

S pumps, ranges 72, 74, 78

Up to 520 kW
50 Hz



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Introduction

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

This data booklet was printed in June 2010. A newer version might be available for download from Grundfos WebCAPS. Go to WebCAPS Literature to locate and download the latest version, or insert this link in your browser: www.grundfos.com > International website > Launch WebCAPS.

Using a PDF version of this data booklet adds extra features to the booklet. If you double-click a product number listed in the data booklet, an internet browser window displaying all technical information available for the product will open.



TM04 5894 4409

Fig. 1 S pump, range 72

The S pumps, ranges 72, 74 and 78, are 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 waste water applications.

The pumps are fitted with motors from 90 to 520 kW. The motors are either 4, 6, 8, 10, 12 or 14-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.

Max. submersion depth 20 m when installed on auto coupling or in column pipe installation.

Applications

The S pumps, ranges 72, 74 and 78, are designed for applications, such as these:

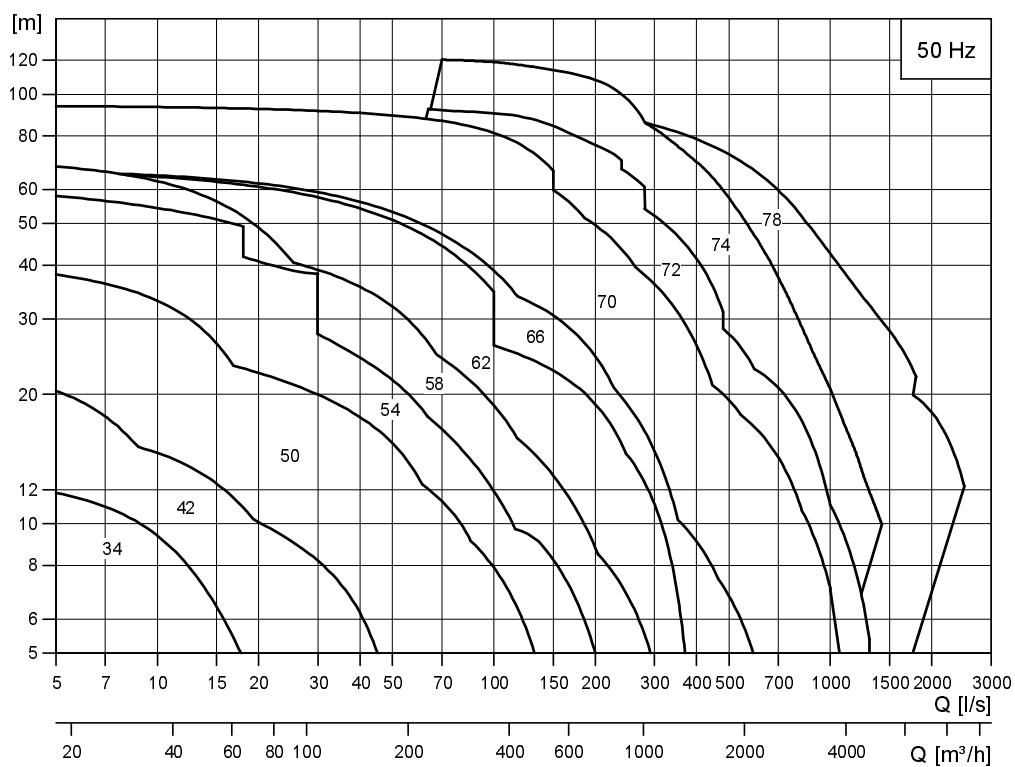
- raw-water intake
- wastewater treatment plants
- municipal pumping stations
- industries.

The pumps are suitable for both temporary and permanent installation.

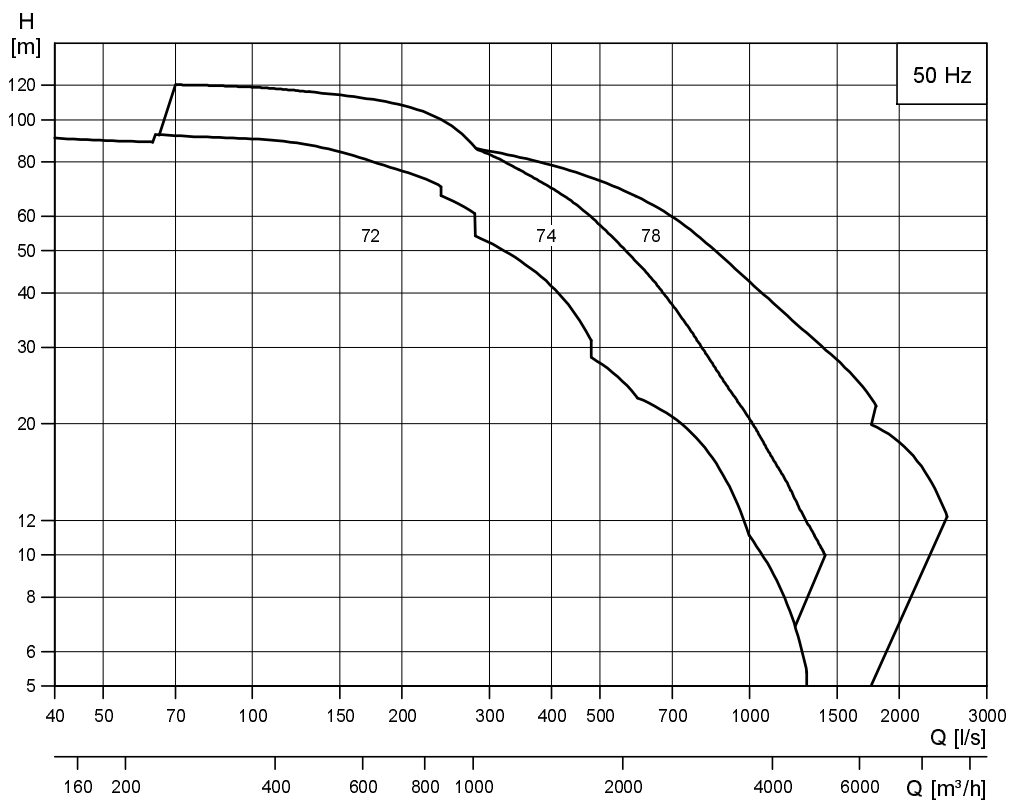
Main constructional features

- leak-proof connection on auto coupling via the Grundfos SmartSeal 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.

Performance range of S pumps



TM03 5469 3909



TM04 6183 5009

[illegible]

Nameplate

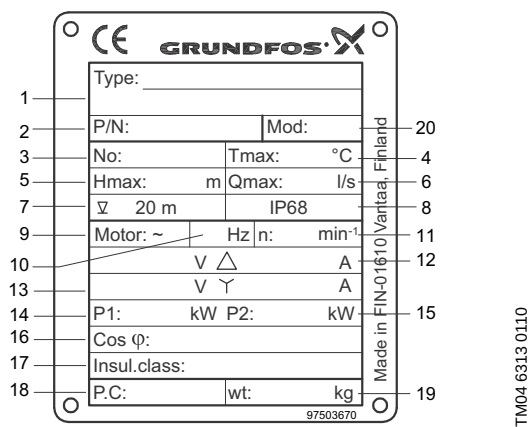


Fig. 2 Pump nameplate

Pos.	Description
1	Type designation
2	Product number
3	Serial number
4	Maximum liquid temperature
5	Maximum head
6	Maximum flow rate
7	Maximum installation depth
8	Enclosure class
9	Number of phases
10	Frequency
11	Rated speed
12	Voltage/current, delta connection
13	Voltage/current, star connection
14	Input power
15	Shaft power
16	Power factor
17	Insulation class
18	Production code (year/week)
19	Weight of the pump
20	Model

Ordering a pump

When ordering an S pump, ranges 72, 74 or 78, 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 starting on page 8 and Type key on page 5 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: Graphic grey, NCS S8005-R80B, thickness 150 µ • 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, Annex A.	

See *Performance curves/Technical data* for selection of a standard pump.

Note: Product-specific data for the pump can also be seen in WebCAPS using the product number 96980994.

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* on page 18. For requirements or designs not included in the list, contact Grundfos.

Accessories

Depending on the installation type, you may need to order accessories. See Accessories page 86 for selection of the correct accessories.

Controller

The following controllers are available:

- CUE up to 250 kW (frequency converter)
- DC/DCD control (dedicated control).

Range 72

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S2.90.250.2250.4.72S.S.496.G.EX.D	95114500	95114501	Y			96782483
S2.90.250.2250.4.72S.S.488.G.EX.D	95114502	95114503	Y			96782483
S2.90.250.2250.4.72S.S.478.G.EX.D	95114504	95114505	Y			96782483
S2.90.250.2250.4.72S.C.496.G.EX.D	95114534	95114535	Y			96782483
S2.90.250.2250.4.72S.C.488.G.EX.D	95114536	95114537	Y			96782483
S2.90.250.2250.4.72S.C.478.G.EX.D	95114538	95114539	Y			96782483
S2.90.250.2250.4.72S.D.496.G.EX.D	95114568	95114569	Y		96256023	
S2.90.250.2250.4.72S.D.488.G.EX.D	95114570	95114571	Y		96256023	
S2.90.250.2250.4.72S.D.478.G.EX.D	95114572	95114573	Y		96256023	
S2.90.250.2250.4.72S.S.496.G.N.D	96856525	96856526	N			96782483
S2.90.250.2250.4.72S.C.496.G.N.D	96856527	96856528	N			96782483
S2.90.250.2250.4.72S.D.496.G.N.D	96856529	96856530	N		96256023	
S2.90.250.2250.4.72S.H.496.G.N.D	96856531	96856532	N	-		
S2.90.250.2250.4.72S.S.488.G.N.D	96856533	96856534	N			96782483
S2.90.250.2250.4.72S.C.488.G.N.D	96856535	96856536	N			96782483
S2.90.250.2250.4.72S.D.488.G.N.D	96856537	96856538	N		96256023	
S2.90.250.2250.4.72S.H.488.G.N.D	96856539	96856540	N	-		
S2.90.250.2250.4.72S.S.478.G.N.D	96856541	96856542	N			96782483
S2.90.250.2250.4.72S.C.478.G.N.D	96856543	96856544	N			96782483
S2.90.250.2250.4.72S.D.478.G.N.D	96856545	96856546	N		96256023	
S2.90.250.2250.4.72S.H.478.G.N.D	96856547	96856548	N	-		
S2.90.250.2250.4.72S.H.496.G.EX.D	96856872	96856873	Y	-		
S2.90.250.2250.4.72S.H.488.G.EX.D	96856874	96856875	Y	-		
S2.90.250.2250.4.72S.H.478.G.EX.D	96856876	96856877	Y	-		
S2.100.250.1750.4.72H.S.446.G.EX.D	95114514	95114515	Y			96782483
S2.100.250.1750.4.72H.S.434.G.EX.D	95114516	95114517	Y			96782483
S2.100.250.1750.4.72H.S.423.G.EX.D	95114518	95114519	Y			96782483
S2.100.250.1750.4.72H.S.412.G.EX.D	95114520	95114521	Y			96782483
S2.100.250.1750.4.72H.C.446.G.EX.D	95114548	95114549	Y			96782483
S2.100.250.1750.4.72H.C.434.G.EX.D	95114550	95114551	Y			96782483
S2.100.250.1750.4.72H.C.423.G.EX.D	95114552	95114553	Y			96782483
S2.100.250.1750.4.72H.C.412.G.EX.D	95114554	95114555	Y			96782483
S2.100.250.1750.4.72H.D.446.G.EX.D	95114582	95114583	Y		96256023	
S2.100.250.1750.4.72H.D.434.G.EX.D	95114584	95114585	Y		96256023	
S2.100.250.1750.4.72H.D.423.G.EX.D	95114586	95114587	Y		96256023	
S2.100.250.1750.4.72H.D.412.G.EX.D	95114588	95114589	Y		96256023	
S2.100.250.1750.4.72H.S.446.G.N.D	96856581	96856582	N			96782483
S2.100.250.1750.4.72H.C.446.G.N.D	96856583	96856584	N			96782483
S2.100.250.1750.4.72H.D.446.G.N.D	96856585	96856586	N		96256023	
S2.100.250.1750.4.72H.H.446.G.N.D	96856587	96856588	N	-		
S2.100.250.1750.4.72H.S.434.G.N.D	96856589	96856590	N			96782483
S2.100.250.1750.4.72H.C.434.G.N.D	96856591	96856592	N			96782483
S2.100.250.1750.4.72H.D.434.G.N.D	96856593	96856594	N		96256023	
S2.100.250.1750.4.72H.H.434.G.N.D	96856595	96856596	N	-		
S2.100.250.1750.4.72H.S.423.G.N.D	96856597	96856598	N			96782483
S2.100.250.1750.4.72H.C.423.G.N.D	96856599	96856600	N			96782483
S2.100.250.1750.4.72H.D.423.G.N.D	96856601	96856602	N		96256023	
S2.100.250.1750.4.72H.H.423.G.N.D	96856603	96856604	N	-		
S2.100.250.1750.4.72H.S.412.G.N.D	96856605	96856606	N			96782483
S2.100.250.1750.4.72H.C.412.G.N.D	96856607	96856608	N			96782483
S2.100.250.1750.4.72H.D.412.G.N.D	96856609	96856610	N		96256023	
S2.100.250.1750.4.72H.H.412.G.N.D	96856611	96856612	N	-		
S2.100.250.1750.4.72H.H.446.G.EX.D	96856886	96856887	Y	-		
S2.100.250.1750.4.72H.H.434.G.EX.D	96856888	96856889	Y	-		
S2.100.250.1750.4.72H.H.423.G.EX.D	96856890	96856891	Y	-		
S2.100.250.1750.4.72H.H.412.G.EX.D	96856892	96856893	Y	-		

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S2.100.250.2250.4.72H.S.487.G.EX.D	95114506	95114507	Y			96782483
S2.100.250.2250.4.72H.S.478.G.EX.D	95114508	95114509	Y			96782483
S2.100.250.2250.4.72H.S.469.G.EX.D	95114510	95114511	Y			96782483
S2.100.250.2250.4.72H.S.458.G.EX.D	95114512	95114513	Y			96782483
S2.100.250.2250.4.72H.C.487.G.EX.D	95114540	95114541	Y			96782483
S2.100.250.2250.4.72H.C.478.G.EX.D	95114542	95114543	Y			96782483
S2.100.250.2250.4.72H.C.469.G.EX.D	95114544	95114545	Y			96782483
S2.100.250.2250.4.72H.C.458.G.EX.D	95114546	95114547	Y			96782483
S2.100.250.2250.4.72H.D.487.G.EX.D	95114574	95114575	Y		96256023	
S2.100.250.2250.4.72H.D.478.G.EX.D	95114576	95114577	Y		96256023	
S2.100.250.2250.4.72H.D.469.G.EX.D	95114578	95114579	Y		96256023	
S2.100.250.2250.4.72H.D.458.G.EX.D	95114580	95114581	Y		96256023	
S2.100.250.2250.4.72H.S.487.G.N.D	96856549	96856550	N			96782483
S2.100.250.2250.4.72H.C.487.G.N.D	96856551	96856552	N			96782483
S2.100.250.2250.4.72H.D.487.G.N.D	96856553	96856554	N		96256023	
S2.100.250.2250.4.72H.H.487.G.N.D	96856555	96856556	N	-		
S2.100.250.2250.4.72H.S.478.G.N.D	96856557	96856558	N			96782483
S2.100.250.2250.4.72H.C.478.G.N.D	96856559	96856560	N			96782483
S2.100.250.2250.4.72H.D.478.G.N.D	96856561	96856562	N		96256023	
S2.100.250.2250.4.72H.H.478.G.N.D	96856563	96856564	N	-		
S2.100.250.2250.4.72H.S.469.G.N.D	96856565	96856566	N			96782483
S2.100.250.2250.4.72H.C.469.G.N.D	96856567	96856568	N			96782483
S2.100.250.2250.4.72H.D.469.G.N.D	96856569	96856570	N		96256023	
S2.100.250.2250.4.72H.H.469.G.N.D	96856571	96856572	N	-		
S2.100.250.2250.4.72H.S.458.G.N.D	96856573	96856574	N			96782483
S2.100.250.2250.4.72H.C.458.G.N.D	96856575	96856576	N			96782483
S2.100.250.2250.4.72H.D.458.G.N.D	96856577	96856578	N		96256023	
S2.100.250.2250.4.72H.H.458.G.N.D	96856579	96856580	N	-		
S2.100.250.2250.4.72H.H.487.G.EX.D	96856878	96856879	Y	-		
S2.100.250.2250.4.72H.H.478.G.EX.D	96856880	96856881	Y	-		
S2.100.250.2250.4.72H.H.469.G.EX.D	96856882	96856883	Y	-		
S2.100.250.2250.4.72H.H.458.G.EX.D	96856884	96856885	Y	-		
S2.100.300.1750.4.72M.S.441.G.EX.D	95114528	95114529	Y			96782484
S2.100.300.1750.4.72M.S.430.G.EX.D	95114530	95114531	Y			96782484
S2.100.300.1750.4.72M.S.418.G.EX.D	95114532	95114533	Y			96782484
S2.100.300.1750.4.72M.C.441.G.EX.D	95114562	95114563	Y			96782484
S2.100.300.1750.4.72M.C.430.G.EX.D	95114564	95114565	Y			96782484
S2.100.300.1750.4.72M.C.418.G.EX.D	95114566	95114567	Y			96782484
S2.100.300.1750.4.72M.D.441.G.EX.D	95114596	95114597	Y		96256023	
S2.100.300.1750.4.72M.D.430.G.EX.D	95114598	95114599	Y		96256023	
S2.100.300.1750.4.72M.D.418.G.EX.D	95114600	95114601	Y		96256023	
S2.100.300.1750.4.72M.S.441.G.N.D	96856637	96856638	N			96782484
S2.100.300.1750.4.72M.C.441.G.N.D	96856639	96856640	N			96782484
S2.100.300.1750.4.72M.D.441.G.N.D	96856641	96856642	N		96256023	
S2.100.300.1750.4.72M.H.441.G.N.D	96856643	96856644	N	-		
S2.100.300.1750.4.72M.S.430.G.N.D	96856645	96856646	N			96782484
S2.100.300.1750.4.72M.C.430.G.N.D	96856647	96856648	N			96782484
S2.100.300.1750.4.72M.D.430.G.N.D	96856649	96856650	N		96256023	
S2.100.300.1750.4.72M.H.430.G.N.D	96856651	96856652	N	-		
S2.100.300.1750.4.72M.S.418.G.N.D	96856653	96856654	N			96782484
S2.100.300.1750.4.72M.C.418.G.N.D	96856655	96856656	N			96782484
S2.100.300.1750.4.72M.D.418.G.N.D	96856657	96856658	N		96256023	
S2.100.300.1750.4.72M.H.418.G.N.D	96856659	96856660	N	-		
S2.100.300.1750.4.72M.H.441.G.EX.D	96856900	96856901	Y	-		
S2.100.300.1750.4.72M.H.430.G.EX.D	96856902	96856903	Y	-		
S2.100.300.1750.4.72M.H.418.G.EX.D	96856904	96856905	Y	-		
S2.100.300.2250.4.72M.S.466.G.EX.D	95114522	95114523	Y			96782484
S2.100.300.2250.4.72M.S.459.G.EX.D	95114524	95114525	Y			96782484

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S2.100.300.2250.4.72M.S.450.G.EX.D	95114526	95114527	Y			96782484
S2.100.300.2250.4.72M.C.466.G.EX.D	95114556	95114557	Y			96782484
S2.100.300.2250.4.72M.C.459.G.EX.D	95114558	95114559	Y			96782484
S2.100.300.2250.4.72M.C.450.G.EX.D	95114560	95114561	Y			96782484
S2.100.300.2250.4.72M.D.466.G.EX.D	95114590	95114591	Y		96256023	
S2.100.300.2250.4.72M.D.459.G.EX.D	95114592	95114593	Y		96256023	
S2.100.300.2250.4.72M.D.450.G.EX.D	95114594	95114595	Y		96256023	
S2.100.300.2250.4.72M.S.466.G.N.D	96856613	96856614	N			96782484
S2.100.300.2250.4.72M.C.466.G.N.D	96856615	96856616	N			96782484
S2.100.300.2250.4.72M.D.466.G.N.D	96856617	96856618	N		96256023	
S2.100.300.2250.4.72M.H.466.G.N.D	96856619	96856620	N	-		
S2.100.300.2250.4.72M.S.459.G.N.D	96856621	96856622	N			96782484
S2.100.300.2250.4.72M.C.459.G.N.D	96856623	96856624	N			96782484
S2.100.300.2250.4.72M.D.459.G.N.D	96856625	96856626	N		96256023	
S2.100.300.2250.4.72M.H.459.G.N.D	96856627	96856628	N	-		
S2.100.300.2250.4.72M.S.450.G.N.D	96856629	96856630	N			96782484
S2.100.300.2250.4.72M.C.450.G.N.D	96856631	96856632	N			96782484
S2.100.300.2250.4.72M.D.450.G.N.D	96856633	96856634	N		96256023	
S2.100.300.2250.4.72M.H.450.G.N.D	96856635	96856636	N	-		
S2.100.300.2250.4.72M.H.466.G.EX.D	96856894	96856895	Y	-		
S2.100.300.2250.4.72M.H.459.G.EX.D	96856896	96856897	Y	-		
S2.100.300.2250.4.72M.H.450.G.EX.D	96856898	96856899	Y	-		
S3.110.300.1600.8.72H.S.630.G.EX.D	95114692	95114693	Y			96782484
S3.110.300.1600.8.72H.S.610.G.EX.D	95114694	95114695	Y			96782484
S3.110.300.1600.8.72H.C.630.G.EX.D	95114712	95114713	Y			96782484
S3.110.300.1600.8.72H.C.610.G.EX.D	95114714	95114715	Y			96782484
S3.110.300.1600.8.72H.D.630.G.EX.D	95114732	95114733	Y		96256023	
S3.110.300.1600.8.72H.D.610.G.EX.D	95114734	95114735	Y		96256023	
S3.110.300.1600.8.72H.S.630.G.N.D	96856520	96856521	N			96782484
S3.110.300.1600.8.72H.C.630.G.N.D	96856752	96856753	N			96782484
S3.110.300.1600.8.72H.D.630.G.N.D	96856754	96856755	N		96256023	
S3.110.300.1600.8.72H.H.630.G.N.D	96856756	96856757	N	-		
S3.110.300.1600.8.72H.S.610.G.N.D	96856758	96856759	N			96782484
S3.110.300.1600.8.72H.C.610.G.N.D	96856760	96856761	N			96782484
S3.110.300.1600.8.72H.D.610.G.N.D	96856762	96856763	N		96256023	
S3.110.300.1600.8.72H.H.610.G.N.D	96856764	96856765	N	-		
S3.110.300.1600.8.72H.H.630.G.EX.D	96856933	96856934	Y	-		
S3.110.300.1600.8.72H.H.610.G.EX.D	96856935	96856936	Y	-		
S3.110.300.1800.6.72H.S.546.G.EX.D	95114608	95114609	Y			96782484
S3.110.300.1800.6.72H.S.533.G.EX.D	95114610	95114611	Y			96782484
S3.110.300.1800.6.72H.S.518.G.EX.D	95114612	95114613	Y			96782484
S3.110.300.1800.6.72H.S.506.G.EX.D	95114614	95114615	Y			96782484
S3.110.300.1800.6.72H.C.546.G.EX.D	95114626	95114627	Y			96782484
S3.110.300.1800.6.72H.C.533.G.EX.D	95114628	95114629	Y			96782484
S3.110.300.1800.6.72H.C.518.G.EX.D	95114630	95114631	Y			96782484
S3.110.300.1800.6.72H.C.506.G.EX.D	95114632	95114633	Y			96782484
S3.110.300.1800.6.72H.D.546.G.EX.D	95114644	95114645	Y		96256023	
S3.110.300.1800.6.72H.D.533.G.EX.D	95114646	95114647	Y		96256023	
S3.110.300.1800.6.72H.D.518.G.EX.D	95114648	95114649	Y		96256023	
S3.110.300.1800.6.72H.D.506.G.EX.D	95114650	95114651	Y		96256023	
S3.110.300.1800.6.72H.S.546.G.N.D	96856673	96856674	N			96782484
S3.110.300.1800.6.72H.C.546.G.N.D	96856675	96856676	N			96782484
S3.110.300.1800.6.72H.D.546.G.N.D	96856677	96856678	N		96256023	
S3.110.300.1800.6.72H.H.546.G.N.D	96856679	96856680	N	-		
S3.110.300.1800.6.72H.S.533.G.N.D	96856681	96856682	N			96782484
S3.110.300.1800.6.72H.C.533.G.N.D	96856683	96856684	N			96782484
S3.110.300.1800.6.72H.D.533.G.N.D	96856685	96856686	N		96256023	
S3.110.300.1800.6.72H.H.533.G.N.D	96856687	96856688	N	-		

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S3.110.300.1800.6.72H.S.518.G.N.D	96856689	96856690	N			96782484
S3.110.300.1800.6.72H.C.518.G.N.D	96856691	96856692	N			96782484
S3.110.300.1800.6.72H.D.518.G.N.D	96856693	96856694	N		96256023	
S3.110.300.1800.6.72H.H.518.G.N.D	96856695	96856696	N	-		
S3.110.300.1800.6.72H.S.506.G.N.D	96856697	96856698	N			96782484
S3.110.300.1800.6.72H.C.506.G.N.D	96856699	96856700	N			96782484
S3.110.300.1800.6.72H.D.506.G.N.D	96856701	96856702	N		96256023	
S3.110.300.1800.6.72H.H.506.G.N.D	96856703	96856704	N	-		
S3.110.300.1800.6.72H.H.546.G.EX.D	96856912	96856913	Y	-		
S3.110.300.1800.6.72H.H.533.G.EX.D	96856914	96856915	Y	-		
S3.110.300.1800.6.72H.H.518.G.EX.D	96856916	96856917	Y	-		
S3.110.300.1800.6.72H.H.506.G.EX.D	96856918	96856919	Y	-		
S3.120.500.1250.8.72M.S.574.G.EX.D	95114700	95114701	Y			96782485
S3.120.500.1250.8.72M.C.574.G.EX.D	95114720	95114721	Y			96782485
S3.120.500.1250.8.72M.D.574.G.EX.D	95114740	95114741	Y		96256023	
S3.120.500.1250.8.72M.S.574.G.N.D	96856782	96856783	N			96782485
S3.120.500.1250.8.72M.C.574.G.N.D	96856784	96856785	N			96782485
S3.120.500.1250.8.72M.D.574.G.N.D	96856786	96856787	N		96256023	
S3.120.500.1250.8.72M.H.574.G.N.D	96856788	96856789	N	-		
S3.120.500.1250.8.72M.H.574.G.EX.D	96856941	96856942	Y	-		
S3.120.500.1600.8.72M.S.596.G.EX.D	95114696	95114697	Y			96782485
S3.120.500.1600.8.72M.S.584.G.EX.D	95114698	95114699	Y			96782485
S3.120.500.1600.8.72M.C.596.G.EX.D	95114716	95114717	Y			96782485
S3.120.500.1600.8.72M.C.584.G.EX.D	95114718	95114719	Y			96782485
S3.120.500.1600.8.72M.D.596.G.EX.D	95114736	95114737	Y		96256023	
S3.120.500.1600.8.72M.D.584.G.EX.D	95114738	95114739	Y		96256023	
S3.120.500.1600.8.72M.S.596.G.N.D	96856766	96856767	N			96782485
S3.120.500.1600.8.72M.C.596.G.N.D	96856768	96856769	N			96782485
S3.120.500.1600.8.72M.D.596.G.N.D	96856770	96856771	N		96256023	
S3.120.500.1600.8.72M.H.596.G.N.D	96856772	96856773	N	-		
S3.120.500.1600.8.72M.S.584.G.N.D	96856774	96856775	N			96782485
S3.120.500.1600.8.72M.C.584.G.N.D	96856776	96856777	N			96782485
S3.120.500.1600.8.72M.D.584.G.N.D	96856778	96856779	N		96256023	
S3.120.500.1600.8.72M.H.584.G.N.D	96856780	96856781	N	-		
S3.120.500.1600.8.72M.H.596.G.EX.D	96856937	96856938	Y	-		
S3.120.500.1600.8.72M.H.584.G.EX.D	96856939	96856940	Y	-		
S3.120.500.1800.6.72M.S.522.G.EX.D	95114616	95114617	Y			96782485
S3.120.500.1800.6.72M.S.506.G.EX.D	95114618	95114619	Y			96782485
S3.120.500.1800.6.72M.C.522.G.EX.D	95114634	95114635	Y			96782485
S3.120.500.1800.6.72M.C.506.G.EX.D	95114636	95114637	Y			96782485
S3.120.500.1800.6.72M.D.522.G.EX.D	95114652	95114653	Y		96256023	
S3.120.500.1800.6.72M.D.506.G.EX.D	95114654	95114655	Y		96256023	
S3.120.500.1800.6.72M.S.522.G.N.D	96856705	96856706	N			96782485
S3.120.500.1800.6.72M.C.522.G.N.D	96856707	96856708	N			96782485
S3.120.500.1800.6.72M.D.522.G.N.D	96856709	96856710	N		96256023	
S3.120.500.1800.6.72M.H.522.G.N.D	96856711	96856712	N	-		
S3.120.500.1800.6.72M.S.506.G.N.D	96856713	96856714	N			96782485
S3.120.500.1800.6.72M.C.506.G.N.D	96856715	96856716	N			96782485
S3.120.500.1800.6.72M.D.506.G.N.D	96856717	96856718	N		96256023	
S3.120.500.1800.6.72M.H.506.G.N.D	96856719	96856720	N	-		
S3.120.500.1800.6.72M.H.522.G.EX.D	96856920	96856921	Y	-		
S3.120.500.1800.6.72M.H.506.G.EX.D	96856922	96856923	Y	-		
S3.135.500.1250.8.72L.S.567.G.EX.D	95114704	95114705	Y			96782485
S3.135.500.1250.8.72L.S.556.G.EX.D	95114706	95114707	Y			96782485
S3.135.500.1250.8.72L.S.542.G.EX.D	95114708	95114709	Y			96782485
S3.135.500.1250.8.72L.C.567.G.EX.D	95114724	95114725	Y			96782485
S3.135.500.1250.8.72L.C.556.G.EX.D	95114726	95114727	Y			96782485
S3.135.500.1250.8.72L.C.542.G.EX.D	95114728	95114729	Y			96782485

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S3.135.500.1250.8.72L.D.567.G.EX.D	96308011	96308012	Y		96256024	
S3.135.500.1250.8.72L.D.556.G.EX.D	96308013	96308014	Y		96256024	
S3.135.500.1250.8.72L.D.542.G.EX.D	96308015	96308016	Y		96256024	
S3.135.500.1250.8.72L.S.567.G.N.D	96856798	96856799	N			96782485
S3.135.500.1250.8.72L.C.567.G.N.D	96856800	96856801	N			96782485
S3.135.500.1250.8.72L.D.567.G.N.D	96856802	96856803	N		96256024	
S3.135.500.1250.8.72L.H.567.G.N.D	96856804	96856805	N	-		
S3.135.500.1250.8.72L.S.556.G.N.D	96856806	96856807	N			96782485
S3.135.500.1250.8.72L.C.556.G.N.D	96856808	96856809	N			96782485
S3.135.500.1250.8.72L.D.556.G.N.D	96856810	96856811	N		96256024	
S3.135.500.1250.8.72L.H.556.G.N.D	96856812	96856813	N	-		
S3.135.500.1250.8.72L.S.542.G.N.D	96856814	96856815	N			96782485
S3.135.500.1250.8.72L.C.542.G.N.D	96856816	96856817	N			96782485
S3.135.500.1250.8.72L.D.542.G.N.D	96856818	96856819	N		96256024	
S3.135.500.1250.8.72L.H.542.G.N.D	96856820	96856821	N	-		
S3.135.500.1250.8.72L.H.567.G.EX.D	96856945	96856946	Y	-		
S3.135.500.1250.8.72L.H.556.G.EX.D	96856947	96856948	Y	-		
S3.135.500.1250.8.72L.H.542.G.EX.D	96856949	96856950	Y	-		
S3.135.500.1600.8.72L.S.580.G.EX.D	95114702	95114703	Y			96782485
S3.135.500.1600.8.72L.C.580.G.EX.D	95114722	95114723	Y			96782485
S3.135.500.1600.8.72L.D.580.G.EX.D	95114742	95114743	Y		96256024	
S3.135.500.1600.8.72L.S.580.G.N.D	96856790	96856791	N			96782485
S3.135.500.1600.8.72L.C.580.G.N.D	96856792	96856793	N			96782485
S3.135.500.1600.8.72L.D.580.G.N.D	96856794	96856795	N		96256024	
S3.135.500.1600.8.72L.H.580.G.N.D	96856796	96856797	N	-		
S3.135.500.1600.8.72L.H.580.G.EX.D	96856943	96856944	Y	-		
S3.135.500.1800.6.72L.S.500.G.EX.D	95114620	95114621	Y			96782485
S3.135.500.1800.6.72L.S.488.G.EX.D	95114622	95114623	Y			96782485
S3.135.500.1800.6.72L.S.474.G.EX.D	95114624	95114625	Y			96782485
S3.135.500.1800.6.72L.C.500.G.EX.D	95114638	95114639	Y			96782485
S3.135.500.1800.6.72L.C.488.G.EX.D	95114640	95114641	Y			96782485
S3.135.500.1800.6.72L.C.474.G.EX.D	95114642	95114643	Y			96782485
S3.135.500.1800.6.72L.D.500.G.EX.D	95114656	95114657	Y		96256024	
S3.135.500.1800.6.72L.D.488.G.EX.D	95114658	95114659	Y		96256024	
S3.135.500.1800.6.72L.D.474.G.EX.D	95114660	95114661	Y		96256024	
S3.135.500.1800.6.72L.S.500.G.N.D	96856721	96856722	N			96782485
S3.135.500.1800.6.72L.C.500.G.N.D	96856723	96856724	N			96782485
S3.135.500.1800.6.72L.D.500.G.N.D	96856725	96856726	N		96256024	
S3.135.500.1800.6.72L.H.500.G.N.D	96856727	96856728	N	-		
S3.135.500.1800.6.72L.S.488.G.N.D	96856729	96856730	N			96782485
S3.135.500.1800.6.72L.C.488.G.N.D	96856731	96856732	N			96782485
S3.135.500.1800.6.72L.D.488.G.N.D	96856733	96856734	N		96256024	
S3.135.500.1800.6.72L.H.488.G.N.D	96856735	96856736	N	-		
S3.135.500.1800.6.72L.S.474.G.N.D	96856737	96856738	N			96782485
S3.135.500.1800.6.72L.C.474.G.N.D	96856739	96856740	N			96782485
S3.135.500.1800.6.72L.D.474.G.N.D	96856741	96856742	N		96256024	
S3.135.500.1800.6.72L.H.474.G.N.D	96856743	96856744	N	-		
S3.135.500.1800.6.72L.H.500.G.EX.D	96856924	96856925	Y	-		
S3.135.500.1800.6.72L.H.488.G.EX.D	96856926	96856927	Y	-		
S3.135.500.1800.6.72L.H.474.G.EX.D	96856928	96856929	Y	-		
S3.135.600.900.10.72E.S.560.G.EX.D	96308031	96308032	Y			96782486
S3.135.600.900.10.72E.C.560.G.EX.D	96308041	96308042	Y			96782486
S3.135.600.900.10.72E.D.560.G.EX.D	96308051	96308052	Y		96256025	
S3.135.600.900.10.72E.S.560.G.N.D	96856863	96856864	N			96782486
S3.135.600.900.10.72E.C.560.G.N.D	96856865	96856866	N			96782486
S3.135.600.900.10.72E.D.560.G.N.D	96856867	96856868	N		96256025	
S3.135.600.900.10.72E.H.560.G.N.D	96856869	96856870	N	-		
S3.135.600.900.10.72E.H.560.G.EX.D	96856961	96856962	Y	-		

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump			Accessories		
	3 x 380-400/ 660-690 V	3 x 415 V	Explosion- proof	Horizontal base stand ***	To be ordered separately	
					Vertical base stand	Auto-coupling system **
S3.135.600.1100.10.72E.S.606.G.EX.D	96308027	96308028	Y			96782486
S3.135.600.1100.10.72E.S.580.G.EX.D	96308029	96308030	Y			96782486
S3.135.600.1100.10.72E.C.606.G.EX.D	96308037	96308038	Y			96782486
S3.135.600.1100.10.72E.C.580.G.EX.D	96308039	96308040	Y			96782486
S3.135.600.1100.10.72E.D.606.G.EX.D	96308047	96308048	Y		96256025	
S3.135.600.1100.10.72E.D.580.G.EX.D	96308049	96308050	Y		96256025	
S3.135.600.1100.10.72E.S.606.G.N.D	96856847	96856848	N			96782486
S3.135.600.1100.10.72E.C.606.G.N.D	96856849	96856850	N			96782486
S3.135.600.1100.10.72E.D.606.G.N.D	96856851	96856852	N		96256025	
S3.135.600.1100.10.72E.H.606.G.N.D	96856853	96856854	N	-		
S3.135.600.1100.10.72E.S.580.G.N.D	96856855	96856856	N			96782486
S3.135.600.1100.10.72E.C.580.G.N.D	96856857	96856858	N			96782486
S3.135.600.1100.10.72E.D.580.G.N.D	96856859	96856860	N		96256025	
S3.135.600.1100.10.72E.H.580.G.N.D	96856861	96856862	N	-		
S3.135.600.1100.10.72E.H.606.G.EX.D	96856957	96856958	Y	-		
S3.135.600.1100.10.72E.H.580.G.EX.D	96856959	96856960	Y	-		
S3.135.600.1300.10.72E.S.657.G.EX.D	96308023	96308024	Y			96782486
S3.135.600.1300.10.72E.S.635.G.EX.D	96308025	96308026	Y			96782486
S3.135.600.1300.10.72E.C.657.G.EX.D	96308033	96308034	Y			96782486
S3.135.600.1300.10.72E.C.635.G.EX.D	96308035	96308036	Y			96782486
S3.135.600.1300.10.72E.D.657.G.EX.D	96308043	96308044	Y		96256025	
S3.135.600.1300.10.72E.D.635.G.EX.D	96308045	96308046	Y		96256025	
S3.135.600.1300.10.72E.S.657.G.N.D	96856751	96856832	N			96782486
S3.135.600.1300.10.72E.C.657.G.N.D	96856833	96856834	N			96782486
S3.135.600.1300.10.72E.D.657.G.N.D	96856835	96856836	N		96256025	
S3.135.600.1300.10.72E.H.657.G.N.D	96856837	96856838	N	-		
S3.135.600.1300.10.72E.S.635.G.N.D	96856839	96856840	N			96782486
S3.135.600.1300.10.72E.C.635.G.N.D	96856841	96856842	N			96782486
S3.135.600.1300.10.72E.D.635.G.N.D	96856843	96856844	N		96256025	
S3.135.600.1300.10.72E.H.635.G.N.D	96856845	96856846	N	-		
S3.135.600.1300.10.72E.H.657.G.EX.D	96856953	96856954	Y	-		
S3.135.600.1300.10.72E.H.635.G.EX.D	96856955	96856956	Y	-		
S3.135.600.1600.8.72E.S.560.G.EX.D	95114710	95114711	Y			96782486
S3.135.600.1600.8.72E.C.560.G.EX.D	95114730	95114731	Y			96782486
S3.135.600.1600.8.72E.D.560.G.EX.D	96308017	96308018	Y		96256025	
S3.135.600.1600.8.72E.S.560.G.N.D	96856822	96856823	N			96782486
S3.135.600.1600.8.72E.C.560.G.N.D	96856824	96856825	N			96782486
S3.135.600.1600.8.72E.D.560.G.N.D	96856826	96856827	N		96256025	
S3.135.600.1600.8.72E.H.560.G.N.D	96856828	96856829	N	-		
S3.135.600.1600.8.72E.H.560.G.EX.D	96856951	96856952	Y	-		

** Installation type C and S pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

Range 74

Pump type	Pump			Accessories			
	3 x 380-415/ 660-719 V	3 x 380-400/ 660-690 V	3 x 415/ 719 V	Horizontal base stand ***	To be ordered separately		Column installation
					Vertical base stand	Auto-coupling system **	
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			-			
S2.90.300.2500.4.74S.C.506.G.N.D	96980962				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			-			
S2.90.300.3150.4.74S.C.550.G.N.D	96980965				97500267		
S2.100.300.2500.4.74H.D.490.G.N.D	96980969				96256023		
S2.100.300.2500.4.74M.D.483.G.N.D	96980975				96256023		
S2.100.300.2500.4.74H.H.490.G.N.D	96980970			-			
S2.100.300.2500.4.74M.H.483.G.N.D	96980976			-			
S2.100.300.2500.4.74H.C.490.G.N.D	96980968				97500267		
S2.100.300.2500.4.74M.C.483.G.N.D	96980974				96782484		
S2.100.300.3150.4.74H.D.518.G.N.D	96980972				96256023		
S2.100.300.3150.4.74M.D.514.G.N.D	96980978				96256023		
S2.100.300.3150.4.74H.H.518.G.N.D	96980973			-			
S2.100.300.3150.4.74M.H.514.G.N.D	96980979			-			
S2.100.300.3150.4.74H.C.518.G.N.D	96980971				97500267		
S2.100.300.3150.4.74M.C.514.G.N.D	96980977				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			-			
S3.110.300.2000.6.74H.C.549.G.N.D	96980980				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			-			
S3.110.300.2500.6.74H.C.596.G.N.D	96980983				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				96782484
S3.110.300.3150.6.74H.C.620.G.N.D		96980986	96980989				96782484
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			-			
S3.120.500.2000.6.74M.C.531.G.N.D	96980992				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			-			
S3.120.500.2500.6.74M.C.560.G.N.D	96980995				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	-			
S3.120.500.3150.6.74M.C.584.G.N.D		96980998	96981001		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			-			
S3.135.500.2000.6.74L.C.513.G.N.D	96981004				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			-			
S3.135.500.2500.6.74L.C.550.G.N.D	96981007				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	-			
S3.135.500.3150.6.74L.C.576.G.N.D		96981010	96981013		96782485		
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			-			
S3.135.600.2000.8.74E.C.616.G.N.D	96981016				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			-			
S3.135.600.2500.8.74E.C.664.G.N.D	96981019				96782486		
ST3.135.1200.2000.8.74E.S.610.G.N.D	96981022						97500988
ST3.135.1200.2500.8.74E.S.650.G.N.D	96981023						97500988

** Installation type C pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

Range 78

Pump type	Pump					Accessories		
	3 x 380-415/ 660-719 V	3 x 380-400/ 660-690 V	3 x 415/ 719 V	3 x 400-415/ 690-719 V	3 x 380/ 660 V	To be ordered separately		Column installation
						Horizontal base stand ***	Vertical base stand Auto-coupling system **	
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					-		
S3.115.500.3150.8.78H.C.778.G.N.D	96981028						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					-		
S3.115.500.3500.8.78H.C.824.G.N.D	96981031						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					-		
S3.115.500.4000.8.78H.C.860.G.N.D	96981044						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					-		
S3.115.500.4500.8.78H.C.883.G.N.D	96981047						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					-		
S3.115.500.5000.8.78H.C.902.G.N.D	96981050						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	-		
S3.115.500.5200.8.78H.C.913.G.N.D				96981056	96981053		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					-		
S3.130.500.2500.10.78M.C.814.G.N.D	96981080						96782485	
S3.130.500.3150.8.78M.D.744.G.N.D	96981060						97500283	
S3.130.500.3150.10.78M.D.856.G.N.D	96981084						97500283	
S3.130.500.3150.8.78M.H.744.G.N.D	96981061					-		
S3.130.500.3150.10.78M.H.856.G.N.D	96981085					-		
S3.130.500.3150.8.78M.C.744.G.N.D	96981059						96782485	
S3.130.500.3150.10.78M.C.856.G.N.D	96981083						96782485	
S3.130.500.3500.8.78M.D.758.G.N.D	96981063						97500283	
S3.130.500.3500.10.78M.D.886.G.N.D	96981087						97500283	
S3.130.500.3500.8.78M.H.758.G.N.D	96981064					-		
S3.130.500.3500.10.78M.H.886.G.N.D	96981088					-		
S3.130.500.3500.8.78M.C.758.G.N.D	96981062						96782485	
S3.130.500.3500.10.78M.C.886.G.N.D	96981086						96782485	
S3.130.500.4000.8.78M.D.776.G.N.D	96981066						97500283	
S3.130.500.4000.10.78M.D.936.G.N.D		96981090	96981093				97500283	
S3.130.500.4000.8.78M.H.776.G.N.D	96981067					-		
S3.130.500.4000.10.78M.H.936.G.N.D		96981091	96981094			-		
S3.130.500.4000.8.78M.C.776.G.N.D	96981065						96782485	
S3.130.500.4000.10.78M.C.936.G.N.D		96981089	96981092				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					-		
S3.130.500.4500.8.78M.C.792.G.N.D	96981068						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					-		
S3.130.500.5000.8.78M.C.808.G.N.D	96981071						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	-		
S3.130.500.5200.8.78M.C.822.G.N.D				96981077	96981074		96782485	
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					-		
S3.145.500.1600.10.78L.C.717.G.N.D	96981116						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					-		
S3.145.500.2000.10.78L.C.760.G.N.D	96981119						96782485	
S3.145.500.2500.10.78L.D.806.G.N.D	96981123						97500283	

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump					Accessories			
	3 x 380-415/660-719 V	3 x 380-400/660-690 V	3 x 415/719 V	3 x 400-415/690-719 V	3 x 380/660 V	Horizontal base stand ***	To be ordered separately		Column installation
							Vertical base stand	Auto-coupling system **	
S3.145.500.2500.10.78L.H.806.G.N.D	96981124					-			
S3.145.500.2500.10.78L.C.806.G.N.D	96981122							96782485	
S3.145.500.3150.8.78L.D.717.G.N.D	96981096						97500283		
S3.145.500.3150.10.78L.D.858.G.N.D	96981126						97500283		
S3.145.500.3150.8.78L.H.717.G.N.D	96981097					-			
S3.145.500.3150.10.78L.H.858.G.N.D	96981127					-			
S3.145.500.3150.8.78L.C.717.G.N.D	96981095							96782485	
S3.145.500.3150.10.78L.C.858.G.N.D	96981125							96782485	
S3.145.500.3500.8.78L.D.736.G.N.D	96981099						97500283		
S3.145.500.3500.10.78L.D.878.G.N.D	96981129						97500283		
S3.145.500.3500.8.78L.H.736.G.N.D	96981100					-			
S3.145.500.3500.10.78L.H.878.G.N.D	96981130					-			
S3.145.500.3500.8.78L.C.736.G.N.D	96981098							96782485	
S3.145.500.3500.10.78L.C.878.G.N.D	96981128							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					-			
S3.145.500.4000.8.78L.C.774.G.N.D	96981101							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					-			
S3.145.500.4500.8.78L.C.812.G.N.D	96981104							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					-			
S3.145.500.5000.8.78L.C.832.G.N.D	96981107							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	-			
S3.145.500.5200.8.78L.C.844.G.N.D				96981113	96981110			96782485	
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					-			
S4.135.600.1300.12.78E.C.746.G.N.D	96981161							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					-			
S4.135.600.1600.12.78E.C.792.G.N.D	96981164							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					-			
S4.135.600.2000.10.78E.C.724.G.N.D	96981152							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					-			
S4.135.600.2500.10.78E.C.770.G.N.D	96981155							96782486	
S4.135.600.3150.8.78E.D.662.G.N.D	96981132						97500287		
S4.135.600.3150.10.78E.D.815.G.N.D	96981159						97500287		
S4.135.600.3150.8.78E.H.662.G.N.D	96981133					-			
S4.135.600.3150.10.78E.H.815.G.N.D	96981160					-			
S4.135.600.3150.8.78E.C.662.G.N.D	96981131							96782486	
S4.135.600.3150.10.78E.C.815.G.N.D	96981158							96782486	
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					-			
S4.135.600.3500.8.78E.C.700.G.N.D	96981134							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					-			
S4.135.600.4000.8.78E.C.720.G.N.D	96981137							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					-			
S4.135.600.4500.8.78E.C.750.G.N.D	96981140							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					-			
S4.135.600.5000.8.78E.C.779.G.N.D	96981143							96782486	

Product range

S pumps, ranges 72, 74, 78

Pump type	Pump					Accessories		
	3 x 380-415/660-719 V	3 x 380-400/660-690 V	3 x 415/719 V	3 x 400-415/690-719 V	3 x 380/660 V	Horizontal base stand ***	To be ordered separately Vertical base stand Auto-coupling system **	Column installation
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	-		
S4.135.600.5200.8.78E.C.788.G.N.D				96981149	96981146		96782486	
ST4.135.1400.3150.8.78E.S.662.G.N.D	96981167							97500989
ST4.135.1400.3500.8.78E.S.700.G.N.D	96981168							97500989
ST4.135.1400.4000.8.78E.S.720.G.N.D	96981169							97500989
ST4.135.1400.4500.8.78E.S.750.G.N.D	96981170							97500989
ST4.135.1400.5000.8.78E.S.779.G.N.D	96981171							97500989
ST4.135.1400.5200.8.78E.S.788.G.N.D					96981172			97500989
ST4.135.1400.5200.8.78E.S.788.G.N.D				96981173				97500989
ST4.135.1400.2000.10.78E.S.724.G.N.D	96981174							97500989
ST4.135.1400.2500.10.78E.S.770.G.N.D	96981175							97500989
ST4.135.1400.3150.10.78E.S.815.G.N.D	96981176							97500989
ST4.135.1400.1300.12.78E.S.746.G.N.D	96981177							97500989
ST4.135.1400.1600.12.78E.S.792.G.N.D	96981178							97500989

** Installation type C pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

List of variants

Motor

Various cable lengths according to customer specifications	
EMC power cables according to customer specifications	Screened power cables for variable speed drives
SM 111 built into the junction box, sensor version B	
Vibration sensor in the terminal compartment	
Pt100 sensors in all three windings	
Special motor	Insulation class H
	Special voltage
	Reinforced insulation for frequency converter operation (motors above 500 V)
	Ex e approval (increased safety) for ranges 74 and 78
PTC thermistors in windings	
Special oil	
Non-toxic Shell Ondina 917	
Insulated upper bearing for VSD use (only for range 74 and 78 with motor > IEC 280)	

Materials

Stainless steel lifting bracket	AISI 316
Stainless steel shaft	

Impeller

Duty point specific impeller	
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Coating

Paint	300 my
	450 my
Belzona coating (1321 ceramic-S metal)	Impeller
	Volute
	Suction cover

Tests

Test at specified duty on standard impeller curve	
Trimmed impeller for specified duty test	
Additional test of entire QH curve (including report)	5-10 points on the pump performance curve (Q/H)
ISO 9906 standard according to	grade 1 tolerances
	grade 2 tolerances
Vibration test (incl. report)	According to Grundfos factory quality standard
Performance test on dry test stand	Not yet available
NPSHr test	Not yet available
String test	Contact Grundfos
Witness test	Contact Grundfos

Miscellaneous

Special packaging	Contact Grundfos
Special nameplate	Contact Grundfos
Other variants	Contact Grundfos

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

Sectional drawings, motors

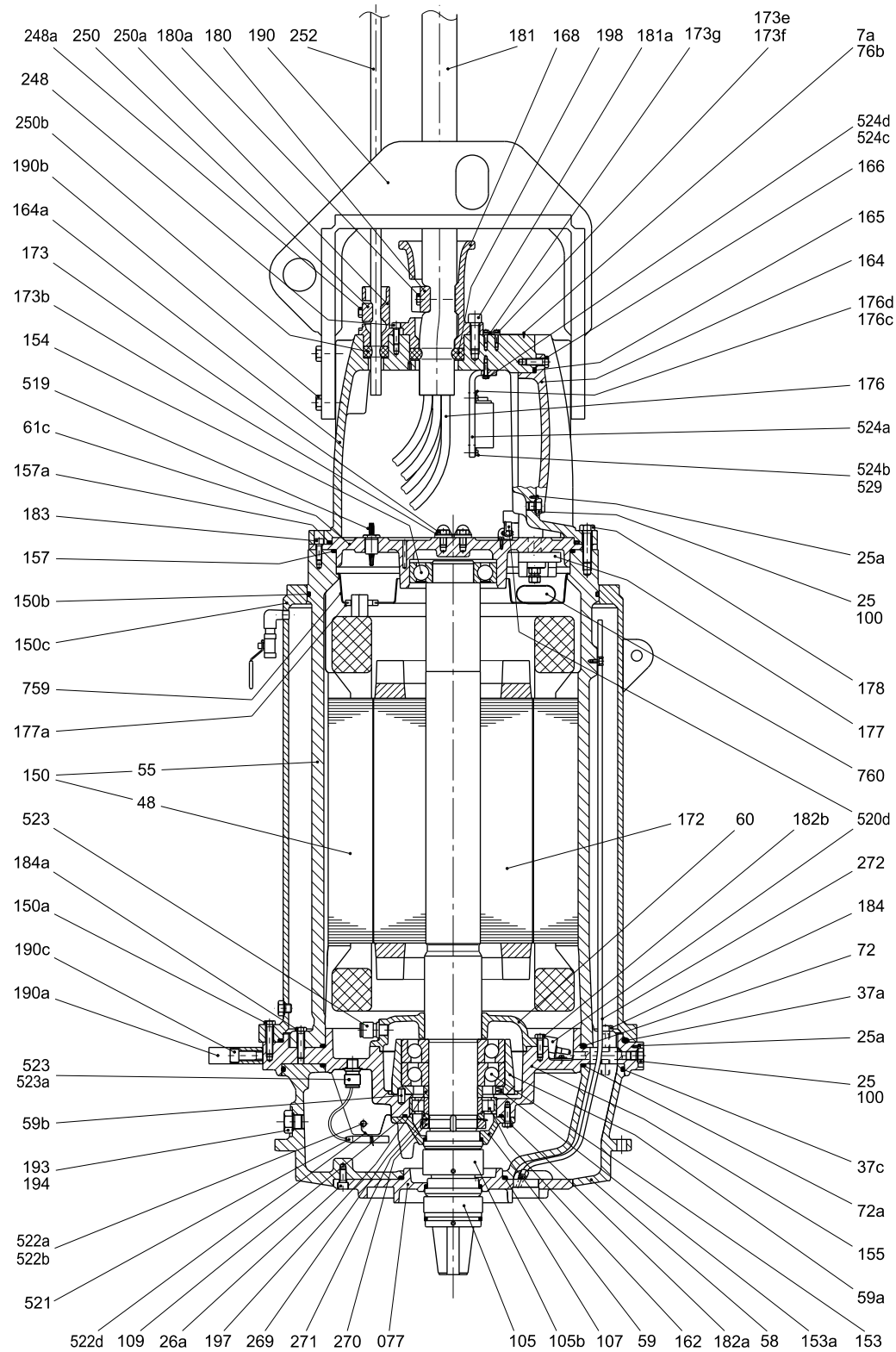


Fig. 3 Range 72 with cooling jacket

TM04 6473 0410

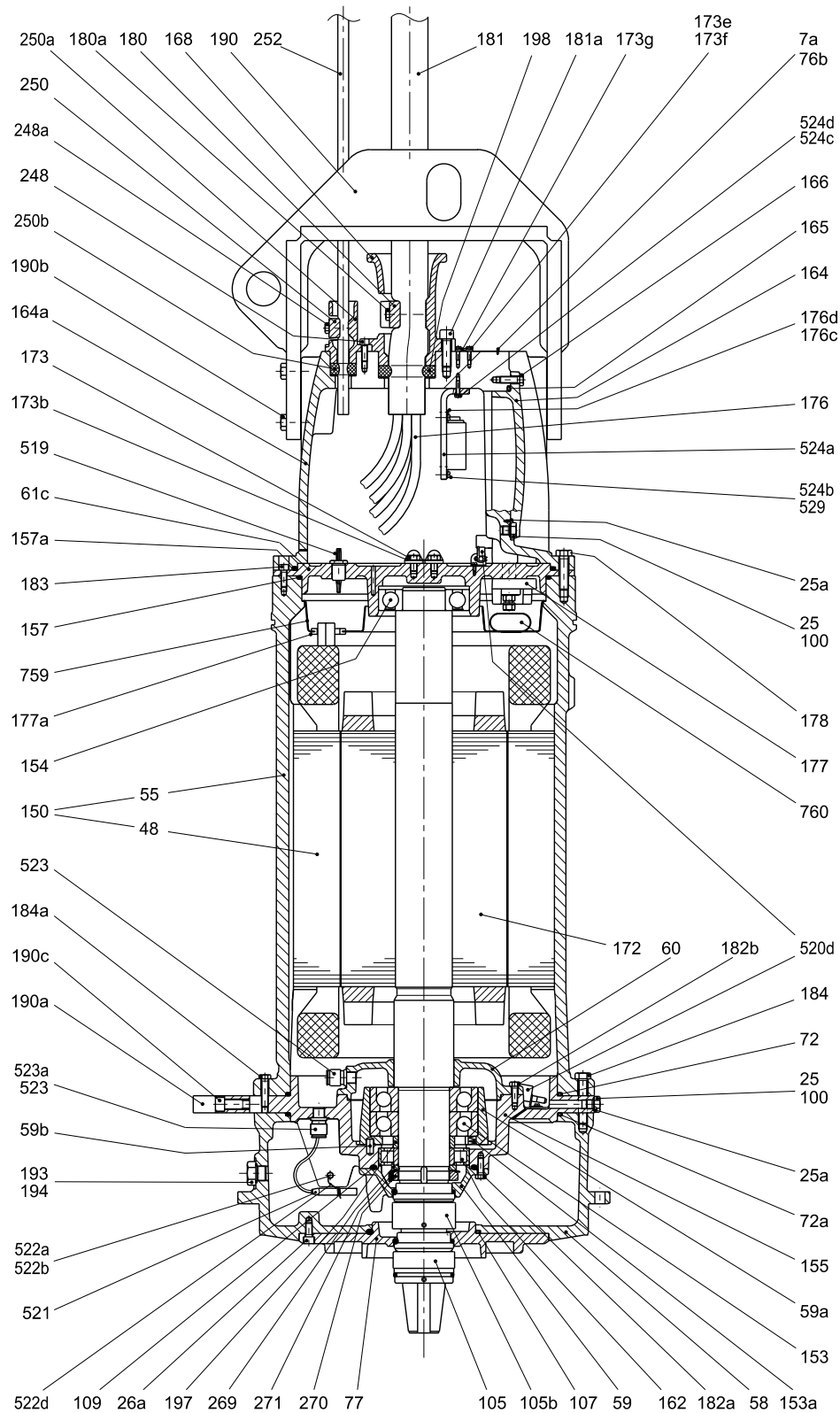


Fig. 4 Range 72 without cooling jacket

TM04 6474 0410

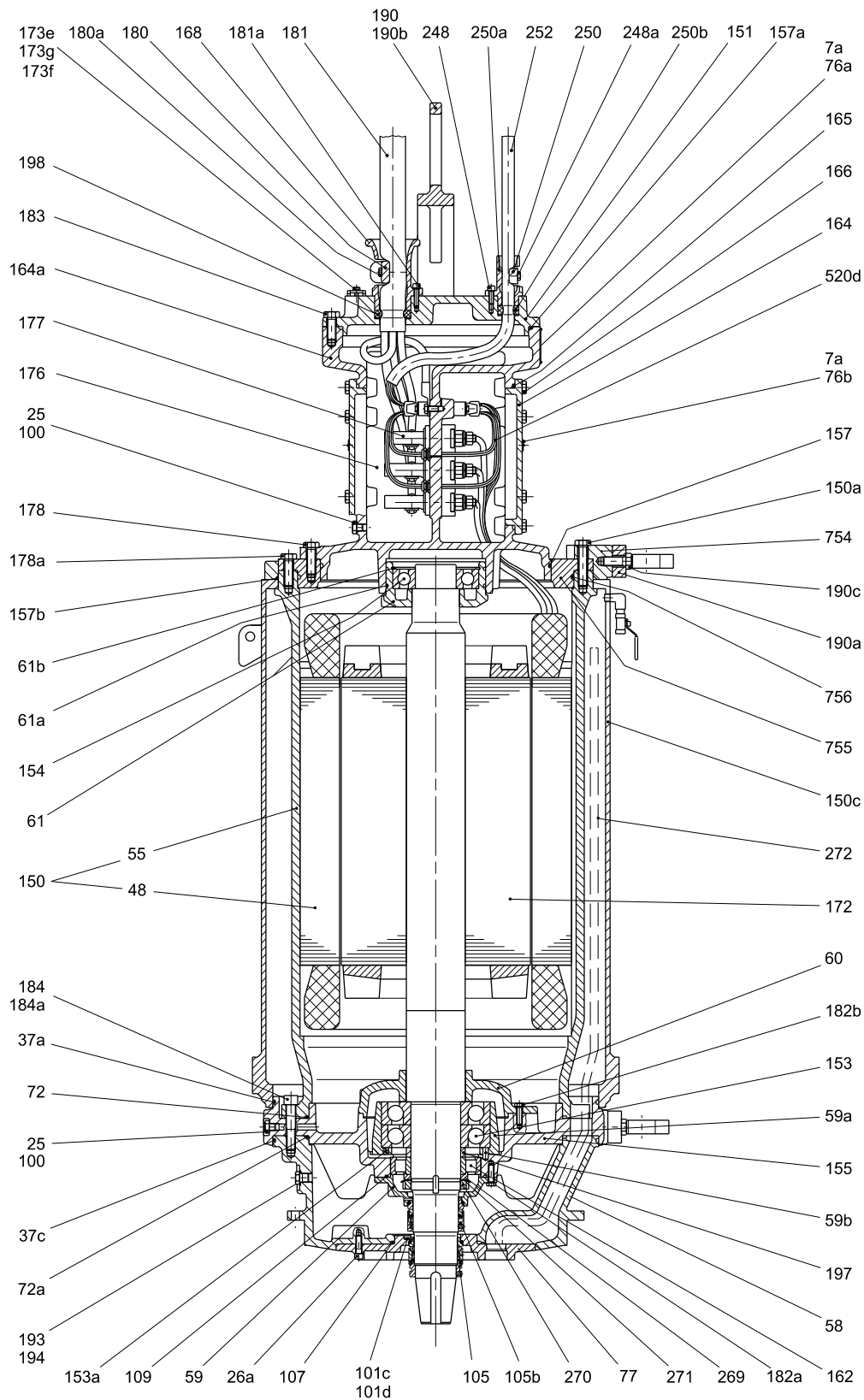


Fig. 5 Range 74 with cooling jacket

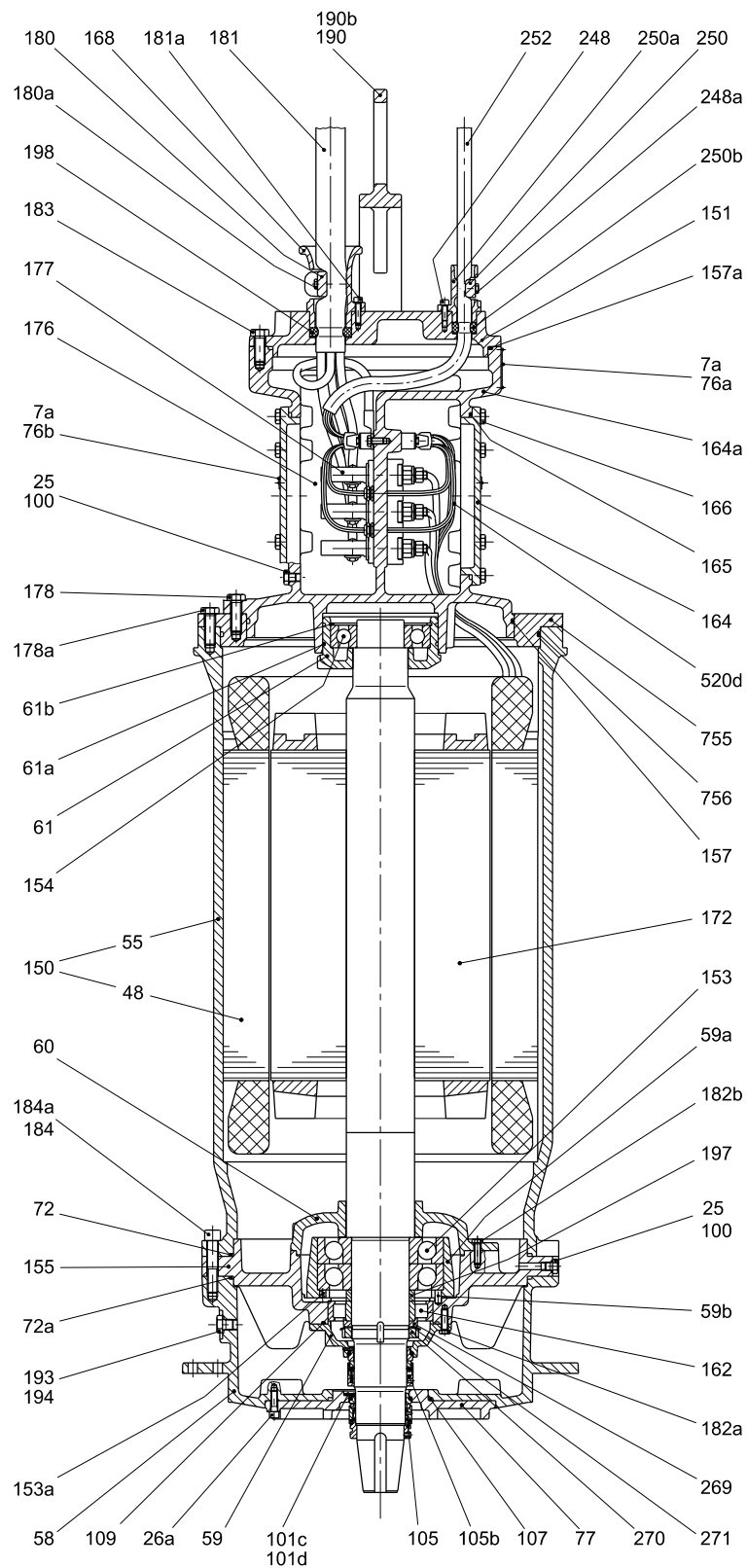
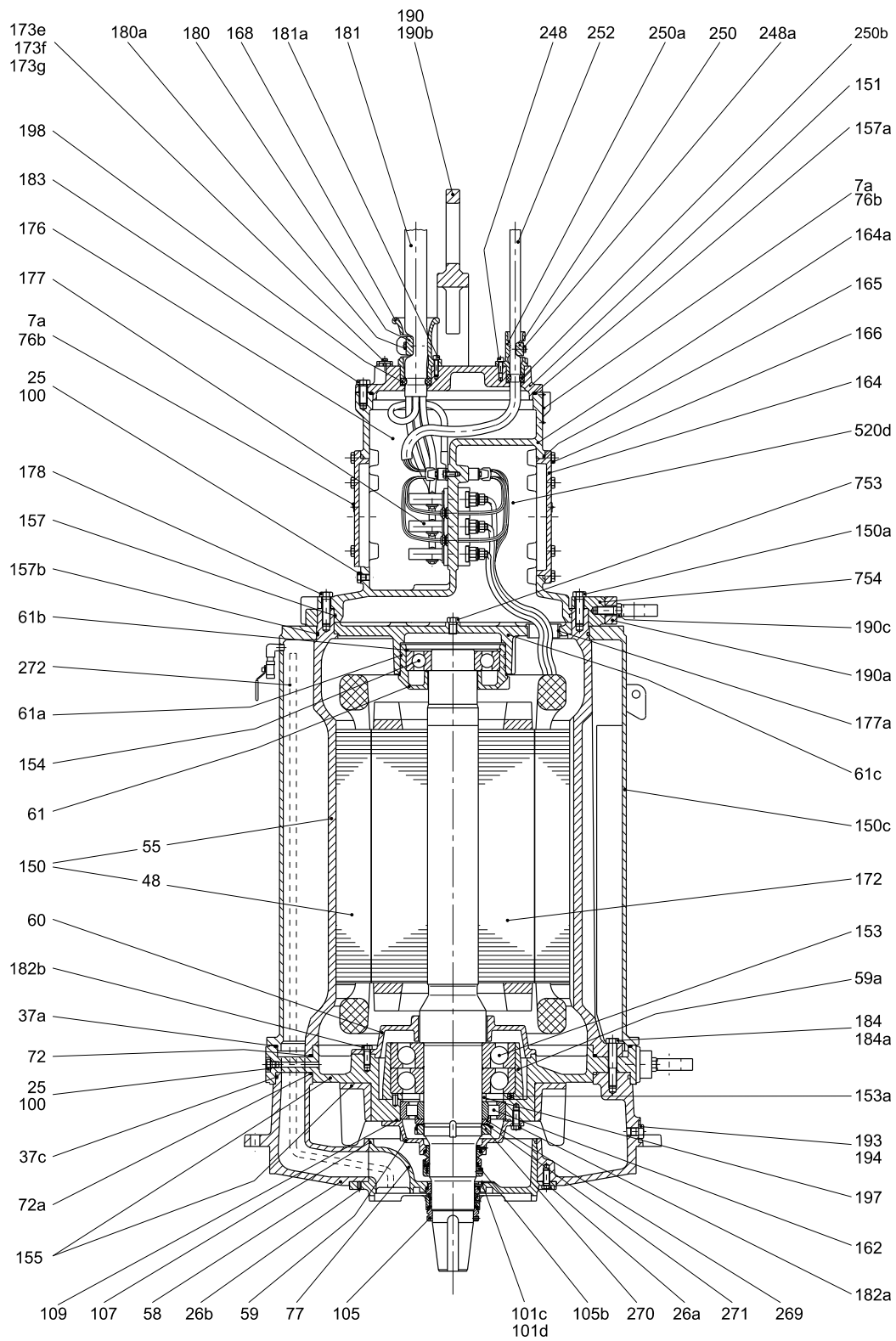


Fig. 6 Range 74 for column pipe installation

TM04 6699 0710



TM04 6700 0710

Fig. 7 Range 78 with cooling jacket

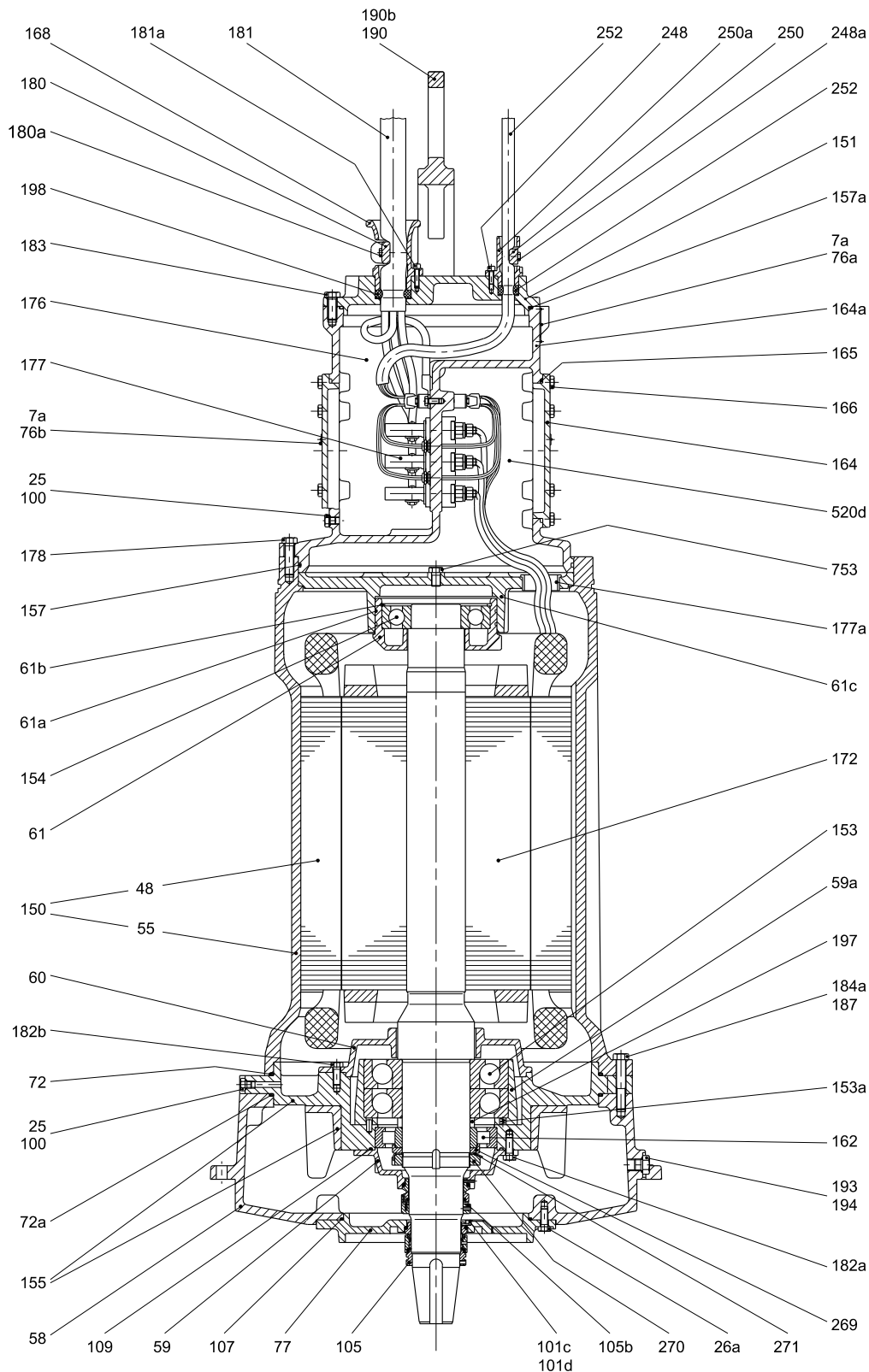


Fig. 8 Range 78 for column pipe installation

TM04 6701 0710

Sectional drawings, pumps

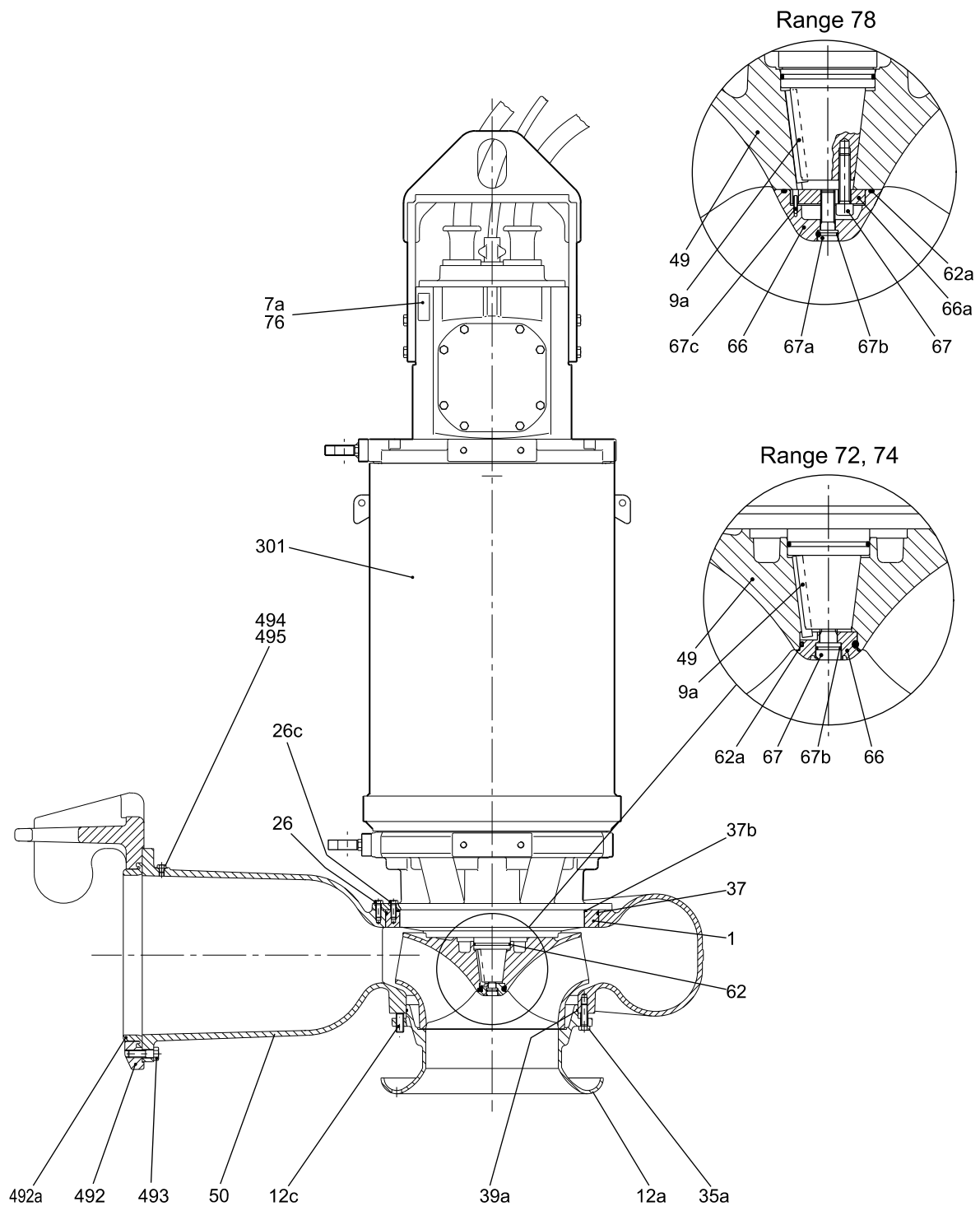


Fig. 9 Ranges 72, 74 and 78 with guide claw for auto coupling

TM04 6063 4909

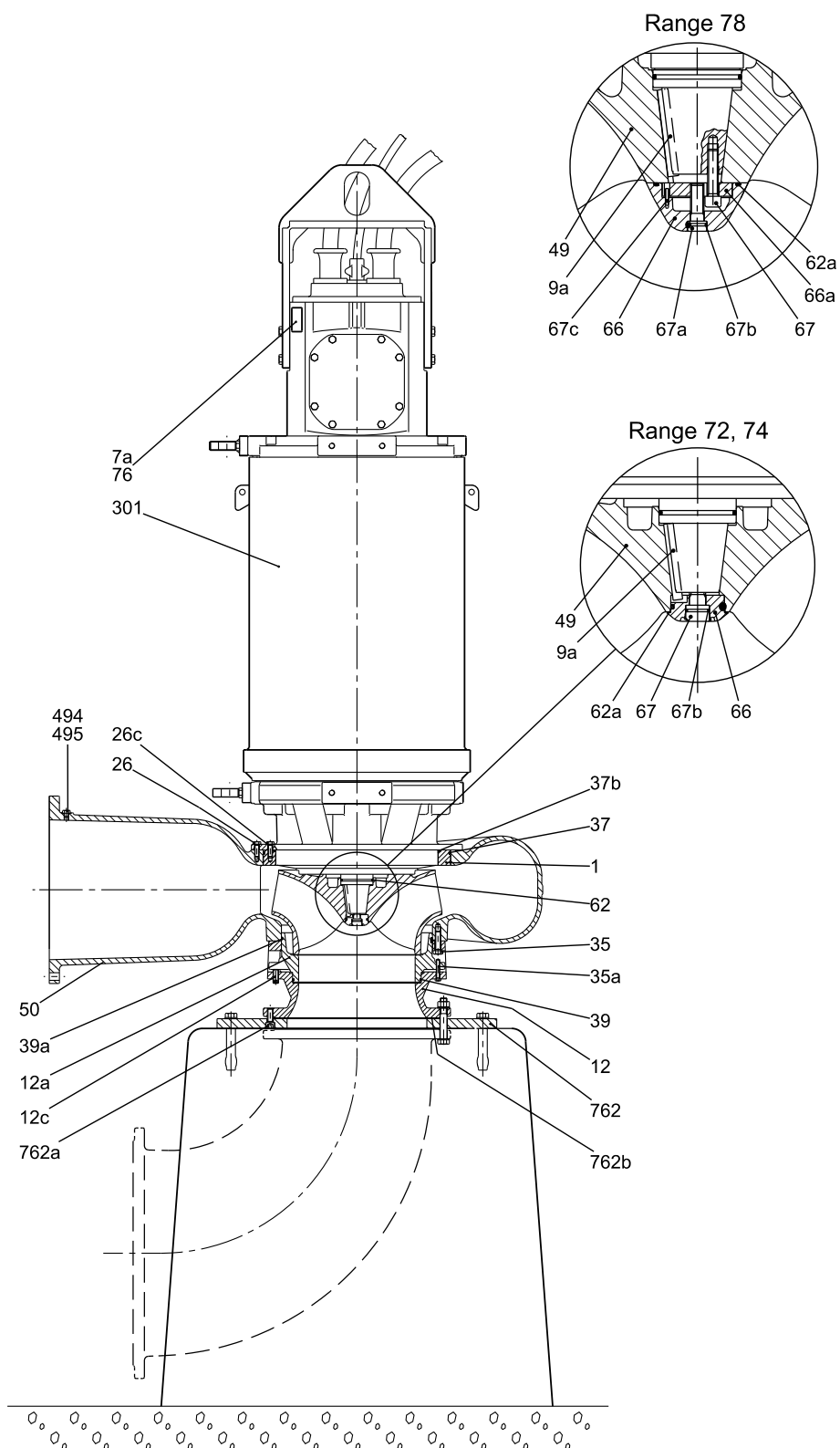
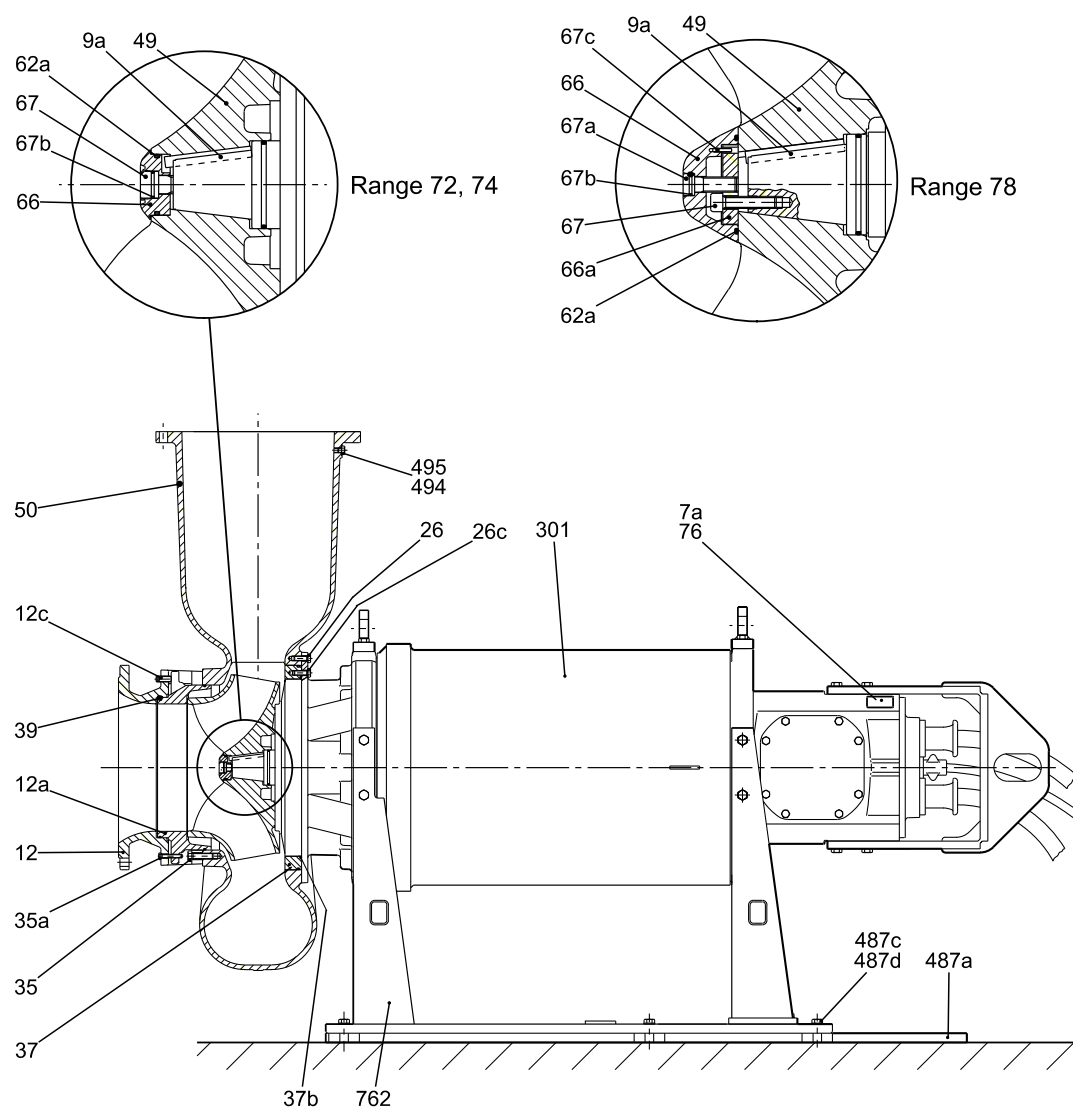


Fig. 10 Ranges 72, 74 vertical dry installation

TM04 6065 4909



TM04 6064 4909

Fig. 11 Ranges 72, 74 and 78, horizontal dry installation

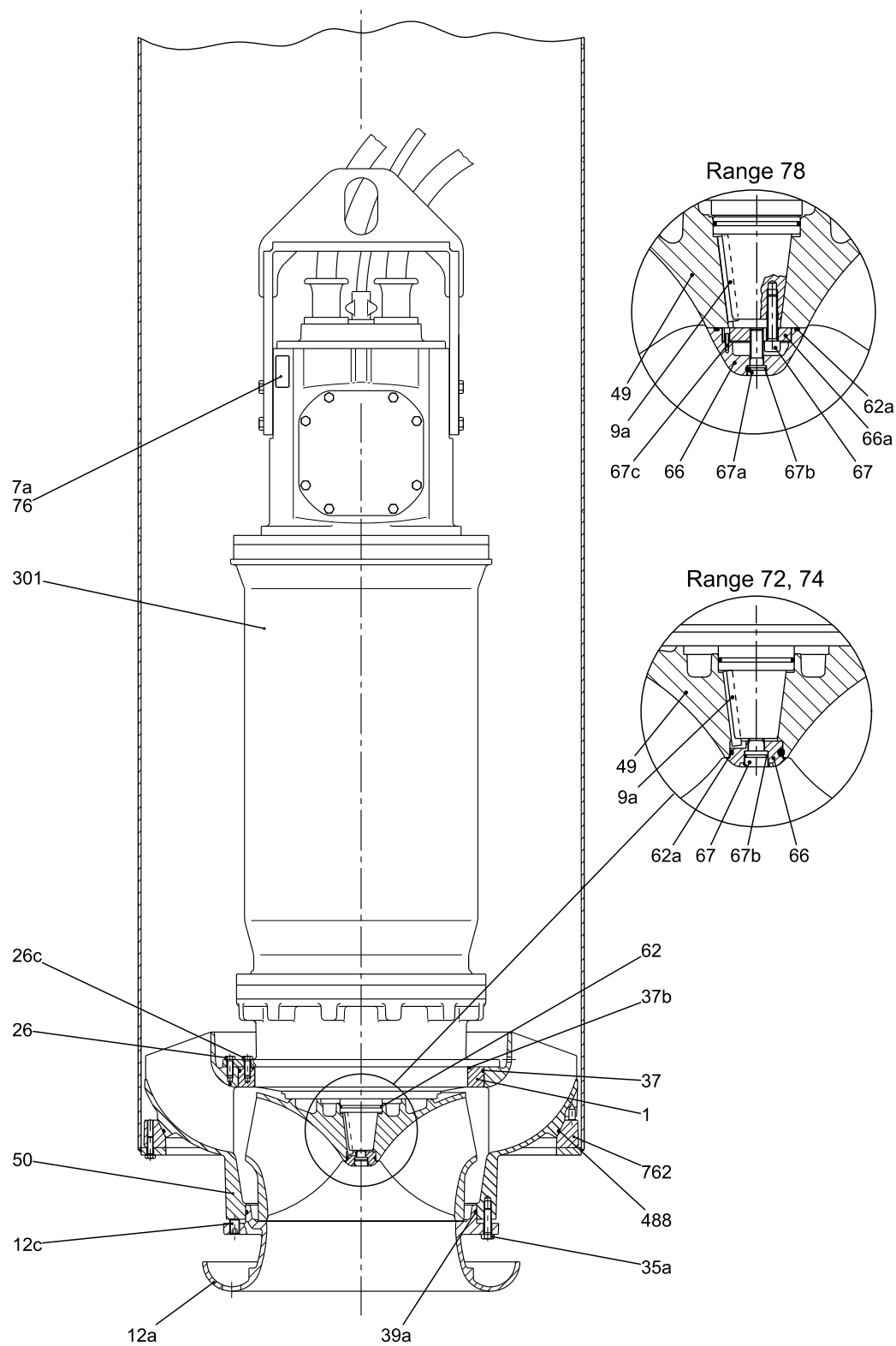


Fig. 12 Multi-channel impeller pump installed in a column pipe

TM04 6066 4909

Components and material specification

Motor

Pos.	Component	Material
7a	Rivet	Stainless steel
25	Pressure test plug	Stainless steel
25a	Screw	Stainless steel
26a	Screw	Stainless steel
26b	Screw	Stainless steel
37a	O-ring	NBR rubber
37c	O-ring	NBR rubber
48	Stator lamination	
55	Stator housing	Cast iron
58	Seal housing	Cast iron
59	Bearing bracket cover	Cast iron
59a	Locking ring	Aluminium
59b	Pin	Steel
60	Bearing bracket cover	Cast iron
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	Stainless steel
76b	Warning plate	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
150a	Screw	Stainless steel
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
168	Cable entry	Cast iron
172	Shaft with rotor	Tempered steel
173	Screw	Steel
173b	Earth terminal	Steel
173c	Washer	Steel

Pos.	Component	Material
173e	Screw	Stainless steel
173f	Spring washer	Stainless steel
173g	Earth connector	Steel
176	Connector set	
176a	Terminal block	
176b	Screw	Stainless steel
176c	Terminal block	
176d	Screw	Steel
177	Connection parts	
177a	Protection sleeve	Rubber or plastic
178	Screw	Stainless steel
178a	Screw	Stainless steel
180	Cable clamp	Cast iron
180a	Scw	Stainless steel
181	Cable	Copper, EPR-insulated
181a	Screw	Stainless steel
182a	Screw	Stainless steel
182b	Screw	Stainless steel
183	Screw	Stainless steel
184	Screw	Stainless steel
184a	Screw	Stainless steel
190	Lifting bracket	Galvanized steel
190a	Lifting bracket	Galvanized steel
190b	Scw	Stainless steel
190c	Scw	Stainless steel
193	Plug	Stainless steel
194	O-ring	NBR rubber
197	Washer	Steel
198	Rubber seal	Neoprene rubber
248	Screw	Stainless steel
248a	Scw	Stainless steel
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	
519	Conductor bushing	
520d	Protection sensors	
521	Water-in-oil sensor	
522a	Screw	Steel
522b	Washer	Steel
522d	Pipe retaining clips	Steel
523	Cable gland	Steel / rubber
523a	O-ring	NBR rubber
524a	Bracket for SM111	Aluminium

Pos.	Component	Material
524b	Screw	Steel
524c	Screw	Steel
524d	Spring washer	Steel
529	SM111	
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

Pump

Pos.	Component	Material
1	Intermediate ring	Cast iron
7a	Rivet	Stainless steel
9a	Key (for keyway)	Steel
12	Flange	Cast iron
12a	Suction cover	Cast iron
12c	Adjusting screw	Stainless steel
26	Screw	Stainless steel
26c	Screw	Stainless steel
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	Cast iron
**50	Volute casing	Cast iron
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	
487a	Base plate	Steel
487c	Screw	Stainless steel
487d	Washer	Steel
488	O-ring	NBR rubber
492	Guide claw	Cast iron
492a	Rubber seal	Neoprene rubber
493	Screw	Stainless steel
494	Plug	Stainless steel
495	O-ring	NBR rubber
762a	Screw	Stainless steel
762b	Flange seal	

Accessories

Pos.	Component	Material
701	Auto-coupling base unit	Cast iron or galvanized steel
**702	Upper guide rail bracket	Cast iron or stainless steel
703	Guide claw	Cast iron
749	Bend	Cast iron
762	Base plate	Cast iron or steel

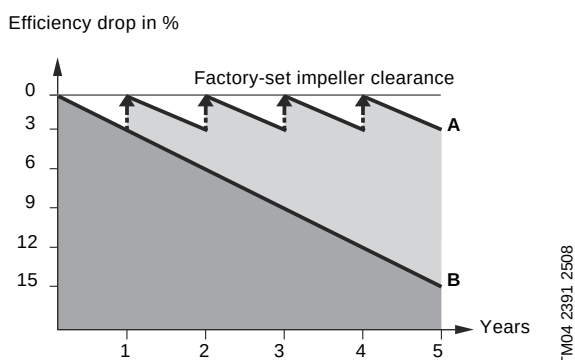
** Available of stainless steel (custom-built option).

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 pipework 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.



A: With Grundfos SmartTrim impeller clearance adjustment system

B: Without impeller clearance adjustment system

SmartSeal

The Grundfos SmartSeal auto-coupling gasket mounted on the pump discharge 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).
Range 74 and 78: Class B (maximum 80 K).
- Enclosure class: IP68.

For motor protection and sensors, see *Sensors* below.

Power cables

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

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

- Maximum conductor temperature: + 90 °C.
- Maximum ambient temperature: + 40 °C.
- Minimum ambient temperature: - 20 °C.
- Conductor: Stranded plain copper conductor class 5 (IEC 60228).
- Insulation: Extruded EP-rubber.
- Sheat: Extruded black rubber (EPDM).
- Marking: 4-conductor: Green/yellow, brown, black, grey.
Multi-core: Green/yellow, number 1, 2, 3.

Control cables

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

Standard cable

2 or 4 power cables (see specific wiring diagram)			
Cable conductor x size	D Diameter min - max	Weight	Minimum bending radius
[N x mm ²]	[mm]	[kg/m]	
4 x 70	42.7 - 45.4	4.3	6 x D
4 x 95	52.0 - 56.0	5.7	6 x D
4 x 120	57.0 - 61.0	6.9	6 x D
4 x 150	64.0 - 69.0	8.7	6 x D
4 x 185	70.0 - 75.0	10.5	6 x D

1 control cable (see specific wiring diagram)			
Cable Cores x size	D Diameter min - max	Weight	Minimum bending radius
[N x mm ²]	[mm]	[kg/m]	
10 x 1.5	18.0 - 20.0	0.5	6 x D

EMC power cable

Cable [mm ²]	Outer cable diameter min - max	Bending radius
	[mm]	[cm]
3 x 70 + 3G35/3	38.7 - 41.7	10 x D
3 x 120/70	57.0 - 61.0	10 x D
3 x 185/95	70.0 - 75.0	10 x D

EMC control cable

Cable [mm ²]	Outer cable diameter min - max	Bending radius
	[mm]	[cm]
18 x 1.5	24.0 - 27.0	10 x D

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

Range 72			
Motor power [kW]	Pole	Voltage [V]	Cable
90	10	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	10	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
125	8	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
130	10	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
160	8	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
175	4	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
180	6	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
225	4	3 x 415 V 3 x 380-400/660-690 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²

Range 74			
Motor power [kW]	Pole	Voltage [V]	Cable
200	6/8	3 x 380-415/660-719 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
250	4/6/8	3 x 380-415/660-719 V	4 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
315	6	3 x 415/719 V 3 x 380-400/660-690 V	4 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
	4	3 x 380-415/660-719 V	

Range 78			
Motor power [kW]	Pole	Voltage [V]	Cable
130	12	3 x 380-415/660-719 V	2 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
160	10 12	3 x 380-415/660-719 V	2 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
200	10	3 x 380-415/660-719 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
250	10	3 x 380-415/660-719 V	4 x 4 x 70 mm ² + 1 x 10 x 1.5 mm ²
315	8	3 x 380-415/660-719 V	4 x 4 x 95 mm ² + 1 x 10 x 1.5 mm ²
	10	3 x 380-415/660-719 V	
350	8 10	3 x 380-415/660-719 V	2 x 4 x 120 mm ² + 1 x 10 x 1.5 mm ²
400	10	3 x 415/719 V 3 x 380-400/660-690 V	4 x 4 x 150 mm ² + 1 x 10 x 1.5 mm ²
	8	3 x 380-415/660-719 V	
450	8	3 x 380-415/660-719 V	
500	8	3 x 380-415/660-719 V	
		3 x 380/660 V	4 x 4 x 185 mm ² +
520	8	3 x 400-415/690-719 V	1 x 10 x 1.5 mm ²

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.
- One moisture switch in terminal box and 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 the oil level is so low that the sensor is in the air (alarm). The sensor is fitted in a stainless steel tube for mechanical protection.

The WIO sensor is connected to the Grundfos IO 111 module.

- Main and support bearing temperature sensors.
- One PT100 sensor in the winding.

Customised sensor options

- PVS 3 (pump vibration sensor)
The vibration sensor monitors the vibration level of the pump. A change in the vibration level indicates an abnormal situation. The cause of this can be a clogged impeller, worn bearings, closed discharge valve, etc., indicating that service inspection should be carried out now in order to protect the pump or the pipe system 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, Annex A. 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 *List of variants* on page 18.

Operating conditions

Pumps without cooling jacket in submerged installation - only range 72

- Continuous operation when the pump is fully submerged to the top of motor with max. 15 starts per hour.
- Short periods of operation with water level down to the middle of 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

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

Pumped liquids

pH value: 4-10

Liquid temperature: 0 °C - +40 °C

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

Motor range

Range 72	
Shaft power [kW]	Number of poles
90	10
110	10
125	8
130	10
160	8
175	4
180	6
225	4

Range 74	
Shaft power [kW]	Number of poles
200	6
	8
	4
250	6
	8
315	4
	6

Range 78	
Motor power [kW]	Number of poles
130	12
	14
	10
160	12
	14
200	10
	12
	14
250	10
	12
315	8
	10
350	8
	10
	8
400	10
	8
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.

Range 72

Use explosion-proof pumps in potentially explosive environments. The explosion protection classification of the pumps is Ex II 2 G Ex bcd IIB T3. The Ex II 2 G Ex bcd IIB T4 protection classification is available on request. Operation of the pump via a frequency converter requires temperature class T3. All installations must be approved by the local authorities.

Ranges 74 and 78

Most of the pumps are available as explosion-proof versions please contact Grundfos. The specific type of protection is "e"(increased safety).

Wiring diagrams

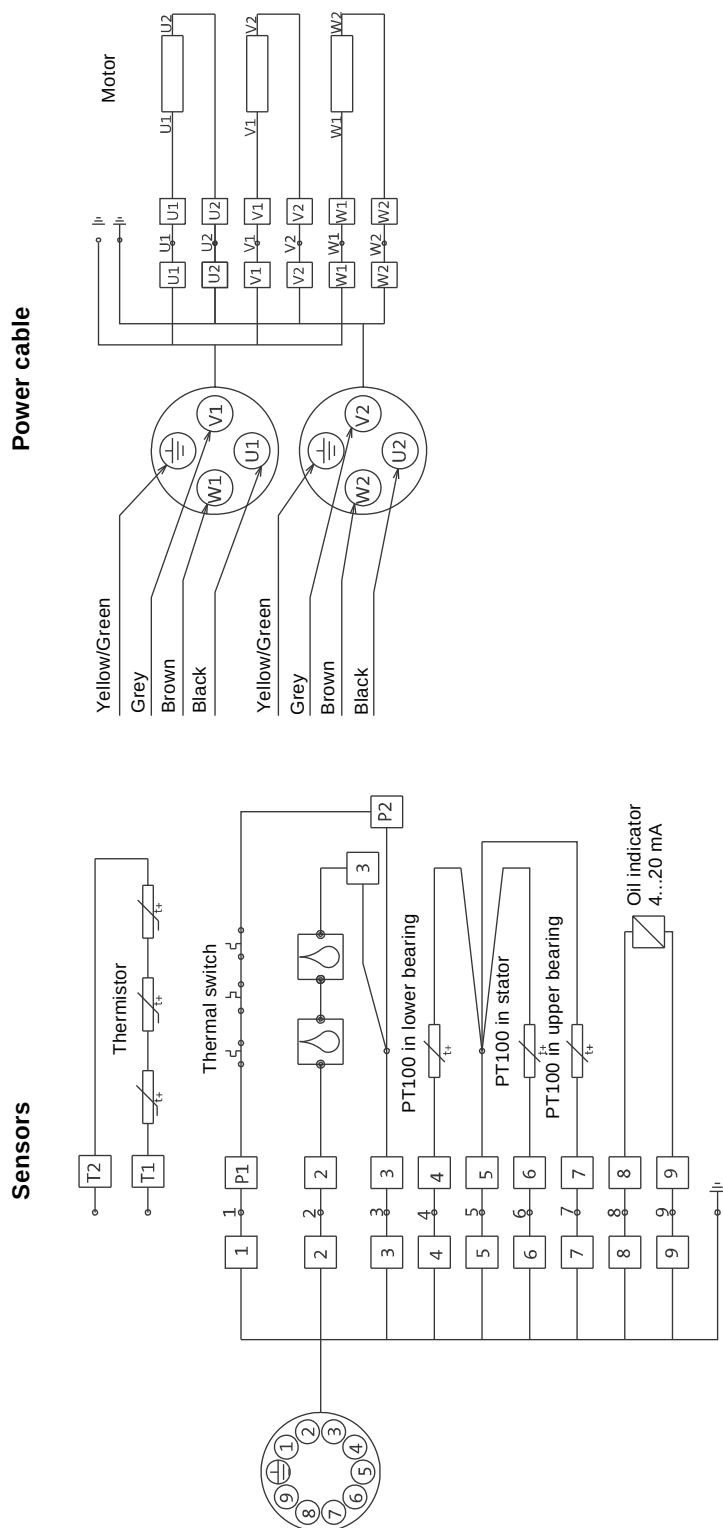


Fig. 13 Wiring diagram, pumps with two power cables

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The following many pages are divided into sections.

On pages 36 and 37, a brief explanation of how to read the curve charts, the curve conditions, etc.

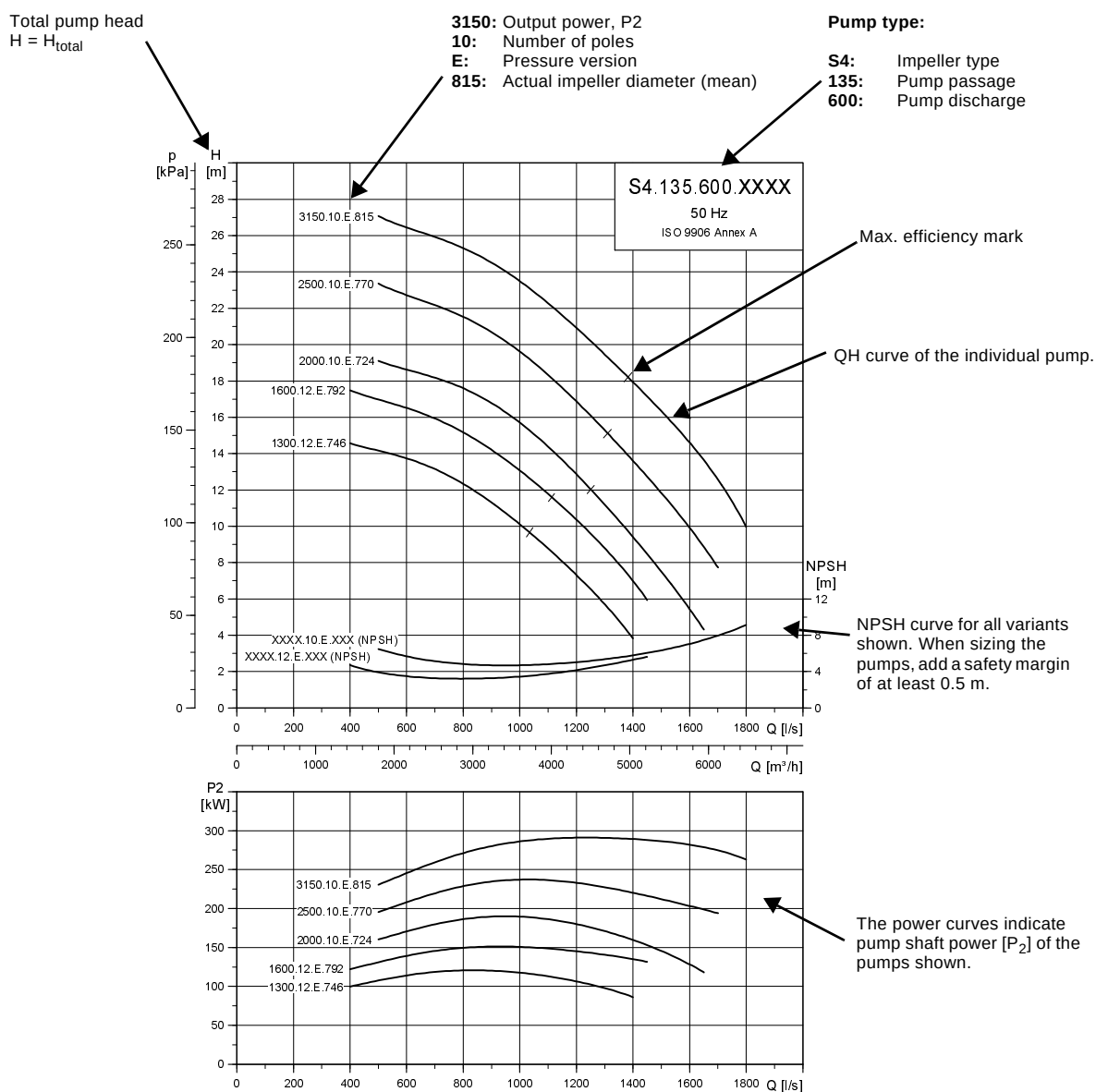
Performance curves and technical data

Range 72	
Page	Lifting class
40	Extra-low pressure
40	Low pressure
42	Middle pressure
46	High pressure
50	Super-high pressure

Range 74	
Page	Lifting class
52	Extra-low pressure
54	Low pressure
56	Middle pressure
60	High pressure
64	Super-high pressure
80	ST 74, 8 pole, Extra-low pressure

Range 78	
Page	Lifting class
66	Extra-low pressure
70	Low pressure
74	Middle pressure
78	High pressure
82	ST 78, 8-pole, Extra-low pressure
84	ST 78, 10- and 12-pole, Extra-low pressure

How to read the curve charts



TM04 0642 0908

Curve conditions

The guidelines below apply to the curves shown in the performance charts on page 38 to page 84.

- Tolerances according to ISO 9906, Annex A.
- 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 discharge 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 suction and the discharge side of the pump.

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

Performance tests

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

In the case of pumps ordered on the basis of impeller diameter only (no requested duty point), the pump is tested at a duty point which is 2/3 of the maximum flow of the published performance curve which is related to the ordered impeller diameter (according to ISO 9906, Annex A).

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

Certificates

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

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

Witness test

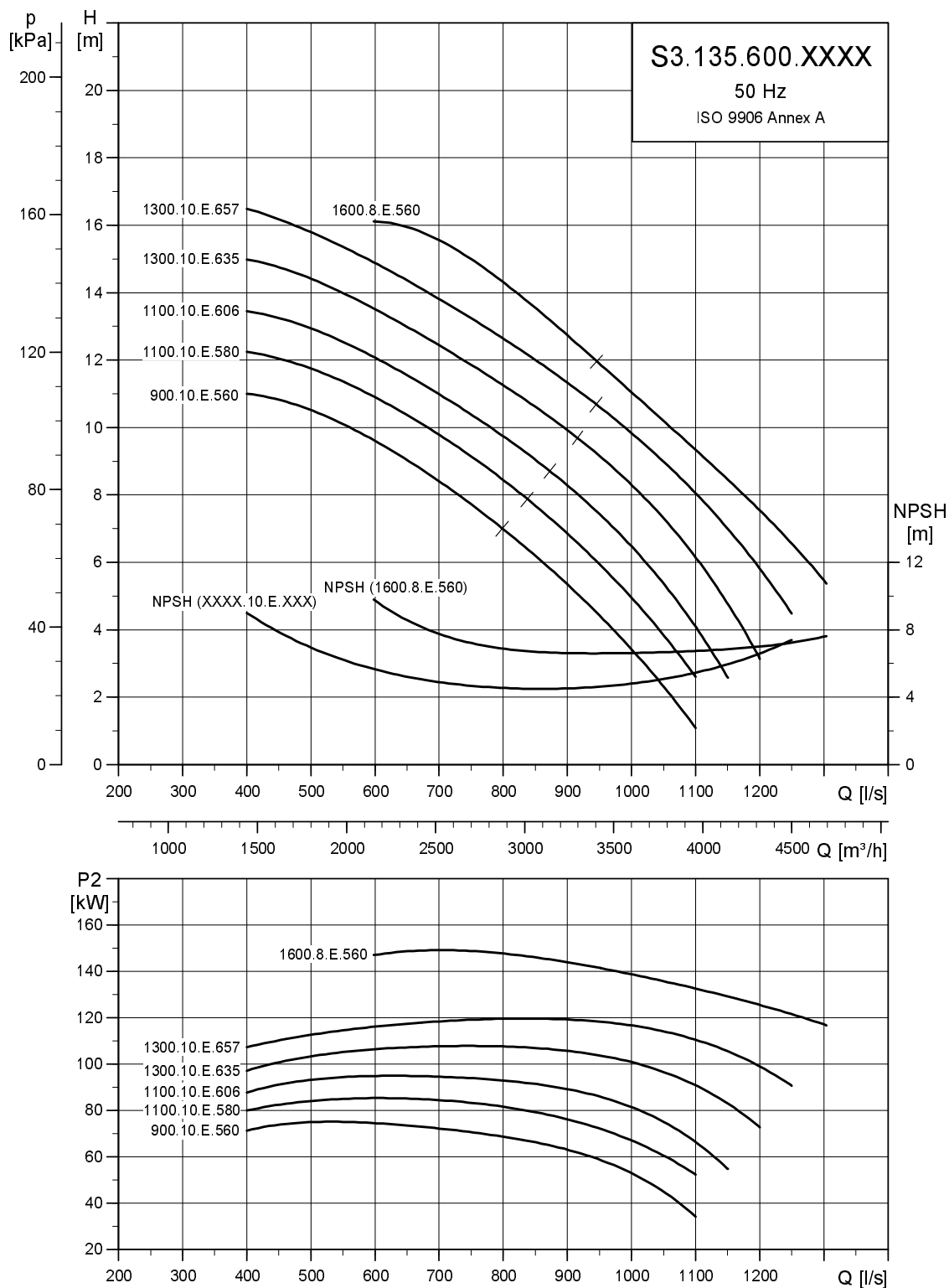
When the pumps are being tested or are tested with a certification, it is possible for the customer to witness the testing procedure according to ISO 9906.

The witness test is not a certificate and will not result in a written statement from Grundfos. The witness itself 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.

S 72 extra-low pressure, 8- and 10-pole

S3.135.600.900, S3.135.600.1100, S3.135.600.1300 and S3.135.600.1600



TM03 1752 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}		η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.600.900.10.72E	3 x 380-400/660-690 V	98	90	10	592	Y/D	202	1116	92	92	92	0.51	0.62	0.70			13.4	3643
S3.135.600.900.10.72E	3 x 415 V	98	90	10	592	Y/D	195	1075	92	92	92	0.51	0.62	0.70			13.4	3643
S3.135.600.1100.10.72E	3 x 380-400/660-690 V	120	110	10	590	Y/D	232	1116	92	92	92	0.56	0.68	0.75			14.2	3643
S3.135.600.1100.10.72E	3 x 415 V	120	110	10	590	Y/D	224	1075	92	92	92	0.56	0.68	0.75			14.2	3643
S3.135.600.1300.10.72E	3 x 380-400/660-690 V	143	130	10	586	Y/D	268	1116	92	92	91	0.61	0.72	0.77			16.2	3643
S3.135.600.1300.10.72E	3 x 415 V	143	130	10	586	Y/D	259	1075	92	92	91	0.61	0.72	0.77			16.2	3643
S3.135.600.1600.8.72E	3 x 380-400/660-690 V	172	160	8	735	Y/D	307	1707	93	93	93	0.66	0.76	0.81			13.4	4373
S3.135.600.1600.8.72E	3 x 415 V	174	160	8	735	Y/D	299	1707	93	93	92	0.67	0.77	0.81			13.4	4373

Note: Enclosure class IP68

Pump data

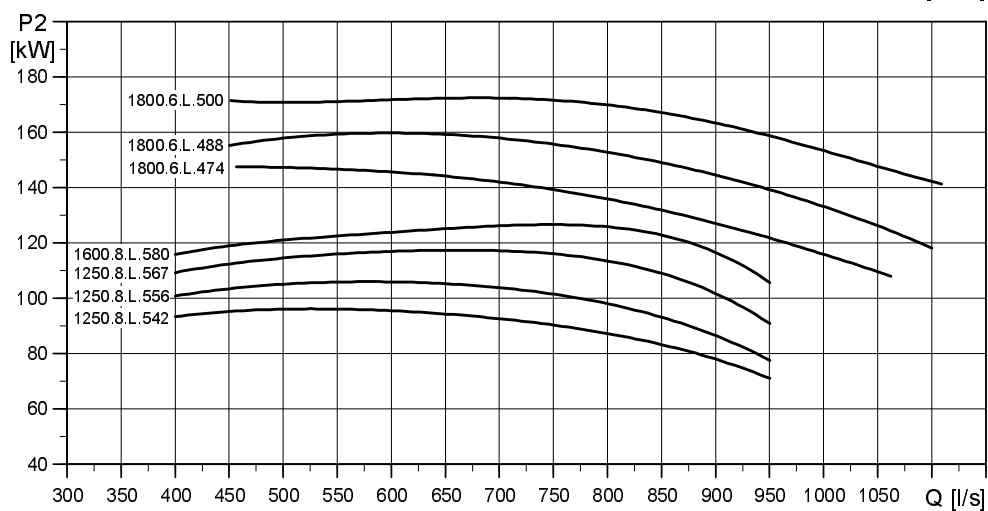
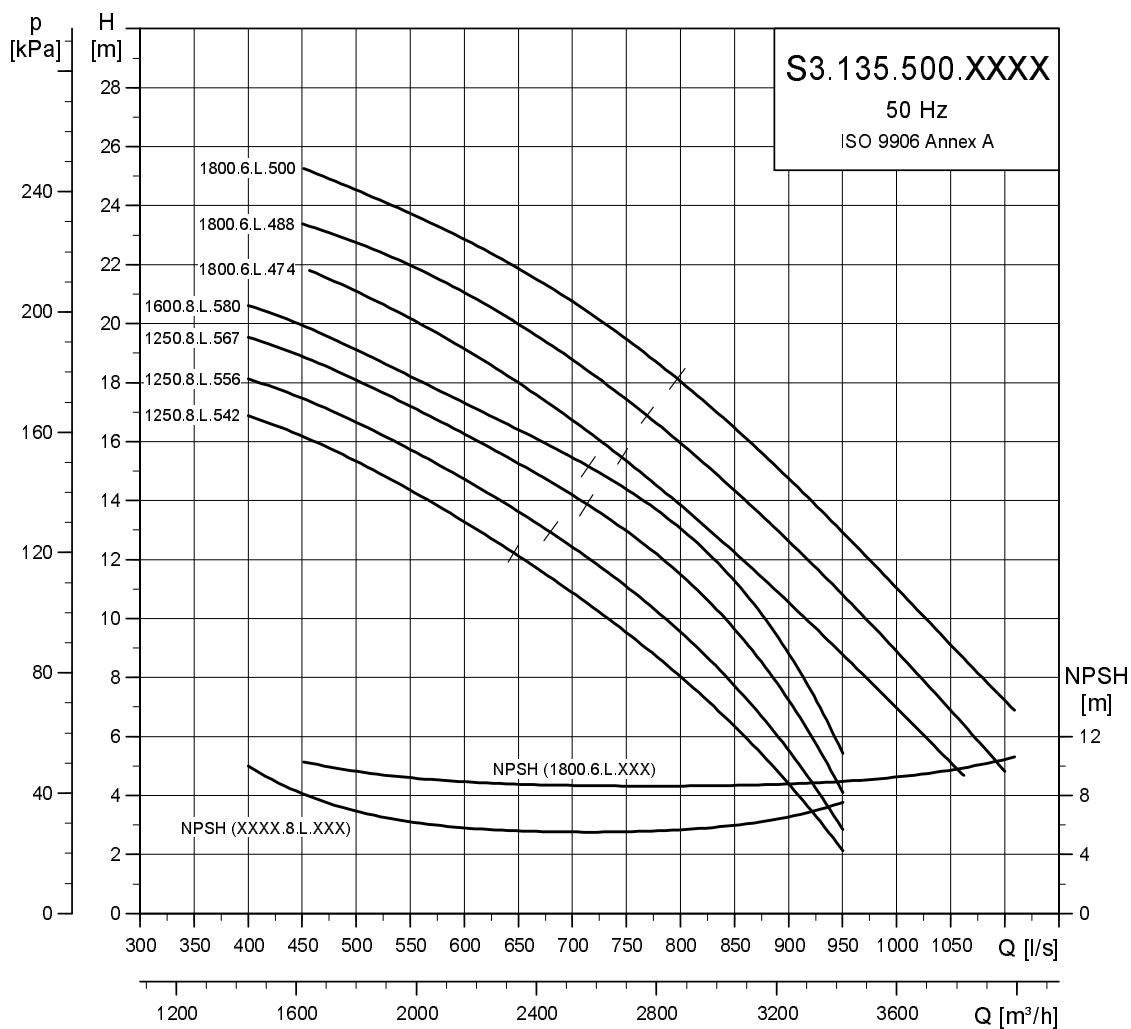
Pump type	Max. solids size [mm]	Max. installation depth [m]	Weight * [kg]
S3.135.600.900.10.72E.S	135	20	2830
S3.135.600.900.10.72E.C	135	20	3030
S3.135.600.900.10.72E.D	135	20	2810
S3.135.600.900.10.72E.H	135	20	3090
S3.135.600.1100.10.72E.S	135	20	2840
S3.135.600.1100.10.72E.C	135	20	3040
S3.135.600.1100.10.72E.D	135	20	2820
S3.135.600.1100.10.72E.H	135	20	3100
S3.135.600.1300.10.72E.S	135	20	2850
S3.135.600.1300.10.72E.C	135	20	3050
S3.135.600.1300.10.72E.D	135	20	2830
S3.135.600.1300.10.72E.H	135	20	3110
S3.135.600.1600.8.72E.S	135	20	2830
S3.135.600.1600.8.72E.C	135	20	3030
S3.135.600.1600.8.72E.D	135	20	2810
S3.135.600.1600.8.72E.H	135	20	3090

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 low pressure, 6- and 8-pole

S3.135.500.1250, S3.135.500.1600 and S3.135.500.1800



Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}	η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							I_N	I_{start}		1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.1250.8.72L	3 x 380-400/ 660-690 V	134	125	8	740	Y/D	253	1707	93	93	93	93	0.60	0.70	0.77	10.2	4373
S3.135.500.1250.8.72L	3 x 415 V	135	125	8	740	Y/D	241	1707	93	93	93	93	0.61	0.71	0.78	10.2	4373
S3.135.500.1600.8.72L	3 x 380-400/ 660-690 V	172	160	8	735	Y/D	307	1707	93	93	93	93	0.66	0.76	0.81	10.7	4373
S3.135.500.1600.8.72L	3 x 415 V	174	160	8	735	Y/D	299	1707	93	93	92	92	0.67	0.77	0.81	10.7	4373
S3.135.500.1800.6.72L	3 x 380-400/ 660-690 V	194	180	6	986	Y/D	341	1852	93	94	93	93	0.69	0.78	0.82	9.4	3715
S3.135.500.1800.6.72L	3 x 415 V	196	180	6	986	Y/D	321	1852	93	93	92	92	0.76	0.83	0.85	9.4	3715

Note: Enclosure class IP68

Pump data

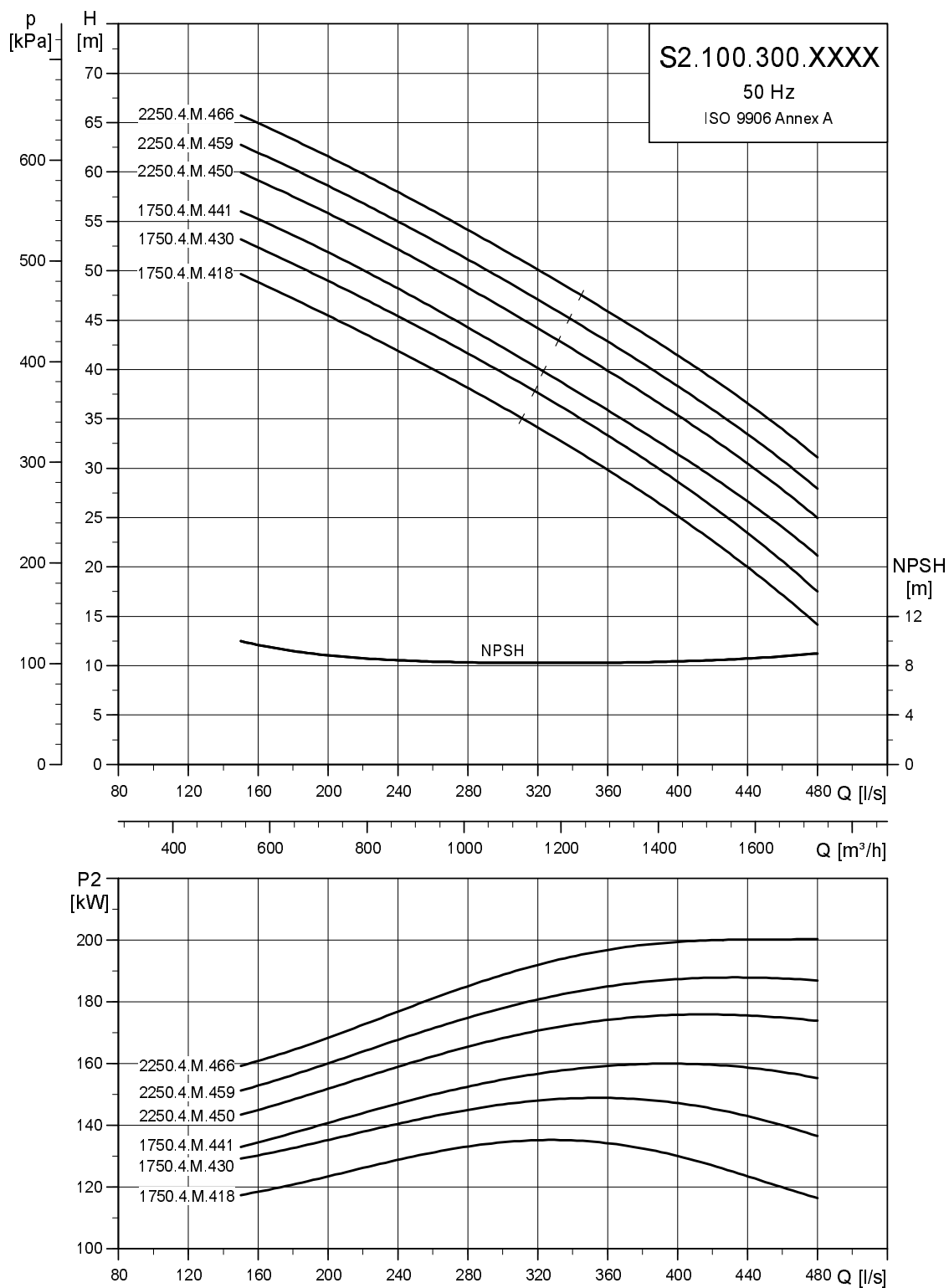
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.135.500.1250.8.72L.S	135	20	2445
S3.135.500.1250.8.72L.C	135	20	2645
S3.135.500.1250.8.72L.D	135	20	2485
S3.135.500.1250.8.72L.H	135	20	2765
S3.135.500.1600.8.72L.S	135	20	2455
S3.135.500.1600.8.72L.C	135	20	2655
S3.135.500.1600.8.72L.D	135	20	2495
S3.135.500.1600.8.72L.H	135	20	2775
S3.135.500.1800.6.72L.S	135	20	2450
S3.135.500.1800.6.72L.C	135	20	2635
S3.135.500.1800.6.72L.D	135	20	2470
S3.135.500.1800.6.72L.H	135	20	2760

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 middle pressure, 4-pole

S2.100.300.1750 and S2.100.300.2250



TM03 1748 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}		η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.1750.4.72M	3 x 380-400/ 660-690 V	186	175	4	1486	Y/D	346	2499	92	93	94	0.61	0.71	0.78			4.9	3480
S2.100.300.1750.4.72M	3 x 415 V	186	175	4	1486	Y/D	318	2499	92	94	94	0.68	0.76	0.82			4.9	3480
S2.100.300.2250.4.72M	3 x 380-400/ 660-690 V	239	225	4	1477	Y/D	422	2499	93	94	94	0.67	0.77	0.82			5.1	3480
S2.100.300.2250.4.72M	3 x 415 V	242	225	4	1477	Y/D	396	2499	93	94	93	0.73	0.81	0.85			5.1	3480

Note: Enclosure class IP68

Pump data

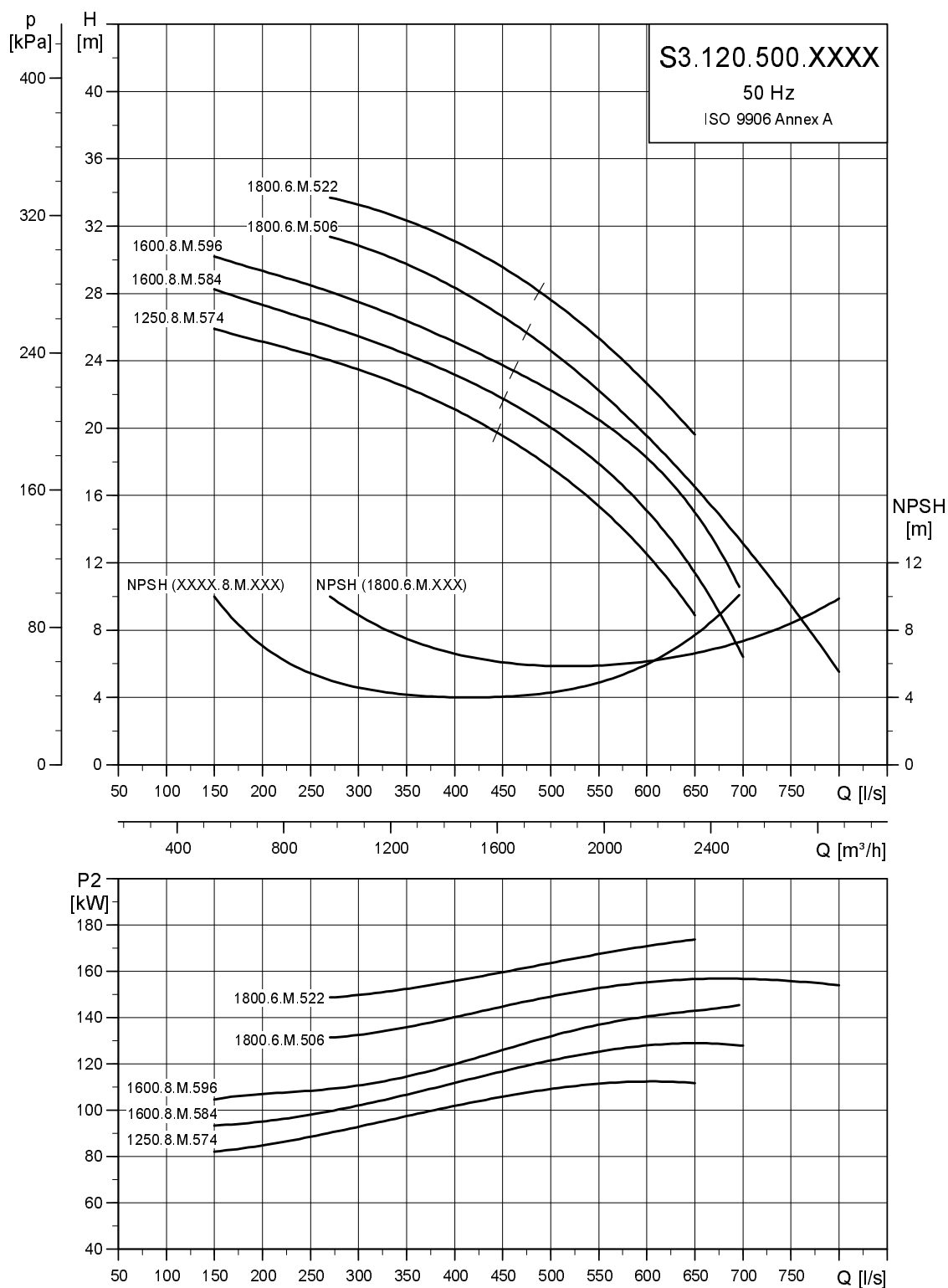
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.100.300.1750.4.72M.S	100	20	1950
S2.100.300.1750.4.72M.C	100	20	2130
S2.100.300.1750.4.72M.D	100	20	2120
S2.100.300.1750.4.72M.H	100	20	2360
S2.100.300.2250.4.72M.S	100	20	1950
S2.100.300.2250.4.72M.C	100	20	2130
S2.100.300.2250.4.72M.D	100	20	2120
S2.100.300.2250.4.72M.H	100	20	2360

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 middle pressure, 6- and 8-pole

S3.120.500.1250, S3.120.500.1600 and S3.120.500.1800



TM03 1750 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.120.500.1250.8.72M	3 x 380-400/ 660-690 V	134	125	8	740	Y/D	253	1707	93	93	93	93	0.60	0.70	0.77	10				4373
S3.120.500.1250.8.72M	3 x 415 V	135	125	8	740	Y/D	241	1707	93	93	93	93	0.61	0.71	0.78	10				4373
S3.120.500.1600.8.72M	3 x 380-400/ 660-690 V	172	160	8	735	Y/D	307	1707	93	93	93	93	0.66	0.76	0.81	10.4				4373
S3.120.500.1600.8.72M	3 x 415 V	174	160	8	735	Y/D	299	1707	93	93	92	92	0.67	0.77	0.81	10.4				4373
S3.120.500.1800.6.72M	3 x 380-400/ 660-690 V	194	180	6	986	Y/D	341	1852	93	94	93	93	0.69	0.78	0.82	8.2				3715
S3.120.500.1800.6.72M	3 x 415 V	196	180	6	986	Y/D	321	1852	93	93	92	92	0.76	0.83	0.85	8.2				3715

Note: Enclosure class IP68

Pump data

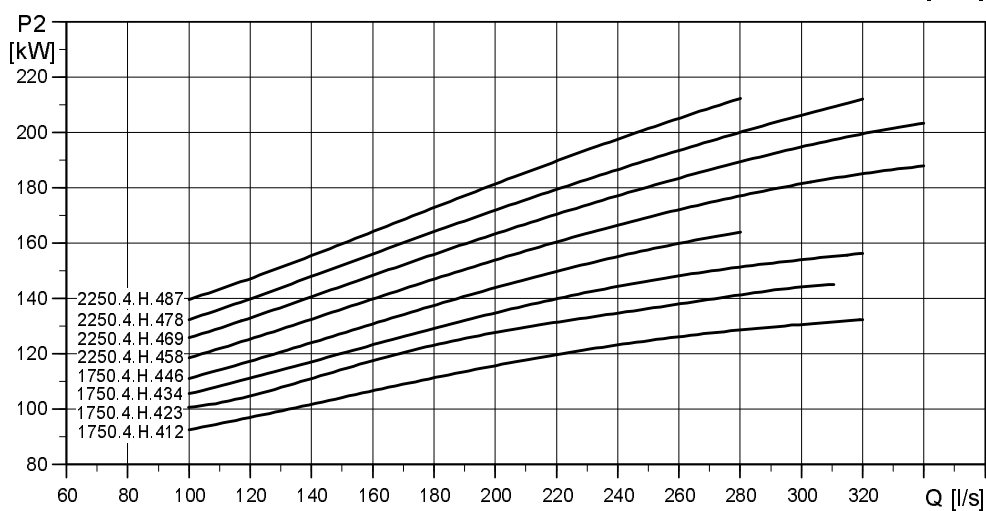
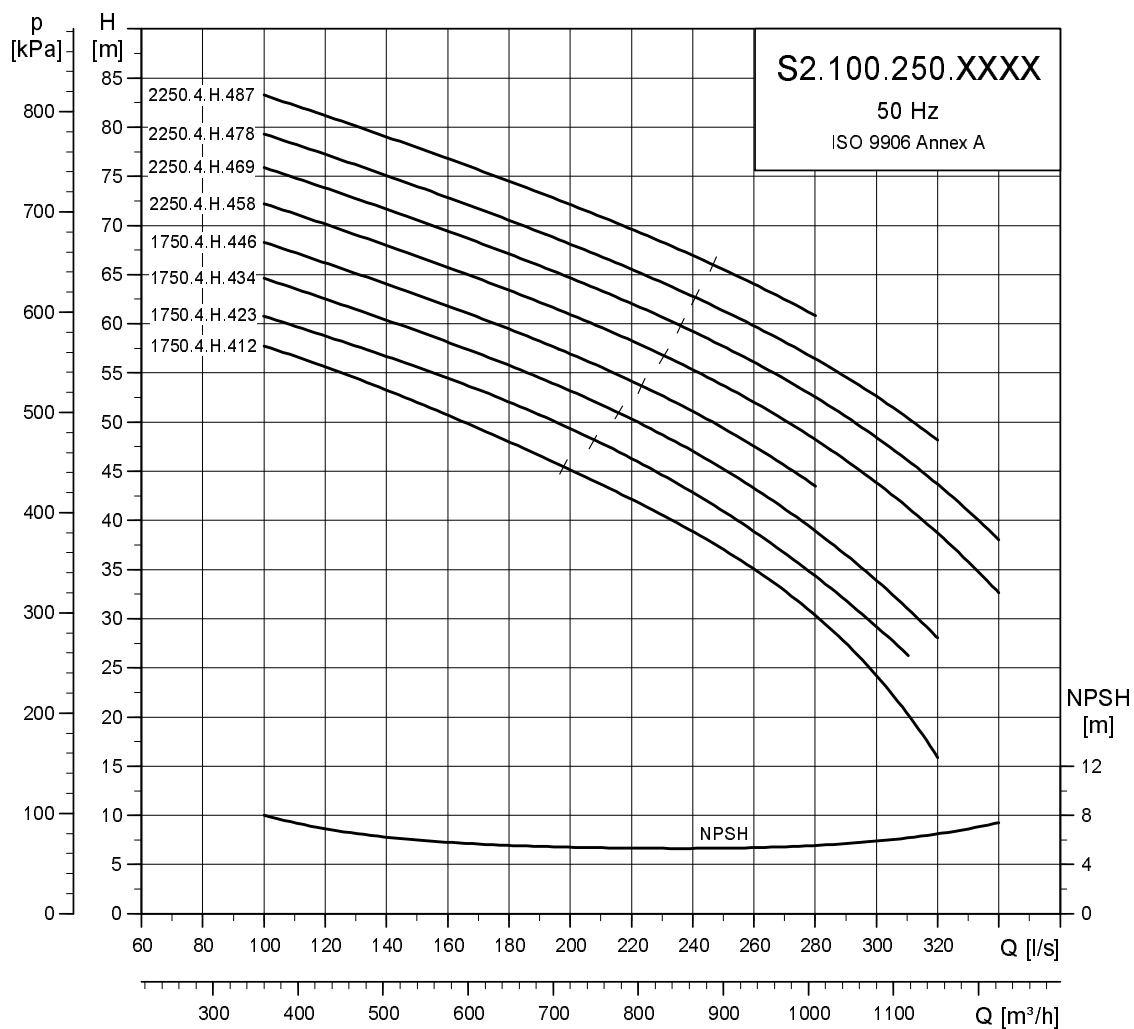
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.120.500.1250.8.72M.S	120	20	2450
S3.120.500.1250.8.72M.C	120	20	2650
S3.120.500.1250.8.72M.D	120	20	2490
S3.120.500.1250.8.72M.H	120	20	2770
S3.120.500.1600.8.72M.S	120	20	2450
S3.120.500.1600.8.72M.C	120	20	2650
S3.120.500.1600.8.72M.D	120	20	2490
S3.120.500.1600.8.72M.H	120	20	2440
S3.120.500.1800.6.72M.S	120	20	2445
S3.120.500.1800.6.72M.C	120	20	2630
S3.120.500.1800.6.72M.D	120	20	2470
S3.120.500.1800.6.72M.H	120	20	2760

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 high pressure, 4-pole

S.2.100.250.1750 and S.2.100.250.2250



TM03 1747 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N		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	3 x 380-400/ 660-690 V	186	175	4	1486	Y/D	346	2499	92	93	94	0.61	0.71	0.78	5	3480		
S2.100.250.1750.4.72H	3 x 415 V	186	175	4	1486	Y/D	318	2499	92	94	94	0.68	0.76	0.82	5	3480		
S2.100.250.2250.4.72H	3 x 380-400/ 660-690 V	239	225	4	1477	Y/D	422	2499	93	94	94	0.67	0.77	0.82	5.3	3480		
S2.100.250.2250.4.72H	3 x 415 V	242	225	4	1477	Y/D	396	2499	93	94	93	0.73	0.81	0.85	5.3	3480		

Note: Enclosure class IP68

Pump data

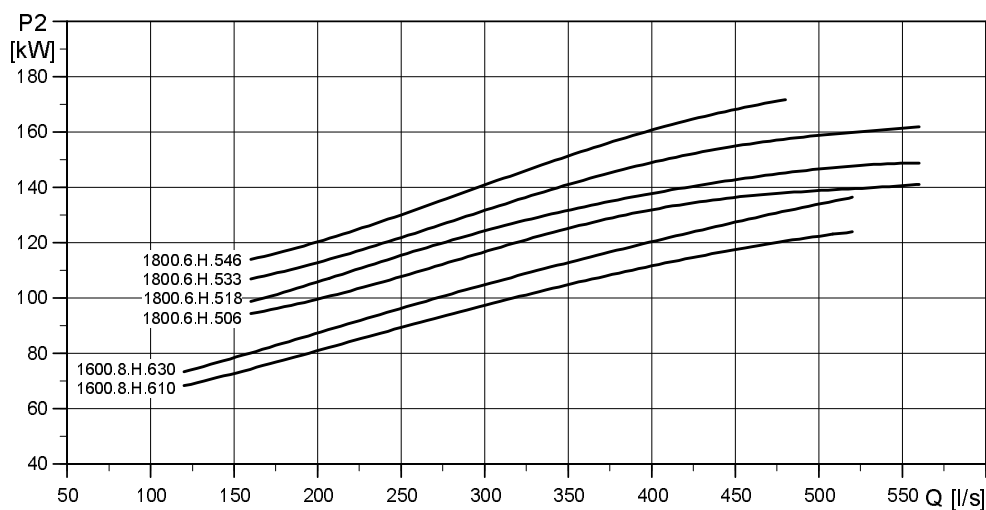
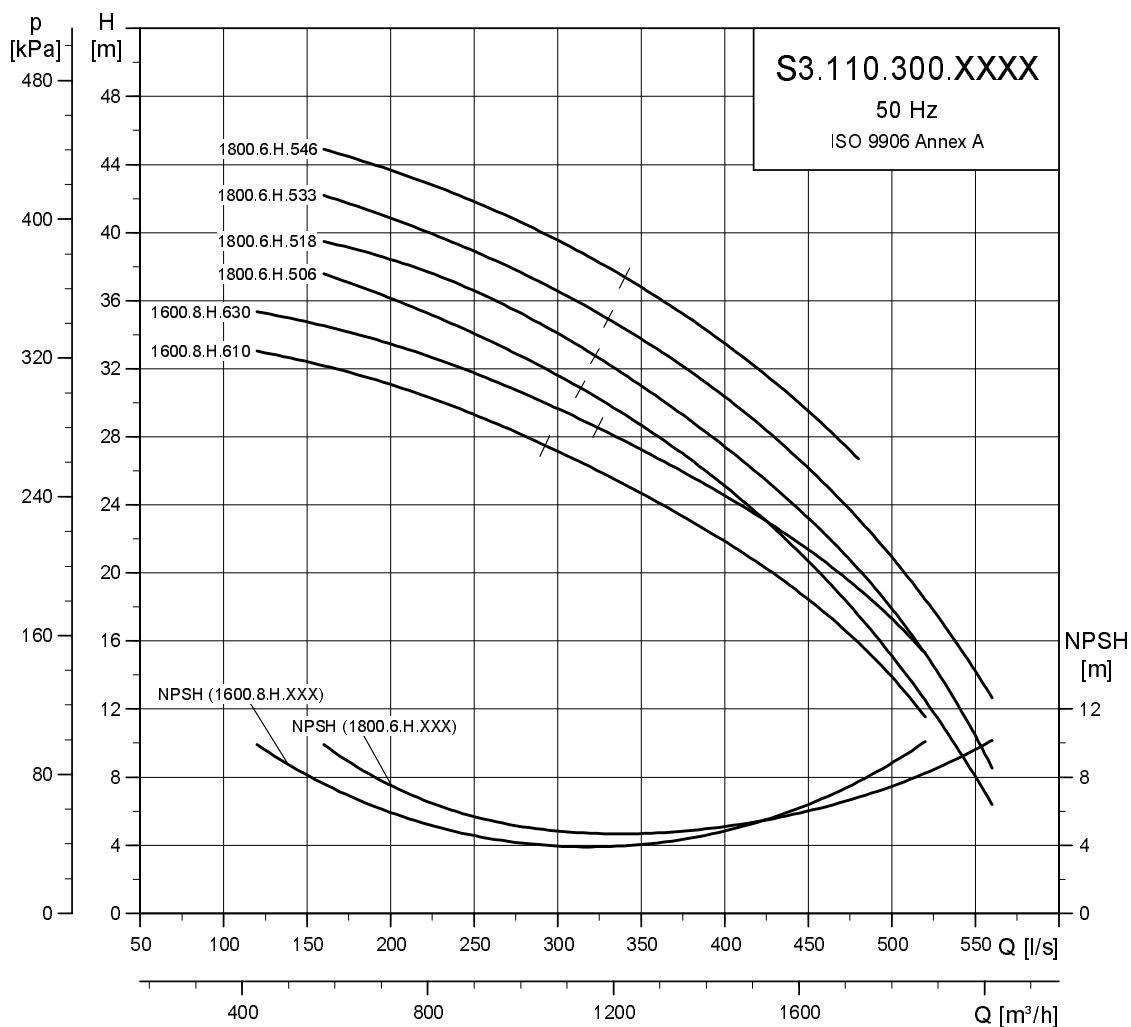
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.100.250.1750.4.72H.S	100	20	1870
S2.100.250.1750.4.72H.C	100	20	2055
S2.100.250.1750.4.72H.D	100	20	2065
S2.100.250.1750.4.72H.H	100	20	2300
S2.100.250.2250.4.72H.S	100	20	1870
S2.100.250.2250.4.72H.C	100	20	2065
S2.100.250.2250.4.72H.D	100	20	2065
S2.100.250.2250.4.72H.H	100	20	2300

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 high pressure, 6- and 8-pole

S3.110.300.1600 and S3.110.300.1800



TM03 1749 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N	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	3 x 380-400/ 660-690 V	172	160	8	735	Y/D	307	1707	93	93	93	0.66	0.76	0.81	11.2	4373
S3.110.300.1600.8.72H	3 x 415 V	174	160	8	735	Y/D	299	1707	93	93	92	0.67	0.77	0.81	11.2	4373
S3.110.300.1800.6.72H	3 x 380-400/ 660-690 V	194	180	6	986	Y/D	341	1852	93	94	93	0.69	0.78	0.82	8.7	3715
S3.110.300.1800.6.72H	3 x 415 V	196	180	6	986	Y/D	321	1852	93	93	92	0.76	0.83	0.85	8.7	3715

Note: Enclosure class IP68

Pump data

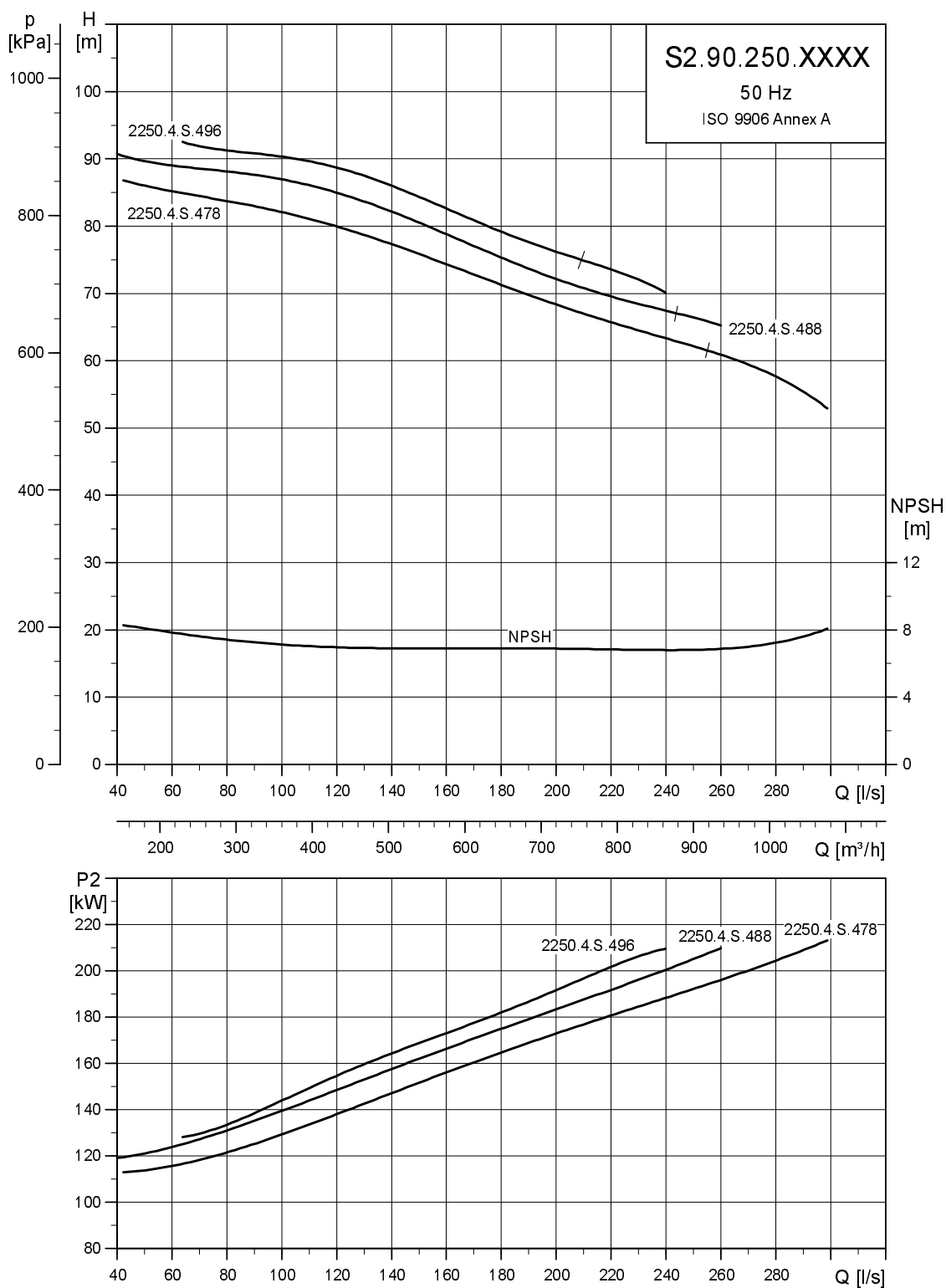
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.110.300.1600.8.72H.S	110	20	2085
S3.110.300.1600.8.72H.C	110	20	2290
S3.110.300.1600.8.72H.D	110	20	2275
S3.110.300.1600.8.72H.H	110	20	2510
S3.110.300.1800.6.72H.S	110	20	2075
S3.110.300.1800.6.72H.C	110	20	2270
S3.110.300.1800.6.72H.D	110	20	2260
S3.110.300.1800.6.72H.H	110	20	2500

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 72 super-high pressure, 4-pole

S2.90.250.2250



TM03 1746 0610

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N	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		
S2.100.250.2250.4.72H	3 x 380-400/ 660-690 V	239	225	4	1477	Y/D	422	2499	93	94	94	0.67	0.77	0.82	5.3	3480
S2.100.250.2250.4.72H	3 x 415 V	242	225	4	1477	Y/D	396	2499	93	94	93	0.73	0.81	0.85	5.3	3480

Note: Enclosure class IP68

Pump data

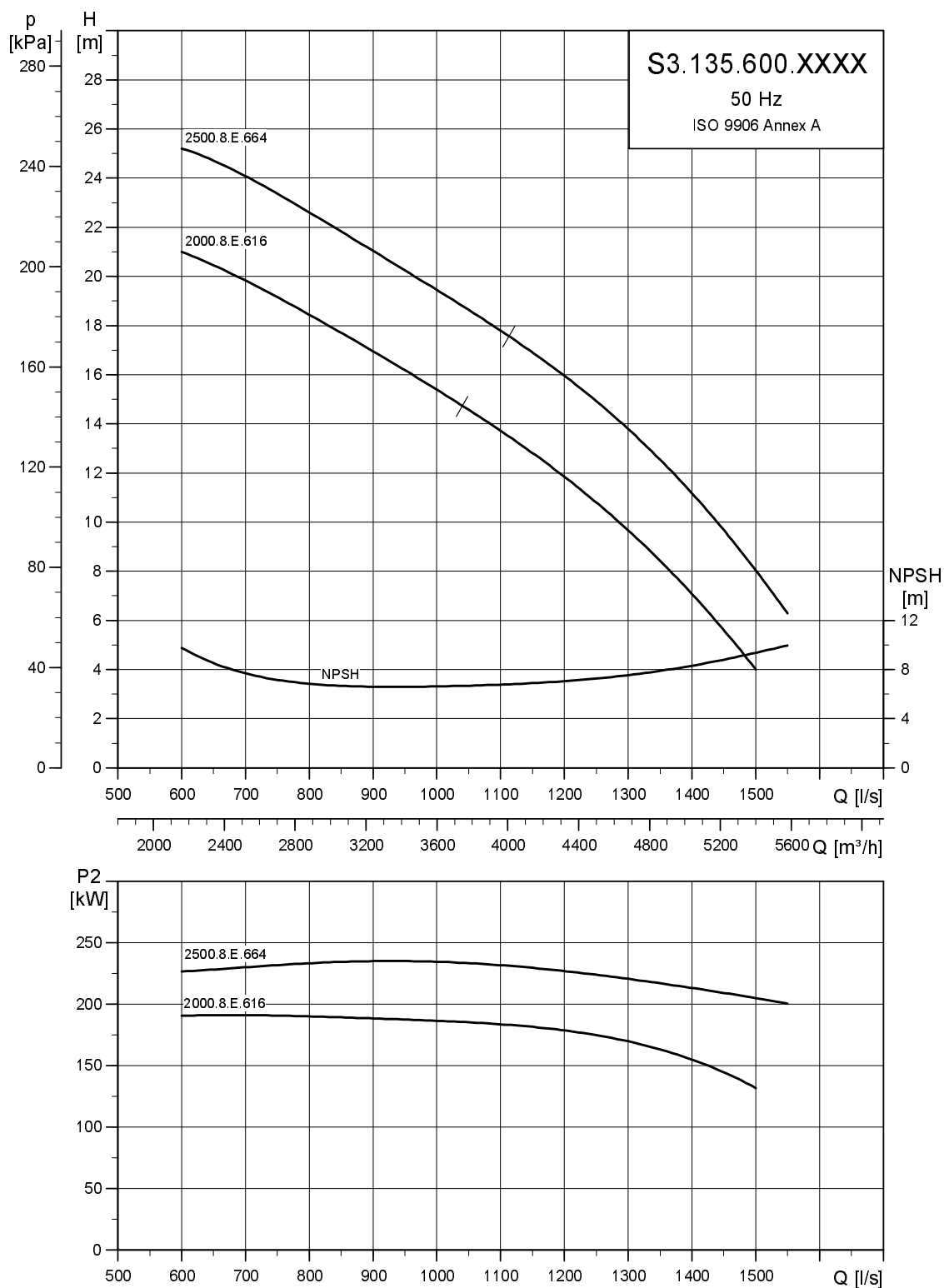
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.90.250.2250.4.72S.S	90	20	1880
S2.90.250.2250.4.72S.C	90	20	2070
S2.90.250.2250.4.72S.D	90	20	2065
S2.90.250.2250.4.72S.H	90	20	2310

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 extra-low pressure, 8-pole

S3.135.600.2000 and S3.135.600.2500



TM04 5590 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N		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	3 x 380-415/ 660-719	214	200	8	744	Y/D	396	3008	93	94	94	0.61	0.73	0.78	17.14	5134			
S3.135.600.2500.8.74E	3 x 380-415/ 660-719	267	250	8	741	Y/D	465	2836	93	94	94	0.71	0.80	0.83	23.65	8055			

Note: Enclosure class IP68

Pump data

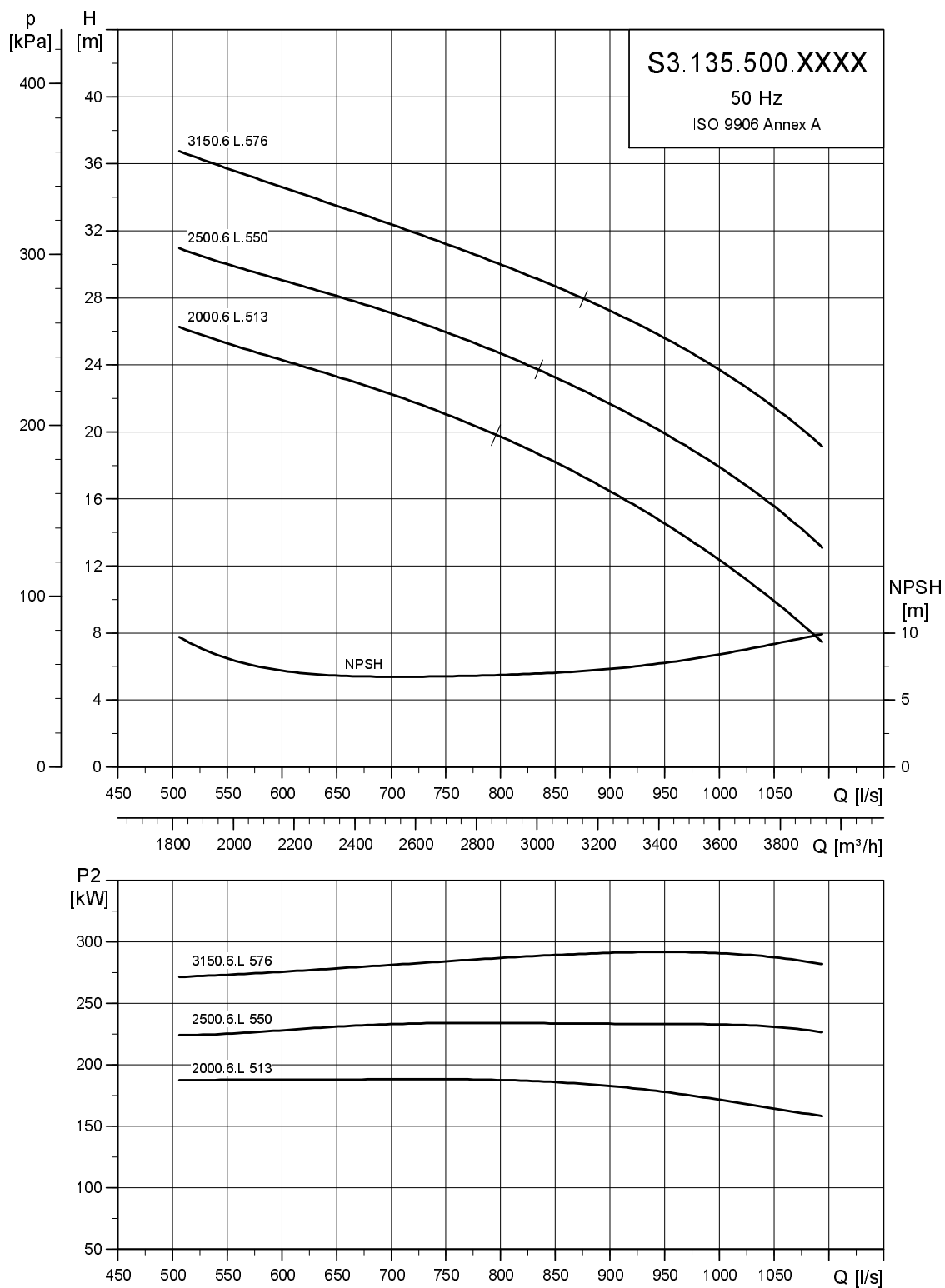
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.135.600.2000.8.74E.C	135	20	3900
S3.135.600.2000.8.74E.D	135	20	3700
S3.135.600.2000.8.74E.H	135	20	4000
S3.135.600.2500.8.74E.C	135	20	4600
S3.135.600.2500.8.74E.D	135	20	4400
S3.135.600.2500.8.74E.H	135	20	4700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 low pressure, 6-pole

S3.135.500.2000, S3.135.500.2500 and S3.135.500.3150



TM04 5593 07/10

Electrical data

Pump type	Voltage	P1	P2	Poles	Rpm	Con- nection	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \varphi$			Moment of iner- tia [kgm ²]	Breakdown torque M_{max} [Nm]
	[V]	[kW]	[kW]				[A]	[A]	[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.135.500.2000.6.74L	3 x 380-415/ 660-719	215	200	6	990	Y/D	353	2434	93	93	93	93	0.80	0.86	0.88	11.34			11.34	4630
S3.135.500.2500.6.74L	3 x 380-415/ 660-719	267	250	6	991	Y/D	444	3460	93	94	93	94	0.77	0.84	0.87	13.13			13.13	6264
S3.135.500.3150.6.74L	3 x 380-400/ 660-690	335	315	6	992	Y/D	583	4312	93	94	94	94	0.69	0.79	0.83	18.52			18.52	8188
S3.135.500.3150.6.74L	3 x 415/719	335	315	6	990	Y/D	549	3291	94	94	94	94	0.77	0.83	0.85	18.52			18.52	6381

Note: Enclosure class IP68

Pump data

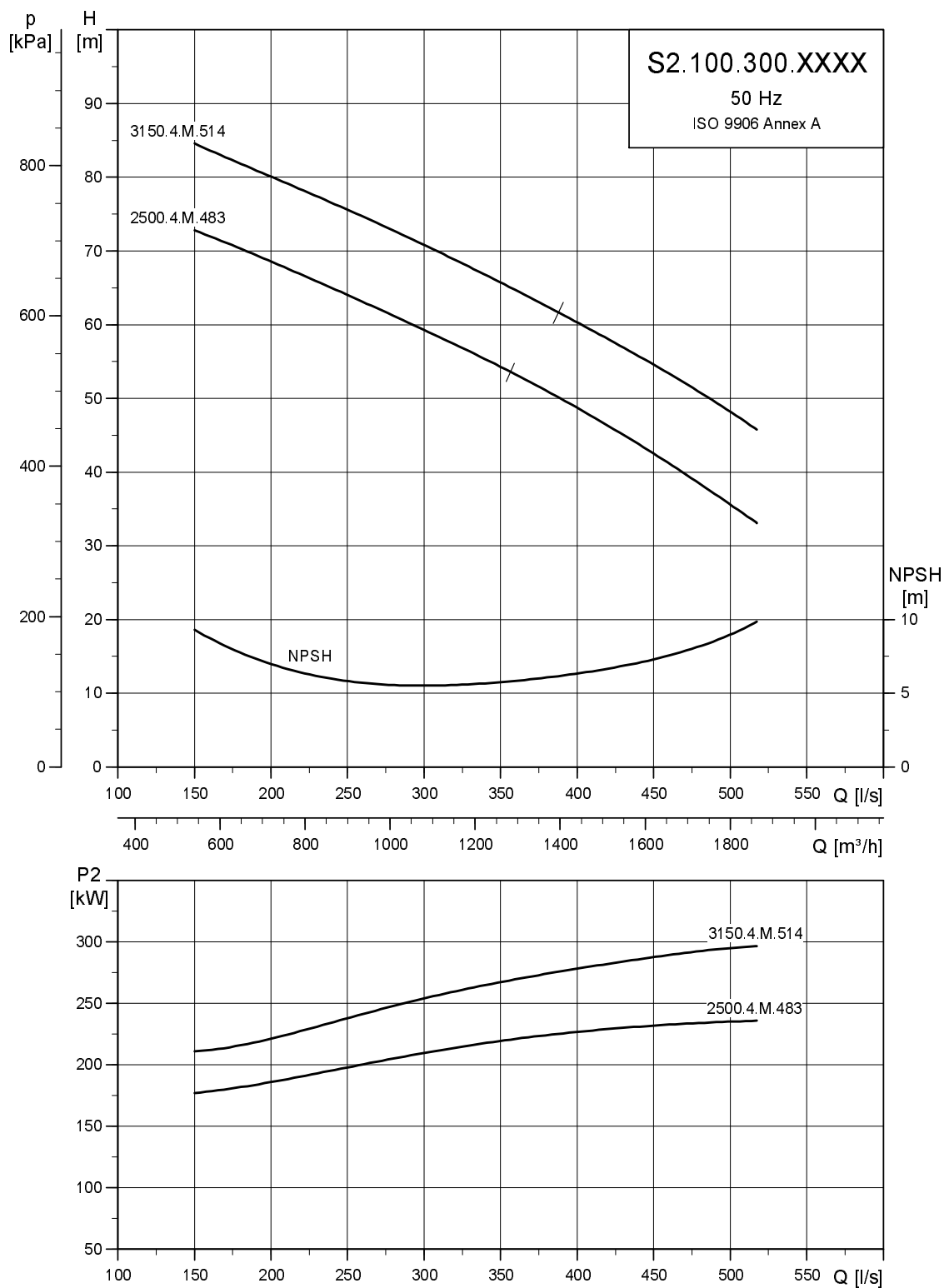
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.135.500.2000.6.74L.C	135	20	3300
S3.135.500.2000.6.74L.D	135	20	3300
S3.135.500.2000.6.74L.H	135	20	3500
S3.135.500.2500.6.74L.C	135	20	3500
S3.135.500.2500.6.74L.D	135	20	3400
S3.135.500.2500.6.74L.H	135	20	3700
S3.135.500.3150.6.74L.C	135	20	4200
S3.135.500.3150.6.74L.D	135	20	4200
S3.135.500.3150.6.74L.H	135	20	4400

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 middle pressure, 4-pole

S2.100.300.2500 and S2.100.300.3150



TM04 5594 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}		η_{motor} [%]			$\cos \varphi$			Moment of iner- tia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.2500.4.74M	3 x 380-415/ 660-719	269	250	4	1488	Y/D	462	3464	93	93	93	0.69	0.79	0.84			7.22	5134
S2.100.300.3150.4.74M	3 x 380-415/ 660-719	333	315	4	1488	Y/D	554	3926	94	94	94	0.77	0.84	0.87			10.56	5459

Note: Enclosure class IP68

Pump data

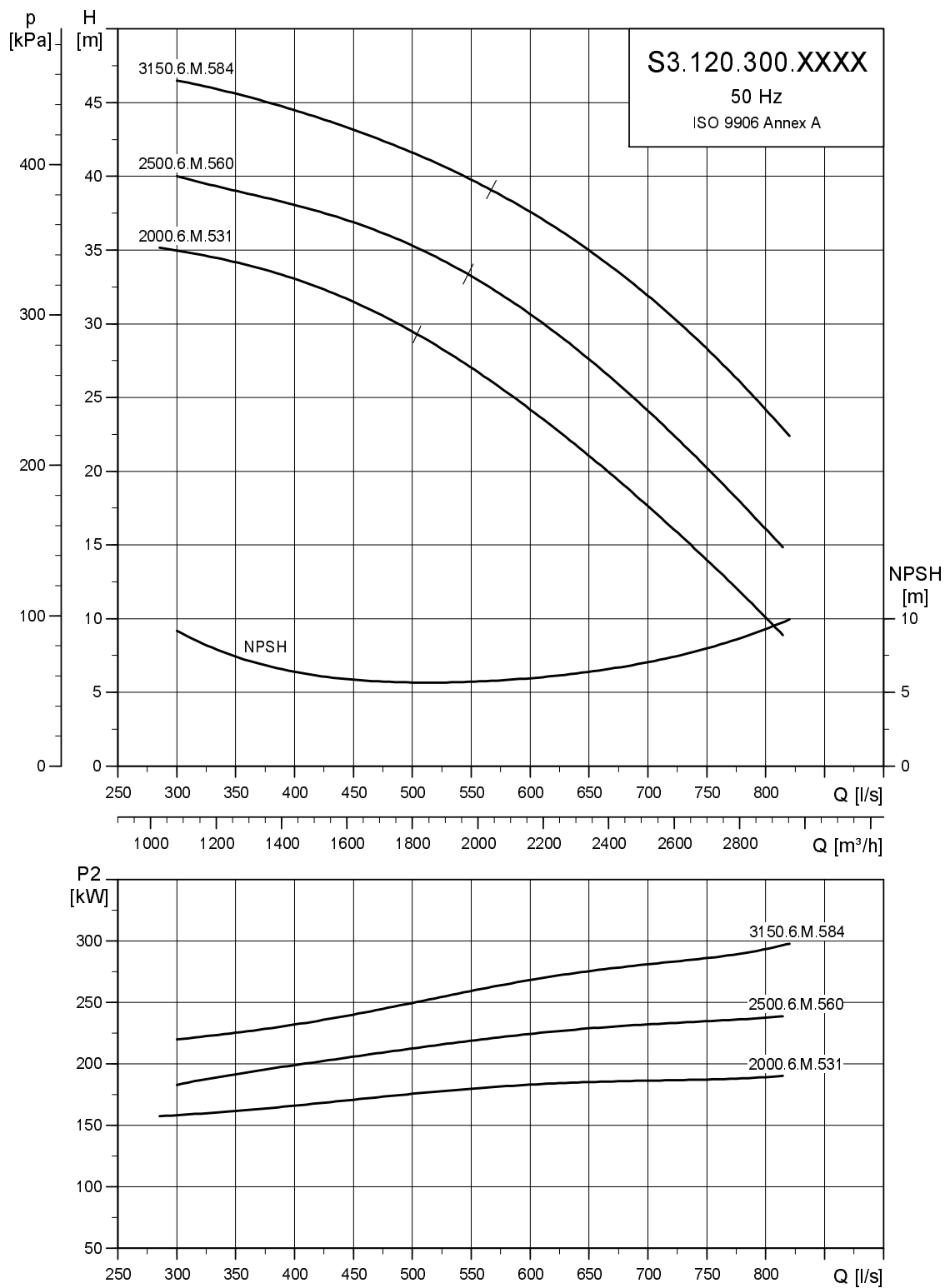
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.100.300.2500.4.74M.C	100	20	2800
S2.100.300.2500.4.74M.D	100	20	2800
S2.100.300.2500.4.74M.H	100	20	3000
S2.100.300.3150.4.74M.C	100	20	3500
S2.100.300.3150.4.74M.D	100	20	3500
S2.100.300.3150.4.74M.H	100	20	3700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 middle pressure, 6-pole

S3.120.500.2000, S3.120.500.2500 and S3.120.500.3150



TM04 5595 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}			$\eta_{motor} [\%]$			$\cos \varphi$			Moment of iner- tia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.120.300.2000.6.74M	3 x 380-415/ 660-719	215	200	6	990	Y/D	353	2434	93	93	93	0.80	0.86	0.88	11.35			11.35	4630
S3.120.300.2500.6.74M	3 x 380-415/ 660-719	267	250	6	991	Y/D	444	3460	93	94	93	0.77	0.84	0.87	13.05			13.05	6264
S3.120.300.3150.6.74M	3 x 380-400/ 660-690	335	315	6	992	Y/D	583	4312	93	94	94	0.69	0.79	0.83	18.35			18.35	8188
S3.120.300.3150.6.74M	3 x 415/719		315	6	990	Y/D	549	3291	94	94	94	0.77	0.83	0.85	18.35			18.35	6381

Note: Enclosure class IP68

Pump data

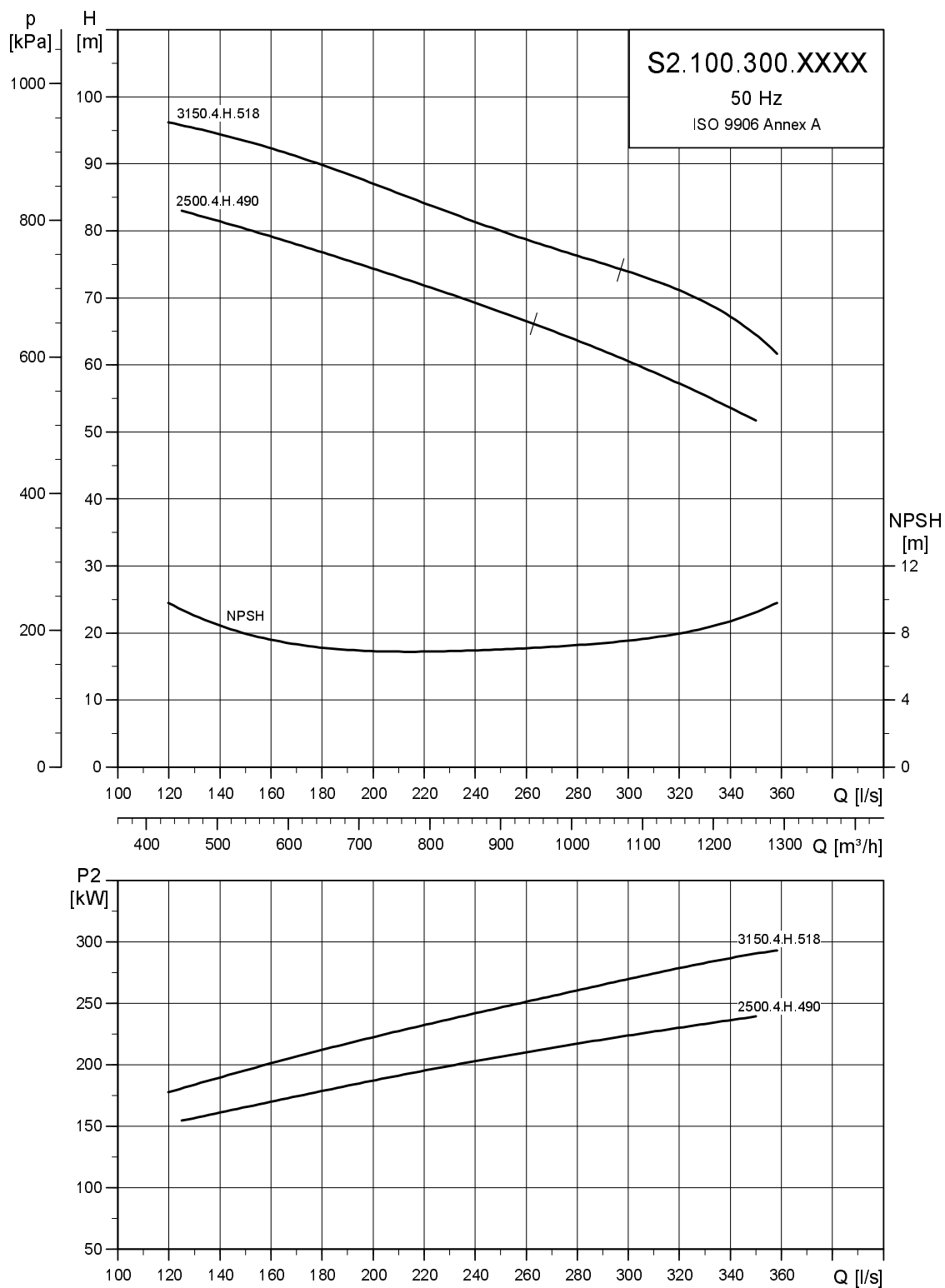
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.120.300.2000.6.74M.C	120	20	3300
S3.120.300.2000.6.74M.D	120	20	3200
S3.120.300.2000.6.74M.H	120	20	3400
S3.120.300.2500.6.74M.C	120	20	3500
S3.120.300.2500.6.74M.D	120	20	3300
S3.120.300.2500.6.74M.H	120	20	3500
S3.120.300.3150.6.74M.C	120	20	4300
S3.120.300.3150.6.74M.D	120	20	4100
S3.120.300.3150.6.74M.H	120	20	4300

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 high pressure, 4-pole

S2.100.300.2500 and S2.100.300.3150



TM04 5591 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			$\cos \varphi$			Moment of iner- tia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S2.100.300.2500.4.74H	3 x 380-415/ 660-719	269	250	4	1488	Y/D	462	3464	93	93	93	93	0.69	0.79	0.84	7.29			5134	
S2.100.300.3150.4.74H	3 x 380-415/ 660-719	333	315	4	1488	Y/D	554	3926	94	94	94	94	0.77	0.84	0.87	10.58			5459	

Note: Enclosure class IP68

Pump data

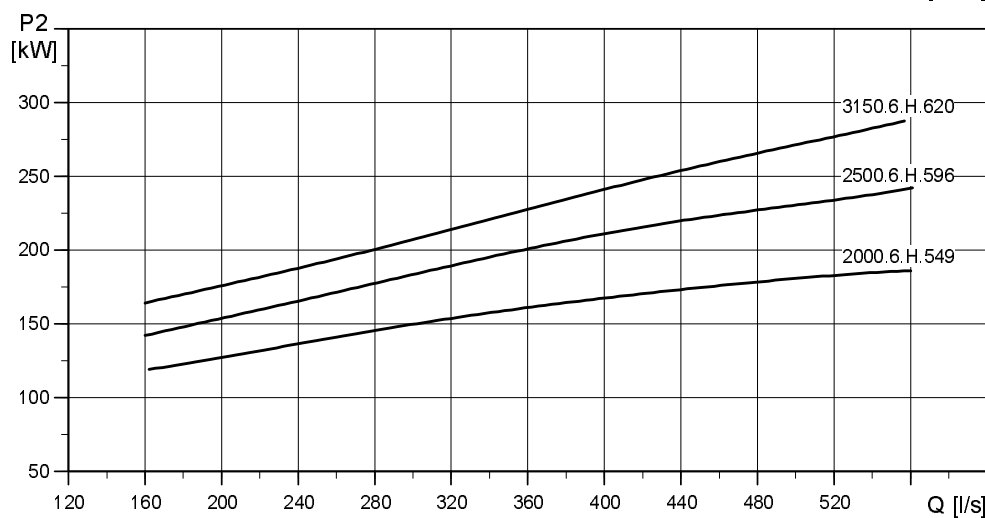
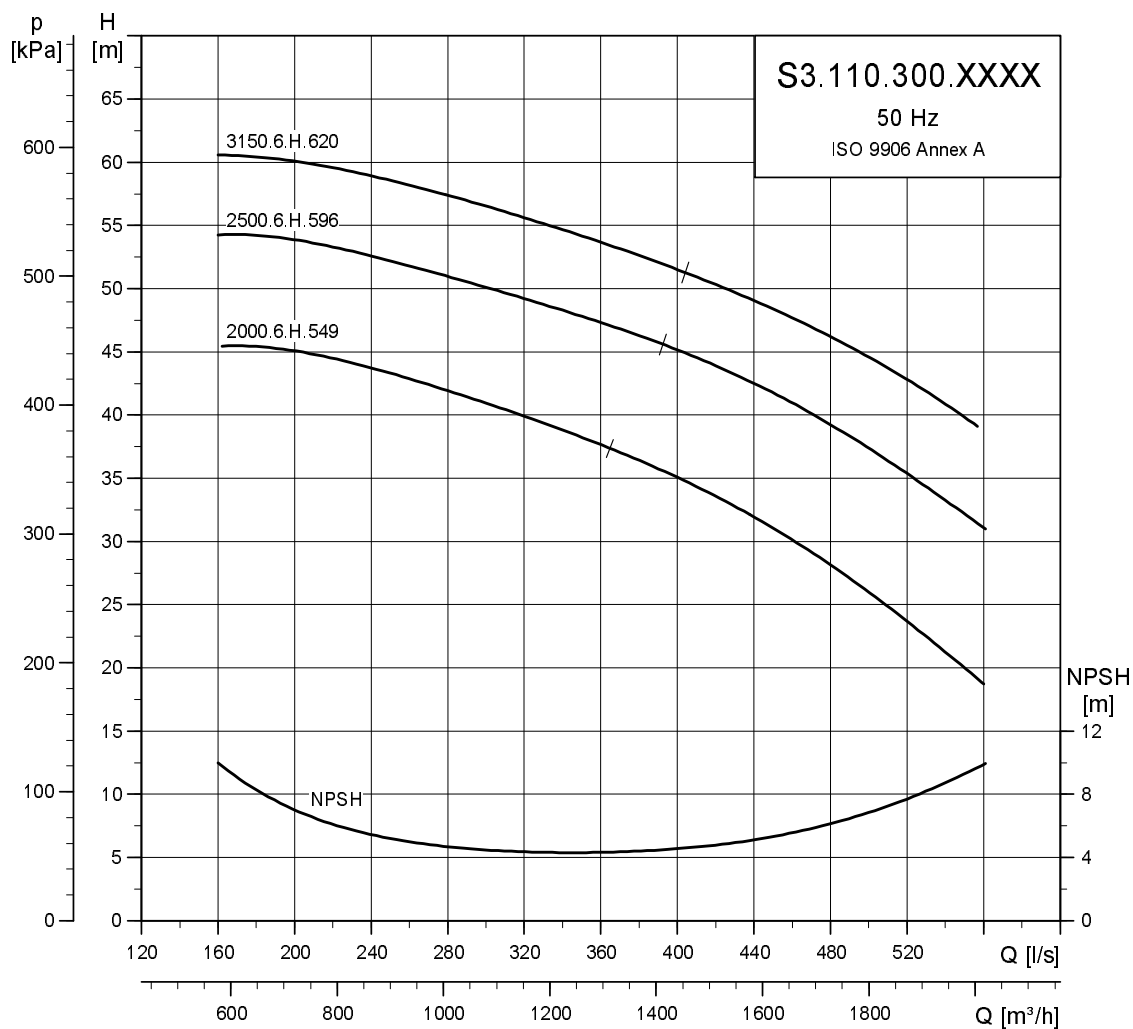
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.100.300.2500.4.74H.C	100	20	2800
S2.100.300.2500.4.74H.D	100	20	2800
S2.100.300.2500.4.74H.H	100	20	3000
S2.100.300.3150.4.74H.C	100	20	3500
S2.100.300.3150.4.74H.D	100	20	3500
S2.100.300.3150.4.74H.H	100	20	3700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 high pressure, 6-pole

S3.110.300.2000, S3.110.300.2500 and S3.110.300.3150



TN04 5592 0710

Electrical data

Pump type	Voltage	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N	I _{start}	η _{motor} [%]			Cos φ			Moment of in- ertia [kgm ²]	Breakdown torque M _{max} [Nm]
	[V]						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S3.110.300.2000.6.74H	3 x 380-415/ 660-719	215	200	6	990	Y/D	353	2434	93	93	93	0.80	0.86	0.88	11.39	4630
S3.110.300.2500.6.74H	3 x 380-415/ 660-719	267	250	6	991	Y/D	444	3460	93	94	93	0.77	0.84	0.87	13.58	6264
S3.110.300.3150.6.74H	3 x 380-400/ 660-690	335	315	6	992	Y/D	583	4312	93	94	94	0.69	0.79	0.83	18.93	8188
S3.110.300.3150.6.74H	3 x 415/719	335	315	6	990	Y/D	549	3291	94	94	94	0.77	0.83	0.85	18.93	6381

Note: Enclosure class IP68

Pump data

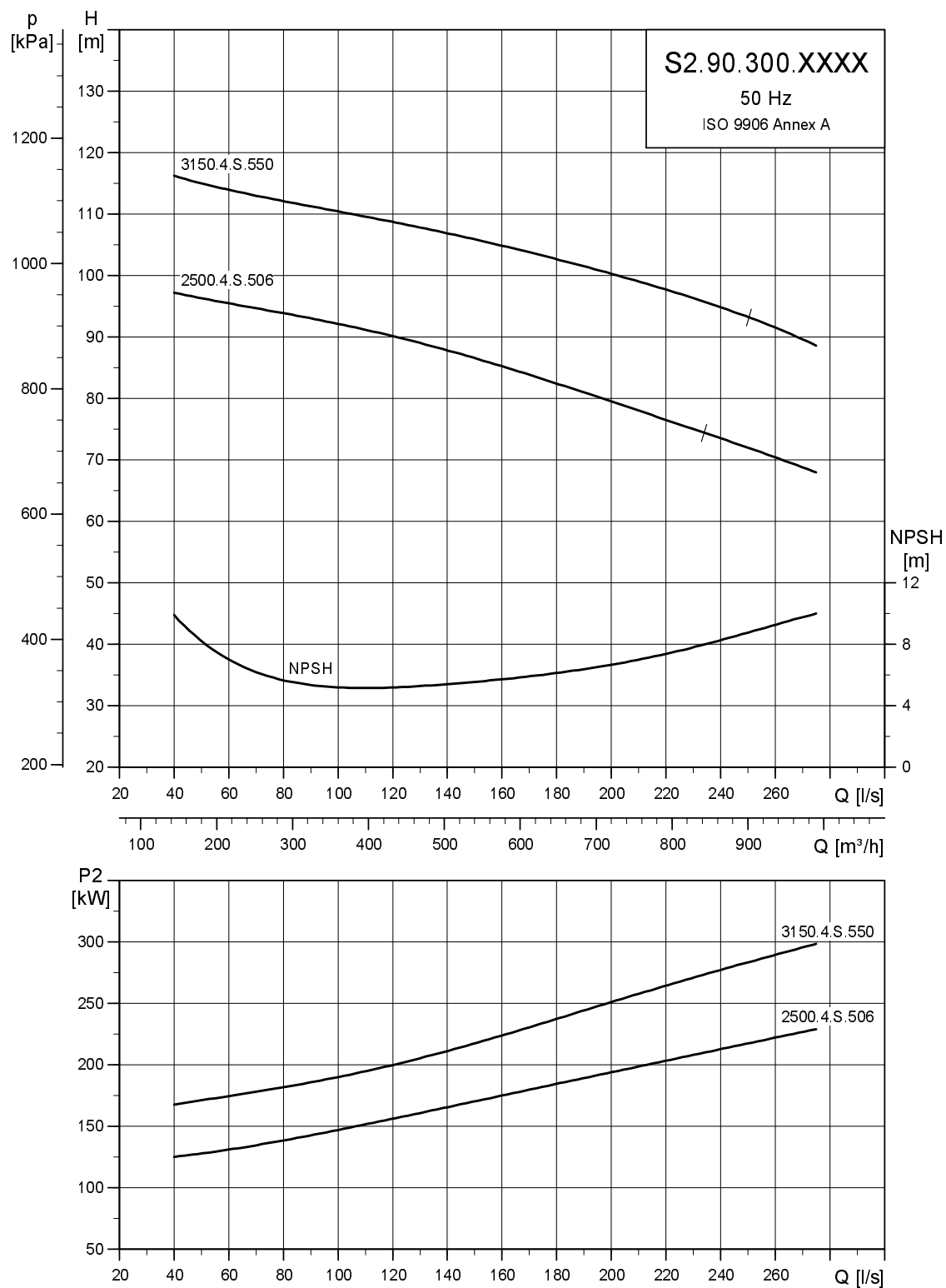
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.110.300.2000.6.74H.C	110	20	3000
S3.110.300.2000.6.74H.D	110	20	3000
S3.110.300.2000.6.74H.H	110	20	3200
S3.110.300.2500.6.74H.C	110	20	3100
S3.110.300.2500.6.74H.D	110	20	3100
S3.110.300.2500.6.74H.H	110	20	3400
S3.110.300.3150.6.74H.C	110	20	3900
S3.110.300.3150.6.74H.D	110	20	3900
S3.110.300.3150.6.74H.H	110	20	4100

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 74 super-high pressure, 4-pole

S2.90.300.2500 and S2.90.300.3150



TM04 5596 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S2.90.300.2500.4.74S	3 x 380-415/ 660-719	269	250	4	1488	Y/D	462	3464	93	93	93	0.69	0.79	0.84		7.47		5134		
S2.90.300.3150.4.74S	3 x 380-415/ 660-719	333	315	4	1488	Y/D	554	3926	94	94	94	0.77	0.84	0.87		11.05		5459		

Note: Enclosure class IP68

Pump data

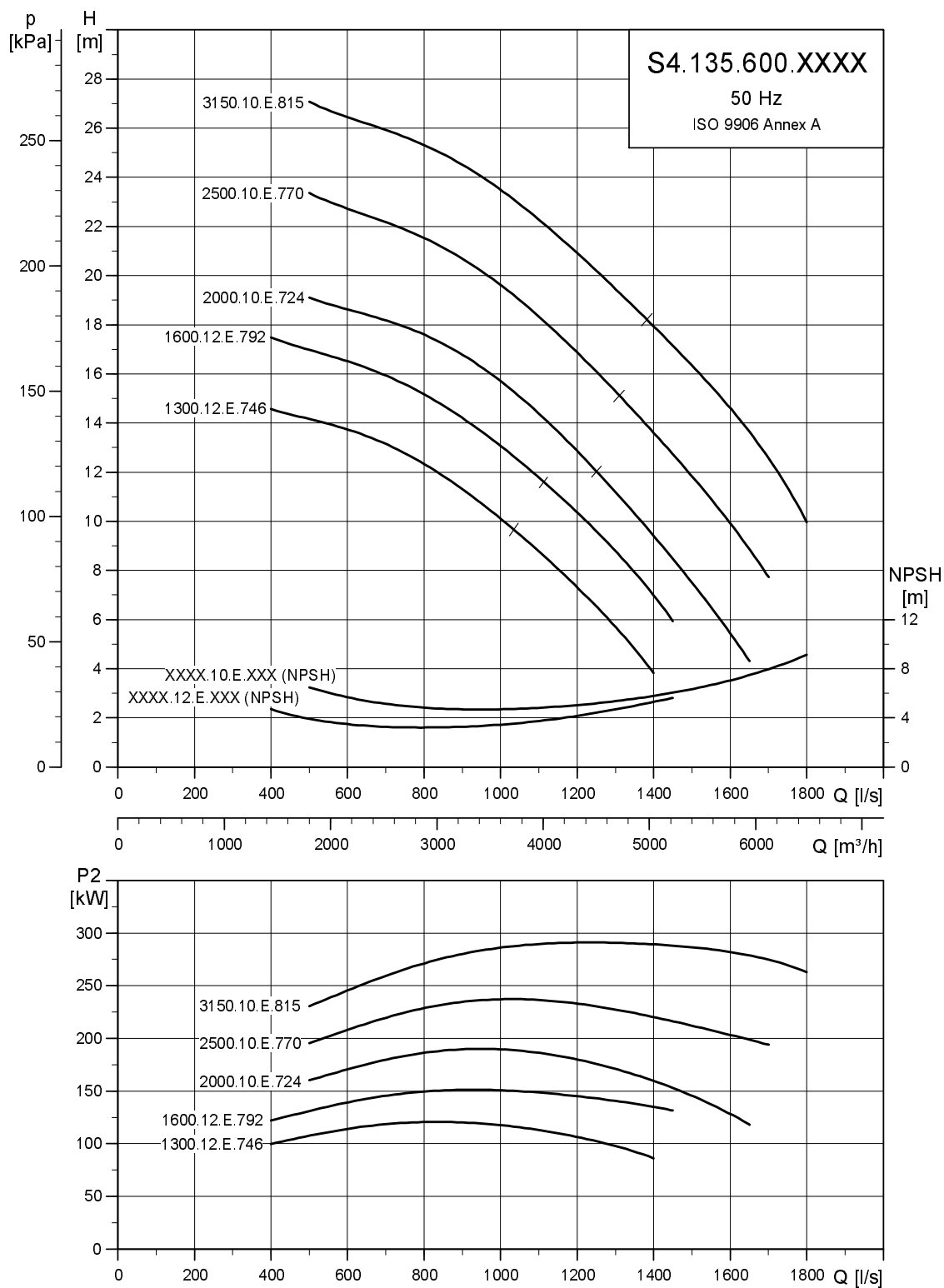
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S2.90.300.2500.4.74S.C	90	20	2800
S2.90.300.2500.4.74S.D	90	20	2800
S2.90.300.2500.4.74S.H	90	20	3000
S2.90.300.3150.4.74S.C	90	20	3500
S2.90.300.3150.4.74S.D	90	20	3500
S2.90.300.3150.4.74S.H	90	20	3700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 extra-low pressure, 10- and 12-pole

S4.135.600.1300, S4.135.600.1600, S4.135.600.2000, S4.135.600.2500 and S4.135.600.3150



TM04 5599 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S4.135.600.1300.12.78E	3 x 380-415/ 660-719	141	130	12	495	Y/D	288	1724	91	92	92	92	0.51	0.64	0.71				28.6	6270
S4.135.600.1600.12.78E	3 x 380-415/ 660-719	173	160	12	494	Y/D	338	1923	92	92	93	93	0.56	0.67	0.74				34	7424
S4.135.600.2000.10.78E	3 x 380-415/ 660-719	214	200	10	594	Y/D	401	2606	93	94	94	94	0.59	0.71	0.77				27.1	7074
S4.135.600.2500.10.78E	3 x 380-415/ 660-719	267	250	10	593	Y/D	508	3148	93	94	94	94	0.60	0.71	0.76				32.5	9260
S4.135.600.3150.10.78E	3 x 380-415/ 660-719	335	315	10	595	Y/D	672	4031	93	94	94	94	0.54	0.66	0.72				42	10617

Note: Enclosure class IP68

Pump data

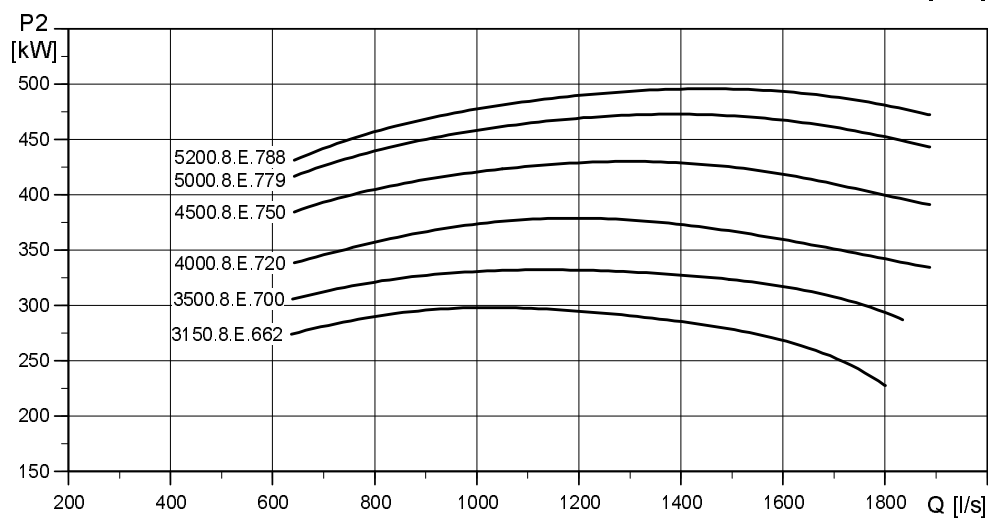
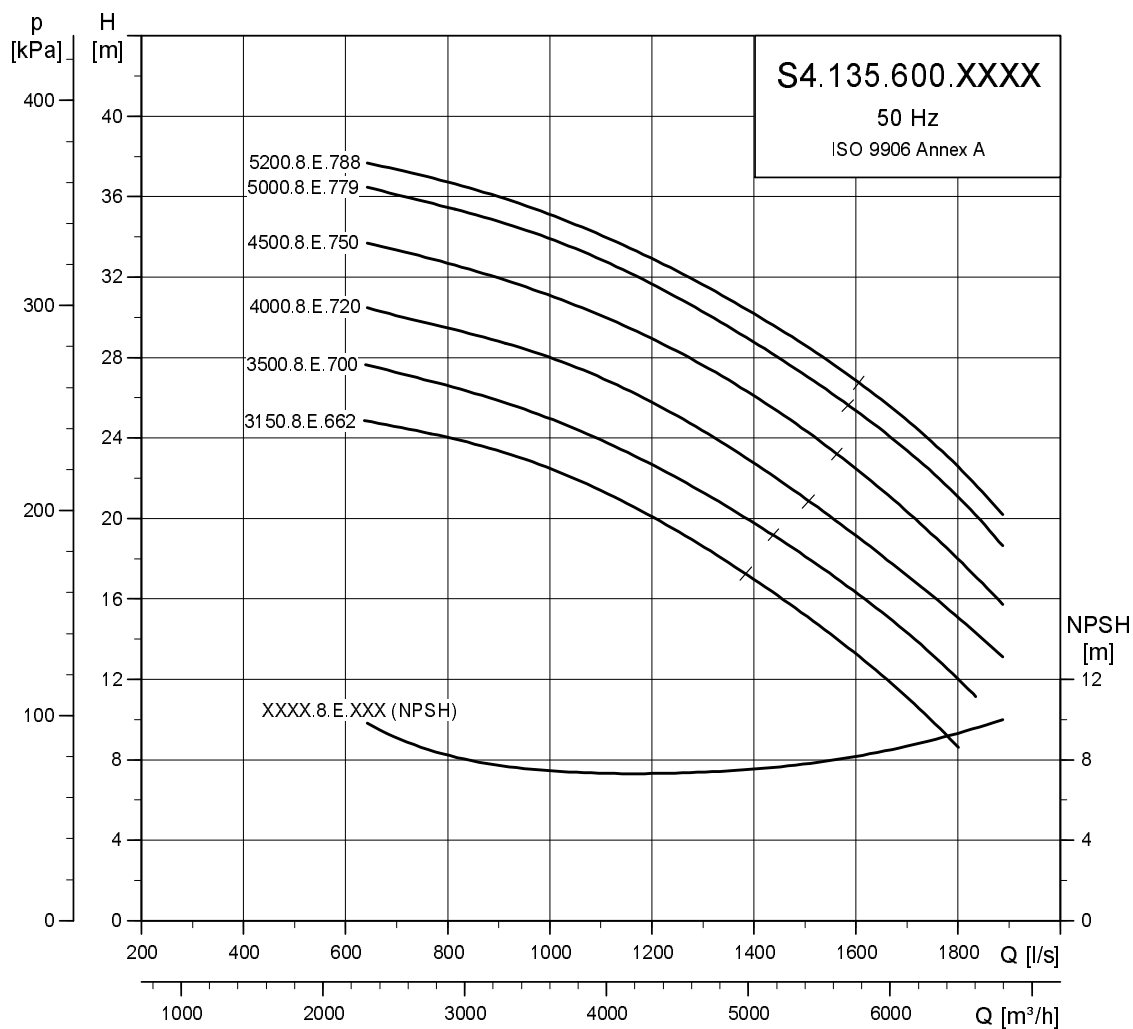
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S4.135.600.1300.12.78E.C	135	20	5700
S4.135.600.1300.12.78E.D	135	20	5700
S4.135.600.1300.12.78E.H	135	20	6300
S4.135.600.1600.12.78E.C	135	20	5900
S4.135.600.1600.12.78E.D	135	20	5900
S4.135.600.1600.12.78E.H	135	20	6500
S4.135.600.2000.10.78E.C	135	20	5800
S4.135.600.2000.10.78E.D	135	20	5800
S4.135.600.2000.10.78E.H	135	20	6400
S4.135.600.2500.10.78E.C	135	20	6000
S4.135.600.2500.10.78E.D	135	20	6000
S4.135.600.2500.10.78E.H	135	20	6600

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 extra-low pressure, 8-pole

S4.135.600.3150, S4.135.600.4000, S4.135.600.4500, S4.135.600.5000 and S4.135.600.5200



TM04 5598 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S4.135.600.3150.8.78E	3 x 380-415/ 660-719	335	315	8	744	Y/D	598	4180	94	94	94	94	0.65	0.75	0.81	42			10513	
S4.135.600.3500.8.78E	3 x 380-415/ 660-719	372	350	8	744	Y/D	652	4460	94	94	94	94	0.71	0.78	0.82	35.5			11311	
S4.135.600.4000.8.78E	3 x 380-415/ 660-719	426	400	8	743	Y/D	732	4460	94	94	94	94	0.73	0.80	0.84	36.6			11311	
S4.135.600.4500.8.78E	3 x 380-415/ 660-719	475	450	8	743	Y/D	837	5889	95	95	95	95	0.68	0.77	0.82	40.49			14139	
S4.135.600.5000.8.78E	3 x 380-415/ 660-719	529	500	8	743	Y/D	921	5889	95	95	95	95	0.70	0.79	0.83	42.5			14139	
S4.135.600.5200.8.78E	3 x 380/660	550	520	8	744	Y/D	1059	6456	94	95	94	94	0.64	0.75	0.79	44.2			18022	
S4.135.600.5200.8.78E	3 x 400-415/ 690-719	550	520	8	742	Y/D	957	4785	95	95	95	95	0.75	0.81	0.83	44.2			13385	

Note: Enclosure class IP68

Pump data

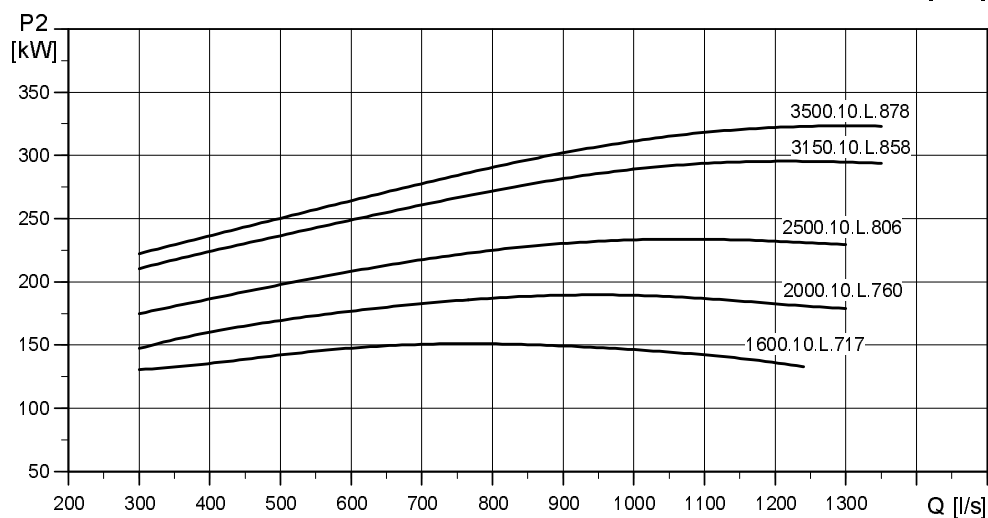
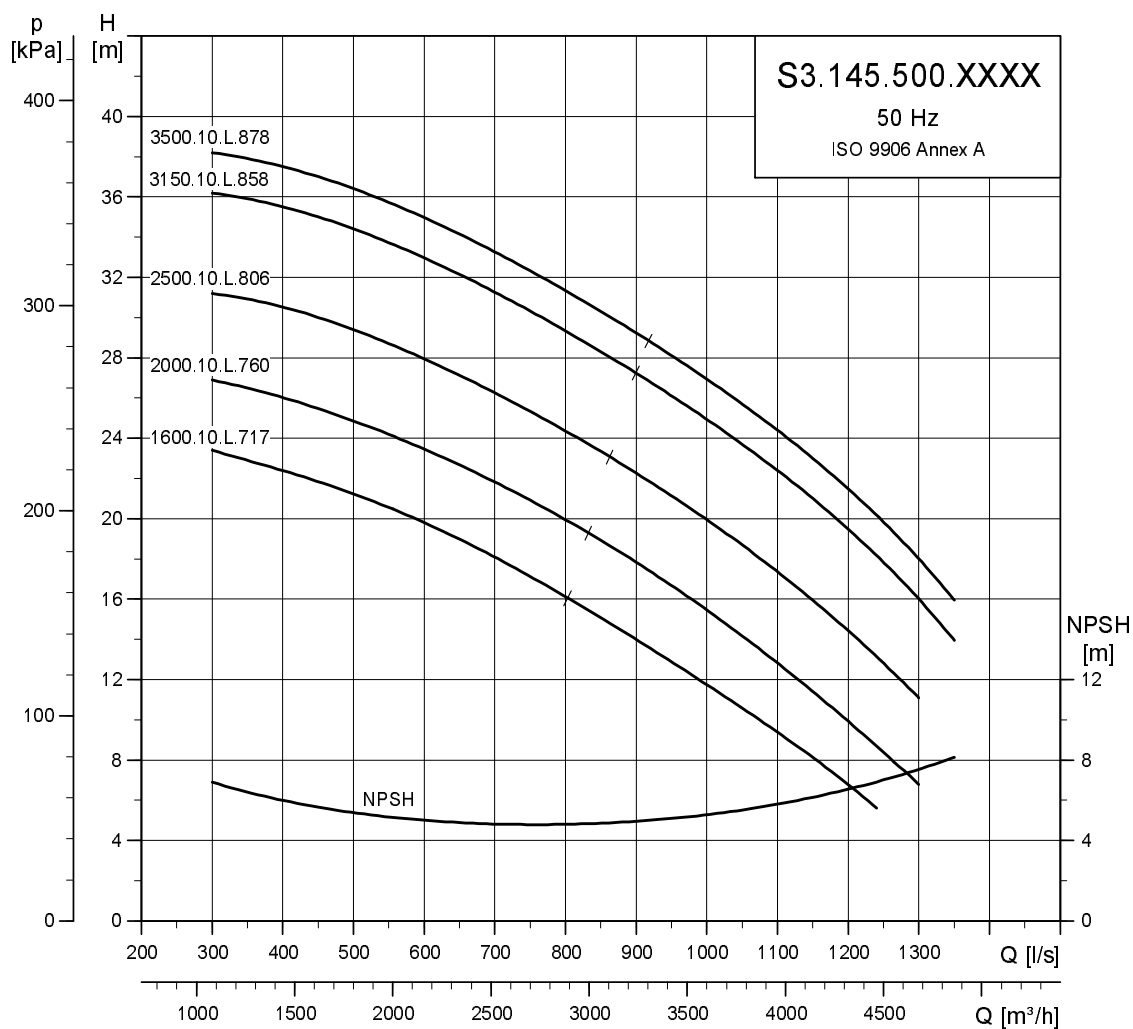
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S4.135.600.3150.8.78E.C	135	20	6300
S4.135.600.3150.8.78E.D	135	20	6300
S4.135.600.3150.8.78E.H	135	20	6900
S4.135.600.4000.8.78E.C	135	20	6800
S4.135.600.4000.8.78E.D	135	20	6800
S4.135.600.4000.8.78E.H	135	20	7300
S4.135.600.4500.8.78E.C	135	20	6900
S4.135.600.4500.8.78E.D	135	20	6900
S4.135.600.4500.8.78E.H	135	20	7500
S4.135.600.5000.8.78E.C	135	20	7000
S4.135.600.5000.8.78E.D	135	20	7000
S4.135.600.5000.8.78E.H	135	20	7500
S4.135.600.5200.8.78E.C	135	20	7100
S4.135.600.5200.8.78E.D	135	20	7100
S4.135.600.5200.8.78E.H	135	20	7700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 low pressure, 10-pole

S3.145.500.1600, S3.145.500.2000, S3.145.500.2500, S3.145.500.3150 and S3.145.500.3500



TM04 5604 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}			$\eta_{motor} [\%]$			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	3 x 380-415/ 660-719	172	160	10	595	Y/D	341	2245	92	93	93	0.55	0.67	0.73	23.29			6163	
S3.145.500.2000.10.78L	3 x 380-415/ 660-719	214	200	10	594	Y/D	401	2606	93	94	94	0.59	0.71	0.77	27.5			7074	
S3.145.500.2500.10.78L	3 x 380-415/ 660-719	267	250	10	593	Y/D	508	3148	93	94	94	0.60	0.71	0.76	32.58			9260	
S3.145.500.3150.10.78L	3 x 380-415/ 660-719	335	315	10	595	Y/D	672	4031	93	94	94	0.54	0.66	0.72	42.9			10617	
S3.145.500.3500.10.78L	3 x 380-415/ 660-719	372	350	10	594	Y/D	702	4262	94	94	94	0.58	0.68	0.74	48.5			12219	

Note: Enclosure class IP68

Pump data

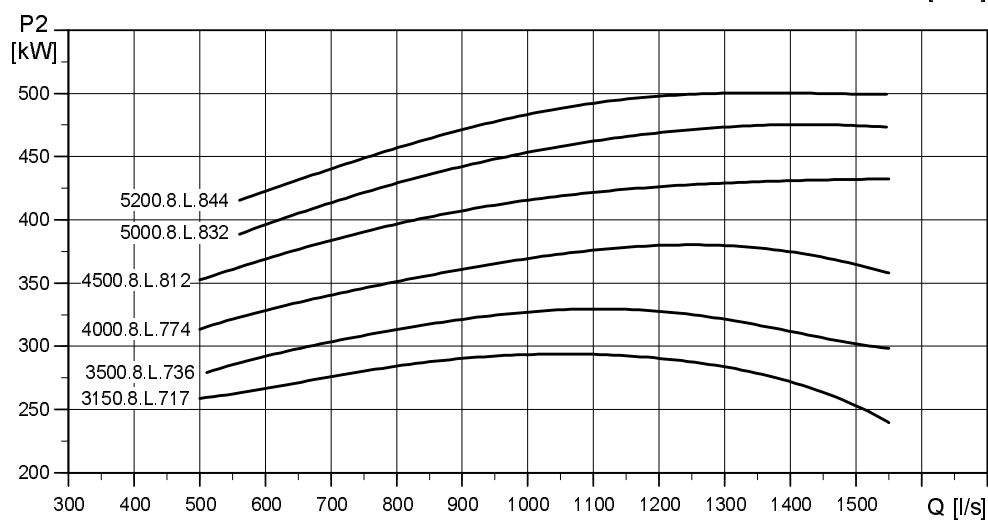
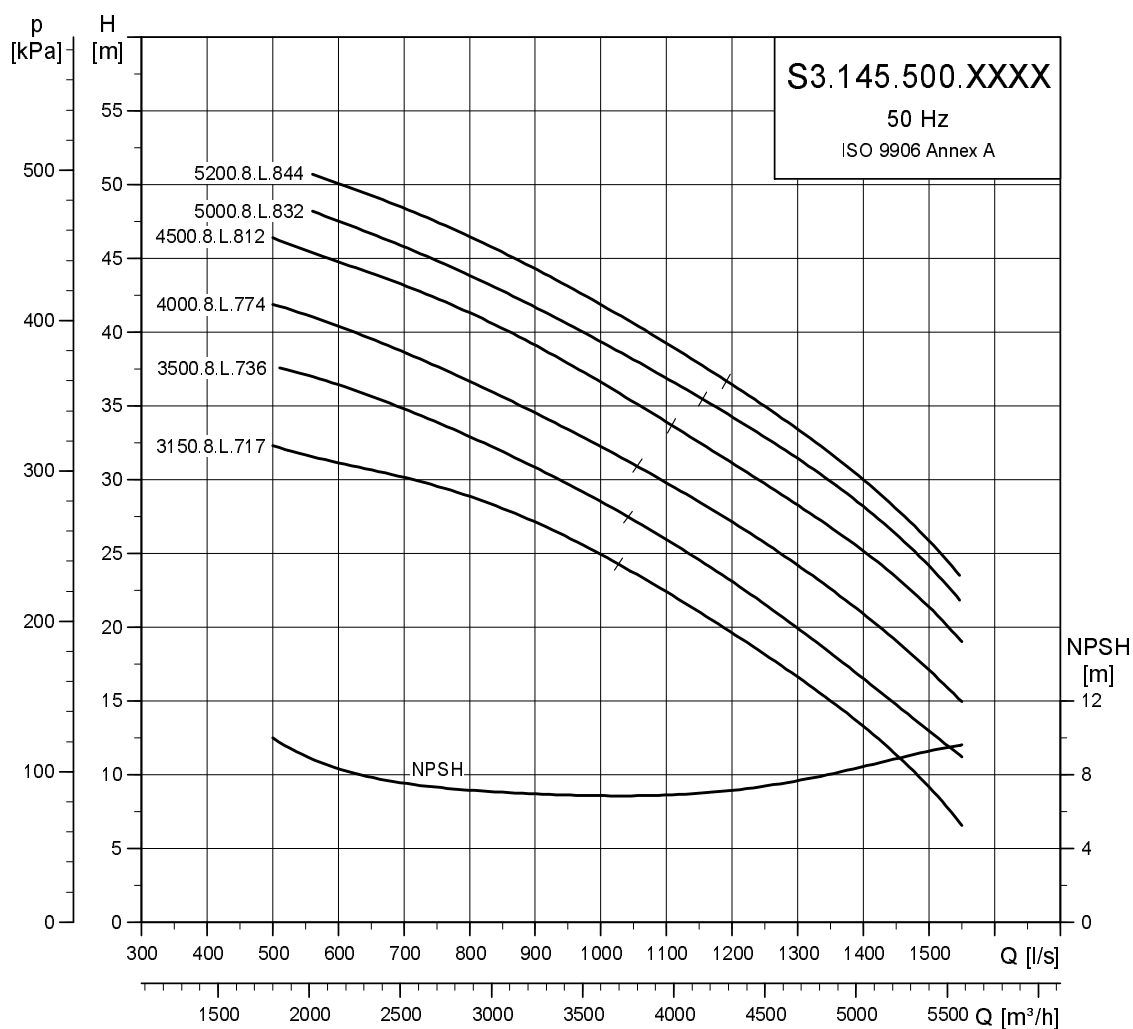
Pump type	Max. solids size	Max. installation depth	Weight
	[mm]	[m]	[kg]
S3.145.500.1600.10.78L.C	145	20	5000
S3.145.500.1600.10.78L.D	145	20	4900
S3.145.500.1600.10.78L.H	145	20	5300
S3.145.500.2000.10.78L.C	145	20	5100
S3.145.500.2000.10.78L.D	145	20	5000
S3.145.500.2000.10.78L.H	145	20	5500
S3.145.500.2500.10.78L.C	145	20	5400
S3.145.500.2500.10.78L.D	145	20	5300
S3.145.500.2500.10.78L.H	145	20	5800
S3.145.500.3150.10.78L.C	145	20	5900
S3.145.500.3150.10.78L.D	145	20	5800
S3.145.500.3150.10.78L.H	145	20	6300
S3.145.500.3500.10.78L.C	145	20	6200
S3.145.500.3500.10.78L.D	145	20	6100
S3.145.500.3500.10.78L.H	145	20	6600

With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 low pressure, 8-pole

S3.145.500.3150, S3.145.500.3500, S3.145.500.4000, S3.145.500.4500, S3.145.500.5000 and S3.145.500.5200



TM04 5602 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							I_N [A]	I_{start} [A]	I_{start} [A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.145.500.3150.8.78L	3 x 380-415/ 660-719	335	315	8	744	Y/D	598	4180	94	94	94	94	0.65	0.75	0.81	30.59			10513	
S3.145.500.3500.8.78L	3 x 380-415/ 660-719	372	350	8	744	Y/D	652	4460	94	94	94	94	0.71	0.78	0.82	35.7			11311	
S3.145.500.4000.8.78L	3 x 380-415/ 660-719	426	400	8	743	Y/D	732	4460	94	94	94	94	0.73	0.80	0.84	38.1			11311	
S3.145.500.4500.8.78L	3 x 380-415/ 660-719	475	450	8	743	Y/D	837	5889	95	95	95	95	0.68	0.77	0.82	42.5			14139	
S3.145.500.5000.8.78L	3 x 380-415/ 660-719	529	500	8	743	Y/D	921	5889	95	95	95	95	0.70	0.79	0.83	43.9			14139	
S3.145.500.5200.8.78L	3 x 380/660	550	520	8	744	Y/D	1059	6456	94	95	94	94	0.64	0.75	0.79	45.9			18022	
S3.145.500.5200.8.78L	3 x 400-415/ 660-719	550	520	8	742	Y/D	957	4785	95	95	95	95	0.75	0.81	0.83	45.9			13385	

Note: Enclosure class IP68

Pump data

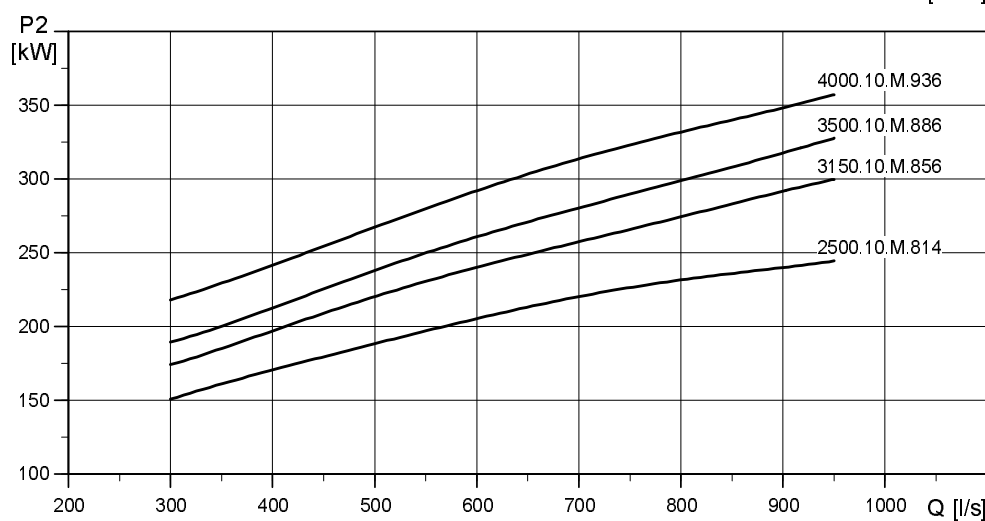
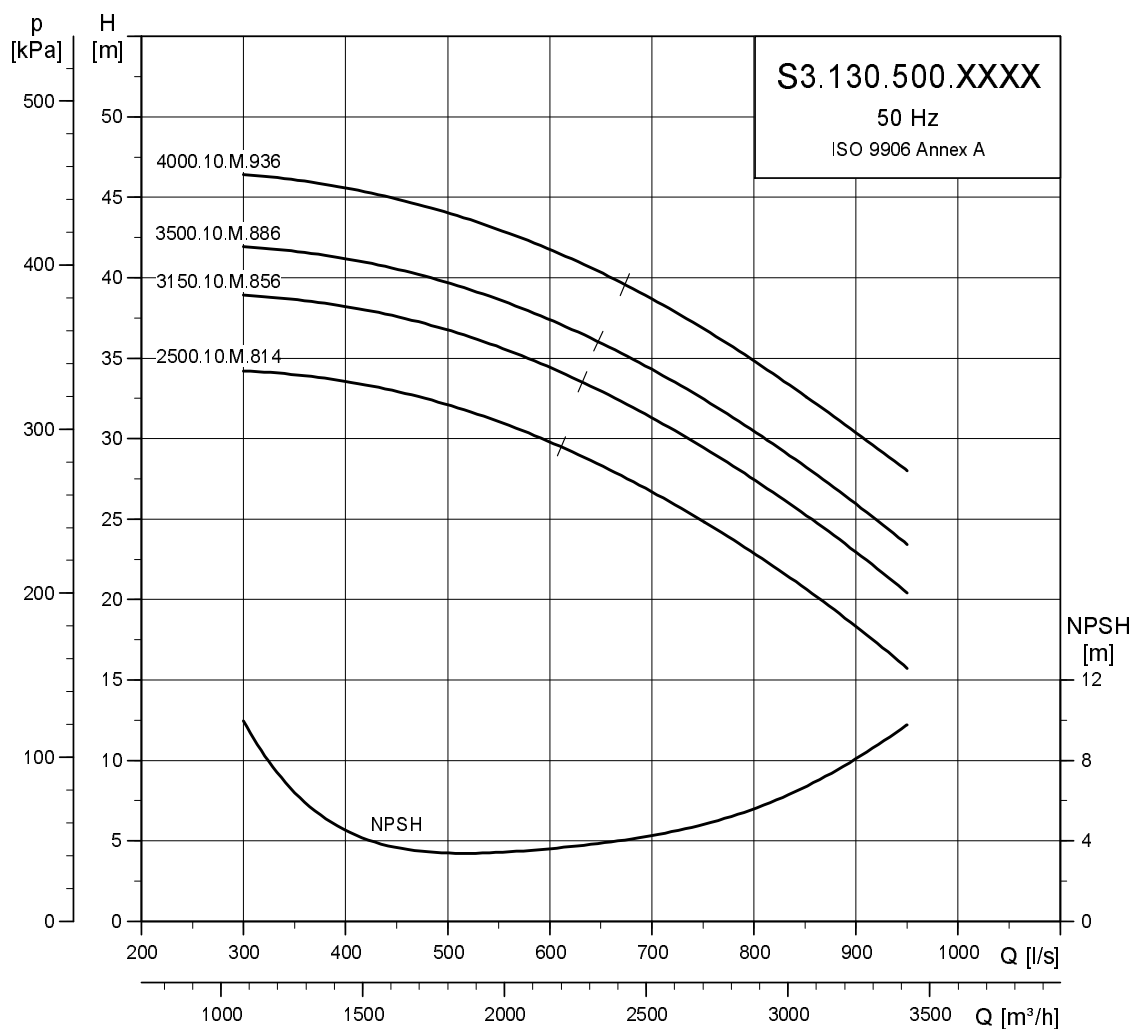
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.145.500.3150.8.78L.C	145	20	5700
S3.145.500.3150.8.78L.D	145	20	5600
S3.145.500.3150.8.78L.H	145	20	6100
S3.145.500.3500.8.78L.C	145	20	6000
S3.145.500.3500.8.78L.D	145	20	5900
S3.145.500.3500.8.78L.H	145	20	6400
S3.145.500.4000.8.78L.C	145	20	6100
S3.145.500.4000.8.78L.D	145	20	6000
S3.145.500.4000.8.78L.H	145	20	6500
S3.145.500.4500.8.78L.C	145	20	6200
S3.145.500.4500.8.78L.D	145	20	6100
S3.145.500.4500.8.78L.H	145	20	6600
S3.145.500.5000.8.78L.C	145	20	6300
S3.145.500.5000.8.78L.D	145	20	6200
S3.145.500.5000.8.78L.H	145	20	6700
S3.145.500.5200.8.78L.C	145	20	6400
S3.145.500.5200.8.78L.D	145	20	6300
S3.145.500.5200.8.78L.H	145	20	6800

* With 10 m table

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 middle pressure, 10-pole

S3.130.500.2500, S3.130.500.3150, S3.130.500.3500 and , S3.130.500.4000



TM04 5608 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \varphi$			Moment of iner- tia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.130.500.2500.10.78M	3 x 380-415/ 660-719	267	250	10	593	Y/D	508	3148	93	94	94	94	0.60	0.71	0.76	32.7			9260	
S3.130.500.3150.10.78M	3 x 380-415/ 660-719	335	315	10	595	Y/D	672	4031	93	94	94	94	0.54	0.66	0.72	42.3			10617	
S3.130.500.3500.10.78M	3 x 380-415/ 660-719	372	350	10	594	Y/D	702	4262	94	94	94	94	0.58	0.68	0.74	48.7			12219	
S3.130.500.4000.10.78M	3 x 380-400/ 660-690	426	400	10	595	Y/D	866	5190	93	94	94	94	0.52	0.64	0.71	53.3			13482	
S3.130.500.4000.10.78M	3 x 415/719	426	400	10	594	Y/D	790	4262	94	94	94	94	0.61	0.71	0.75	53.3			12219	

Note: Enclosure class IP68

Pump data

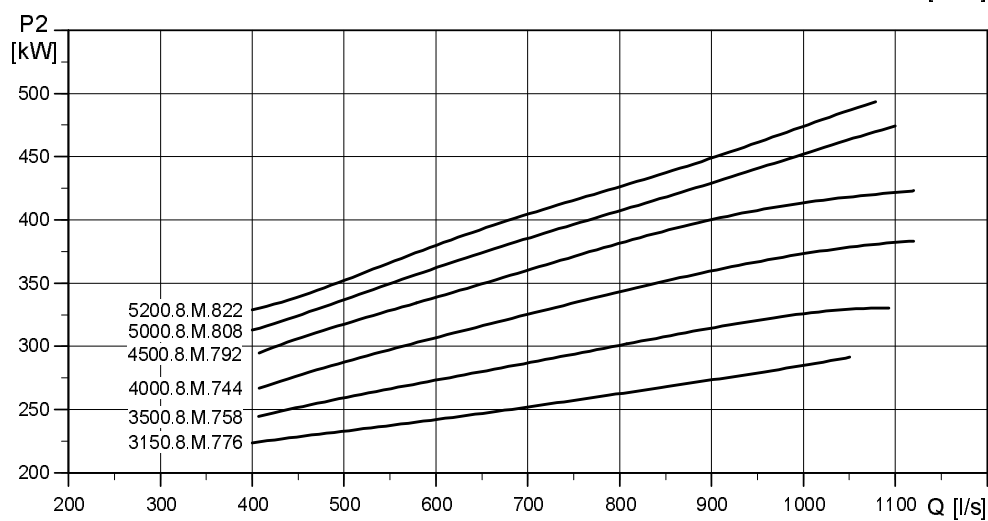
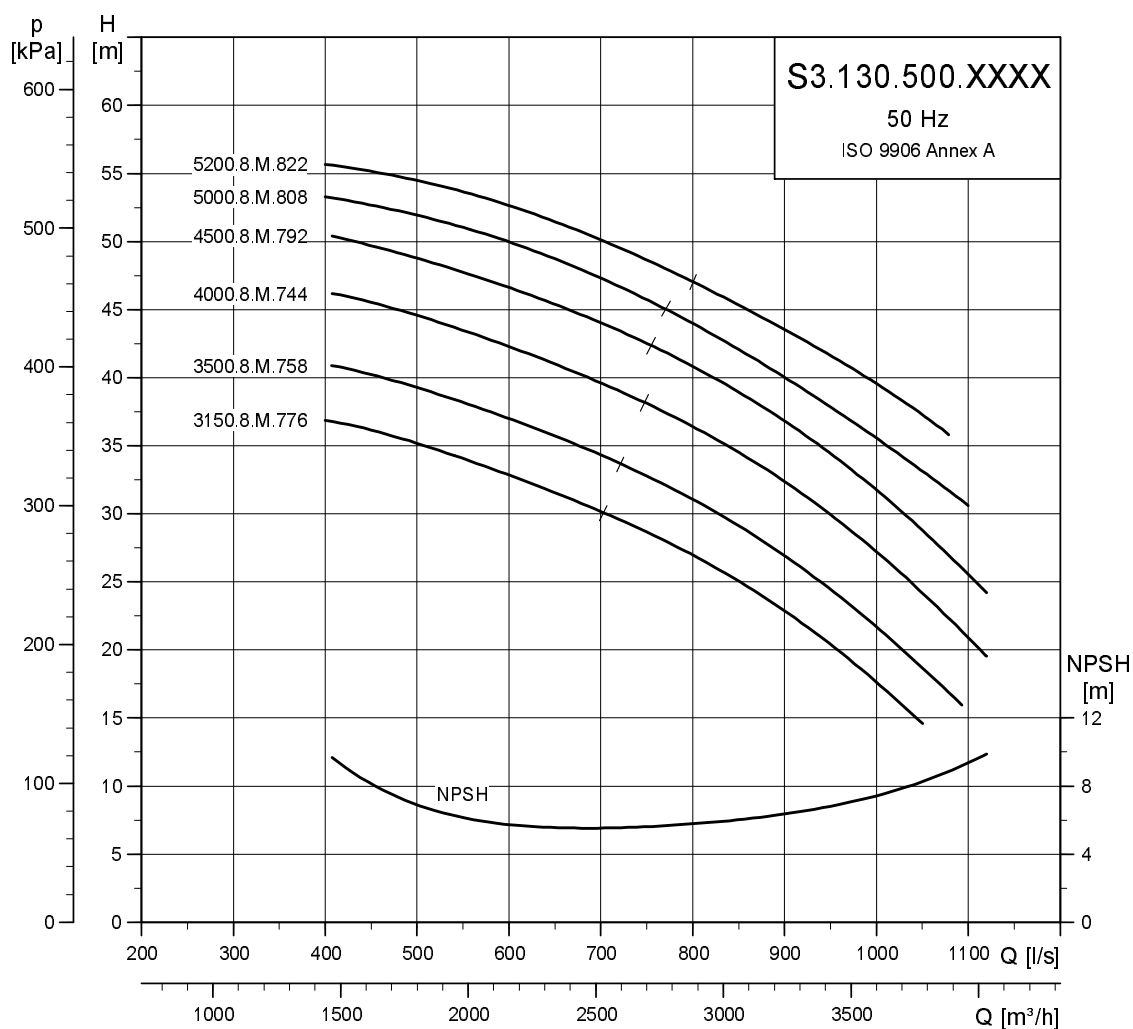
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.130.500.2500.10.78M.C	130	20	5200
S3.130.500.2500.10.78M.D	130	20	5100
S3.130.500.2500.10.78M.H	130	20	5600
S3.130.500.3150.10.78M.C	130	20	5800
S3.130.500.3150.10.78M.D	130	20	5600
S3.130.500.3150.10.78M.H	130	20	6100
S3.130.500.3500.10.78M.C	130	20	6100
S3.130.500.3500.10.78M.D	130	20	5900
S3.130.500.3500.10.78M.H	130	20	6400
S3.130.500.4000.10.78M.C	130	20	6100
S3.130.500.4000.10.78M.D	130	20	6000
S3.130.500.4000.10.78M.H	130	20	6500

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 middle pressure, 8-pole

S3.130.500.3150, S3.130.500.3500, S3.130.500.4000, S3.130.500.4500, S3.130.500.5000 and S3.130.500.5200



TM04 5606 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.130.500.3150.8.78M	3 x 380-415/ 660-719	335	315	8	744	Y/D	598	4180	94	94	94	94	0.65	0.75	0.81	31.98			10513	
S3.130.500.3500.8.78M	3 x 380-415/ 660-719	372	350	8	744	Y/D	652	4460	94	94	94	94	0.71	0.78	0.82	36.8			11311	
S3.130.500.4000.8.78M	3 x 380-415/ 660-719	426	400	8	743	Y/D	732	4460	94	94	94	94	0.73	0.80	0.84	37.9			11311	
S3.130.500.4500.8.78M	3 x 380-415/ 660-719	475	450	8	743	Y/D	837	5889	95	95	95	95	0.68	0.77	0.82	40.8			14139	
S3.130.500.5000.8.78M	3 x 380-415/ 660-719	529	500	8	743	Y/D	921	5889	95	95	95	95	0.70	0.79	0.83	41.9			14139	
S3.130.500.5200.8.78M	3 x 380/660	550	520	8	744	Y/D	1059	6456	94	95	94	94	0.64	0.75	0.79	43.81			18022	
S3.130.500.5200.8.78M	3 x 400-415/ 690-719	550	520	8	742	Y/D	957	4785	95	95	95	95	0.75	0.81	0.83	43.81			13385	

Note: Enclosure class IP68

Pump data

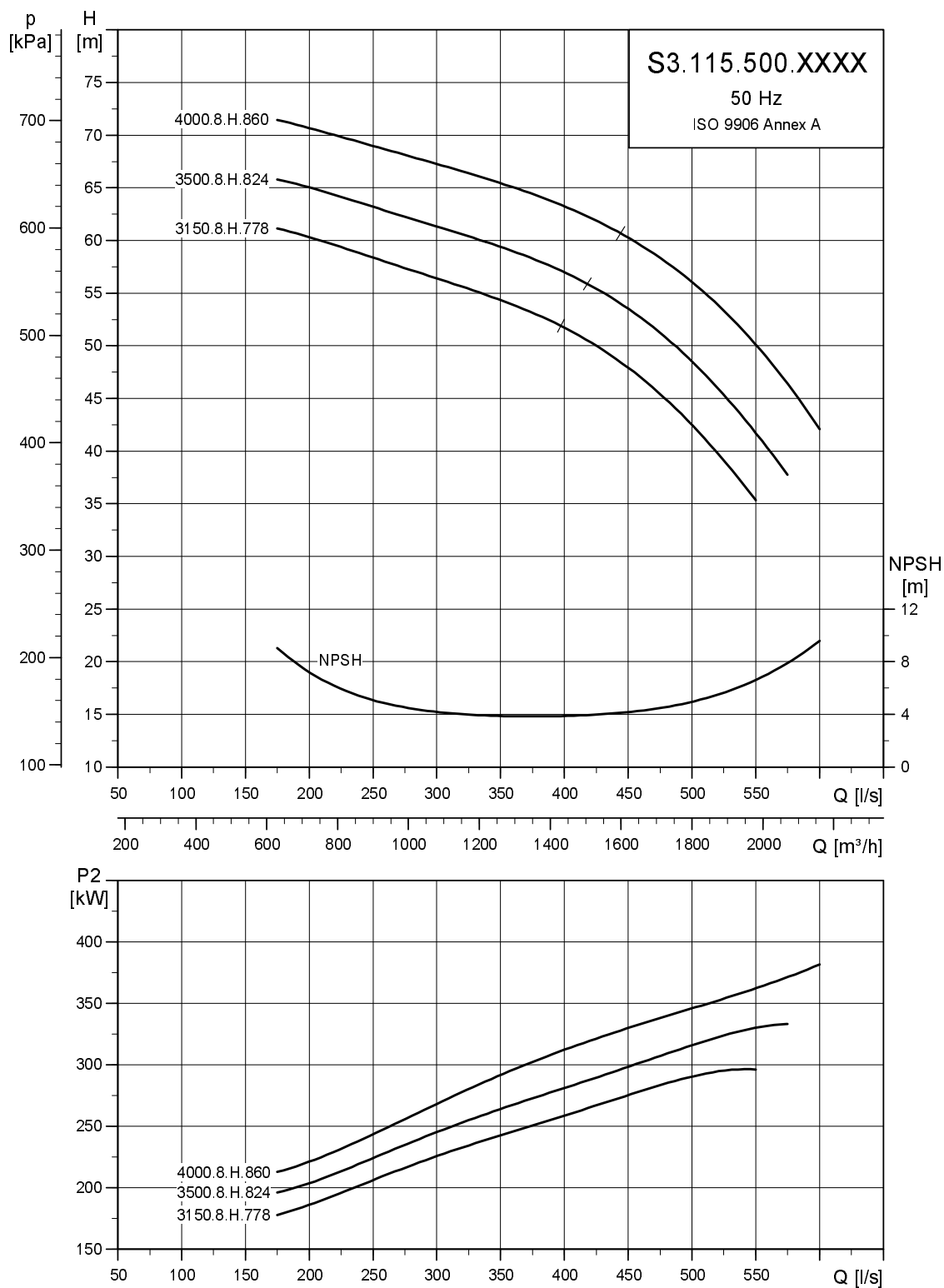
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.130.500.3150.8.78M.C	130	20	5500
S3.130.500.3150.8.78M.D	130	20	5400
S3.130.500.3150.8.78M.H	130	20	5900
S3.130.500.3500.8.78M.C	130	20	5900
S3.130.500.3500.8.78M.D	130	20	5800
S3.130.500.3500.8.78M.H	130	20	6300
S3.130.500.4000.8.78M.C	130	20	6000
S3.130.500.4000.8.78M.D	130	20	5900
S3.130.500.4000.8.78M.H	130	20	6400
S3.130.500.4500.8.78M.C	130	20	6100
S3.130.500.4500.8.78M.D	130	20	6000
S3.130.500.4500.8.78M.H	130	20	6500
S3.130.500.5000.8.78M.C	130	20	6200
S3.130.500.5000.8.78M.D	130	20	6100
S3.130.500.5000.8.78M.H	130	20	6600
S3.130.500.5200.8.78M.C	130	20	6300
S3.130.500.5200.8.78M.D	130	20	6200
S3.130.500.5200.8.78M.H	130	20	6700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

S 78 high pressure, 8-pole

S3.115.500.3150, S3.115.500.3500 and S3.115.500.4000



TM04 5600 0710

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N			I_{start}			η_{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
S3.115.500.3150.8.78H	3 x 380-415/ 660-719	335	315	8	744	Y/D	598	4180	94	94	94	94	0.65	0.75	0.81	31.76			10513	
S3.115.500.3500.8.78H	3 x 380-415/ 660-719	372	350	8	744	Y/D	652	4460	94	94	94	94	0.71	0.78	0.82	38.7			11311	
S3.115.500.4000.8.78H	3 x 380-415/ 660-719	426	400	8	743	Y/D	732	4460	94	94	94	94	0.73	0.80	0.84	41.13			11311	
S3.115.500.4500.8.78H	3 x 380-415/ 660-719	475	450	8	743	Y/D	837	5889	95	95	95	95	0.68	0.77	0.82	44.8			14139	
S3.115.500.5000.8.78H	3 x 380-415/ 660-719	529	500	8	743	Y/D	921	5889	95	95	95	95	0.70	0.79	0.83	46.4			14139	
S3.115.500.5200.8.78H	3 x 380/660	550	520	8	744	Y/D	1059	6456	94	95	94	94	0.64	0.75	0.79	48.4			18022	
S3.115.500.5200.8.78H	3 x 400-415/ 690-719	550	520	8	742	Y/D	957	4785	95	95	95	95	0.75	0.81	0.83	48.4			13385	

Note: Enclosure class IP68

Pump data

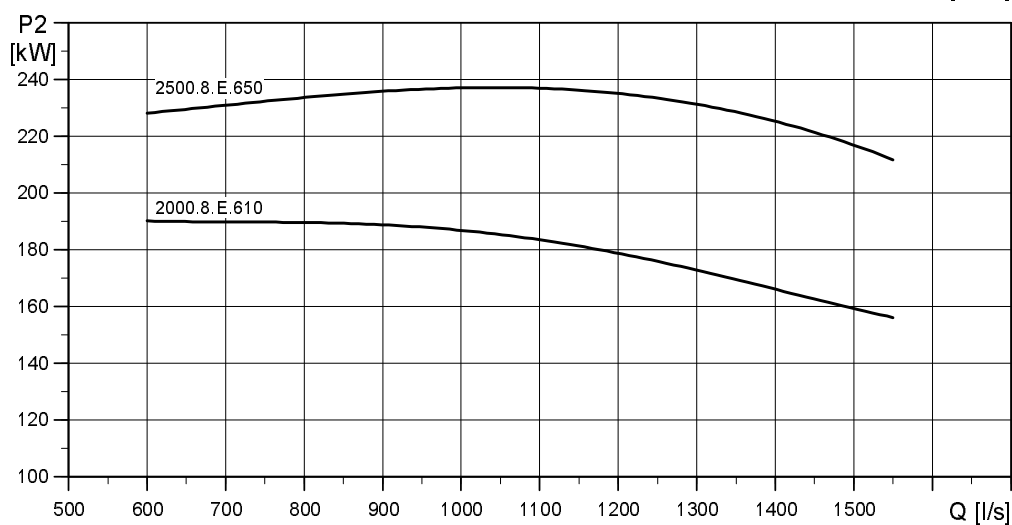
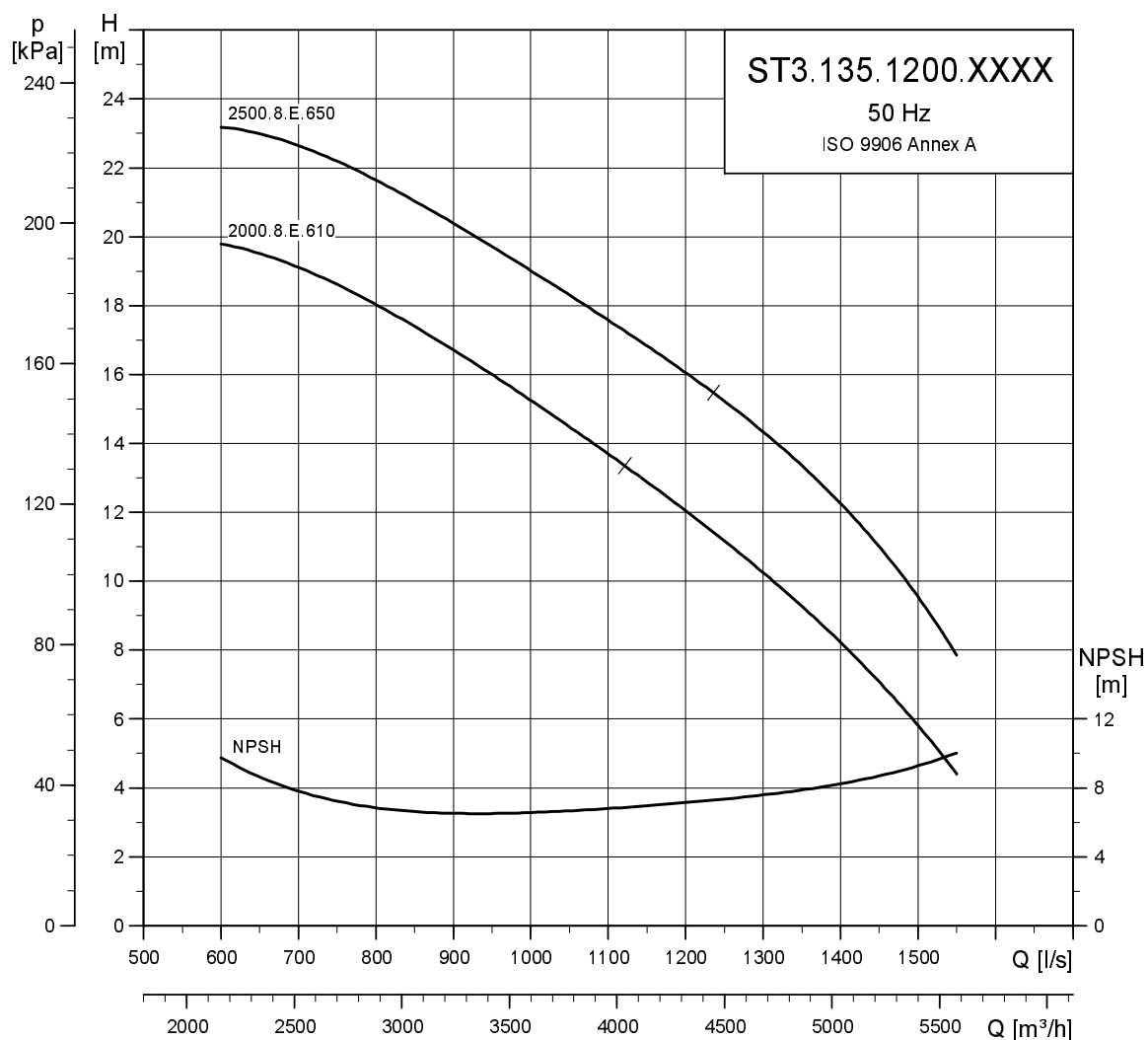
Pump type	Max. solids size	Max. installation depth	Weight *
	[mm]	[m]	[kg]
S3.115.500.3150.8.78H.C	115	20	5600
S3.115.500.3150.8.78H.D	115	20	5500
S3.115.500.3150.8.78H.H	115	20	6000
S3.115.500.3500.8.78H.C	115	20	6000
S3.115.500.3500.8.78H.D	115	20	5800
S3.115.500.3500.8.78H.H	115	20	6300
S3.115.500.4000.8.78H.C	115	20	6100
S3.115.500.4000.8.78H.D	115	20	5900
S3.115.500.4000.8.78H.H	115	20	6400
S3.115.500.4500.8.78H.C	115	20	6200
S3.115.500.4500.8.78H.D	115	20	6000
S3.115.500.4500.8.78H.H	115	20	6500
S3.115.500.5000.8.78H.C	115	20	6200
S3.115.500.5000.8.78H.D	115	20	6100
S3.115.500.5000.8.78H.H	115	20	6600
S3.115.500.5200.8.78H.C	115	20	6400
S3.115.500.5200.8.78H.D	115	20	6200
S3.115.500.5200.8.78H.H	115	20	6700

* With 10 m cable

For installation type S and C the guide claw is mounted on the discharge flange from factory.

ST 74, 8 pole, Extra-low pressure

ST3.135.1200.XXXX



TM04 6905 1110

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I_N		I_{start}		η_{motor} [%]			$\cos \varphi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
ST3.135.1200.2000. 8.74E.S.610	3x380-415/ 660-719 V	214	200	8	744	Y/D	396	3008	93	94	94	0.61	0.73	0.78			16.93	5134
ST3.135.1200.2500. 8.74E.S.650	3x380-415/ 660-719 V	267	250	8	741	Y/D	465	2836	93	94	94	0.71	0.80	0.83			23.15	8055

Note: Enclosure class IP68

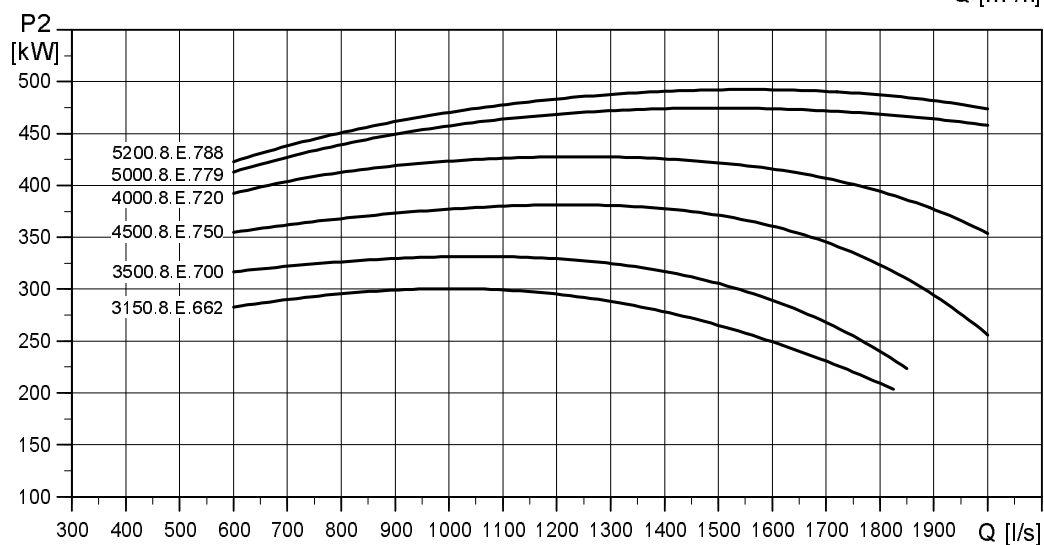
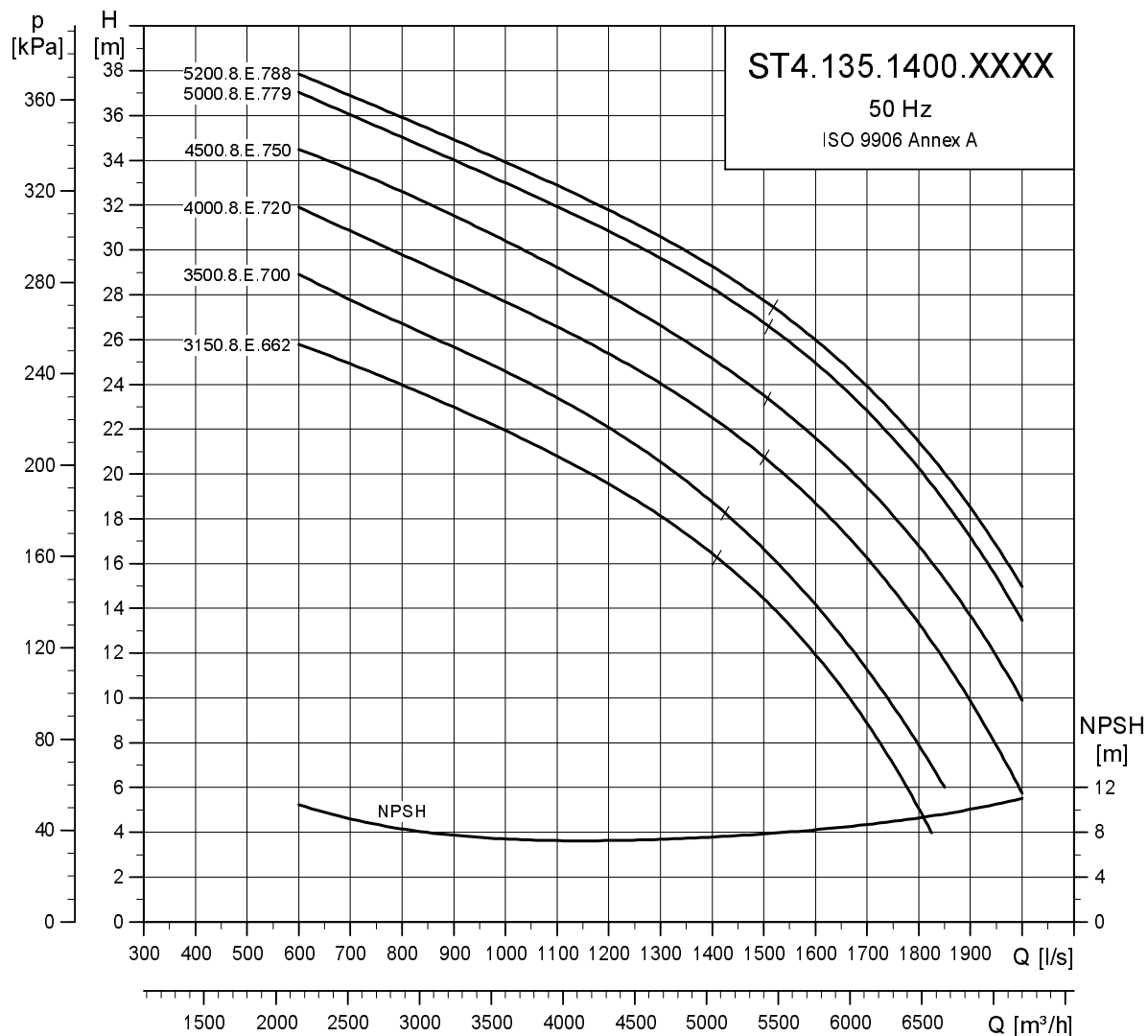
Pump data

Pump type	Max. solids size	Max. installation depth	Column dia.	Weight *
	[mm]	[m]	[mm]	[kg]
ST3.135.1200.2000.8.74E.S.610	135	20	1200	2800
ST3.135.1200.2500.8.74E.S.650	135	20	1200	3400

* With 10 m cable

ST 78, 8-pole, Extra-low pressure

ST3.135.1400.XXXX



TM04 6906 1110

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N	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		
ST4.135.1400.3150. 8.78E.S.662	3x380-415/ 660-719 V	335	315	8	744	Y/D	598	4180	94	94	94	0.65	0.75	0.81	29.55	10513
ST4.135.1400.3500. 8.78E.S.700	3x380-415/ 660-719 V	372	350	8	744	Y/D	652	4460	94	94	94	0.71	0.78	0.82	35.50	11311
ST4.135.1400.4000. 8.78E.S.720	3x380-415/ 660-719 V	426	400	8	743	Y/D	732	4460	94	94	94	0.73	0.80	0.84	36.60	11311
ST4.135.1400.4500. 8.78E.S.750	3x380-415/ 660-719 V	475	450	8	743	Y/D	837	5889	95	95	95	0.68	0.77	0.82	40.49	14139
ST4.135.1400.5000. 8.78E.S.779	3x380-415/ 660-719 V	529	500	8	743	Y/D	921	5889	95	95	95	0.70	0.79	0.83	42.50	14139
ST4.135.1400.5200. 8.78E.S.788	3x380/660 V	550	520	8	744	Y/D	1059	6456	94	95	94	0.64	0.75	0.79	44.20	18022
ST4.135.1400.5200. 8.78E.S.788	3x400-415/ 690-719 V	550	520	8	742	Y/D	957	4785	95	95	95	0.75	0.81	0.83	44.20	13385

Note: Enclosure class IP68

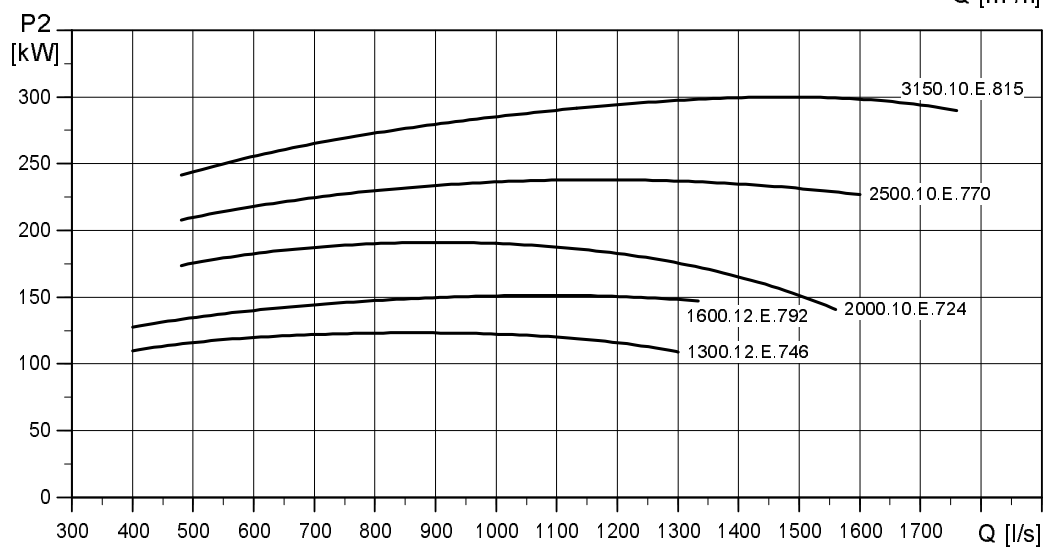
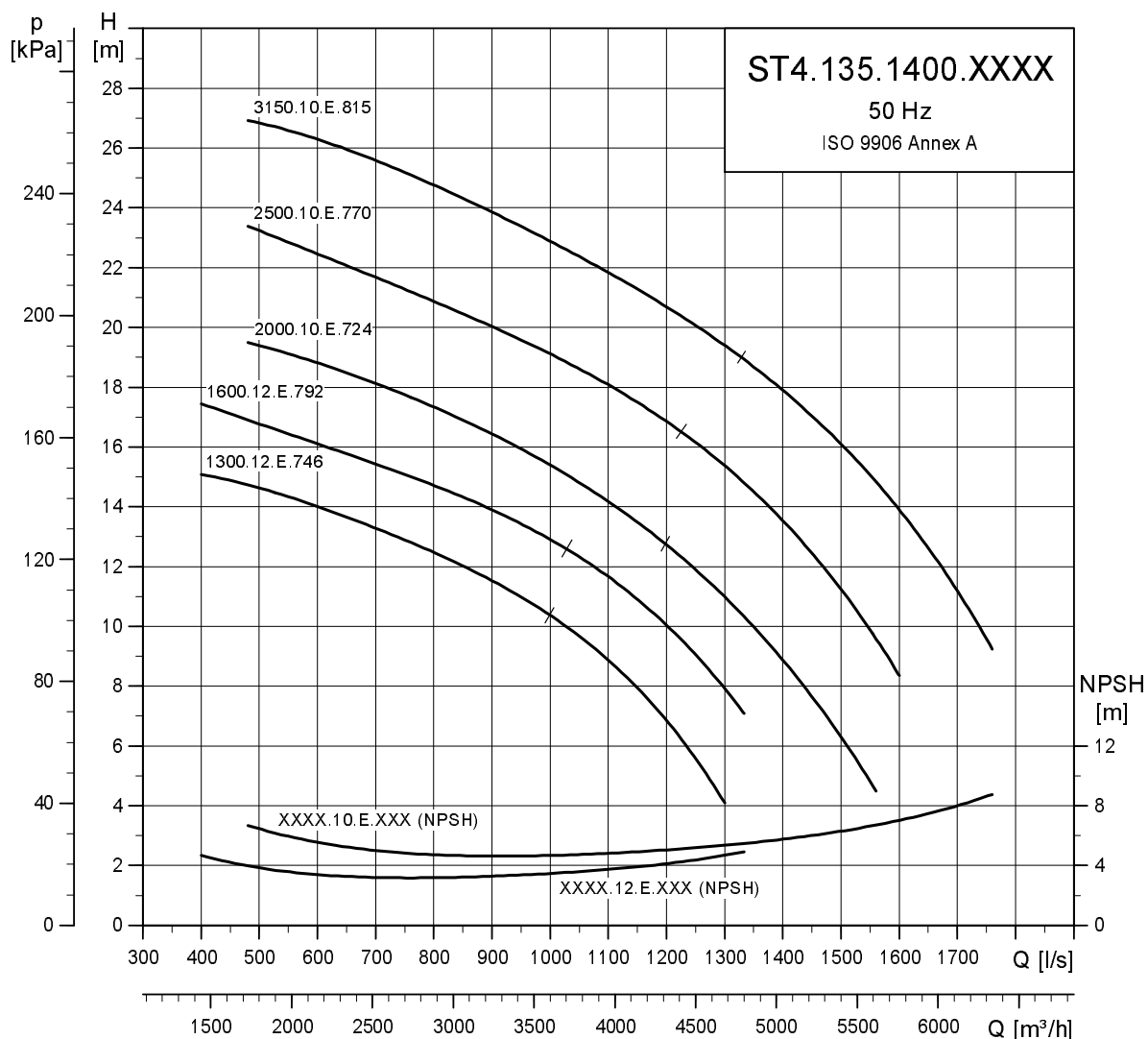
Pump data

Pump type	Max. solids size	Max. installation depth	Column dia.	Weight *
	[mm]	[m]	[mm]	[kg]
ST4.135.1400.3150.8.78E.S.662	135	20	1400	4700
ST4.135.1400.3500.8.78E.S.700	135	20	1400	5000
ST4.135.1400.4000.8.78E.S.720	135	20	1400	5100
ST4.135.1400.4500.8.78E.S.750	135	20	1400	5200
ST4.135.1400.5000.8.78E.S.779	135	20	1400	5300
ST4.135.1400.5200.8.78E.S.788	135	20	1400	5400
ST4.135.1400.5200.8.78E.S.788	135	20	1400	5400

* With 10 m cable

ST 78, 10- and 12-pole, Extra-low pressure

ST3.135.1400.XXXX



TM04 6907 1110

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	Poles	Rpm	Con- nection	I _N	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				
ST4.135.1400.2000.10.78E.S.724	3x380-415/ 660-719 V	214	200	10	594	Y/D	401	2606	93	94	94	0.59	0.71	0.77	27.10	7074		
ST4.135.1400.2500.10.78E.S.770	3x380-415/ 660-719 V	267	250	10	593	Y/D	508	3148	93	94	94	0.60	0.71	0.76	32.50	9260		
ST4.135.1400.3150.10.78E.S.815	3x380-415/ 660-719 V	335	315	10	595	Y/D	672	4031	93	94	94	0.54	0.66	0.72	42.00	10617		
ST4.135.1400.1300.12.78E.S.746	3x380-415/ 660-719 V	141	130	12	495	Y/D	288	1724	91	92	92	0.51	0.64	0.71	28.60	6270		
ST4.135.1400.1600.12.78E.S.792	3x380-415/ 660-719 V	173	160	12	494	Y/D	338	1923	92	92	93	0.56	0.67	0.74	34.00	7424		

Note: Enclosure class IP68

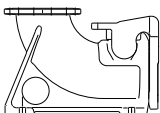
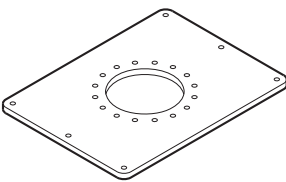
Pump data

Pump type	Max. solids size	Max. installation depth	Column dia.	Weight *
	[mm]	[m]	[mm]	[kg]
ST4.135.1400.2000.10.78E.S.724	135	20	1400	4200
ST4.135.1400.2500.10.78E.S.770	135	20	1400	4400
ST4.135.1400.3150.10.78E.S.815	135	20	1400	4900
ST4.135.1400.1300.12.78E.S.746	135	20	1400	4100
ST4.135.1400.1600.12.78E.S.792	135	20	1400	4300

* With 10 m cable

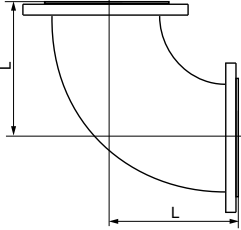
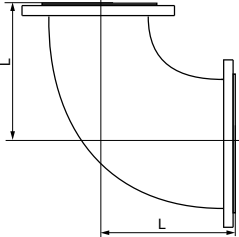
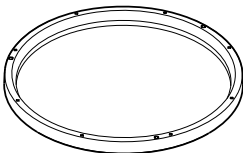
Accessories (for installation)

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 (accessories as separate kit)
Range 72, 74, 78 H	Base stand for horizontal, dry installation supplied together with the pump

Pictures	Description	Size	Weight [kg]	PN	Product numbers
 TM03 2178 3805	Cast-iron, epoxy-coated auto-coupling system complete with: • base unit • upper guide rail bracket.	DN 250 range 72	225	10	96782483
		DN 300 ranges 72 and 74	275	10	96782484
		DN 300 range 74	275	16	97500267
		DN 500 ranges 72, 74, 78	705	10	96782485
		DN 600 ranges 72, 74, 78	900	10	96782486
Intermediate guide rail bracket	For guide rails longer than 6 m	DN 200-600	8		96255842
Guide rails	Standard pipes. Not supplied by Grundfos	Dimensions on pages 89-92			
 TM03 2015 3505	Base plate for vertical, dry installation. With gaskets and bolts. Steel, epoxy-coated.	DN 250	90		96308240
		DN 300	87		96308241
		DN 400 ranges 72 and 74	217		96256023
		DN 500	167		96308245
		DN 500 ranges 72 and 74	300		96256024
		DN 600 ranges 72 and 74	340		96256025
		DN 800 range 78	568	10	97500287
		DN 500 range 78	465		97500283

** Installation type C and S pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

Pictures	Description	Size	Weight [kg]	PN	Product numbers
	Equal bend L = 350 mm DN 250			10	96060942
	Equal bend L = 400 mm DN 300			10	96060946
	Equal bend L = 500 mm DN 400			10	96060949
	Equal bend L = 600 mm DN 500			10	96060951
	Equal bend L = 600 mm DN 600			10	96060952
	Equal bend L = 600 mm DN 800			10	96488021
	Reducing bend L = 350 DN 200/DN 250			10	96090776
	Reducing bend L = 400 DN 200/DN 300			10	96060940
	Reducing bend L = 500 DN 200/DN 400			10	96605615
	Reducing bend L = 400 DN 250/DN 300			10	96060943
	Reducing bend L = 450 DN 250/DN 350			10	96060944
	Reducing bend L = 500 DN 250/DN 400			10	96060945
	Reducing bend L = 500 DN 300/DN 400			10	96060947
	Reducing bend L = 600 DN 400/DN 500			10	96060950
	Reducing bend L = 700 DN 500/DN 600			10	96733539
	Reducing bend L = DN 500/DN 700			10	
	Reducing bend L = DN 600/DN 700			10	
	Reducing bend L = DN 800/DN 1000			10	
	Seat-ring for ST pumps	Ranges 72 and 74	115		97500988
		Range 78	230		97500989

** Installation type C pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

Other accessories

Pictures	Description	Dimensions		Product number
	4 m galvanised lifting chain with lifting link and safety hook. Certified.	3200 kg	S 72	96468294
	6 m galvanised lifting chain with lifting link and safety hook. Certified.			96468295
	8 m galvanised lifting chain with lifting link and safety hook. Certified.			96468296
	10 m galvanised lifting chain with lifting link and safety hook. Certified.			96468297
	12 m galvanised lifting chain with lifting link and safety hook. Certified.			96468298
	4 m stainless steel lifting chain with lifting link and safety hook. Certified.	3200 kg	S 72	96490259
	6 m stainless steel lifting chain with lifting link and safety hook. Certified.			96490270
	8 m stainless steel lifting chain with lifting link and safety hook. Certified.			96490271
	10 m stainless steel lifting chain with lifting link and safety hook. Certified.			96490272
	12 m stainless steel lifting chain with lifting link and safety hook. Certified.			96490273
	4 m galvanised lifting chain with lifting link and safety hook. Certified.	8000 kg	S 74-78	96468299
	6 m galvanised lifting chain with lifting link and safety hook. Certified.			96468300
	8 m galvanised lifting chain with lifting link and safety hook. Certified.			96468301
	10 m galvanised lifting chain with lifting link and safety hook. Certified.			96468302
	12 m galvanised lifting chain with lifting link and safety hook. Certified.			96468303
	TM02 6128 5102			
	Float switch with 10 m cable			96003332
	Float switch with 20 m cable			96003695
	Float switch for use in potentially explosive environments. With 10 m cable			96003421
	TM01 6982 3999			
	Float switch for use in potentially explosive environments. With 20 m cable			96003536
	TM02 8862 0904			
	Bracket for two float switches			96003338
	TM02 0670 5000		2 switches, 1 pump without alarm	
			3 switches, 1 pump with alarm	
			3 switches, 2 pumps with alarm	
			4 switches, 2 pumps with alarm	
	TM02 0670 5000		2 switches, 1 pump without alarm	62500016
			3 switches, 1 pump with alarm	62500017
			3 switches, 2 pumps with alarm	62500017
			4 switches, 2 pumps with alarm	62500018
	TM02 8860 0904			
			Bracket for level electrodes	
			For mounting on a 38 mm pipe	91713196

** Installation type C pumps are supplied with guide claw mounted on the flange. The guide claw is part of the pump product number.

*** The horizontal base stand is included in the pump product number.

Installation on auto-coupling system

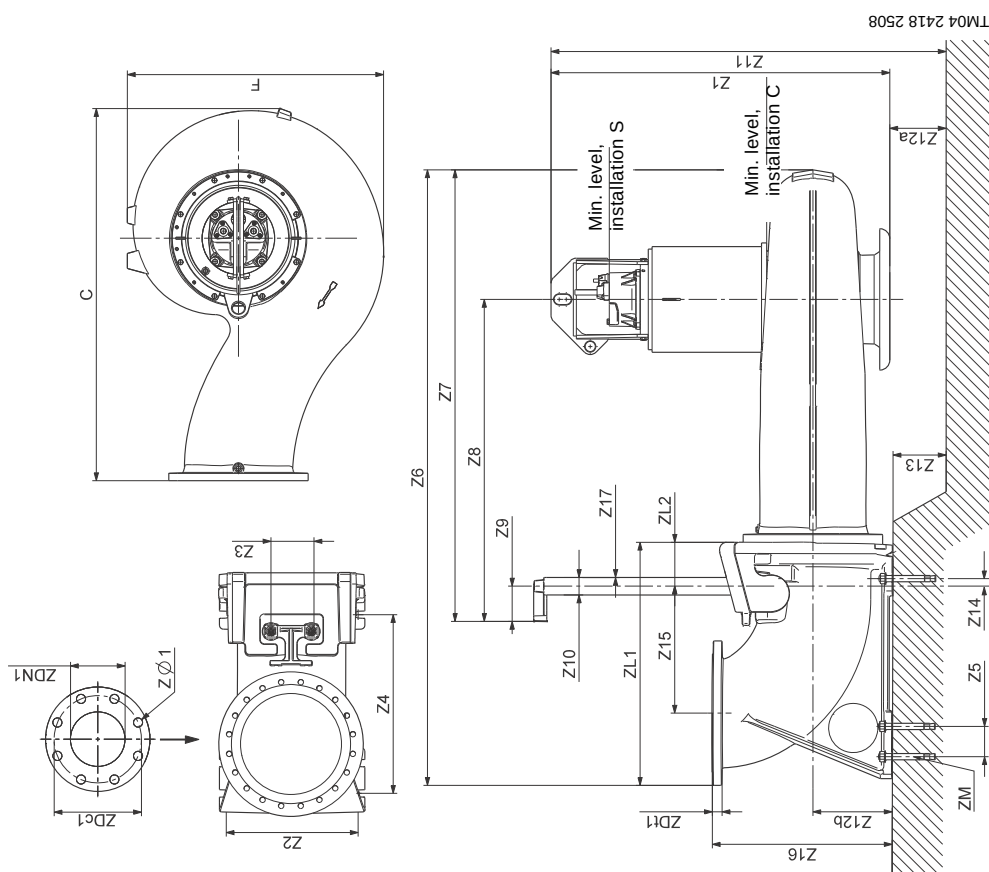


Fig. 14 Dimensional sketches, installation on auto-coupling system

Note: Z12a is minimal recommended distance from pit bottom to bottom of pump suction side.

Z11 is total height of pump installed on Grundfos installation accessory in the pit. NOTE: This figure might not equal $Z12a + Z1$.

S pumps, range 72

Pump type	C	F	ZØ1	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z12b	Z13	Z14	Z15	Z16	Z17	ZDc1	ZDN1	ZDt1	ZL1	ZL2	ZM
																				G S							
S2.90.250.2250.4.72S.S	1062	800	12x23	2339	471	200	565	-	1861	1454	1060	170	88	2649	310	224	431	86	375	545	3	3	350	250	32	799	222 4xM24
S2.90.250.2250.4.72S.C	1062	800	12x23	2339	471	200	565	-	1861	1454	1060	170	88	2649	310	224	431	86	375	545	3	3	350	250	32	799	222 4xM24
S2.100.250.1750.4.72H.S	1062	800	12x23	2339	471	200	565	-	1861	1454	1060	170	88	2649	310	224	431	86	375	545	3	3	350	250	32	799	222 4xM24
S2.100.250.2250.4.72H.S	1062	800	12x23	2339	471	200	565	-	1861	1454	1060	170	88	2649	310	224	431	86	375	545	3	3	350	250	32	799	222 4xM24
S2.100.300.1750.4.72M.S	1337	869	12x23	2344	551	200	670	-	2238	1729	1292	170	88	2649	305	256	399	95	450	650	3	3	400	300	32	901	222 4xM24
S2.100.300.2250.4.72M.S	1337	869	12x23	2344	551	200	670	-	2238	1729	1292	170	88	2649	305	256	399	95	450	650	3	3	400	300	32	901	222 4xM24
S3.110.300.1600.8.72H.S	1271	944	12x23	2390	551	200	670	-	2172	1663	1192	170	88	2645	255	256	399	95	450	650	3	3	400	300	32	901	222 4xM24
S3.110.300.1800.6.72H.S	1271	944	12x23	2390	551	200	670	-	2172	1663	1192	170	88	2645	255	256	399	95	450	650	3	3	400	300	32	901	222 4xM24
S3.120.500.1250.8.72M.S	1655	1110	20x27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.120.500.1600.8.72M.S	1655	1110	20x27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.120.500.1800.6.72M.S	1655	1110	20x27	2415	657	200	885	150	2840	2109	1554	170	88	2795	380	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.135.500.1250.8.72L.S	1780	1330	20x27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.135.500.1600.8.72L.S	1780	1330	20x27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.135.500.1800.6.72L.S	1780	1330	20x27	2430	657	200	885	150	2965	2234	1554	170	88	2805	375	380	425	98	565	890	3	3	620	500	42	1185	284 6xM30
S3.135.600.900.10.72E.S	2080	1545	20x31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431	424	98	615	1050	3	3	725	600	48	1320	280 6xM30
S3.135.600.1100.10.72E.S	2080	1545	20x31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431	424	98	615	1050	3	3	725	600	48	1320	280 6xM30
S3.135.600.1300.10.72E.S	2080	1545	20x31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431	424	98	615	1050	3	3	725	600	48	1320	280 6xM30
S3.135.600.1600.8.72E.S	2080	1545	20x31	2470	710	200	990	160	3400	2530	1750	170	88	2855	385	431	424	98	615	1050	3	3	725	600	48	1320	280 6xM30

S pumps, range 74

Pump type	C	F	ZØ1	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z12b	Z13	Z14	Z15	Z16	Z17	ZDc1	ZDN1	ZDt1	ZL1	ZL2	ZM	
																				G S								
S2.90.300.2500.4.74S.C	1515	830	12x27	2690	551	200	670	-	2416	1907	1492	170	88	3000	310	256	399	95	450	650	3	3	410	300	32	901	222	4xM24
S2.90.300.3150.4.74S.C	1515	830	12x27	2915	551	200	670	-	2416	1907	1492	170	88	3225	310	256	399	95	450	650	3	3	410	300	32	901	222	4xM24
S2.100.300.2500.4.74H.C	1515	830	12x27	2690	551	200	670	-	2416	1907	1492	170	88	3000	310	256	399	95	450	650	3	3	410	300	32	901	222	4xM24
S2.100.300.2500.4.74M.C	1337	869	12x23	2711	551	200	670	-	2238	1729	1292	170	88	3016	305	256	399	95	450	650	3	3	400	300	32	901	222	4xM24
S2.100.300.3150.4.74H.C	1515	830	12x27	2915	551	200	670	-	2416	1907	1492	170	88	3225	310	256	399	95	450	650	3	3	410	300	32	901	222	4xM24
S2.100.300.3150.4.74M.C	1337	869	12x23	2936	551	200	670	-	2238	1729	1292	170	88	3241	305	256	399	95	450	650	3	3	400	300	32	901	222	4xM24
S3.110.300.2000.6.74H.C	1271	944	12x23	2757	551	200	670	-	2172	1663	1192	170	88	3012	255	256	399	95	450	650	3	3	400	300	32	901	222	4xM24
S3.110.300.2500.6.74H.C	1271	944	12x23	2757	551	200	670	-	2172	1663	1192	170	88	3012	255	256	399	95	450	650	3	3	400	300	32	901	222	4xM24
S3.110.300.3150.6.74H.C	1271	944	12x23	2982	551	200	670	-	2172	1663	1192	170	88	3237	255	256	399	95	450	650	3	3	400	300	32	901	222	4xM24
S3.120.300.2000.6.74M.C	1655	1110	20x27	2782	657	200	885	150	2840	2109	1554	170	88	3162	380	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.120.300.2500.6.74M.C	1655	1110	20x27	2782	657	200	885	150	2840	2109	1554	170	88	3162	380	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.120.300.3150.6.74M.C	1655	1110	20x27	3007	657	200	885	150	2840	2109	1554	170	88	3387	380	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.135.500.2000.6.74L.C	1780	1330	20x27	2797	657	200	885	150	2965	2234	1554	170	88	3172	375	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.135.500.2500.6.74L.C	1780	1330	20x27	2797	657	200	885	150	2965	2234	1554	170	88	3172	375	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.135.500.3150.6.74L.C	1780	1330	20x27	3022	657	200	885	150	2965	2234	1554	170	88	3397	375	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
S3.135.600.2000.8.74E.C	2080	1545	20x31	2837	710	200	990	160	3400	2530	1750	170	88	3222	385	431	424	98	615	1050	3	3	725	600	48	1320	280	6xM30
S3.135.600.2500.8.74E.C	2080	1545	20x31	3062	710	200	990	160	3400	2530	1750	170	88	3447	385	431	424	98	615	1050	3	3	725	600	48	1320	280	6xM30

Installation on auto-coupling system

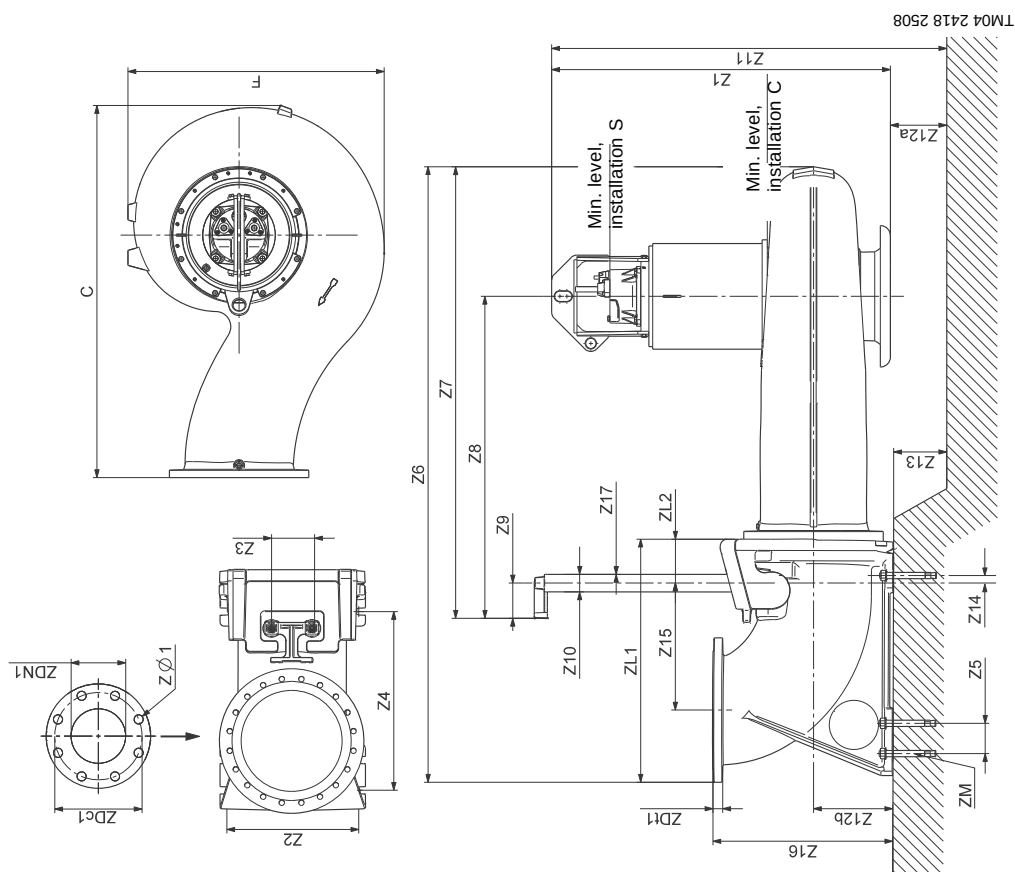


Fig. 15 Dimensional sketches, installation on auto-coupling system

Note: Z12a is minimal recommended distance from pit bottom to bottom of pump suction side.

Z11 is total height of pump installed on Grundfos installation accessory in the pit. NOTE: This figure might not equal Z12a + Z1.

S pumps, ranges 72, 74, 78

Pump type		C	F	ZØ1	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z12b	Z13	Z14	Z15	Z16	Z17	ZDc1	ZDN1	ZD11	ZL1	ZL2	ZM
S3.115.500.3150.8.78H.C	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1260	20x27	3276	657	200	885	150	3320	2589	1954	170	88	3591	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3097	657	200	885	150	3120	2389	1704	170	88	3412	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x27	3267	657	200	885	150	3120	2389	1704	170	88	3582	315	380	425	98	565	890	3	3	620	500	42	1185	284	6xM30
	2135	1370	20x																									

Dry, vertical installation on concrete foundation

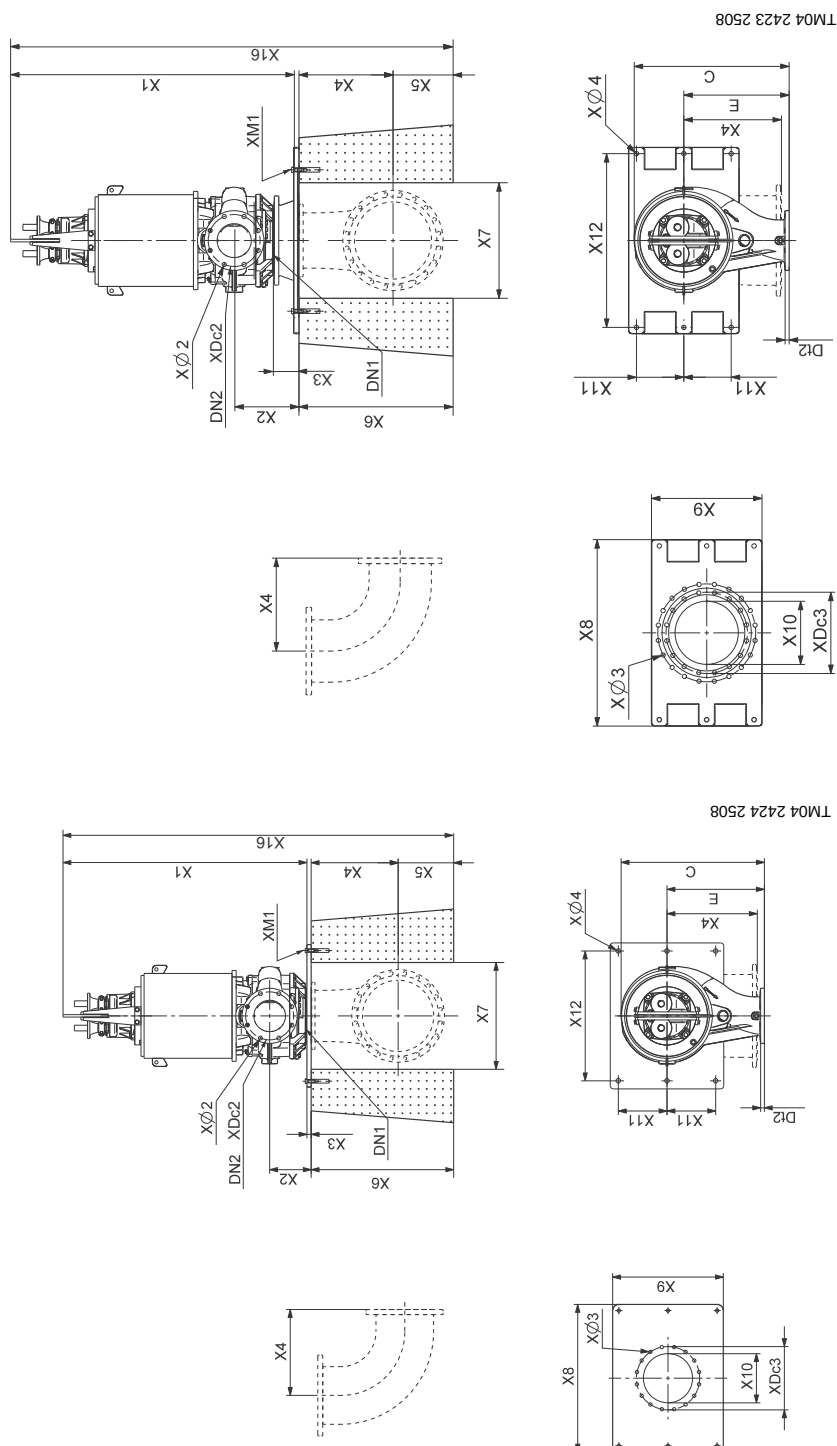


Fig. 16 Dimensional sketches, dry, vertical installation on concrete foundation

S pumps, Range 72

Pump type	C	E	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X16	DN1	XDc3	DN2	XDc2	DI2	X02	X03	X04	XM1
S2.90.250.2250.4.72S.D	1062	668	2315	379	39	600	647	1250	850	1200	900	400	400	1100	3604	400	515	250	350	33	24	27	27	M24x6
S2.100.250.1750.4.72H.D	1062	668	2315	379	39	600	647	1250	850	1200	900	400	400	1100	3604	400	515	250	350	33	24	27	27	M24x6
S2.100.250.2250.4.72H.D	1062	668	2315	379	39	600	647	1250	850	1200	900	400	400	1100	3604	400	515	250	350	33	24	27	27	M24x6
S2.100.300.1750.4.72M.D	1337	900	2315	379	39	600	647	1250	850	1200	900	400	400	1100	3604	400	515	300	400	33	23	27	27	M24x6
S2.100.300.2250.4.72M.D	1337	900	2315	379	39	600	647	1250	850	1200	900	400	400	1100	3604	400	515	300	400	33	23	27	27	M24x6
S3.110.300.1600.8.72H.D	1271	800	2365	414	39	600	647	1250	850	1200	900	400	400	1100	3654	400	515	300	400	33	23	27	27	M24x6
S3.110.300.1800.6.72H.D	1271	800	2365	414	39	600	647	1250	850	1200	900	400	400	1100	3654	400	515	300	400	33	23	27	27	M24x6
S3.120.500.1250.8.72M.D	1655	1100	2365	414	39	600	647	1250	850	1200	900	400	400	1100	3654	400	515	500	620	36	27	27	27	M24x6
S3.120.500.1600.8.72M.D	1655	1100	2365	414	39	600	647	1250	850	1200	900	400	400	1100	3654	400	515	500	620	36	27	27	27	M24x6
S3.120.500.1800.6.72M.D	1655	1100	2365	414	39	600	647	1250	850	1200	900	400	400	1100	3654	400	515	500	620	36	27	27	27	M24x6
S3.135.500.1250.8.72L.D	1780	1100	2455	496	38	700	647	1350	950	1300	1000	500	450	1200	3843	500	620	500	620	36	27	27	27	M24x6
S3.135.500.1600.8.72L.D	1780	1100	2455	496	38	700	647	1350	950	1300	1000	500	450	1200	3843	500	620	500	620	36	27	27	27	M24x6
S3.135.500.1800.6.72L.D	1780	1100	2455	496	38	700	647	1350	950	1300	1000	500	450	1200	3843	500	620	500	620	36	27	27	27	M24x6
S3.135.600.900.10.72E.D	2080	1300	2451	483	33	800	647	1450	1100	1400	1100	600	500	1300	3934	600	725	600	725	40	30	30	30	M24x6
S3.135.600.1100.10.72E.D	2080	1300	2451	483	33	800	647	1450	1100	1400	1100	600	500	1300	3934	600	725	600	725	40	30	30	30	M24x6
S3.135.600.1300.10.72E.D	2080	1300	2451	483	33	800	647	1450	1100	1400	1100	600	500	1300	3934	600	725	600	725	40	30	30	30	M24x6
S3.135.600.1600.8.72E.D	2080	1300	2451	483	33	800	647	1450	1100	1400	1100	600	500	1300	3934	600	725	600	725	40	30	30	30	M24x6

S pumps, Range 74

Pump type	C	E	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X16	DN1	XDc3	DN2	XDc2	DI2	X02	X03	X04	XM1
S2.90.300.2500.4.74S.D	1515	1100	2682	373	36	600	650	1250	850	1200	900	400	400	1100	3968	400	515	300	410	34	27	27	27	M24x6
S2.90.300.3150.4.74S.D	1515	1100	2907	373	36	600	650	1250	850	1200	900	400	400	1100	4193	400	515	300	410	34	27	27	27	M24x6
S2.100.300.2500.4.74H.D	1515	1100	2682	373	36	600	650	1250	850	1200	900	400	400	1100	3968	400	515	300	410	34	27	27	27	M24x6
S2.100.300.2500.4.74M.D	1337	900	2682	376	36	600	650	1250	850	1200	900	400	400	1100	3968	400	515	300	400	34	23	27	27	M24x6
S2.100.300.3150.4.74H.D	1515	1100	2907	373	36	600	650	1250	850	1200	900	400	400	1100	4193	400	515	300	410	34	27	27	27	M24x6
S2.100.300.3150.4.74M.D	1337	900	2907	376	36	600	650	1250	850	1200	900	400	400	1100	4193	400	515	300	400	34	23	27	27	M24x6
S3.110.300.2000.6.74H.D	1271	800	2732	411	36	600	650	1250	850	1200	900	400	400	1100	4018	400	515	300	400	34	23	27	27	M24x6
S3.110.300.2500.6.74H.D	1271	800	2732	411	36	600	650	1250	850	1200	900	400	400	1100	4018	400	515	300	400	34	23	27	27	M24x6
S3.110.300.3150.6.74H.D	1271	800	2957	411	36	600	650	1250	850	1200	900	400	400	1100	4243	400	515	300	400	34	23	27	27	M24x6
S3.120.300.2000.6.74M.D	1655	1100	2732	411	36	600	650	1250	850	1200	900	400	400	1100	4018	400	515	500	620	34	27	27	27	M24x6
S3.120.300.2500.6.74M.D	1655	1100	2732	411	36	600	650	1250	850	1200	900	400	400	1100	4018	400	515	500	620	34	27	27	27	M24x6
S3.120.300.3150.6.74M.D	1655	1100	2957	411	36	600	650	1250	850	1200	900	400	400	1100	4243	400	515	500	620	34	27	27	27	M24x6
S3.135.500.2000.6.74L.D	1780	1100	2822	493	35	700	650	1350	950	1300	1000	500	450	1200	4207	500	620	500	620	36	27	27	27	M24x6
S3.135.500.2500.6.74L.D	1780	1100	2822	493	35	700	650	1350	950	1300	1000	500	450	1200	4207	500	620	500	620	36	27	27	27	M24x6
S3.135.500.3150.6.74L.D	1780	1100	3047	493	35	700	650	1350	950	1300	1000	500	450	1200	4432	500	620	500	620	36	27	27	27	M24x6
S3.135.600.2000.8.74E.D	2080	1300	2818	480	30	800	650	1450	1100	1400	1100	600	500	1300	4298	600	725	600	725	40	30	30	30	M24x6
S3.135.600.2500.8.74E.D	2080	1300	3043	480	30	800	650	1450	1100	1400	1100	600	500	1300	4523	600	725	600	725	40	30	30	30	M24x6

Dry, vertical installation on concrete foundation

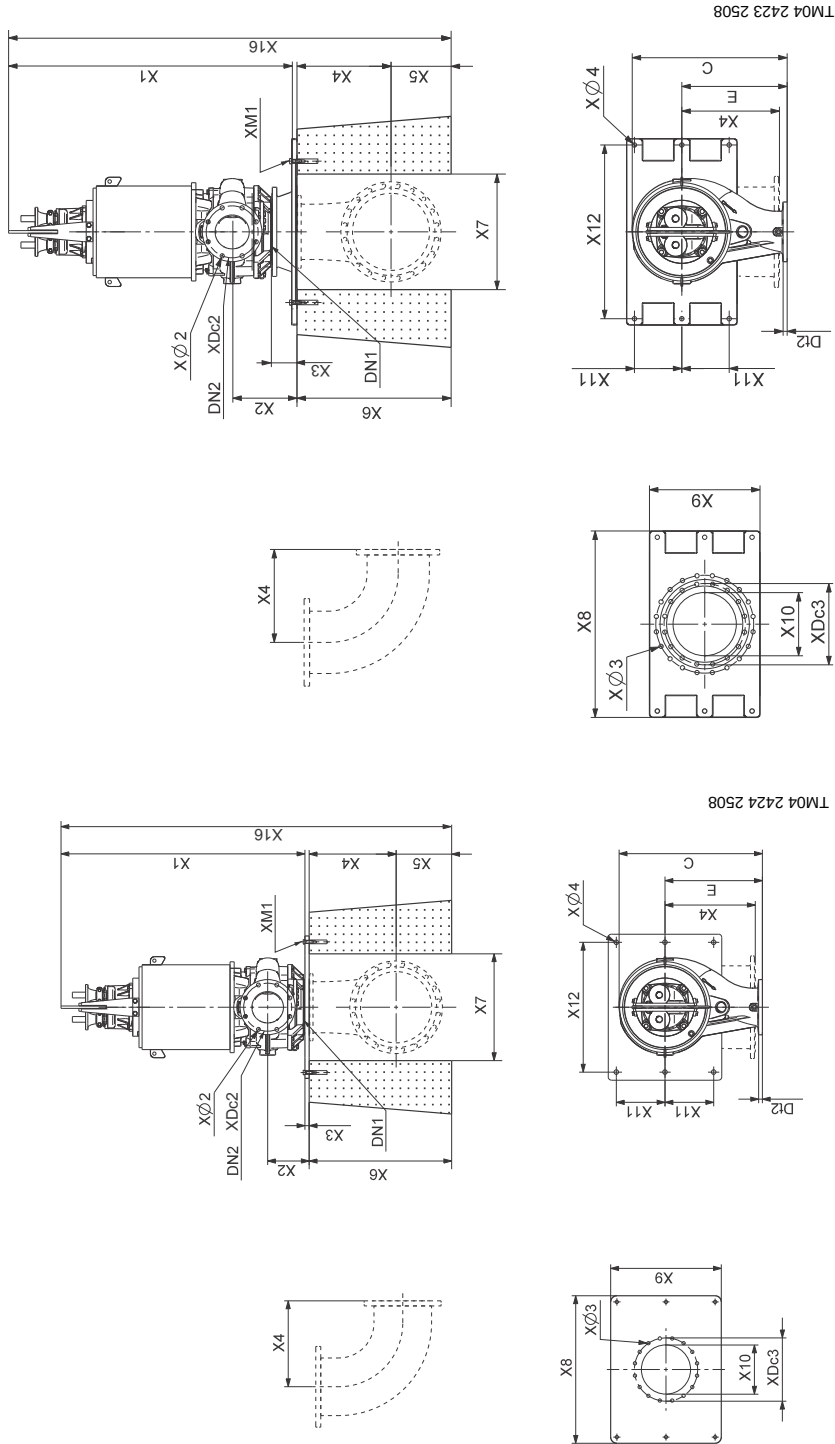


Fig. 17 Dimensional sketches, dry, vertical installation on concrete foundation

S pumps, ranges 72, 74, 78

Pump type		C	E	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X16	DN1	XDc3	DN2	XDc2	X02	X03	X04	XM1	
S3.115.500.3150.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
	S3.115.500.3500.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
S3.115.500.4000.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
	S3.115.500.4500.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
S3.115.500.5000.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
	S3.115.500.5200.8.78H.D	2135	1500	3183	447	50	700	480	1100	1150	1500	1300	500	550	1350	4333	500	500	500	620	36	27	24	28	M24x6
S3.130.500.2500.10.78M.D	1935	1250	3031	474	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
	S3.130.500.3150.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
S3.130.500.3150.10.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
	S3.130.500.3500.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
S3.130.500.3500.10.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
	S3.130.500.4000.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
S3.130.500.4000.10.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
	S3.130.500.4500.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
S3.130.500.5000.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
	S3.130.500.5200.8.78M.D	1935	1250	3201	474	50	700	480	1100	1150	1500	1300	500	550	1350	4351	500	500	500	620	36	27	24	28	M24x6
S3.145.500.1600.10.78L.D	2000	1200	3031	467	50	700	480	1100	1150	1150	1500	1300	500	550	1350	4351	500	500	5						

Dry, horizontal installation on bracket

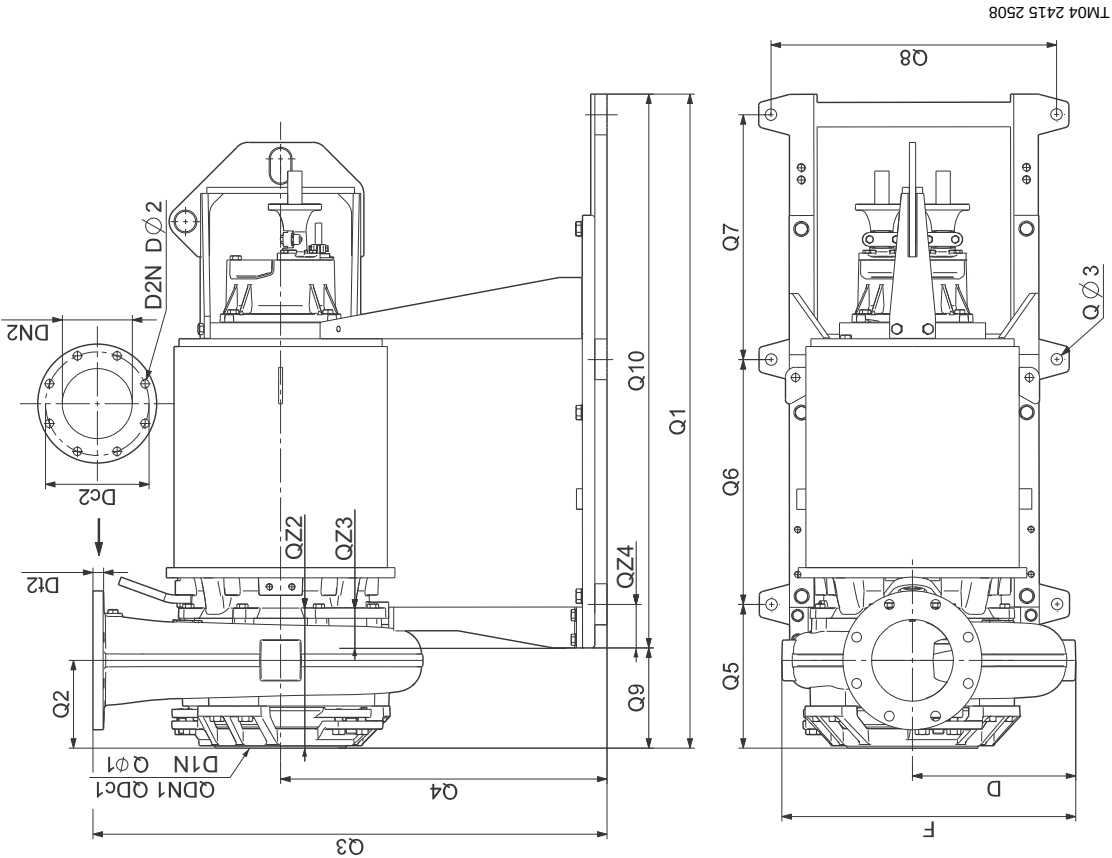


Fig. 18 Dimensional sketches, dry, horizontal installation on bracket

S pumps, Range 72

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1	QDc1	QD1N	Qø1	DN2	Dc2	D2N	Dø2	DI2	Qø3	QZ2	QZ3	QZ4
S2.90.250.2250.4.72S.H	419	800	2315	340	1248	580	745	900	-	850	685	1600	400	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.250.1750.4.72H.H	419	800	2315	340	1248	580	745	900	-	850	685	1600	400	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.250.2250.4.72H.H	419	800	2315	340	1248	580	745	900	-	850	685	1600	400	515	16	M24	250	350	12	24	33	28	635	50	60
S2.100.300.1750.4.72M.H	474	869	2315	340	1480	580	745	900	-	850	685	1600	400	515	16	M24	300	400	12	23	33	28	635	50	60
S2.100.300.2250.4.72M.H	474	869	2315	340	1480	580	745	900	-	850	685	1600	400	515	16	M24	300	400	12	23	33	28	635	50	60
S3.110.300.1600.8.72H.H	509	944	2365	375	1380	580	795	900	-	850	735	1600	400	515	16	M24	300	400	12	23	33	28	685	50	60
S3.110.300.1800.6.72H.H	509	944	2365	375	1380	580	795	900	-	850	735	1600	400	515	16	M24	300	400	12	23	33	28	685	50	60
S3.120.500.1250.8.72M.H	610	1110	2365	375	1930	830	795	900	-	850	735	1600	400	515	16	M24	500	620	20	27	36	28	685	50	60
S3.120.500.1600.8.72M.H	610	1110	2365	375	1930	830	795	900	-	850	735	1600	400	515	16	M24	500	620	20	27	36	28	685	50	60
S3.120.500.1800.6.72M.H	610	1110	2365	375	1930	830	795	900	-	850	735	1600	400	515	16	M24	500	620	20	27	36	28	685	50	60
S3.135.500.1250.8.72L.H	765	1330	2455	458	1930	830	885	900	-	850	825	1600	500	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.500.1600.8.72L.H	765	1330	2455	458	1930	830	885	900	-	850	825	1600	500	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.500.1800.6.72L.H	765	1330	2455	458	1930	830	885	900	-	850	825	1600	500	620	20	M27	500	620	20	27	36	28	775	50	60
S3.135.600.900.10.72E.H	885	1545	2451	450	2130	830	881	900	-	850	821	1600	600	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1100.10.72E.H	885	1545	2451	450	2130	830	881	900	-	850	821	1600	600	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1300.10.72E.H	885	1545	2451	450	2130	830	881	900	-	850	821	1600	600	725	20	M27	600	725	20	30	40	28	771	50	60
S3.135.600.1600.8.72E.H	885	1545	2451	450	2130	830	881	900	-	850	821	1600	600	725	20	M27	600	725	20	30	40	28	771	50	60

S pumps, Range 74

Pump type	D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1	QDc1	QD1N	Qø1	DN2	Dc2	D2N	Dø2	DI2	Qø3	QZ2	QZ3	QZ4
S2.90.300.2500.4.74S.H	435	830	2682	337	1700	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	27	33	28	664	79	60
S2.90.300.3150.4.74S.H	435	830	2907	337	1700	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.2500.4.74H.H	435	830	2682	337	1700	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.2500.4.74M.H	474	869	2682	340	1500	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	23	33	28	664	79	60
S2.100.300.3150.4.74H.H	435	830	2907	337	1700	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	27	33	28	664	79	60
S2.100.300.3150.4.74M.H	474	869	2907	340	1500	600	803	1000	550	900	743	2100	400	515	16	M24	300	410	12	23	33	28	664	79	60
S3.110.300.2000.6.74H.H	509	944	2732	375	1400	600	853	1000	550	900	793	2100	400	515	16	M24	300	400	12	23	33	28	714	79	60
S3.110.300.2500.6.74H.H	509	944	2732	375	1400	600	853	1000	550	900	793	2100	400	515	16	M24	300	400	12	23	33	28	714	79	60
S3.110.300.3150.6.74H.H	509	944	2957	375	1400	600	853	1000	550	900	793	2100	400	515	16	M24	300	400	12	23	33	28	714	79	60
S3.120.300.2000.6.74M.H	610	1110	2732	375	1700	600	853	1000	550	900	793	2100	400	515	16	M24	500	620	20	27	36	28	714	79	60
S3.120.300.2500.6.74M.H	610	1110	2732	375	1700	600	853	1000	550	900	793	2100	400	515	16	M24	500	620	20	27	36	28	714	79	60
S3.120.300.3150.6.74M.H	610	1110	2957	375	1700	600	853	1000	550	900	793	2100	400	515	16	M24	500	620	20	27	36	28	714	79	60
S3.135.500.2000.6.74L.H	765	1330	2822	458	2000	900	943	1000	550	900	883	2100	500	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.500.2500.6.74L.H	765	1330	2822	458	2000	900	943	1000	550	900	883	2100	500	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.500.3150.6.74L.H	765	1330	3047	458	2000	900	943	1000	550	900	883	2100	500	620	20	M27	500	620	20	27	36	28	804	79	60
S3.135.600.2000.8.74E.H	885	1545	2818	450	2200	900	939	1000	550	900	879	2100	600	725	20	M27	600	725	20	30	40	28	800	79	60
S3.135.600.2500.8.74E.H	885	1545	3043	450	2200	900	939	1000	550	900	879	2100	600	725	20	M27	600	725	20	30	40	28	800	79	60

Dry, horizontal installation on bracket

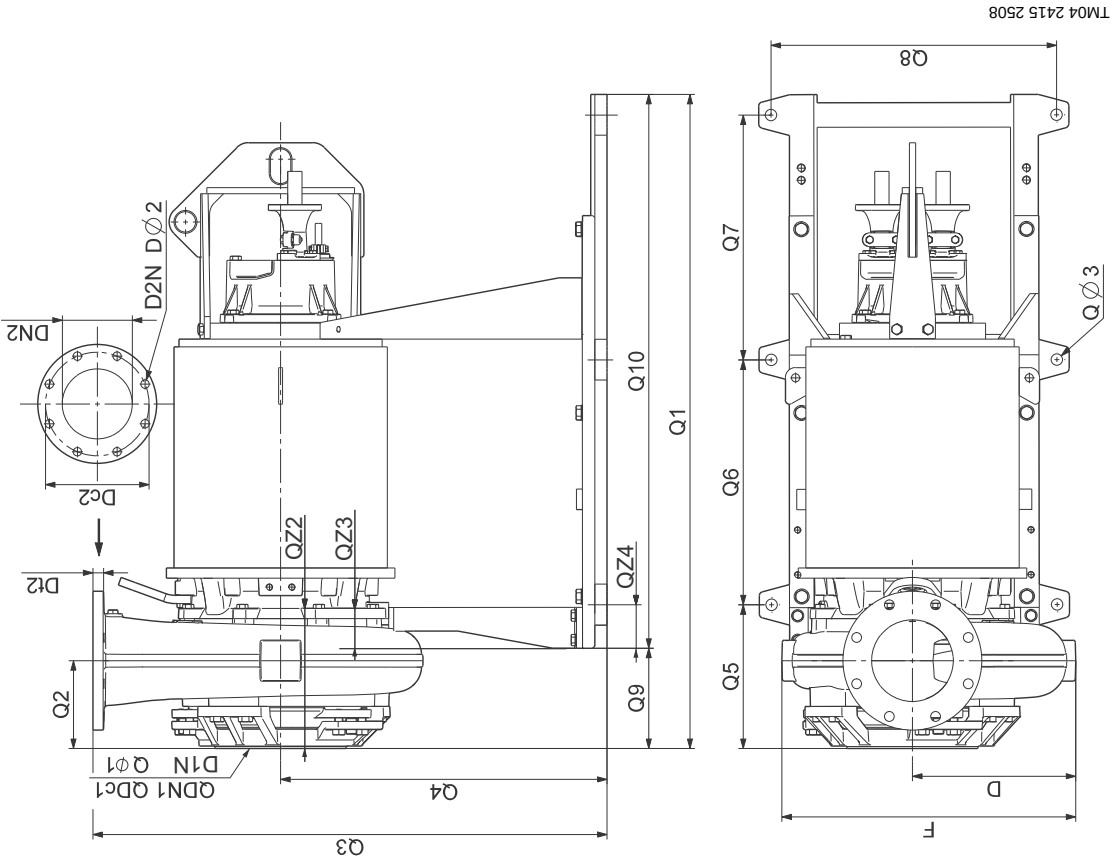
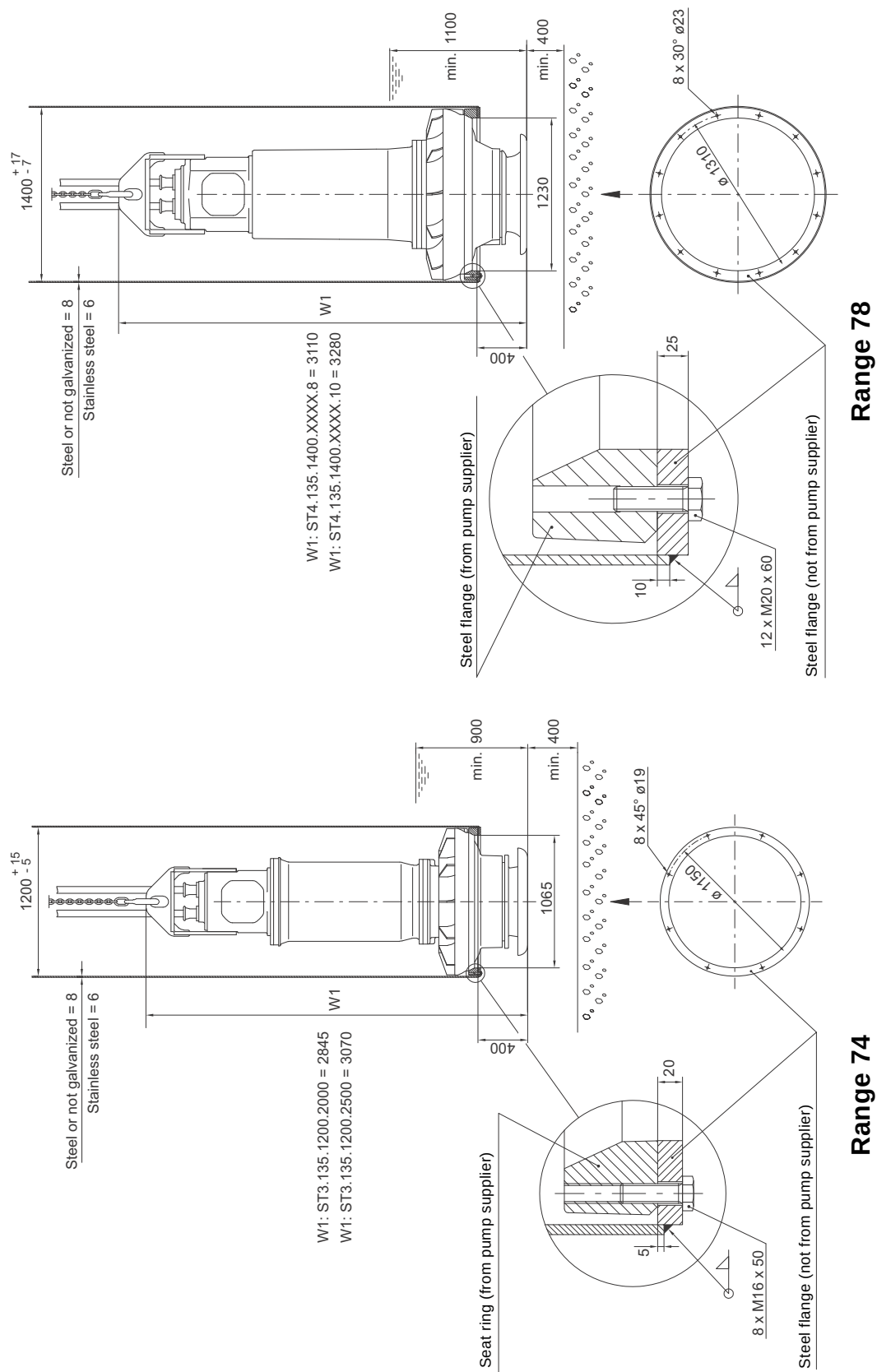


Fig. 19 Dimensional sketches, dry, horizontal installation on bracket

S pumps, ranges 72, 74, 78

Pump type		D	F	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	QDN1	QDC1	QD1N	Qø1	DN2	DC2	Dø2	Di2	Qø3	QZ2	QZ3	QZ4
S3.115.500.3150.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768	80	60
		S3.115.500.3500.8.78H.H	660	1260	3183	397	2400	900	908	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768	80
S3.115.500.4000.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768	80	60
		S3.115.500.4500.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768
S3.115.500.5000.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768	80	60
		S3.115.500.5200.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768
S3.115.500.5200.8.78H.H	660	1260	3183	397	2400	900	908	1000	1000	1140	848	2200	500	620	20	M24	500	620	20	27	41	28	768	80	60
		S3.130.500.2500.10.78M.H	740	1370	3031	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786
S3.130.500.3150.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786	80	60
		S3.130.500.4000.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786
S3.130.500.4500.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786	80	60
		S3.130.500.5000.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786
S3.130.500.5200.8.78M.H	740	1370	3201	424	2150	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786	80	60
		S3.145.500.1600.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786
S3.145.500.2000.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786	80	60
		S3.145.500.2500.10.78L.H	860	1560	3031	417	2100	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20	27	41	28	786
S3.145.500.3150.8.78L.H	860	1560	3201	417	2100	900	926	1000	1000	1140	866	2200	500	620	20	M24	500	620	20						

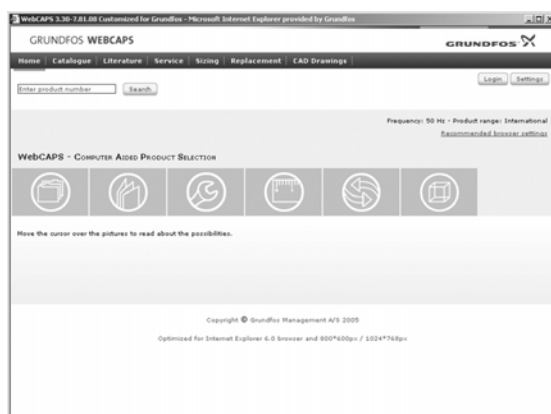
Installation in column pipe



TM04 6703 0710 - TM04 6704 0710

Fig. 20 Dimensional sketches, column pipe installation

WebCAPS

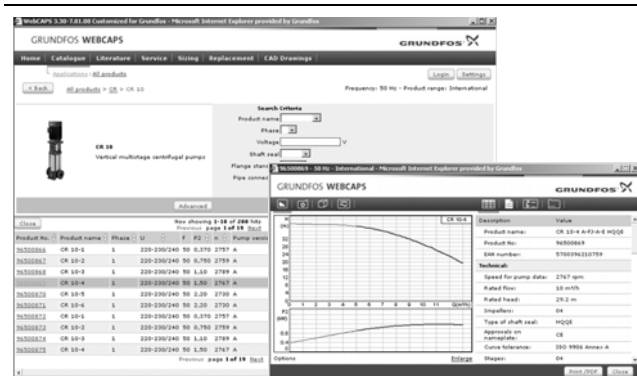


WebCAPS is a **Web**-based **Computer Aided Product Selection** program available on www.grundfos.com.

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

In WebCAPS, all information is divided into 6 sections:

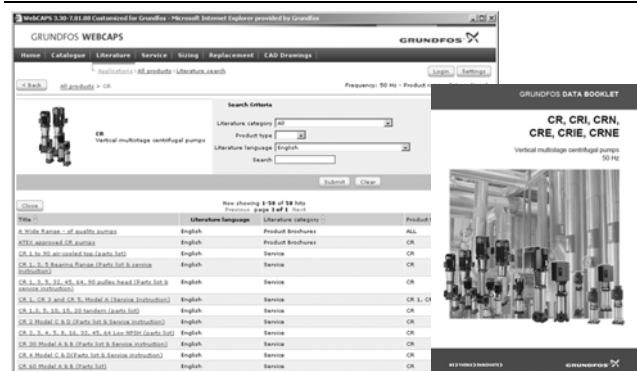
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



Catalogue

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

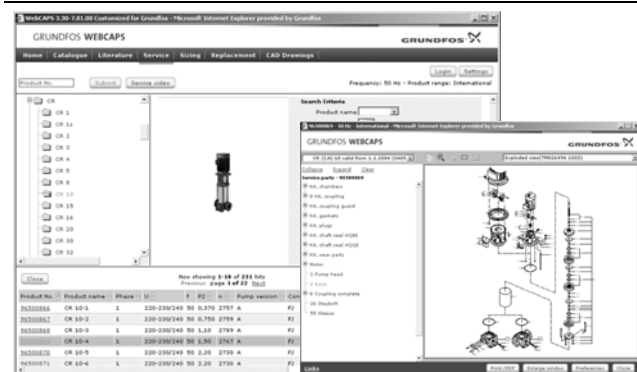
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

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

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



Service

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

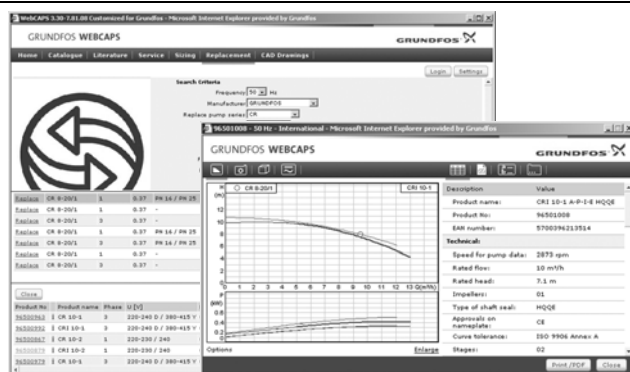
Furthermore, this section contains service videos showing you how to replace service parts.



Sizing

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

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



Replacement

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

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



CAD drawings

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

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

WinCAPS



Fig. 21 WinCAPS CD-ROM

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

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

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

Subject to alterations.

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ECM: 1064870

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