- insulation resistance.

SM 113

The SM 113 module is used for collection and transfer of sensor data in pumps and includes a large number of sensors.

SM 113 can be placed either inside the pump (allowing fewer sensor conductors out of the pump) or in the control cabinet next to the pump installation.

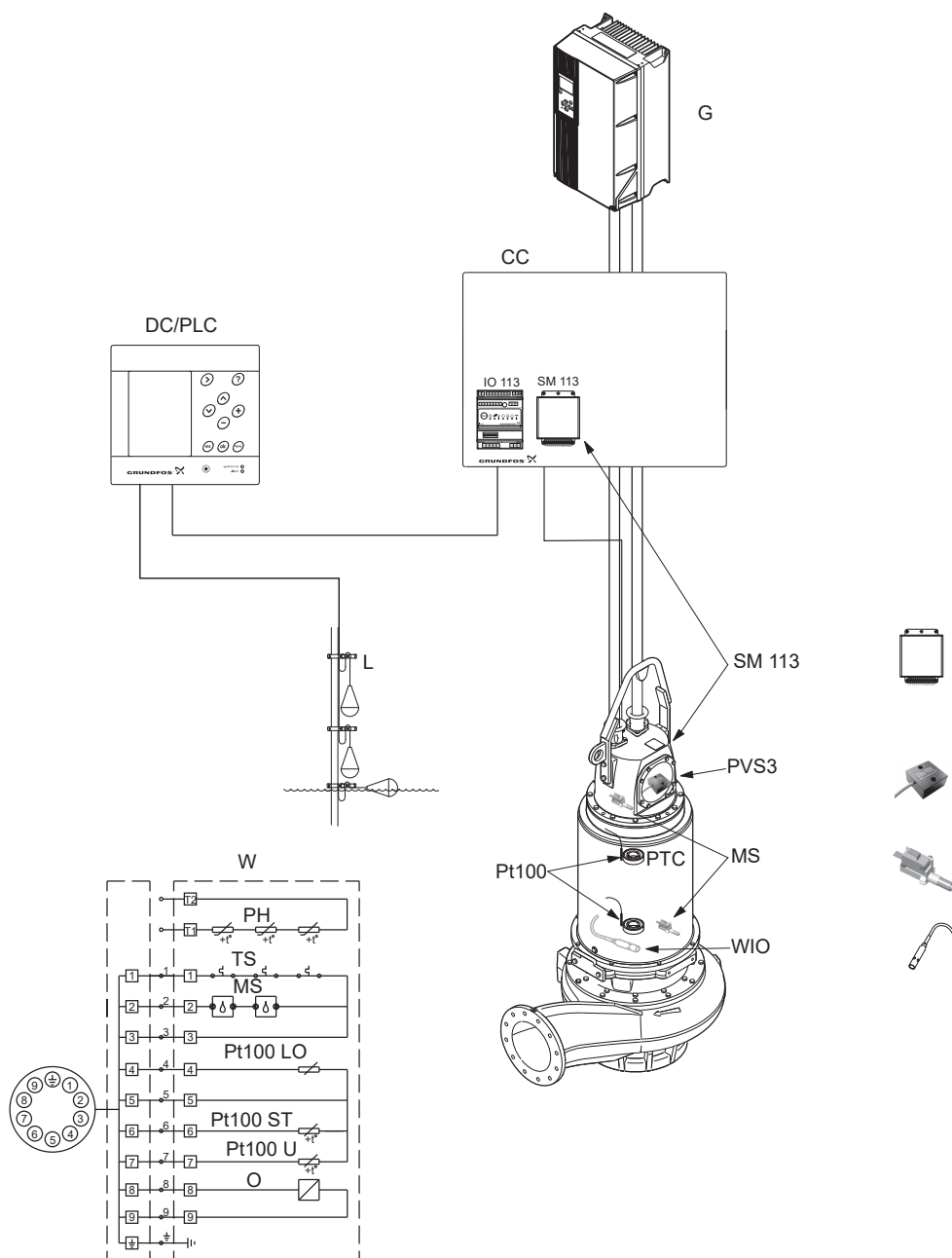
SM 113 works together with IO 113 through a power-line communication using the Grundfos GENlbus protocol.

SM 113 can collect data from:

- 3 current sensors, 4-20 mA
- 3 Pt100 thermal sensors or 3 Pt1000 thermal sensors
- 1 PTC thermal sensor
- 1 digital input.

MP 204

The MP 204 control cabinet can be used as a stand-alone motor protector. MP 204 may also be incorporated in a Grundfos Dedicated Controls system in which it functions as a motor protector. The pump is protected secondarily by measuring the temperature with a Pt100 sensor and a PTC sensor or thermal switch.

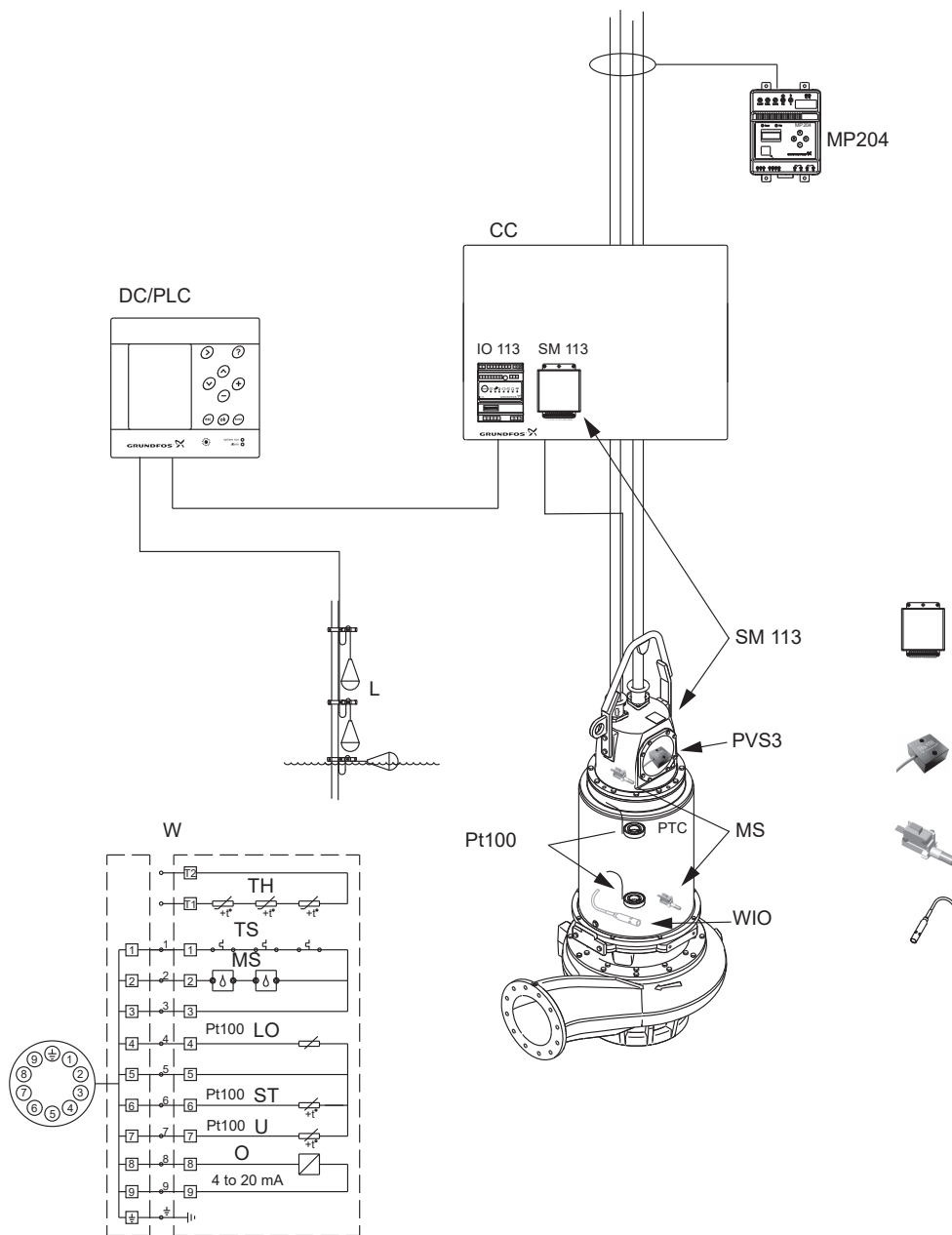


TM068753

Pump with frequency converter operation

Pos.	Description
G	Grundfos CUE, < 250 kW, or another frequency converter.
CC	Control cabinet
DC/PLC	Dedicated Controls or PLC
L	Level sensor
SM 113	SM 113, optional
PVS3	PVS3 sensor, optional
MS	Moisture switches
WIO	WIO sensor, optional

Pos.	Description
Pt100	Pt100 sensor, optional
W	Wiring diagram
PH	Thermistor
TS	Thermal switches
Pt100 LO	Pt100 in lower bearing
Pt100 ST	Pt100 in stator
Pt100 U	Pt100 in upper bearing
O	Oil indicator 4 to 20 mA



TM068754

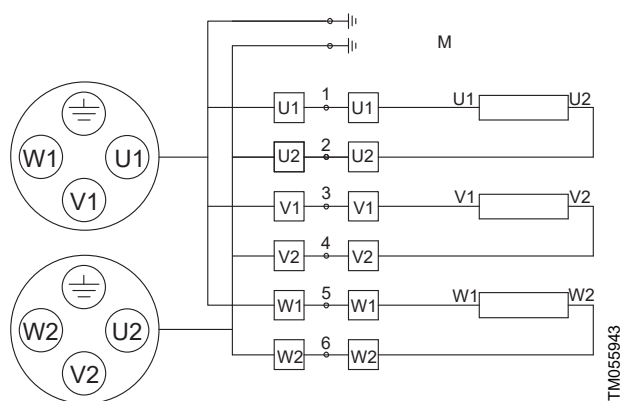
Pump with MP 204 motor protector

Pos.	Description
CC	Control cabinet
DC/PLC	Dedicated Controls or PLC
L	Level sensor
SM 113	SM 113, optional
PVS3	PVS3 sensor, optional
MS	Moisture switches
WIO	WIO sensor, optional
Pt100	Pt100 sensor, optional
W	Wiring diagram
TH	Thermistor
TS	Thermal switches
Pt100 LO	Pt100 in lower bearing

Pos.	Description
Pt100 ST	Pt100 in stator
Pt100 U	Pt100 in upper bearing
O	Oil indicator 4 to 20 mA

Wiring diagrams

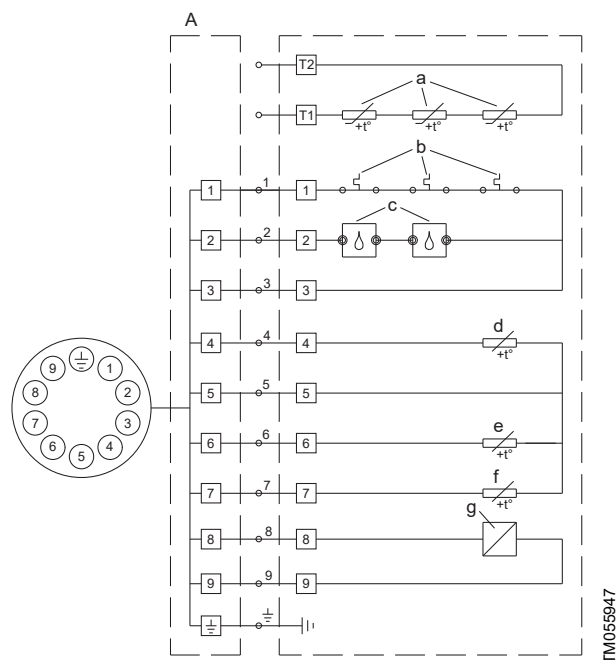
Standard power cable



Pos.	Description
------	-------------

M	Motor
---	-------

Sensors



Pos.	Description
------	-------------

a	Thermistors
---	-------------

b	Thermal switches
---	------------------

c	Moisture switches
---	-------------------

d	Pt100 in lower bearing
---	------------------------

e	Pt100 in stator
---	-----------------

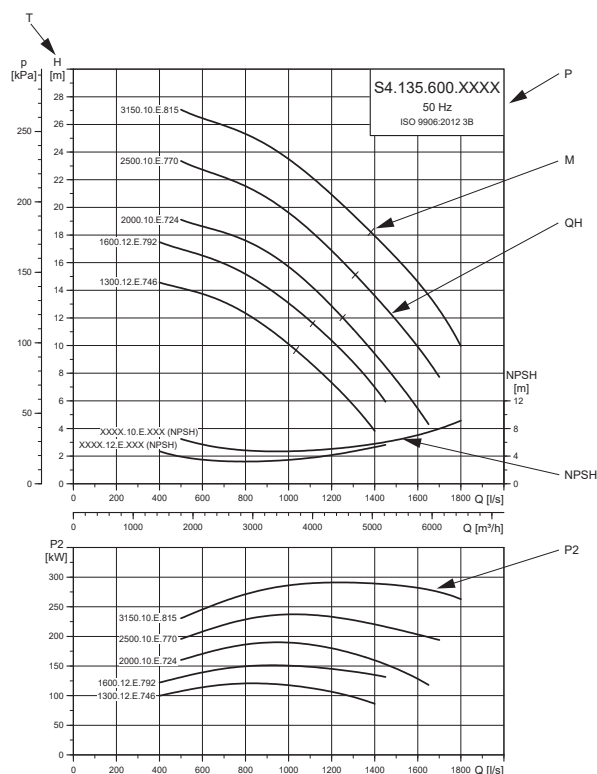
f	Pt100 in upper bearing
---	------------------------

g	Oil indicator 4...20 mA
---	-------------------------

A	Terminal board connection
---	---------------------------

9. Curve charts and technical data

How to read the curve charts



TM079791

Pos.	Description
T	Total pump head $H = H_{\text{total}}$
P	Pump type: S4 : Impeller type 135 : Pump passage 600 : Pump outlet
M	Max. efficiency mark
QH	QH curve of the individual pump
NPSH	NPSH curve for all variants shown. When sizing the pumps, add a safety margin of at least 0.5 m
P2	The power curves indicate the pump shaft power [P_2] of the pumps shown

Note: The pumps are tested according to ISO 9906:2012 grade 3B tolerance. Testing equipment and measuring instruments are designed and calibrated according to the standards mentioned. The pumps are approved according to tolerances for entire curves, specified in grade 3B.

Curve conditions

The guidelines below apply to the curves shown in [10. Performance curves and technical data](#)

- Tolerances according to ISO 9906:2012, grade 3B.
- 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 mm²/s (1 cSt).
- **NPSH:** The curves show average values calculated under the same conditions as the performance curves. When sizing the pump, add a safety margin of at least 0.5 m.
- In case of other densities than 1000 kg/m³, the outlet pressure is proportional to the density.
- When pumping liquids with a density higher than 1000 kg/m³, motors with correspondingly higher outputs must be used.

Calculation of total head

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

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

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

Pump performance testing

S pump testers are all capable of performing hydraulic performance tests according to ISO 9906:2012 requirements.

ISO 9906:2012 sets standards for "rotodynamic pumps, Hydraulic performance acceptance tests, Grades 1, 2 and 3".

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	± 5 %	± 3 %	+ 4 %	≥ 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 they can be used as part of a default tolerance factor for cases in which no specific tolerance grade has been agreed between the manufacturer and the customer.

The performance acceptance grades are explained in [Specifying acceptance grades](#) showing the performance grades related to an ordinary pump curve.

Related information

[Specifying acceptance grades](#)

[Acceptance grades and tolerances](#)

The guarantee point

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

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

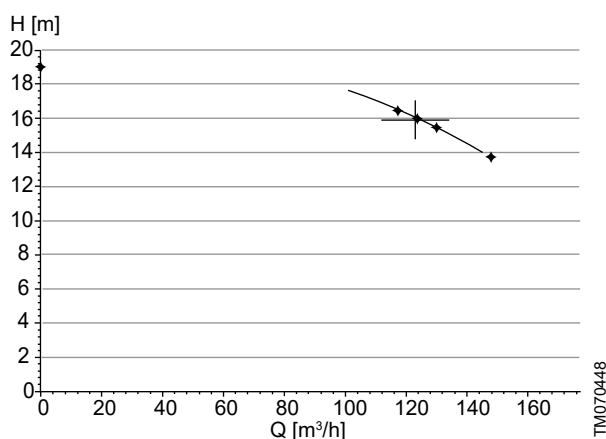
In addition, either minimum total efficiency or maximum total input power may be guaranteed at the specified conditions.

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

- Q and H, or
- Q, H and total efficiency (Eta-total), or
- Q, H and total consumed power (P1).

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

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

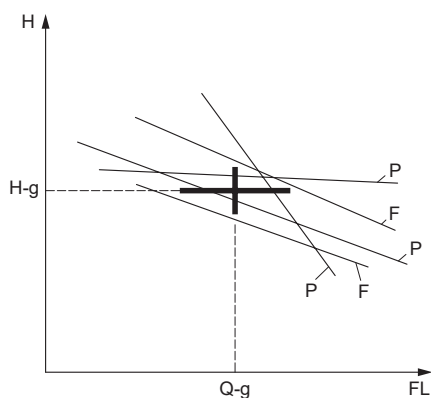


Five measured test points are used to verify one guarantee point

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 S pumps means 50 Hz or 60 Hz.



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

Pos.	Description
H	Head
H-g	H-guaranteed
P	Pass
F	Fail
Q-g	Q-guaranteed
FL	Flow

Performance-test types for end-suction pumps

Two types of performance tests are available for S pumps:

- duty-point-verification test
- curve test.

Tests carried out on S pumps

- Tests are saved for at least five 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 of the pump is made.
- Witness testing can be arranged.

Duty-point-verification test, Grades 3B, 2B, 2U, 1B, 1E and 1U

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

- Q and H, or
- Q, H and total efficiency (Eta-tot), or
- Q, H and total consumed power (P1).

Acceptance grade	Mandatory measurements		Optional measurements	
	Q	H	P1	Eta-tot
3B	Standard		On request	
2B	On request		On request	
2U			On request	
1B	On request		On request	
1E			On request	
1U			On request	

What Grundfos is able to guarantee for the different acceptance grades will be evaluated on a case-by-case basis. Contact your local sales company on this.

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

The requested duty point is verified by five measured points.

Grade 1U duty-point verification

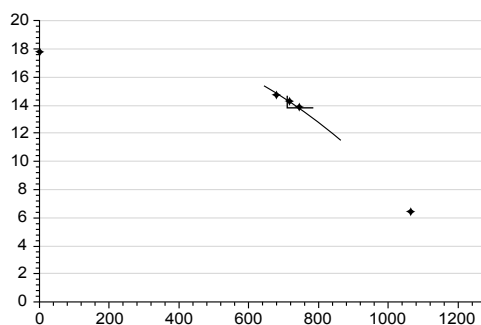
The following example illustrates performance testing according to Grade 1U.

Flow rate and head are mandatory, and efficiency or power consumption, P1, is optional.

Tolerances for a Grade 1U test are as follows:

- Flow rate: 10 %
- Head: 6 %
- Efficiency: 0 %, only equal to or better than the guaranteed value
- P1: 10 %

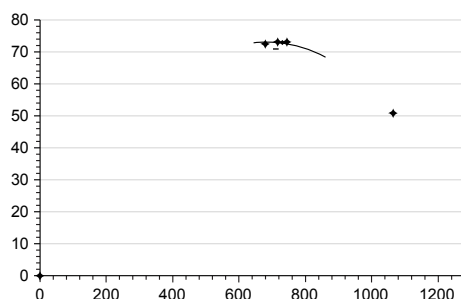
1. Q, H and Eta-tot are tested and verified.



TM071542

Measured values for flow rate and head

Pos.	Description
1	H [m]
2	Q [m³/h]

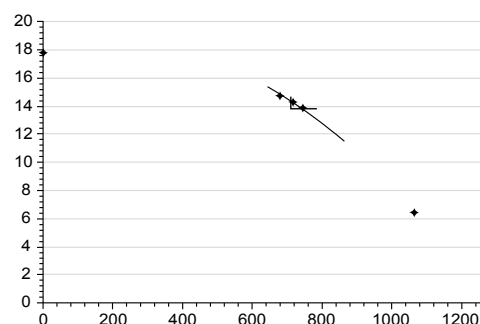


TM071543

Measured values for total efficiency

Pos.	Description
1	Eta-tot [%]
2	Q [m³/h]

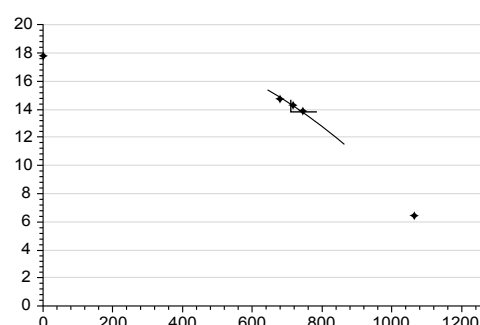
1. Q, H and P1 tested and verified



TM071542

Measured values for flow rate and head

Pos.	Description
1	H [m]
2	Q [m³/h]



TM071542

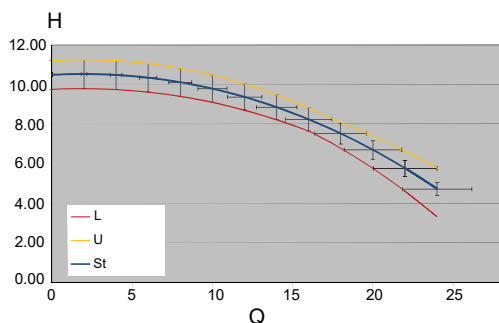
Measured values for consumed power

Pos.	Description
1	P1 [kW]
2	Q [m³/h]

Note that other points than the guarantee point can be measured and displayed in a curve test report according to Grade 3B tolerances.

Curve test, Grade 3B

This test method is developed by Grundfos and is based on ISO 9906:2012 performance acceptance grade 3B tolerances: $Q = \pm 9\%$, $H = \pm 7\%$.



TM079684

Q-H curve with tolerance crosses on complete performance range

Pos.	Description
Q	[m³/h]
H	[m]
L	Lower limit
U	Upper limit
St	Standard curve

In fig. *Q-H curve with tolerance crosses on complete performance range*, tolerance crosses according to Grade 3B have been distributed across the complete performance range of a pump. We generate 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 3B tolerances. This way of qualifying the pump performance is stricter than a duty-point-verification test for Grade 3B.

How does Grundfos perform curve testing for S pumps?

Grundfos applies two types of curve tests:

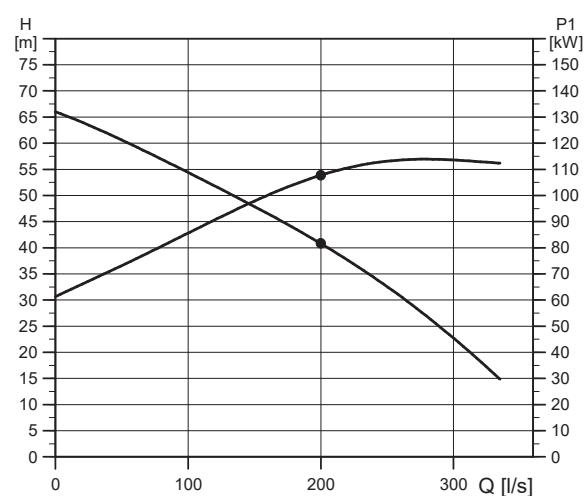
- a reference curve test
- a performance curve test.

Reference curve test, Grade 3B

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.

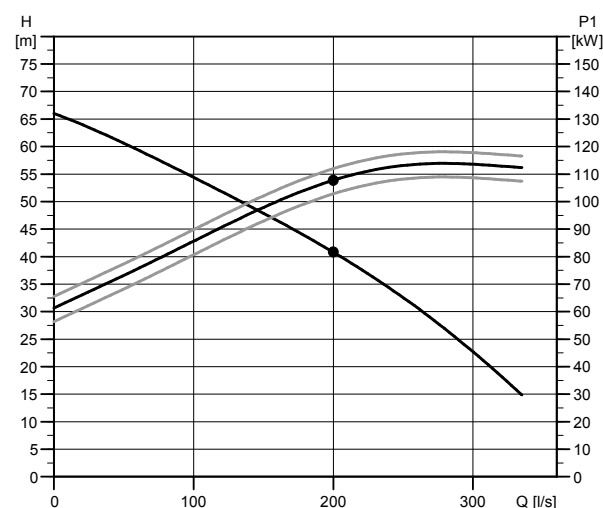
Measurements are made to maintain and observe continuous quality and to ensure that the supplied pump is within test grade tolerances. Test grade tolerances are set as for Grade 3B, but without certification.

Example of a reference curve test



TM071674

Measured values for tested pump



TM071693

The values in fig. calculated to reference speed for comparison to a reference performance curve

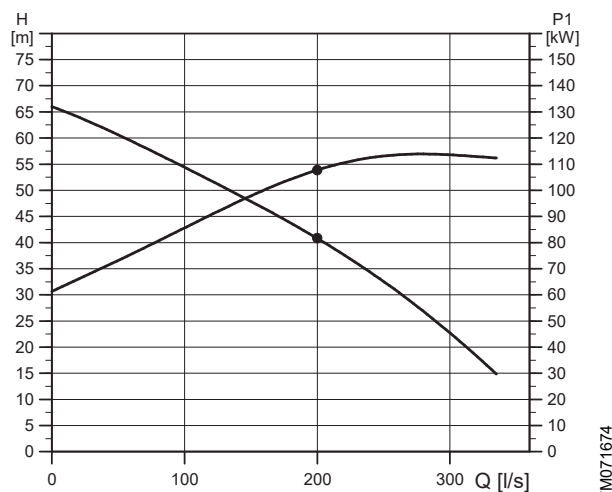
If a pump performance report is requested at a later stage, only reference test data are available.

Performance curve test, grade 3B

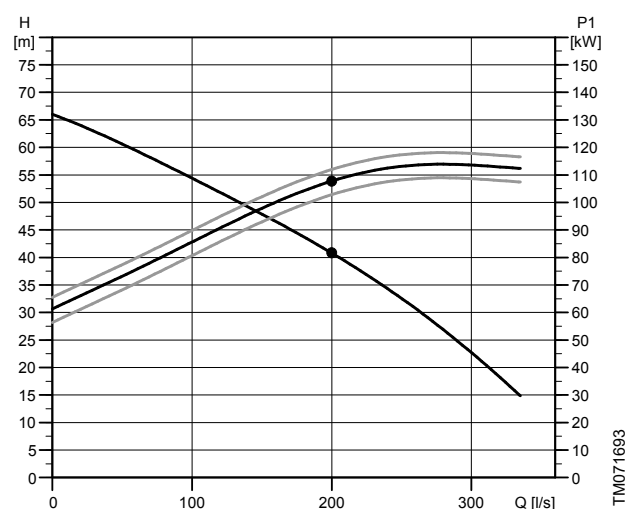
A performance curve test is carried out when a curve test report is specified with the order.

The pump is tested at pre-specified flow rates, and test grade tolerances are set as for Grade 3B, but without certification.

Example of an S pump curve test



Measured values for tested pump



The values in fig. calculated to a reference speed for comparison to a reference performance

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

Static high pressure test

All produced pumps undergo a static high pressure test of $1.5 \times PN$ (nominal pressure of the pump).

Specifying acceptance grades

The graphs in the table in Acceptance grades and tolerances show the tolerances as stated in the standard, related to an ordinary pump curve. The graphs also show which pump performance to expect if the customer, having the same pump to start with, 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 fulfil the same guarantee point for a unilateral tolerance as it will 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.

What Grundfos is able to guarantee for the different acceptance grades will be evaluated on a case-by-case basis. Contact your local sales company on this.

Related information

[Acceptance grades and tolerances](#)

Acceptance grades and tolerances

Acceptance grade B

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

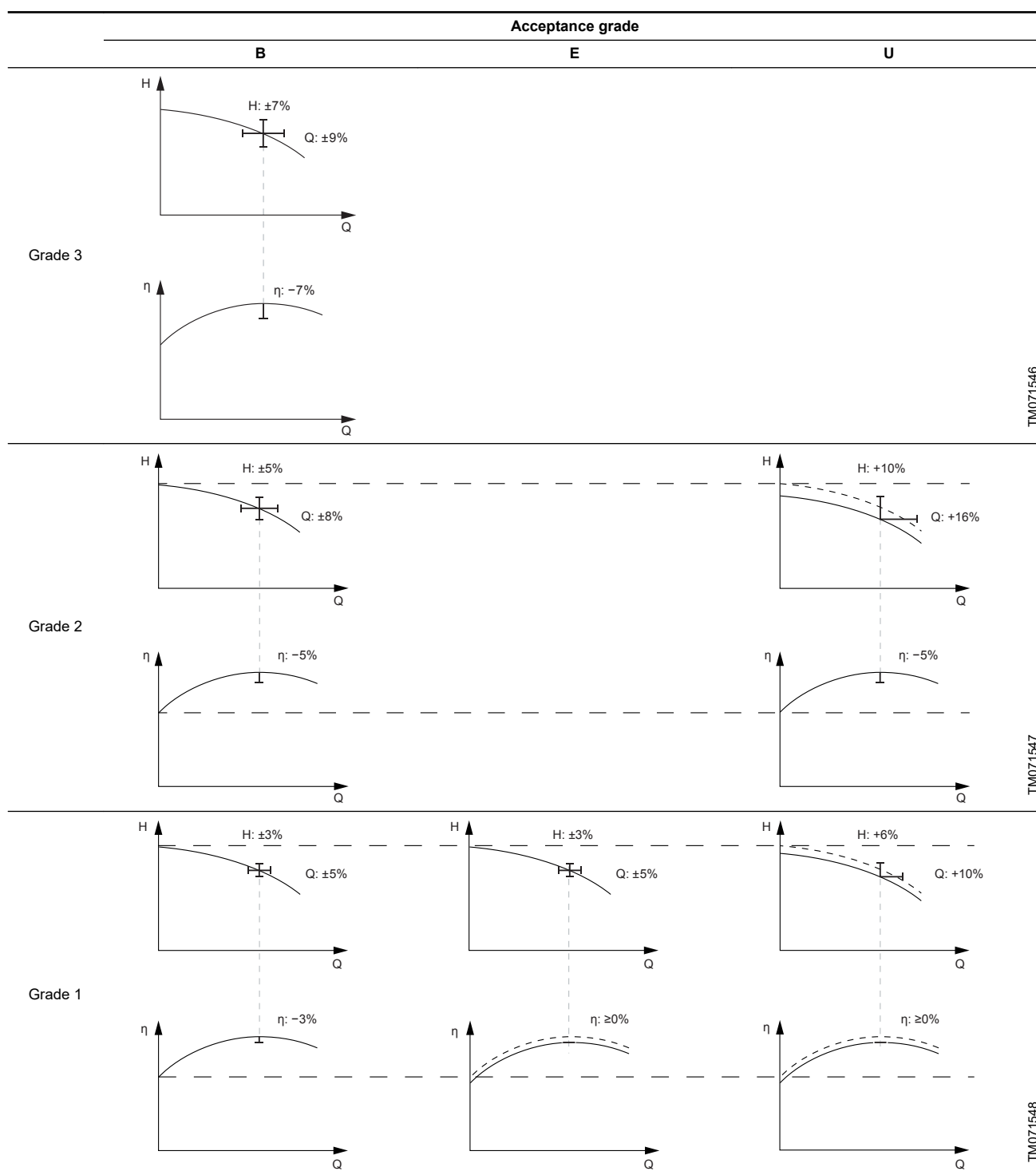
Acceptance grade E

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 the 2U grade there is a tolerance on efficiency. For the 1U grade there is no tolerance on efficiency.

Note that if the acceptance grade changes from Grade 1B to 1U, the customer does not necessarily get a better pump with a higher efficiency. More likely, he gets a pump where the performance is always to the positive side of the guarantee point.



Certificates

Certificates must be confirmed for each order and are available on request:

- certificate of compliance with the order (EN 10204 2.1)
- pump test sheet.

Witness test

When the pumps are being tested or are tested with a certification, it is possible for the customer to witness the testing procedure according to ISO 9906:2012.

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

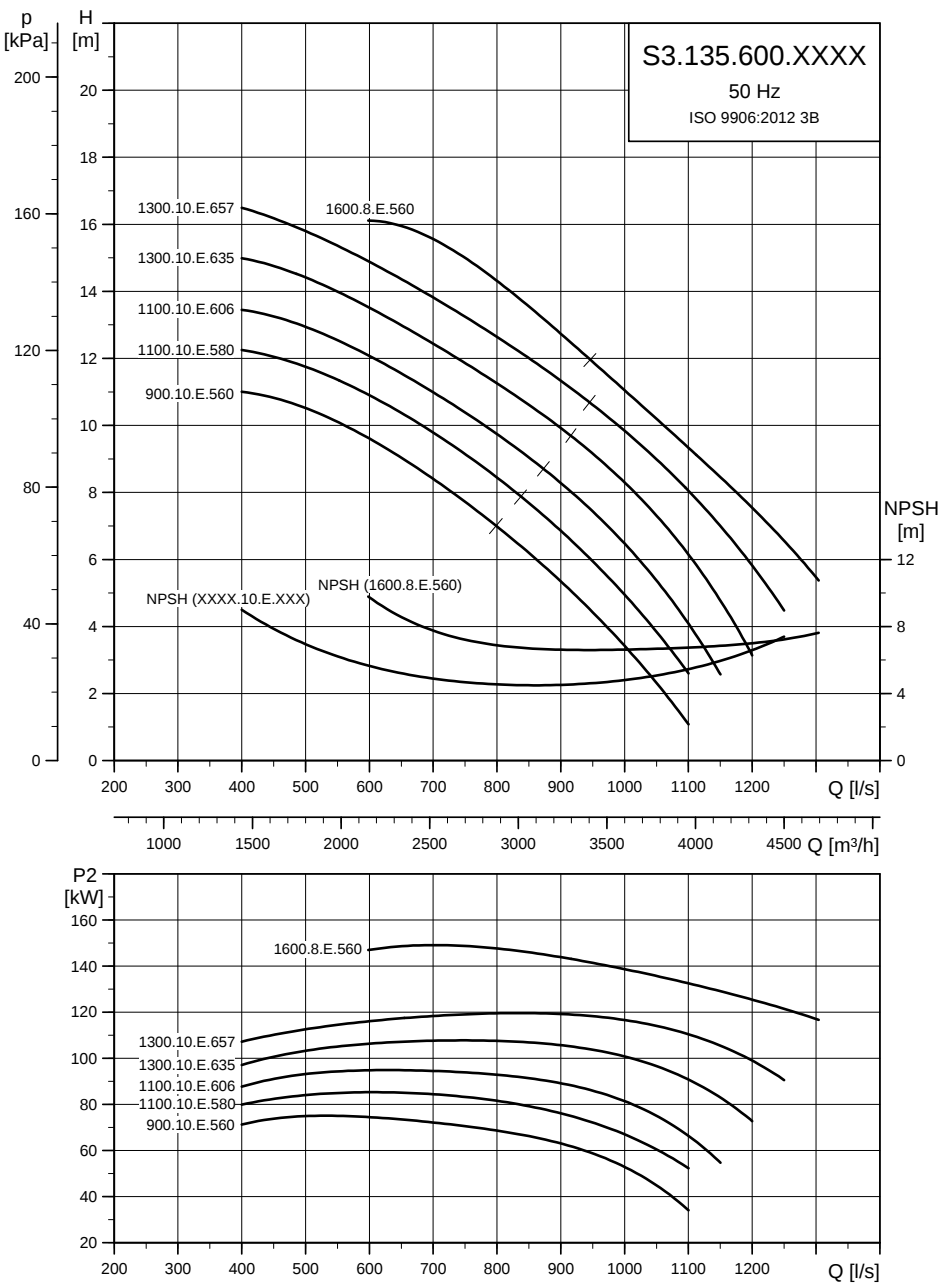
If the customer wants to witness the test, place this request on the order.

10. Performance curves and technical data

Range 72

Extra-low pressure, 8- and 10-pole

S3.135.600.900.10, S3.135.600.1100.10, S3.135.600.1300.10 and S3.135.600.1600.8



TM031752

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.600.900.10.72E	98	90	10	592	Y/D	197-202/1 14-117	1116	92	92	92	0.51	0.62	0.70	4.600	3643
S3.135.600.1100.10.72E	120	110	10	590	Y/D	232-232/1 34-135	1116	92	92	92	0.56	0.68	0.75	4.600	3643
S3.135.600.1300.10.72E	143	130	10	586	Y/D	275-268/1 59-156	1116	92	92	91	0.61	0.72	0.77	4.600	3643
S3.135.600.1600.8.72E	172	160	8	735	Y/D	312-307/1 80-178	1707	93	93	93	0.66	0.76	0.81	4.600	4373

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.600.900.10.72E	98	90	10	592	Y/D	195/113	1075	92	92	92	0.51	0.62	0.70	4.600	3643
S3.135.600.1100.10.72E	120	110	10	590	Y/D	224/130	1075	92	92	92	0.56	0.68	0.75	4.600	3643
S3.135.600.1300.10.72E	143	130	10	586	Y/D	259/149	1075	92	92	91	0.61	0.72	0.77	4.600	3643
S3.135.600.1600.8.72E	174	160	8	735	Y/D	299/173	1707	93	93	92	0.67	0.77	0.81	4.600	4373

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

Pump data

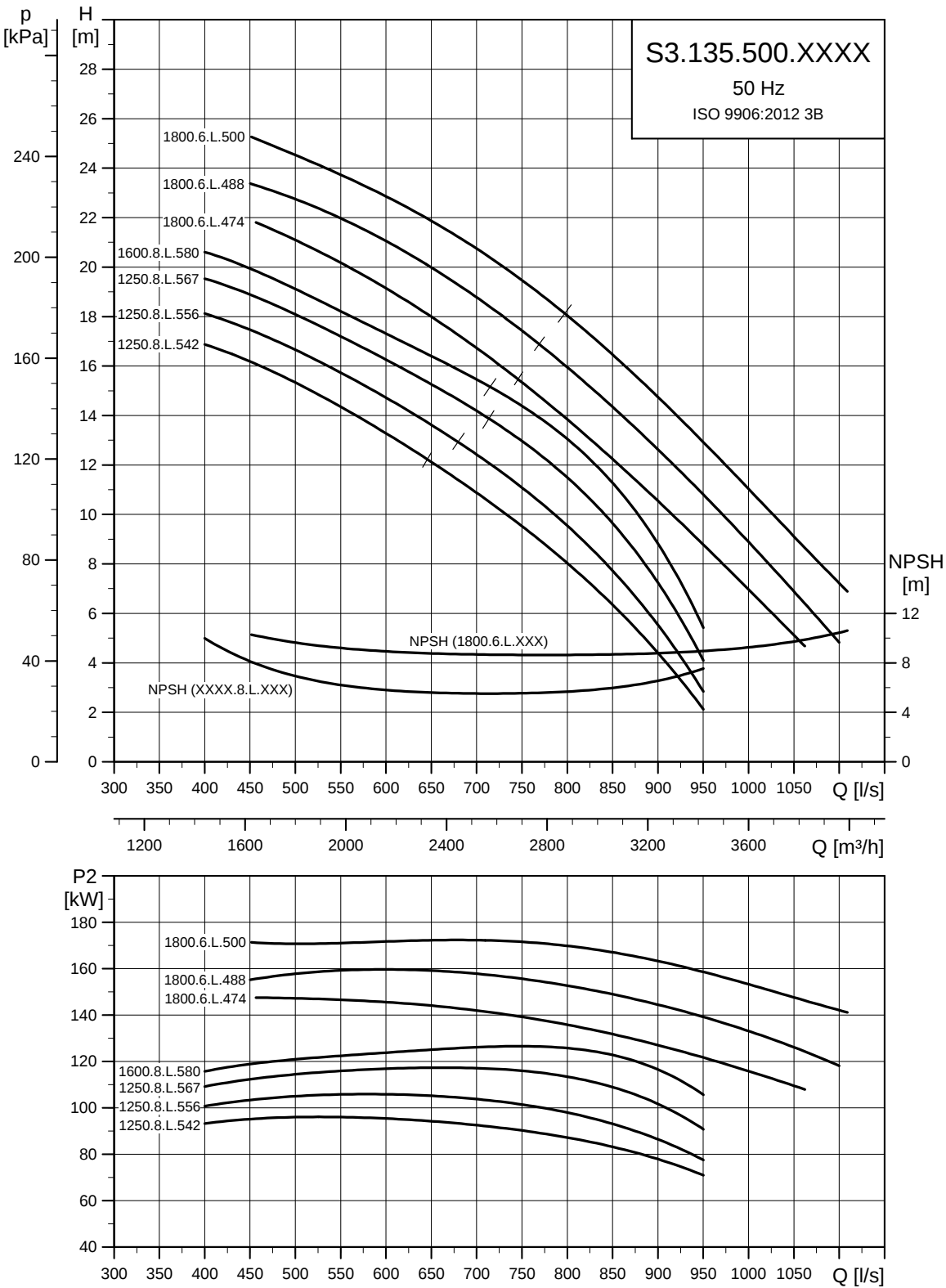
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.135.600.900.10.72E.S/C/D/H.560	560	135	10	20	8,8000
S3.135.600.1100.10.72E.S/C/D/H.580	580				9,6000
S3.135.600.1100.10.72E.S/C/D/H.606	606				9,6000
S3.135.600.1300.10.72E.S/C/D/H.635	635				11,6000
S3.135.600.1300.10.72E.S/C/D/H.657	657				11,6000
S3.135.600.1600.8.72E.S/C/D/H.560	560				8,8000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Performance curves and technical data

Low pressure, 6- and 8-pole

S3.135.500.1250.8, S3.135.500.1600.8 and S3.135.500.1800.6



TM031751

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.1250.8.72L	134	125	8	740	Y/D	250-253/1 44-147	1707	93	93	93	0.60	0.70	0.77	4.6000	4373
S3.135.500.1600.8.72L	172	160	8	735	Y/D	312-307/1 80-178	1707	93	93	93	0.66	0.76	0.81	4.6000	4373
S3.135.500.1800.6.72L	194	180	6	986	Y/D	351-341/2 02-198	1852	93	94	93	0.69	0.78	0.82	4.6000	3715

¹ Values for low/high voltage (380-400/660-690 V)**Note:** Enclosure class IP68**Motor data - 3 x 415 V**

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹⁾	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.1250.8.72L	135	125	8	740	Y/D	241/139	1707	93	93	93	0.61	0.71	0.78	4.6000	4373
S3.135.500.1600.8.72L	174	160	8	735	Y/D	299/173	1707	93	93	92	0.67	0.77	0.81	4.6000	4373
S3.135.500.1800.6.72L	196	180	6	986	Y/D	321/185	1852	93	93	92	0.76	0.83	0.85	4.6000	3715

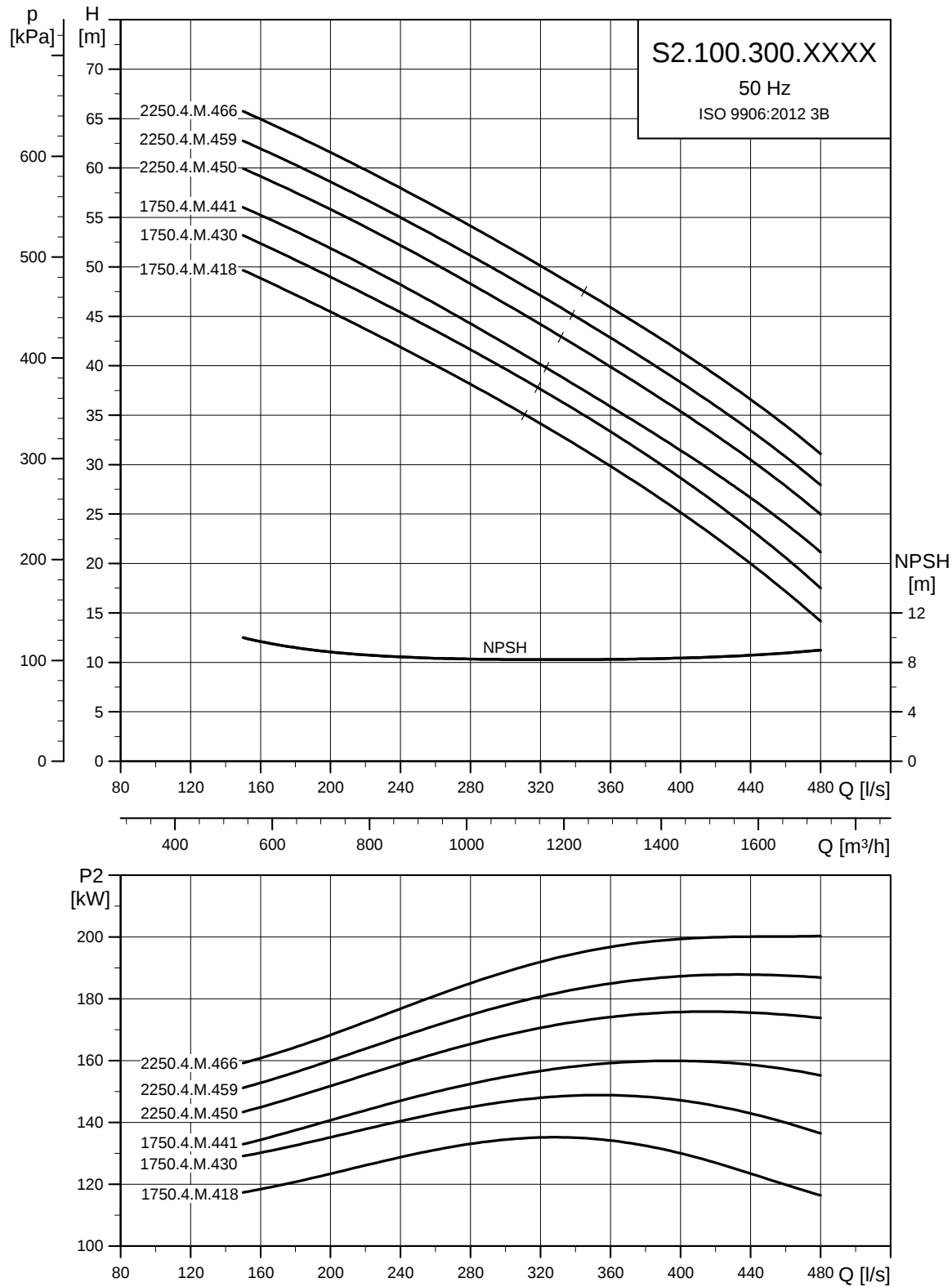
¹ Values for low/high voltage (415 V)**Note:** Enclosure class IP68**Pump data**

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.135.500.1250.8.72L.S/C/D/H.542	542				5,6000
S3.135.500.1250.8.72L.S/C/D/H.556	556				5,6000
S3.135.500.1250.8.72L.S/C/D/H.567	567				5,6000
S3.135.500.1600.8.72L.S/C/D/H.580	580	135	10	20	6,1000
S3.135.500.1800.6.72L.S/C/D/H.474	474				4,8000
S3.135.500.1800.6.72L.S/C/D/H.488	488				4,8000
S3.135.500.1800.6.72L.S/C/D/H.500	500				4,8000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Medium pressure, 4-pole

S2.100.300.1750.4 and S2.100.300.2250.4



Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.1750.4.72M	186	175	4	1486	Y/D	343-346/1 98-201	2499	92	93	94	0.61	0.71	0.78	2.7000	3480
S2.100.300.2250.4.72M	239	225	4	1477	Y/D	428-422/2 47-245	2499	93	94	94	0.67	0.77	0.82	2.7000	3480

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Electrical data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.1750.4.72M	186	175	4	1486	Y/D	318/184	2499	92	94	94	0.68	0.76	0.82	2.7000	3480
S2.100.300.2250.4.72M	242	225	4	1477	Y/D	396/229	2499	93	94	93	0.73	0.81	0.85	2.7000	3480

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

Pump data

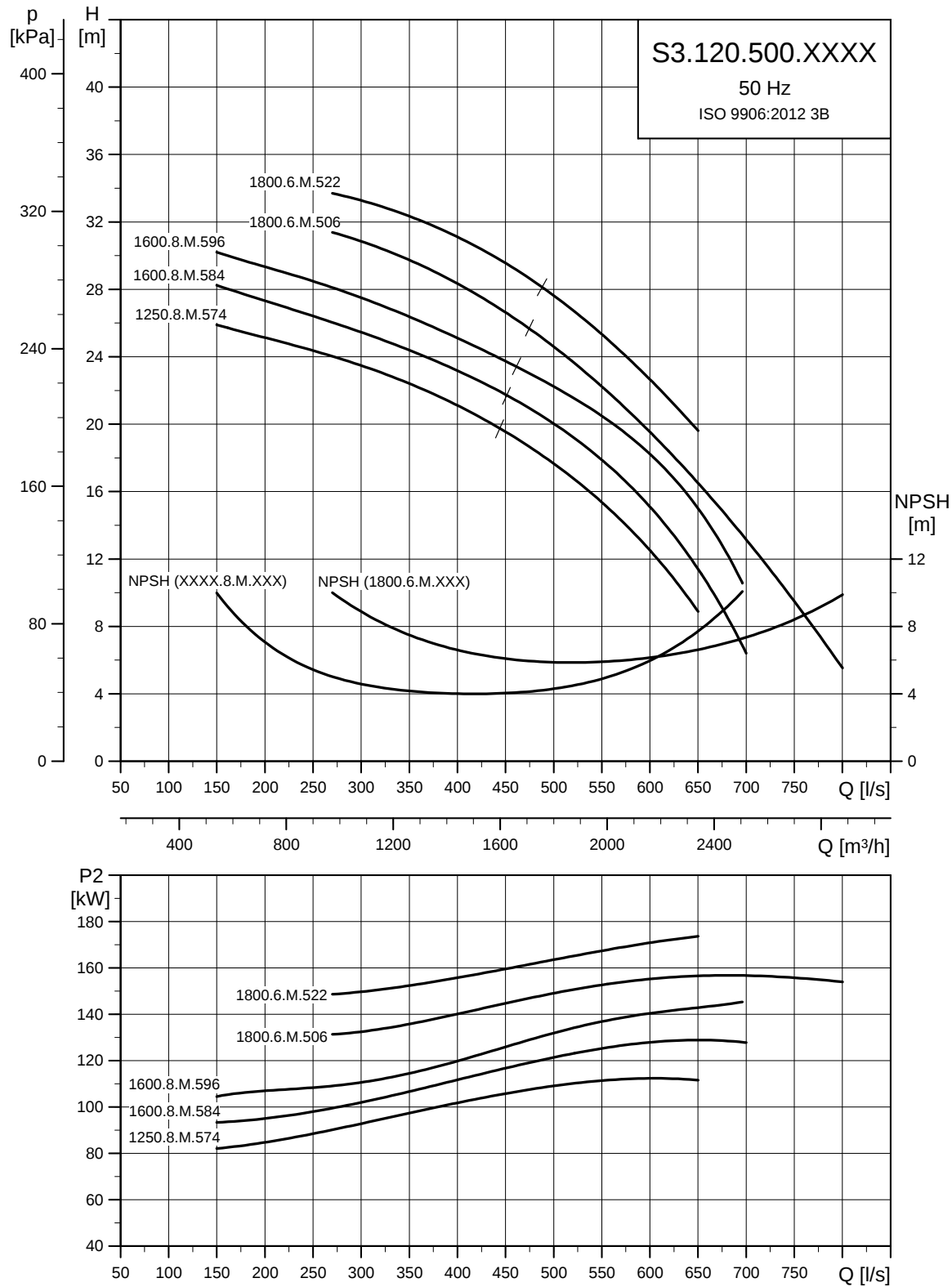
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.100.300.1750.4.72M.S/C/D/H.418	418	100	10	20	2,2000
S2.100.300.1750.4.72M.S/C/D/H.430	430				2,2000
S2.100.300.1750.4.72M.S/C/D/H.441	441				2,2000
S2.100.300.2250.4.72M.S/C/D/H.450	450				2,4000
S2.100.300.2250.4.72M.S/C/D/H.459	459				2,4000
S2.100.300.2250.4.72M.S/C/D/H.466	466				2,4000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Performance curves and technical data

Medium pressure, 6- and 8-pole

S3.120.500.1250.8, S3.120.500.1600.8 and S3.120.500.1800.6



TM031750

Electrical data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.120.500.1250.8.72M	134	125	8	740	Y/D	250-253/1 44-147	1707	93	93	93	0.60	0.70	0.77	4.6000	4373
S3.120.500.1600.8.72M	172	160	8	735	Y/D	312-307/1 80-178	1707	93	93	93	0.66	0.76	0.81	4.6000	4373
S3.120.500.1800.6.72M	194	180	6	986	Y/D	351-341/2 02-198	1852	93	94	93	0.69	0.78	0.82	4.6000	3715

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Electrical data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.120.500.1250.8.72M	135	125	8	740	Y/D	241/139	1707	93	93	93	0.61	0.71	0.78	4.6000	4373
S3.120.500.1600.8.72M	174	160	8	735	Y/D	299/173	1707	93	93	92	0.67	0.77	0.81	4.6000	4373
S3.120.500.1800.6.72M	196	180	6	986	Y/D	321/185	1852	93	93	92	0.76	0.83	0.85	4.6000	3715

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

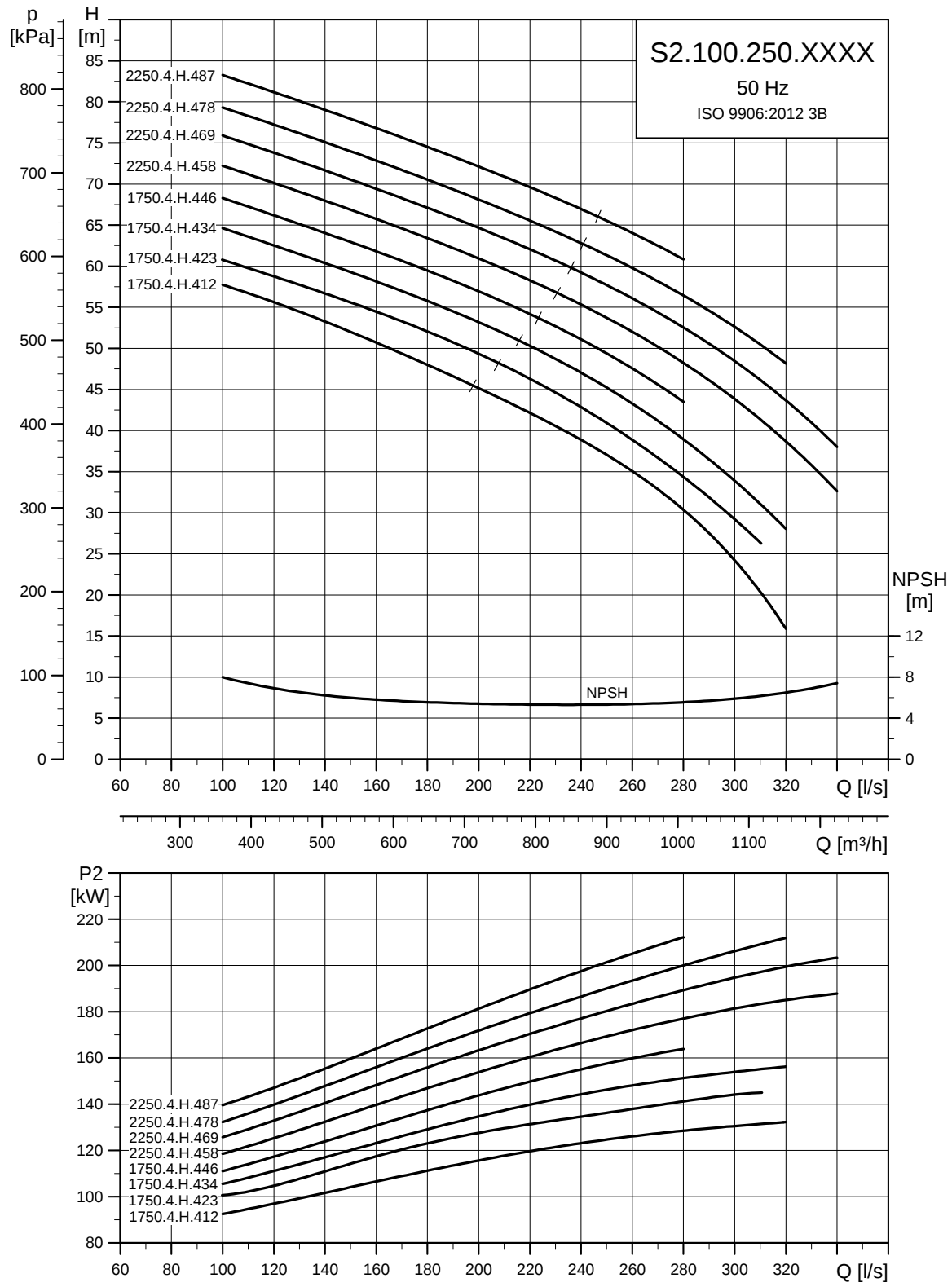
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.120.500.1250.8.72M.S/C/D/H.574	574	120	10	20	5,4000
S3.120.500.1600.8.72M.S/C/D/H.584	584				5,8000
S3.120.500.1600.8.72M.S/C/D/H.596	596				5,8000
S3.120.500.1800.6.72M.S/C/D/H.506	506				3,6000
S3.120.500.1800.6.72M.S/C/D/H.522	522				3,6000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

High pressure, 4-pole

S2.100.250.1750.4 and S2.100.250.2250.4



TM031747

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.250.1750.4.72H	186	175	4	1486	Y/D	343-346/1 98-201	2499	92	93	94	0.61	0.71	0.78	2.7000	3480
S2.100.250.2250.4.72H	239	225	4	1477	Y/D	428-422/2 47-245	2499	93	94	94	0.67	0.77	0.82	2.7000	3480

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.250.1750.4.72H	186	175	4	1486	Y/D	318/184	2499	92	94	94	0.68	0.76	0.82	2.7000	3480
S2.100.250.2250.4.72H	242	225	4	1477	Y/D	396/229	2499	93	94	93	0.73	0.81	0.85	2.7000	3480

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

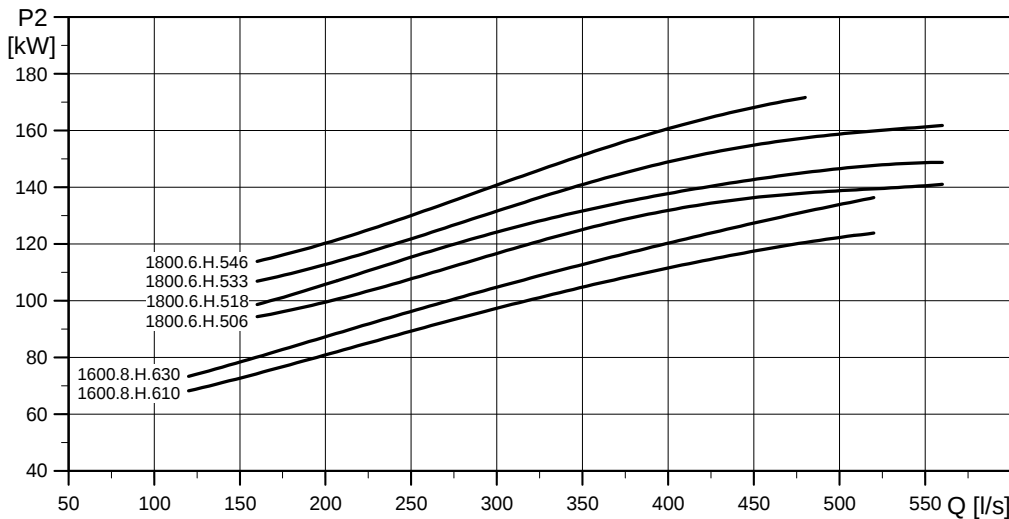
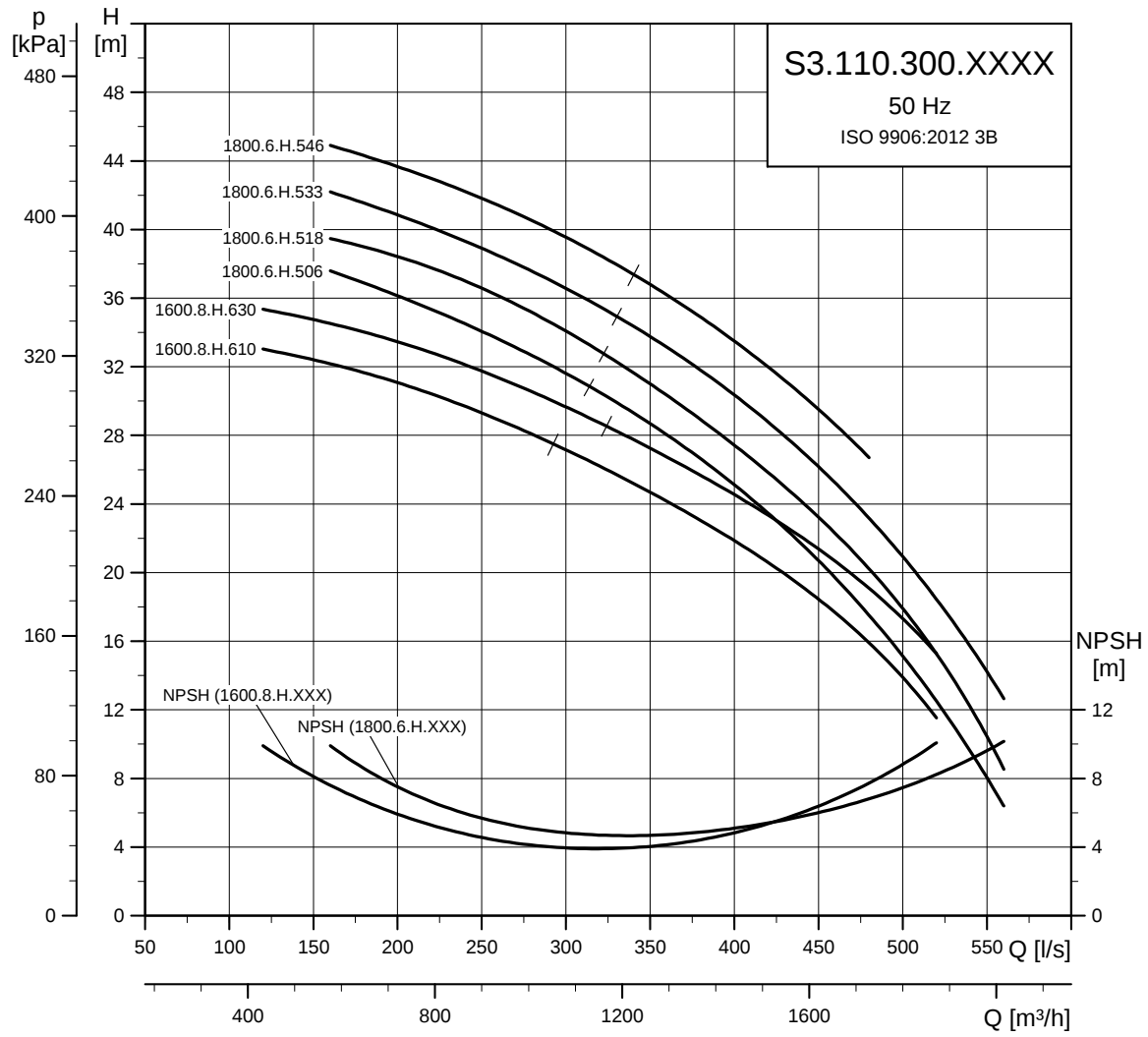
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.100.250.1750.4.72H.S/C/D/H.412	412	100	10	20	2,3000
S2.100.250.1750.4.72H.S/C/D/H.423	423				2,3000
S2.100.250.1750.4.72H.S/C/D/H.434	434				2,3000
S2.100.250.1750.4.72H.S/C/D/H.446	446				2,3000
S2.100.250.2250.4.72H.S/C/D/H.458	458				2,6000
S2.100.250.2250.4.72H.S/C/D/H.469	469				2,6000
S2.100.250.2250.4.72H.S/C/D/H.478	478				2,6000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

High pressure, 6- and 8-pole

S3.110.300.1600.8 and S3.110.300.1800.6



Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.1600.8.72H	172	160	8	735	Y/D	312-307/1 80-178	1707	93	93	93	0.66	0.76	0.81	4.6000	4373
S3.110.300.1800.6.72H	194	180	6	986	Y/D	351-341/2 02-198	1852	93	94	93	0.69	0.78	0.82	4.6000	3715

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.1600.8.72H	174	160	8	735	Y/D	299/173	1707	93	93	92	0.67	0.77	0.81	4.6000	4373
S3.110.300.1800.6.72H	196	180	6	986	Y/D	321/185	1852	93	93	92	0.76	0.83	0.85	4.6000	3715

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

Pump data

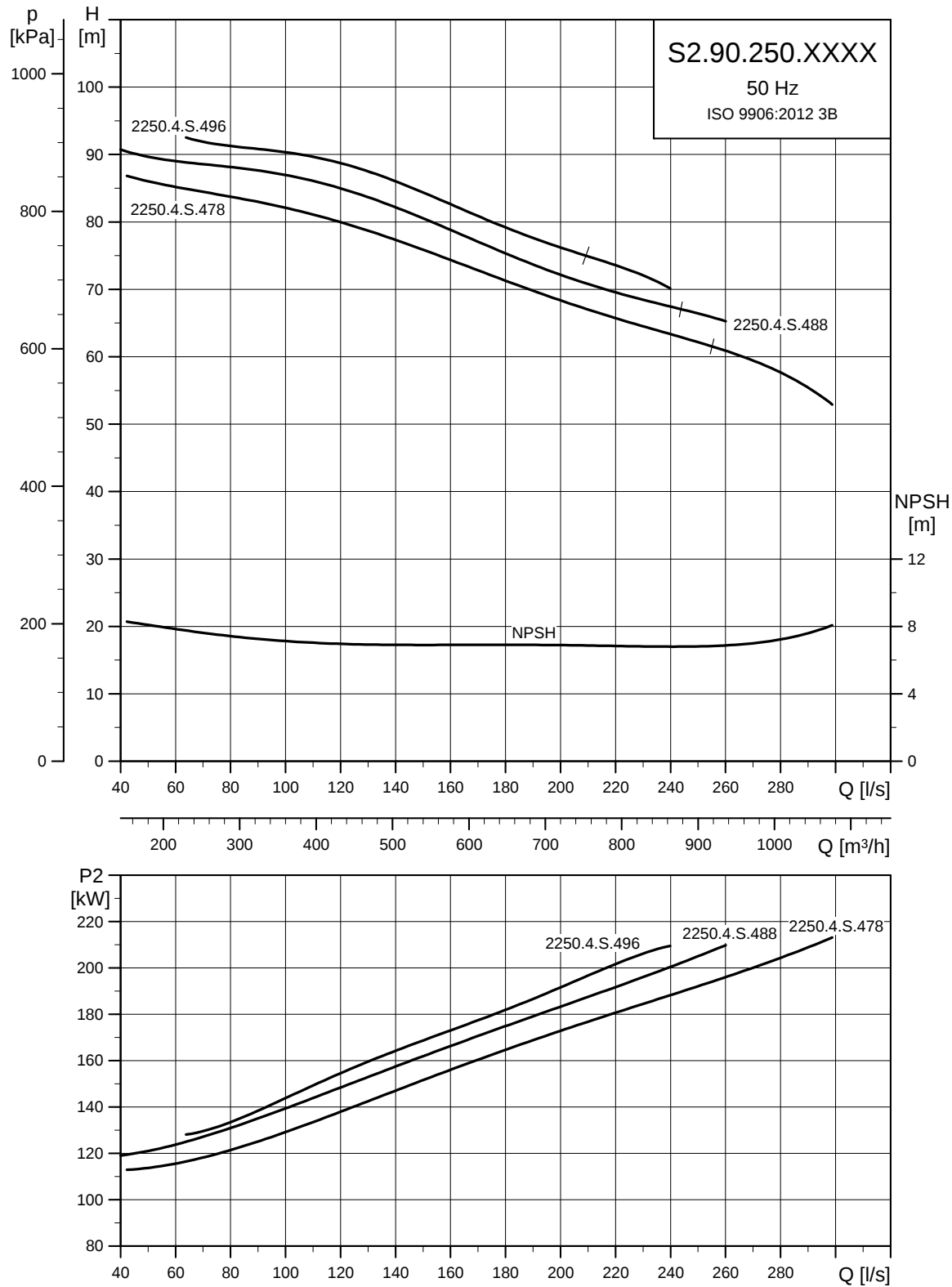
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.110.300.1600.8.72H.S/C/D/H.610	610	110	10	20	6,6000
S3.110.300.1600.8.72H.S/C/D/H.630	630				6,6000
S3.110.300.1800.6.72H.S/C/D/H.506	506				4,1000
S3.110.300.1800.6.72H.S/C/D/H.518	518				4,1000
S3.110.300.1800.6.72H.S/C/D/H.533	533				4,1000
S3.110.300.1800.6.72H.S/C/D/H.546	546				4,1000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Performance curves and technical data

Super-high pressure, 4-pole

S2.90.250.2250.4



TM031746

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.90.250.2250.4.72H	239	225	4	1477	Y/D	428-422/2 47-245	2499	93	94	94	0.67	0.77	0.82	2.7000	3480

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.90.250.2250.4.72H	242	225	4	1477	Y/D	396/229	2499	93	94	93	0.73	0.81	0.85	2.7000	3480

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

Pump data

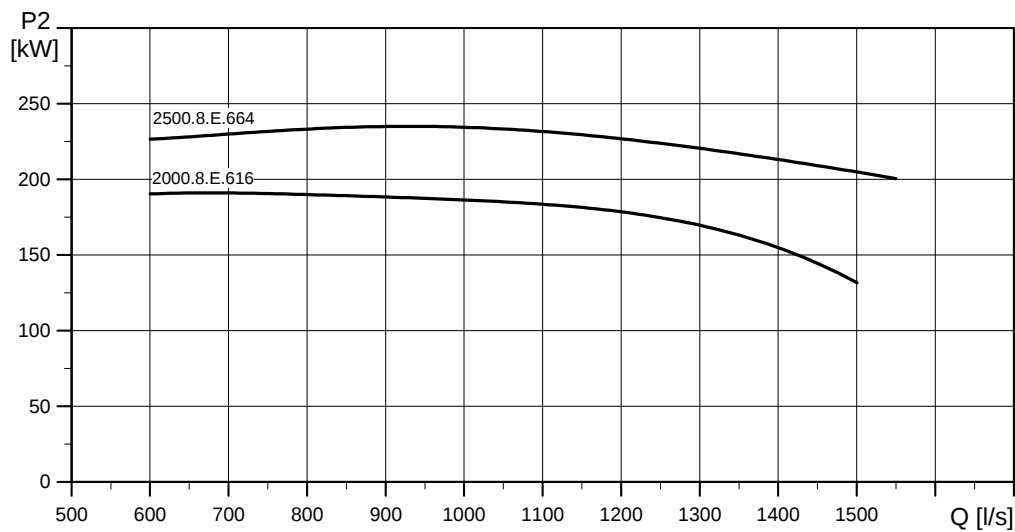
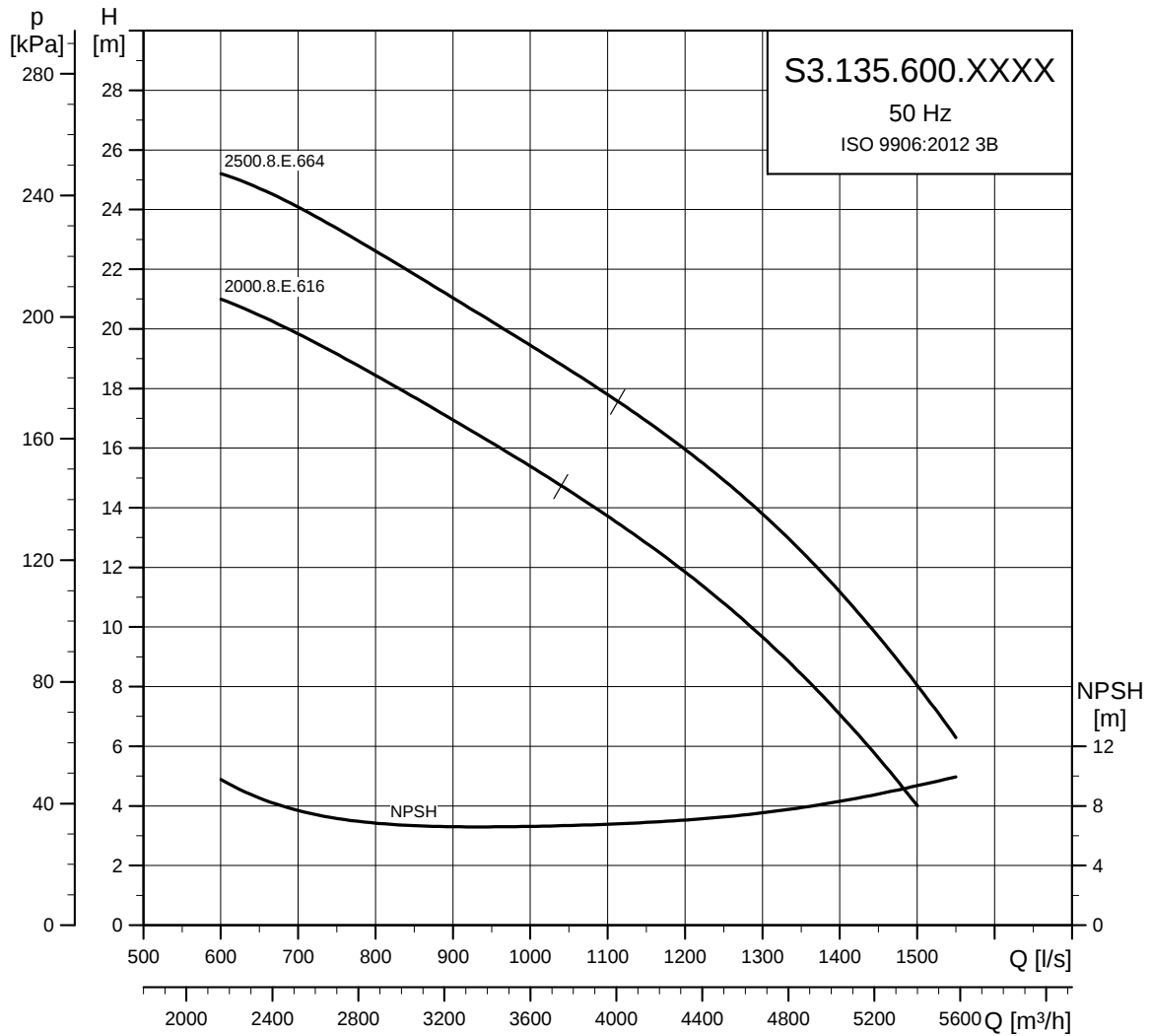
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.90.250.2250.4.72S.S/C/D/H.478	478	90	10	20	2,6000
S2.90.250.2250.4.72S.S/C/D/H.488	488				2,6000
S2.90.250.2250.4.72S.S/C/D/H.496	496				2,6000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Range 74

Extra-low pressure, 8-pole

S3.135.600.2000.8 and S3.135.600.2500.8



TM045590

Motor data - 3 x 380-415/660-690

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.600.2000.8.74E	214	200	8	744	Y/D	402-392/2 32-227	3008	93	94	94	0.61	0.73	0.78	8.4000	5134
S3.135.600.2500.8.74E	267	250	8	741	Y/D	490-454/2 82-262	2836	93	94	94	0.71	0.80	0.83	13.2000	8055

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

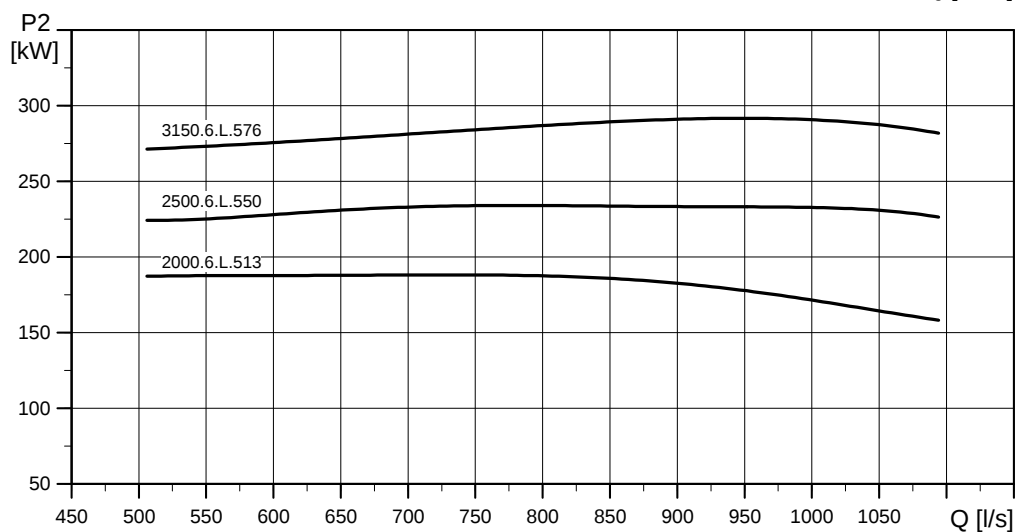
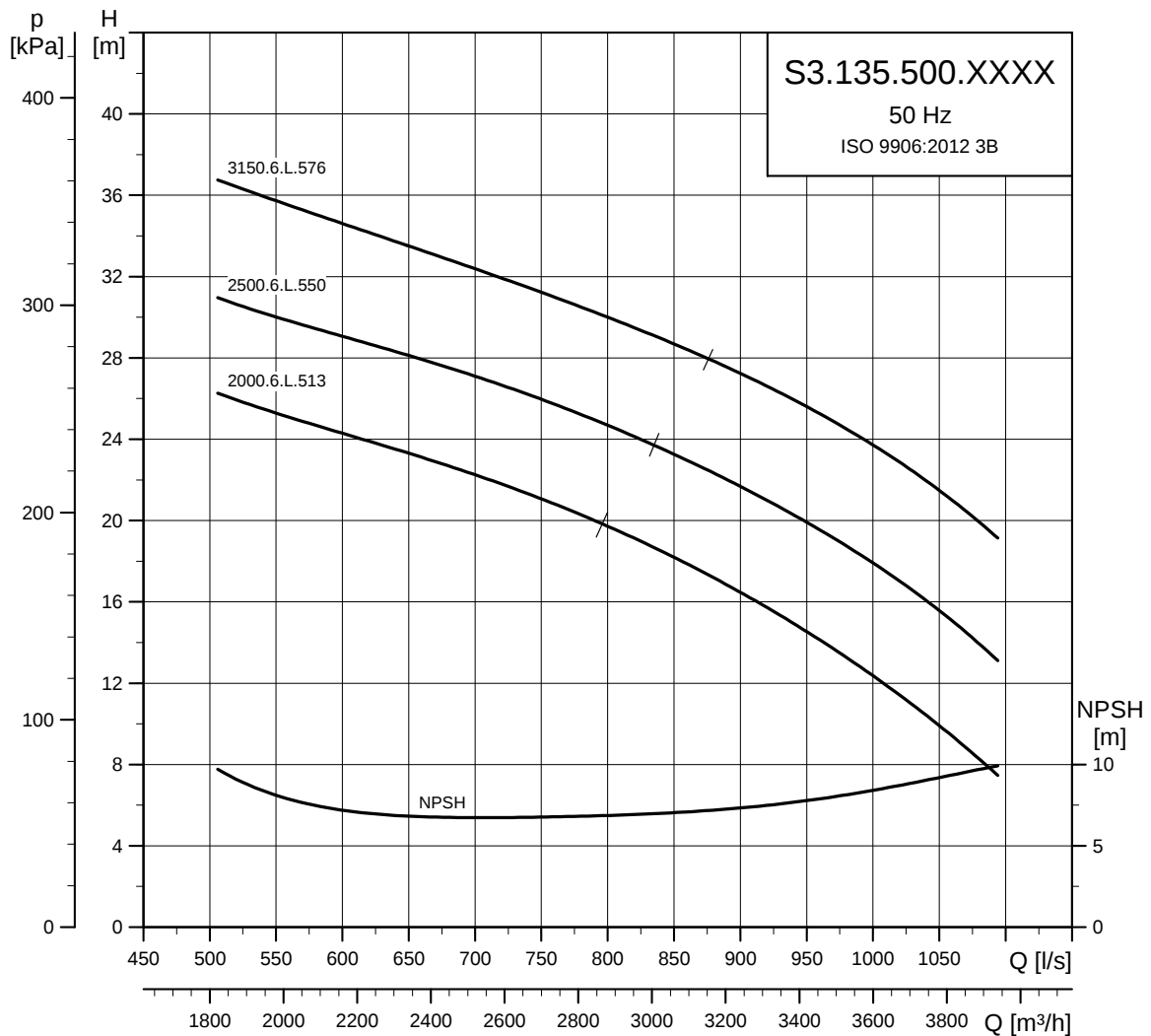
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.135.600.2000.8.74E.C/D/H.616	616	135	10	20	8,7400
S3.135.600.2500.8.74E.C/D/H.664	664				10,4500

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Low pressure, 6-pole

S3.135.500.2000.6, S3.135.500.2500.6 and S3.135.500.3150.6



TM045593

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.2000.6.74L	215	200	6	990	Y/D	376-344/2 17-199	2434	93	93	93	0.80	0.86	0.88	7.3000	4630
S3.135.500.2500.6.74L	267	250	6	991	Y/D	467-433/2 69-250	3460	93	94	93	0.77	0.84	0.87	8.4000	6264

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.3150.6.74L	335	315	6	992	Y/D	607-583/3 49-338	4312	93	94	94	0.69	0.79	0.83	13.2000	8188

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.3150.6.74L	335	315	6	990	Y/D	549/317	3291	94	94	94	0.77	0.83	0.85	13.2000	6381

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

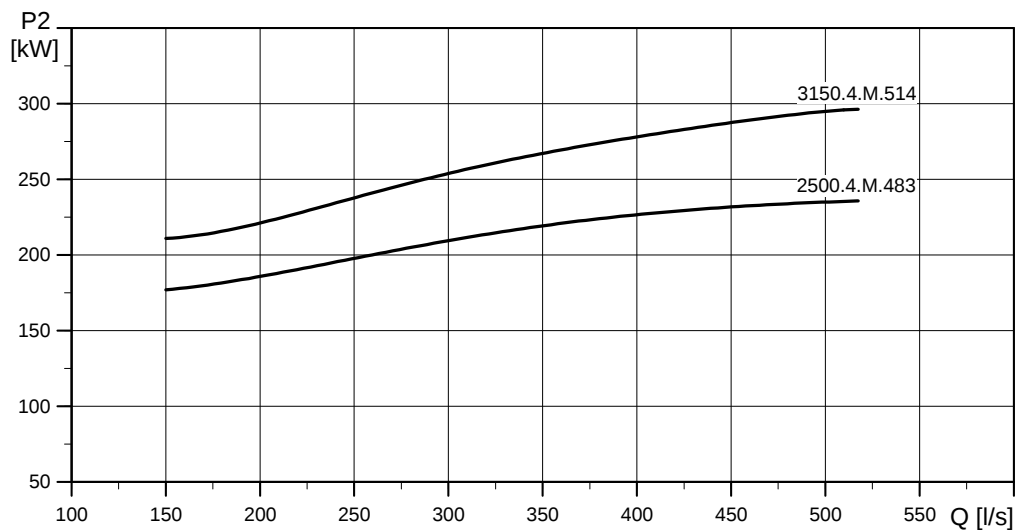
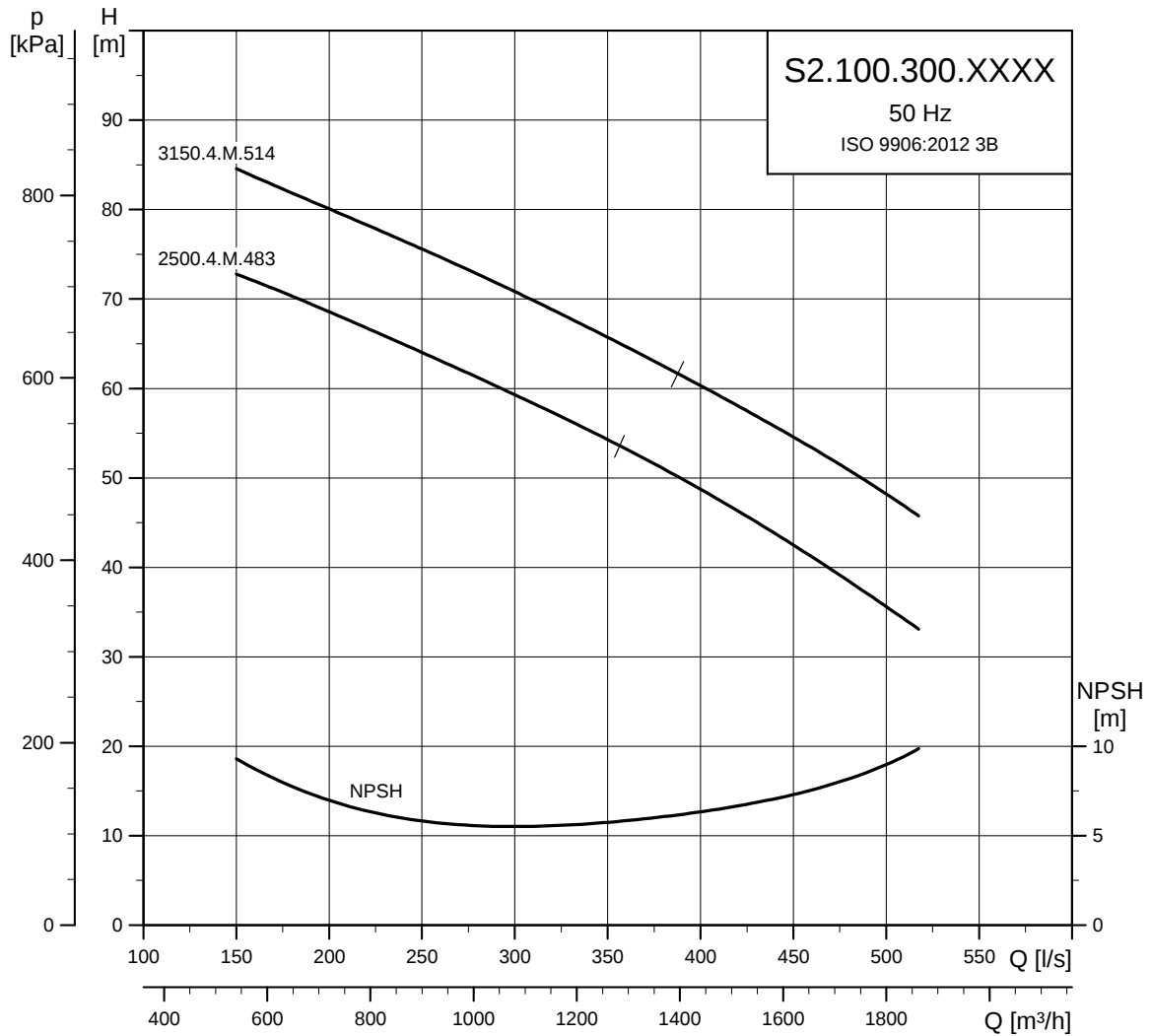
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia *
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.135.500.2000.6.74L.C/D/H.513	513				4,0400
S3.135.500.2500.6.74L.C/D/H.550	550	135	10	20	4,7300
S3.135.500.3150.6.74L.C/D/H.576	576				5,3200

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Medium pressure, 4-pole

S2.100.300.2500.4 and S2.100.300.3150.4



TM045594

Motor data - 3 x 380-415/660-690

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.2500.4.74M	269	250	4	1488	Y/D	475-457/2 74-264	3464	93	93	93	0.69	0.79	0.84	5.0000	5134
S2.100.300.3150.4.74M	333	315	4	1488	Y/D	583-540/3 36-312	3926	94	94	94	0.77	0.84	0.87	7.9000	5459

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

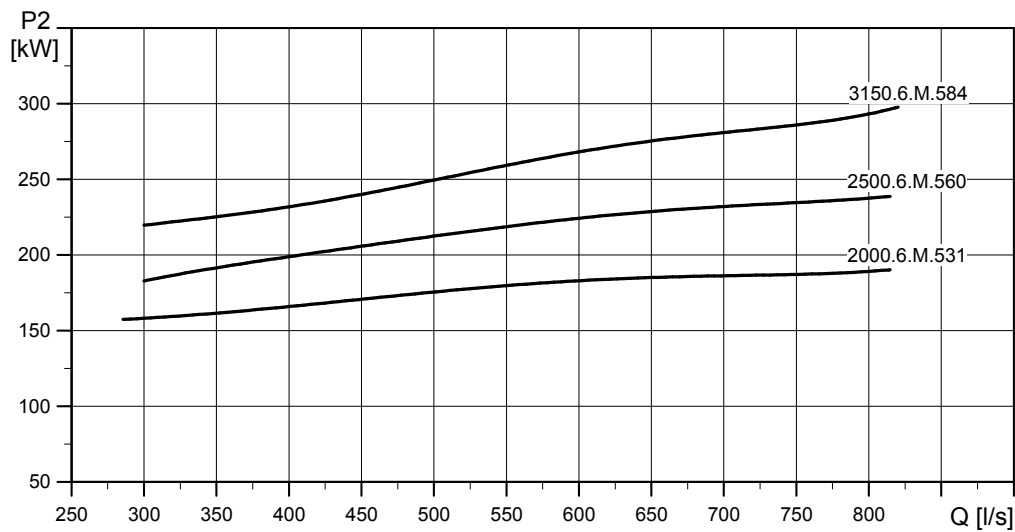
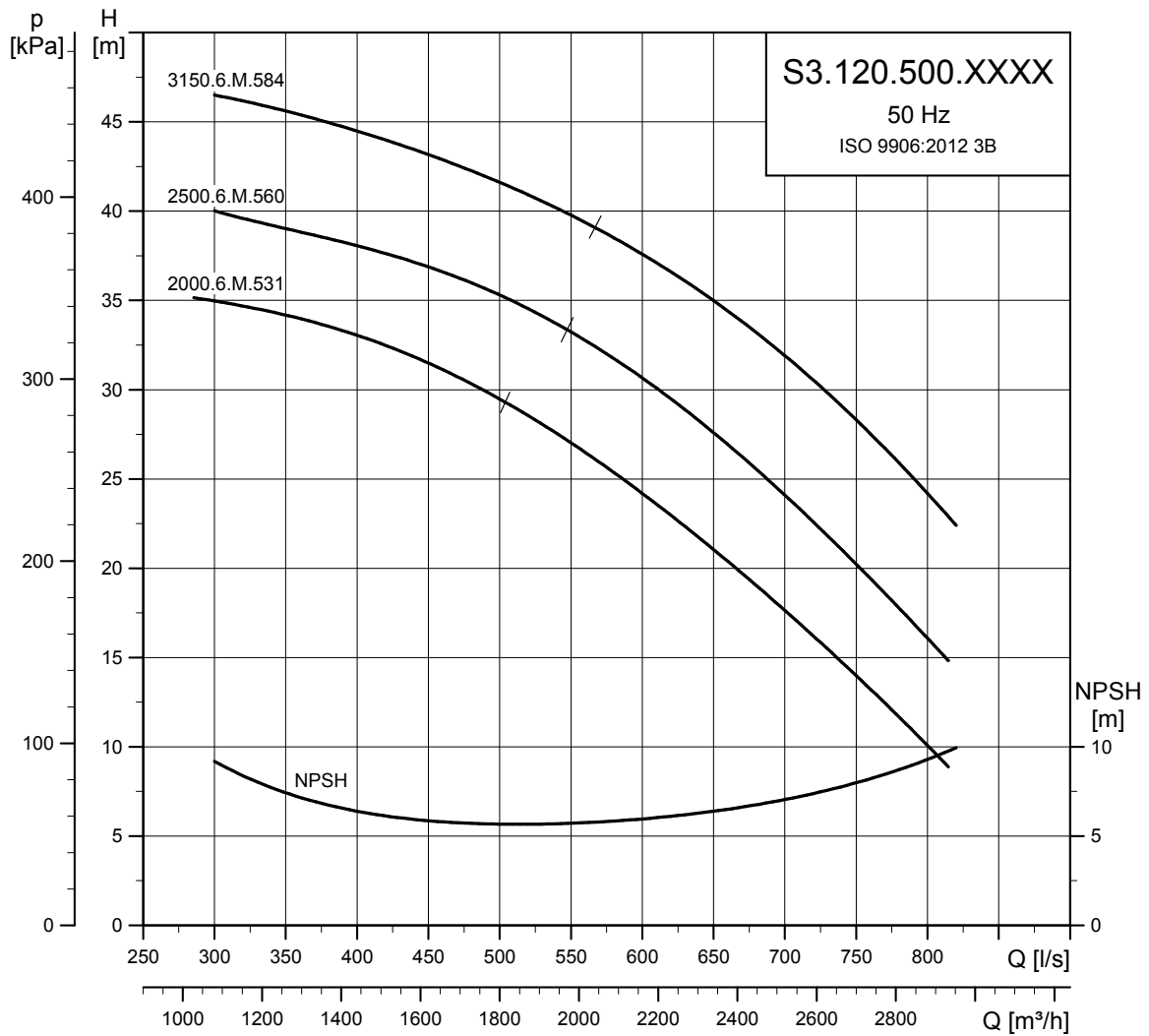
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.100.300.2500.4.74M.C/D/H.483	483	100	10	20	2,2200
S2.100.300.3150.4.74M.C/D/H.514	514				2,6600

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Medium pressure, 6-pole

S3.120.500.2000.6, S3.120.500.2500.6 and S3.120.500.3150.6



TM045595

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.120.500.2000.6.74M	215	200	6	990	Y/D	376-344/2 17-199	2434	93	93	93	0.80	0.86	0.88	7.3000	4630
S3.120.500.2500.6.74M	267	250	6	991	Y/D	467-433/2 69-250	3460	93	94	93	0.77	0.84	0.87	8.4000	6264

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.120.500.3150.6.74M	335	315	6	992	Y/D	607-583/3 49-338	4312	93	94	94	0.69	0.79	0.83	13.2000	8188

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.120.500.3150.6.74M	335	315	6	990	Y/D	549/317	3291	94	94	94	0.77	0.83	0.85	13.2000	6381

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

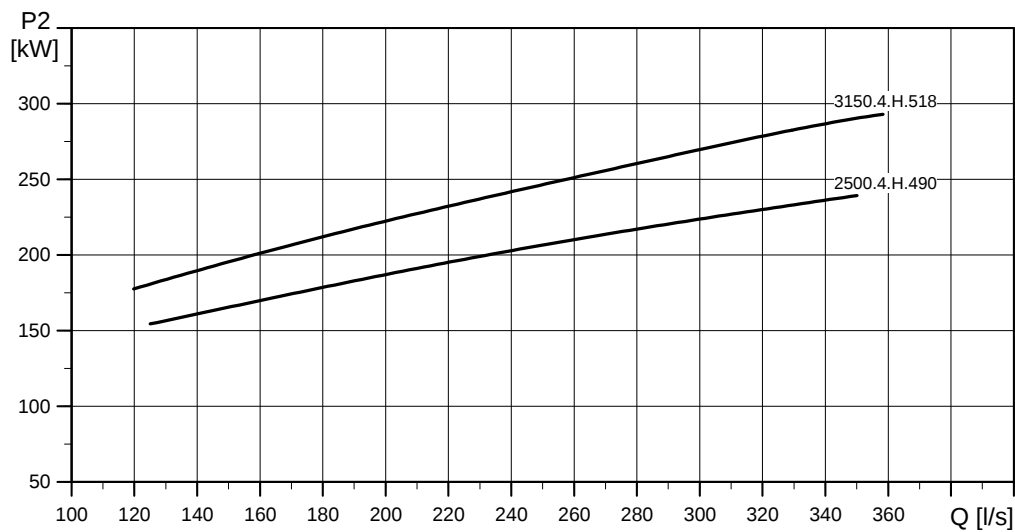
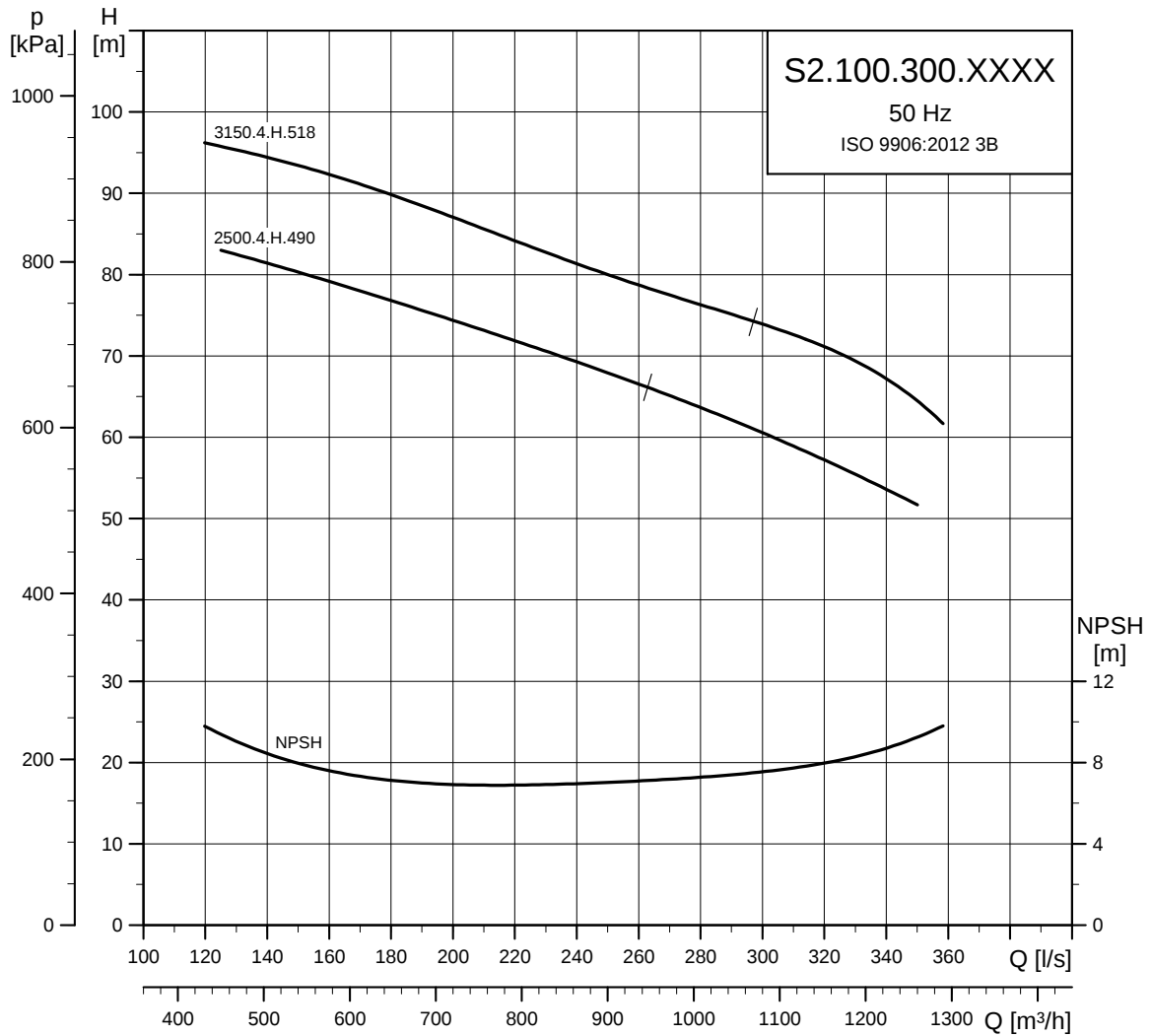
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia *
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.120.500.2000.6.74M.C/D/H.531	531				4,0500
S3.120.500.2500.6.74M.C/D/H.560	560	120	10	20	4,6500
S3.120.500.3150.6.74M.C/D/H.584	584				5,1500

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

High pressure, 4-pole

S2.100.300.2500.4 and S2.100.300.3150.4



TM045591

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.2500.4.74H	269	250	4	1488	Y/D	475-457/2 74-264	3464	93	93	93	0.69	0.79	0.84	5.0000	5134
S2.100.300.3150.4.74H	333	315	4	1488	Y/D	583-540/3 36-312	3926	94	94	94	0.77	0.84	0.87	7.9000	5459

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

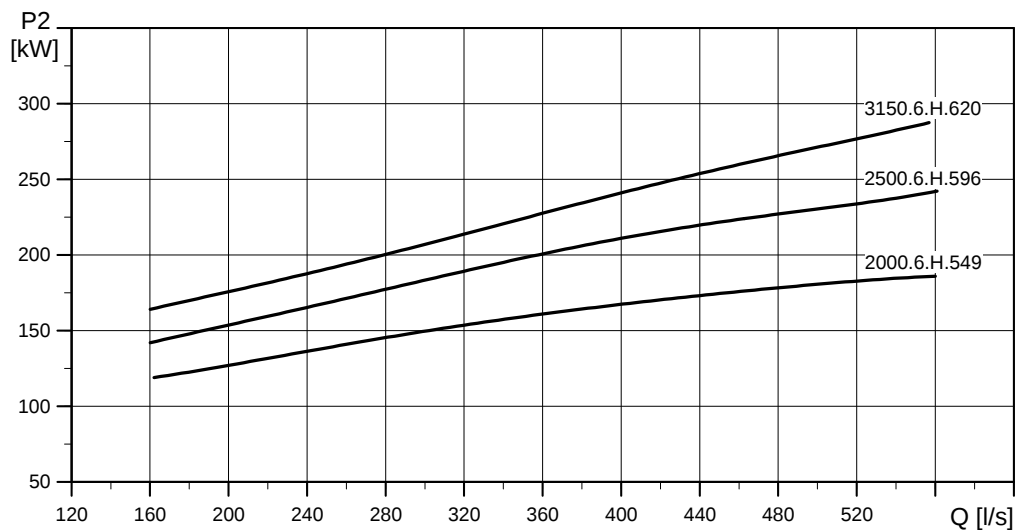
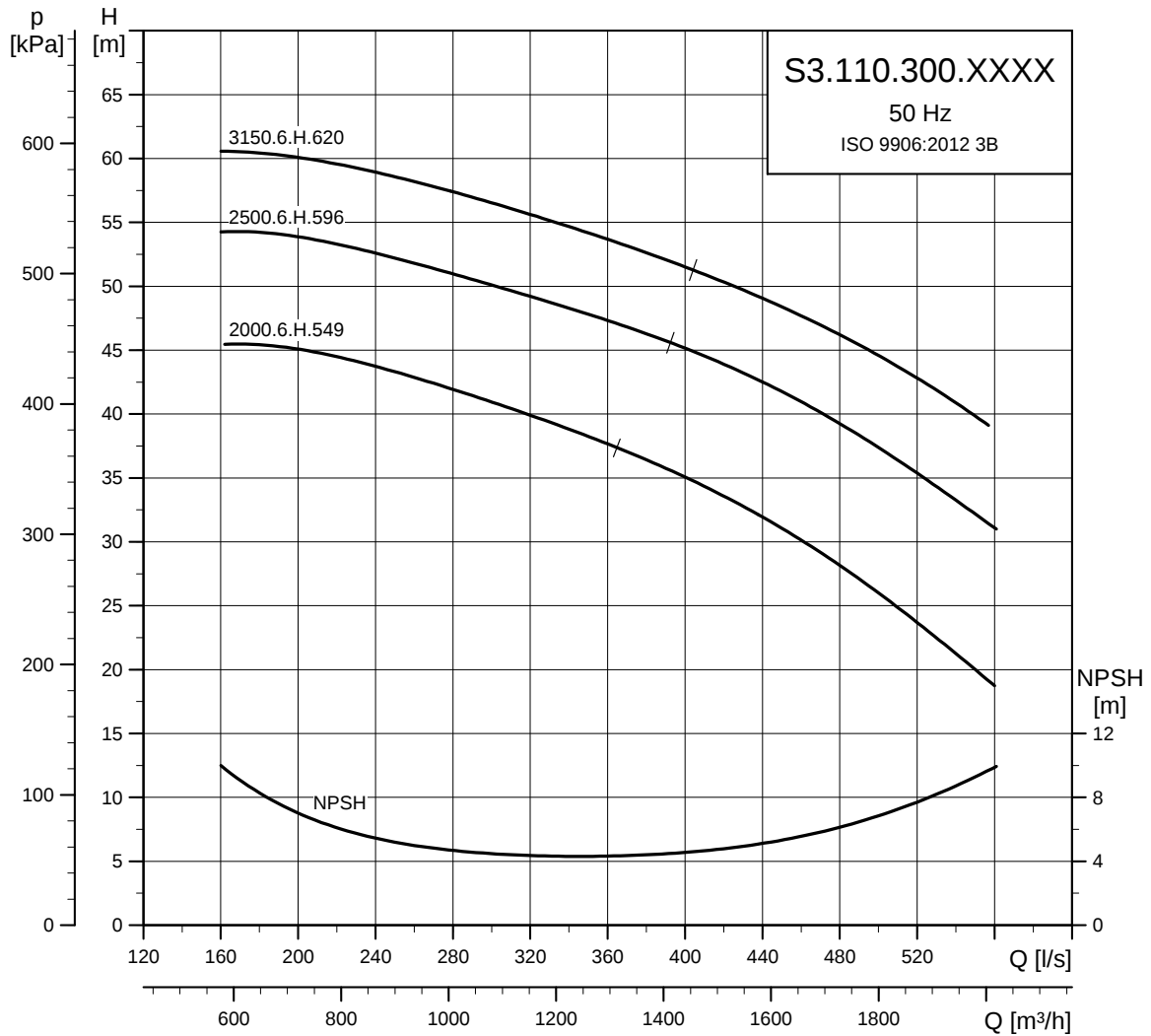
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.100.300.2500.4.74H.C/D/H.490	490	100	10	20	2,2900
S2.100.300.3150.4.74H.C/D/H.518	518				2,6800

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

High pressure, 6-pole

S3.110.300.2000.6, S3.110.300.2500.6 and S3.110.300.3150.6



TM045592

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos ϕ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.2000.6.74H	215	200	6	990	Y/D	376-344/2 17-199	2434	93	93	93	0.80	0.86	0.88	7.3000	4630
S3.110.300.2500.6.74H	267	250	6	991	Y/D	467-433/2 69-250	3460	93	94	93	0.77	0.84	0.87	8.4000	6264

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380-400/660-690

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos ϕ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.3150.6.74H	335	315	6	992	Y/D	607-583/3 49-388	4312	93	94	94	0.69	0.79	0.83	13.2000	8188

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos ϕ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.3150.6.74H	335	315	6	990	Y/D	549/317	3291	94	94	94	0.77	0.83	0.85	13.2000	6381

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

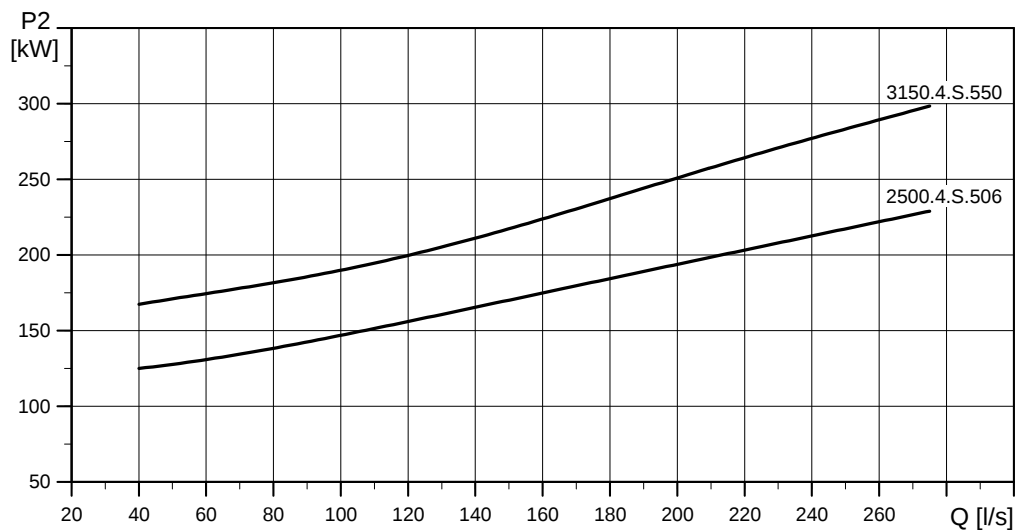
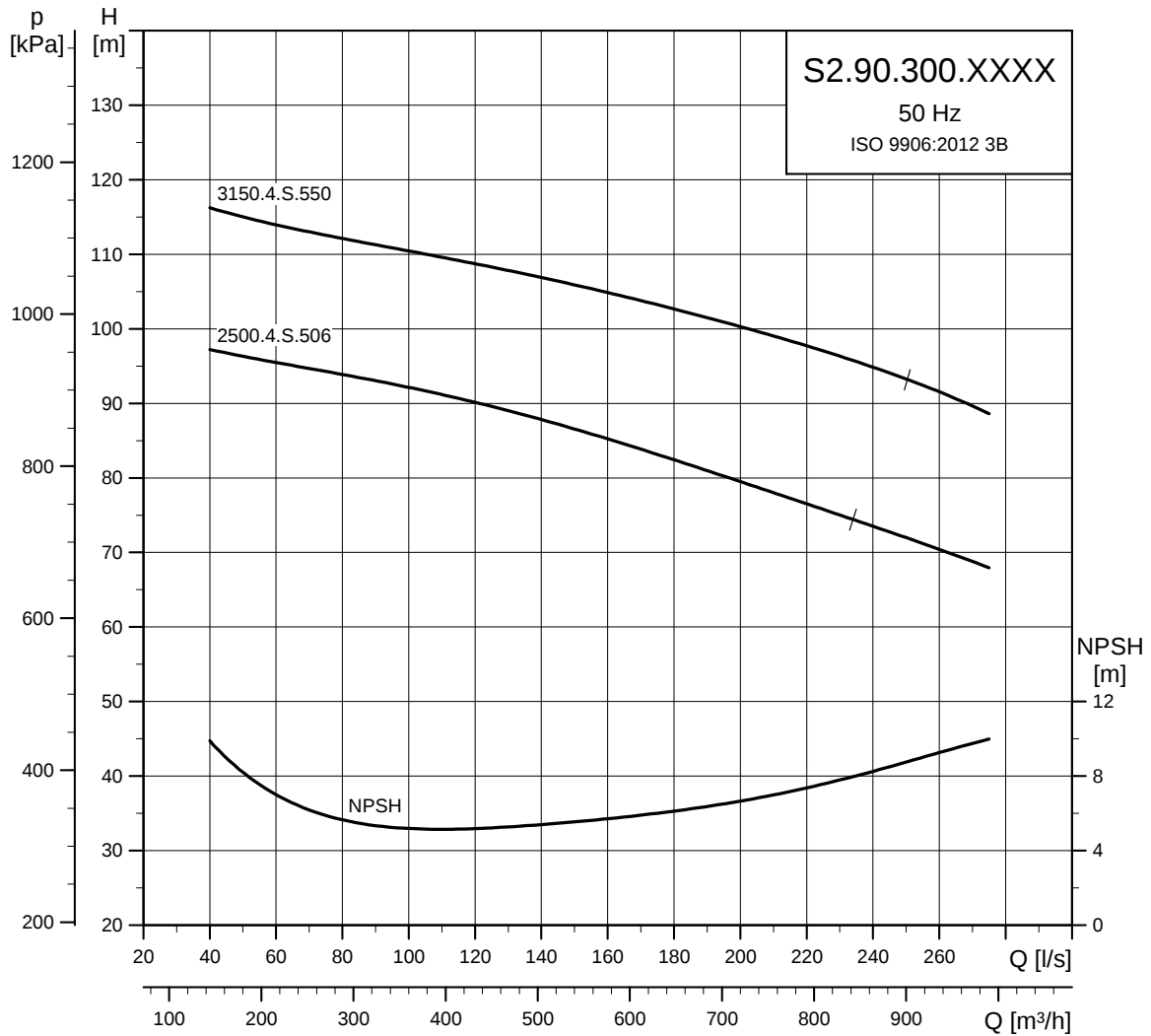
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia *
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.110.300.2000.6.74H.C/D/H.549	549				4,0900
S3.110.300.2500.6.74H.C/D/H.596	596	110	10	20	5,1800
S3.110.300.3150.6.74H.C/D/H.620	620				5,7300

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Super-high pressure, 4-pole

S2.90.300.2500.4 and S2.90.300.3150.4



TM045596

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.90.300.2500.4.74S	269	250	4	1488	Y/D	475-457/2 74-264	3464	93	93	93	0.69	0.79	0.84	5.0000	5134
S2.90.300.3150.4.74S	333	315	4	1488	Y/D	583-540/3 36-312	3926	94	94	94	0.77	0.84	0.87	7.9000	5459

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Pump data

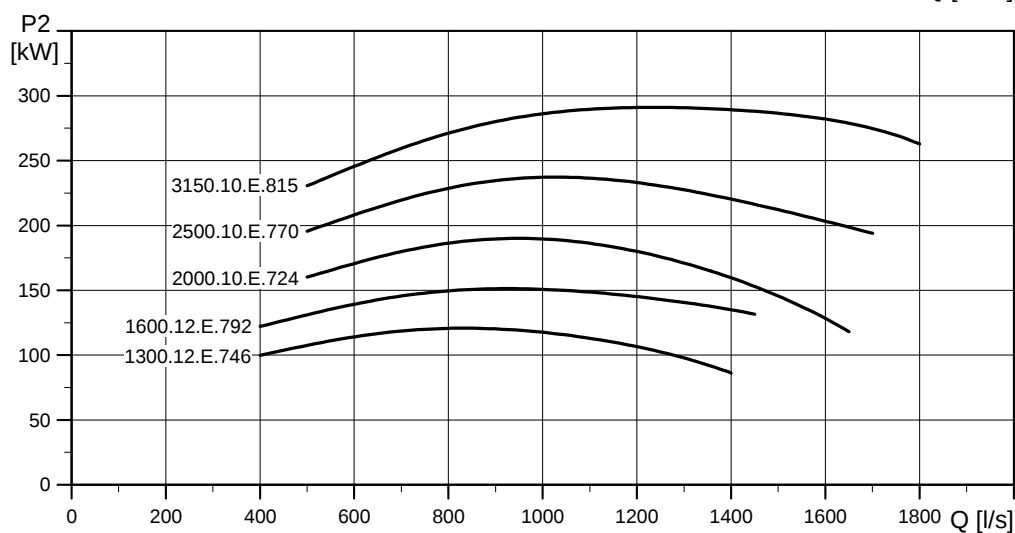
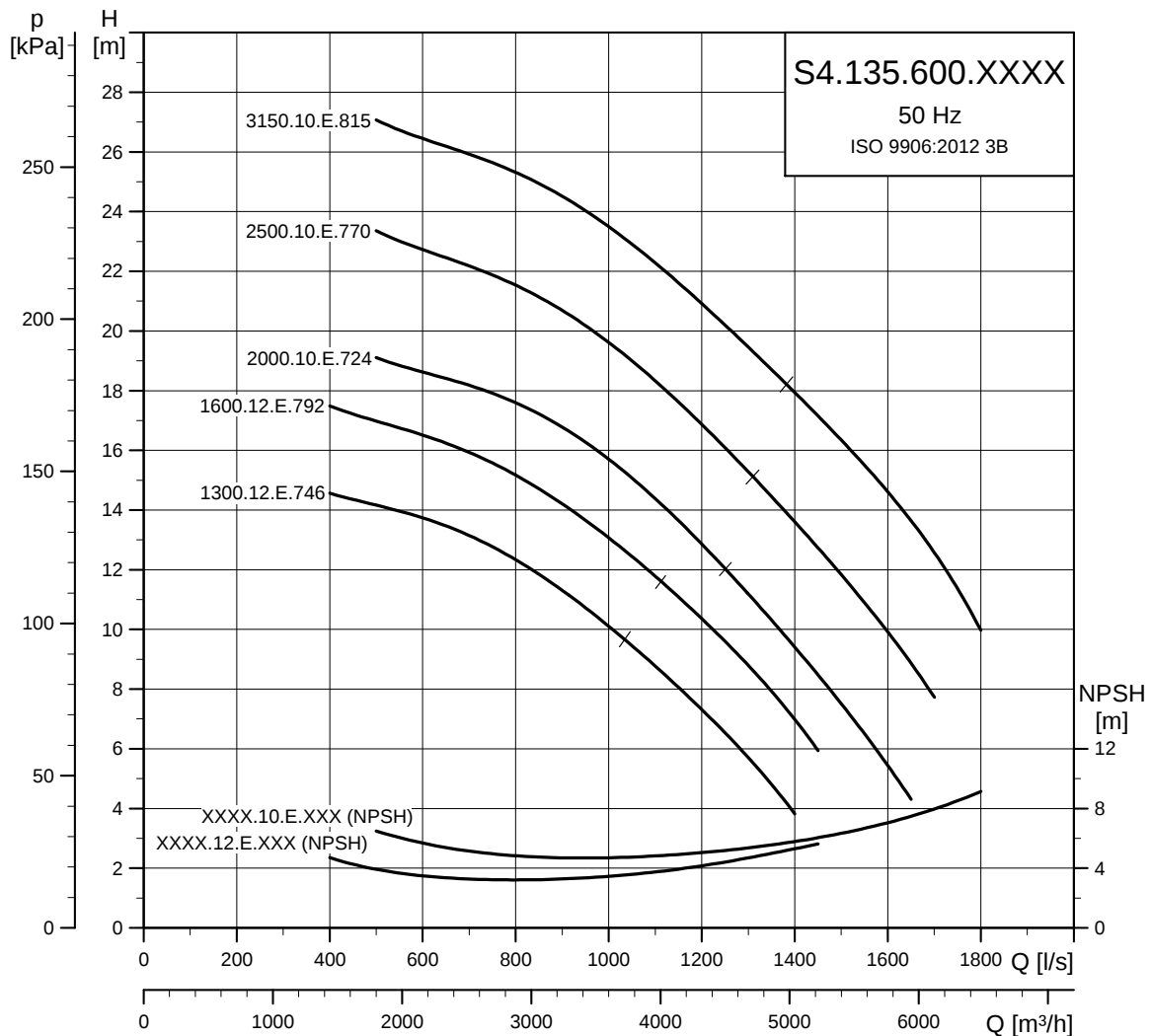
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S2.90.300.2500.4.74S.C/D/H.506	506	90	10	20	2,4700
S2.90.300.3150.4.74S.C/D/H.550	550				3,1500

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Range 78

Extra-low pressure, 10- and 12-pole

S4.135.600.1300.12, S4.135.600.1600.12, S4.135.600.2000.10, S4.135.600.2500.10 and S4.135.600.3150.10



Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S4.135.600.1300.12.78E	141	130	12	495	Y/D	287-290/1 65-167	1724	91	92	92	0.51	0.64	0.71	11.3000	6270
S4.135.600.1600.12.78E	173	160	12	494	Y/D	346-339/2 00-196	1923	92	92	93	0.56	0.67	0.74	13.5000	7424
S4.135.600.2000.10.78E	214	200	10	594	Y/D	407-403/2 34-233	2606	93	94	94	0.59	0.71	0.77	11.3000	7074
S4.135.600.2500.10.78E	267	250	10	593	Y/D	515-510/2 97-295	3148	93	94	94	0.60	0.71	0.76	13.5000	9260
S4.135.600.3150.10.78E	335	315	10	595	Y/D	679-676/3 91-390	4031	93	94	94	0.54	0.66	0.72	20.0000	10617

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

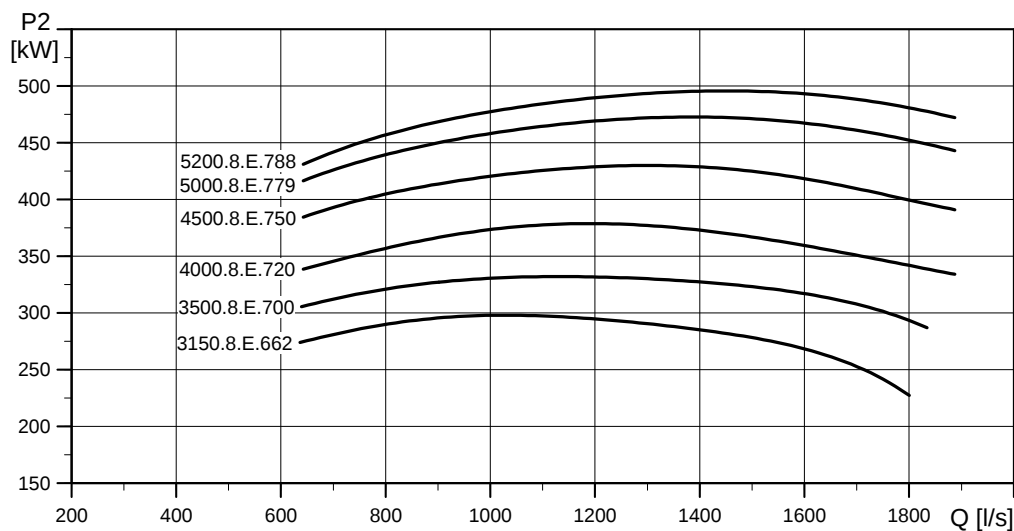
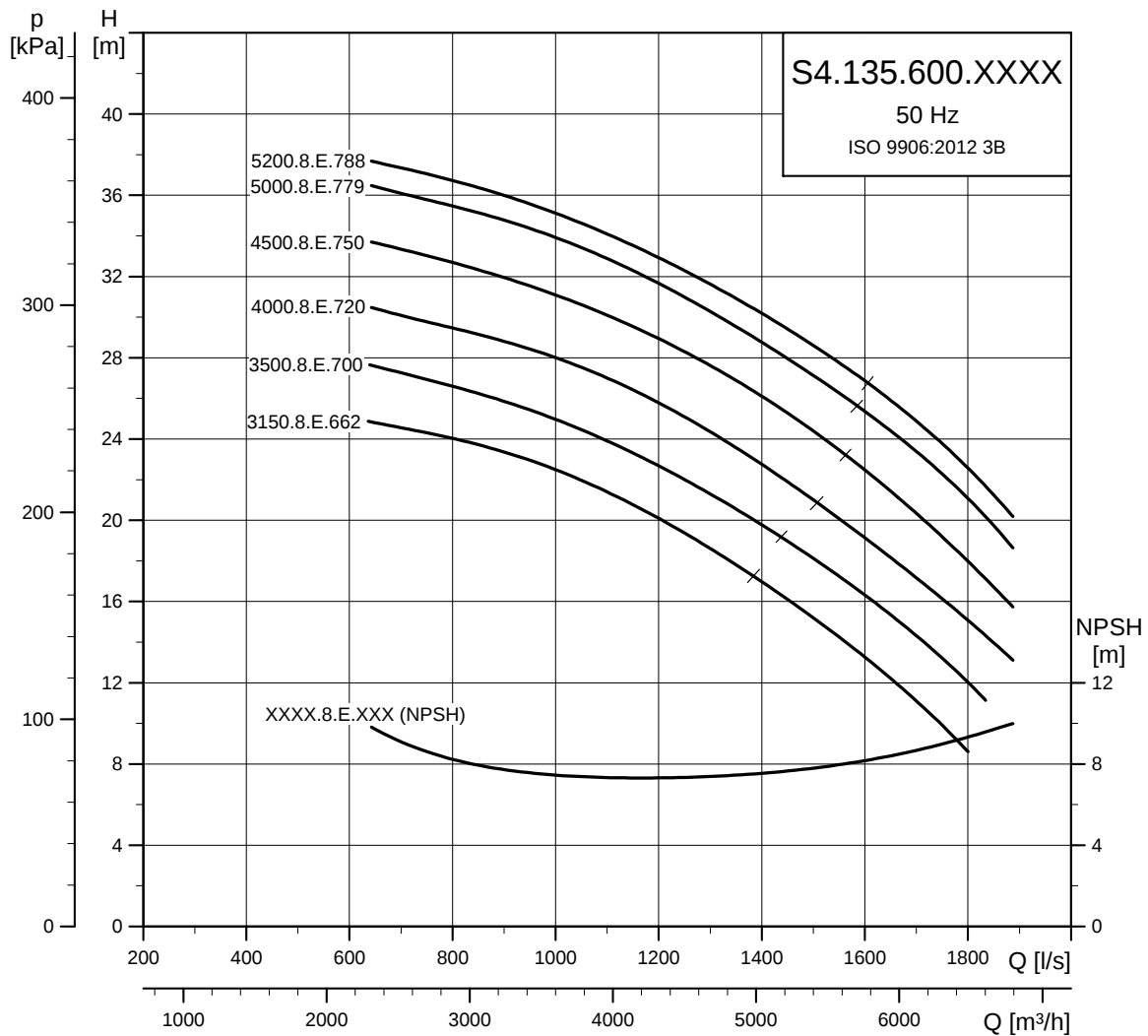
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S4.135.600.1300.12.78E.C/D/H.746	746	135	10	20	17,3000
S4.135.600.1600.12.78E.C/D/H.792	792				20,5000
S4.135.600.2000.10.78E.C/D/H.724	724				15,8000
S4.135.600.2500.10.78E.C/D/H.770	770				19,0000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Extra-low pressure, 8-pole

S4.135.600.3150.8, S4.135.600.4000.8, S4.135.600.4500.8, S4.135.600.5000.8 and S4.135.600.5200.8



TM045598

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S4.135.600.3150.8.78E	335	315	8	744	Y/D	621-591/3 58-341	4180	94	94	94	0.65	0.75	0.81	17.0000	10513
S4.135.600.3500.8.78E	372	350	8	744	Y/D	680-634/3 92-366	4460	94	94	94	0.71	0.78	0.82	21.0000	11311
S4.135.600.4000.8.78E	426	400	8	743	Y/D	779-714/4 49-412	4460	94	94	94	0.73	0.80	0.84	21.0000	11311
S4.135.600.4500.8.78E	475	450	8	743	Y/D	868-821/5 00-474	5889	95	95	95	0.68	0.77	0.82	23.0000	14139
S4.135.600.5000.8.78E	529	500	8	743	Y/D	958-821/5 52-519	5889	95	95	95	0.70	0.79	0.83	23.0000	14139
S4.135.600.5200.8.78E	550	520	8	742	Y/D	957-823/5 55-533	4785	95	95	95	0.75	0.81	0.83	24.0000	13385

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380/660 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S4.135.600.5200.8.78E	550	520	8	744	Y/D	1059-610	6456	94	95	94	0.64	0.75	0.79	24.0000	18022

¹ Values for low/high voltage (380/660 V).

Note: Enclosure class IP68

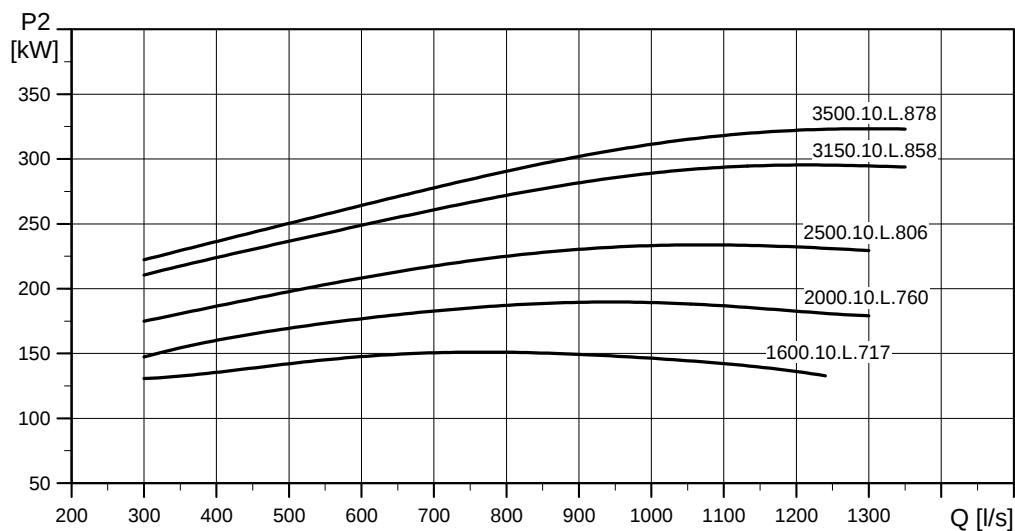
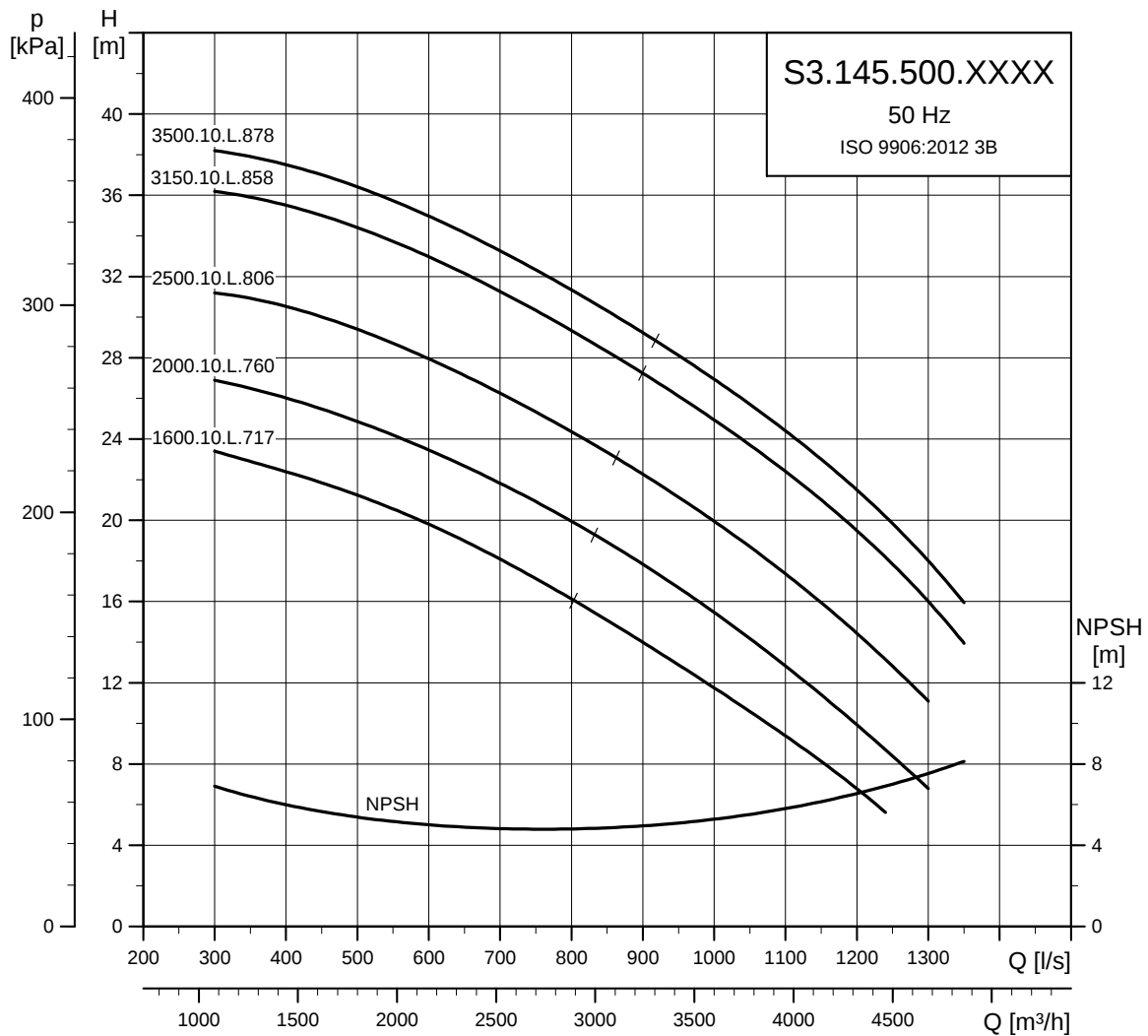
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S4.135.600.3150.8.78E.C/D/H.662	662	135	10	20	12,5500
S4.135.600.3500.8.78E.C/D/H.700	700				14,5000
S4.135.600.4000.8.78E.C/D/H.720	720				15,6000
S4.135.600.4500.8.78E.C/D/H.750	750				17,4900
S4.135.600.5000.8.78E.C/D/H.779	779				19,5000
S4.135.600.5200.8.78E.C/D/H.788	788				20,2000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Low pressure, 10-pole

S3.145.500.1600.10, S3.145.500.2000.10, S3.145.500.2500.10, S3.145.500.3150.10 and S3.145.500.3500.10



TM045604

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.145.500.1600.10.78L	172	160	10	595	Y/D	340-342/1 96-198	2245	92	93	93	0.55	0.67	0.73	9.7000	6163
S3.145.500.2000.10.78L	214	200	10	594	Y/D	407-403/2 34-233	2606	93	94	94	0.59	0.71	0.77	11.3000	7074
S3.145.500.2500.10.78L	267	250	10	593	Y/D	515-510/2 97-295	3148	93	94	94	0.60	0.71	0.76	13.5000	9260
S3.145.500.3150.10.78L	335	315	10	595	Y/D	679-686/3 91-390	4031	93	94	94	0.54	0.66	0.72	20.0000	10617

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.145.500.3500.10.78L	372	350	10	594	Y/D	702/405	4262	94	94	94	0.58	0.68	0.74	24.0000	12219

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

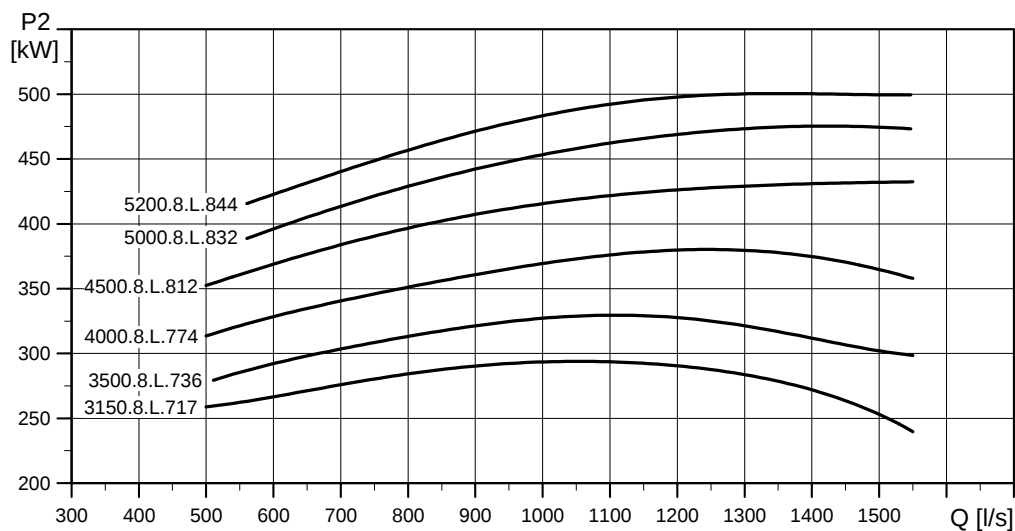
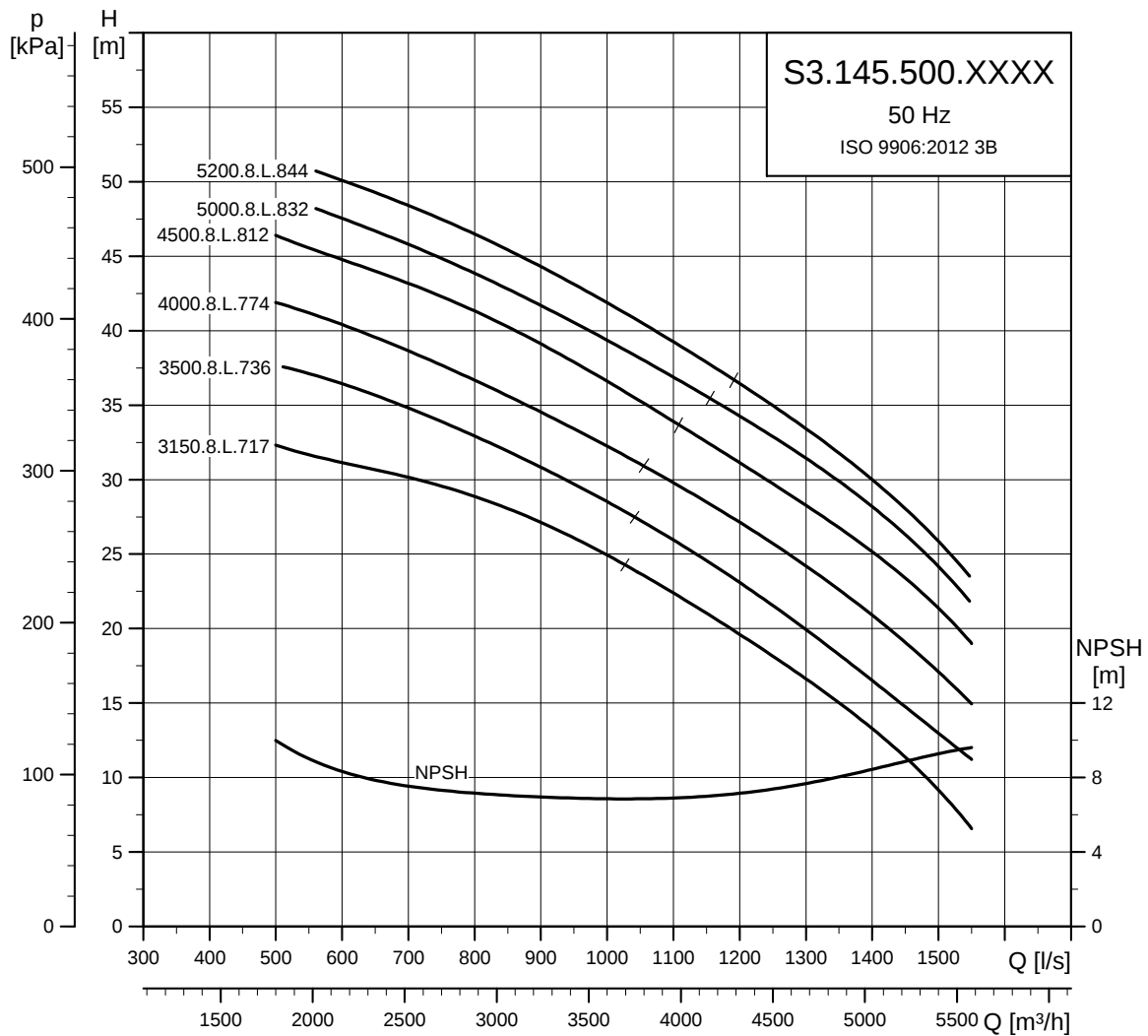
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.145.500.1600.10.78L.C/D/H.717	717				13,5900
S3.145.500.2000.10.78L.C/D/H.760	760				16,2000
S3.145.500.2500.10.78L.C/D/H.806	806	145	10	20	19,0800
S3.145.500.3150.10.78L.C/D/H.858	858				22,9000
S3.145.500.3500.10.78L.C/D/H.878	878				24,5000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Low pressure, 8-pole

**S3.145.500.3150.8, S3.145.500.3500.8, S3.145.500.4000.8, S3.145.500.4500.8,
S3.145.500.5000.8 and S3.145.500.5200.8**



TM045602

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.145.500.3150.8.78L	335	315	8	744	Y/D	621-591/3 58-341	4180	94	94	94	0.65	0.75	0.81	17.0000	10513
S3.145.500.3500.8.78L	372	350	8	744	Y/D	680-634/3 92-366	4460	94	94	94	0.71	0.78	0.82	21.0000	11311
S3.145.500.4000.8.78L	426	400	8	743	Y/D	779-714/4 49-412	4460	94	94	94	0.73	0.80	0.84	21.0000	11311
S3.145.500.4500.8.78L	475	450	8	743	Y/D	868-21/50 0-474	5889	95	95	95	0.68	0.77	0.82	23.0000	14139
S3.145.500.5000.8.78L	529	500	8	743	Y/D	958-898/5 52-519	5889	95	95	95	0.70	0.79	0.83	23.0000	14139
S3.145.500.5200.8.78L	550	520	8	744	Y/D	957-923/5 55-533	6456	94	95	94	0.64	0.75	0.79	24.0000	18022

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380/660 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.145.500.5200.8.78L	550	520	8	742	Y/D	1059-610	4785	95	95	95	0.75	0.81	0.83	24.0000	13385

¹ Values for low/high voltage (380/660 V).

Note: Enclosure class IP68

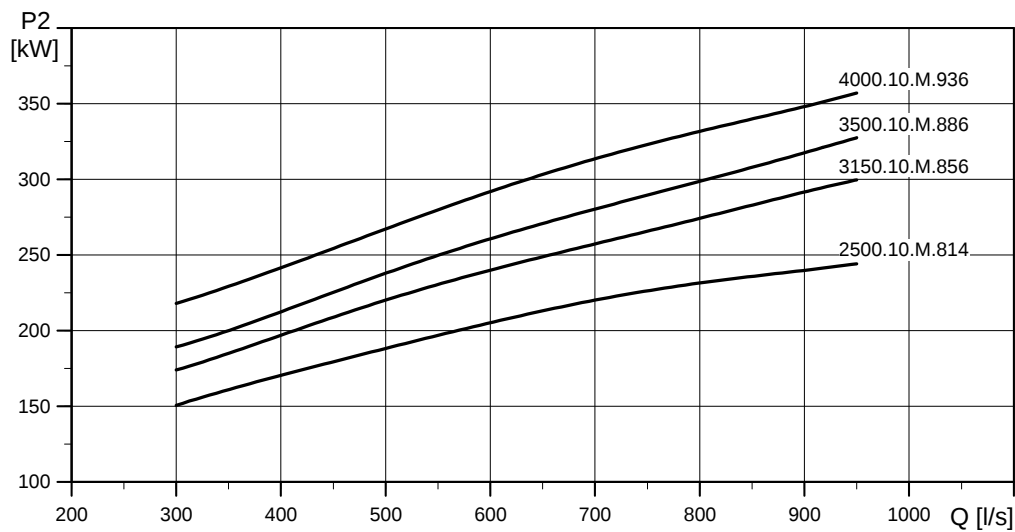
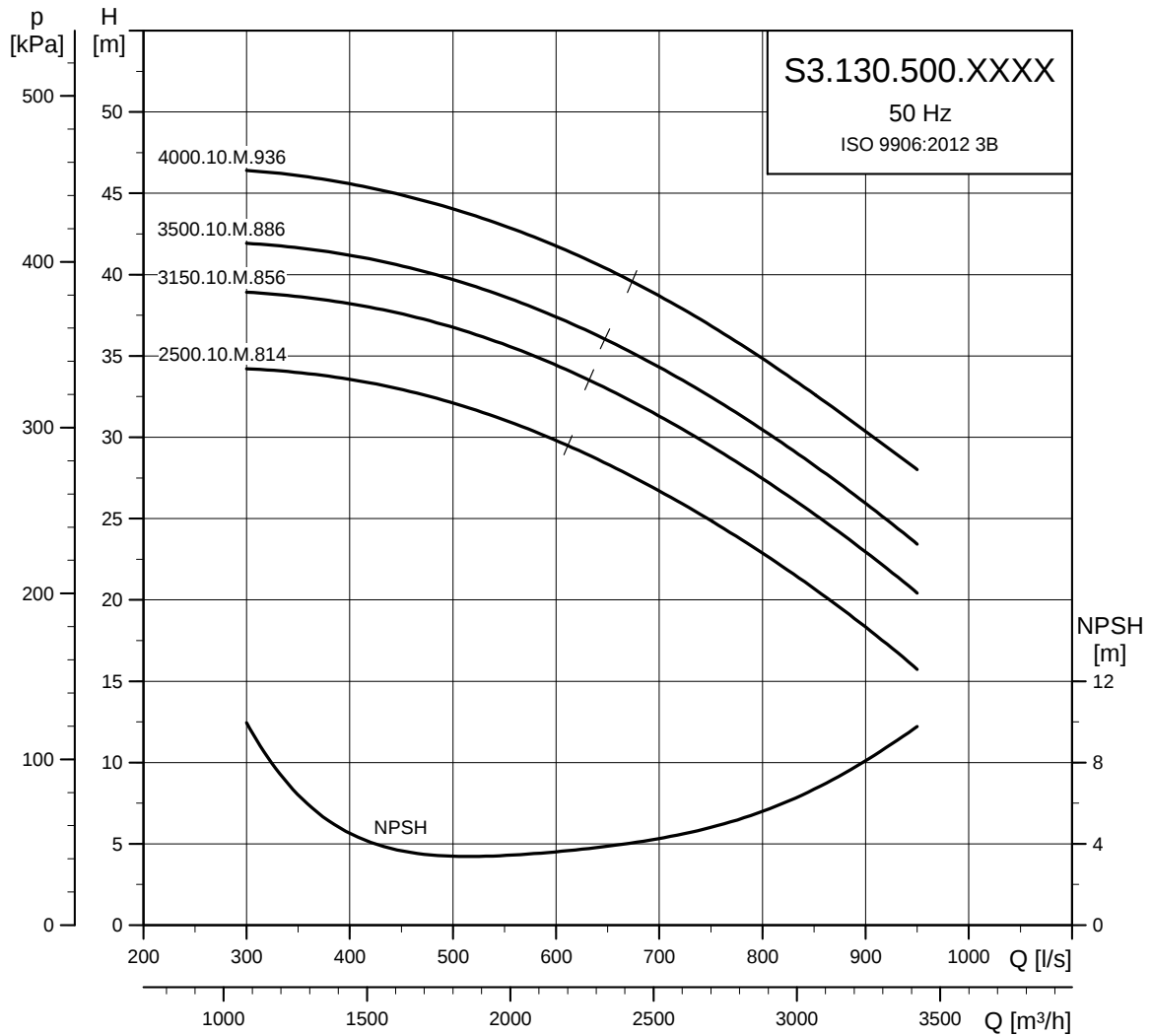
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.145.500.3150.8.78L.C/D/H.717	717	145	10	20	13,5900
S3.145.500.3500.8.78L.C/D/H.736	736				14,7000
S3.145.500.4000.8.78L.C/D/H.774	774				17,1000
S3.145.500.4500.8.78L.C/D/H.812	812				19,5000
S3.145.500.5000.8.78L.C/D/H.832	832				20,9000
S3.145.500.5200.8.78L.C/D/H.844	844				21,9000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Medium pressure, 10-pole

S3.130.500.2500.10, S3.130.500.3150.10, S3.130.500.3500.10 and S3.130.500.4000.10



TM045608

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.2500.10.78M	267	250	10	593	Y/D	515-510/2 97-295	3148	93	94	94	0.60	0.71	0.76	13.5000	9260
S3.130.500.3150.10.78M	335	315	10	595	Y/D	679-676/3 91-390	4031	93	94	94	0.54	0.66	0.72	20.0000	10617

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 415 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.3500.10.78M	372	350	10	594	Y/D	702/405	4262	94	94	94	0.58	0.68	0.74	24.0000	12219
S3.130.500.4000.10.78M	426	400	10	594	Y/D	790/456	4262	94	94	94	0.61	0.71	0.75	24.0000	12219

¹ Values for low/high voltage (415 V).

Note: Enclosure class IP68

Motor data - 380-400/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.4000.10.78M	426	400	10	595	Y/D	874-866/5 04-502	5190	93	94	94	0.52	0.64	0.71	24.0000	13482

¹ Values for low/high voltage (380-400/660-690 V).

Note: Enclosure class IP68

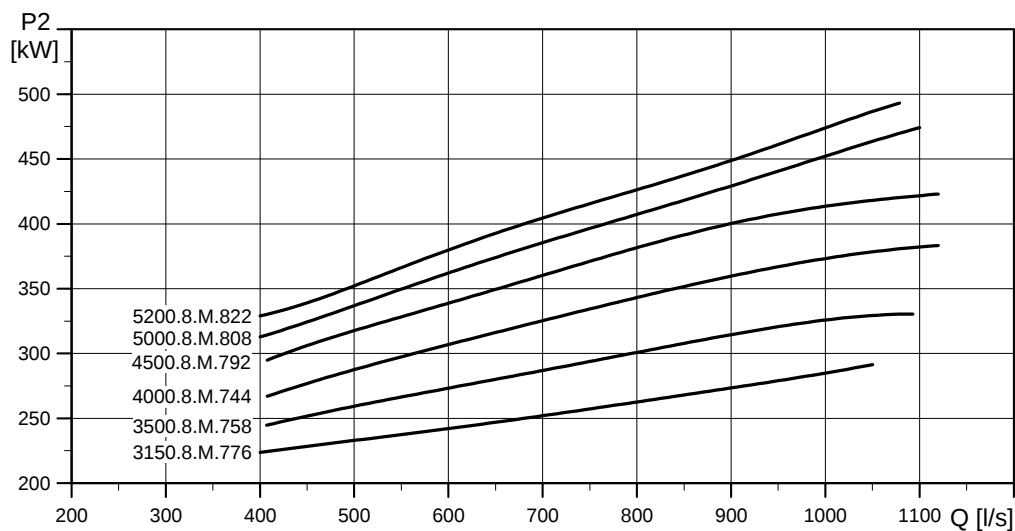
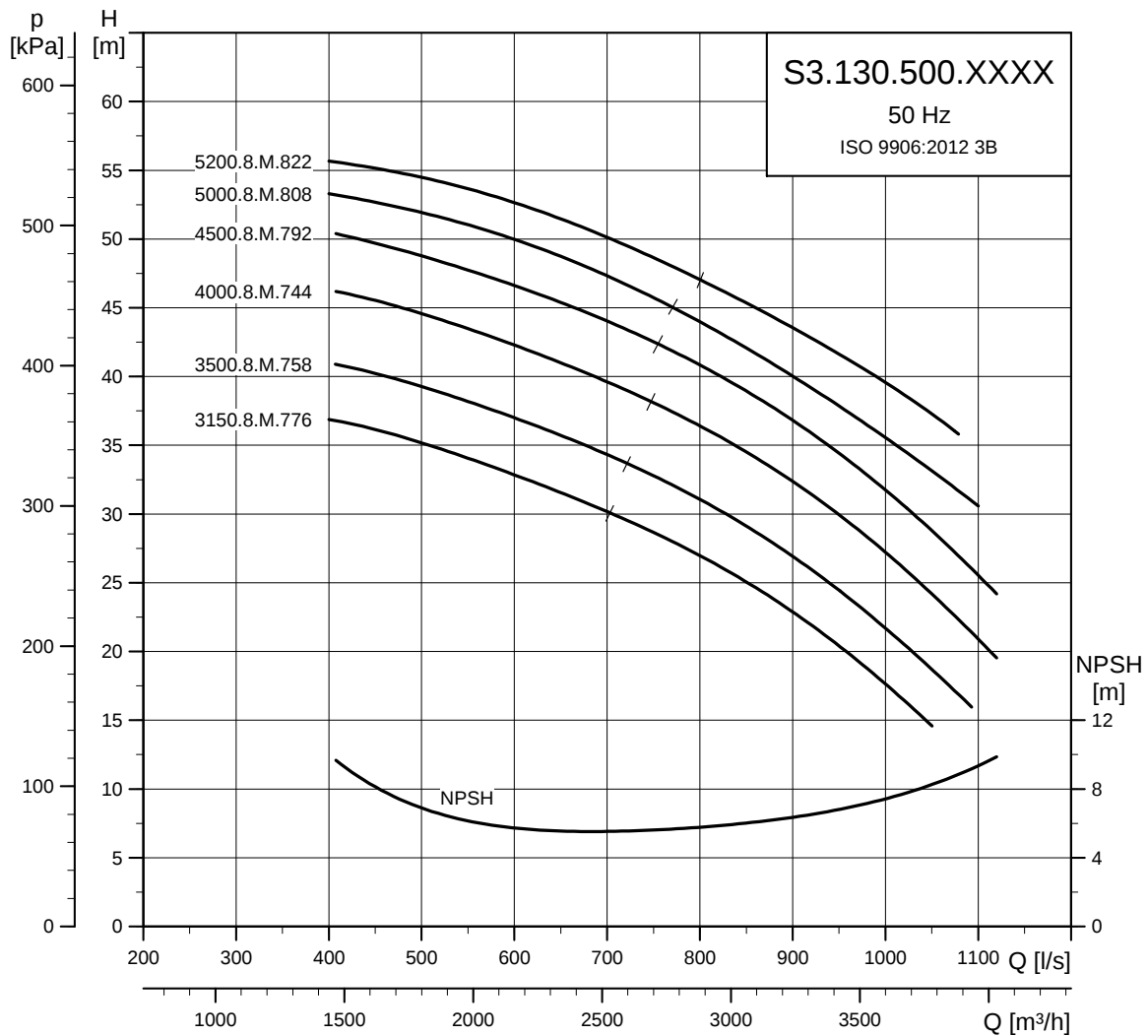
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.130.500.2500.10.78M.C/D/H.814	814	130	10	20	19,2000
S3.130.500.3150.10.78M.C/D/H.856	856				22,3000
S3.130.500.3500.10.78M.C/D/H.886	886				24,7000
S3.130.500.4000.10.78M.C/D/H.936	936				29,3000

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

Medium pressure, 8-pole

**S3.130.500.3150.8, S3.130.500.3500.8, S3.130.500.4000.8, S3.130.500.4500.8,
S3.130.500.5000.8 and S3.130.500.5200.8**



TM045606

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.3150.8.78M	335	315	8	744	Y/D	621-591/3 58-341	4180	94	94	94	0.65	0.75	0.81	17.0000	10513
S3.130.500.3500.8.78M	372	350	8	744	Y/D	680-634/3 92-366	4460	94	94	94	0.71	0.78	0.82	21.0000	11311
S3.130.500.4000.8.78M	426	400	8	743	Y/D	779-714/4 49-412	4460	94	94	94	0.73	0.80	0.84	21.0000	11311
S3.130.500.4500.8.78M	475	450	8	743	Y/D	868-821/5 00-474	5889	95	95	95	0.68	0.77	0.82	23.0000	14139
S3.130.500.5000.8.78M	529	500	8	743	Y/D	958-898/5 52-519	5889	95	95	95	0.70	0.79	0.83	23.0000	14139

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.5200.8.78M	550	520	8	742	Y/D	957-923/5 55-533	4785	95	95	95	0.75	0.81	0.83	24.0000	13385

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380/660 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.130.500.5200.8.78M	550	520	8	744	Y/D	1059/610	6456	94	95	94	0.64	0.75	0.79	24.0000	18022

¹ Values for low/high voltage (380/660 V).

Note: Enclosure class IP68

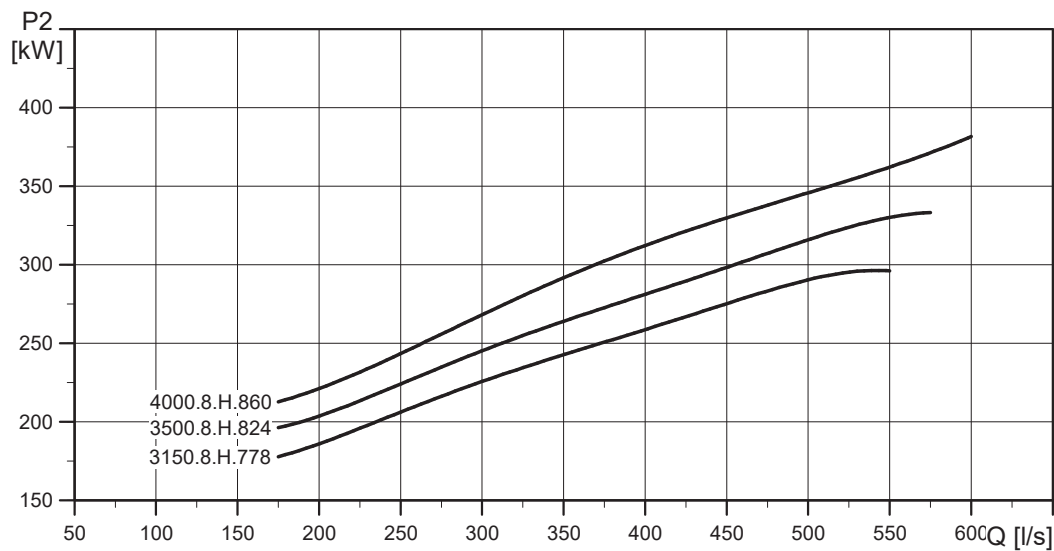
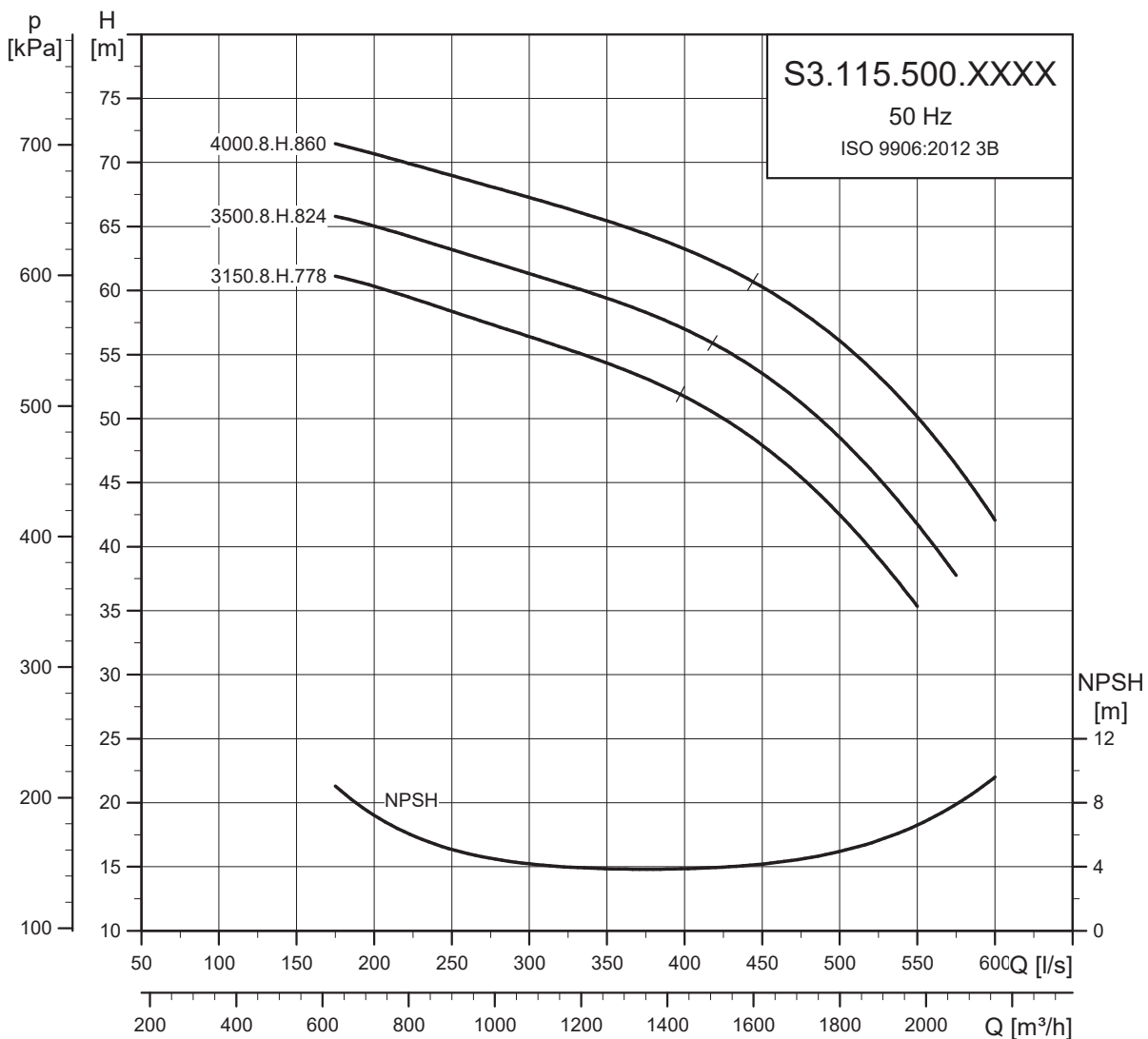
Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.130.500.3150.8.78M.C/D/H.744	744	130	10	20	14,9800
S3.130.500.3500.8.78M.C/D/H.758	758				15,8000
S3.130.500.4000.8.78M.C/D/H.776	776				16,9000
S3.130.500.4500.8.78M.C/D/H.792	792				17,8000
S3.130.500.5000.8.78M.C/D/H.808	808				18,9000
S3.130.500.5200.8.78M.C/D/H.822	822				19,8100

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

High pressure, 8-pole

S3.115.500.3150.8, S3.115.500.3500.8 and S3.115.500.4000.8



TM045600

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I _N ¹	I _{start}	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.115.500.3150.8.78H	335	315	8	744	Y/D	621-591/3 58-341	4180	94	94	94	0.65	0.75	0.81	17.0000	10513
S3.115.500.3500.8.78H	372	350	8	744	Y/D	680-634/3 92-366	4460	94	94	94	0.71	0.78	0.82	21.0000	11311
S3.115.500.4000.8.78H	426	400	8	743	Y/D	779-714/4 49-412	4460	94	94	94	0.73	0.80	0.84	21.0000	11311

¹ Values for low/high voltage (380-415/660-690 V).

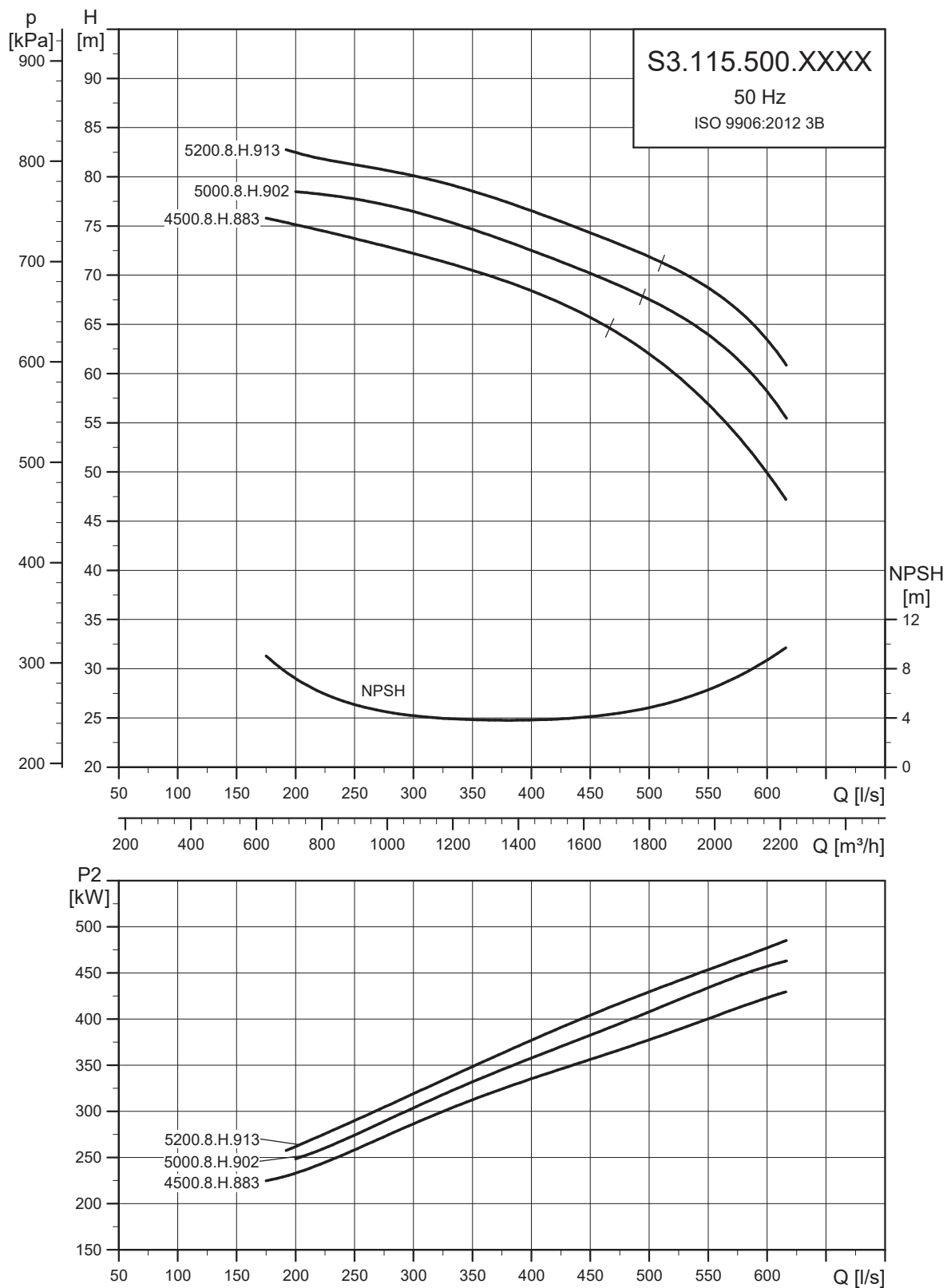
Note: Enclosure class IP68

Pump data

Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia*
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.115.500.3150.8.78H.C/D/H.778	778				14,7600
S3.115.500.3500.8.78H.C/D/H.824	824	115	10	20	17,7000
S3.115.500.4000.8.78H.C/D/H.860	860				20,1300

* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

S3.115.500.4500.8, S3.115.500.5000.8 and S3.115.500.5200.8



TM045601

Motor data - 3 x 380-415/660-690 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1			$\eta_{\text{motor}} [\%]$			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
						[A]	[A]		1/2	3/4	1/1	1/2	3/4	1/1		
S3.115.500.4500.8.78H	475	450	8	743	Y/D	868-821/500-474	5889		95	95	95	0.68	0.77	0.82	23.0000	14139

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.115.500.5000.8.78H	529	500	8	743	Y/D	958-898/5 52-519	5889	95	95	95	0.70	0.79	0.83	23.0000	14139
S3.115.500.5200.8.78H	550	520	8	742	Y/D	957-923/5 55-533	4785	95	95	95	0.75	0.81	0.83	24.0000	13385

¹ Values for low/high voltage (380-415/660-690 V).

Note: Enclosure class IP68

Motor data - 3 x 380/660 V

Pump type	P1 [kW]	P2 [kW]	Poles	Rpm	Starting method	I_N^1	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.115.500.5200.8.78H	550	520	8	744	Y/D	1059-610	6456	94	95	94	0.64	0.75	0.79	24.0000	18022

¹ Values for low/high voltage (380/660 V).

Note: Enclosure class IP68

Pump data

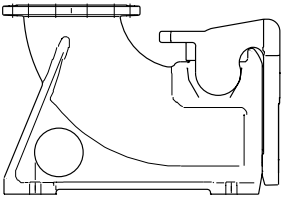
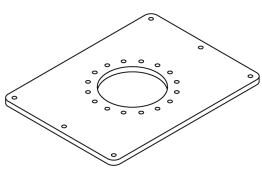
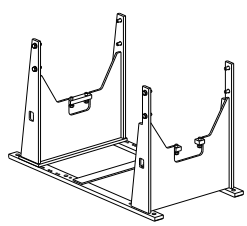
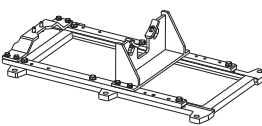
Pump type	Impeller diameter	Maximum solids size	Pump housing pressure	Maximum installation depth	Moment of inertia *
	[mm]	[mm]	[PN]	[m]	[kgm ²]
S3.115.500.4500.8.78H.C/D/H.883	883	115	10	20	21,8000
S3.115.500.5000.8.78H.C/D/H.902	902				23,4000
S3.115.500.5200.8.78H.C/D/H.913	913				24,4000

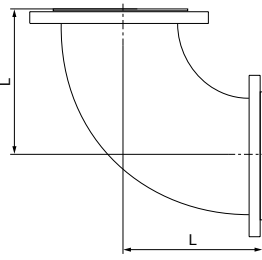
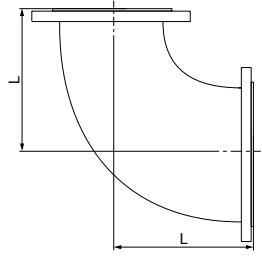
* Applies to material code G (see Type key). For other material codes, please contact Grundfos.

11. Accessories

Accessories (for installation)

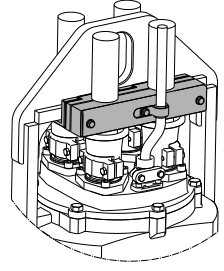
Pump type	Installation accessories
Ranges 72, 74, 78 S and C	Guide claw mounted on the pump
Ranges 72, 74, 78 D	Pump without installation accessories (available as separate kit)
Ranges 72, 74, 78 H	Base stand for horizontal, dry installation supplied with the pump. Pumps of installation type H include the standard horizontal stand. Pumps with material code G or Q include a painted-steel stand. If another horizontal stand is required, order a pump of installation type D together with the required stand.

Pictures	Description	Size	Weight [kg]	Range			PN	Product number	
				72	74	78			
	Cast-iron, epoxy-coated. Auto-coupling system complete with: base unit upper guide rail bracket.	Outlet flange	DN 250	234	•		10	96782483	
			DN 300 ¹	275	•	•		96782484	
			DN 500	705	•	•		•	96782485
			DN 600	900	•	•		•	96782486
		DN 300 ²	275		•		16	97500267	
¹ In range 74 for M hydraulic. ² In range 74 for H hydraulic.									
Intermediate guide rail bracket	For guide rails longer than 6 m	DN 200-DN 600	8	•	•	•		96255842	
Guide rails	Standard pipes. Not supplied by Grundfos			•	•	•		-	
	Steel, epoxy-coated. Base plate for vertical, dry installation with: gaskets bolts.	Inlet flange	DN 400	217	•	•	10	96256023	
			DN 500	300	•	•		96256024	
				465		•		97500283	
			DN 600	340	•	•		96256025	
			DN 800	568		•		97500287	
	Steel, epoxy-coated. Base stand for horizontal, dry installation.	DN 400 ¹	290	•			10	96256030	
		DN 400 ²	330	•				96256031	
		DN 400 ³	221		•			97500945	
		DN 400 ⁴	212		•			97500946	
		DN 500	330	•				96256032	
		DN 500 ³	262		•			97500949	
		DN 500 ⁴	262		•			97500961	
		DN 500	382			•		97500968	
		DN 600	300	•				96256033	
		DN 60 ³	262		•			97500963	
		DN 600 ⁴	262		•			97500967	
		DN 800	434			•		97500970	
¹ In range 72 for M hydraulic. ² In range 72 for H hydraulic. ³ Range 74 pump with IEC 315 motor. ⁴ Range 74 pump with IEC 355 motor.									
	Special base stand for horizontal, dry installation with customised height.			•	•	•		Contact Grundfos	

Pictures	Description	Size	Weight [kg]	Range			PN	Product number
				72	74	78		
	Bend Cast iron, epoxy-coated	Pipe/pump inlet						
	L = 500 mm	DN 400	148	•	•			99036000
	L = 500 mm	DN 500	351	•	•	•		99036001
	L = 700 mm	DN 600	474	•	•			99036002
	L = 900 mm	DN 800	774			•	10	99036003
	Reducing bend Cast iron, epoxy-coated	Pipe/pump inlet						
	L = 600 mm	DN 500/DN 400	306	•	•			99036015
	L = 700 mm	DN 600/DN 500	411	•	•		10	99031225



Other accessories

Pictures	Description	Size	Range			Product number
			72	74	78	
 TM026126	Galvanised lifting chain with lifting link and safety hook. Certified. Maximum lifting capacity 3200 kg.	4 m	•			98425788
		6 m	•			98425789
		8 m	•			98425790
		10 m	•			98425791
	Stainless steel lifting chain with lifting link and safety hook. Certified. Maximum lifting capacity 3200 kg.	4 m	•			98425805
		6 m	•			98425806
		8 m	•			98425807
	Galvanised lifting chain with lifting link and safety hook. Certified. Maximum lifting capacity 8000 kg.	10 m	•			98425808
		4 m		•	•	98425792
		6 m		•	•	98425793
		8 m		•	•	98425794
		10 m		•	•	98425795
	Stainless steel lifting chain with lifting link and safety hook. Certified. Maximum lifting capacity 8000 kg.	4 m		•	•	98425809
		6 m		•	•	98425810
		8 m		•	•	98425811
		10 m		•	•	98425812
 TM064974	Cable support bracket (case by case)		•	•	•	Contact Grundfos
 TM016982	Float switch	10 m cable	•	•	•	96003332
		20 m cable	•	•	•	96003695
		10 m cable	•	•	•	96003421
	Float switch for use in potentially explosive environments.	20 m cable	•	•	•	96003536
 TM028862	Bracket for float switches		•	•	•	96003338

Pictures	Description	Size	Range			Product number
			72	74	78	
	Float switches with bracket					
	2 switches, 1 pump without alarm	10 m cable	•	•	•	62500013
	3 switches, 1 pump with alarm		•	•	•	62500014
	3 switches, 2 pumps with alarm		•	•	•	62500014
	3 switches, 2 pumps with alarm		•	•	•	62500015
	Float switches with bracket for use in potentially explosive environments					
	2 switches, 1 pump without alarm	10 m cable	•	•	•	62500016
	3 switches, 1 pump with alarm		•	•	•	62500017
	3 switches, 2 pumps with alarm		•	•	•	62500017
	3 switches, 2 pumps with alarm		•	•	•	62500018
	Bracket for level electrodes	For 38 mm mounting pipe	•	•	•	91713196



12. Dimensions

Recommendation for pump foundations

Note: This applies only to pumps above 15 kW.

All rotating equipment generates vibrations as a mass, such as an impeller or rotor, is turning at high speeds. Proper installation and anchorage of Grundfos pumps and installation accessories is critical to limit vibrations and achieve reliable, trouble-free installation. It is important to note that all mechanically connected pipes, fittings and supports of the pump are part of a single system.

The rotating mass of the entire pump, together with the forces from the motor and hydraulics, will generate disturbances related to the speed of the motor. Unbalance and impeller vane pass in hydraulics are the two most important frequencies affecting vibration.

When these frequencies coincide with the natural frequency of the entire mechanical system, vibration level will increase substantially.

Pumps from Grundfos are designed and produced according to the highest quality standards. The method and grade of balancing is specified by the manufacturer in order to achieve acceptable vibration levels. Although the pump itself can withstand rather high vibration levels during operating conditions without considerable lifetime reduction, the pipes and supportive structure might suffer and crack if vibration levels are too high. Furthermore, noticeable noise levels might be generated.

The likelihood of high vibration levels occurring is increased in variable-speed applications where the pump is operated over a range of speeds rather than a single constant speed. Most variable-speed drives provide the possibility to exclude certain frequency ranges to avoid operating areas with high vibration levels.

To ensure acceptable vibration levels in the field, all parts of the system must be sufficiently stiff and firmly anchored to minimise vibrations:

- The foundation and concrete must be of adequate strength to support the weight of the pump including accessories, the weight of the liquid passing through the pump and the forces generated by the pump.
- As a rule of thumb, the mass of the concrete foundation must be a minimum of three to five times the mass of the supported equipment and must have sufficient rigidity to withstand the axial, transverse and torsional loadings generated by the equipment.

- The foundation must be 15 cm wider than the base plate for pumps up to 350 kW and 25 cm wider for larger pumps.
- The concrete used in the foundation must have a minimum tensile strength of 250 N/cm². Epoxy grout must always be used to secure the pump base plate to the foundation.

Pull-out strengths for anchor bolts

Submerged installation on auto coupling (types S and C):

Auto-coupling base unit	Anchor bolts	Pull-out strength [kN]
DN 100	4 x M16	5
DN 125/DN 150 ¹		8
DN 200		16
DN 250	4 x M24	30
DN 300		40
DN 500		
DN 600	6 x M30	
DN 800		

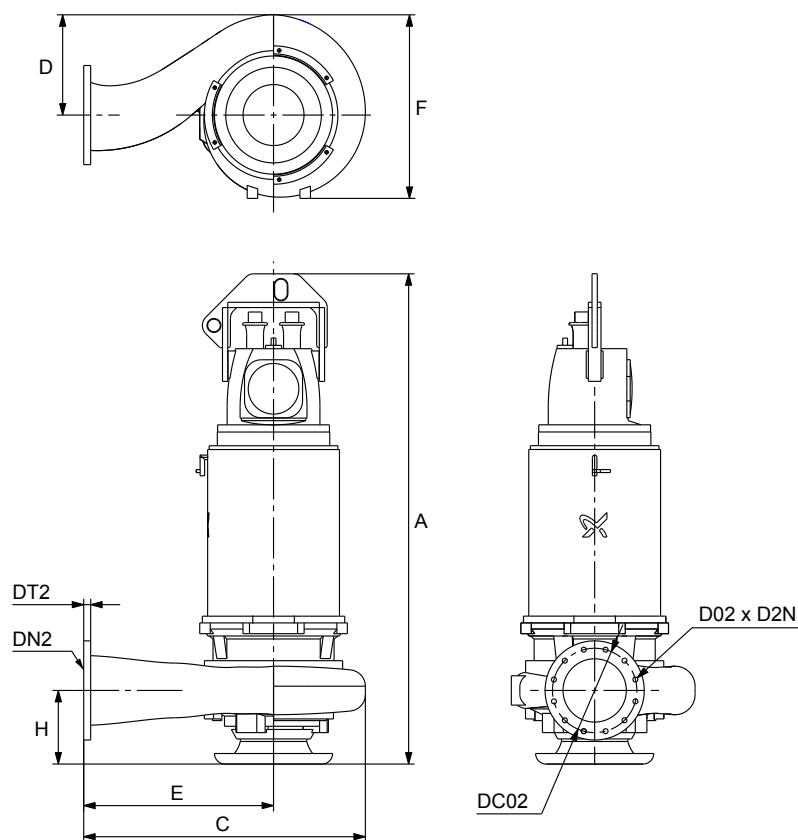
¹ Base plate outlet DN 125 and base plate outlet DN 150.

Dry installation (type H and D):

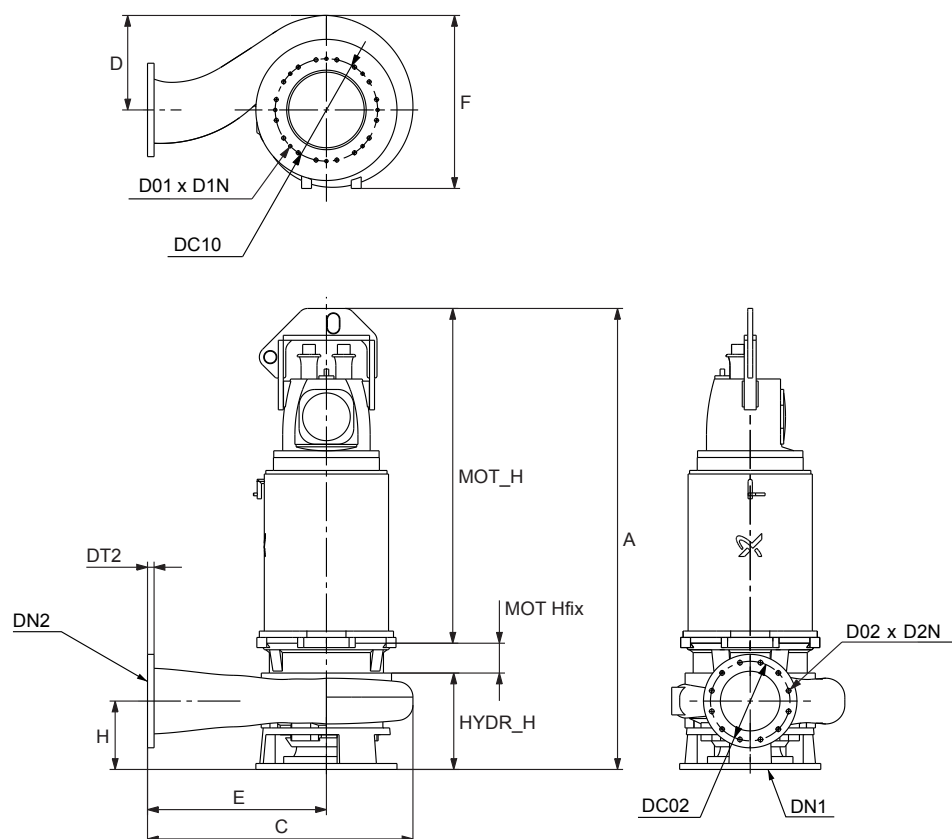
Dry installation	Anchor bolts	Pull-out strength [kN]
DN 100	3 x M20	18
DN 150	6 x M20	
DN 200		
DN 250		
DN 300	6 x M24	25
DN 400		
DN500/DN400 ¹		
DN 500		
DN 60		
DN 800		

¹ Base plate inlet DN 500 and pump inlet DN 400.

Basic pump



TM047552



TM047551

Basic pumps

Pos.	Description
1	Installation types D and H
2	Installation types S and C

Note: Dimensions D01, D1N, DC10 and DN1 are equal to zero for installation type C and S because of the inlet type.

Range 72

Pump type	A	C	D	D01 ¹	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H	HYDR H	MOT H	MOT Hfix
S2.90.250.2250.4.72S.C/S	2323	1065	419	-	24	-	12	350	-	-	DN 250	33	668	800	345	468	1910	175
S2.90.250.2250.4.72S.D/H	2315	1065	419	M24	24	16	12	350	515	DN 400	DN 250	33	668	800	337	460	1910	175
S2.100.250.1750.4.72H.C/S	2323	1062	419	-	24	-	12	350	-	-	DN 250	33	668	800	345	468	1910	175
S2.100.250.1750.4.72H.D/H	2315	1062	419	M24	24	16	12	350	515	DN 400	DN 250	33	668	800	337	460	1910	175
S2.100.250.2250.4.72H.C/S	2323	1062	419	-	24	-	12	350	-	-	DN 250	33	668	800	345	468	1910	175
S2.100.250.2250.4.72H.D/H	2315	1062	419	M24	24	16	12	350	515	DN 400	DN 250	33	668	800	337	460	1910	175
S2.100.300.1750.4.72M.C/S	2344	1337	474	-	23	-	12	400	-	-	DN 300	33	900	869	350	489	1910	175
S2.100.300.1750.4.72M.D/H	2315	1337	474	M24	23	16	12	400	515	DN 400	DN 300	33	900	869	340	460	1910	175
S2.100.300.2250.4.72M.C/S	2344	1337	474	-	23	-	12	400	-	-	DN 300	33	900	869	350	489	1910	175
S2.100.300.2250.4.72M.D/H	2315	1337	474	M24	23	16	12	400	515	DN 400	DN 300	33	900	869	340	460	1910	175
S3.110.300.1600.8.72H.C/S	2390	1271	509	-	23	-	12	400	-	-	DN 300	33	800	944	400	535	1910	175
S3.110.300.1600.8.72H.D/H	2365	1271	509	M24	23	16	12	400	515	DN 400	DN 300	33	800	944	375	510	1910	175
S3.110.300.1800.6.72H.C/S	2390	1271	509	-	23	-	12	400	-	-	DN 300	33	800	944	400	535	1910	175
S3.110.300.1800.6.72H.D/H	2365	1271	509	M24	23	16	12	400	515	DN 400	DN 300	33	800	944	375	510	1910	175
S3.120.500.1250.8.72M.C/S	2415	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	1910	175
S3.120.500.1250.8.72M.D/H	2365	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	1910	175
S3.120.500.1600.8.72M.C/S	2415	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	1910	175
S3.120.500.1600.8.72M.D/H	2365	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	1910	175
S3.120.500.1800.6.72M.C/S	2415	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	1910	175
S3.120.500.1800.6.72M.D/H	2365	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	1910	175
S3.135.500.1250.8.72L.C/S	2430	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1330	430	575	1910	175
S3.135.500.1250.8.72L.D/H	2455	1780	765	27	27	20	20	620	515	DN 500	DN 500	36	1100	1330	458	600	1910	175

Pump type	A	C	D	D01 ¹	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H	HYDR H	MOT H	MOT Hfix
S3.135.500.1600.8.72L.C/S	2430	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1330	430	575	1910	175
S3.135.500.1600.8.72L.D/H	2455	1780	765	27	27	20	20	620	515	DN 500	DN 500	36	1100	1330	458	600	1910	175
S3.135.500.1800.6.72L.C/S	2430	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1330	430	575	1910	175
S3.135.500.1800.6.72L.D/H	2455	1780	765	27	27	20	20	620	515	DN 500	DN 500	36	1100	1330	458	600	1910	175
S3.135.600.900.10.72E.C/S	2470	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	1910	175
S3.135.600.900.10.72E.D/H	2451	2080	885	27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	1910	175
S3.135.600.1100.10.72E.C/S	2470	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	1910	175
S3.135.600.1100.10.72E.D/H	2451	2080	885	27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	1910	175
S3.135.600.1300.10.72E.C/S	2470	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	1910	175
S3.135.600.1300.10.72E.D/H	2451	2080	885	27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	1910	175
S3.135.600.1600.8.72E.C/S	2470	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	1910	175
S3.135.600.1600.8.72E.D/H	2451	2080	885	27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	1910	175

¹ For S3.135... pumps the dimension indicates the bolt size and for S2.90/100... and S3.110/120... the dimension indicates the diameter of the hole.

Range 74

Pump type	A		C	D	D01 ¹	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H	HYDR H	MOT H		MOT Hfix
	Std.	Ex																Std.	Ex	
S2.90.300.2500.4.74S.C	2690	2762	1515	435	-	27	-	12	410	-	-	DN 300	33	1100	830	345	468	2247	2264	204
S2.90.300.2500.4.74S.D/H	2682	2754	1515	435	M24	27	16	12	410	515	DN 400	DN 300	33	1100	830	337	460	2247	2264	204
S2.90.300.3150.4.74S.C	2915	2987	1515	435	-	27	-	12	410	-	-	DN 300	33	1100	830	345	468	2472	2489	204
S2.90.300.3150.4.74S.D/H	2907	2915	1515	435	M24	27	16	12	410	515	DN 400	DN 300	33	1100	830	337	460	2472	2489	204
S2.100.300.2500.4.74H.C	2690	2762	1515	435	-	27	-	12	410	-	-	DN 300	33	1100	830	345	468	2247	2264	204
S2.100.300.2500.4.74H.D/H	2682	2754	1515	435	M24	27	16	12	410	515	DN 400	DN 300	33	1100	830	337	460	2247	2264	204
S2.100.300.2500.4.74M.C	2711	2783	1337	474	-	23	-	12	400	-	-	DN 300	33	900	869	350	489	2247	2264	204
S2.100.300.2500.4.74M.D/H	2682	2754	1337	474	M24	23	16	12	400	515	DN 400	DN 300	33	900	869	340	460	2247	2264	204
S2.100.300.3150.4.74H.C	2915	2987	1515	435	-	27	-	12	410	-	-	DN 300	33	1100	830	345	468	2472	2489	204
S2.100.300.3150.4.74H.D/H	2907	2915	1515	435	M24	27	16	12	410	515	DN 400	DN 300	33	1100	830	337	460	2472	2489	204
S2.100.300.3150.4.74M.C	2936	3008	1337	474	-	23	-	12	400	-	-	DN 300	33	900	869	350	489	2472	2489	204
S2.100.300.3150.4.74M.D/H	2907	2979	1337	474	M24	23	16	12	400	515	DN 400	DN 300	33	900	869	340	460	2472	2489	204
S3.110.300.2000.6.74H.C	2757	2829	1271	509	-	23	-	12	400	-	-	DN 300	33	800	944	400	535	2247	2264	204
S3.110.300.2000.6.74H.D/H	2732	2804	1271	509	M24	23	16	12	400	515	DN 400	DN 300	33	800	944	375	510	2247	2264	204
S3.110.300.2000.6.74H.C	2757	2829	1271	509	-	23	-	12	400	-	-	DN 300	33	800	944	400	535	2247	2264	204
S3.110.300.2000.6.74H.D/H	2732	2804	1271	509	M24	23	16	12	400	515	DN 400	DN 300	33	800	944	375	510	2247	2264	204
S3.110.300.3150.6.74H.C	2982	3054	1271	509	-	23	-	12	400	-	-	DN 300	33	800	944	400	535	2472	2489	204
S3.110.300.3150.6.74H.D/H	2957	3029	1271	509	M24	23	16	12	400	515	DN 400	DN 300	33	800	944	375	510	2472	2489	204
S3.120.500.2000.6.74M.C	2782	2854	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	2247	2264	204
S3.120.500.2000.6.74M.D/H	2732	2804	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	2247	2264	204
S3.120.500.2500.6.74M.C	2782	2854	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	2247	2264	204
S3.120.500.2500.6.74M.D/H	2732	2804	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	2247	2264	204
S3.120.500.3150.6.74M.C	3007	3079	1655	610	-	27	-	20	620	-	-	DN 500	36	1100	1110	425	560	2472	2489	204
S3.120.500.3150.6.74M.D/H	2957	3029	1655	610	M24	27	16	20	620	515	DN 400	DN 500	36	1100	1110	375	510	2472	2489	204
S3.135.500.2000.6.74L.C	2797	2869	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1110	430	575	2247	2264	204
S3.135.500.2000.6.74L.D/H	2822	2894	1780	765	27	27	20	20	620	620	DN 500	DN 500	36	1100	1110	458	600	2247	2264	204
S3.135.500.2500.6.74L.C	2797	2869	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1330	430	575	2247	2264	204
S3.135.500.2500.6.74L.D/H	2822	2894	1780	765	27	27	20	20	620	620	DN 500	DN 500	36	1100	1330	458	600	2247	2264	204
S3.135.500.3150.6.74L.C	3022	3094	1780	765	-	27	-	20	620	-	-	DN 500	36	1100	1330	430	575	2472	2489	204
S3.135.500.3150.6.74L.D/H	3047	3119	1780	765	M27	27	20	20	620	620	DN 500	DN 500	36	1100	1330	458	600	2472	2489	204
S3.135.600.2000.8.74E.C	2837	2909	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	2247	2264	204
S3.135.600.2000.8.74E.D/H	2818	2890	2080	885	M27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	2247	2264	204
S3.135.600.2500.8.74E.C	3062	3134	2080	885	-	30	-	20	725	-	-	DN 600	40	1300	1545	470	615	2472	2489	204
S3.135.600.2500.8.74E.D/H	3043	3115	2080	885	M27	30	20	20	725	725	DN 600	DN 600	40	1300	1545	450	596	2472	2489	204

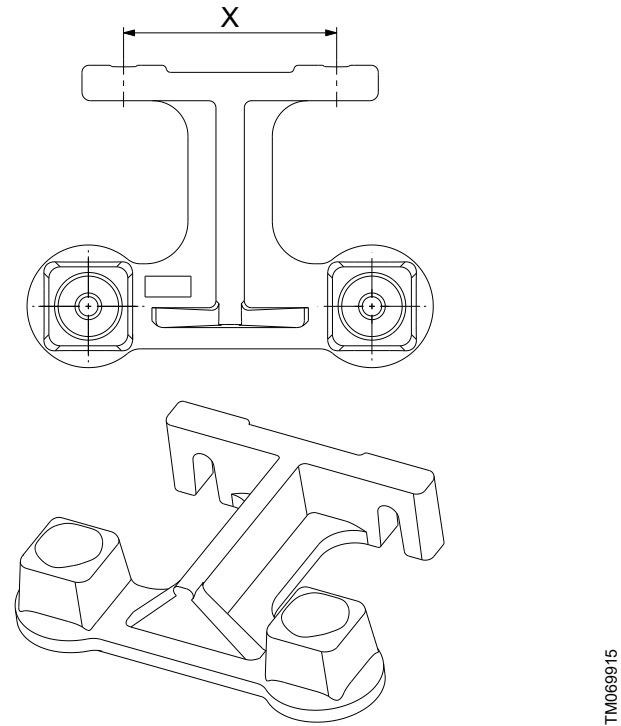
¹ For S3.135.500... pumps, the dimension indicates the bolt size and for rest of the product range, the dimension indicates the diameter of the hole.

Pump type	A		C	D	D01 ¹	D02	D1N	D2N	DC02	DC10	DN1	DN2	DT2	E	F	H	HYDR H	MOT H		MOT Hfix
	Std.	Ex																Std.	Ex	
S4.135.600.2500.10.78E.D/H	3209	3230	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2465	2446	210
S4.135.600.3150.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.3150.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.3150.10.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.3150.10.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.3500.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.3500.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.4000.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.4000.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.4500.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.4500.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.5000.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.5000.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210
S4.135.600.5200.8.78E.C	3279	3300	2445	1100	-	30	-	20	725	-	-	DN 600	40	1475	1935	500	654	2635	2616	210
S4.135.600.5200.8.78E.D/H	3379	3400	2445	1100	33	30	24	20	725	950	DN 800	DN 600	40	1475	1935	600	754	2635	2616	210

¹ For S4.135... pumps, the dimension indicates the bolt size and for S3.115/130/145..., the dimension indicates the diameter of the hole.

Installation on auto-coupling system

Upper guide rail bracket dimensions

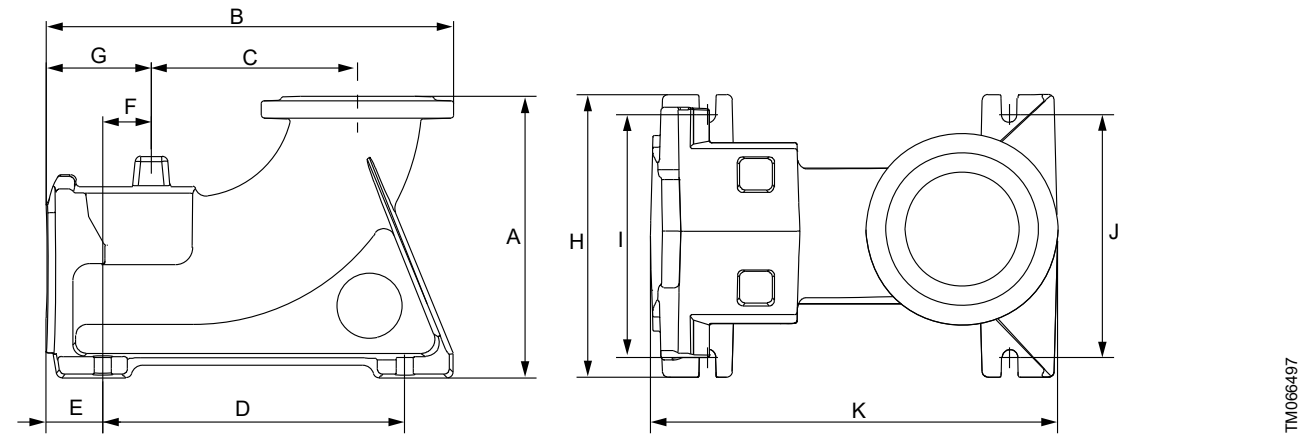


Installation dimensions for upper guide rail bracket

Auto coupling		X
Product number	Size	[mm]
96782483	DN 250	150
97500267	DN 300	
96782484	DN 300	
96782485	DN 500	
96782486	DN 600	

Auto-coupling dimensions

Cast-iron, epoxy-coated

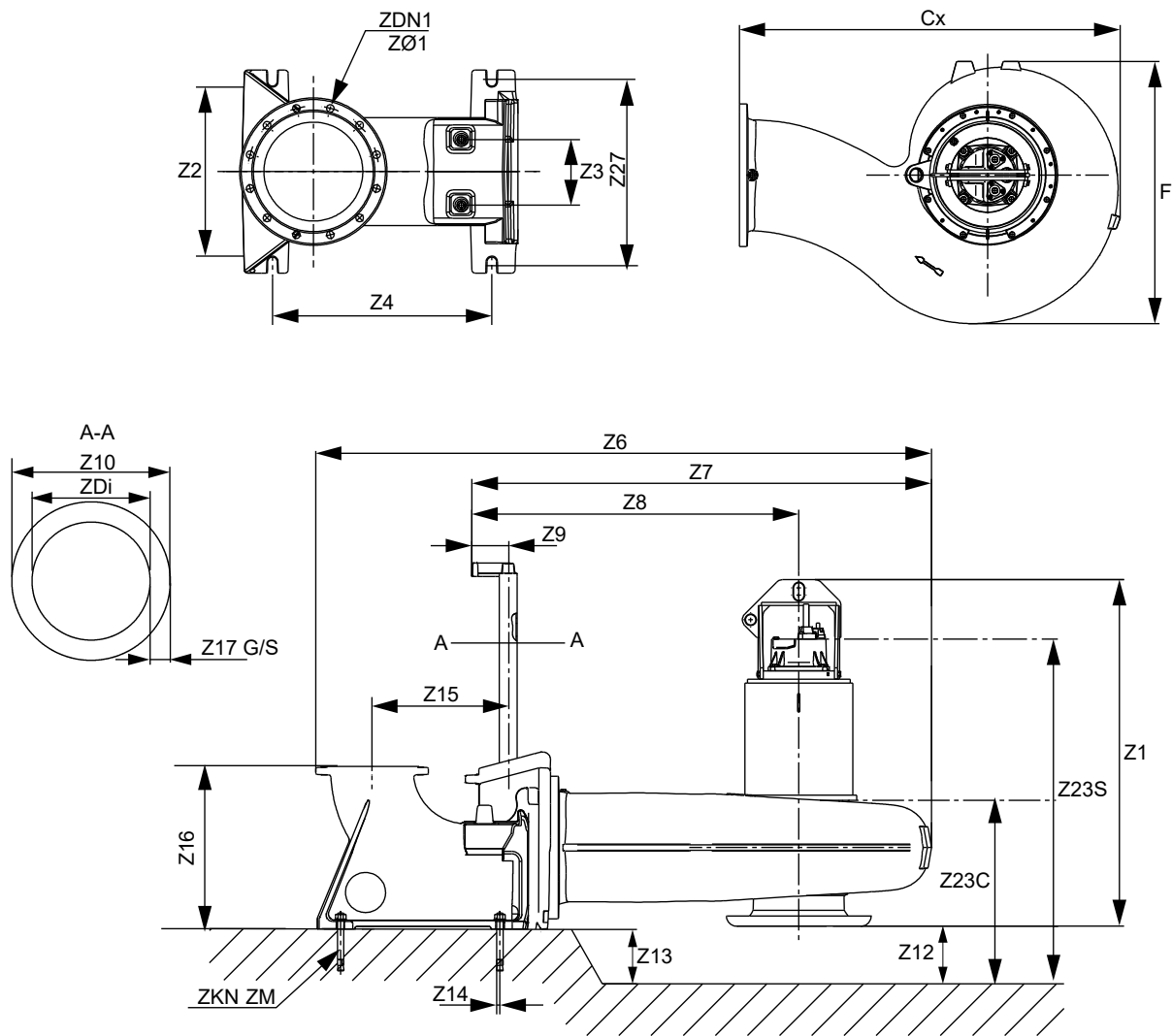


Dimensions for cast-iron base unit

Product number	Size	Dimensions [mm]										
		A	B	C	D	E	F	G	H	I	J	K
96782483	DN 250	545	753	375	565	89	86	175	540	470	470	745
97500267	DN 300	650	860	450	670	80	95	175	620	550	550	845
96782484	DN 300	650	860	450	670	80	95	175	620	550	550	845
96782485	DN 500	890	1148	564	735/150 ¹	127	99	226	720	660	660	1120
96782486	DN 600	1050	1260	614	830/160 ¹	127	99	226	780	710	710	1230

¹ Six-bolt installation: distance between the front bolt hole and middle bolt hole / distance between the middle bolt hole and the back bolt hole.

Pump installation dimensions



TM068504

Installation on auto-coupling system - version 1 (base unit with 4 anchor bolts)

Pos.	Description
S Ex	Installation S Ex pump
S St	Installation S Standard pump
C	Installation C

Note: Z12A is the minimum recommended distance from pit bottom to bottom of pump inlet side.
Note: Z11 is the total height of pump installed on Grundfos installation accessory in the pit.
Note: The pump in this figure might not equal Z12A + Z1.

Range 72

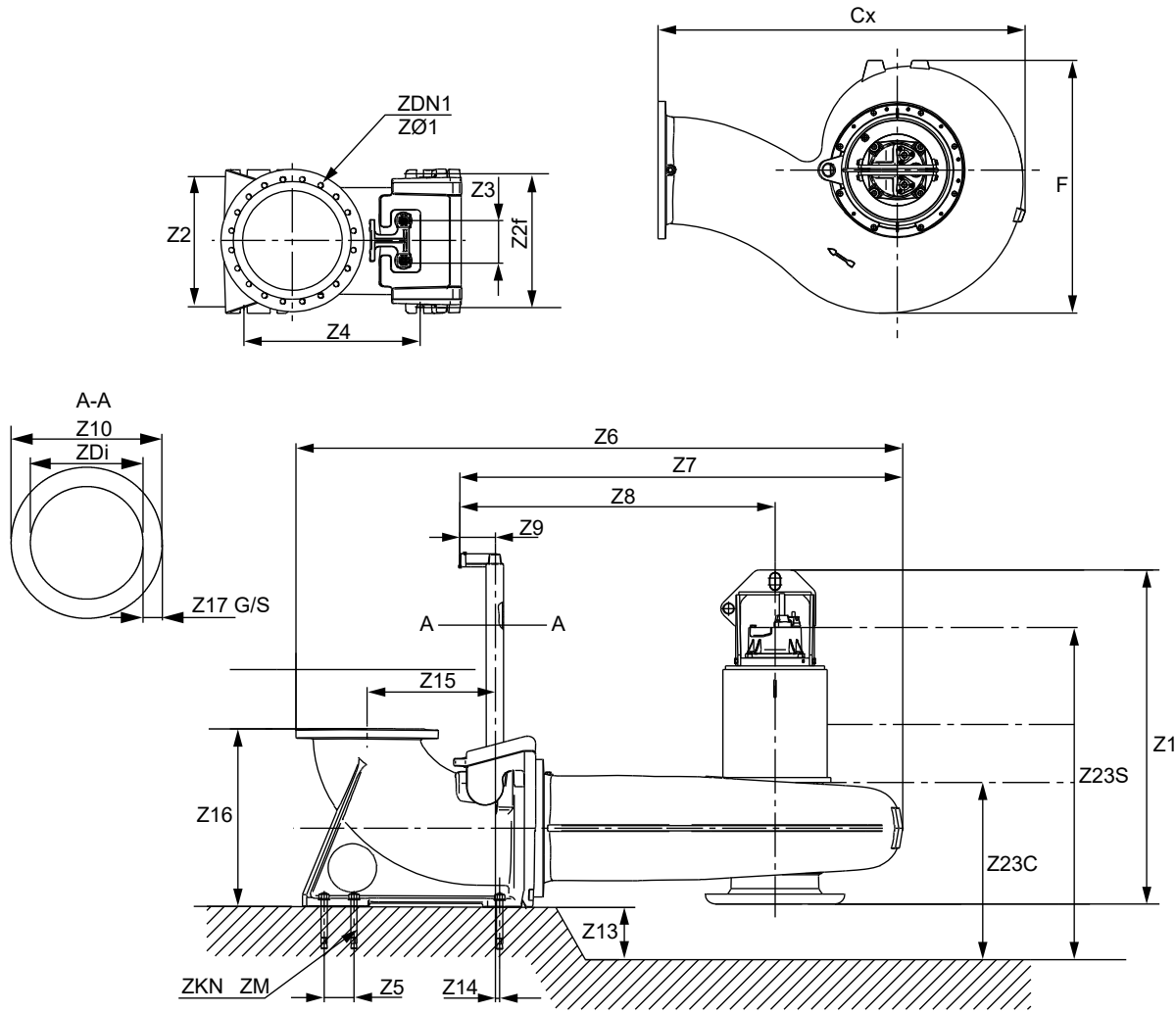
Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S2.90.250.2250.4.72S.S	1062	800	12 x 23	2339	471	200	565	1861	1454	1060	170	88	2649	310	224
S2.90.250.2250.4.72S.C	1062	800	12 x 23	2339	471	200	565	1861	1454	1060	170	88	2649	310	224
S2.100.250.1750.4.72H.S	1062	800	12 x 23	2339	471	200	565	1861	1454	1060	170	88	2649	310	224
S2.100.250.2250.4.72H.S	1062	800	12 x 23	2339	471	200	565	1861	1454	1060	170	88	2649	310	224
S2.100.300.1750.4.72M.S	1337	869	12 x 23	2344	551	200	670	2238	1729	1292	170	88	2649	305	256
S2.100.300.2250.4.72M.S	1337	869	12 x 23	2344	551	200	670	2238	1729	1292	170	88	2649	305	256
S3.110.300.1600.8.72H.S	1271	944	12 x 23	2390	551	200	670	2172	1663	1192	170	88	2645	255	256
S3.110.300.1800.6.72H.S	1271	944	12 x 23	2390	551	200	670	2172	1663	1192	170	88	2645	255	256

Pump type	Z13	Z14	Z15	Z16	Z23		Z17		S3OPR		ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
					Std.	Ex	G	S	Std.	Ex						
S2.90.250.2250.4.72S.S	431	86	375	545	965	1807	3	3	1086	1928	350	250	32	799	222	4 x M24
S2.90.250.2250.4.72S.C	431	86	375	545	965	1807	3	3	1086	1928	350	250	32	799	222	4 x M24
S2.100.250.1750.4.72H.S	431	86	375	545	965	1807	3	3	1086	1928	350	250	32	799	222	4 x M24
S2.100.250.2250.4.72H.S	431	86	375	545	965	1807	3	3	1086	1928	350	250	32	799	222	4 x M24
S2.100.300.1750.4.72M.S	399	95	450	650	1013	1855	3	3	1107	1949	400	300	32	901	222	4 x M24
S2.100.300.2250.4.72M.S	399	95	450	650	1013	1855	3	3	1107	1949	400	300	32	901	222	4 x M24
S3.110.300.1600.8.72H.S	399	95	450	650	1009	1851	3	3	1153	1995	400	300	32	901	222	4 x M24
S3.110.300.1800.6.72H.S	399	95	450	650	1009	1851	3	3	1153	1995	400	300	32	901	222	4 x M24

Range 74

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S2.90.300.2500.4.74S.C	1515	830	12 x 27	2690	551	200	670	2416	1907	1492	170	88	3000	310	256
S2.90.300.3150.4.74S.C	1515	830	12 x 27	2915	551	200	670	2416	1907	1492	170	88	3225	310	256
S2.100.300.2500.4.74H.C	1515	830	12 x 27	2690	551	200	670	2416	1907	1492	170	88	3000	310	256
S2.100.300.2500.4.74M.C	1337	869	12 x 27	2711	551	200	670	2238	1729	1292	170	88	3016	305	256
S2.100.300.3150.4.74H.C	1515	830	12 x 27	2915	551	200	670	2416	1907	1492	170	88	3225	310	256
S2.100.300.3150.4.74M.C	1337	869	12 x 27	2936	551	200	670	2238	1729	1292	170	88	3241	305	256
S3.110.300.2000.6.74H.C	1271	944	12 x 27	2757	551	200	670	2172	1663	1192	170	88	3012	255	256
S3.110.300.2500.6.74H.C	1271	944	12 x 27	2757	551	200	670	2172	1663	1192	170	88	3012	255	256
S3.110.300.3150.6.74H.C	1271	944	12 x 27	2982	551	200	670	2172	1663	1192	170	88	3237	255	256

Pump type	Z13	Z14	Z15	Z16	Z23	Z17		S3OPR	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
						G	S							
S2.90.300.2500.4.74S.C	399	95	450	650	653	3	3	564	410	300	32	901	222	4 x M24
S2.90.300.3150.4.74S.C	399	95	450	650	653	3	3	564	410	300	32	901	222	4 x M24
S2.100.300.2500.4.74H.C	399	95	450	650	653	3	3	564	410	300	32	901	222	4 x M24
S2.100.300.2500.4.74M.C	399	95	450	650	674	3	3	580	400	300	32	901	222	4 x M24
S2.100.300.3150.4.74H.C	399	95	450	650	653	3	3	561	410	300	32	901	222	4 x M24
S2.100.300.3150.4.74M.C	399	95	450	650	674	3	3	580	400	300	32	901	222	4 x M24
S3.110.300.2000.6.74H.C	399	95	450	650	720	3	3	576	400	300	32	901	222	4 x M24
S3.110.300.2500.6.74H.C	399	95	450	650	720	3	3	576	400	300	32	901	222	4 x M24
S3.110.300.3150.6.74H.C	399	95	450	650	720	3	3	576	400	300	32	901	222	4 x M24



TM042418

Installation on auto-coupling system - version 2 (base unit with 6 anchor bolts)

Pos.	Description
Se	Installation S Ex pump
St	Installation S Standard pump
C	Installation C

Note: Z12A is the minimum recommended distance from pit bottom to bottom of pump inlet side.
Note: Z11 is the total height of pump installed on Grundfos installation accessory in the pit.
Note: The pump in this figure might not equal Z12A + Z1.

Range 72

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5 ¹	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S3.120.500.1250.8.72M.S	1655	1110	20 x 27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380
S3.120.500.1600.8.72M.S	1655	1110	20 x 27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380
S3.120.500.1800.6.72M.S	1655	1110	20 x 27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380
S3.135.500.1250.8.72L.S	1780	1330	20 x 27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380
S3.135.500.1600.8.72L.S	1780	1330	20 x 27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380
S3.135.500.1800.6.72L.S	1780	1330	20 x 27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380
S3.135.600.900.10.72E.S	2080	1545	20 x 31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431
S3.135.600.1100.10.72E.S	2080	1545	20 x 31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431
S3.135.600.1300.10.72E.S	2080	1545	20 x 31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431
S3.135.600.1600.8.72E.S	2080	1545	20 x 31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431

Pump type	Z13	Z14	Z15	Z16	Z23		Z17		S3OPR		ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
					Std.	Ex	G	S	Std.	Ex						
S3.120.500.1250.8.72M.S	425	98	565	890	1133	1975	3	3	1178	2020	620	500	42	1185	284	6 x M30
S3.120.500.1600.8.72M.S	425	98	565	890	1133	1975	3	3	1178	2020	620	500	42	1185	284	6 x M30
S3.120.500.1800.6.72M.S	425	98	565	890	1143	1985	3	3	1178	2020	620	500	42	1185	284	6 x M30
S3.135.500.1250.8.72L.S	425	98	565	890	1143	1985	3	3	1193	2035	620	500	42	1185	284	6 x M30
S3.135.500.1600.8.72L.S	425	98	565	890	1143	1985	3	3	1193	2035	620	500	42	1185	284	6 x M30
S3.135.500.1800.6.72L.S	425	98	565	890	1143	1985	3	3	1193	2035	620	500	42	1185	284	6 x M30
S3.135.600.900.10.72E.S	424	98	615	1050	1194	2036	3	3	1233	2075	725	600	48	1320	280	6 x M30
S3.135.600.1100.10.72E.S	424	98	615	1050	1194	2036	3	3	1233	2075	725	600	48	1320	280	6 x M30
S3.135.600.1300.10.72E.S	424	98	615	1050	1194	2036	3	3	1233	2075	725	600	48	1320	280	6 x M30
S3.135.600.1600.8.72E.S	424	98	615	1050	1194	2036	3	3	1233	2075	725	600	48	1320	280	6 x M30

Range 74

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S3.120.500.2000.6.74M.C	1655	1110	12 x 27	2782	657	200	885	150	2840	2109	1554	170	88	3162	380	380
S3.120.500.2500.6.74M.C	1655	1110	12 x 27	2782	657	200	885	150	2840	2109	1554	170	88	3162	380	380
S3.120.500.3150.6.74M.C	1655	1110	12 x 27	3007	657	200	885	150	2840	2109	1554	170	88	3387	380	380
S3.135.500.2000.6.74L.C	1780	1330	12 x 27	2797	657	200	885	150	2965	2234	1554	170	88	3172	375	380
S3.135.500.2500.6.74L.C	1780	1330	12 x 27	2797	657	200	885	150	2965	2234	1554	170	88	3172	375	380
S3.135.500.3150.6.74L.C	1780	1330	12 x 27	3022	657	200	885	150	2965	2234	1554	170	88	3397	375	380
S3.135.600.2000.8.74E.C	2080	1545	20 x 31	2837	710	200	990	160	3400	2530	1750	170	88	3222	385	431
S3.135.600.2500.8.74E.C	2080	1545	20 x 31	3062	710	200	990	160	3400	2530	1750	170	88	3447	385	431

Pump type	Z13	Z14	Z15	Z16	Z23	Z17		S3OPR	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
						G	S							
S3.120.500.2000.6.74M.C	425	98	565	890	745	3	3	700	620	500	42	1185	284	6 x M30
S3.120.500.2500.6.74M.C	425	98	565	890	745	3	3	700	620	500	42	1185	284	6 x M30
S3.120.500.3150.6.74M.C	425	98	565	890	745	3	3	700	620	500	42	1185	284	6 x M30
S3.135.500.2000.6.74L.C	425	98	565	890	760	3	3	710	620	500	42	1185	284	6 x M30
S3.135.500.2500.6.74L.C	425	98	565	890	760	3	3	710	620	500	42	1185	284	6 x M30
S3.135.500.3150.6.74L.C	425	98	565	890	760	3	3	710	620	500	42	1185	284	6 x M30
S3.135.600.2000.8.74E.C	424	98	615	1050	800	3	3	761	725	600	48	1320	280	6 x M30
S3.135.600.2500.8.74E.C	424	98	615	1050	800	3	3	761	725	600	48	1320	280	6 x M30

Range 78

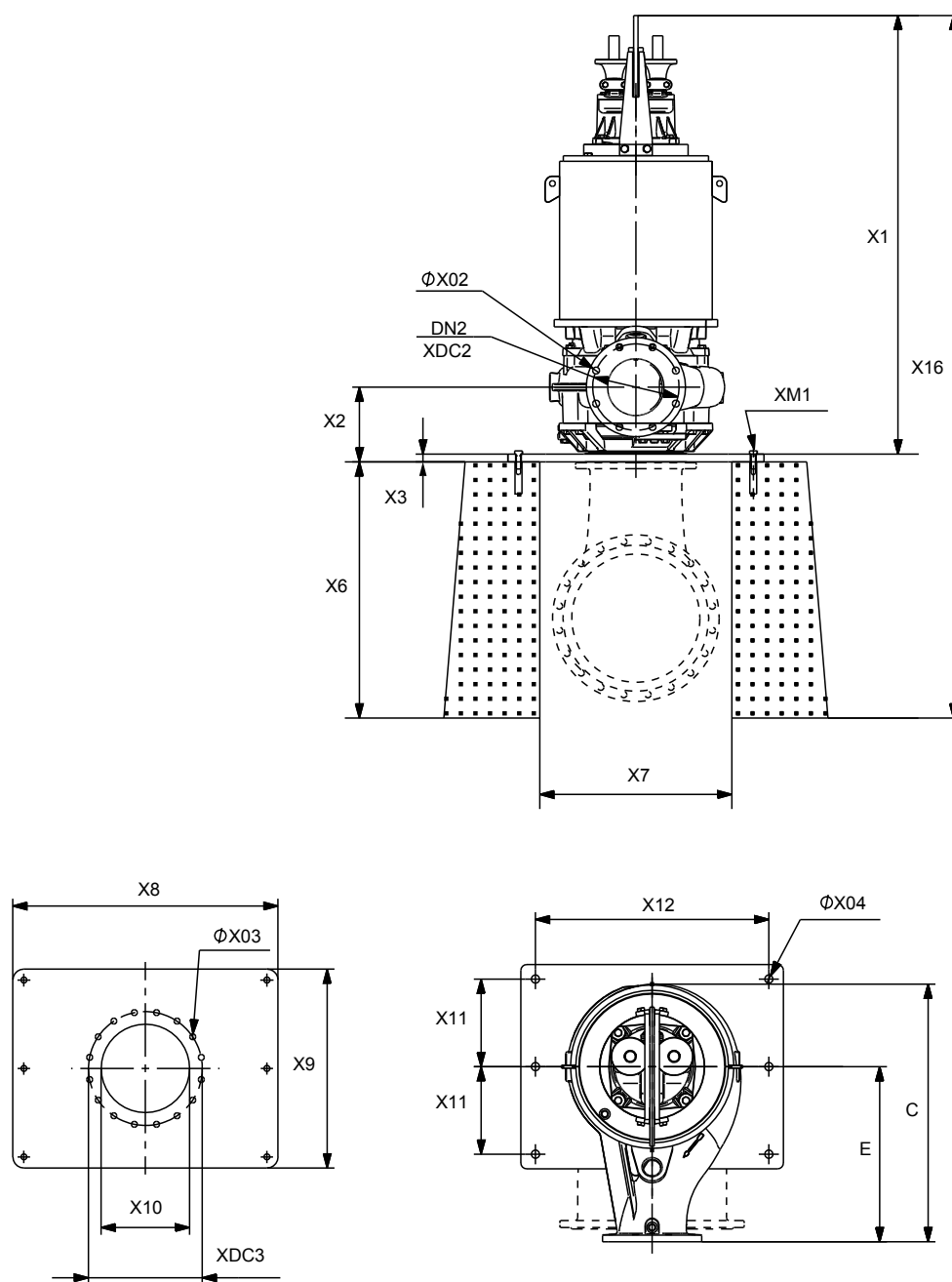
Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S3.115.500.3150.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.115.500.3500.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.115.500.4000.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.115.500.4500.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.115.500.5000.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.115.500.5200.8.78H.C	2135	1260	20 x 27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380
S3.130.500.2500.10.78M.C	1935	1370	20 x 27	3097	657	200	885	150	3120	2389	1704	170	88	3412	315	380

Pump type	C	F	Z01	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12A	Z12B
S3.130.500.3150.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.3150.10.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.3500.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.3500.10.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.4000.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.4000.10.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.4500.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.5000.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.130.500.5200.8.78M.C	1935	1370	20 x 27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380
S3.145.500.1600.10.78L.C	2000	1560	20 x 27	3099	657	200	885	150	3185	2454	1654	170	88	3419	320	380
S3.145.500.2000.10.78L.C	2000	1560	20 x 27	3099	657	200	885	150	3185	2454	1654	170	88	3419	320	380
S3.145.500.2500.10.78L.C	2000	1560	20 x 27	3099	657	200	885	150	3185	2454	1654	170	88	3419	320	380
S3.145.500.3150.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.3150.10.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.3500.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.3500.10.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.4000.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.4500.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.5000.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S3.145.500.5200.8.78L.C	2000	1560	20 x 27	3269	657	200	885	150	3185	2454	1654	170	88	3589	320	380
S4.135.600.1300.12.78E.C	2445	1935	20 x 31	3109	710	200	990	160	3765	2895	1925	170	88	3464	355	431
S4.135.600.1600.12.78E.C	2445	1935	20 x 31	3109	710	200	990	160	3765	2895	1925	170	88	3464	355	431
S4.135.600.2000.10.78E.C	2445	1935	20 x 31	3109	710	200	990	160	3765	2895	1925	170	88	3464	355	431
S4.135.600.2500.10.78E.C	2445	1935	20 x 31	3109	710	200	990	160	3765	2895	1925	170	88	3464	355	431
S4.135.600.3150.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.3150.10.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.3500.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.4000.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.4500.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.5000.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431
S4.135.600.5200.8.78E.C	2445	1935	20 x 31	3279	710	200	990	160	3765	2895	1925	170	88	3634	355	431

Pump type	Z13	Z14	Z15	Z16	Z23	Z17		S3OPR	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
						G	S							
S3.115.500.3150.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.115.500.3500.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.115.500.4000.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.115.500.4500.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.115.500.5000.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.115.500.5200.8.78H.C	425	98	565	890	841	3	3	731	620	500	42	1185	284	6 x M30
S3.130.500.2500.10.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.3150.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.3150.10.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.3500.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.3500.10.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.4000.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.4000.10.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.4500.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.5000.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.130.500.5200.8.78M.C	425	98	565	890	832	3	3	722	620	500	42	1185	284	6 x M30
S3.145.500.1600.10.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.2000.10.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.2500.10.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.3150.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.3150.10.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.3500.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.3500.10.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.4000.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.4500.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S3.145.500.5000.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30

Pump type	Z13	Z14	Z15	Z16	Z23	Z17		S3OPR	ZDC1	ZDN1	ZDT1	ZL1	ZL2	ZM
						G	S							
S3.145.500.5200.8.78L.C	425	98	565	890	834	3	3	729	620	500	42	1185	284	6 x M30
S4.135.600.1300.12.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.1600.12.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.2000.10.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.2500.10.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.3150.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.3150.10.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.3500.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.4000.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.4500.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.5000.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30
S4.135.600.5200.8.78E.C	424	98	615	1050	844	3	3	775	725	600	48	1320	280	6 x M30

Dry, vertical installation on concrete foundation



Dry, vertical installation on concrete foundation

TM042424

Range 72

Pump type	C	E	Ø X02	Ø X03	Ø X04	X1	X2	X3	X6	X7	X8
S2.90.250.2250.4.72S.D	1062	668	24	27	27	2315	379	39	1250	850	1200
S2.100.250.1750.4.72H.D	1062	668	24	27	27	2315	379	39	1250	850	1200
S2.100.250.2250.4.72H.D	1062	668	24	27	27	2315	379	39	1250	850	1200
S2.100.300.1750.4.72M.D	1337	900	23	27	27	2315	379	39	1250	850	1200
S2.100.300.2250.4.72M.D	1337	900	23	27	27	2315	379	39	1250	850	1200
S3.110.300.1600.8.72H.D	1271	800	23	27	27	2365	414	39	1250	850	1200
S3.110.300.1800.6.72H.D	1271	800	23	27	27	2365	414	39	1250	850	1200
S3.120.500.1250.8.72M.D	1655	1100	27	27	27	2365	414	39	1250	850	1200
S3.120.500.1600.8.72M.D	1655	1100	27	27	27	2365	414	39	1250	850	1200
S3.120.500.1800.6.72M.D	1655	1100	27	27	27	2365	414	39	1250	850	1200
S3.135.500.1250.8.72L.D	1780	1100	27	27	27	2455	496	38	1350	950	1300
S3.135.500.1600.8.72L.D	1780	1100	27	27	27	2455	496	38	1350	950	1300
S3.135.500.1800.6.72L.D	1780	1100	27	27	27	2455	496	38	1350	950	1300
S3.135.600.900.10.72E.D	2080	1300	30	30	27	2451	483	33	1450	1100	1400
S3.135.600.1100.10.72E.D	2080	1300	30	30	27	2451	483	33	1450	1100	1400
S3.135.600.1300.10.72E.D	2080	1300	30	30	27	2451	483	33	1450	1100	1400
S3.135.600.1600.8.72E.D	2080	1300	30	30	27	2451	483	33	1450	1100	1400

Pump type	X9	X10	X11	X12	X16	DN2	XDC2	XDC3	XM1
S2.90.250.2250.4.72S.D	900	400	400	1100	3604	250	350	515	6 x M24
S2.100.250.1750.4.72H.D	900	400	400	1100	3604	250	350	515	6 x M24
S2.100.250.2250.4.72H.D	900	400	400	1100	3604	250	350	515	6 x M24
S2.100.300.1750.4.72M.D	900	400	400	1100	3604	300	400	515	6 x M24
S2.100.300.2250.4.72M.D	900	400	400	1100	3604	300	400	515	6 x M24
S3.110.300.1600.8.72H.D	900	400	400	1100	3654	300	400	515	6 x M24
S3.110.300.1800.6.72H.D	900	400	400	1100	3654	300	400	515	6 x M24
S3.120.500.1250.8.72M.D	900	400	400	1100	3654	500	620	515	6 x M24
S3.120.500.1600.8.72M.D	900	400	400	1100	3654	500	620	515	6 x M24
S3.120.500.1800.6.72M.D	900	400	400	1100	3654	500	620	515	6 x M24
S3.135.500.1250.8.72L.D	1000	500	450	1200	3843	500	620	620	6 x M24
S3.135.500.1600.8.72L.D	1000	500	450	1200	3843	500	620	620	6 x M24
S3.135.500.1800.6.72L.D	1000	500	450	1200	3843	500	620	620	6 x M24
S3.135.600.900.10.72E.D	1100	600	500	1300	3934	600	725	725	6 x M24
S3.135.600.1100.10.72E.D	1100	600	500	1300	3934	600	725	725	6 x M24
S3.135.600.1300.10.72E.D	1100	600	500	1300	3934	600	725	725	6 x M24
S3.135.600.1600.8.72E.D	1100	600	500	1300	3934	600	725	725	6 x M24

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Pump type	C	E	Ø X02	Ø X03	Ø X04	X1	X2	X3	X6	X7	X8
S2.90.300.2500.4.74S.D	1515	1100	27	27	27	2682	373	36	1250	850	1200
S2.90.300.3150.4.74S.D	1515	1100	27	27	27	2907	373	36	1250	850	1200
S2.100.300.2500.4.74H.D	1515	1100	27	27	27	2682	373	36	1250	850	1200
S2.100.300.2500.4.74M.D	1337	900	23	27	27	2682	376	36	1250	850	1200
S2.100.300.3150.4.74H.D	1515	1100	27	27	27	2907	373	36	1250	850	1200
S2.100.300.3150.4.74M.D	1337	900	23	27	27	2907	376	36	1250	850	1200
S3.110.300.2000.6.74H.D	1271	800	23	27	27	2732	411	36	1250	850	1200
S3.110.300.2500.6.74H.D	1271	800	23	27	27	2732	411	36	1250	850	1200
S3.110.300.3150.6.74H.D	1271	800	23	27	27	2957	411	36	1250	850	1200
S3.120.500.2000.6.74M.D	1655	1100	27	27	27	2732	411	36	1250	850	1200
S3.120.500.2500.6.74M.D	1655	1100	27	27	27	2732	411	36	1250	850	1200
S3.120.500.3150.6.74M.D	1655	1100	27	27	27	2957	411	36	1250	850	1200

Pump type	C	E	Ø X02	Ø X03	Ø X04	X1	X2	X3	X6	X7	X8
S3.135.500.2000.6.74L.D	1780	1100	27	27	27	2822	493	35	1350	950	1300
S3.135.500.2500.6.74L.D	1780	1100	27	27	27	2822	493	35	1350	950	1300
S3.135.500.3150.6.74L.D	1780	1100	27	27	27	3047	493	35	1350	950	1300
S3.135.600.2000.8.74E.D	2080	1300	30	30	27	2818	480	30	1450	1100	1400
S3.135.600.2500.8.74E.D	2080	1300	30	30	27	3043	480	30	1450	1100	1400

Pump type	X9	X10	X11	X12	X16	DN2	XDC2	XDC3	XM1
S2.90.300.2500.4.74S.D	900	400	400	1100	3968	300	410	515	6 x M24
S2.90.300.3150.4.74S.D	900	400	400	1100	4193	300	410	515	6 x M24
S2.100.300.2500.4.74H.D	900	400	400	1100	3968	300	410	515	6 x M24
S2.100.300.2500.4.74M.D	900	400	400	1100	3968	300	400	515	6 x M24
S2.100.300.3150.4.74H.D	900	400	400	1100	4193	300	410	515	6 x M24
S2.100.300.3150.4.74M.D	900	400	400	1100	4193	300	400	515	6 x M24
S3.110.300.2000.6.74H.D	900	400	400	1100	4018	300	400	515	6 x M24
S3.110.300.2500.6.74H.D	900	400	400	1100	4018	300	400	515	6 x M24
S3.110.300.3150.6.74H.D	900	400	400	1100	4243	300	400	515	6 x M24
S3.120.500.2000.6.74M.D	900	400	400	1100	4018	500	620	515	6 x M24
S3.120.500.2500.6.74M.D	900	400	400	1100	4018	500	620	515	6 x M24
S3.120.500.3150.6.74M.D	900	400	400	1100	4243	500	620	515	6 x M24
S3.135.500.2000.6.74L.D	1000	500	450	1200	4207	500	620	620	6 x M24
S3.135.500.2500.6.74L.D	1000	500	450	1200	4207	500	620	620	6 x M24
S3.135.500.3150.6.74L.D	1000	500	450	1200	4432	500	620	620	6 x M24
S3.135.600.2000.8.74E.D	1100	600	500	1300	4298	600	725	725	6 x M24
S3.135.600.2500.8.74E.D	1100	600	500	1300	4523	600	725	725	6 x M24

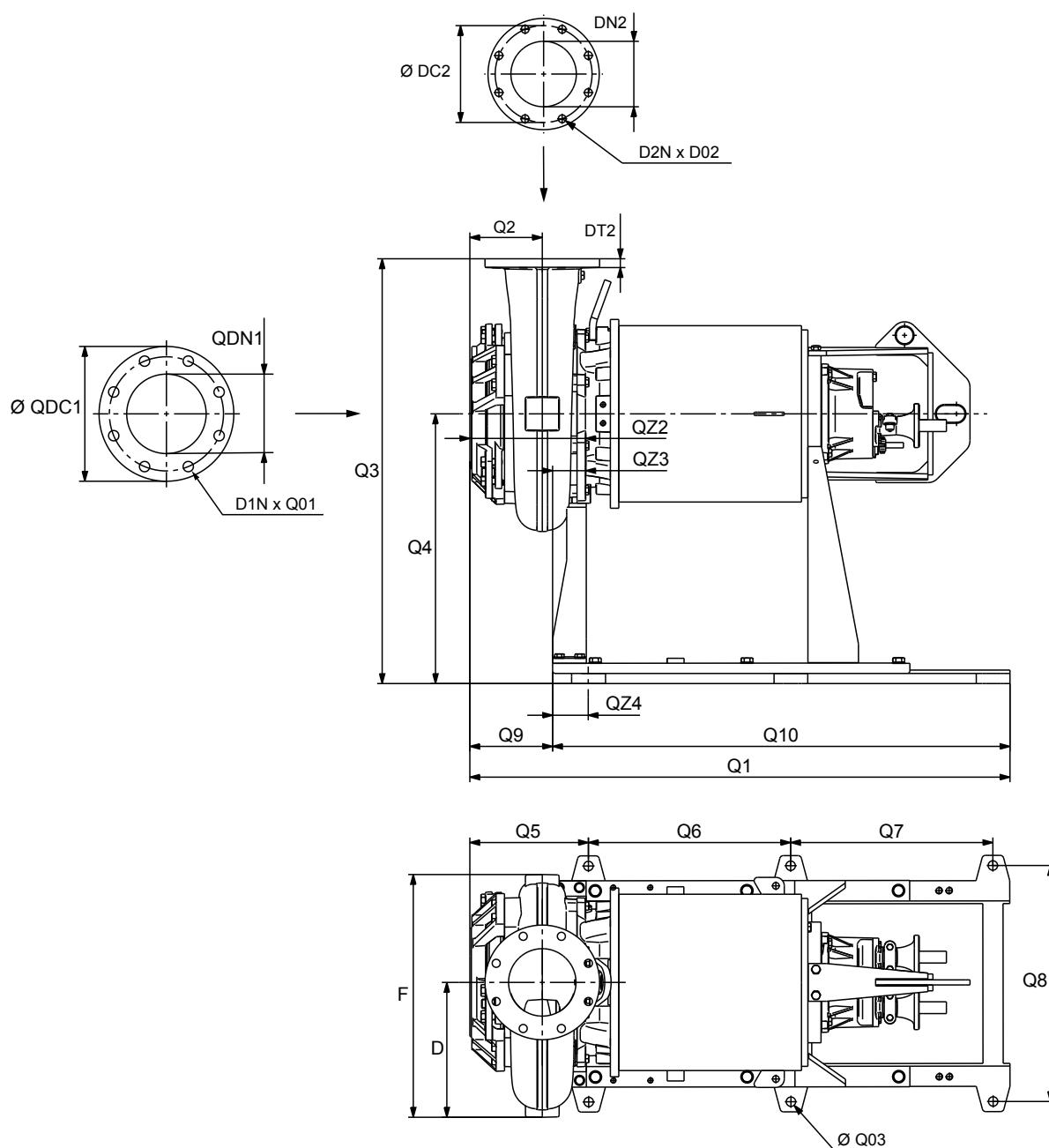
Range 78

Pump type	C	E	Ø X02	Ø X03	Ø X04	X1	X2	X3	X6	X7	X8
S3.115.500.3150.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.115.500.3500.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.115.500.4000.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.115.500.4500.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.115.500.5000.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.115.500.5200.8.78H.D	2135	1500	27	24	28	3183	447	50	1100	1150	1500
S3.130.500.2500.10.78M.D	1935	1250	27	24	28	3031	474	50	1100	1150	1500
S3.130.500.3150.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.3150.10.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.3500.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.3500.10.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.4000.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.4000.10.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.4500.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.5000.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.130.500.5200.8.78M.D	1935	1250	27	24	28	3201	474	50	1100	1150	1500
S3.145.500.1600.10.78L.D	2000	1200	27	24	28	3031	467	50	1100	1150	1500
S3.145.500.2000.10.78L.D	2000	1200	27	24	28	3031	467	50	1100	1150	1500
S3.145.500.2500.10.78L.D	2000	1200	27	24	28	3031	467	50	1100	1150	1500
S3.145.500.3150.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.3150.10.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.3500.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.3500.10.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.4000.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.4500.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S3.145.500.5000.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500

Pump type	C	E	Ø X02	Ø X03	Ø X04	X1	X2	X3	X6	X7	X8
S3.145.500.5200.8.78L.D	2000	1200	27	24	28	3201	467	50	1100	1150	1500
S4.135.600.1300.12.78E.D	2445	1475	30	33	28	3209	635	35	1800	1300	1800
S4.135.600.1600.12.78E.D	2445	1475	30	33	28	3209	635	35	1800	1300	1800
S4.135.600.2000.10.78E.D	2445	1475	30	33	28	3209	635	35	1800	1300	1800
S4.135.600.2500.10.78E.D	2445	1475	30	33	28	3209	635	35	1800	1300	1800
S4.135.600.3150.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.3150.10.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.3500.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.4000.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.4500.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.5000.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800
S4.135.600.5200.8.78E.D	2445	1475	30	33	28	3379	635	35	1800	1300	1800

Pump type	X9	X10	X11	X12	X16	DN2	XDC2	XDC3	XM1
S3.115.500.3150.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.115.500.3500.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.115.500.4000.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.115.500.4500.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.115.500.5000.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.115.500.5200.8.78H.D	1300	500	550	1350	4333	500	620	500	6 x M24
S3.130.500.2500.10.78M.D	1300	500	550	1350	4181	500	620	500	6 x M24
S3.130.500.3150.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.3150.10.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.3500.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.3500.10.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.4000.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.4000.10.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.4500.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.5000.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.130.500.5200.8.78M.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.1600.10.78L.D	1300	500	550	1350	4181	500	620	500	6 x M24
S3.145.500.2000.10.78L.D	1300	500	550	1350	4181	500	620	500	6 x M24
S3.145.500.2500.10.78L.D	1300	500	550	1350	4181	500	620	500	6 x M24
S3.145.500.3150.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.3150.10.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.3500.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.3500.10.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.4000.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.4500.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.5000.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S3.145.500.5200.8.78L.D	1300	500	550	1350	4351	500	620	500	6 x M24
S4.135.600.1300.12.78E.D	1300	800	550	1650	5044	600	725	950	6 x M24
S4.135.600.1600.12.78E.D	1300	800	550	1650	5044	600	725	950	6 x M24
S4.135.600.2000.10.78E.D	1300	800	550	1650	5044	600	725	950	6 x M24
S4.135.600.2500.10.78E.D	1300	800	550	1650	5044	600	725	950	6 x M24
S4.135.600.3150.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.3150.10.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.3500.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.4000.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.4500.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.5000.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24
S4.135.600.5200.8.78E.D	1300	800	550	1650	5214	600	725	950	6 x M24

Dry, horizontal installation on base stand



TM042415

Dry, horizontal installation on base stand

Range 72

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1
S2.90.250.2250.4.72S.H	419	800	2315	337	1248	580	120	450	900	850	60	2050	400
S2.100.250.1750.4.72H.H	419	800	2315	337	1248	580	120	450	900	850	60	2050	400
S2.100.250.2250.4.72H.H	419	800	2315	337	1248	580	120	450	900	850	60	2050	400
S2.100.300.1750.4.72M.H	474	869	2315	340	1480	580	120	450	900	850	60	2050	400
S2.100.300.2250.4.72M.H	474	869	2315	340	1480	580	120	450	900	850	60	2050	400
S3.110.300.1600.8.72H.H	509	944	2365	375	1380	580	170	450	900	850	110	2050	400
S3.110.300.1800.6.72H.H	509	944	2365	375	1380	580	170	450	900	850	110	2050	400
S3.120.500.1250.8.72M.H	610	1110	2365	375	1930	830	160	450	900	850	100	2050	400
S3.120.500.1600.8.72M.H	610	1110	2365	375	1930	830	160	450	900	850	100	2050	400
S3.120.500.1800.6.72M.H	610	1110	2365	375	1930	830	160	450	900	850	100	2050	400
S3.135.500.1250.8.72L.H	765	1330	2455	458	1930	830	250	450	900	850	190	2050	500
S3.135.500.1600.8.72L.H	765	1330	2455	458	1930	830	250	450	900	850	190	2050	500
S3.135.500.1800.6.72L.H	765	1330	2455	458	1930	830	250	450	900	850	190	2050	500
S3.135.600.900.10.72E.H	885	1545	2451	450	2130	830	246	450	900	850	186	2050	600
S3.135.600.1100.10.72E.H	885	1545	2451	450	2130	830	246	450	900	850	186	2050	600
S3.135.600.1300.10.72E.H	885	1545	2451	450	2130	830	246	450	900	850	186	2050	600
S3.135.600.1600.8.72E.H	885	1545	2451	450	2130	830	246	450	900	850	186	2050	600

Pump type	Ø QDC1	QD1N	Q01	DN2	DC2	D2N	D02	DT2	Ø Q03	QZ2	QZ3	QZ4
S2.90.250.2250.4.72S.H	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.250.1750.4.72H.H	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.250.2250.4.72H.H	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.300.1750.4.72M.H	515	16	M24	300	400	12	23	33	28	635	50	60
S2.100.300.2250.4.72M.H	515	16	M24	300	400	12	23	33	28	635	50	60
S3.110.300.1600.8.72H.H	515	16	M24	300	400	12	23	33	28	685	50	60
S3.110.300.1800.6.72H.H	515	16	M24	300	400	12	23	33	28	685	50	60
S3.120.500.1250.8.72M.H	515	16	M24	500	620	20	27	36	28	685	50	60
S3.120.500.1600.8.72M.H	515	16	M24	500	620	20	27	36	28	685	50	60
S3.120.500.1800.6.72M.H	515	16	M24	500	620	20	27	36	28	685	50	60
S3.135.500.1250.8.72L.H	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.500.1600.8.72L.H	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.500.1800.6.72L.H	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.600.900.10.72E.H	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1100.10.72E.H	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1300.10.72E.H	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1600.8.72E.H	725	20	M27	600	725	20	30	40	28	771	50	60

Range 74

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1
S2.90.300.2500.4.74S.H	435	830	2682	337	1700	600	803	1000	550	900	743	2100	400
S2.90.300.3150.4.74S.H	435	830	2907	337	1700	600	803	1000	550	900	743	2100	400
S2.100.300.2500.4.74H.H	435	830	2682	337	1700	600	803	1000	550	900	743	2100	400
S2.100.300.2500.4.74M.H	474	869	2682	340	1500	600	803	1000	550	900	743	2100	400
S2.100.300.3150.4.74H.H	435	830	2907	337	1700	600	803	1000	550	900	743	2100	400
S2.100.300.3150.4.74M.H	474	869	2907	340	1500	600	803	1000	550	900	743	2100	400
S3.110.300.2000.6.74H.H	509	944	2732	375	1400	600	853	1000	550	900	793	2100	400
S3.110.300.2500.6.74H.H	509	944	2732	375	1400	600	853	1000	550	900	793	2100	400
S3.110.300.3150.6.74H.H	509	944	2957	375	1400	600	853	1000	550	900	793	2100	400
S3.120.300.2000.6.74M.H	610	1110	2732	375	1700	600	853	1000	550	900	793	2100	400
S3.120.300.2500.6.74M.H	610	1110	2732	375	1700	600	853	1000	550	900	793	2100	400
S3.120.300.3150.6.74M.H	610	1110	2957	375	1700	600	853	1000	550	900	793	2100	400

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1
S3.135.500.2000.6.74L.H	765	1330	2822	458	2000	900	943	1000	550	900	883	2100	500
S3.135.500.2500.6.74L.H	765	1330	2822	458	2000	900	943	1000	550	900	883	2100	500
S3.135.500.3150.6.74L.H	765	1330	3047	458	2000	900	943	1000	550	900	883	2100	500
S3.135.600.2000.8.74E.H	885	1545	2818	450	2200	900	939	1000	550	900	879	2100	600
S3.135.600.2500.8.74E.H	885	1545	3043	450	2200	900	939	1000	550	900	879	2100	600

Pump type	Ø QDC1	QD1N	Q01	DN2	DC2	D2N	D02	DT2	Ø Q03	QZ2	QZ3	QZ4
S2.90.300.2500.4.74S.H	515	16	M24	300	410	12	27	33	28	664	79	60
S2.90.300.3150.4.74S.H	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.2500.4.74H.H	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.2500.4.74M.H	515	16	M24	300	400	12	23	33	28	664	79	60
S2.100.300.3150.4.74H.H	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.3150.4.74M.H	515	16	M24	300	400	12	23	33	28	664	79	60
S3.110.300.2000.6.74H.H	515	16	M24	300	400	12	23	33	28	714	79	60
S3.110.300.2500.6.74H.H	515	16	M24	300	400	12	23	33	28	714	79	60
S3.110.300.3150.6.74H.H	515	16	M24	300	400	12	23	33	28	714	79	60
S3.120.300.2000.6.74M.H	515	16	M24	500	620	20	27	36	28	714	79	60
S3.120.300.2500.6.74M.H	515	16	M24	500	620	20	27	36	28	714	79	60
S3.120.300.3150.6.74M.H	515	16	M24	500	620	20	27	36	28	714	79	60
S3.135.500.2000.6.74L.H	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.500.2500.6.74L.H	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.500.3150.6.74L.H	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.600.2000.8.74E.H	725	20	M27	600	725	20	30	40	28	800	79	60
S3.135.600.2500.8.74E.H	725	20	M27	600	725	20	30	40	28	800	79	60

Range 78

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1
S3.115.500.3150.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.115.500.3500.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.115.500.4000.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.115.500.4500.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.115.500.5000.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.115.500.5200.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500
S3.130.500.2500.10.78M.H	740	1370	3031	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.3150.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.3150.10.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.3500.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.3500.10.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.4000.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.4000.10.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.4500.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.5000.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.130.500.5200.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500
S3.145.500.1600.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.2000.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.2500.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.3150.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.3150.10.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.3500.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.3500.10.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.4000.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.4500.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S3.145.500.5000.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1
S3.145.500.5200.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500
S4.135.600.1300.12.78E.H	1100	1935	3209	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.1600.12.78E.H	1100	1935	3209	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.2000.10.78E.H	1100	1935	3209	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.2500.10.78E.H	1100	1935	3209	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.3150.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.3150.10.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.3500.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.4000.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.4500.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.5000.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800
S4.135.600.5200.8.78E.H	1100	1935	3379	600	2575	1100	1104	1000	1000	1140	1044	2200	800

Pump type	Ø QDC1	QD1N	Q01	DN2	DC2	D2N	D02	DT2	Ø Q03	QZ2	QZ3	QZ4
S3.115.500.3150.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.115.500.3500.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.115.500.4000.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.115.500.4500.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.115.500.5000.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.115.500.5200.8.78H.H	620	20	M24	500	620	20	27	41	28	768	80	60
S3.130.500.2500.10.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.3150.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.3150.10.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.3500.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.3500.10.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.4000.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.4000.10.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.4500.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.5000.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.130.500.5200.8.78M.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.1600.10.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.2000.10.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.2500.10.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.3150.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.3150.10.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.3500.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.3500.10.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.4000.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.4500.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.5000.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S3.145.500.5200.8.78L.H	620	20	M24	500	620	20	27	41	28	786	80	60
S4.135.600.1300.12.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.1600.12.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.2000.10.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.2500.10.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.3150.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.3150.10.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.3500.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.4000.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.4500.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.5000.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60
S4.135.600.5200.8.78E.H	950	24	M33	600	725	20	30	40	28	964	80	60

13. Weights

Weights include 10 m cable.

Range 72

Pump type	Weight [kg]
S2.90.250.2250.4.72S.S.478	1765
S2.90.250.2250.4.72S.C.478	1945
S2.90.250.2250.4.72S.D.478	1955
S2.90.250.2250.4.72S.H.478	2250
S2.90.250.2250.4.72S.S.488	1770
S2.90.250.2250.4.72S.C.488	1950
S2.90.250.2250.4.72S.D.488	1955
S2.90.250.2250.4.72S.H.488	2250
S2.90.250.2250.4.72S.S.496	1770
S2.90.250.2250.4.72S.C.496	1950
S2.90.250.2250.4.72S.D.496	1955
S2.90.250.2250.4.72S.H.496	2250
S2.100.250.1750.4.72H.S.412	1760
S2.100.250.1750.4.72H.C.412	1945
S2.100.250.1750.4.72H.D.412	1955
S2.100.250.1750.4.72H.H.412	2230
S2.100.250.1750.4.72H.S.423	1760
S2.100.250.1750.4.72H.C.423	1945
S2.100.250.1750.4.72H.D.423	1955
S2.100.250.1750.4.72H.H.423	2230
S2.100.250.1750.4.72H.S.434	1760
S2.100.250.1750.4.72H.C.434	1945
S2.100.250.1750.4.72H.D.434	1955
S2.100.250.1750.4.72H.H.434	2230
S2.100.250.1750.4.72H.S.446	1760
S2.100.250.1750.4.72H.C.446	1945
S2.100.250.1750.4.72H.D.446	1955
S2.100.250.1750.4.72H.H.446	2240
S2.100.250.2250.4.72H.S.458	1760
S2.100.250.2250.4.72H.C.458	1945
S2.100.250.2250.4.72H.D.458	1955
S2.100.250.2250.4.72H.H.458	2240
S2.100.250.2250.4.72H.S.469	1760
S2.100.250.2250.4.72H.C.469	1945
S2.100.250.2250.4.72H.D.469	1955
S2.100.250.2250.4.72H.H.469	2240
S2.100.250.2250.4.72H.S.478	1760
S2.100.250.2250.4.72H.C.478	1945
S2.100.250.2250.4.72H.D.478	1955
S2.100.250.2250.4.72H.H.478	2240
S2.100.300.1750.4.72M.S.418	1840
S2.100.300.1750.4.72M.C.418	2020
S2.100.300.1750.4.72M.D.418	2010
S2.100.300.1750.4.72M.H.418	2300
S2.100.300.1750.4.72M.S.430	1840
S2.100.300.1750.4.72M.C.430	2020
S2.100.300.1750.4.72M.D.430	2010
S2.100.300.1750.4.72M.H.430	2300
S2.100.300.1750.4.72M.S.441	1840

Pump type	Weight [kg]
S2.100.300.1750.4.72M.C.441	2020
S2.100.300.1750.4.72M.D.441	2010
S2.100.300.1750.4.72M.H.441	2300
S2.100.300.2250.4.72M.S.450	1840
S2.100.300.2250.4.72M.C.450	2020
S2.100.300.2250.4.72M.D.450	2010
S2.100.300.2250.4.72M.H.450	2300
S2.100.300.2250.4.72M.S.459	1840
S2.100.300.2250.4.72M.C.459	2020
S2.100.300.2250.4.72M.D.459	2010
S2.100.300.2250.4.72M.H.459	2300
S2.100.300.2250.4.72M.S.466	1840
S2.100.300.2250.4.72M.C.466	2020
S2.100.300.2250.4.72M.D.466	2010
S2.100.300.2250.4.72M.H.466	2300
S3.110.300.1600.8.72H.S.610	1965
S3.110.300.1600.8.72H.C.610	2165
S3.110.300.1600.8.72H.D.610	2155
S3.110.300.1600.8.72H.H.610	2445
S3.110.300.1600.8.72H.S.630	1965
S3.110.300.1600.8.72H.C.630	2165
S3.110.300.1600.8.72H.D.630	2155
S3.110.300.1600.8.72H.H.630	2445
S3.110.300.1800.6.72H.S.506	1965
S3.110.300.1800.6.72H.C.506	2160
S3.110.300.1800.6.72H.D.506	2150
S3.110.300.1800.6.72H.H.506	2440
S3.110.300.1800.6.72H.S.518	1965
S3.110.300.1800.6.72H.C.518	2160
S3.110.300.1800.6.72H.D.518	2150
S3.110.300.1800.6.72H.H.518	2440
S3.110.300.1800.6.72H.S.533	1965
S3.110.300.1800.6.72H.C.533	2160
S3.110.300.1800.6.72H.D.533	2150
S3.110.300.1800.6.72H.H.533	2440
S3.110.300.1800.6.72H.S.546	1965
S3.110.300.1800.6.72H.C.546	2160
S3.110.300.1800.6.72H.D.546	2150
S3.110.300.1800.6.72H.H.546	2440
S3.120.500.1250.8.72M.S.574	2300
S3.120.500.1250.8.72M.C.574	2530
S3.120.500.1250.8.72M.D.574	2370
S3.120.500.1250.8.72M.H.574	2700
S3.120.500.1600.8.72M.S.584	2330
S3.120.500.1600.8.72M.C.584	2530
S3.120.500.1600.8.72M.D.584	2370
S3.120.500.1600.8.72M.H.584	3700
S3.120.500.1600.8.72M.S.596	2330
S3.120.500.1600.8.72M.C.596	2530

Pump type	Weight [kg]
S3.120.500.1600.8.72M.D.596	2370
S3.120.500.1600.8.72M.H.596	2370
S3.120.500.1800.6.72M.S.506	2335
S3.120.500.1800.6.72M.C.506	2520
S3.120.500.1800.6.72M.D.506	2360
S3.120.500.1800.6.72M.H.506	2700
S3.120.500.1800.6.72M.S.522	2335
S3.120.500.1800.6.72M.C.522	2520
S3.120.500.1800.6.72M.D.522	2360
S3.120.500.1800.6.72M.H.522	2700
S3.135.500.1250.8.72L.S.542	2325
S3.135.500.1250.8.72L.C.542	2525
S3.135.500.1250.8.72L.D.542	2365
S3.135.500.1250.8.72L.H.542	2695
S3.135.500.1250.8.72L.S.556	2335
S3.135.500.1250.8.72L.C.556	2535
S3.135.500.1250.8.72L.D.556	2375
S3.135.500.1250.8.72L.H.556	2705
S3.135.500.1250.8.72L.S.567	2335
S3.135.500.1250.8.72L.C.567	2535
S3.135.500.1250.8.72L.D.567	2375
S3.135.500.1250.8.72L.H.567	2705
S3.135.500.1600.8.72L.S.580	2335
S3.135.500.1600.8.72L.C.580	2535
S3.135.500.1600.8.72L.D.580	2375
S3.135.500.1600.8.72L.H.580	2705
S3.135.500.1800.6.72L.S.474	2340
S3.135.500.1800.6.72L.C.474	2525
S3.135.500.1800.6.72L.D.474	2360
S3.135.500.1800.6.72L.H.474	2700
S3.135.500.1800.6.72L.S.488	2340
S3.135.500.1800.6.72L.C.488	2525
S3.135.500.1800.6.72L.D.488	2360
S3.135.500.1800.6.72L.H.488	2700
S3.135.500.1800.6.72L.S.500	2340
S3.135.500.1800.6.72L.C.500	2525
S3.135.500.1800.6.72L.D.500	2360
S3.135.500.1800.6.72L.H.500	2700
S3.135.600.900.10.72E.S.560	2710
S3.135.600.900.10.72E.C.560	2910
S3.135.600.900.10.72E.D.560	2690
S3.135.600.900.10.72E.H.560	3020
S3.135.600.1100.10.72E.S.580	2710
S3.135.600.1100.10.72E.C.580	2910
S3.135.600.1100.10.72E.D.580	2690
S3.135.600.1100.10.72E.H.580	3020
S3.135.600.1100.10.72E.S.606	2720
S3.135.600.1100.10.72E.C.606	2920
S3.135.600.1100.10.72E.D.606	2700
S3.135.600.1100.10.72E.H.606	3030
S3.135.600.1300.10.72E.S.635	2730
S3.135.600.1300.10.72E.C.635	2930
S3.135.600.1300.10.72E.D.635	2710
S3.135.600.1300.10.72E.H.635	3040

Pump type	Weight [kg]
S3.135.600.1300.10.72E.S.657	2730
S3.135.600.1300.10.72E.C.657	2930
S3.135.600.1300.10.72E.D.657	2710
S3.135.600.1300.10.72E.H.657	3040
S3.135.600.1600.8.72E.S.560	2710
S3.135.600.1600.8.72E.C.560	2910
S3.135.600.1600.8.72E.D.560	2690
S3.135.600.1600.8.72E.H.560	3020

Range 74

Pump type	Weight [kg]
S2.90.300.2500.4.74S.C.506	2800
S2.90.300.2500.4.74S.D.506	2800
S2.90.300.2500.4.74S.H.506	3000
S2.90.300.3150.4.74S.C.550	3500
S2.90.300.3150.4.74S.D.550	3500
S2.90.300.3150.4.74S.H.550	3700
S2.100.300.2500.4.74M.C.483	2800
S2.100.300.2500.4.74M.D.483	2800
S2.100.300.2500.4.74M.H.483	3000
S2.100.300.2500.4.74H.C.490	2800
S2.100.300.2500.4.74H.D.490	2800
S2.100.300.2500.4.74H.H.490	3000
S2.100.300.3150.4.74M.C.514	3500
S2.100.300.3150.4.74M.D.514	3500
S2.100.300.3150.4.74M.H.514	3700
S2.100.300.3150.4.74H.C.518	3500
S2.100.300.3150.4.74H.D.518	3500
S2.100.300.3150.4.74H.H.518	3700
S3.110.300.2000.6.74H.C.549	3000
S3.110.300.2000.6.74H.D.549	3000
S3.110.300.2000.6.74H.H.549	3200
S3.110.300.2500.6.74H.C.596	3100
S3.110.300.2500.6.74H.D.596	3100
S3.110.300.2500.6.74H.H.596	3400
S3.110.300.3150.6.74H.C.620	3900
S3.110.300.3150.6.74H.D.620	3900
S3.110.300.3150.6.74H.H.620	4100
S3.120.500.2000.6.74M.C.531	3300
S3.120.500.2000.6.74M.D.531	3200
S3.120.500.2000.6.74M.H.531	3400
S3.120.500.2500.6.74M.C.560	3500
S3.120.500.2500.6.74M.D.560	3300
S3.120.500.2500.6.74M.H.560	3500
S3.120.500.3150.6.74M.C.584	4300
S3.120.500.3150.6.74M.D.584	4100
S3.120.500.3150.6.74M.H.584	4300
S3.135.500.2000.6.74L.C.513	3300
S3.135.500.2000.6.74L.D.513	3300
S3.135.500.2000.6.74L.H.513	3500
S3.135.500.2500.6.74L.C.550	3500
S3.135.500.2500.6.74L.D.550	3400
S3.135.500.2500.6.74L.H.550	3700
S3.135.500.3150.6.74L.C.576	4200
S3.135.500.3150.6.74L.D.576	4200
S3.135.500.3150.6.74L.H.576	4400
S3.135.600.2000.8.74E.C.616	3900
S3.135.600.2000.8.74E.D.616	3700
S3.135.600.2000.8.74E.H.616	4000
S3.135.600.2500.8.74E.C.664	4600
S3.135.600.2500.8.74E.D.664	4400
S3.135.600.2500.8.74E.H.664	4700

Range 78

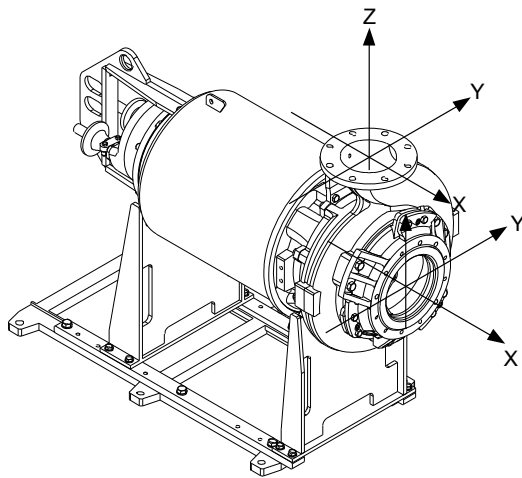
Pump type	Weight [kg]
S3.115.500.3150.8.78H.C.778	5600
S3.115.500.3150.8.78H.D.778	5500
S3.115.500.3150.8.78H.H.778	6000
S3.115.500.3500.8.78H.C.824	6000
S3.115.500.3500.8.78H.D.824	5800
S3.115.500.3500.8.78H.H.824	6300
S3.115.500.4000.8.78H.C.860	6100
S3.115.500.4000.8.78H.D.860	5900
S3.115.500.4000.8.78H.H.860	6400
S3.115.500.4500.8.78H.C.883	6200
S3.115.500.4500.8.78H.D.883	6000
S3.115.500.4500.8.78H.H.883	6500
S3.115.500.5000.8.78H.C.902	6200
S3.115.500.5000.8.78H.D.902	6100
S3.115.500.5000.8.78H.H.902	6600
S3.115.500.5200.8.78H.C.913	6400
S3.115.500.5200.8.78H.D.913	6200
S3.115.500.5200.8.78H.H.913	6700
S3.130.500.2500.10.78M.C.814	5200
S3.130.500.2500.10.78M.D.814	5100
S3.130.500.2500.10.78M.H.814	5600
S3.130.500.3150.8.78M.C.744	5500
S3.130.500.3150.8.78M.D.744	5400
S3.130.500.3150.8.78M.H.744	5900
S3.130.500.3150.10.78M.C.856	5800
S3.130.500.3150.10.78M.D.856	5600
S3.130.500.3150.10.78M.H.856	6400
S3.130.500.3500.8.78M.C.758	5900
S3.130.500.3500.8.78M.D.758	5800
S3.130.500.3500.8.78M.H.758	6300
S3.130.500.3500.10.78M.C.886	6100
S3.130.500.3500.10.78M.D.886	5900
S3.130.500.3500.10.78M.H.886	6400
S3.130.500.4000.8.78M.C.776	6000
S3.130.500.4000.8.78M.D.776	5900
S3.130.500.4000.8.78M.H.776	6400
S3.130.500.4000.10.78M.C.936	6100
S3.130.500.4000.10.78M.D.936	6000
S3.130.500.4000.10.78M.H.936	6500
S3.130.500.4500.8.78M.C.792	6100
S3.130.500.4500.8.78M.D.792	6000
S3.130.500.4500.8.78M.H.792	6500
S3.130.500.5000.8.78M.C.808	6200
S3.130.500.5000.8.78M.D.808	6100
S3.130.500.5000.8.78M.H.808	6600
S3.130.500.5200.8.78M.C.822	6300
S3.130.500.5200.8.78M.D.822	6200
S3.130.500.5200.8.78M.H.822	6700
S3.145.500.1600.10.78L.C.717	5000
S3.145.500.1600.10.78L.D.717	4900
S3.145.500.1600.10.78L.H.717	5300
S3.145.500.2000.10.78L.C.760	5100

Pump type	Weight [kg]
S3.145.500.2000.10.78L.D.760	5000
S3.145.500.2000.10.78L.H.760	5500
S3.145.500.2500.10.78L.C.806	5400
S3.145.500.2500.10.78L.D.806	5300
S3.145.500.2500.10.78L.H.806	5800
S3.145.500.3150.8.78L.C.717	5700
S3.145.500.3150.8.78L.D.717	5600
S3.145.500.3150.8.78L.H.717	6100
S3.145.500.3150.10.78L.C.858	5900
S3.145.500.3150.10.78L.D.858	5800
S3.145.500.3150.10.78L.H.858	6300
S3.145.500.3500.8.78L.C.736	6000
S3.145.500.3500.8.78L.D.736	5900
S3.145.500.3500.8.78L.H.736	6400
S3.145.500.3500.10.78L.C.878	6200
S3.145.500.3500.10.78L.D.878	6100
S3.145.500.3500.10.78L.H.878	6600
S3.145.500.4000.8.78L.C.774	6100
S3.145.500.4000.8.78L.D.774	6000
S3.145.500.4000.8.78L.H.774	6500
S3.145.500.4500.8.78L.C.812	6200
S3.145.500.4500.8.78L.D.812	6100
S3.145.500.4500.8.78L.H.812	6600
S3.145.500.5000.8.78L.C.832	6300
S3.145.500.5000.8.78L.D.832	6200
S3.145.500.5000.8.78L.H.832	6700
S3.145.500.5200.8.78L.C.844	6400
S3.145.500.5200.8.78L.D.844	6300
S3.145.500.5200.8.78L.H.844	6800
S4.135.600.1300.12.78E.C.746	5700
S4.135.600.1300.12.78E.D.746	5700
S4.135.600.1300.12.78E.H.746	6300
S4.135.600.1600.12.78E.C.792	5900
S4.135.600.1600.12.78E.D.792	5900
S4.135.600.1600.12.78E.H.792	6500
S4.135.600.2000.10.78E.C.724	5800
S4.135.600.2000.10.78E.D.724	5800
S4.135.600.2000.10.78E.H.724	6400
S4.135.600.2500.10.78E.C.770	6000
S4.135.600.2500.10.78E.D.770	6000
S4.135.600.2500.10.78E.H.770	6600
S4.135.600.3150.8.78E.C.662	6300
S4.135.600.3150.8.78E.D.662	6300
S4.135.600.3150.8.78E.H.662	6900
S4.135.600.3150.10.78E.C.815	6600
S4.135.600.3150.10.78E.D.815	6600
S4.135.600.3150.10.78E.H.815	7100
S4.135.600.3500.8.78E.C.700	6700
S4.135.600.3500.8.78E.D.700	6700
S4.135.600.3500.8.78E.H.700	7300
S4.135.600.4000.8.78E.C.720	6800
S4.135.600.4000.8.78E.D.720	6800

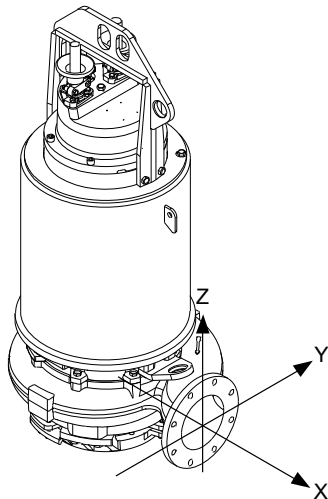
Pump type	Weight [kg]
S4.135.600.4000.8.78E.H.720	7300
S4.135.600.4500.8.78E.C.750	6900
S4.135.600.4500.8.78E.D.750	6900
S4.135.600.4500.8.78E.H.750	7500
S4.135.600.5000.8.78E.C.779	7000
S4.135.600.5000.8.78E.D.779	7000
S4.135.600.5000.8.78E.H.779	7500
S4.135.600.5200.8.78E.C.788	7100
S4.135.600.5200.8.78E.D.788	7100
S4.135.600.5200.8.78E.H.788	7700

14. Flange forces

Pump characteristics

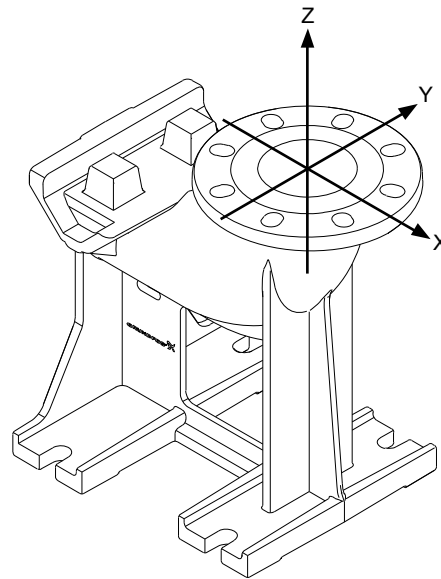


Horizontal installations



Vertical installations

TM064902



TM064901

Base unit

The flange forces and moments are according to EN ISO 5199.

Forces can be found for both horizontal and vertical installations in Table B.3 in EN ISO 5199 by selecting the correct flange dimension. Forces cannot be used directly for end-suction wastewater pumps without using a coefficient which can be found in Table B.5 in EN ISO 5199 by selecting the correct pump family.

For Grundfos wastewater pumps, the pump families and coefficient are as stated below.

Horizontally installed pumps

Pump family A4 = Coefficient 0.35

Vertically installed pumps

Pump family 10A = Coefficient 0.30

TM064903

15. Grundfos Product Center

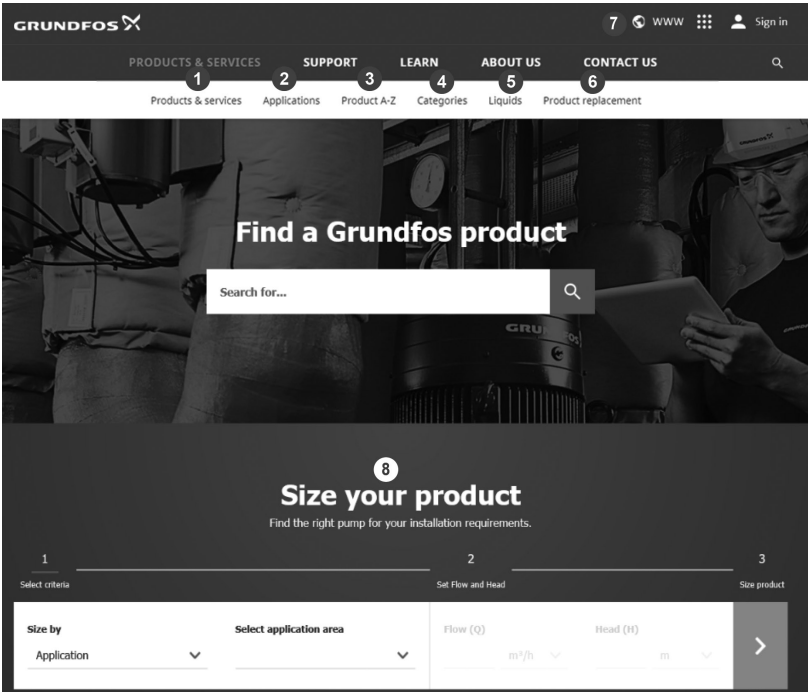
Online search and sizing tool to help you make the right choice.
From the international view, you can select your specific country to view the product range available to you.
International view: <https://product-selection.grundfos.com>

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.

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