

SL1, SLV pumps

1.1 to 11 kW
50 Hz



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1. Introduction

Introduction

This data booklet deals with Grundfos submersible wastewater and sewage pumps types SL1 and SLV.

Two types of pumps are available:

- SL1 pumps with S-**tube** impeller
- SLV pumps with SuperVortex (free-flow) impeller.



Fig. 1 SL1 (S-tube) and SLV (SuperVortex) pumps



The S-**tube** impeller is the only impeller available in the wastewater market that does not compromise either efficiency or free passage through the pump.

The pumps are SuperVortex or S-**tube** impeller pumps specifically designed for pumping sewage and wastewater in a wide range of private, municipal and industrial applications.

The pumps are made of resistant materials, such as cast iron and stainless steel. These materials ensure long and reliable operation.

The pumps are fitted with motors from 1.1 kW up to and including 11 kW. The motors are either 2- or 4-pole motors, depending on the motor size.

The free passage in the pumps is 50 to 100 mm.

The pumps are available for:

- submerged installation on auto-coupling system
- submerged installation, free-standing.

Applications

Typical applications are transfer of liquids, such as:

- domestic wastewater
- industrial wastewater
- municipal wastewater
- wastewater with a high content of fibres (SuperVortex impeller)
- drainage and surface water
- process and cooling water.

The pumps are ideal for pumping the above liquids from for instance:

- municipal network pumping stations
- inlet pumping stations in wastewater treatment plants
- primary clarification in wastewater treatment plants
- secondary clarification in wastewater treatment plants
- stormwater pumping stations
- public buildings
- residential buildings
- factories/industry.

SMARTdesign



smartdesign

smartdesign describes the functional design of our products that combines elegant appearance with smart features, created with customer needs in mind. smartdesign does not only look good; the design also makes installation, operation and maintenance of the product easier and more user-friendly.

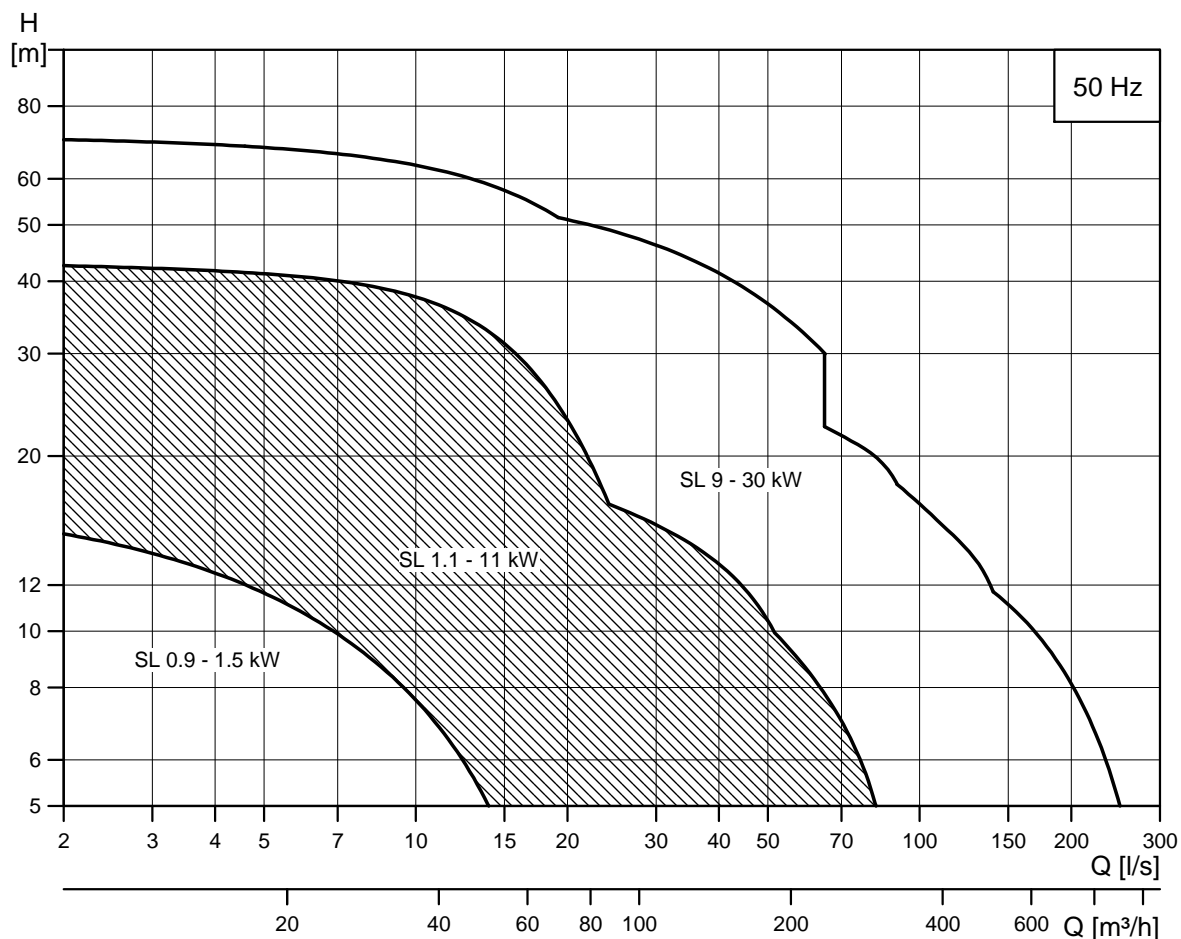
The **smartdesign** features of our SL1 and SLV pumps include:

- moisture-proof cable plug connection made of corrosion-resistant stainless steel with conductors embedded in polyurethane sealant
- stainless steel clamp connection between motor housing and pump housing for easy service
- power cable incorporating wires for thermal sensors in the motor windings
- no extra cable required for sensors in pumps with sensors
- monitoring of operating conditions for pumps with sensors
- moisture detector for continuous monitoring of motor enclosure and automatic cut-out in case of leakage
- heavy-duty bearings greased for life
- built for frequency-converter operation
- smooth pump surface prevents dirt and impurities from sticking to the pump
- self-cleaning **S-tube** impeller with a long vane reducing the risk of jamming or clogging, or Super-Vortex impeller with high pumping efficiency and less downtime
- explosion-proof motors for potentially explosive environments (ATEX-approved pumps)
- motor in insulation class F (155 °C), enclosure class IP68 with one thermal sensor in each phase
- service-friendly design:
 - clamp connection between motor and pump housing
 - double mechanical cartridge shaft seal
 - cable connection to motor via plug.
 - motor built of highly efficient components, offering lower motor temperature and longer life.

2. Performance range

Figure 2 shows the performance range of SL1 and SLV sewage and wastewater pumps. It gives an overview of the various sizes and impeller types.

Note: For information about the performance range of each individual pump, see pages 42 to 149. If your require a duty point outside the grey performance range below, please see the Grundfos SE, SL and S range data booklets available in WebCAPS.



TM054164 2112

Fig. 2 Performance range

3. Identification

Type key

The pump can be identified by means of the type designation. The type designation is stated on the nameplate of the pump. The example below shows the following:

- SLV pump with 80 mm free spherical passage and 80 mm DIN outlet
- motor with 4 kW shaft power, sensor version, ATEX-approved version, 4-pole, for 3 x 380-415 V 50 Hz, and star-delta starting
- Q variant, i.e. cast iron pump fitted with a cast stainless steel SuperVortex impeller.

Code	Example	SL	V	.80	.80	.40	.A	.Ex	.4	.5	.OD	.Q
SL	Pump type: Grundfos wastewater pump											
1	Impeller type: S-tube impeller											
V	SuperVortex (free-flow) impeller											
50	Free spherical passage: 50 mm											
65	65 mm											
80	80 mm											
100	100 mm											
65	Pump discharge: DN65											
80	DN80											
100	DN100											
150	DN150											
40	Motor power, P2 (motor output power P2/10 [kW]): 4 kW											
Blank	Sensor version: Standard											
A	Sensor version											
Blank	Pump version: Non-explosion-proof pump (standard)											
Ex	Explosion-proof pump											
2	Number of poles: 2-pole											
4	4-pole											
50	Frequency: 50 Hz											
0B	Voltage and starting method: 3 x 400-415 V, direct-on-line starting											
0D	3 x 380-415 V, direct-on-line starting											
1D	3 x 380-415 V, star-delta starting											
0E	3 x 220-240 V, direct-on-line starting											
1E	3 x 220-240 V, star-delta starting											
Blank	Generation: 1st generation											
A	2nd generation											
B	3rd generation											
Blank	Pump materials: Complete pump in cast iron											
Q	Cast iron pump with stainless steel impeller											
Blank	Customisation Pump in standard range											
Z	Custom-built pump											

Note: The pump types are not available in all variants.

Nameplate

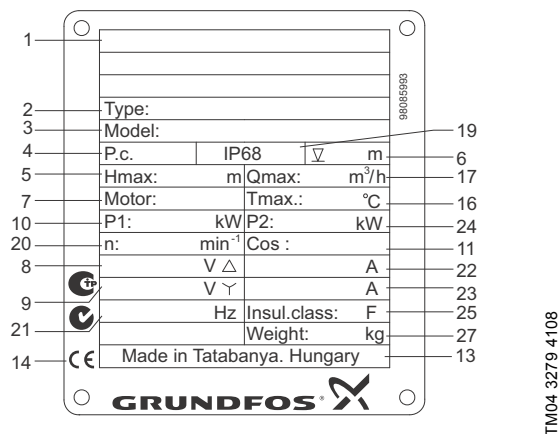


Fig. 3 Nameplate

Pos.	Description
1	Ex mark
2	Type designation
3	Product/model number
4	Production code
5	Maximum head
6	Maximum installation depth
7	Number of phases
8	Rated voltage, delta connection
9	Rated voltage, star connection
10	Rated input power
11	Power factor
12	Starting capacitor
13	Country of production
14	CE mark
15	EN approval
16	Maximum liquid temperature
17	Maximum flow rate
18	Explosion protection
19	Enclosure class according to IEC
20	Rated speed
21	Frequency
22	Rated current, delta connection
23	Rated current, star connection
24	Shaft power
25	Insulation class
26	Run capacitor
27	Weight without cable

4. Selection of product

Ordering a pump

When ordering a pump, you need to take the following five aspects into consideration:

1. pump type
2. custom-built variation (option)
3. explosion-proof version
4. accessories
5. pump controller.

Pump type

Use the table below to identify the pump type that best fulfils your needs. The table is for guidance only.

Description	SL1	SLV
Liquid and operation characteristics		
Dry solids content up to 3 %	X	X
Dry solids content up to 5 %		X
Relatively low content of fibres and solids	X	X
Relatively high content of fibres and solids		X
Relatively low number of operating hours	X	X
Relatively high number of operating hours	X	
Application		
Stormwater	X	X
Groundwater	X	X
Drainage and surface water	X	X
Drainage and surface water with small impurities	X	X
Abrasive surface water	X	X
Wastewater with long fibres, e.g. from laundries	X	X
Domestic wastewater with discharge from toilets	X	X
Municipal sewage	X	X
Sewage from commercial buildings	X	X
Industrial process water with fibres/solids		X
Industrial process water with solids	X	X
Industrial process water without solids and fibres	X	

When you have selected the pump type, use the sections *Product range* on page 9 and *Type key* on page 6 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.
SLV.65.65.22.2.51D	96871966
<ul style="list-style-type: none"> • pump as specified in the type key • 10 m cable • paint: NCS 9000N (black), gloss code 30, thickness 100 µm • thermal switch in stator windings or three thermal sensors (PTC) • one moisture switch in the motor chamber • tested according to DIN 9906, Annex A. 	

See *Performance curves and 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 96871966.

Custom-built variants

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

Variants can be seen in *Variants* on page 19. For requirements or designs not included in the list, please contact Grundfos.

Explosion-proof version

The entire range is available in explosion-proof versions.

The pumps are provided with a II 2 G Ex c d IIB T4, T3 classification and for the sensor version a II 2G c d mb IIB T4, T3 classification according to EN 60079-1:2007, EN 13463-5:2003 and EN 60079-18:2004.

For further information about explosion-proof pumps, please see page 35.

Accessories

Depending on the installation type, you may need to order accessories. See *Accessories* on page 150 for selection of the correct accessories.

Note: Ordered accessories are not factory-fitted.

Pump controller

The following controllers are available:

- LC/LCD 107 with air bells
- LC/LCD 108 with float switches
- LC/LCD 110 with level electrodes
- Grundfos Dedicated Controls



Fig. 4 Grundfos Dedicated Controls

Grundfos Dedicated Controls is a control system designed for installation in either commercial buildings or network pumping stations with one to six pumps.

As standard, the system comes with application-optimised software and can be configured to meet your specific pumping needs.

For further information about Grundfos Dedicated Controls, see page 152.

5. Product range

SL1 pump range, standard DIN

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V	3 x 380-415 V	3 x 220-240 V	3 x 380-415 V	3 x 220-240 V	
					DOL	DOL	DOL	Y/D	Y/D	
[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]	
SL1.50.65.22	No	No	2	50		96836307	96909247	96871988		No
	No	Yes	2	50		96871960	97687738	96872012		No
	Yes	No	2	50		96871937	96909322	96871990		No
	Yes	Yes	2	50		96871985	97688911	96872013		No
SL1.50.65.30	No	No	2	50		96836311	96909248	96872015		No
	No	Yes	2	50		96857882	97687739	96872019		No
	Yes	No	2	50		96871940	96909323	96872018		No
	Yes	Yes	2	50		96872014	97688912	96872021		No
SL1.50.65.40	No	No	2	50				96872032	96909249	No
	No	Yes	2	50				96872035	97687740	No
	Yes	No	2	50				96872034	96909324	No
	Yes	Yes	2	50				96872036	97688913	No
SL1.50.80.22	No	No	2	50		96836286	96909250	96872040		No
	No	Yes	2	50		96872038	97687751	96872062		No
	Yes	No	2	50		96871952	97688875	96872041		No
	Yes	Yes	2	50		96872039		96872063		No
SL1.50.80.30	No	No	2	50		96836289	96909251	96872066		No
	No	Yes	2	50		96872064	97687752	96872068		No
	Yes	No	2	50		96871953	96909326	96872067		No
	Yes	Yes	2	50		96872065	97688915	96872070		No
SL1.50.80.40	No	No	2	50				96872071	96909327	No
	No	Yes	2	50				96872103	97687753	No
	Yes	No	2	50				96872102	96909330	No
	Yes	Yes	2	50				96872105	97688916	No
SL1.80.80.15	No	No	4	50		96872130	96909328			No
	No	Yes	4	50		96872144	97687754			No
	Yes	No	4	50		96872143	96909331			No
	Yes	Yes	4	50		96872145	97688917			No
SL1.80.80.22	No	No	4	50		96836605	96909329	96872174		No
	No	Yes	4	50		96837227	97687755	96872151		No
	Yes	No	4	50		96837225	96909332	96872176		No
	Yes	Yes	4	50		96837223	97688918	96872172		No
SL1.80.80.30	No	No	4	50		96872177	96909333	96872213		No
	No	Yes	4	50		96872180	97687756	96872215		No
	Yes	No	4	50		96872179	96909334	96872214		No
	Yes	Yes	4	50		96872212	97688919	96872216		No
SL1.80.80.40	No	No	4	50				96872217	96909335	No
	No	Yes	4	50				96872219	97687757	No
	Yes	No	4	50				96872218	96909338	No
	Yes	Yes	4	50				96872220	97688920	No
SL1.80.80.55	No	No	4	50				96873771	96909336	No
	No	Yes	4	50				96872252	97687758	No
	Yes	No	4	50				96872255	96909339	No
	Yes	Yes	4	50				96872253	97688921	No
SL1.80.80.75	No	No	4	50				96873359	96909337	No
	No	Yes	4	50				96873388	97687759	No
	Yes	No	4	50				96873372	96909340	No
	Yes	Yes	4	50				96873427	97688922	No
SL1.80.100.15	No	No	4	50		96836267	96909354			No
	No	Yes	4	50		96873389	97687760			No
	Yes	No	4	50		96871954	96909341			No
	Yes	Yes	4	50		96873428	97688923			No
SL1.80.100.22	No	No	4	50		96836271	96909355	96873356		No
	No	Yes	4	50		96857919	97687761	96873391		No
	Yes	No	4	50		96871955	96909342	96873373		No
	Yes	Yes	4	50		96873430	97688924	96873431		No
SL1.80.100.30	No	No	4	50		96836283	96909356	96873357		No
	No	Yes	4	50		96837214	97687762	96873412		No
	Yes	No	4	50		96871956	96909343	96873374		No
	Yes	Yes	4	50		96873432	97688925	96873433		No

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SL1.80.100.40	No	No	4	50				96873358	96909357	No
	No	Yes	4	50				96873414	97687763	No
	Yes	No	4	50				96873375	96909344	No
	Yes	Yes	4	50				96873435	97688926	No
SL1.80.100.55	No	No	4	50				96873360	96909358	No
	No	Yes	4	50				96873416	97687764	No
	Yes	No	4	50				96873376	96909345	No
	Yes	Yes	4	50				96873438	97688927	No
SL1.80.100.75	No	No	4	50				96873361	96909359	No
	No	Yes	4	50				96873417	97687765	No
	Yes	No	4	50				96873377	96909346	No
	Yes	Yes	4	50				96873439	97688928	No
SL1.100.100.40	No	No	4	50				96873364	96909360	No
	No	Yes	4	50				96873420	97687766	No
	Yes	No	4	50				96873380	96909347	No
	Yes	Yes	4	50				96873441	97688929	No
SL1.100.100.55	No	No	4	50	96877091			96873365	96909361	No
	No	Yes	4	50				96873422	97687767	No
	Yes	No	4	50				96873381	96909348	No
	Yes	Yes	4	50				96873452	97688930	No
SL1.100.100.75	No	No	4	50				96873366	96909362	No
	No	Yes	4	50				96873423	97687768	No
	Yes	No	4	50				96873382	96909349	No
	Yes	Yes	4	50				96873453	97688931	No
SL1.100.150.40	No	No	4	50				96873367	96909363	No
	No	Yes	4	50				96873424	97687769	No
	Yes	No	4	50				96873383	96909350	No
	Yes	Yes	4	50				96873454	97688932	No
SL1.100.150.55	No	No	4	50				96873368	96909364	No
	No	Yes	4	50				96873425	97687770	No
	Yes	No	4	50				96873384	96909351	No
	Yes	Yes	4	50				96873455	97688933	No
SL1.100.150.75	No	No	4	50				96873369	96909365	No
	No	Yes	4	50				96873426	97687771	No
	Yes	No	4	50				96873385	96909353	No
	Yes	Yes	4	50				96873456	97688934	No

SLV pump range, standard DIN

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.65.65.22	No	No	2	50	96891379	96836323	96909157	96871966		No
	No	Yes	2	50	96891469	96872031	97687772	96872043		No
	Yes	No	2	50	96891440	96871926	96909158	96871927		No
	Yes	Yes	2	50		96872190	97688935	96872191		No
SLV.65.65.30	No	No	2	50	96891380	96871968	96909159	96871970		No
	No	Yes	2	50	96891470	96872045	97687773	96872047		No
	Yes	No	2	50	96891441	96872135	96909160	96872136		No
	Yes	Yes	2	50		96872192	97688936	96872193		No
SLV.65.65.40	No	No	2	50	96891402			96871971	96909161	No
	No	Yes	2	50	96891471			96872050	97687774	No
	Yes	No	2	50	96891443			96872137	96909192	No
	Yes	Yes	2	50				96872194	97688937	No
SLV.65.80.22	No	No	2	50	96891403	96836287	96909193	96871974		No
	No	Yes	2	50	96891472	96872051	97687775	96872053		No
	Yes	No	2	50	96891444	96871930	96909194	96872139		No
	Yes	Yes	2	50		96872195	97688938	96872197		No
SLV.65.80.30	No	No	2	50	96891404	96836303	96909195	96871975		No
	No	Yes	2	50	96891473	96872056	97687776	96872058		No
	Yes	No	2	50	96891445	96871931	96909196	96872141		No
	Yes	Yes	2	50		96872199	97688939	96872201		No
SLV.65.80.40	No	No	2	50	96891406			96842221	96909197	No
	No	Yes	2	50	96891474			96872059	97687777	No
	Yes	No	2	50	96891446			96872152	96909198	No
	Yes	Yes	2	50				96872202	97688940	No
SLV.80.80.11	No	No	4	50	96871977	96836266	96909199			No
	No	No	4	50	97639802	97639149	97683754			Yes
	No	Yes	4	50	96872061	96857918	97687778			No
	Yes	No	4	50	96872153	96837216	96909200			No
	Yes	No	4	50	97639839	97639182	97689336			Yes
SLV.80.80.13	Yes	Yes	4	50		96837199	97688941			No
	No	No	4	50	96871978	96857830	96909201			No
	No	No	4	50	97639803	97639150	97683755			Yes
	No	Yes	4	50	96872073	96872072	97687779			No
	Yes	No	4	50	96872154	96871962	96909202			No
SLV.80.80.15	Yes	No	4	50	97639840	97639183	97689337			Yes
	Yes	Yes	4	50		96872204	97688942			No
	No	No	4	50	96871979	96836269	96909203			No
	No	No	4	50	97639804	97639151	97683756			Yes
	No	Yes	4	50	96872075	96872074	97687780			No
SLV.80.80.22	Yes	No	4	50	96872155	96871963	96909204			No
	Yes	No	4	50	97639841	97639184	97689338			Yes
	Yes	Yes	4	50		96872206	97688943			No
	No	No	4	50	96891407	96835691	96909205	96871980		No
	No	No	4	50	97639805	97639152	97683757			Yes
SLV.80.80.40	No	Yes	4	50	96891475	96835683	97687781	96872077		No
	Yes	No	4	50	96891448	96835682	96909209	96872156		No
	Yes	No	4	50	97639842	97639185	97689339			Yes
	Yes	Yes	4	50		96826096	97688944	96872208		No
	No	No	2	50	96891410	96871581		96871995	96909207	No
SLV.80.80.40	No	No	2	50	97639806			97639153	97683758	Yes
	No	Yes	2	50	96891479			96872080	97687782	No
	Yes	No	2	50	96891408			96871992	96909206	No
	Yes	No	2	50	97639807			97639154	97683759	Yes
	Yes	Yes	2	50	96891478			96872079	97687783	No
SLV.80.80.40	No	No	4	50	96891451			96872159	96909211	No
	No	No	4	50	97639843			97639186	97689340	Yes
	No	Yes	4	50				96872211	97688945	No
	Yes	No	4	50	96891449			96872157	96909210	No
	Yes	No	4	50	97639844			97639187	97689341	Yes
	Yes	Yes	4	50			96872209	97688946	No	

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.80.80.60	No	No	2	50	96891411			96873784	96909208	No
	No	No	2	50	97639808			97639155	97683760	Yes
	No	Yes	2	50	96891480			96872081	97687784	No
	Yes	No	2	50	96891452			96872160	96909212	No
	Yes	No	2	50	97639845			97639188	97689342	Yes
SLV.80.80.75	Yes	Yes	2	50				96872222	97688947	No
	No	No	2	50	96891412			96871998	96909214	No
	No	No	2	50	97639809			97639156	97683761	Yes
	No	Yes	2	50	96891481			96872082	97687785	No
	Yes	No	2	50	96891453			96872161	96909213	No
SLV.80.80.92	Yes	No	2	50	97639846			97639189	97689343	Yes
	Yes	Yes	2	50				96872223	97688948	No
	No	No	2	50	96891413			96872003	96909215	No
	No	No	2	50	97639810			97639157	97683762	Yes
	No	Yes	2	50	96891492			96872084	97687786	No
SLV.80.80.110	Yes	No	2	50	96891454			96872162	96909217	No
	Yes	No	2	50	97639847			97639190	97689344	Yes
	Yes	Yes	2	50				96872224	97688949	No
	No	No	2	50	96891414			96872004	96909216	No
	No	No	2	50	97639811			97639158	97683763	Yes
SLV.80.80.110	No	Yes	2	50	96891493			96872085	97687787	No
	Yes	No	2	50	96891455			96872163	96909218	No
	Yes	No	2	50	97639848			97639191	97689345	Yes
	Yes	Yes	2	50				96872225	97688950	No
	No	No	4	50	96872007	96872005	96909219			No
SLV.80.100.11	No	No	4	50	97639812	97639159	97683764			Yes
	No	Yes	4	50	96872088	96872087	97687788			No
	Yes	No	4	50	96872166	96872165	96909233			No
	Yes	No	4	50	97639849	97639192	97689346			Yes
	Yes	Yes	4	50		96872226	97688951			No
SLV.80.100.13	No	No	4	50	96891415	96890480	96909220			No
	No	No	4	50	97639813	97639160	97683765			Yes
	No	Yes	4	50	96891494	96890783	97687789			No
	Yes	No	4	50	96891457	96890782	96909234			No
	Yes	No	4	50	97639850	97639193	97689347			Yes
SLV.80.100.15	Yes	Yes	4	50		96890784	97688952			No
	No	No	4	50	96872009	96872008	96909221			No
	No	No	4	50	97639814	97639161	97683766			Yes
	No	Yes	4	50	96872090	96872089	97687790			No
	Yes	No	4	50	96872170	96872168	96909235			No
SLV.80.100.22	Yes	No	4	50	97639851	97639194	97689348			Yes
	Yes	Yes	4	50		96872228	97688953			No
	No	No	4	50	96891416	96872244	96909222	96872243		No
	No	No	4	50	97639815	97639162	97683767			Yes
	No	Yes	4	50	96891495	96872247	97687791	96872246		No
SLV.80.100.40	Yes	No	4	50	96891458	96872248	96909236	96872249		No
	Yes	No	4	50	97639852	97639195	97689349			Yes
	Yes	Yes	4	50		96872250	97688954	96872251		No
	No	No	2	50	96891420			96872022	96909224	No
	No	No	2	50	97639816			97639163	97683768	Yes
SLV.80.100.40	No	Yes	2	50	96891498			96872093	97687792	No
	Yes	No	2	50	96891418			96872010	96909223	No
	Yes	No	2	50	97639817			97639164	97683769	Yes
	Yes	Yes	2	50	96891496			96872091	97687793	No
	No	No	4	50	96891461			96872184	96909238	No
SLV.80.100.40	No	No	4	50	97639853			97639196	97689350	Yes
	No	Yes	4	50				96872232	97688955	No
	Yes	No	4	50	96891459			96872171	96909237	No
	Yes	No	4	50	97639854			97639197	97689351	Yes
	Yes	Yes	4	50				96872230	97688956	No
SLV.80.100.60	No	No	2	50	96893973			96893379	96909225	No
	No	No	2	50	97639818			97639165	97683770	Yes
	No	Yes	2	50	96893975			96893448	97687794	No
	Yes	No	2	50	96893974			96893431	96909239	No
	Yes	No	2	50	97639855			97639198	97689352	Yes
	Yes	Yes	2	50				96893449	97688957	No

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.80.100.75	No	No	2	50	96891419			96872011	96909226	No
	No	No	2	50	97639819			97639166	97683771	Yes
	No	Yes	2	50	96891497			96872092	97687795	No
	Yes	No	2	50	96891460			96872183	96909240	No
	Yes	No	2	50	97639856			97639199	97689353	Yes
SLV.80.100.92	Yes	Yes	2	50				96872231	97688958	No
	No	No	2	50	96891421			96872023	96909227	No
	No	No	2	50	97639820			97639167	97683772	Yes
	No	Yes	2	50				96872094	97687796	No
	Yes	No	2	50	96891462			96872185	96909241	No
SLV.80.100.110	Yes	No	2	50	97639857			97639200	97689354	Yes
	Yes	Yes	2	50				96872235	97688959	No
	No	No	2	50	96891432			96890789	96909228	No
	No	No	2	50	97639821			97639168	97683773	Yes
	No	Yes	2	50	96891500			96890791	97687797	No
SLV.100.100.30	Yes	No	2	50	96891464			96890790	96909242	No
	Yes	No	2	50	97639858			97639201	97689355	Yes
	Yes	Yes	2	50				96890792	97688960	No
	No	No	4	50	96891433	96836305	96909229	96872024		No
	No	No	4	50	97639822	97639169	97683774			Yes
SLV.100.100.40	No	Yes	4	50	96891501	96872095	97687798	96872096		No
	Yes	No	4	50	96891465	96871965	96909243	96872186		No
	Yes	No	4	50	97639859	97639202	97689356			Yes
	Yes	Yes	4	50		96872237	97688961	96872239		No
	No	No	4	50	96891434			96872026	96909230	No
SLV.100.100.55	No	No	4	50	97639823			97639170	97683775	Yes
	No	Yes	4	50	96891502			96872097	97687799	No
	Yes	No	4	50	96891466			96872187	96909244	No
	Yes	No	4	50	97639860			97639203	97689357	Yes
	Yes	Yes	4	50				96872240	97688962	No
SLV.100.100.75	No	No	4	50	96891435			96872028	96909231	No
	No	No	4	50	97639824			97639171	97683776	Yes
	No	Yes	4	50	96891503			96872098	97687800	No
	Yes	No	4	50	96891467			96872188	96909245	No
	Yes	No	4	50	97639861			97639204	97689358	Yes
SLV.100.100.75	Yes	Yes	4	50				96872241	97688963	No
	No	No	4	50	96891436			96872029	96909232	No
	No	No	4	50	97639825			97639172	97683777	Yes
	No	Yes	4	50	96891504			96872099	97687801	No
	Yes	No	4	50	96891468			96872189	96909246	No
SLV.100.100.75	Yes	No	4	50	97639862			97639205	97689359	Yes
	Yes	Yes	4	50				96872242	97688964	No

SL1 pump range, Australia

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V	3 x 380-415 V	3 x 220-240 V	3 x 380-415 V	3 x 220-240 V	
					DOL	DOL	DOL	Y/D	Y/D	
[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]	
SL1.50.65.22	No	No	2	50	96891639					No
	No	Yes	2	50	96891716					No
	Yes	No	2	50	96891722					No
SL1.50.65.30	No	No	2	50	96891640					No
	No	Yes	2	50	96891717					No
	Yes	No	2	50	96891723					No
SL1.50.65.40	No	No	2	50	96891641					No
	No	Yes	2	50	96891718					No
	Yes	No	2	50	96891724					No
SL1.50.80.22	No	No	2	50	96891652					No
	No	Yes	2	50	96891719					No
	Yes	No	2	50	96891725					No
SL1.50.80.30	No	No	2	50	96891653					No
	No	Yes	2	50	96891720					No
	Yes	No	2	50	96891726					No
SL1.50.80.40	No	No	2	50	96895854					No
	No	Yes	2	50	96891721					No
	Yes	No	2	50	96891727					No
SL1.80.80.15	No	No	4	50	96872146					No
	No	Yes	4	50	96872149					No
	Yes	No	4	50	96872148					No
SL1.80.80.22	No	No	4	50	96891654					No
	No	Yes	4	50	96891704					No
	Yes	No	4	50	96891695					No
SL1.80.80.30	No	No	4	50	96891655					No
	No	Yes	4	50	96891703					No
	Yes	No	4	50	96891696					No
SL1.80.80.40	No	No	4	50	96891656					No
	No	Yes	4	50	96891702					No
	Yes	No	4	50	96891697					No
SL1.80.80.55	No	No	4	50	96891657					No
	No	Yes	4	50	96891701					No
	Yes	No	4	50	96891698					No
SL1.80.80.75	No	No	4	50	96891658					No
	No	Yes	4	50	96891700					No
	Yes	No	4	50	96891699					No
SL1.80.100.15	No	No	4	50	96873354					No
	No	Yes	4	50	96873390					No
	Yes	No	4	50	96873371					No
SL1.80.100.22	No	No	4	50	96891659					No
	No	Yes	4	50	96891692					No
	Yes	No	4	50	96891690					No
SL1.80.100.30	No	No	4	50	96891660					No
	No	Yes	4	50	96891691					No
	Yes	No	4	50	96891689					No
SL1.80.100.40	No	No	4	50	96836611					No
	No	Yes	4	50	96873413					No
	Yes	No	4	50	96871958					No
SL1.80.100.55	No	No	4	50	96836612					No
	No	Yes	4	50	96873415					No
	Yes	No	4	50	96871959					No
SL1.80.100.75	No	No	4	50	96891662					No
	No	Yes	4	50	96891687					No
	Yes	No	4	50	96891686					No
SL1.100.100.40	No	No	4	50	96891661					No
	No	Yes	4	50	96891682					No
	Yes	No	4	50	96891685					No
SL1.100.100.55	No	No	4	50	96891663					No
	No	Yes	4	50	96891681					No
	Yes	No	4	50	96891684					No
SL1.100.100.75	No	No	4	50	96891664					No
	No	Yes	4	50	96891680					No
	Yes	No	4	50	96891683					No

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SL1.100.150.40	No	No	4	50	96891665					No
	No	Yes	4	50	96891673					No
	Yes	No	4	50	96891670					No
SL1.100.150.55	No	No	4	50	96891666					No
	No	Yes	4	50	96891672					No
	Yes	No	4	50	96891669					No
SL1.100.150.75	No	No	4	50	96891667					No
	No	Yes	4	50	96891671					No
	Yes	No	4	50	96891668					No

SLV pump range, Australia

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.65.65.22	No	No	2	50	96891379					No
	No	Yes	2	50	96891469					No
	Yes	No	2	50	96891440					No
	Yes	Yes	2	50						No
SLV.65.65.30	No	No	2	50	96891380					No
	No	Yes	2	50	96891470					No
	Yes	No	2	50	96891441					No
	Yes	Yes	2	50						No
SLV.65.65.40	No	No	2	50	96891402					No
	No	Yes	2	50	96891471					No
	Yes	No	2	50	96891443					No
	Yes	Yes	2	50						No
SLV.65.80.22	No	No	2	50	96891403					No
	No	Yes	2	50	96891472					No
	Yes	No	2	50	96891444					No
	Yes	Yes	2	50						No
SLV.65.80.30	No	No	2	50	96891404					No
	No	Yes	2	50	96891473					No
	Yes	No	2	50	96891445					No
	Yes	Yes	2	50						No
SLV.65.80.40	No	No	2	50	96891406					No
	No	Yes	2	50	96891474					No
	Yes	No	2	50	96891446					No
	Yes	Yes	2	50						No
SLV.80.80.11	No	No	4	50	96871977					No
	No	No	4	50	97639802					Yes
	No	Yes	4	50	96872061					No
	Yes	No	4	50	96872153					No
	Yes	No	4	50	97639839					Yes
SLV.80.80.13	Yes	Yes	4	50						No
	No	No	4	50	96871978					No
	No	No	4	50	97639803					Yes
	No	Yes	4	50	96872073					No
	Yes	No	4	50	96872154					No
SLV.80.80.15	Yes	No	4	50	97639840					Yes
	Yes	Yes	4	50						No
	No	No	4	50	96871979					No
	No	No	4	50	97639804					Yes
	No	Yes	4	50	96872075					No
SLV.80.80.22	Yes	No	4	50	96872155					No
	Yes	No	4	50	97639841					Yes
	Yes	Yes	4	50						No
	No	No	4	50	96891407					No
	No	No	4	50	97639805					Yes
SLV.80.80.40	No	Yes	4	50	96891475					No
	Yes	No	4	50	96891448					No
	Yes	No	4	50	97639842					Yes
	Yes	Yes	4	50						No
	No	No	2	50	96891410					No
SLV.80.80.40	No	No	2	50	97639806					Yes
	No	Yes	2	50	96891479					No
	Yes	No	2	50	96891408					No
	Yes	No	2	50	97639807					Yes
	Yes	Yes	2	50	96891478					No
SLV.80.80.40	No	No	4	50	96891451					No
	No	No	4	50	97639843					Yes
	No	Yes	4	50						No
	Yes	No	4	50	96891449					No
	Yes	No	4	50	97639844					Yes
	Yes	Yes	4	50						No

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.80.80.60	No	No	2	50	96891411					No
	No	No	2	50	97639808					Yes
	No	Yes	2	50	96891480					No
	Yes	No	2	50	96891452					No
	Yes	No	2	50	97639845					Yes
SLV.80.80.75	Yes	Yes	2	50						No
	No	No	2	50	96891412					No
	No	No	2	50	97639809					Yes
	No	Yes	2	50	96891481					No
	Yes	No	2	50	96891453					No
SLV.80.80.92	Yes	No	2	50	97639846					Yes
	Yes	Yes	2	50						No
	No	No	2	50	96891413					No
	No	No	2	50	97639810					Yes
	No	Yes	2	50	96891492					No
SLV.80.80.110	Yes	No	2	50	96891454					No
	Yes	No	2	50	97639847					Yes
	Yes	Yes	2	50						No
	No	No	2	50	96891414					No
	No	No	2	50	97639811					Yes
SLV.80.80.110	No	Yes	2	50	96891493					No
	Yes	No	2	50	96891455					No
	Yes	No	2	50	97639848					Yes
	Yes	Yes	2	50						No
	No	No	4	50	96872007					No
SLV.80.100.11	No	No	4	50	97639812					Yes
	No	Yes	4	50	96872088					No
	Yes	No	4	50	96872166					No
	Yes	No	4	50	97639849					Yes
	Yes	Yes	4	50						No
SLV.80.100.13	No	No	4	50	96891415					No
	No	No	4	50	97639813					Yes
	No	Yes	4	50	96891494					No
	Yes	No	4	50	96891457					No
	Yes	No	4	50	97639850					Yes
SLV.80.100.13	Yes	Yes	4	50						No
	No	No	4	50	96872009					No
	No	No	4	50	97639814					Yes
	No	Yes	4	50	96872090					No
	Yes	No	4	50	96872170					No
SLV.80.100.15	Yes	No	4	50	97639851					Yes
	Yes	Yes	4	50						No
	No	No	4	50	96891416					No
	No	No	4	50	97639815					Yes
	No	Yes	4	50	96891495					No
SLV.80.100.22	Yes	No	4	50	96891458					No
	Yes	No	4	50	97639852					Yes
	Yes	Yes	4	50						No
	No	No	2	50	96891420					No
	No	No	2	50	97639816					Yes
SLV.80.100.40	No	Yes	2	50	96891498					No
	Yes	No	2	50	96891418					No
	Yes	No	2	50	97639817					Yes
	Yes	Yes	2	50	96891496					No
	No	No	4	50	96891461					No
SLV.80.100.40	No	No	4	50	97639853					Yes
	No	Yes	4	50						No
	Yes	No	4	50	96891459					No
	Yes	No	4	50	97639854					Yes
	Yes	Yes	4	50						No
SLV.80.100.60	No	No	2	50	96893973					No
	No	No	2	50	97639818					Yes
	No	Yes	2	50	96893975					No
	Yes	No	2	50	96893974					No
	Yes	No	2	50	97639855					Yes
SLV.80.100.60	Yes	Yes	2	50						No

Pump type	Sensor	Explosion proof	Poles	Hz	Voltage					Stainless steel impeller
					3 x 400-415 V DOL	3 x 380-415 V DOL	3 x 220-240 V DOL	3 x 380-415 V Y/D	3 x 220-240 V Y/D	
	[.A]	[.EX]	[.2]	[.5]	[0B]	[0D]	[0E]	[1D]	[1E]	[.Q]
SLV.80.100.75	No	No	2	50	96891419					No
	No	No	2	50	97639819					Yes
	No	Yes	2	50	96891497					No
	Yes	No	2	50	96891460					No
	Yes	No	2	50	97639856					Yes
SLV.80.100.92	Yes	Yes	2	50						No
	No	No	2	50	96891421					No
	No	No	2	50	97639820					Yes
	No	Yes	2	50						No
	Yes	No	2	50	96891462					No
SLV.80.100.110	Yes	No	2	50	97639857					Yes
	Yes	Yes	2	50						No
	No	No	2	50	96891432					No
	No	No	2	50	97639821					Yes
	No	Yes	2	50	96891500					No
SLV.100.100.30	Yes	No	2	50	96891464					No
	Yes	No	2	50	97639858					Yes
	Yes	Yes	2	50						No
	No	No	4	50	96891433					No
	No	No	4	50	97639822					Yes
SLV.100.100.40	No	Yes	4	50	96891501					No
	Yes	No	4	50	96891465					No
	Yes	No	4	50	97639859					Yes
	Yes	Yes	4	50						No
	No	No	4	50	96891434					No
SLV.100.100.55	No	No	4	50	97639823					Yes
	No	Yes	4	50	96891502					No
	Yes	No	4	50	96891466					No
	Yes	No	4	50	97639860					Yes
	Yes	Yes	4	50						No
SLV.100.100.75	No	No	4	50	96891435					No
	No	No	4	50	97639824					Yes
	No	Yes	4	50	96891503					No
	Yes	No	4	50	96891467					No
	Yes	No	4	50	97639861					Yes
SLV.100.100.75	Yes	Yes	4	50						No
	No	No	4	50	96891436					No
	No	No	4	50	97639825					Yes
	No	Yes	4	50	96891504					No
	Yes	No	4	50	96891468					No
SLV.100.100.75	Yes	No	4	50	97639862					Yes
	Yes	Yes	4	50						No

6. Variants

List of variants

Motor		
Various cable lengths		15 m
		25 m
		50 m
EMC power cables	Screened power cables for variable-speed drives	10 m
		15 m
		25 m
		50 m

Tests		
Test at specified duty on standard impeller curve		
Trimmed impeller for specified duty test*		
Additional test of entire QH curve (incl. report)	5-10 duty points from pump performance curve	
Different test standard	Efficiency guaranteed by Grundfos	ISO 9906 grade 1 tolerances
		ISO 9906 grade 2 tolerances
Customer-requested duty point	Test according to customer-specified duty point on standard pump curve	ISO 9906 grade 1/2 tolerances
Vibration test (including report)	According to Grundfos factory quality standard	
String test	Contact Grundfos	
Witness test	Contact Grundfos	

Certificates		
ATEX-approved pump report	Special Grundfos report. Contact Grundfos	
Certificate of compliance with order	According to EN10204 2.1	According to Annex A grades 1 and 2
Pump certificate	According to EN10204 2.2	According to Annex A grades 1 and 2
Inspection certificate	According to EN10204 3.1	According to Annex A grades 1 and 2
Material specification report	According to EN10204 3.1B	
Material report with certificate	According to EN10204 3.2	Material supplier information
Inspection certificate, Lloyd's Register	According to EN10204 3.2	
Inspection certificate, DNV (Det Norske Veritas)	According to EN10204 3.2	
Inspection certificate, Germanischer Lloyd	According to EN10204 3.2	
Inspection certificate, American Bureau of Shipping	According to EN10204 3.2	
Inspection certificate, Bureau Veritas	According to EN10204 3.2	
Registro Italiano Navale Agenture	According to EN10204 3.2	
Other third-party test certificates	Contact Grundfos	

Miscellaneous

Solution	Customer benefits	
FKM sealing (optional)	<ul style="list-style-type: none"> Resistant to acids Resistant to mineral oils and vegetable oils Resistant to most solvents (toluene, petrol, trichloroethylene etc.) 	Contact Grundfos
Cable protection hose	<ul style="list-style-type: none"> Resistant to acids Resistant to most oils Resistant to most solvents etc. 	Contact Grundfos
Heavy-duty wear ring kit	<ul style="list-style-type: none"> Wear and seal ring kit for the handling of abrasive media Increased wear resistance of impeller in abrasive applications Increased reliability and life of pump. 	Contact Grundfos
Stainless steel SuperVortex impeller according to EN 1.4517	Increased wear resistance	Contact Grundfos
Ceramic coating of impeller and pump housing	<ul style="list-style-type: none"> Reduced wear rate of cast iron parts Increased corrosion resistance Beneficial in case of low number of operating hours 	Contact Grundfos
Extra epoxy coating 300 µm		Contact Grundfos
Top coating (black RAL9005, red RAL 3000 and other colours)		Contact Grundfos
Special packaging		Contact Grundfos
Special nameplate		Contact Grundfos
Other variants		Contact Grundfos

* SLV impellers can be trimmed on request.

7. Construction

Drawings, SL1 pumps

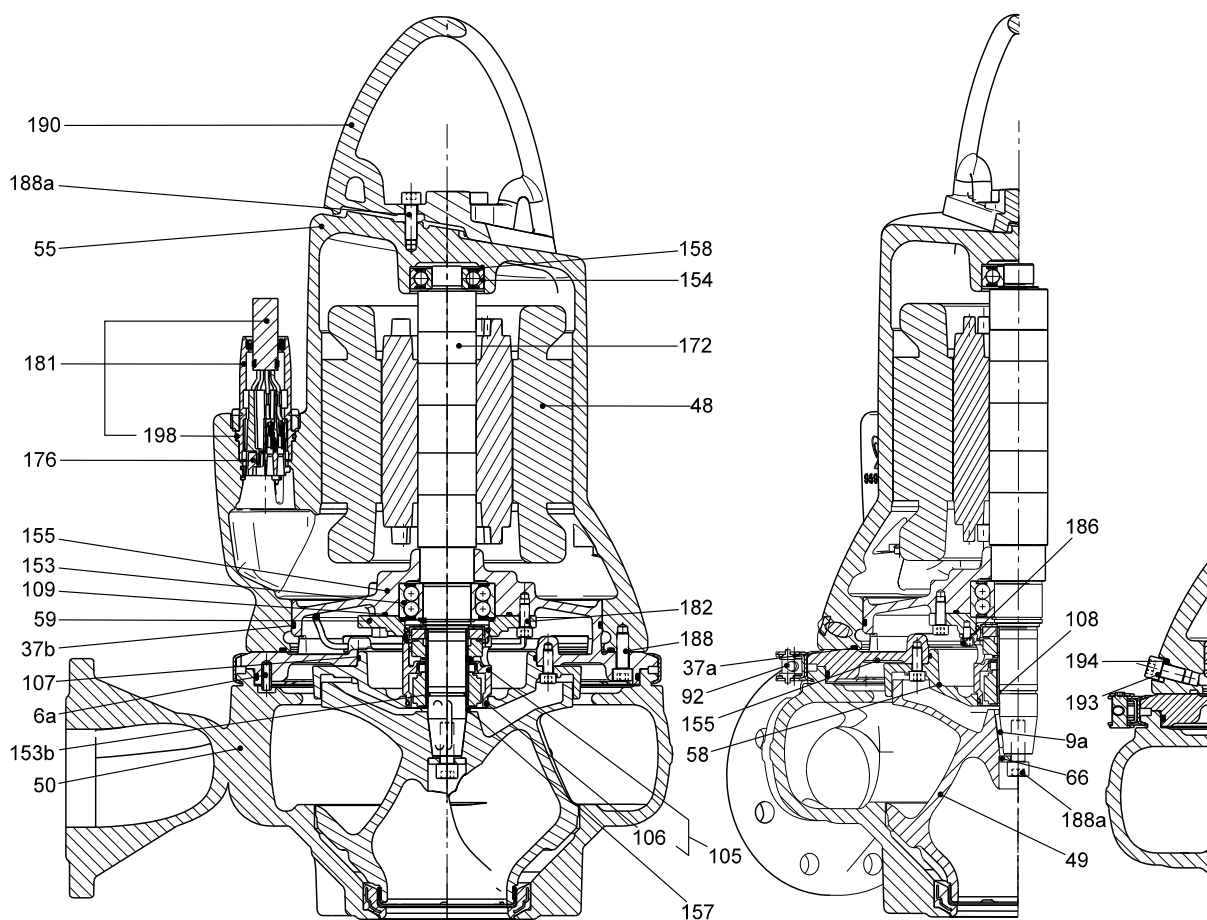


Fig. 5 Sectional drawing of SL1 pump without sensor

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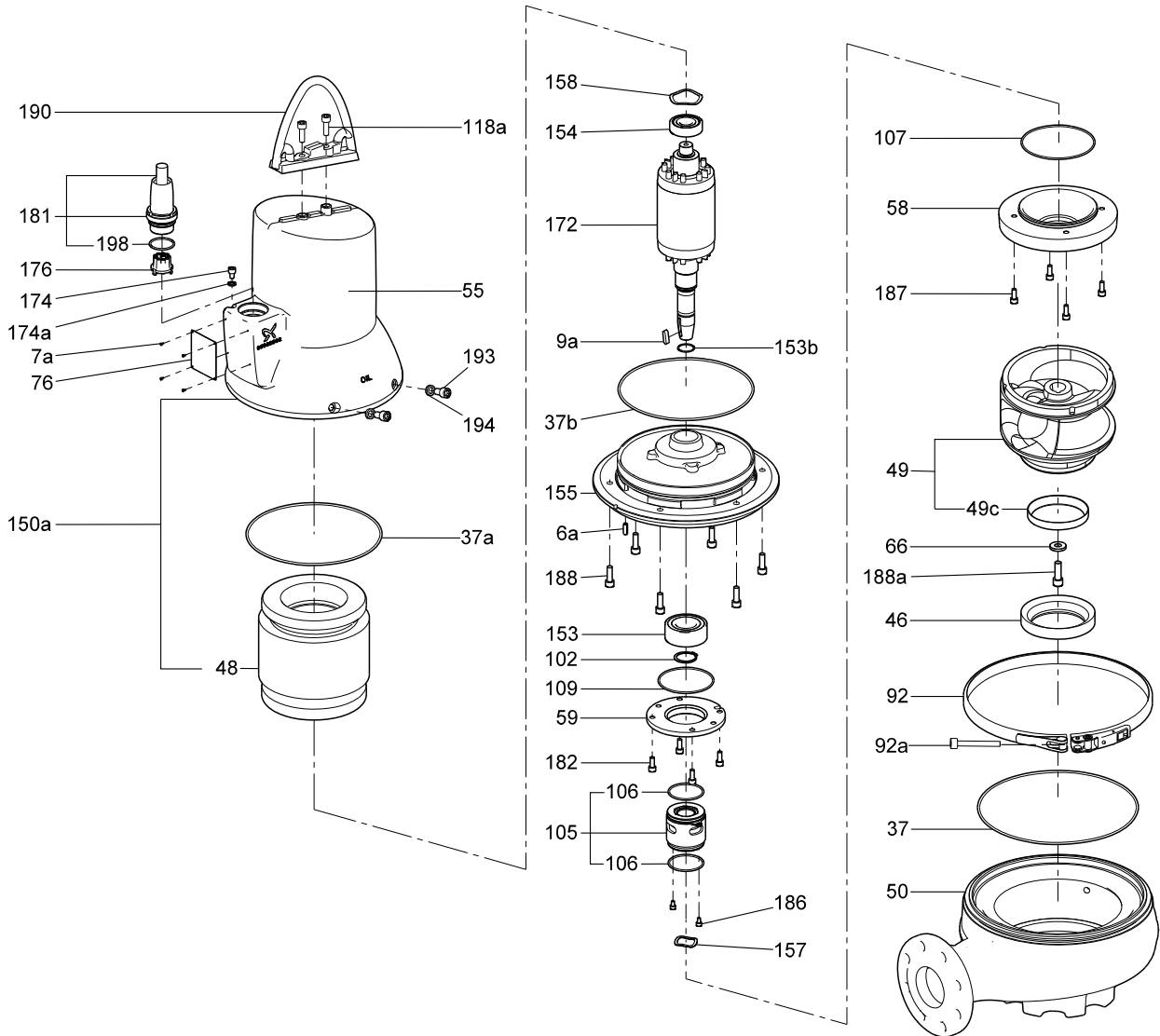
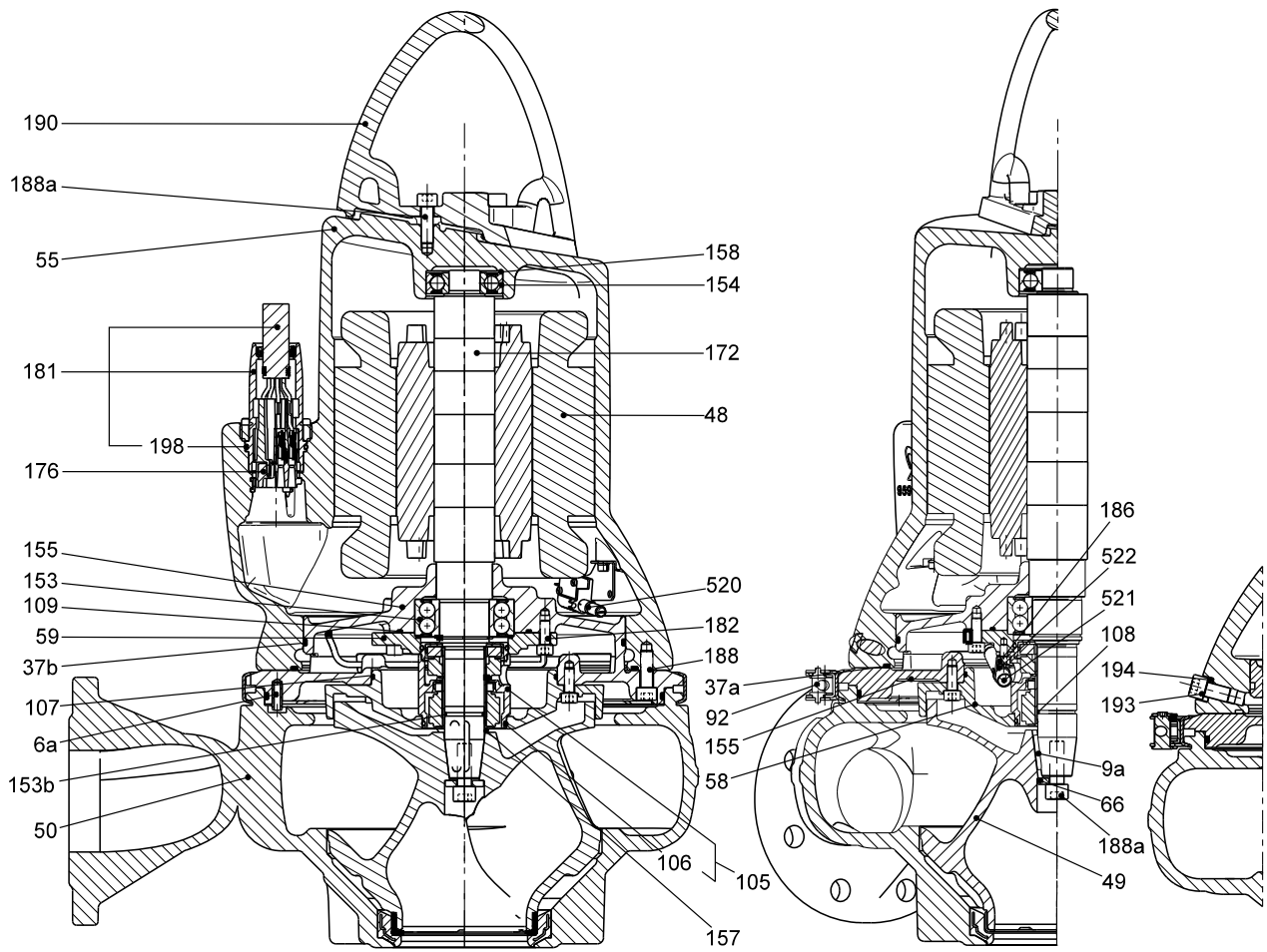


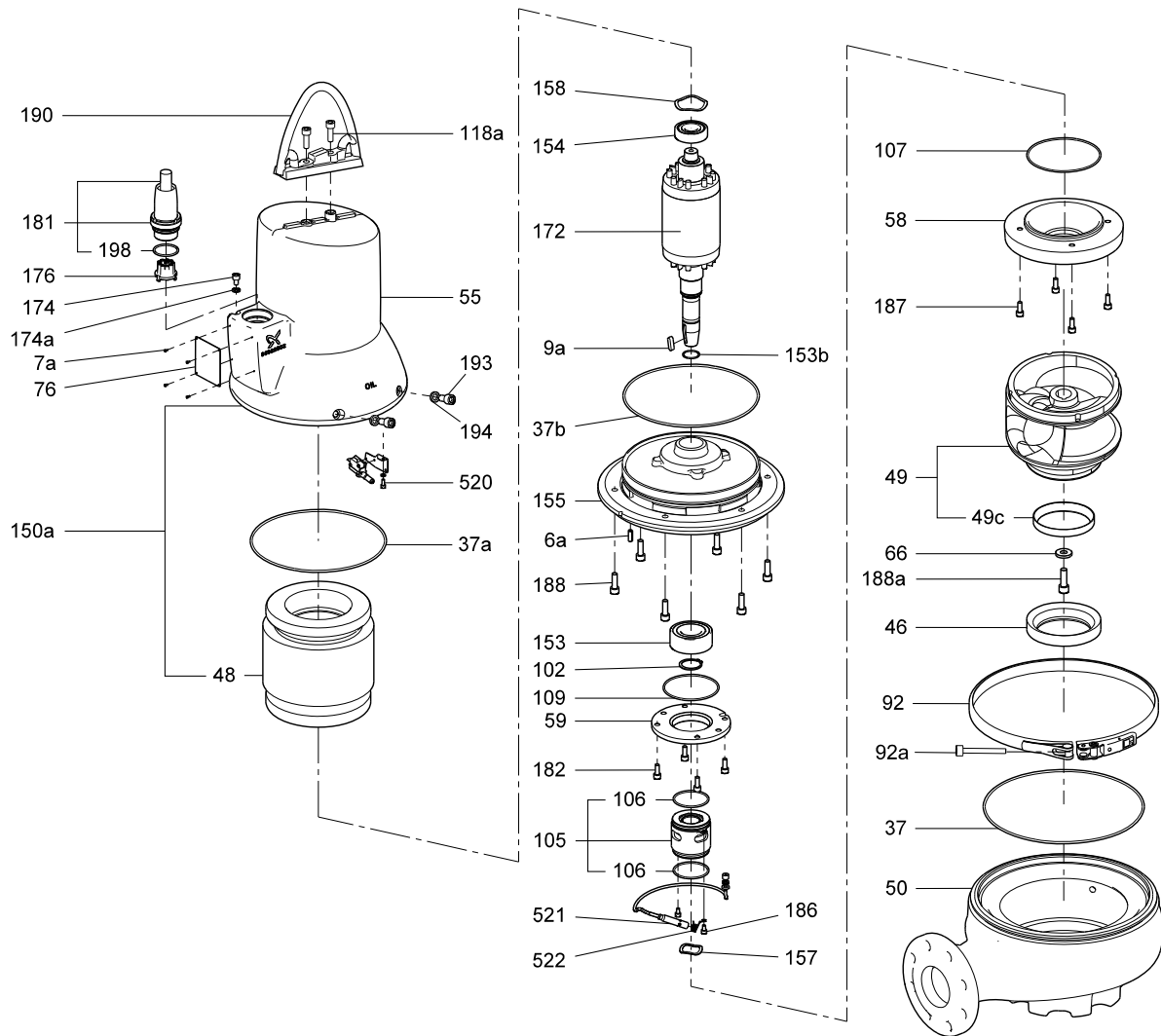
Fig. 6 Exploded view of SL1 pump without sensor

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TM04 2788 2908

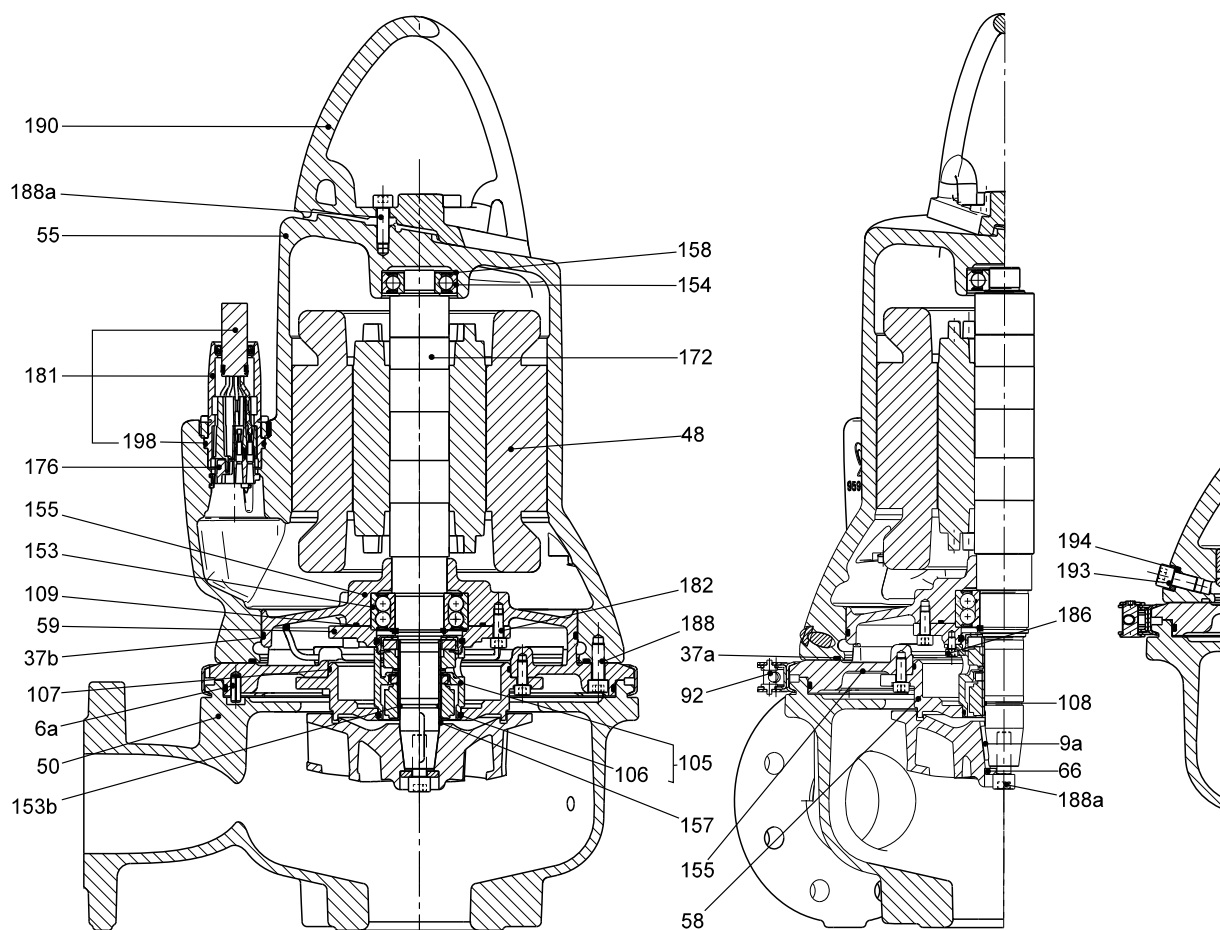
Fig. 7 Sectional drawing of SL1 pump with sensor



TM02 2778 4612

Fig. 8 Exploded view of SL1 pump with sensor

Drawings, SLV pumps



TM04 2785 2908

Fig. 9 Exploded view of SLV pump without sensor

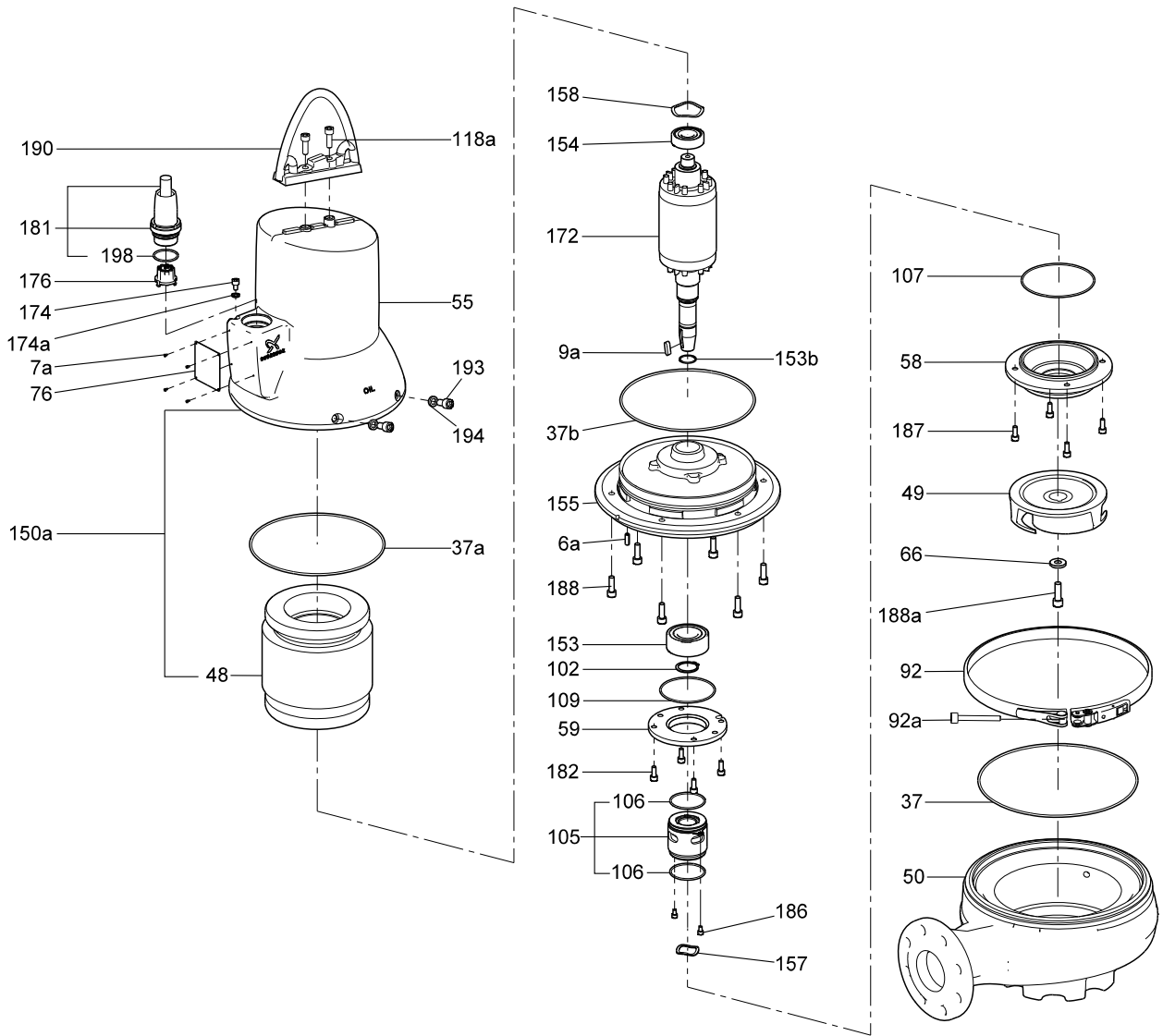
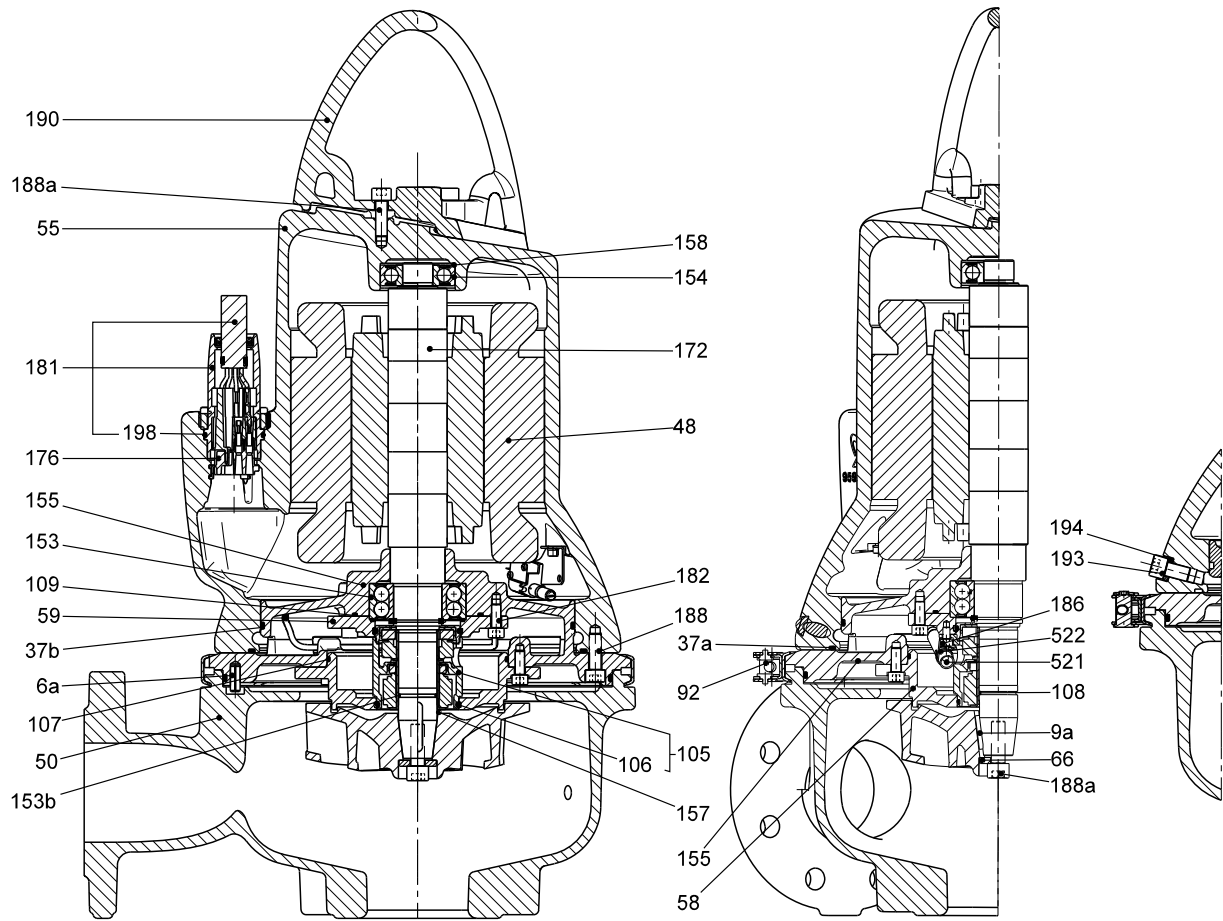


Fig. 10 Sectional drawing of SLV pump without sensor

TM04 2779 46 12



TM04 2786 2908

Fig. 11 Sectional drawing of SLV pump with sensor

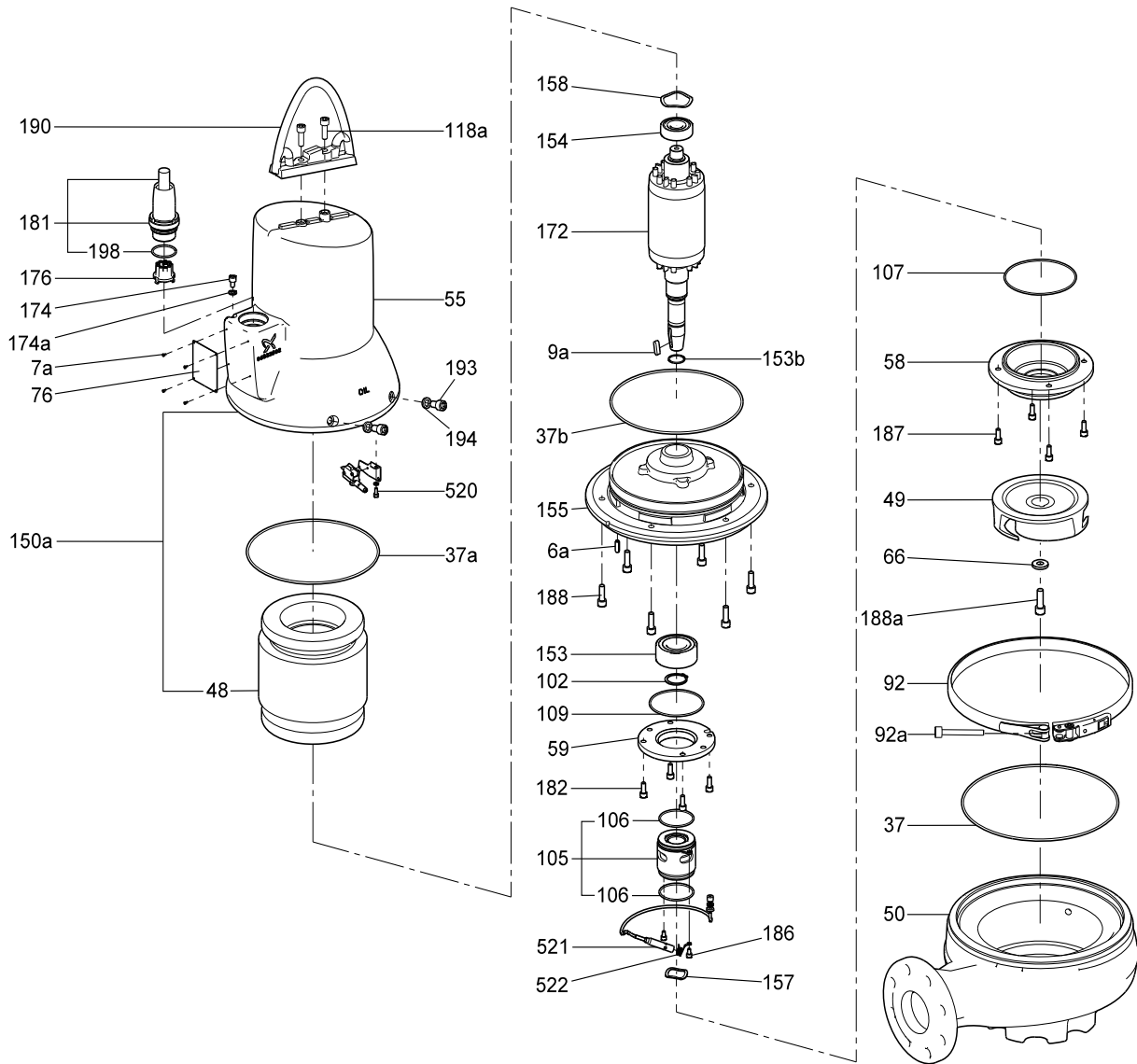


Fig. 12 Exploded view of SLV pump with sensor

TM04 2780 4612

Material specification, SL1 and SLV standard pumps

Pos.	Component	Material	DIN W.-Nr. / EN standard	AISI / ASTM
6a	Tubular pin, D8 x 22 A2	Stainless steel	1.4301	304
7a	Blank rivet, 2.4 x 6 A2	Stainless steel	1.4301	304
37	O-ring	NBR rubber		
37a	O-ring	NBR rubber		
46	Seal ring, inlet	NBR rubber/stainless steel	1.4301	304
48	Stator package			
49	SuperVortex impeller	Cast iron, EN-GJL-200	EN-JL 1030	ASTM A48 Class 200B
	S-tube impeller	Cast iron, EN-GJL-250	EN-JL 1030	ASTM A48 Class 250B
49c	Wear ring, impeller	Stainless steel	1.4301	304
50	Pump housing	Cast iron, EN-GJL-200	EN-JL 1030	ASTM A48 Class 200B
55	Stator housing	Cast iron, EN-GJL-200	EN-JL 1030	ASTM A48 Class 200B
58	Cover for oil chamber	Cast iron, EN-GJL-200	EN-JL 1030	ASTM A48 Class 200B
59	Bearing cover	Cast iron, EN-GJL-250	EN-JL 1040	ASTM A48 Class 250B
76	Nameplate	Stainless steel	1.4401	316
92	Clamp	Stainless steel	1.4401	316
102	Circlip			
105	Shaft seal complete (rotating part of MG1/25-G60 Q1Q1PGG, stationary part of MG1/25-G60 Q1Q1PGG; rotating part of BT-AR/25 BXPFF, stationary part of BT-AR/25 BXPFF)	Stainless steel, SiC/SiC		
		Carbon/ceramic		
106	O-ring for shaft seal	NBR rubber		
107	O-ring (cover for oil chamber)	NBR rubber		
109	O-ring for bearing cover, D-end	NBR rubber		
150a	Stator house complete with stator			
153	Bearing, D-end	Stainless steel		
153b	O-ring	NBR rubber		
154	Bearing, N-end	Stainless steel		
155	Oil chamber	Cast iron, EN-GJL-250	EN-JL 1040	ASTM A48 Class 250B
157	Corrugated spring (bearing, D-end)	Stainless steel		
158	Corrugated spring (bearing, N-end)	Carbon steel	Inconel X750 1.1248	
172	Shaft with rotor	Regular iron/stainless steel	1.0570/1.4401	316
174	Earth screw, external	Stainless steel		
174a	Washer for external earth screw	Stainless steel		
176	Connector set (internal part)			
181	Cable with outer plug part	7G2.5 + 3 x 1		
182	Screw	Stainless steel	1.4436	316
186	Screw	Stainless steel	1.4436	316
188	Screw	Stainless steel	1.4436	316
190	Lifting handle	Stainless steel	1.4308	CF8
193	Plug	Stainless steel	1.4436	316
194	Gasket			
198	O-ring	NBR rubber		
520	Moisture switch (only sensor versions)			
521	WIO sensor (only sensor versions)			
522	Bracket for WIO sensor (only sensor versions)	Stainless steel	1.4310	301

Material declaration:

Grey cast iron is manufactured according to EN 1561:1997.

Cast stainless steel is manufactured according to EN 10283:2010.

Conversion to other standards such as AISI/ASTM is normative, and products are not manufactured according to these.

Material specification, SL1 and SLV Q variants

Pos.	Component	Material	DIN W.-Nr. / EN standard	AISI / ASTM
6a	Tubular pin, D8 x 22 A2	Stainless steel	1.4301	304
7a	Blank rivet, 2.4 x 6 A2	Stainless steel	1.4301	304
37	O-ring	NBR rubber		
37a	O-ring	NBR rubber		
46	Seal ring, inlet	NBR rubber/stainless steel	1.4301	304
48	Stator package			
49	SuperVortex impeller	Stainless steel	1.4408	316/351 CF8M
	S-tube impeller	Stainless steel	1.4408	316/351 CF8M
49c	Wear ring, impeller	Stainless steel	1.4301	304
50	Pump housing	Cast iron, EN-GJL-200	EN-JL 1030	
55	Stator housing	Cast iron, EN-GJL-200	EN-JL 1030	
58	Cover for oil chamber	Cast iron, EN-GJL-200	EN-JL 1030	
59	Bearing cover	Cast iron, EN-GJL-250	EN-JL 1040	
76	Nameplate	Stainless steel	1.4401	316
92	Clamp	Stainless steel	1.4401	316
102	Circlip			
105	Shaft seal complete (rotating part of MG1/25-G60 Q1Q1PGG, stationary part of MG1/25-G60 Q1Q1PGG; rotating part of BT-AR/25 BXPFF, stationary part of BT-AR/25 BXPFF)	Stainless steel, SiC/SiC		
		Carbon/ceramic		
106	O-ring for shaft seal	NBR rubber		
107	O-ring (cover for oil chamber)	NBR rubber		
109	O-ring for bearing cover, D-end	NBR rubber		
150a	Stator house complete with stator			
153	Bearing, D-end	Stainless steel		
153b	O-ring	NBR rubber		
154	Bearing, N-end	Stainless steel		
155	Oil chamber	Cast iron, EN-GJL-250	EN-JL 1040	
157	Corrugated spring (bearing, D-end)	Stainless steel		
158	Corrugated spring (bearing, N-end)	Carbon steel	Inconel X750 1.1248	
172	Shaft with rotor	Regular iron/stainless steel	1.0570/1.4401	316
174	Earth screw, external	Stainless steel		
174a	Washer for external earth screw	Stainless steel		
176	Connector set (internal part)			
181	Cable with outer plug part	7G2.5 + 3 x 1		
182	Screw	Stainless steel	1.4436	316
186	Screw	Stainless steel	1.4436	316
188	Screw	Stainless steel	1.4436	316
190	Lifting handle	Stainless steel	1.4308	CF8
193	Plug	Stainless steel	1.4436	316
194	Gasket			
198	O-ring	NBR rubber		
520	Moisture switch (only sensor versions)			
521	WIO sensor (only sensor versions)			
522	Bracket for WIO sensor (only sensor versions)	Stainless steel	1.4310	301

Material declaration:

Grey cast iron is manufactured according to EN 1561:1997.

Cast stainless steel is manufactured according to EN 10283:2010.

Conversion to other standards such as AISI/ASTM is normative, and products are not manufactured according to these.

8. Product description

Features

Ball bearings

The bearings are greased for life.

Main bearings: Double-row angular contact ball bearing.

Support bearings: Single-row deep-groove ball bearing.

Shaft seal



TM05 0015 0511

Fig. 13 Double mechanical cartridge shaft seal

The shaft seal consists of two mechanical seals and separates the motor from the pumped liquid.

The shaft seal is a cartridge seal that enables easy service. The combination of the primary and secondary seals in a cartridge results in a shorter assembly length compared to conventional shaft seals.

Furthermore, this design minimises the risk of incorrect fitting.

The primary seal is SiC/SiC and the secondary is carbon/ceramic.

Motor

The motor is a watertight, totally encapsulated motor.

- Insulation class: F (155 °C).
- Temperature rise class: F (105 °C).
- Enclosure class: IP68.

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

Power cables

Standard cable

Cable type [mm ²]	Outer cable diameter [mm]	Bending radius	
		Fixed [cm]	Free [cm]
Lyniflex 4 G 1.5 + 3 x 1	15.5 ± 0.5	60	90
Lyniflex 4 G 2.5 + 3 x 1	17.0 ± 0.5	66	99
Lyniflex 7 G 2.5 + 3 x 1	18.5 ± 0.5	74	111

EMC cable

Cable type [mm ²]	Outer cable diameter [mm]	Bending radius	
		Fixed [cm]	Free [cm]
3G3GC3G - F3 x 1AIC + 4 G 2.5	17.5 ± 0.5	85	170

The standard cable length is 10 m. Other cable lengths are available on request.

See *List of variants* on page 19.

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

Cable entry



TM05 0016 0511

Fig. 14 Moisture-proof cable plug

The stainless steel plug is fastened with a union nut. The nut and O-rings provide sealing against liquid penetration.

The plug is filled with a polyamide material that is cast into the plug around the conductors of the cable to prevent moisture from penetrating into the motor via the cable core.

Surface treatment

Grundfos SL1 and SLV pumps are given the following surface treatment:

Powder painting: NCS 9000N (black), gloss code 30, thickness 100 µm.

Sensors



Fig. 15 Analog water-in-oil sensor

As standard, the pump is equipped with thermal switches in the stator windings.

Customised sensor options

1. Pt1000 sensor in motor windings for stator temperature measurements.
2. WIO (water-in-oil) sensor. The WIO sensor fitted in the oil chamber of the pump monitors whether water enters the pump from the liquid side. The sensor measures the water content (0 to 20 %) in the oil and converts the value into an analog current signal which is sent to an IO 111 or IO 113 sensor module. It also sends a signal if the water content is outside the normal range (warning), or if there is air in the oil chamber (alarm). The sensor is fitted in a stainless steel tube for mechanical protection.
3. Moisture switch. The moisture switch fitted in the motor chamber monitors whether water enters the pump. If moisture is detected in the motor chamber, the moisture switch will trip out and send a warning to the IO 111 or IO 113 sensor module.

TM05 0017 0511

IO 111 sensor module



Fig. 16 Grundfos IO 111 sensor module

The sensor module collects the following signals from sensors in the pump:

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

Note: All pump versions with sensor come with an IO 111 sensor module. It is therefore not necessary to order an IO 111 separately.

TM05 0018 0511

IO 113 sensor module



Fig. 17 Grundfos IO 113 sensor module

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

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

The IO 113 can be connected to the Dedicated Controls system offered by Grundfos and provides advanced monitoring functions:

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

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 separately based on the pump serial number.

Other tests or third-party inspection certificates are available on request.

See section 6. *Variants* on page 19.

TM05 4166 2112

Operating conditions

Pumps without a cooling jacket are **only** for submerged installation.

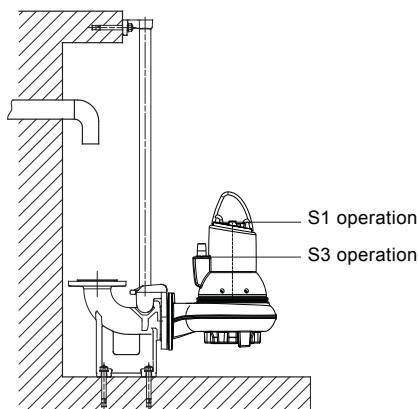


Fig. 18 Operation levels

TM04 2649 2808

S1, continuous operation:

Continuous operation S1 when the pump is fully submerged to the top of the motor.

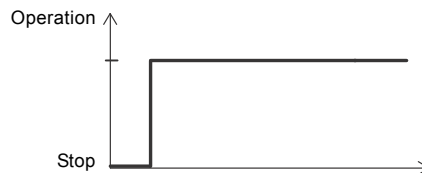


Fig. 19 Continuous operation

TM04 4528 1509

- Intermittent operation S3 with max. 20 starts per hour when the pump is submerged to the bottom of the cable plug. The pump must run for max. 4 minutes and stop for min. 6 minutes. See fig. 20. **Note:** Explosion-proof pumps **must** always be fully submerged.

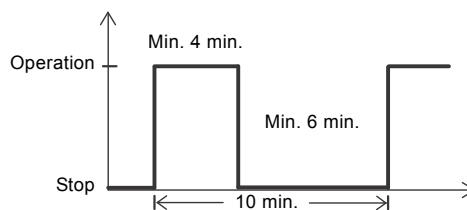


Fig. 20 Intermittent operation

TM04 4527 1509

Pumped liquids

Pump type	Material variant	Material	pH value
SL1/SLV	Standard	Cast iron impeller and pump housing	6.5 to 14 ¹⁾
SLV	Q	Stainless steel impeller and cast iron pump housing	6 to 14 ¹⁾

¹⁾ For fluctuating pH values the range is pH 4 to 14.

Liquid temperature: 0 °C to +40 °C.

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

For short periods (maximum 3 minutes), a temperature of up to +60 °C is allowed (non-Ex versions only).

Sound pressure

The sound pressure level of the pump is lower than the limiting values stated in the EC Council directive 2006/42/EC relating to machinery (the EC Machinery Directive).

Motor range

Shaft power [kW]	Number of poles
1.1	4
1.3	4
1.5	4
2.2	2/4
3	2/4
4	2/4
6	2
7.5	2/4
9.2	2
11	2

Pump controllers

The pumps must be connected to a control box with a motor protection relay with IEC trip class 10 or 15.

Note: Pumps for hazardous locations must be connected to a control box with a motor protection relay with IEC trip class 10.

The pumps can be controlled by the following pump controllers:

- Grundfos Dedicated Controls
- LC 107, LCD 107 with air bells
- LC 108, LCD 108 with float switches
- LC 110, LCD 110 with level electrodes.

For further information about Dedicated Controls and LC, LCD controllers, please see page 152.

Frequency converter operation

All SL1/SLV pump types are designed for speed-controlled operation to keep the energy consumption at a minimum.

To avoid the risk of sedimentation in the pipes, we recommend that you operate the speed-controlled pump within a speed range of 30 % to 100 % and at a flow rate above 1 m/s.


For more information, see the installation and operating instructions (publication number 96771279) on www.grundfos.com (WebCAPS).

Explosion-proof pumps

The SL1 and SLV pumps in the table below have been tested by KEMA, and the explosion-proof versions hold an EC type examination certificate issued by KEMA according to the ATEX directive.

Pump types			
SL1.50.65.22	SL1.80.80.40	SL1.100.150.55	SLV.80.80.92
SL1.50.65.22	SL1.80.80.55	SL1.100.150.75	SLV.80.80.110
SL1.50.65.30	SL1.80.80.75	SLV.65.65.22	SLV.80.100.11
SL1.50.65.30	SL1.80.100.15	SLV.65.65.30	SLV.80.100.13
SL1.50.65.40	SL1.80.100.22	SLV.65.65.40	SLV.80.100.15
SL1.50.80.22	SL1.80.100.22	SLV.65.80.22	SLV.80.100.22
SL1.50.80.22	SL1.80.100.30	SLV.65.80.30	SLV.80.100.40
SL1.50.80.30	SL1.80.100.30	SLV.65.80.40	SLV.80.100.60
SL1.50.80.30	SL1.80.100.40	SLV.80.80.11	SLV.80.100.75
SL1.50.80.40	SL1.80.100.55	SLV.80.80.13	SLV.80.100.92
SL1.80.80.15	SL1.80.100.75	SLV.80.80.15	SLV.80.100.110
SL1.80.80.22	SL1.100.100.40	SLV.80.80.22	SLV.100.100.30
SL1.80.80.22	SL1.100.100.55	SLV.80.80.40	SLV.100.100.40
SL1.80.80.30	SL1.100.100.75	SLV.80.80.60	SLV.100.100.55
SL1.80.80.30	SL1.100.150.40	SLV.80.80.75	SLV.100.100.75

Europe

Directive/standard	Code	Description
ATEX	CE 0344	= CE marking of conformity according to the ATEX directive 94/9/EC, Annex X. 0344 is the number of the notified body which has certified the quality system for ATEX.
		= Explosion protection mark.
	II	= Equipment group according to the ATEX directive, Annex II, point 2.2, defining the requirements applicable to the equipment in this group.
	2	= Equipment category according to the ATEX directive, Annex II, point 2.2, defining the requirements applicable to the equipment in this category.
	G	= Explosive atmosphere caused by gases or vapours.
	Harmonised European standards	Ex
c		= Constructional safety according to EN 13463-5:2003.
d		= Flame-proof enclosure according to EN 60079-1:2007.
mb		= Encapsulation according to EN 60079-18:2004.
II		= Suitable for use in explosive atmospheres (not mines).
B		= Classification of gases according to EN 60079-0:2006, Annex A. Gas group B includes gas group A.
T4/T3		= Maximum surface temperature is 135 °C/200 °C according to EN 60079-0:2006.
IP68		= Enclosure class according to IEC 60529.
X		The letter X in the certificate number indicates that the equipment is subject to special conditions for safe use. The conditions are mentioned in the certificate and the installation and operating instructions.

Australia

Explosion-proof variants for Australia are approved as Ex d IIB T4/T3 & Ex d mb II B T4/T3 Gb.





Standard	Code	Description
IEC 60079-0 and IEC 60079-1	Ex	= The equipment conforms to the harmonised European standard.
	d	= Flame-proof enclosure according to IEC 60079-1:2007.
	mb	= Encapsulation according to IEC 60079-18.
	II	= Suitable for use in explosive atmospheres (not mines).
	B	= Classification of gases according to IEC 60079-0:2004, Annex A. Gas group B includes gas group A.
	T4/T3	= Maximum surface temperature is 135 °C/200 °C according to IEC 60079-0:2004.
	IP68	= Enclosure class according to IEC 60529.
	X	The letter X in the certificate number indicates that the equipment is subject to special conditions for safe use. The conditions are mentioned in the certificate and the installation and operating instructions.
	Gb	Equipment protection level

Approval standards

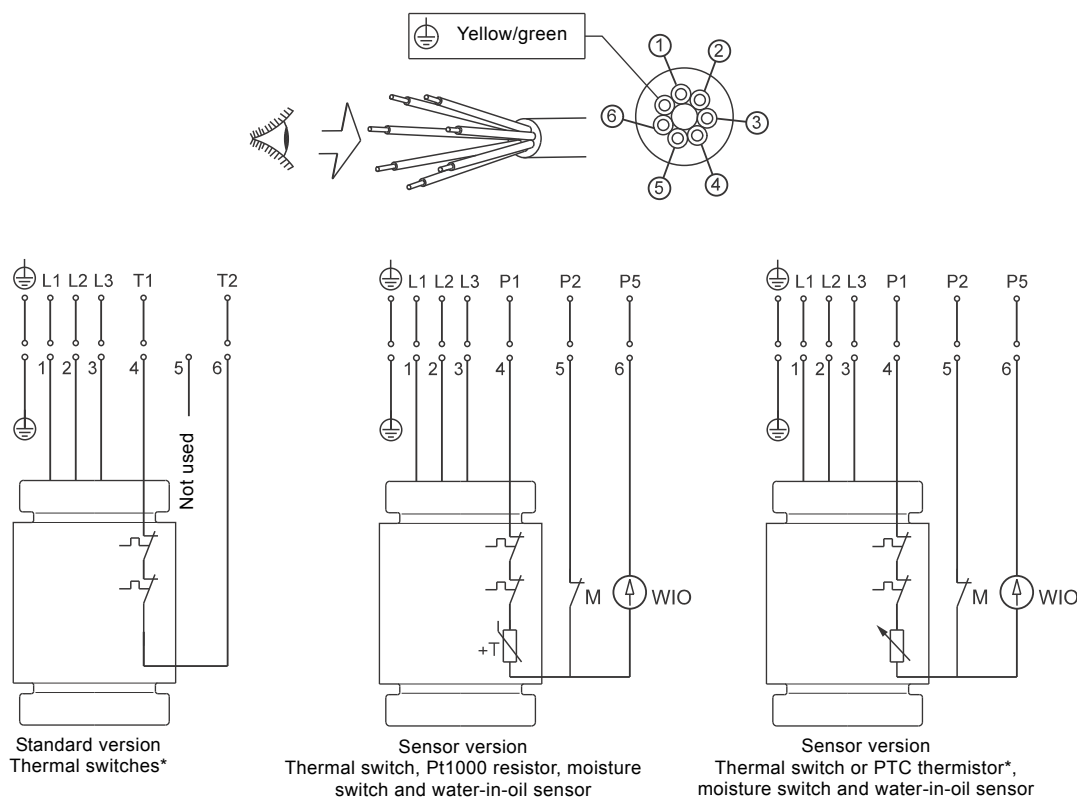
The pumps are approved by LGA (notified body under the Construction Products directive) according to EN 12050-1/2.

Explanation to Ex approval

The SL1 and SLV pumps have the following explosion protection classification:

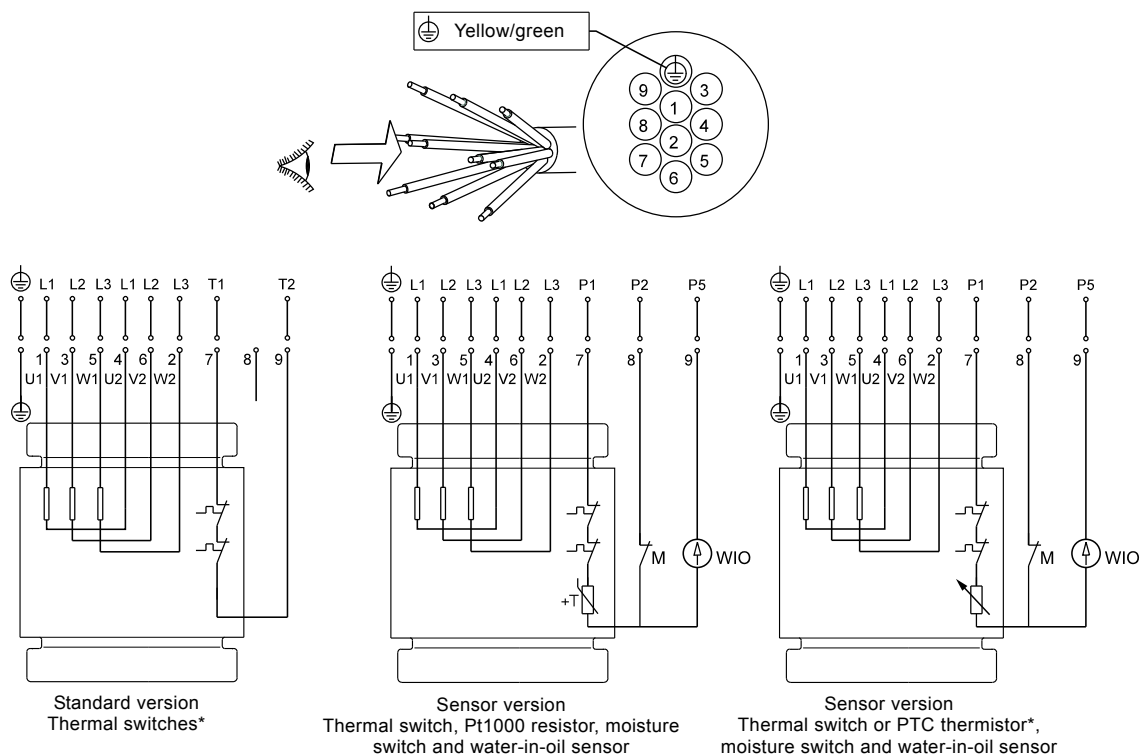
Direct-drive pump, without sensor	CE 0344  II 2 G Ex c d IIB T4
Direct-drive pump, with sensor	CE 0344  II 2 G Ex c d mb IIB T4
Pump driven by frequency converter, without sensor	CE 0344  II 2 G Ex c d IIB T3
Pump driven by frequency converter, with sensor	CE 0344  II 2 G Ex c d mb IIB T3

Wiring diagrams



*) Pumps from 4 kW and up sold in Australia/New Zealand are fitted with a PTC thermistor.

Fig. 21 Wiring diagram, 7-core cable, DOL

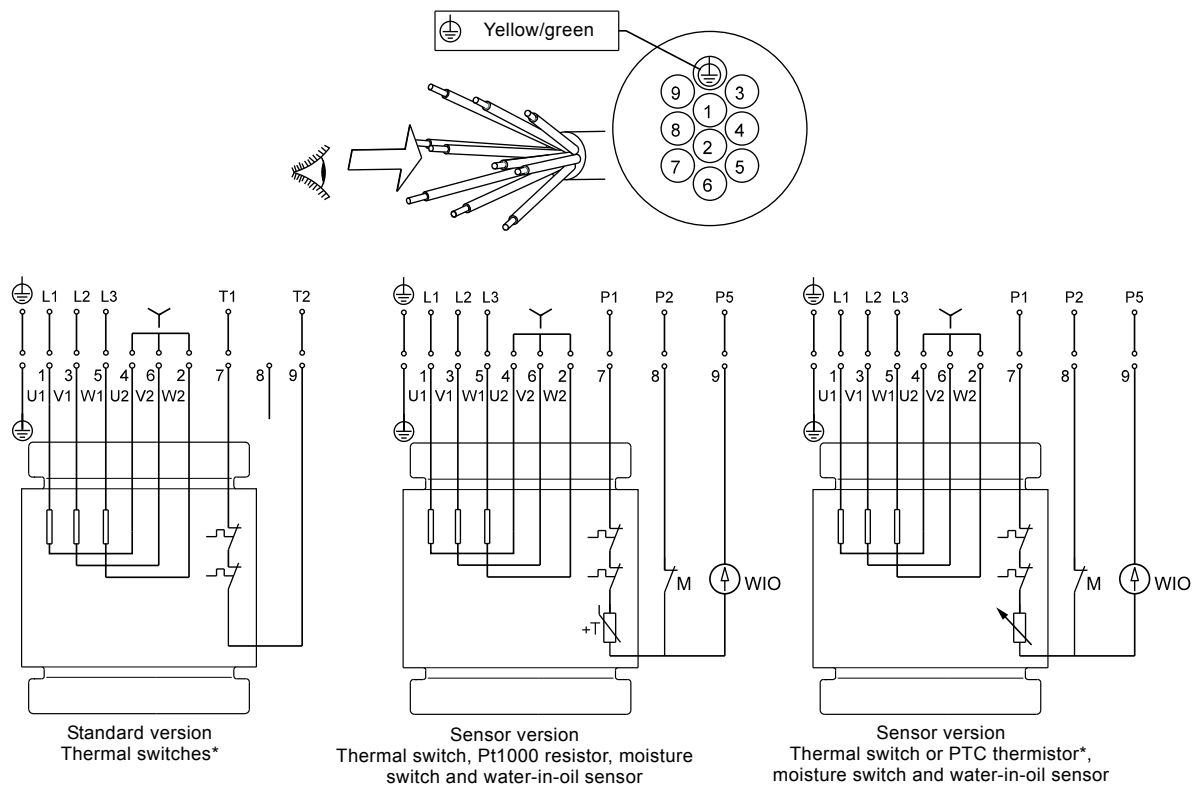


*) Pumps from 4 kW and up sold in Australia/New Zealand are fitted with a PTC thermistor.

Fig. 22 Wiring diagram, 10-core cable, star/delta (Y/D)

TM04 6884 0710

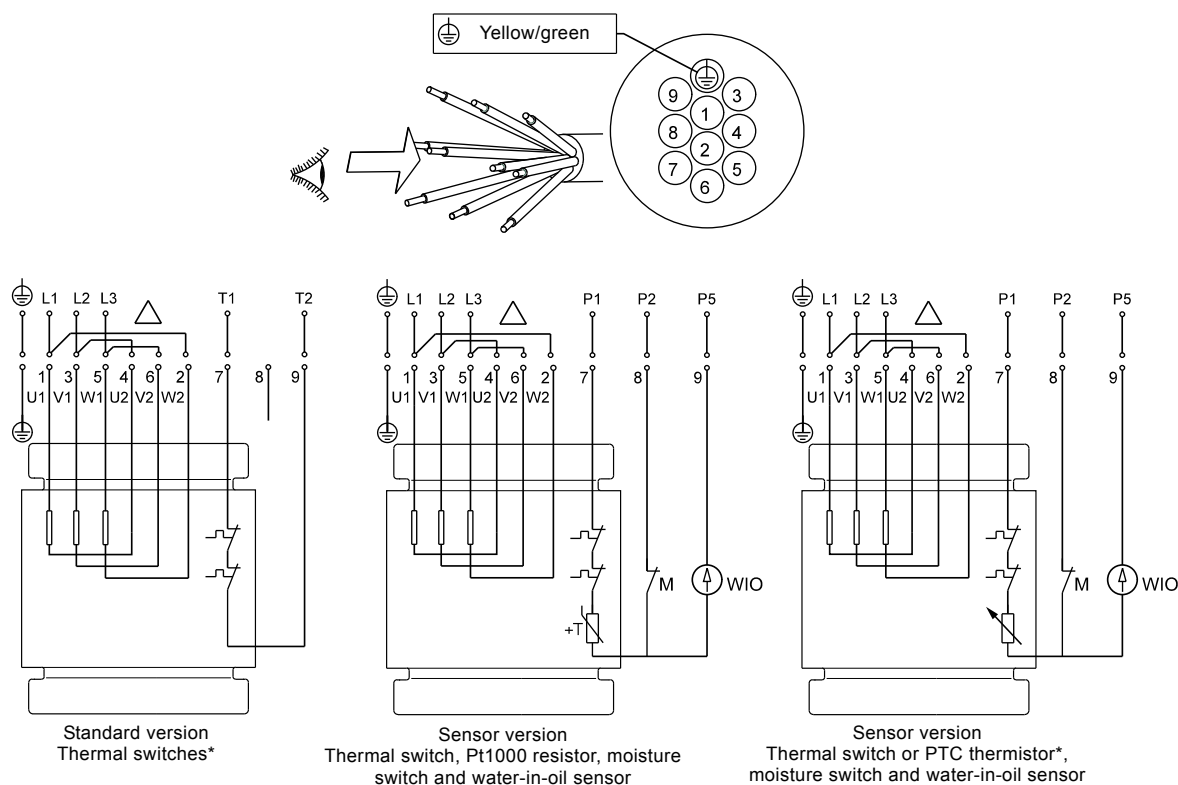
TM04 6885 0710



*) Pumps from 4 kW and up sold in Australia/New Zealand are fitted with a PTC thermistor.

Fig. 23 Wiring diagram, 10-core cable, star-connected (Y)

TM04 6886 0710



*) Pumps from 4 kW and up sold in Australia/New Zealand are fitted with a PTC thermistor.

Fig. 24 Wiring diagram, 10-core cable, delta-connected (D)

TM04 6887 0710

9. Curve charts and technical data

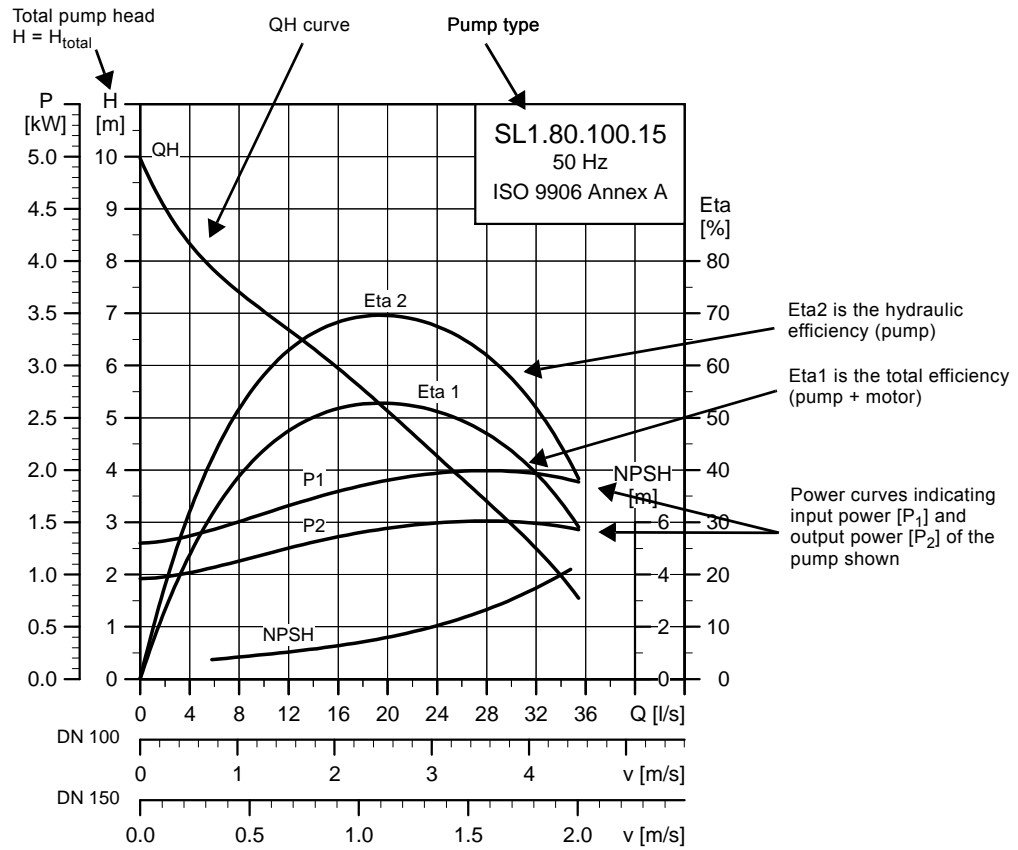
The following pages are divided into sections.

Pages 39 and 40 give a brief explanation of how to read the curve charts and the curve conditions etc.

Performance curves and technical data

Page	Pump curves	Page	Pump curves	Page	Pump curves	Page	Pump curves
42	Performance curves SL1.50.65.22	70	Performance curves SL1.80.100.30	98	Performance curves SLV.65.80.30	126	Performance curves SLV.80.100.15
44	Performance curves SL1.50.65.30	72	Performance curves SL1.80.100.40	100	Performance curves SLV.65.80.40	128	Performance curves SLV.80.100.22
46	Performance curves SL1.50.65.40	74	Performance curves SL1.80.100.55	102	Performance curves SLV.80.80.11	130	Performance curves SLV.80.100.40 - 4-pole
48	Performance curves SL1.50.80.22	76	Performance curves SL1.80.100.75	104	Performance curves SLV.80.80.13	132	Performance curves SLV.80.100.40 - 2-pole
50	Performance curves SL1.50.80.30	78	Performance curves SL1.100.100.40	106	Performance curves SLV.80.80.15	134	Performance curves SLV.80.100.60
52	Performance curves SL1.50.80.40	80	Performance curves SL1.100.100.55	108	Performance curves SLV.80.80.22	136	Performance curves SLV.80.100.75
54	Performance curves SL1.80.80.15	82	Performance curves SL1.100.100.75	110	Performance curves SLV.80.80.40 - 4-pole	138	Performance curves SLV.80.100.92
56	Performance curves SL1.80.80.22	84	Performance curves SL1.100.150.40	112	Performance curves SLV.80.80.40 - 2-pole	140	Performance curves SLV.80.100.110
58	Performance curves SL1.80.80.30	86	Performance curves SL1.100.150.55	114	Performance curves SLV.80.80.60	142	Performance curves SLV.100.100.30
60	Performance curves SL1.80.80.40	88	Performance curves SL1.100.150.75	116	Performance curves SLV.80.80.75	144	Performance curves SLV.100.100.40
62	Performance curves SL1.80.80.55	90	Performance curves SLV.65.65.22	118	Performance curves SLV.80.80.92	146	Performance curves SLV.100.100.55
64	Performance curves SL1.80.80.75	92	Performance curves SLV.65.65.30	120	Performance curves SLV.80.80.110	148	Performance curves SLV.100.100.75
66	Performance curves SL1.80.100.15	94	Performance curves SLV.65.65.40	122	Performance curves SLV.80.100.11		
68	Performance curves SL1.80.100.22	96	Performance curves SLV.65.80.22	124	Performance curves SLV.80.100.13		

How to read the curve charts



TM04 3460 4608

Curve conditions

The guidelines below apply to the curves shown in the performance charts on pages 42 to 149.

- Tolerances according to ISO 9906, Annex A.
- The curves show pump performance with different impeller diameters at the rated speed.
- The **bold** part of the curves show the **recommended** operating range.
- 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).
- **ETA**: The lines show the hydraulic efficiency values, i.e. ETA1 is the total efficiency (pump + motor) and ETA2 is the hydraulic efficiency (pump).
- **NPSH**: The curves show average values measured under the same conditions as the performance curves. When sizing the pump, add a safety margin of at least 0.5 m.
- In the case of densities differing from 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 will be 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

It is possible for the customer to witness the testing procedure according to ISO 9906.

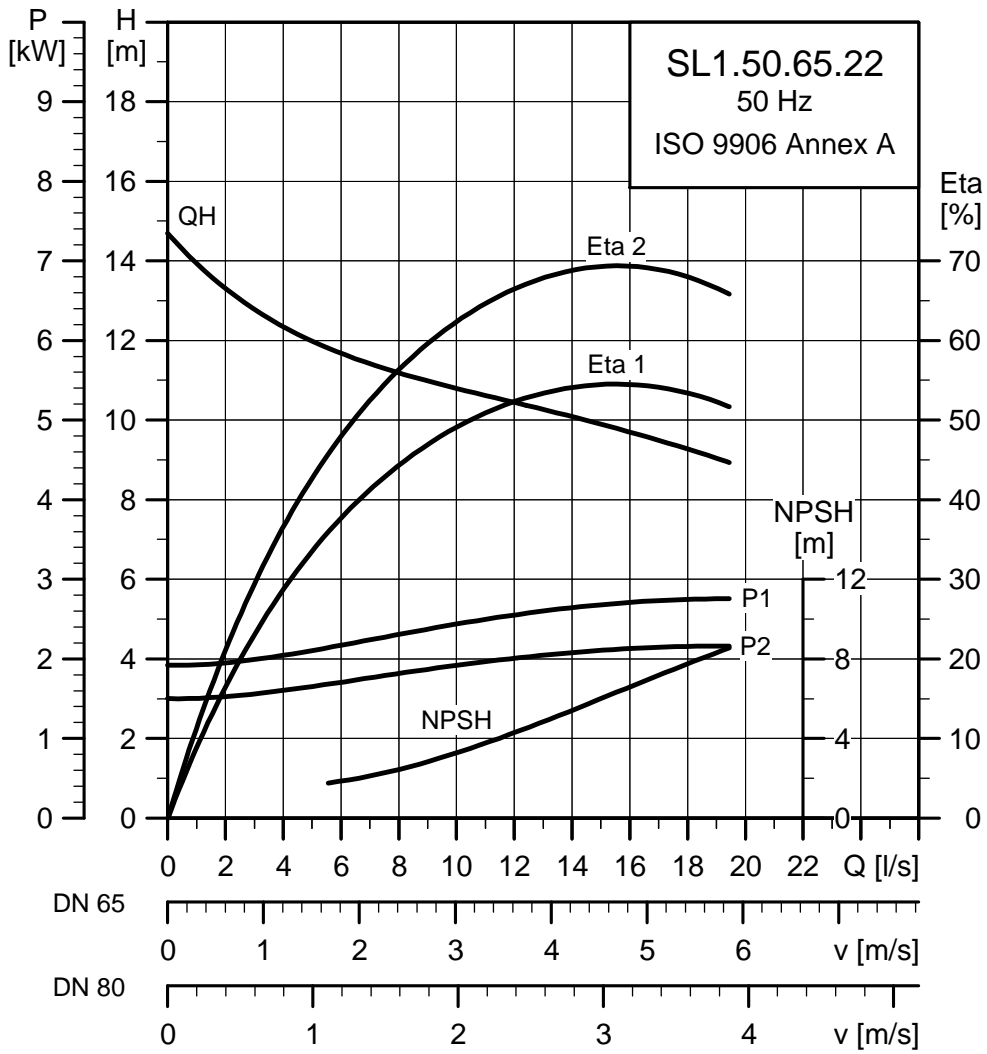
The witness test is not a certificate and will not result in a written statement from Grundfos. The witness test only guarantees that everything is carried out as prescribed in the testing procedure.

If the customer wants to carry out a witness test of the pump performance, such request must be stated on the order.

10. Performance curves and technical data

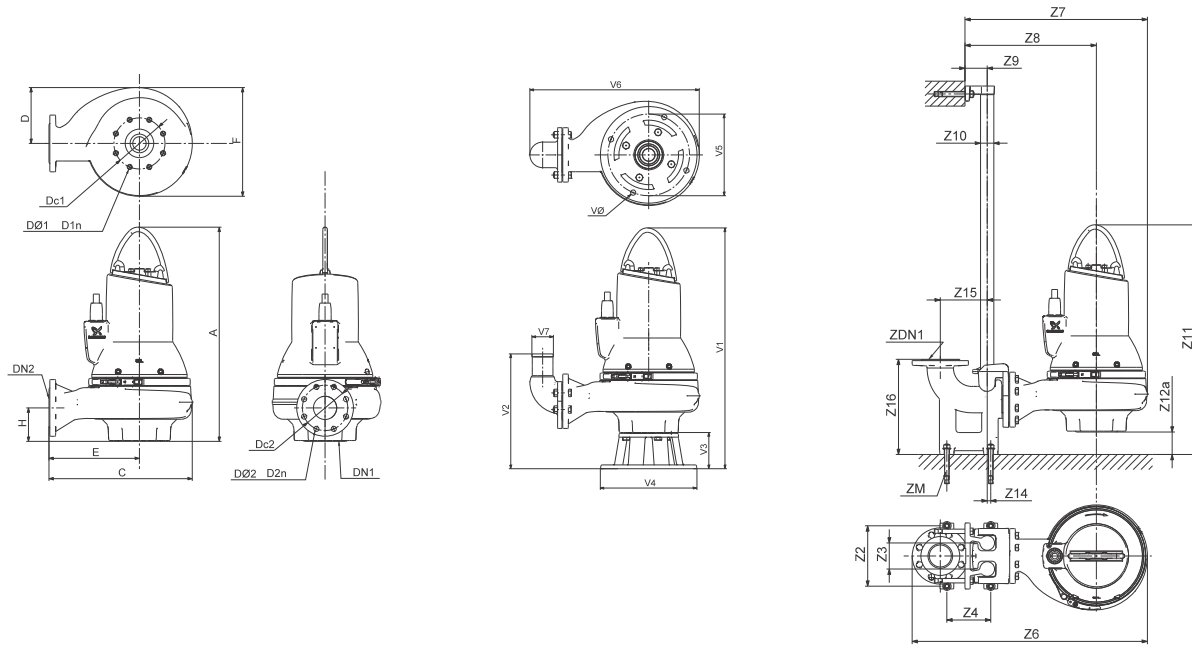
SL1.50.65

Performance curves SL1.50.65.22



TM04 3473 4612

Dimensional sketches SL1.50.65.22



TM04 2793 3008 - TM04 2795 3008 - TM04 2794 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
641	366	171	216	321	69	65	145	4 x 16	65	145	4 x 18	86			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	700	513	363	81	1 1/2"	740	99	1	175	266	145	65	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
771	339	130	325	270	491	65	18								

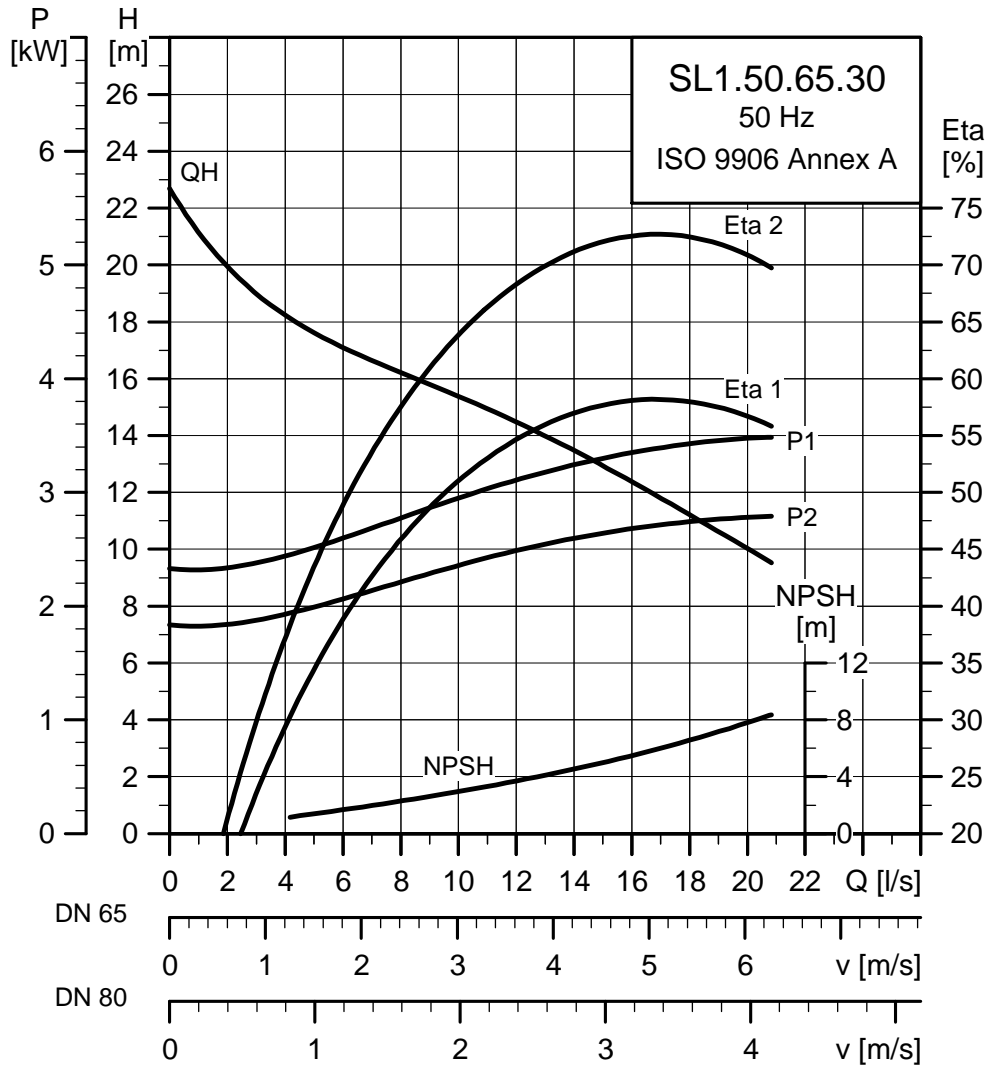
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.50.65.22.2.50E	3 x 220-240 V D	2.8	2.2	2	2990	DOL	8.5	74	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.65.22.2.51D	3 x 380-415 V D	2.8	2.2	2	2990	SD	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.65.22.2.50D	3 x 380-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.65.22.2.50B	3 x 400-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25

Pump data

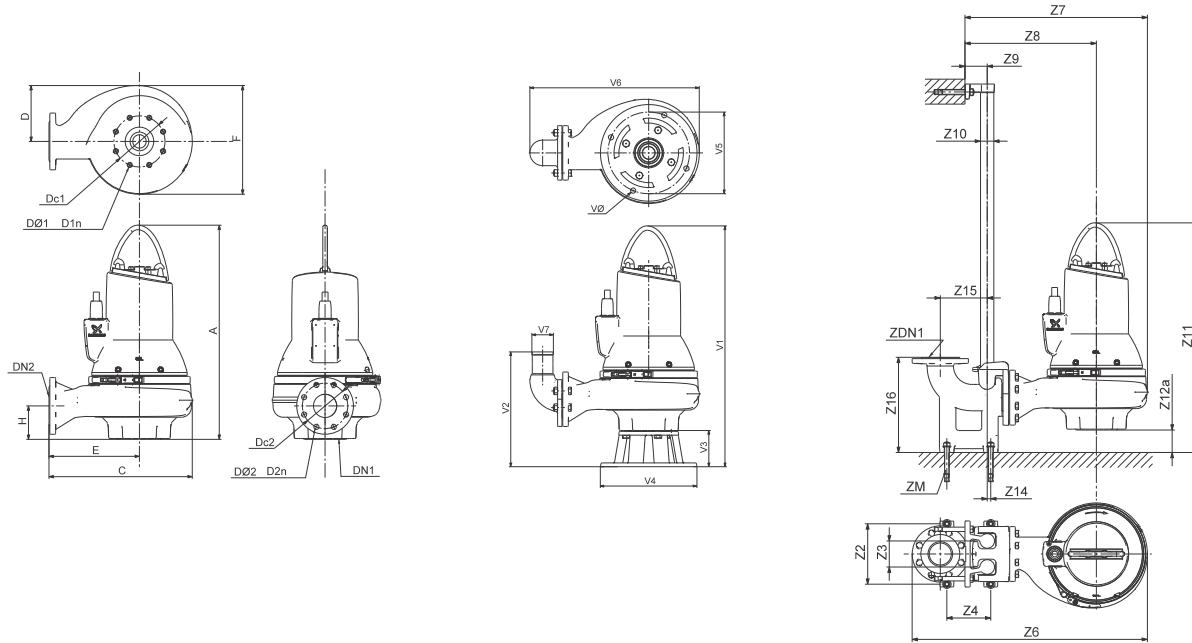
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

Performance curves SL1.50.65.30



TM04 2793 3008

Dimensional sketches SL1.50.65.30



TM04 2793 3008 - TM04 2795 3008 - TM04 2794 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
641	366	171	216	321	93	65	145	4 x 16	65	145	4 x 18	89			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	700	513	363	81	1 1/2"	740	99	1	175	266	145	65	4 x M16
V1		V2		V3		V4		V5		V6		V7		VØ	
771		339		130		325		270		491		65		18	

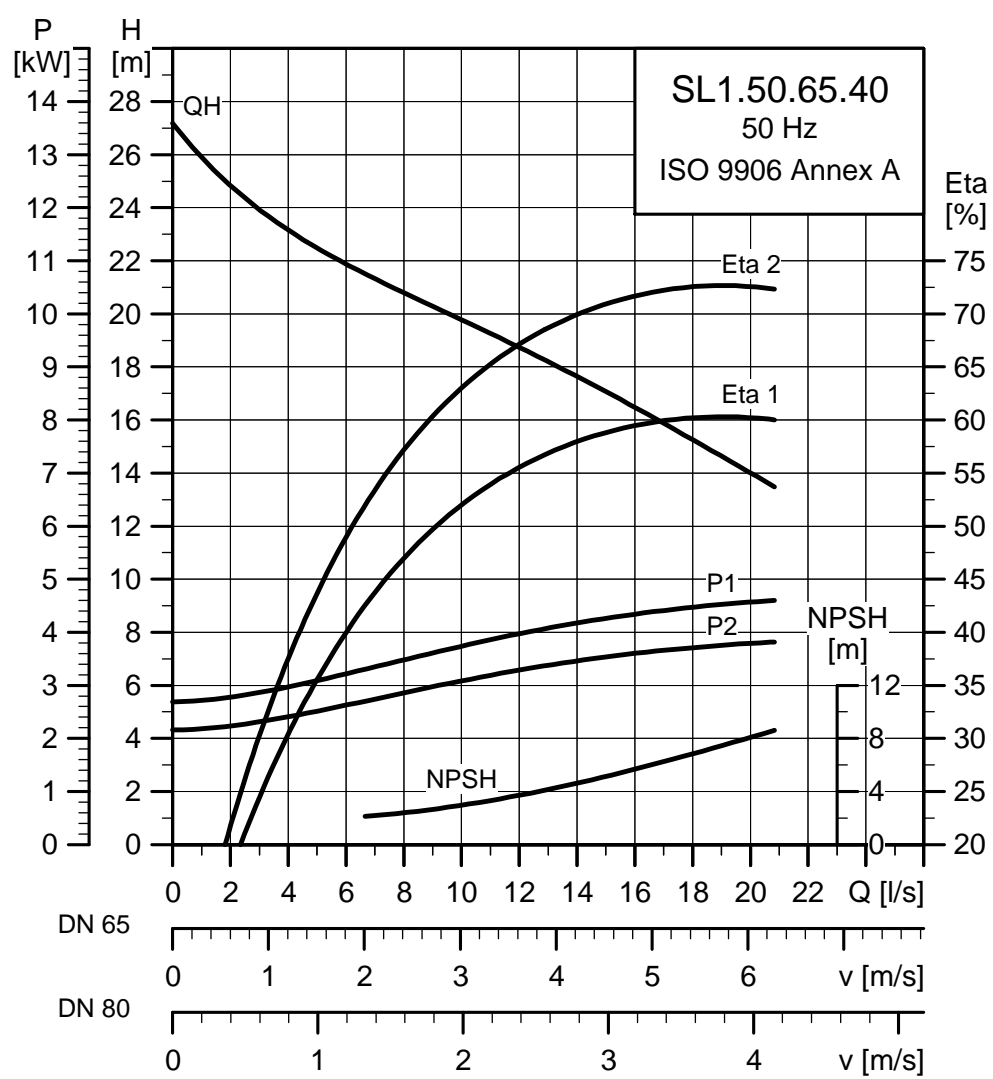
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.50.65.30.2.50E	3 x 220-240 V D	3.8	3.0	2	2910	DOL	11.8	104	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.65.30.2.51D	3 x 380-415 V D	3.8	3.0	2	2910	SD	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.65.30.2.50D	3 x 380-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.65.30.2.50B	3 x 400-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42

Pump data

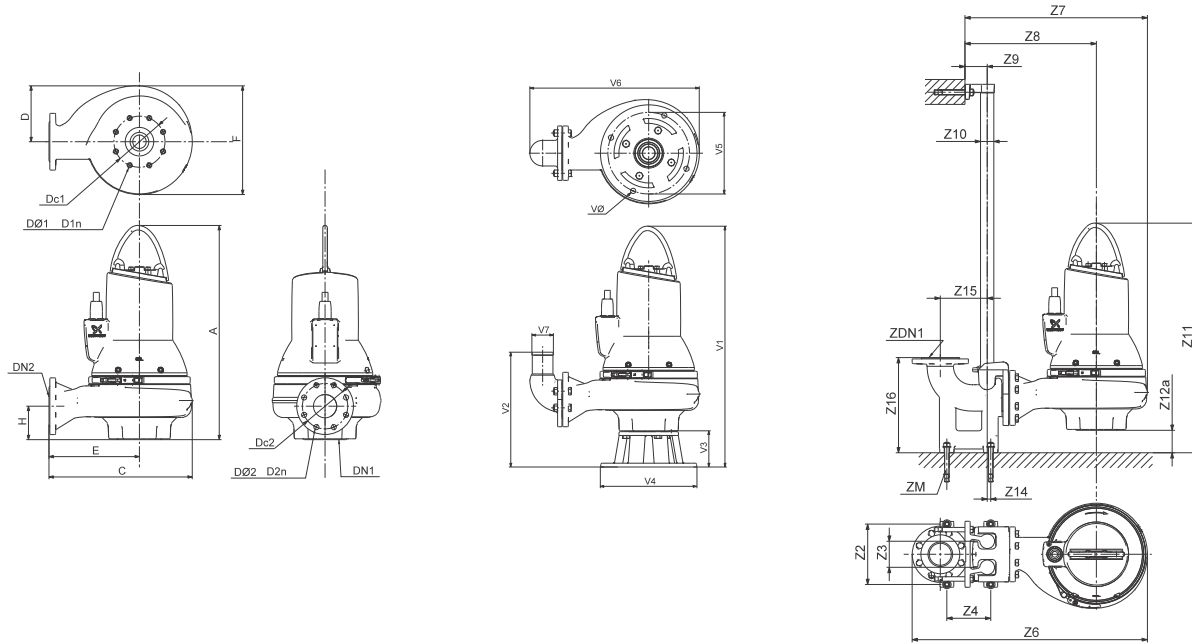
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

Performance curves SL1.50.65.40



TM04 3475 4608

Dimensional sketches SL1.50.65.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
677	407	200	227	379	93	65	145	4 x 16	65	145	4 x 18	115			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	741	554	375	81	1 1/2"	775	97	1	175	266	145	65	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
807	341	130	325	270	519	65	18								

Electrical data

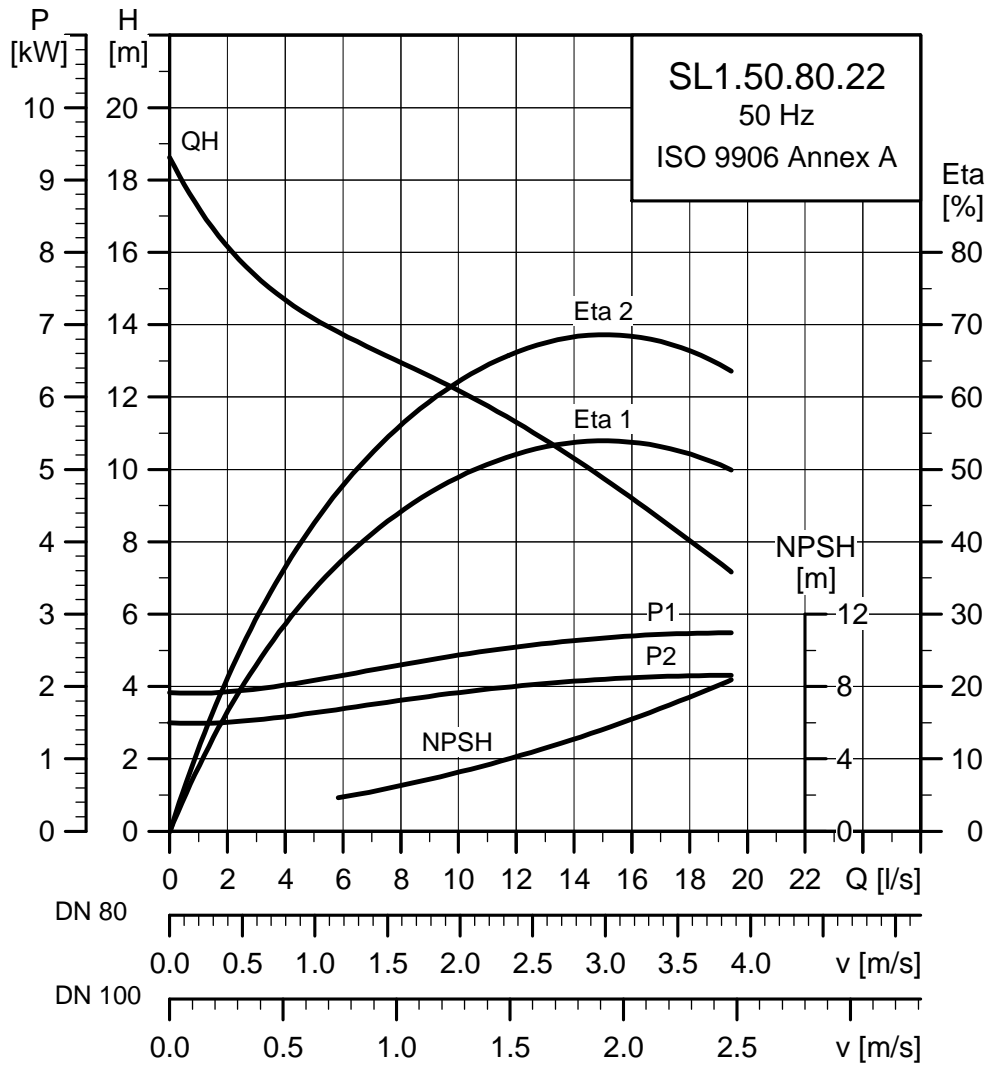
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		η_{motor} [%]			Cos ϕ			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
SL1.50.65.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56
SL1.50.65.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56
SL1.50.65.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

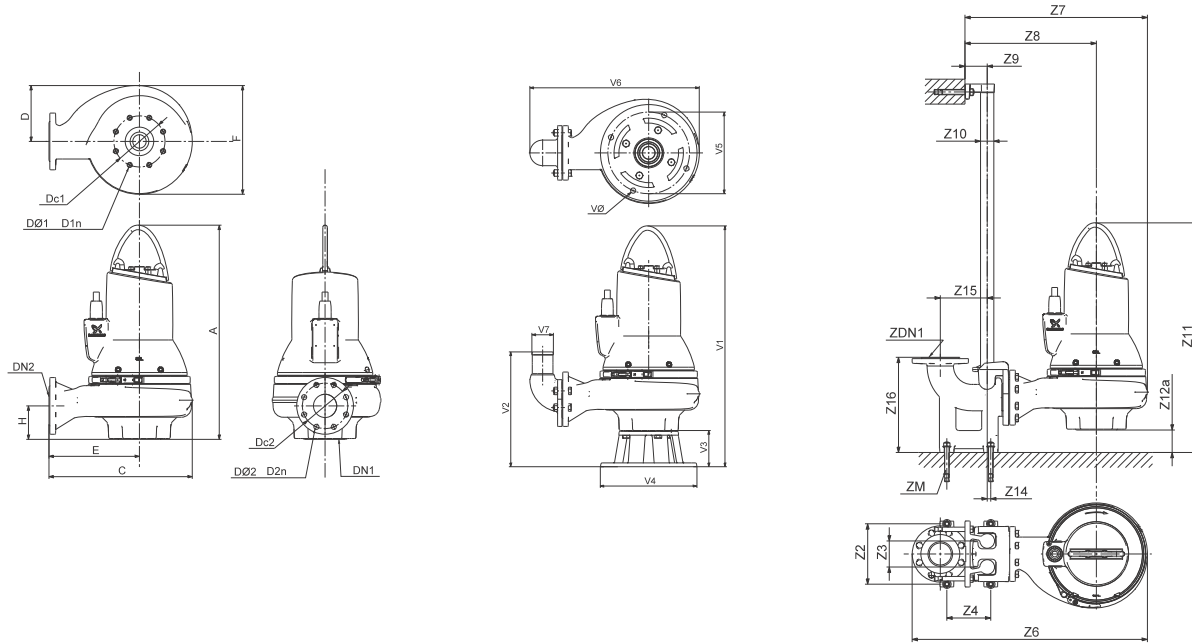
SL1.50.80

Performance curves SL1.50.80.22



TM04 3476 4608

Dimensional sketches SL1.50.80.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
641	366	171	216	321	100	65	145	4 x 16	80	160	8 x 18	87			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	719	526	376	81	1 1/2"	774	133	13	171	345	145	65	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
771	339	130	325	270	496	80	18								

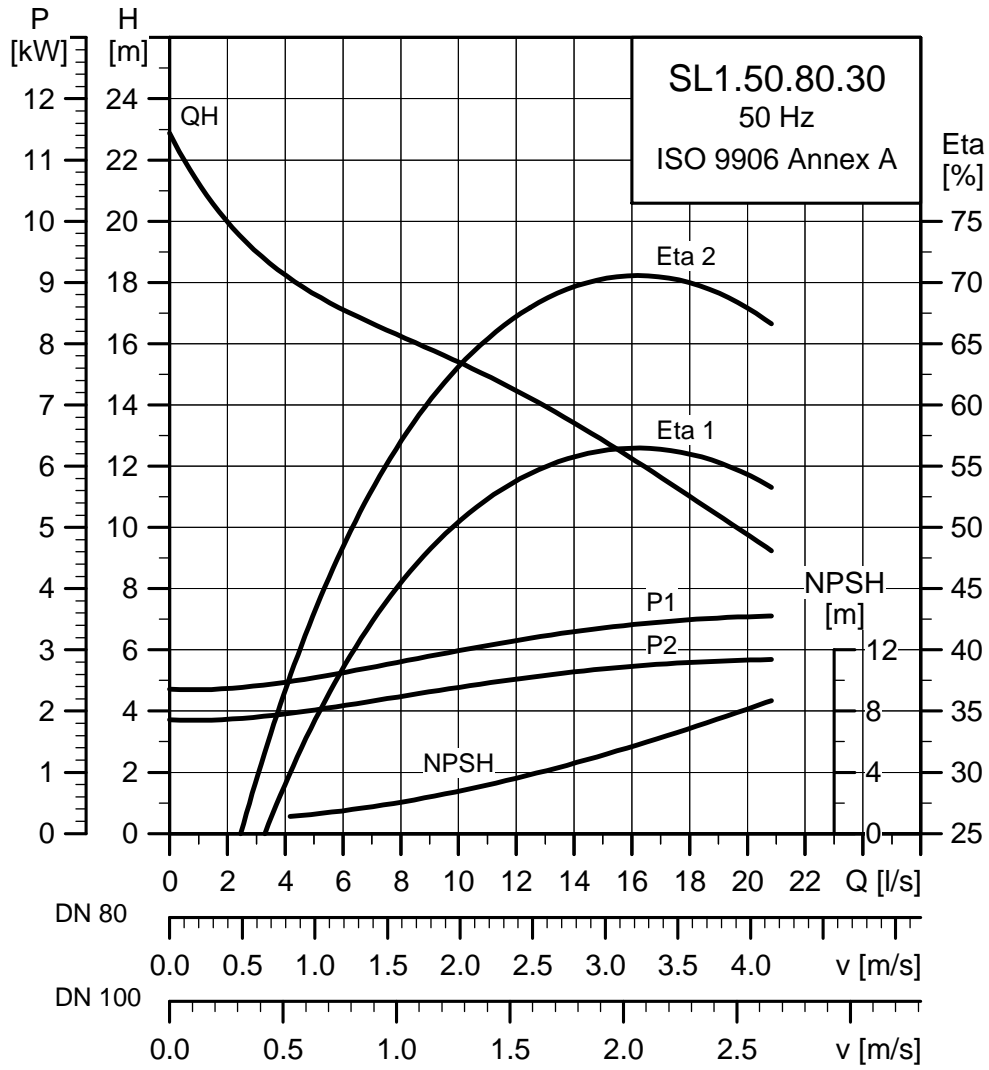
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.50.80.22.2.50E	3 x 220-240 V D	2.8	2.2	2	2990	DOL	8.5	74	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.80.22.2.51D	3 x 380-415 V D	2.8	2.2	2	2990	SD	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.80.22.2.50D	3 x 380-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25
SL1.50.80.22.2.50B	3 x 400-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0102	25

Pump data

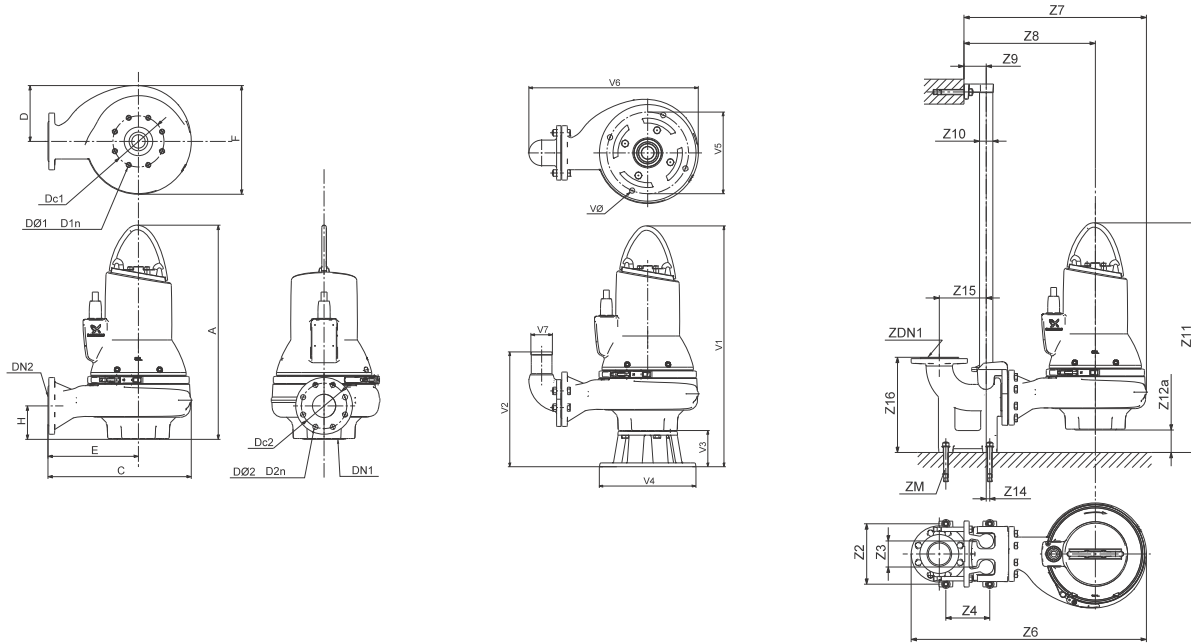
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

Performance curves SL1.50.80.30



TM04 3516 4608

Dimensional sketches SL1.50.80.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
641	366	171	216	321	100	65	145	4 x 16	80	160	8 x 18	90			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	719	526	376	81	1 1/2"	774	133	13	171	345	145	65	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
771	339	130	325	270	496	80	18								

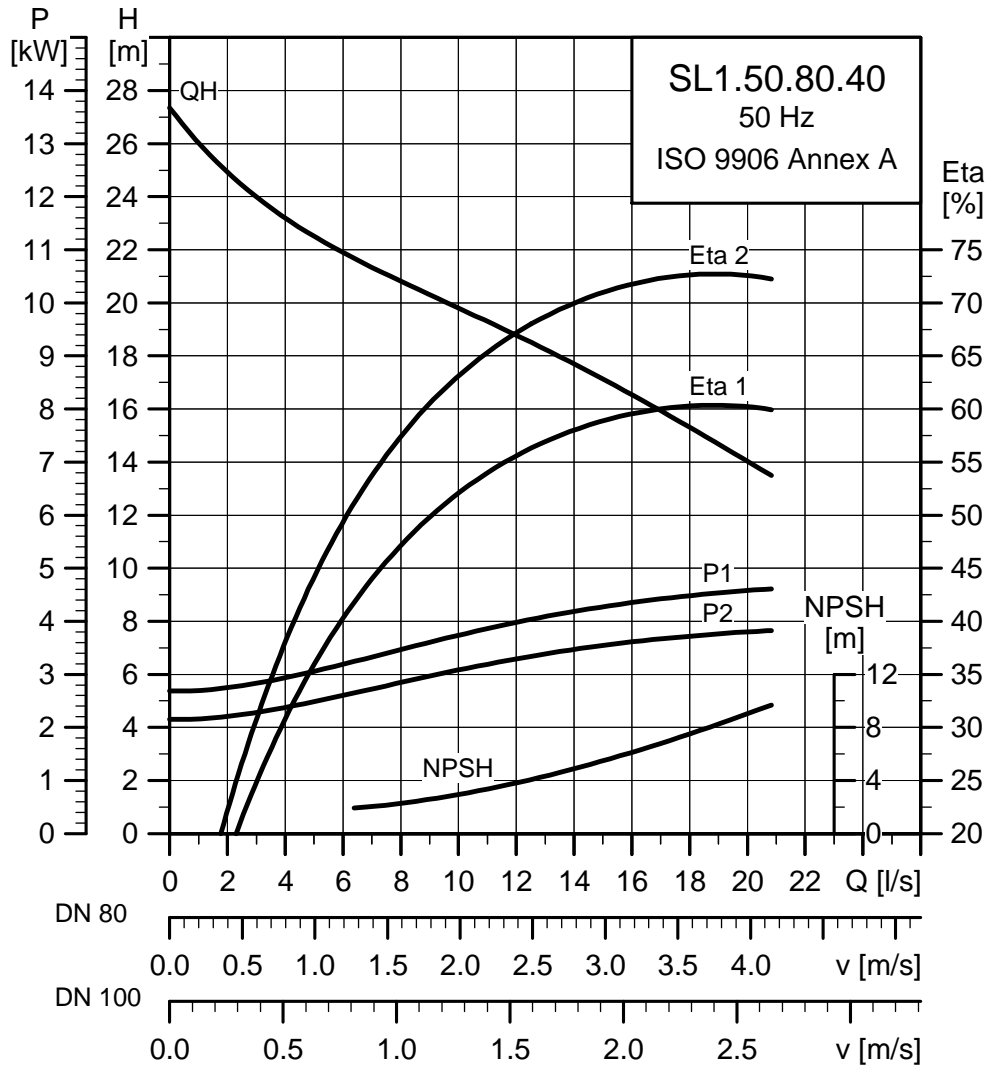
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.50.80.30.2.50E	3 x 220-240 V D	3.8	3.0	2	2910	DOL	11.8	104	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.80.30.2.51D	3 x 380-415 V D	3.8	3.0	2	2910	SD	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.80.30.2.50D	3 x 380-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42
SL1.50.80.30.2.50B	3 x 400-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0123	42

Pump data

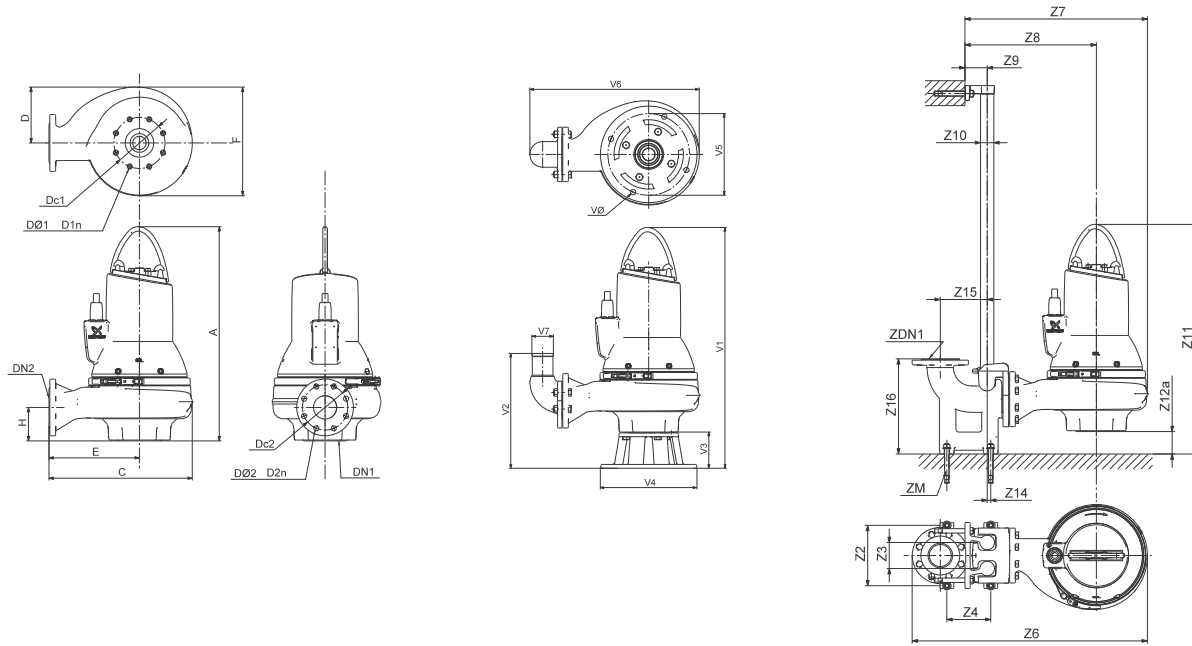
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

Performance curves SL1.50.80.40



TM04 3517 4608

Dimensional sketches SL1.50.80.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
677	407	200	227	379	100	65	145	4 x 16	80	160	8 x 18	116			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	760	567	387	81	1 1/2"	808	132	13	171	345	145	65	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
807	341	130	325	270	525	80	18								

Electrical data

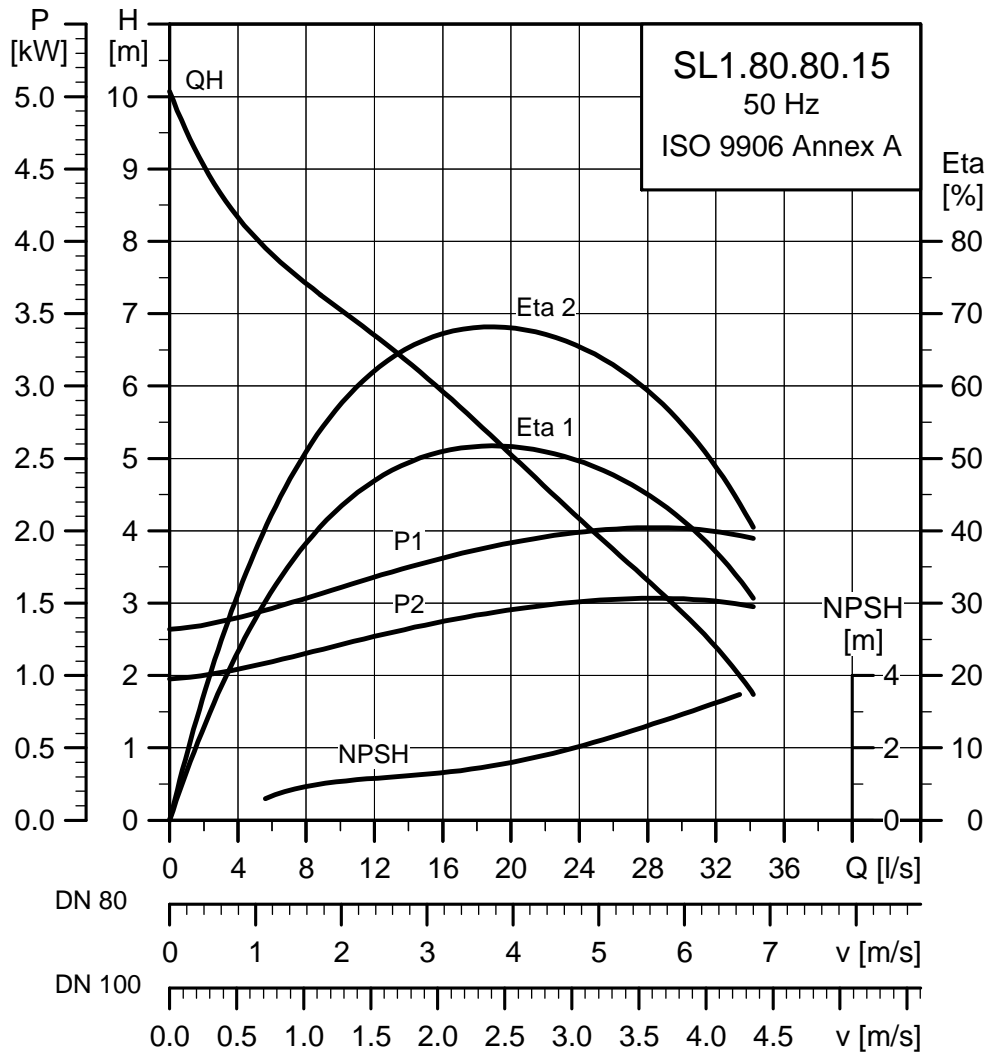
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		η_{motor} [%]				Cos ϕ		Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
SL1.50.80.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56
SL1.50.80.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56
SL1.50.80.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0194	56

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	50	10	20	20	IP68	F	40	4-14

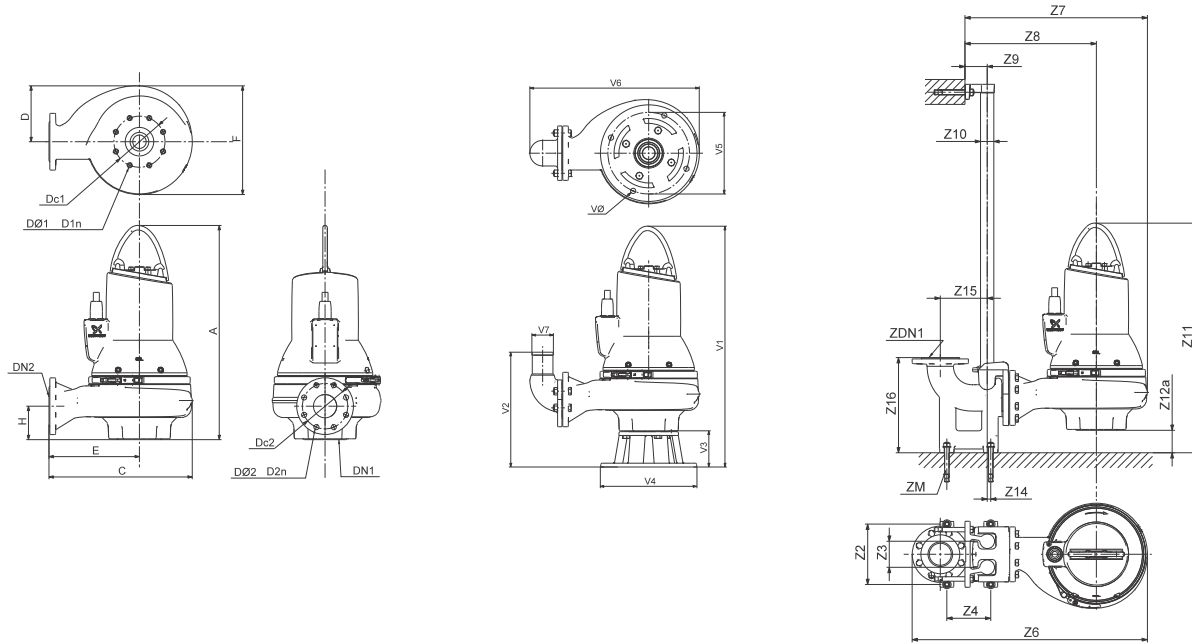
SL1.80.80

Performance curves SL1.80.80.15



TM04 3518 4608

Dimensional sketches SL1.80.80.15



TM04-2793 3008 - TM04-2794 3008 - TM04-2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
682	435	171	272	347	100	100	180	8 x 16	80	160	8 x 18	95			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	788	595	432	81	1 1/2"	790	108	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	364	130	355	300	567	80	19								

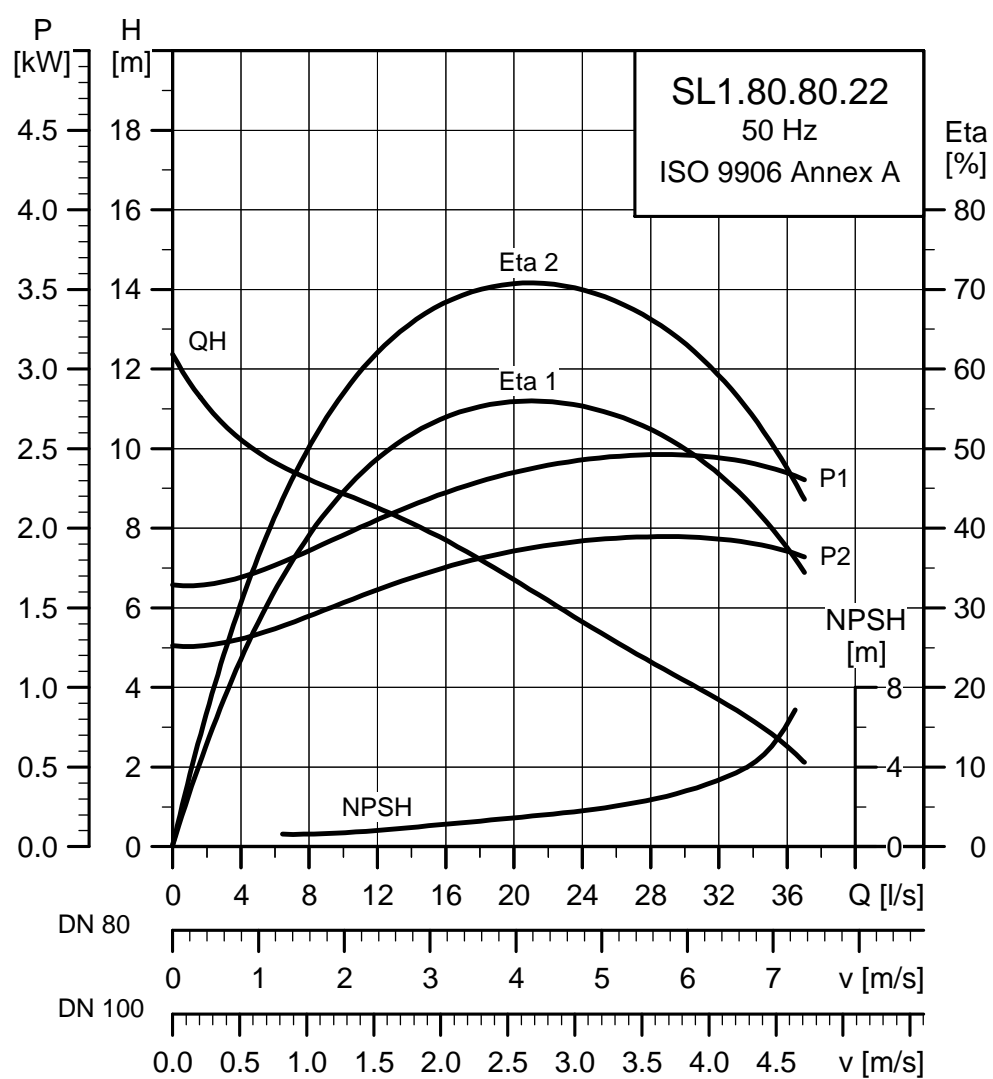
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SL1.80.80.15.4.50E	3 x 220-240 V D	1.9	1.5	4	1450	DOL	6.8	45	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				
SL1.80.80.15.4.50D	3 x 380-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				
SL1.80.80.15.4.50B	3 x 400-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				

Pump data

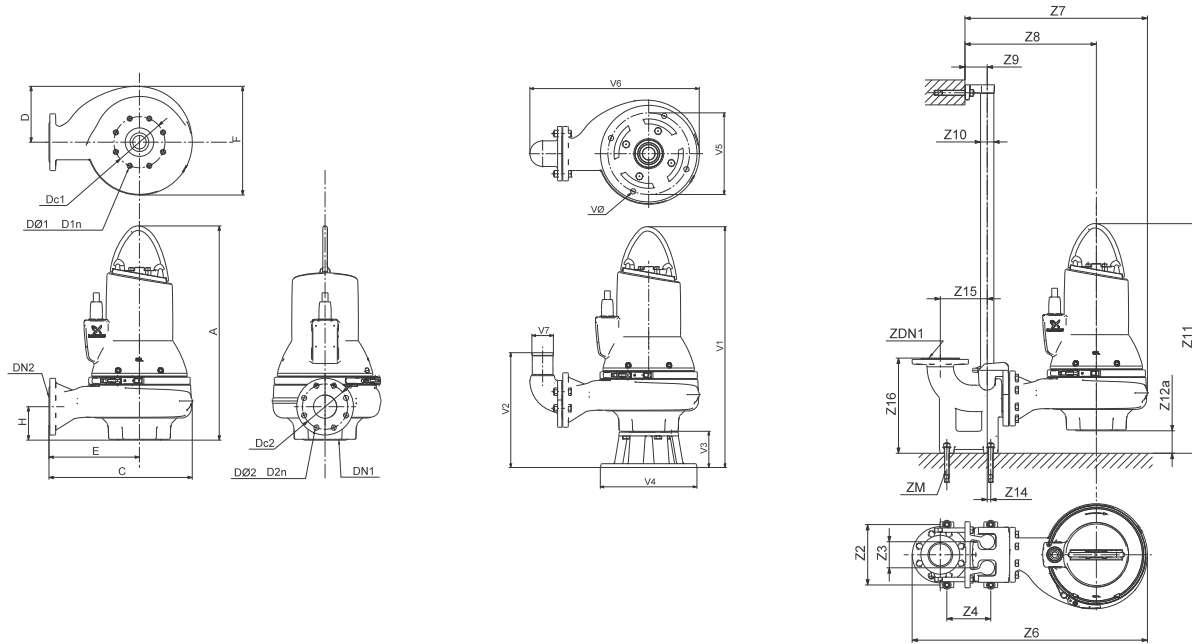
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.80.22



TM04 3519 4608

Dimensional sketches SL1.80.80.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
682	435	171	272	347	100	100	180	8 x 18	80	160	8 x 18	107			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	788	595	432	81	1 1/2"	790	108	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	364	130	355	300	567	80	19								

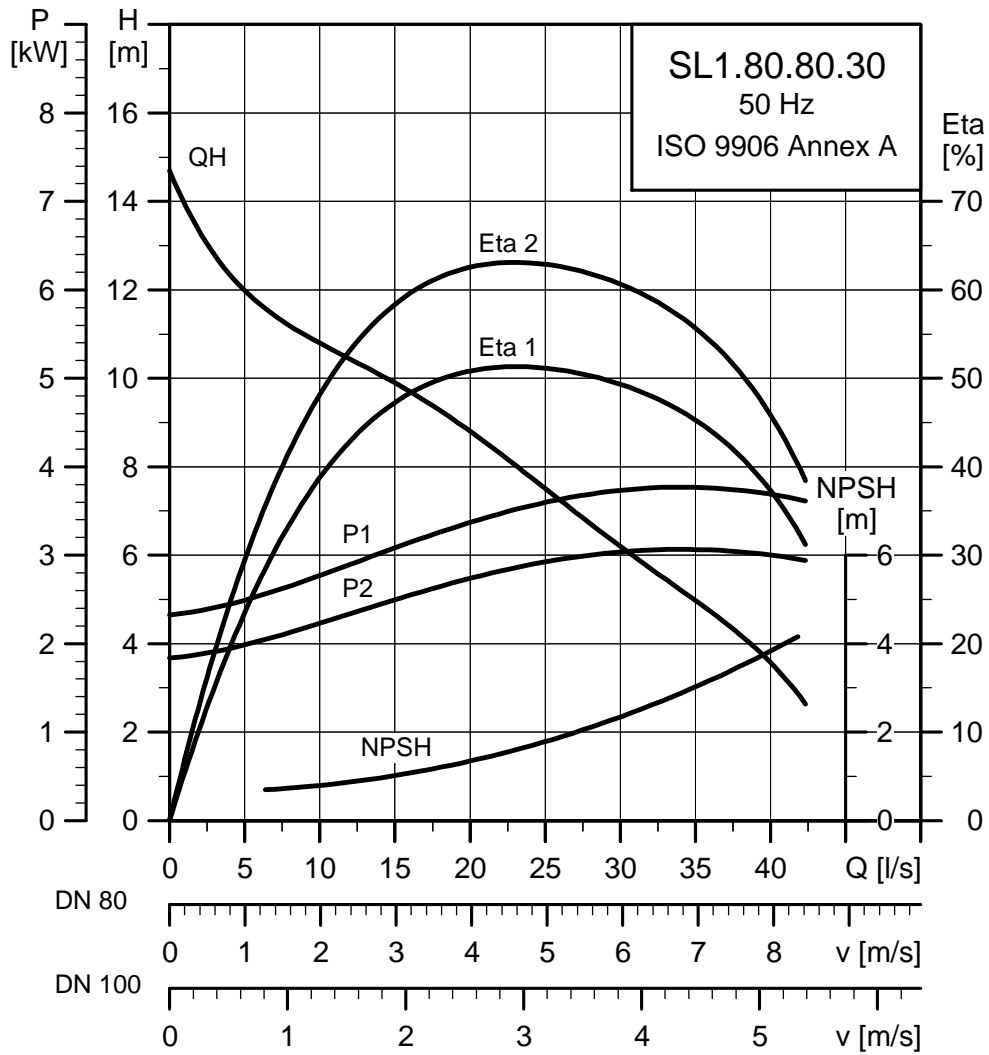
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N [A]	I _{start} [A]	η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
SL1.80.80.22.4.50E	3 x 220-240 V D	2.7	2.2	4	1460	DOL	9.1	66	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50
SL1.80.80.22.4.51D	3 x 380-415 V D	2.7	2.2	4	1460	SD	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50
SL1.80.80.22.4.50D	3 x 380-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50
SL1.80.80.22.4.50B	3 x 400-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50

Pump data

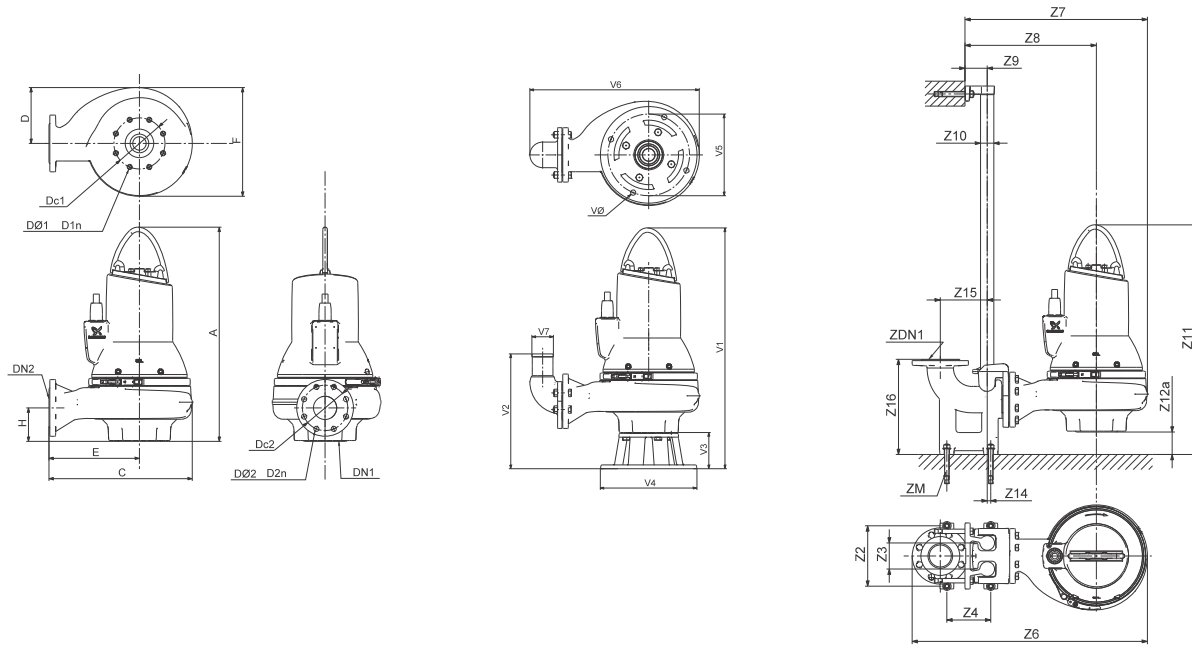
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.80.30



TM04 3520 4608

Dimensional sketches SL1.80.80.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	505	200	319	397	118	100	180	8 x 16	80	160	8 x 18	137			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	858	666	480	81	1 1/2"	793	82	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
841	390	130	355	300	623	80	19								

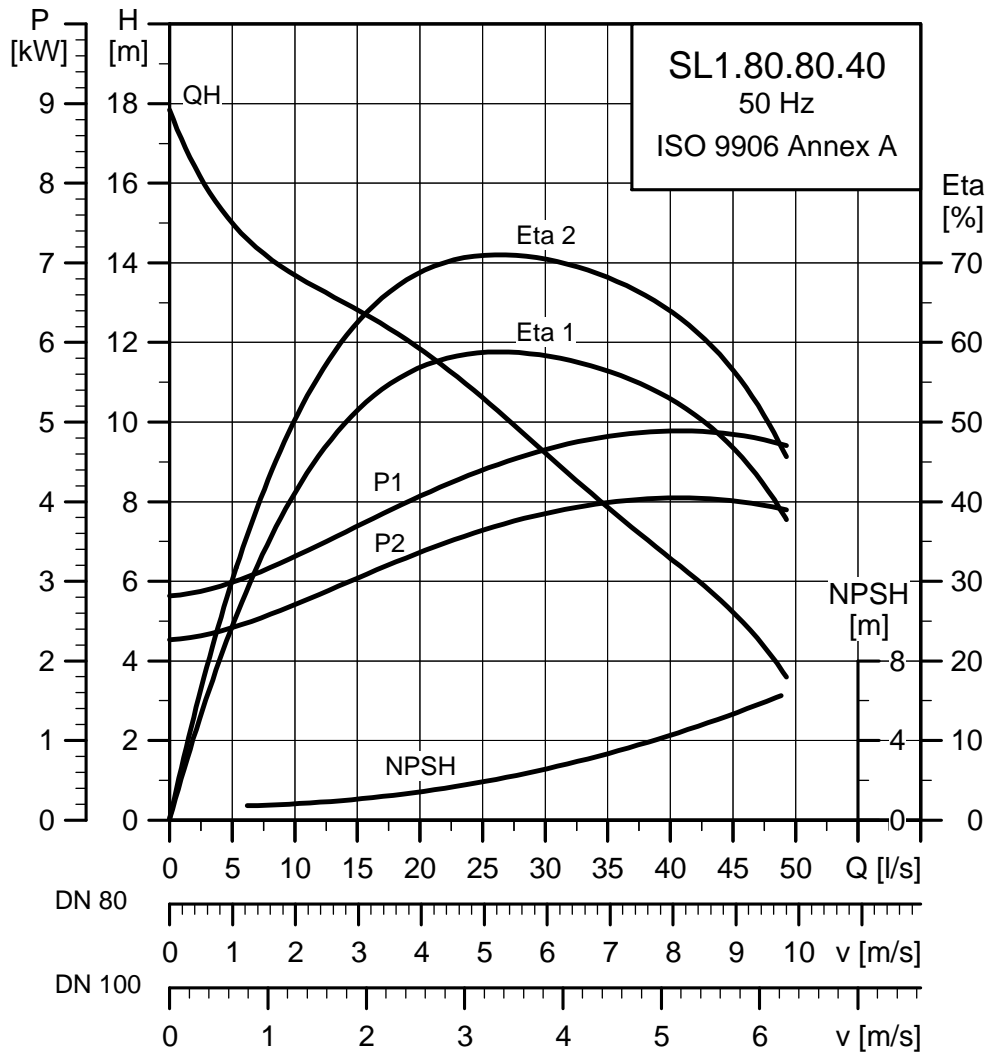
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.80.80.30.4.50E	3 x 220-240 V D	3.7	3.0	4	1450	DOL	12.5	87	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64
SL1.80.80.30.4.51D	3 x 380-415 V D	3.7	3.0	4	1450	SD	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64
SL1.80.80.30.4.50D	3 x 380-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64
SL1.80.80.30.4.50B	3 x 400-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64

Pump data

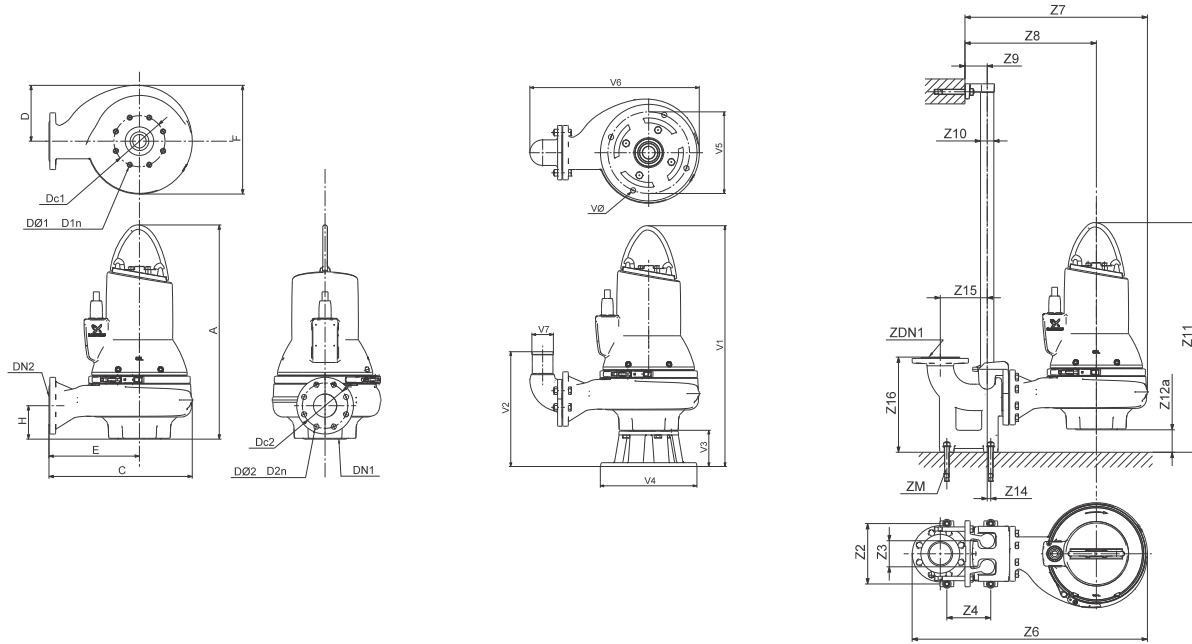
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.80.40



TM04 3521 4608

Dimensional sketches SL1.80.80.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
748	505	200	319	397	118	100	180	8 x 16	80	160	8 x 18	142			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	858	666	480	81	1 1/2"	830	82	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
878	390	130	355	300	623	80	19								

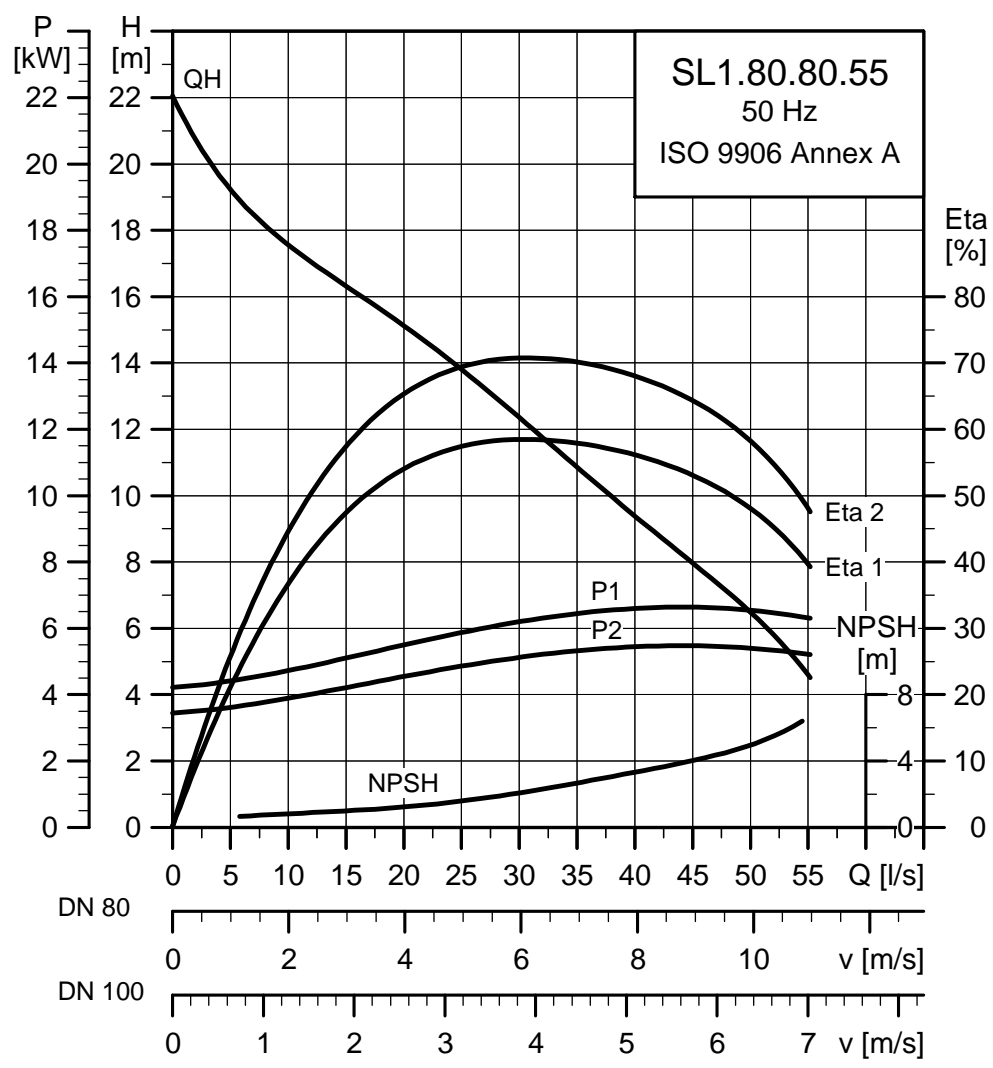
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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					
SL1.80.80.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90			
SL1.80.80.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90			
SL1.80.80.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90			

Pump data

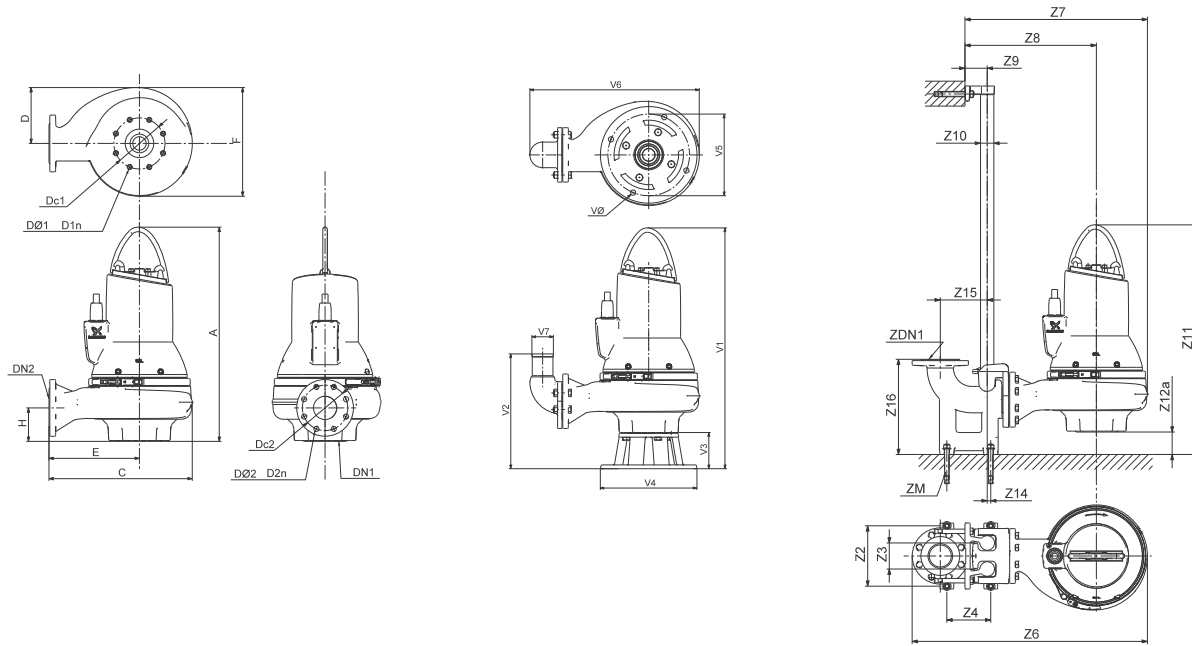
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.80.55



TM04 3522 4608

Dimensional sketches SL1.80.80.55



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
755	505	200	319	397	118	100	180	8 x 16	80	160	8 x 18	149			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	858	666	480	81	1 1/2"	837	82	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
885	390	130	355	300	623	80	19								

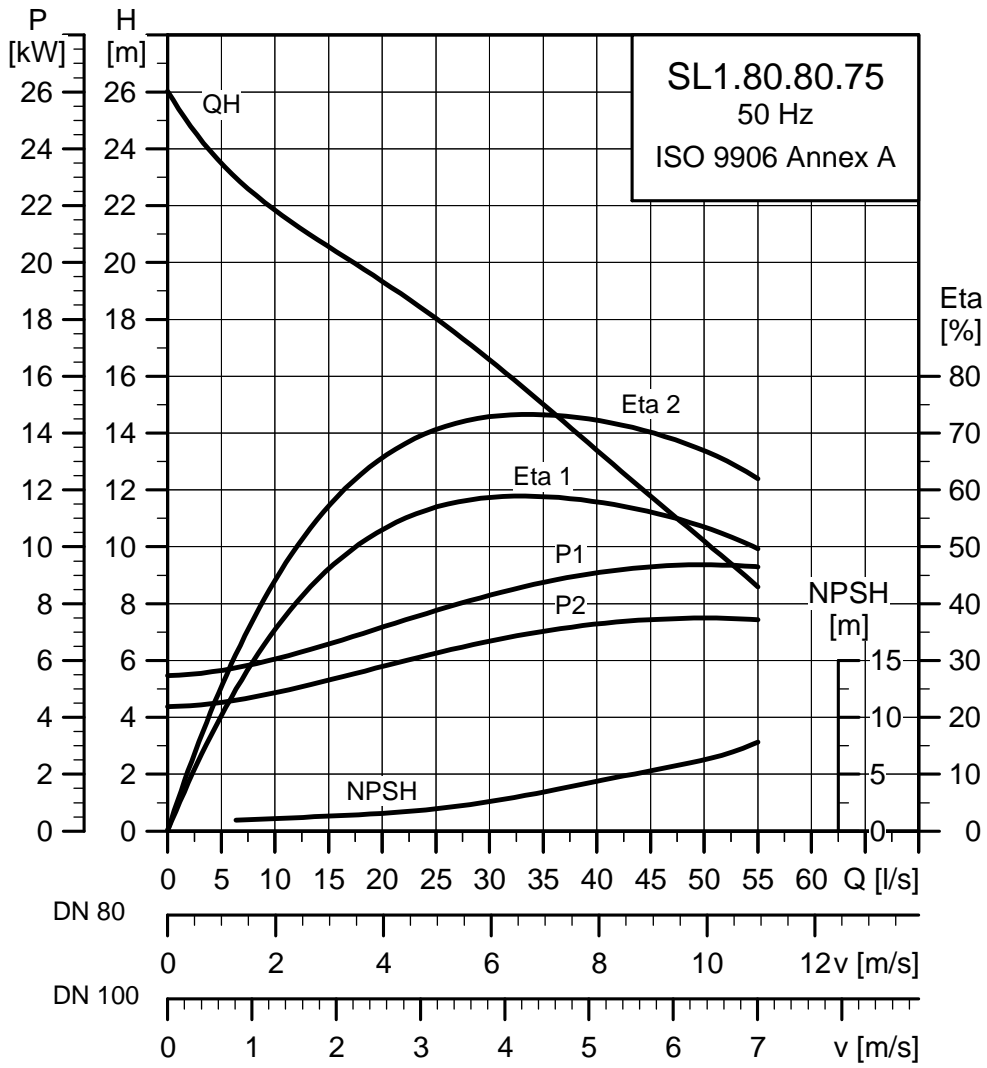
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.80.80.55.4.51E	3 x 220-240 V D	6.4	5.5	4	1460	SD	20.4	140	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110
SL1.80.80.55.4.51D	3 x 380-415 V D	6.4	5.5	4	1460	SD	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110
SL1.80.80.55.4.50B	3 x 400-415 V D	6.4	5.5	4	1460	DOL	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110

Pump data

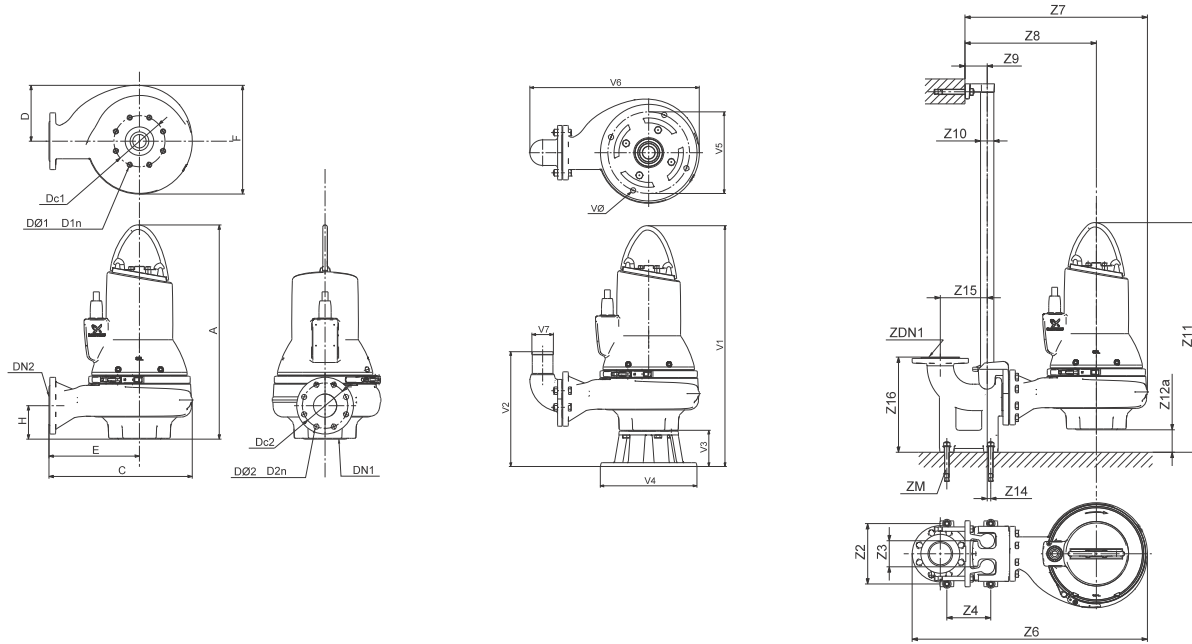
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.80.75



TM04 3523 4608

Dimensional sketches SL1.80.80.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
818	530	217	328	423	118	100	180	8 x 18	80	160	8 x 18	193			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	883	690	489	81	1 1/2"	900	82	13	171	345	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
948	390	130	355	300	648	80	19								

Electrical data

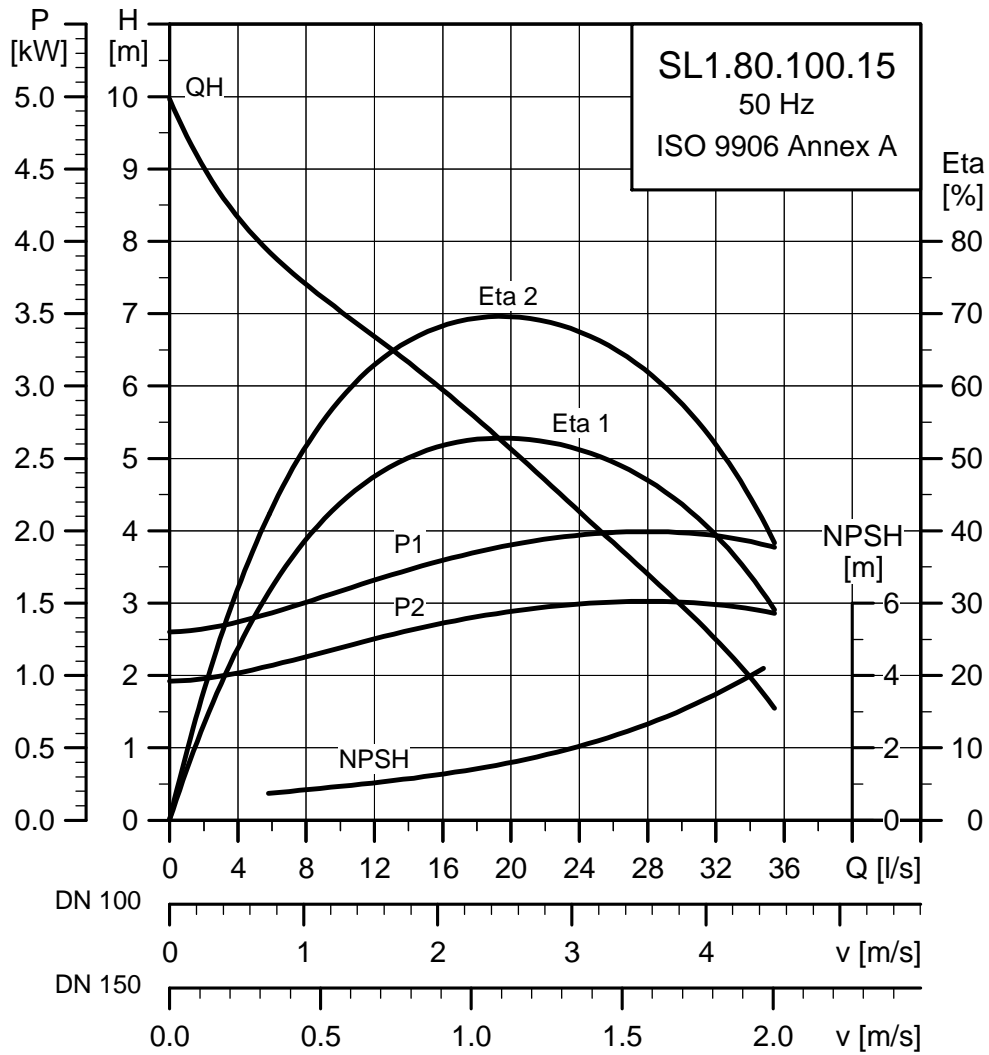
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
SL1.80.80.75.4.51E	3 x 220-240 V D	8.6	7.5	4	1460	SD	26.3	189	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141			
SL1.80.80.75.4.51D	3 x 380-415 V D	8.6	7.5	4	1460	SD	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141			
SL1.80.80.75.4.50B	3 x 400-415 V D	8.6	7.5	4	1460	DOL	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141			

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

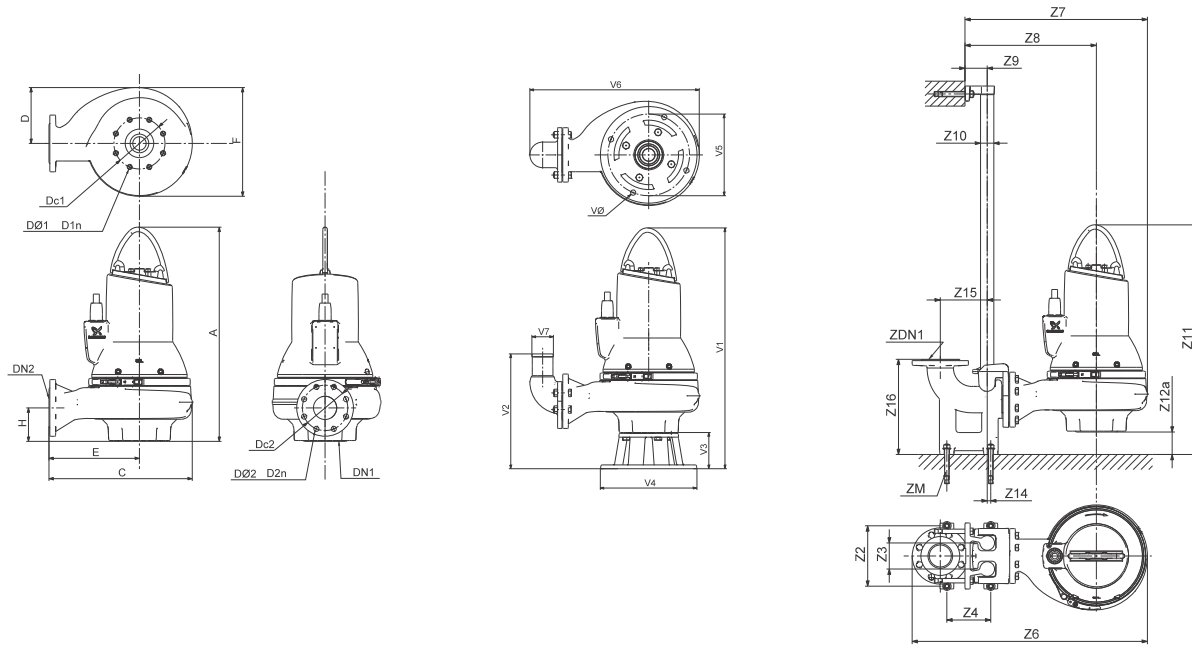
SL1.80.100

Performance curves SL1.80.100.15



TM04 3460 4608

Dimensional sketches SL1.80.100.15



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
682	435	171	272	347	112	100	180	8 x 16	100	180	8 x 19	96			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	878	652	489	110	2"	830	148	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	369	130	355	300	591	100	19								

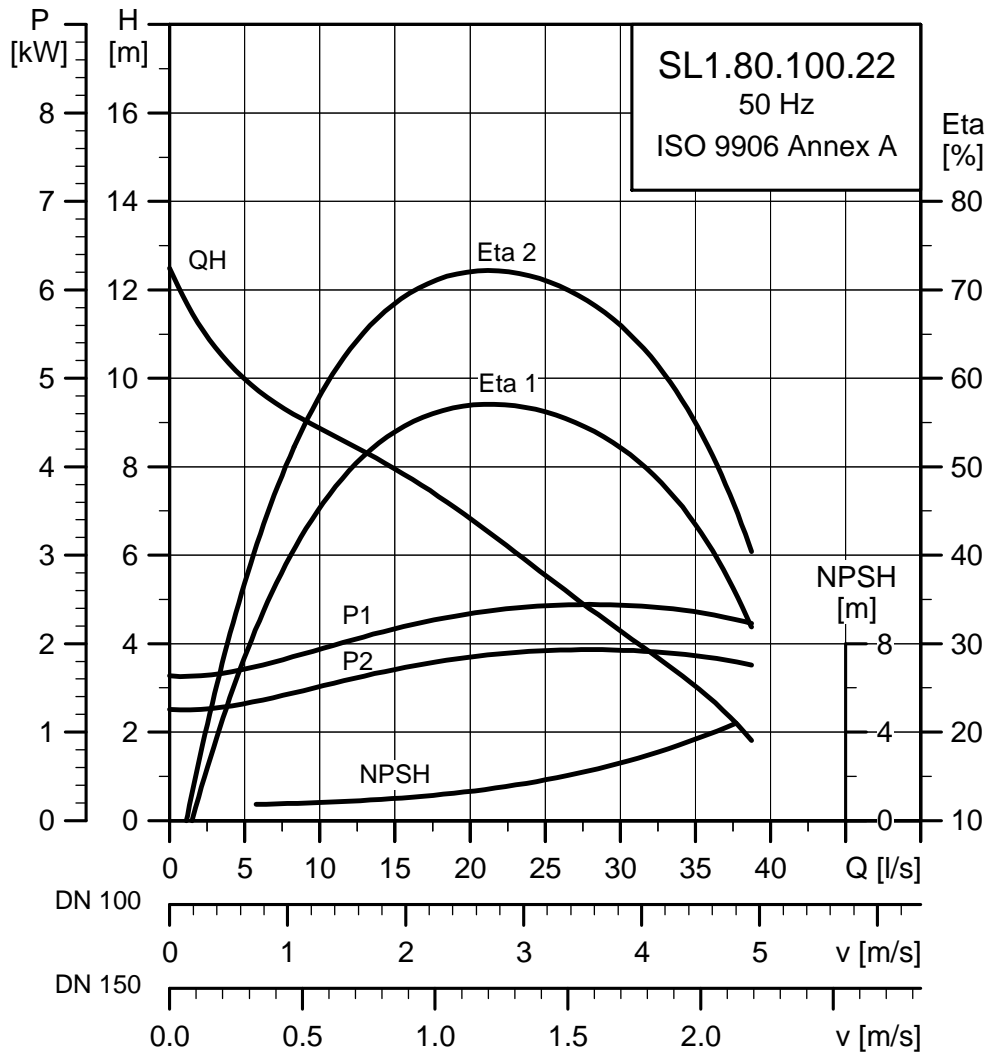
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SL1.80.100.15.4.50E	3 x 220-240 V D	1.9	1.5	4	1450	DOL	6.8	45	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				
SL1.80.100.15.4.50D	3 x 380-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				
SL1.80.100.15.4.50B	3 x 400-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0492	34				

Pump data

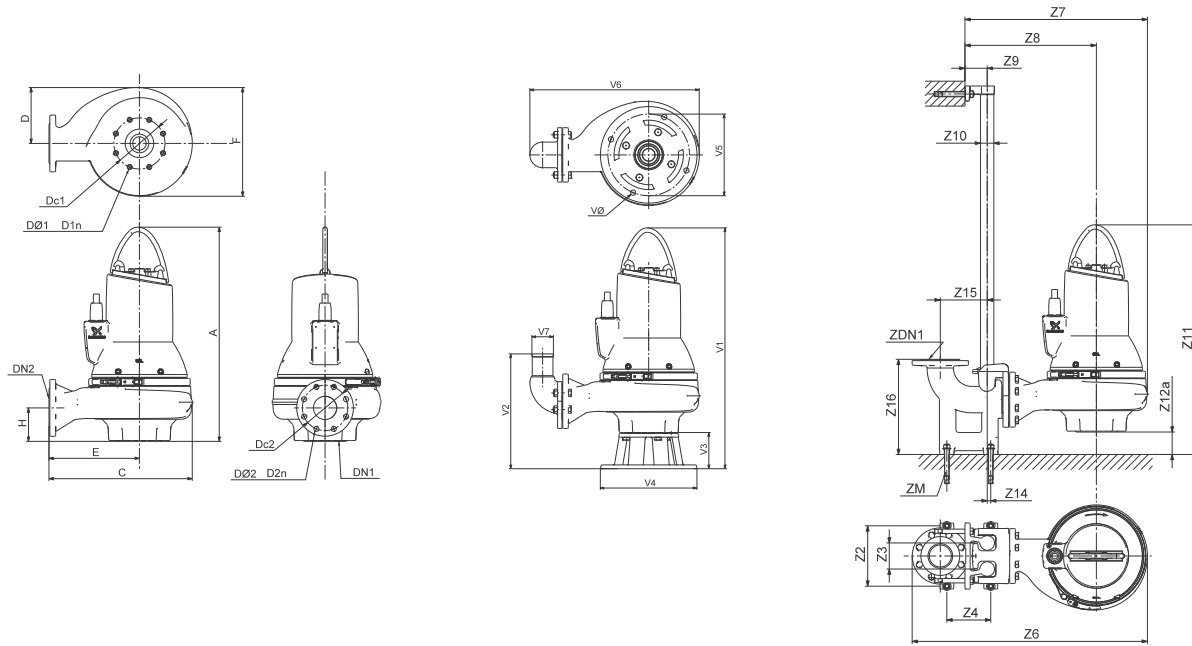
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.100.22



TM04 3461 4608

Dimensional sketches SL1.80.100.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
682	435	171	272	347	112	100	180	8 x 16	100	180	8 x 19	108			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	878	652	489	110	2"	830	148	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	369	130	355	300	591	100	19								

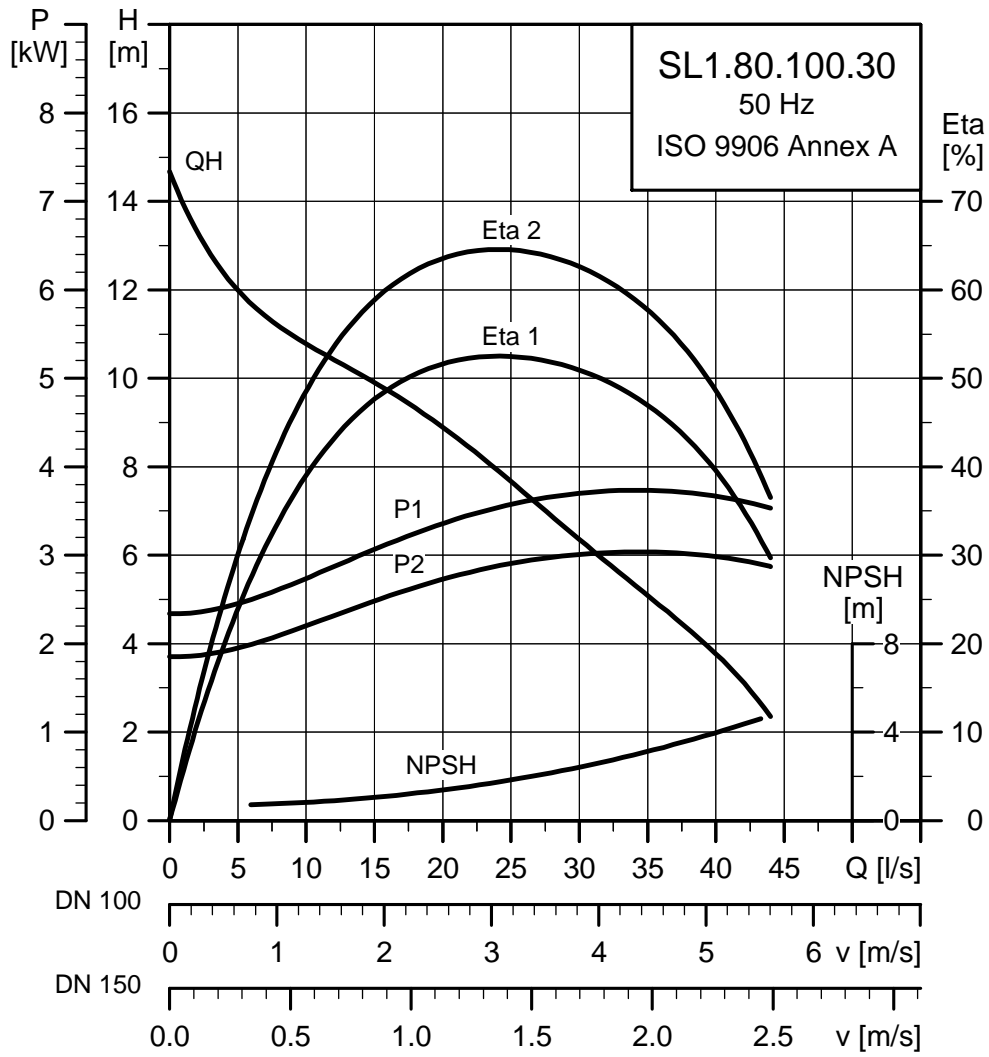
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N			I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SL1.80.100.22.4.50E	3 x 220-240 V D	2.7	2.2	4	1460	DOL	9.1	66	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50				
SL1.80.100.22.4.51D	3 x 380-415 V D	2.7	2.2	4	1460	SD	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50				
SL1.80.100.22.4.50D	3 x 380-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50				
SL1.80.100.22.4.50B	3 x 400-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0570	50				

Pump data

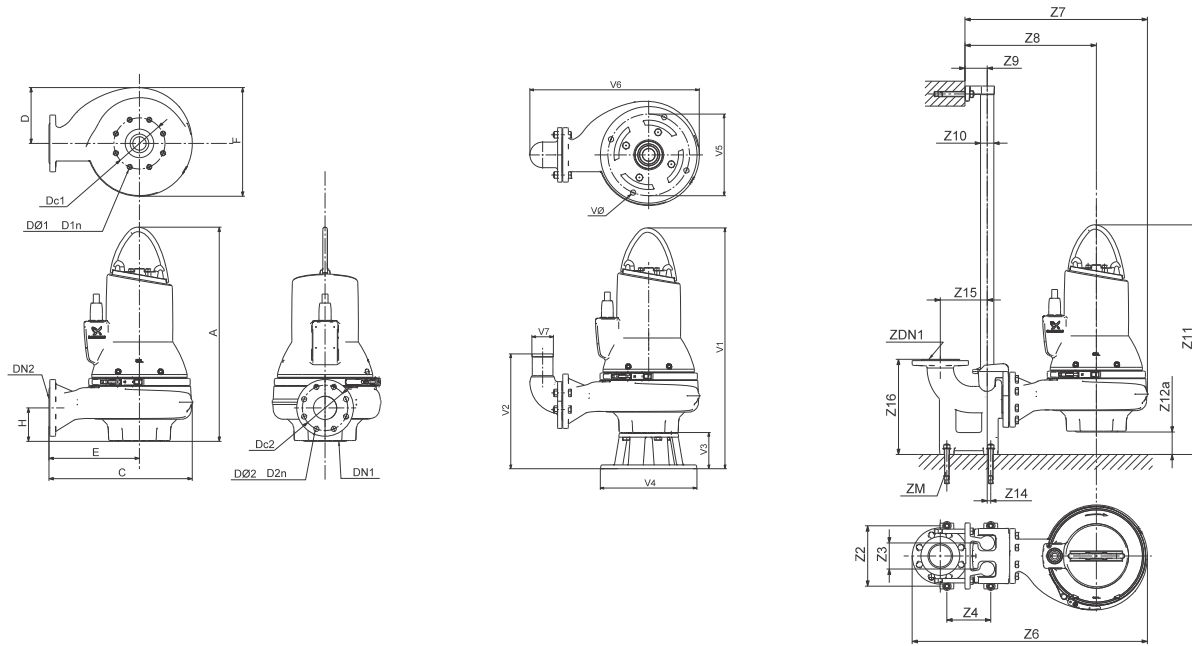
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.100.30



TM04 3462 4608

Dimensional sketches SL1.80.100.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
726	505	200	319	397	118	100	180	8 x 16	100	180	8 x 19	139			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	948	722	536	110	2"	848	122	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
856	395	130	355	300	647	100	19								

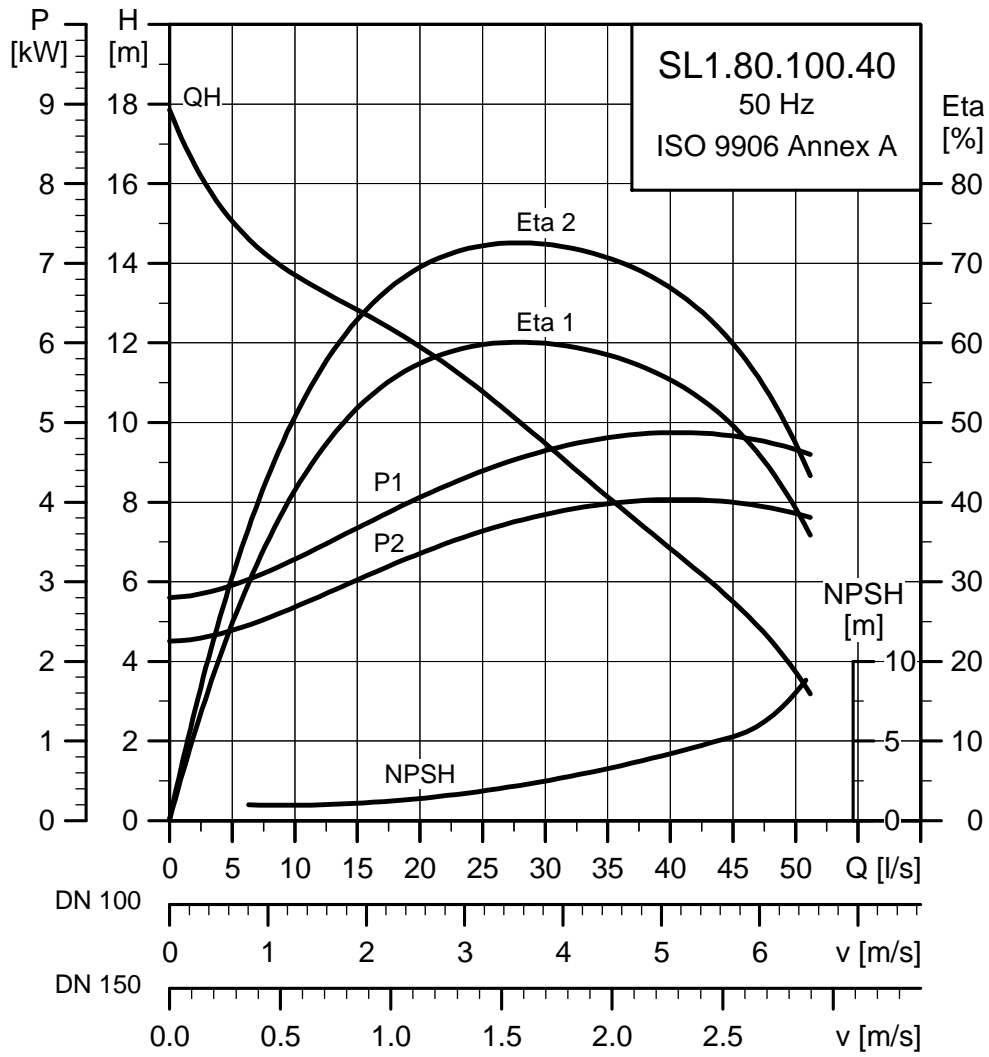
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \varphi$			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	1/2	3/4	1/1		
SL1.80.100.30.4.50E	3 x 220-240 V D	3.7	3.0	4	1450	DOL	12.5	87	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64				
SL1.80.100.30.4.51D	3 x 380-415 V D	3.7	3.0	4	1450	SD	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64				
SL1.80.100.30.4.50D	3 x 380-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64				
SL1.80.100.30.4.50B	3 x 400-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0966	64				

Pump data

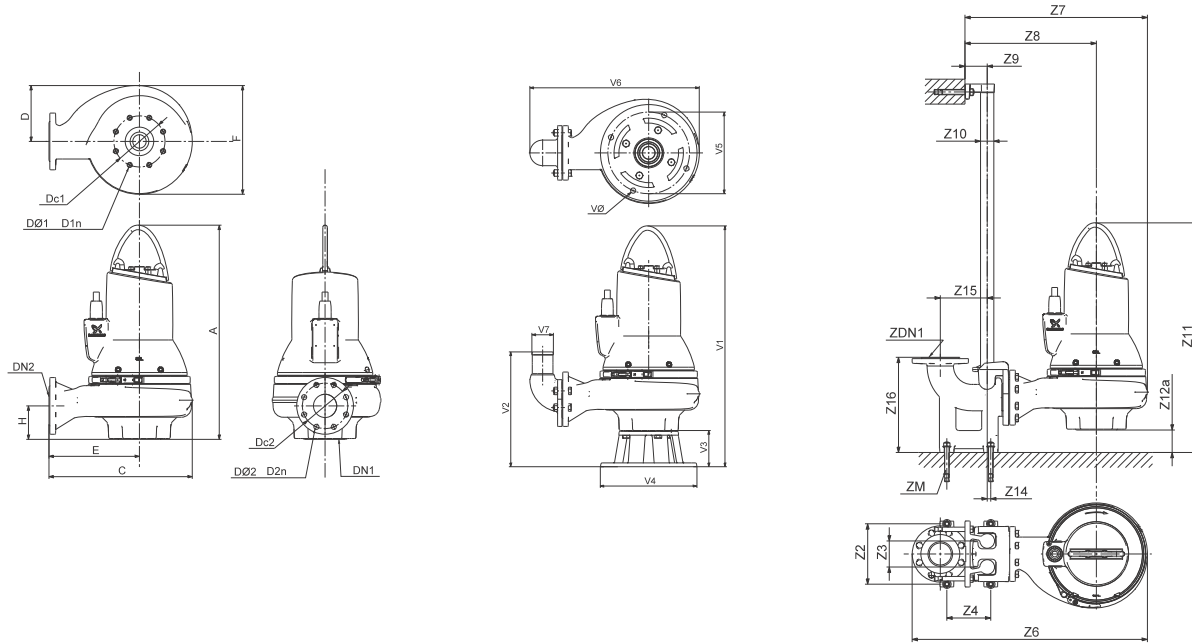
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.100.40



TM04 3457 4608

Dimensional sketches SL1.80.100.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
748	505	200	319	397	118	100	180	8 x 16	100	180	8 x 19	143			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	948	722	536	110	2"	870	122	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
878	395	130	355	300	647	100	19								

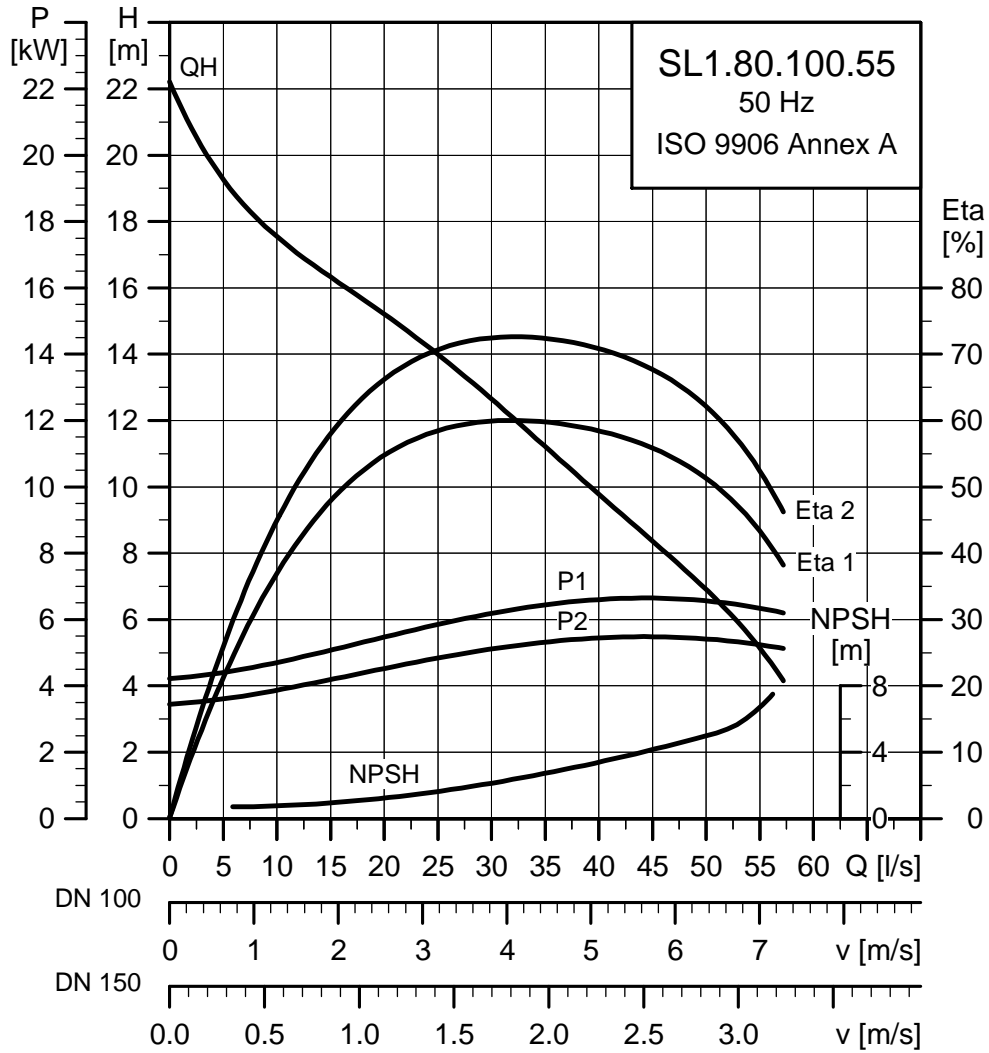
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N			I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4		
SL1.80.100.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90				
SL1.80.100.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90				
SL1.80.100.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1141	90				

Pump data

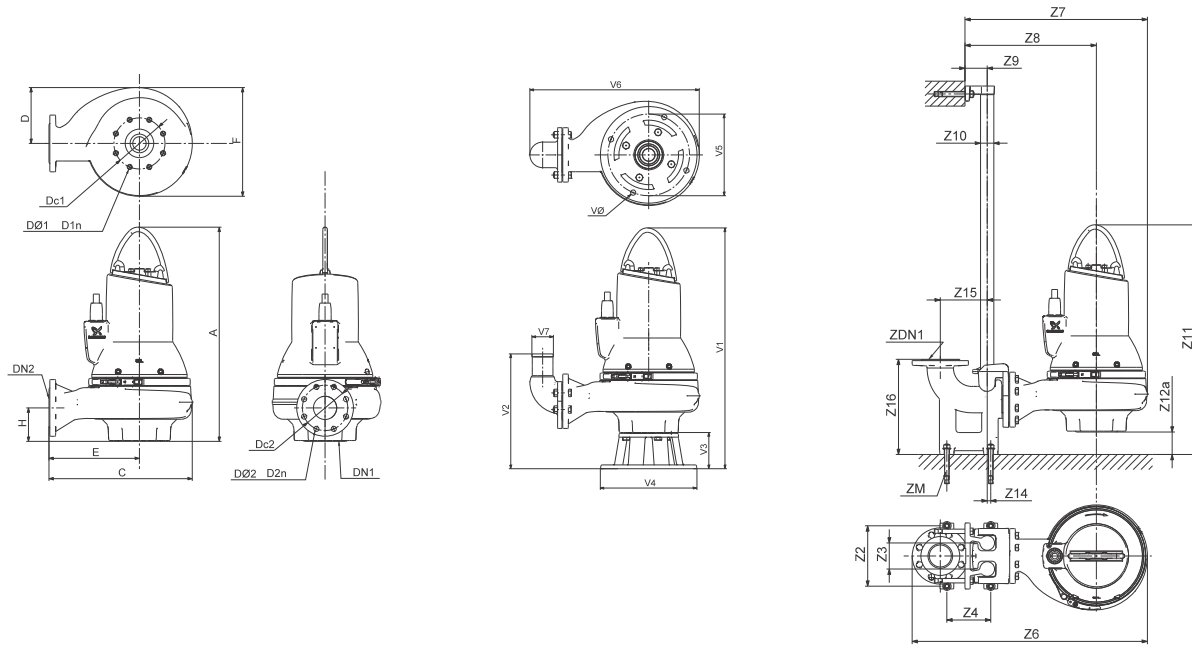
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.100.55



TM04 3458 4608

Dimensional sketches SL1.80.100.55



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
755	505	200	319	397	118	100	180	8 x 16	100	180	8 x 19	150			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	948	722	536	110	2"	877	122	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
885	395	130	355	300	647	100	19								

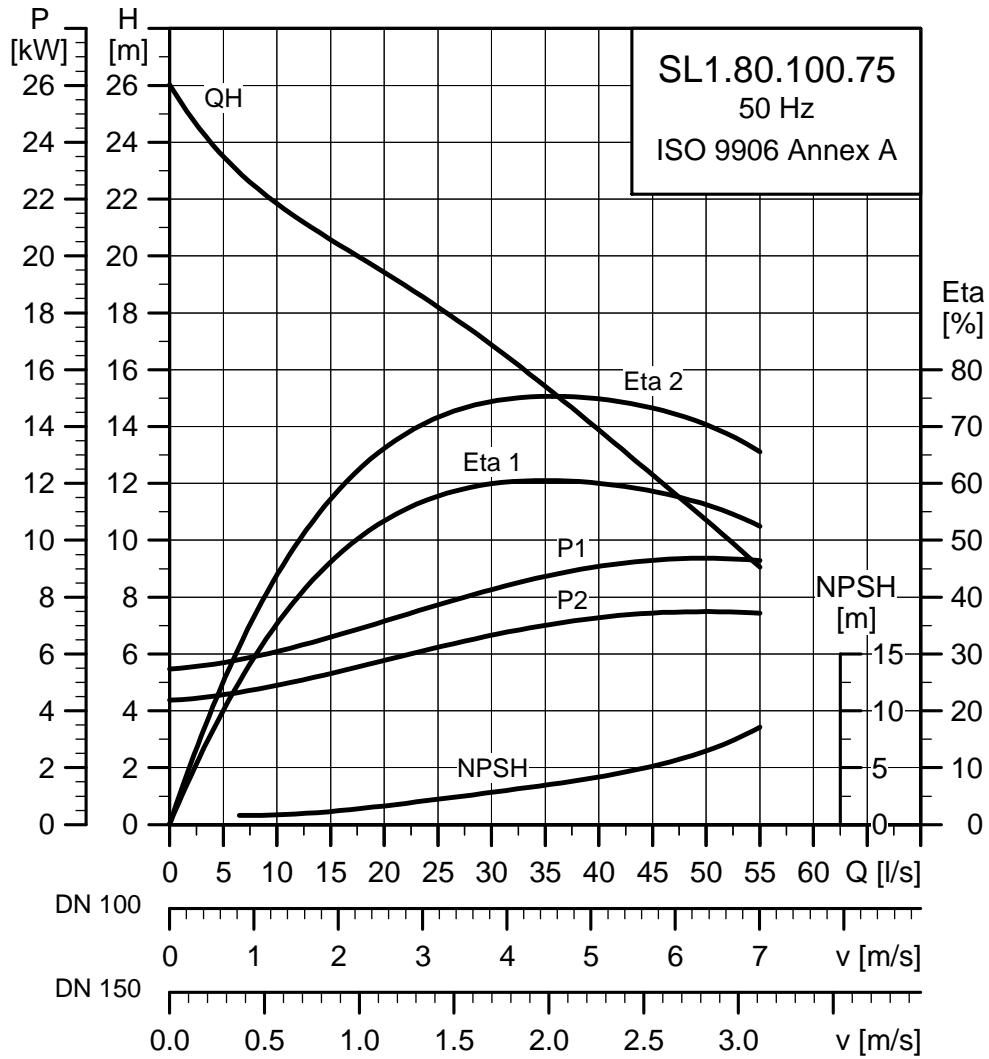
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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					
SL1.80.100.55.4.51E	3 x 220-240 V D	6.4	5.5	4	1460	SD	20.4	140	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110			
SL1.80.100.55.4.51D	3 x 380-415 V D	6.4	5.5	4	1460	SD	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110			
SL1.80.100.55.4.50B	3 x 400-415 V D	6.4	5.5	4	1460	DOL	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1295	110			

Pump data

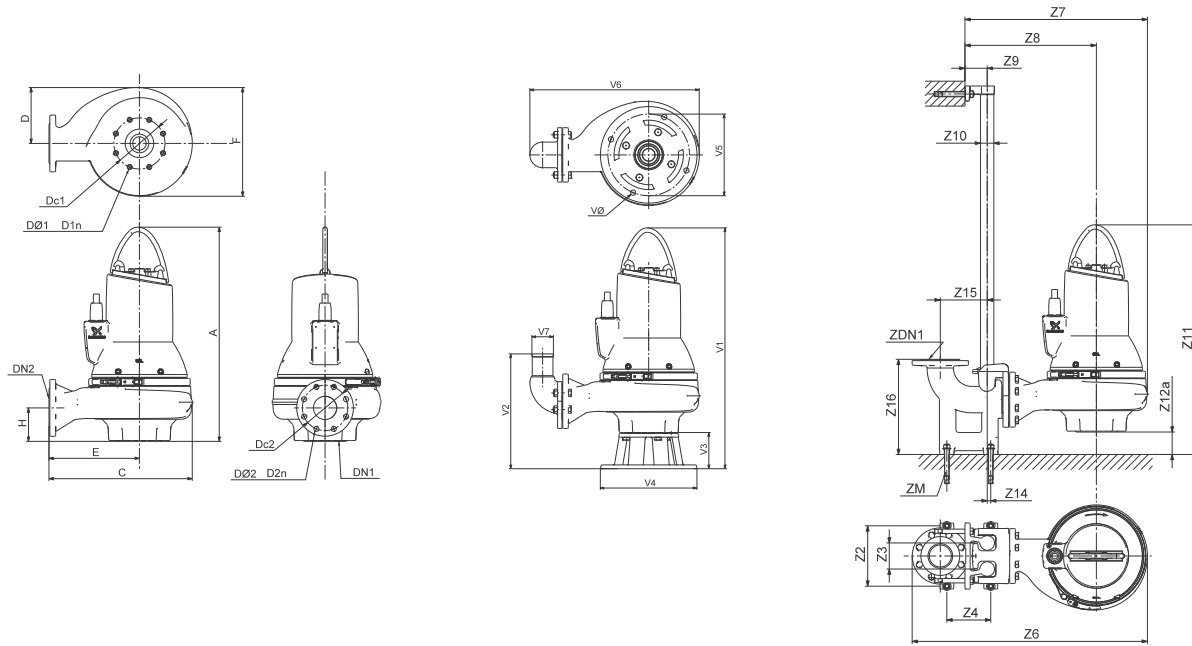
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

Performance curves SL1.80.100.75



TM04 3459 4608

Dimensional sketches SL1.80.100.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
818	530	217	328	423	118	100	180	8 x 16	100	180	8 x 19	180			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	972	747	545	110	2"	940	124	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
948	395	130	355	300	672	100	19								

Electrical data

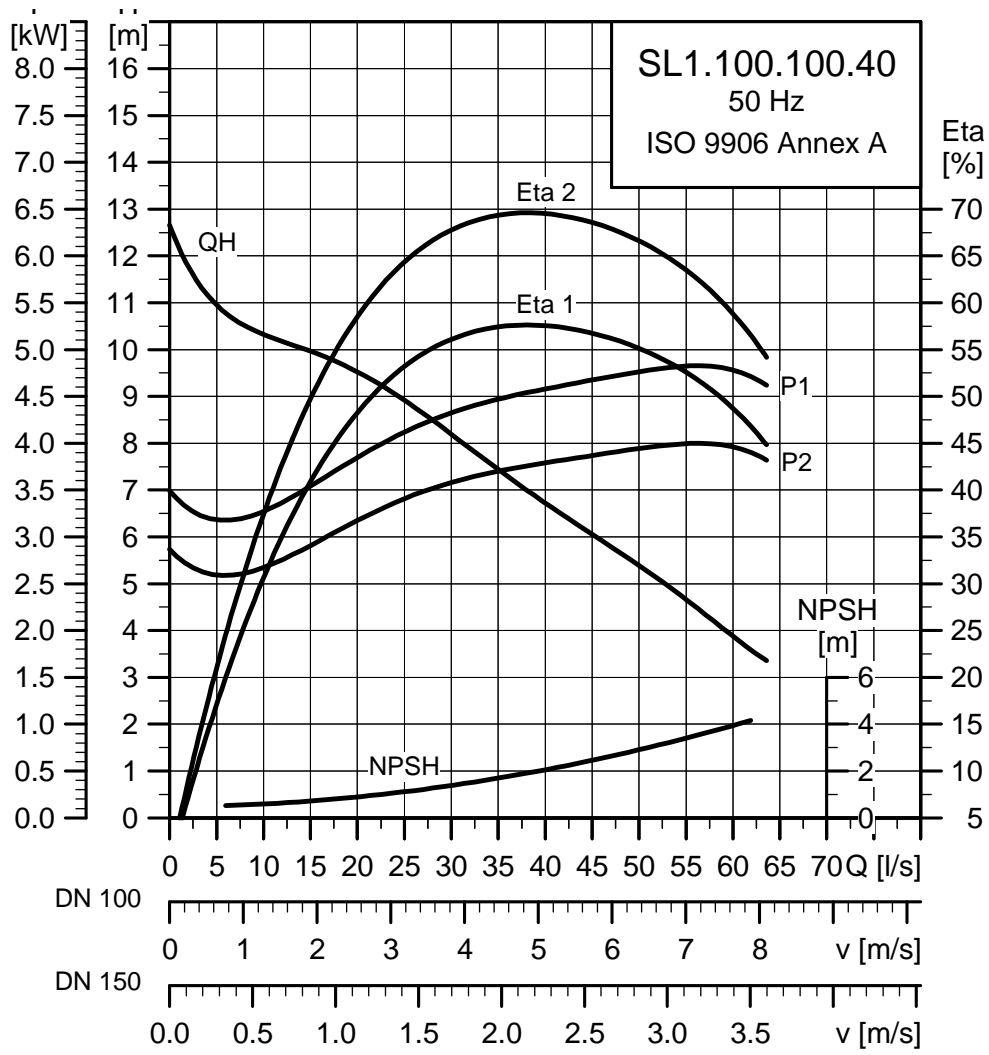
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N			I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	1/2	3/4	1/1		
SL1.80.100.75.4.51E	3 x 220-240 V D	8.6	7.5	4	1460	SD	26.3	189	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141				
SL1.80.100.75.4.51D	3 x 380-415 V D	8.6	7.5	4	1460	SD	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141				
SL1.80.100.75.4.50B	3 x 400-415 V D	8.6	7.5	4	1460	DOL	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1618	141				

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	80	10	20	20	IP68	F	40	4-14

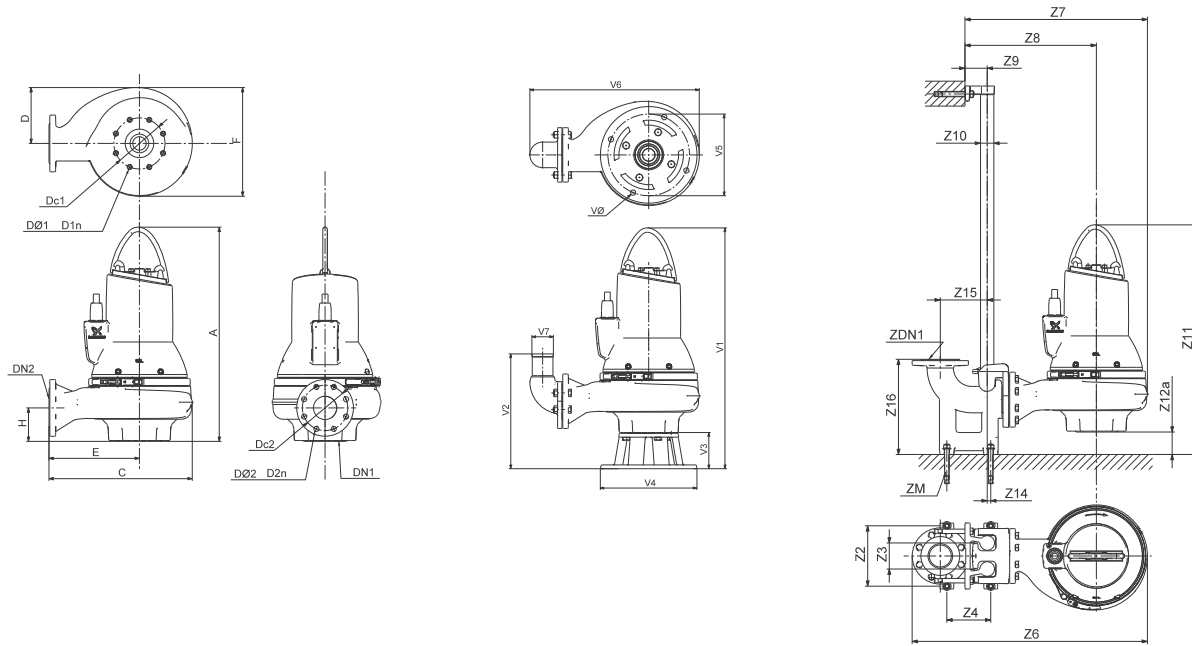
SL1.100.100

Performance curves SL1.100.100.40



TM04 3524 4608

Dimensional sketches SL1.100.100.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
754	541	200	320	438	115	150	240	8 x 20	100	180	8 x 22	155			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	983	758	537	110	2"	880	125	0	220	413	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
941	445	186	450	400	711	100	22								

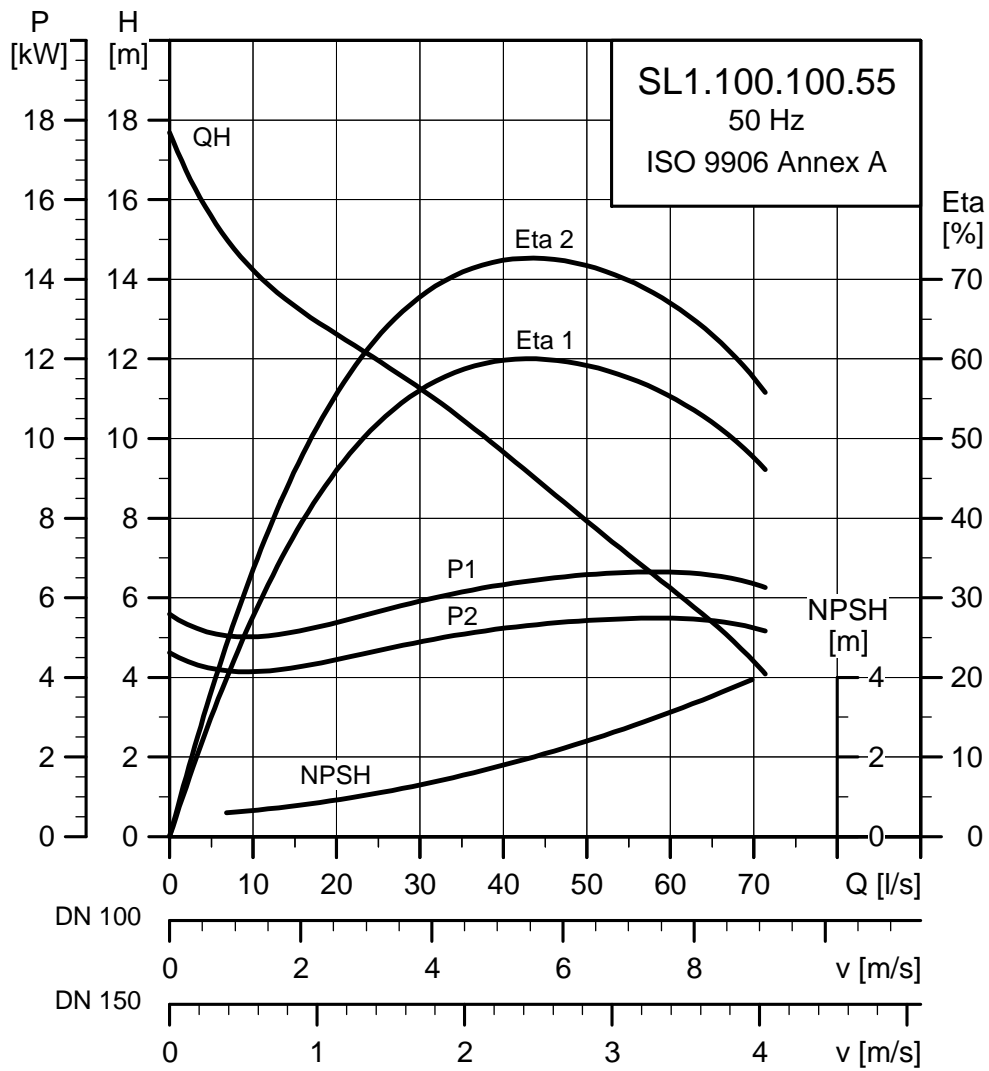
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SL1.100.100.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90				
SL1.100.100.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90				
SL1.100.100.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90				

Pump data

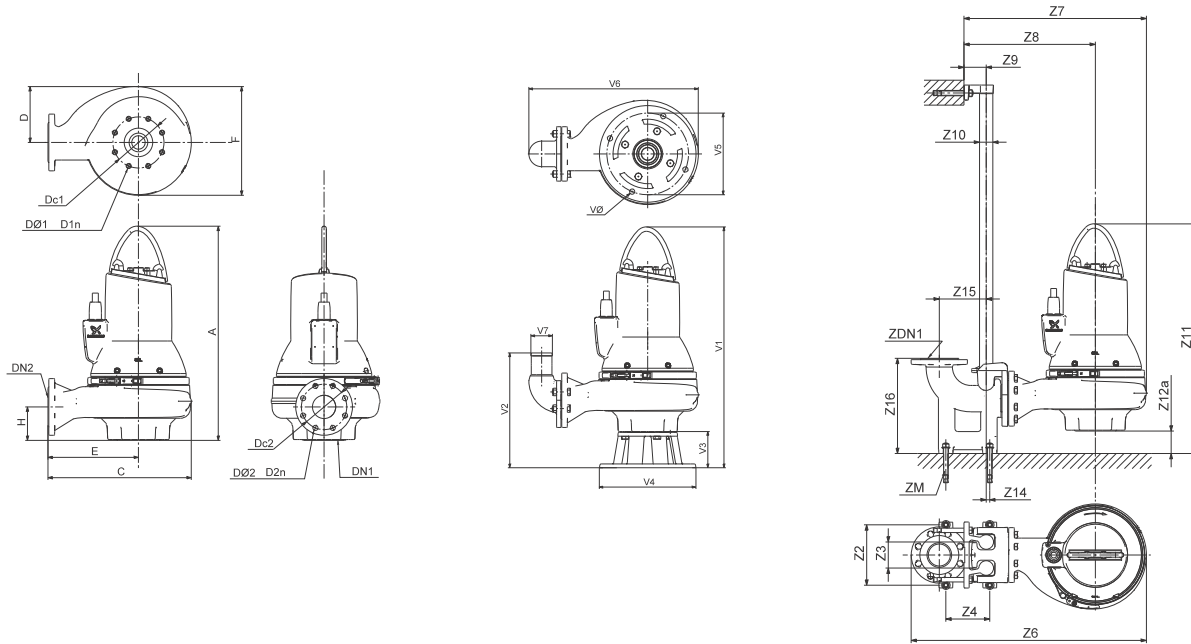
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

Performance curves SL1.100.100.55



TM04 3525 4608

Dimensional sketches SL1.100.100.55



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
762	541	200	320	438	115	150	240	8 x 20	100	180	8 x 22	161			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	983	758	537	110	2"	886	125	0	220	413	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
948	445	186	450	400	711	100	22								

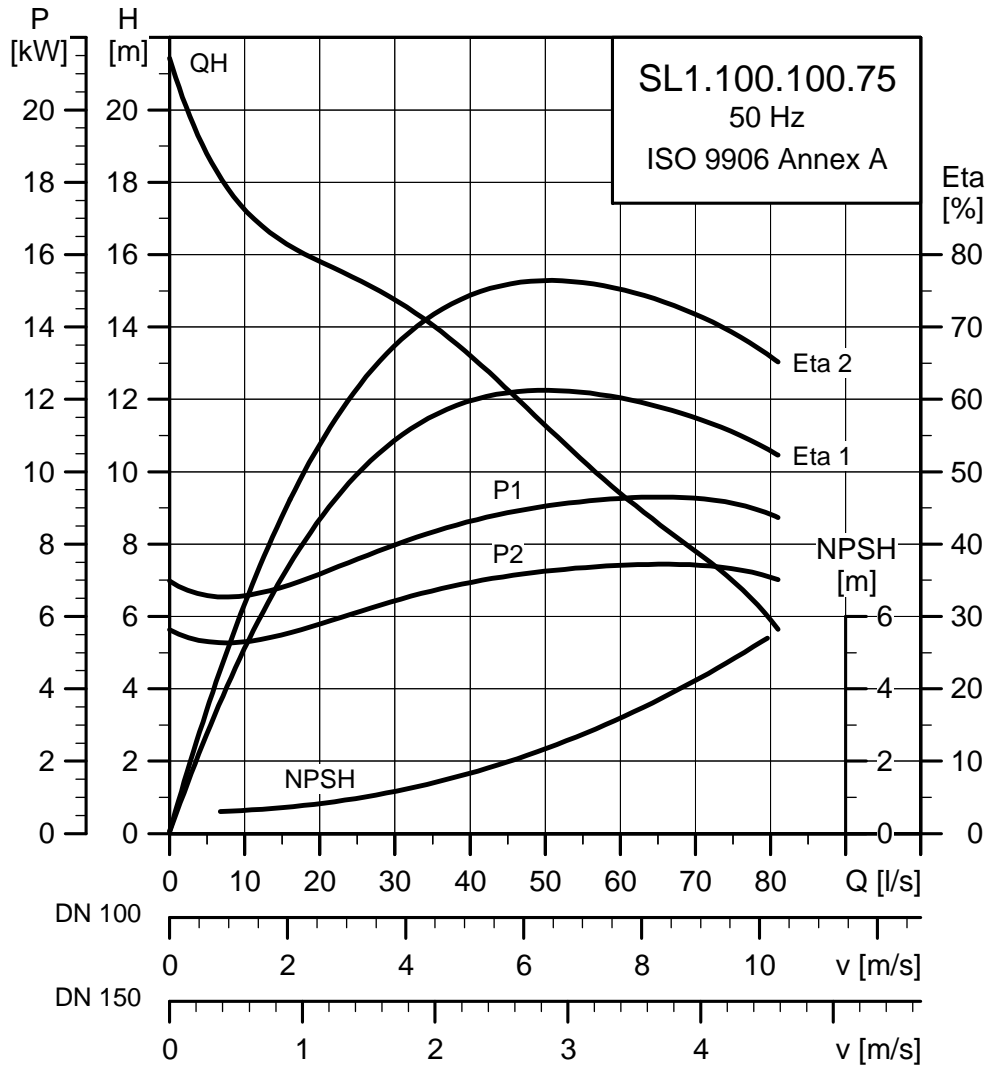
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.100.100.55.4.51E	3 x 220-240 V D	6.4	5.5	4	1460	SD	20.4	140	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110
SL1.100.100.55.4.51D	3 x 380-415 V D	6.4	5.5	4	1460	SD	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110
SL1.100.100.55.4.50B	3 x 400-415 V D	6.4	5.5	4	1460	DOL	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110

Pump data

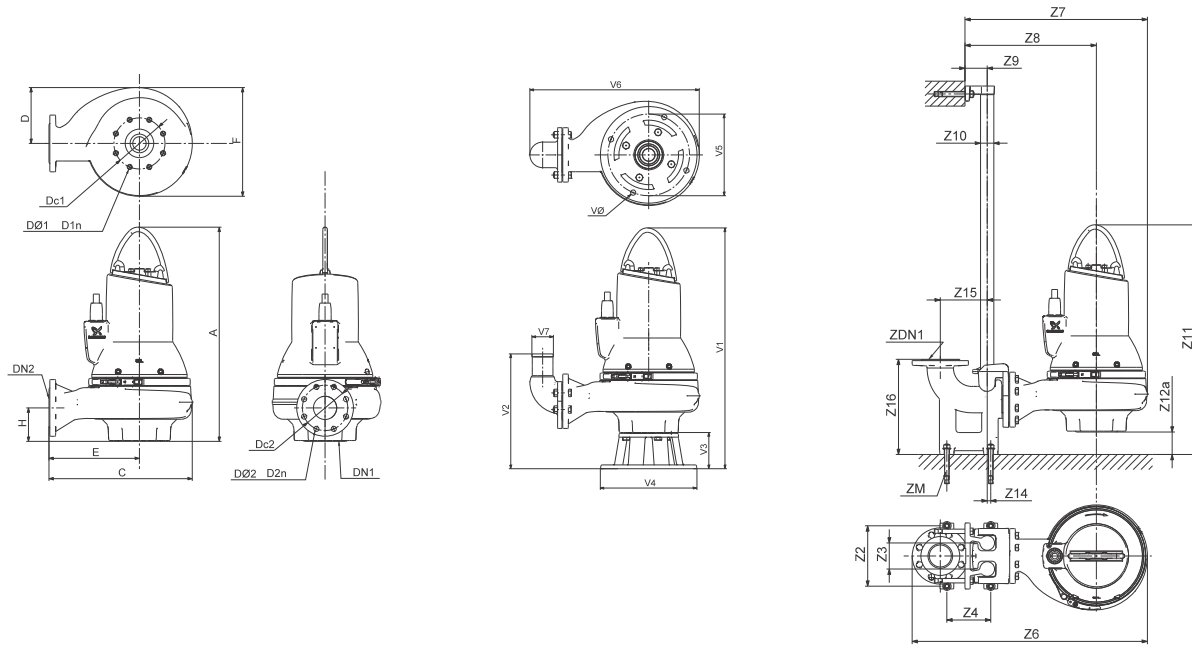
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

Performance curves SL1.100.100.75



TM04 3526 4608

Dimensional sketches SL1.100.100.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
827	541	217	312	462	115	150	240	8 x 20	100	180	8 x 22	202			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	983	758	529	110	2"	951	125	0	220	413	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
1013	445	186	450	400	706	100	22								

Electrical data

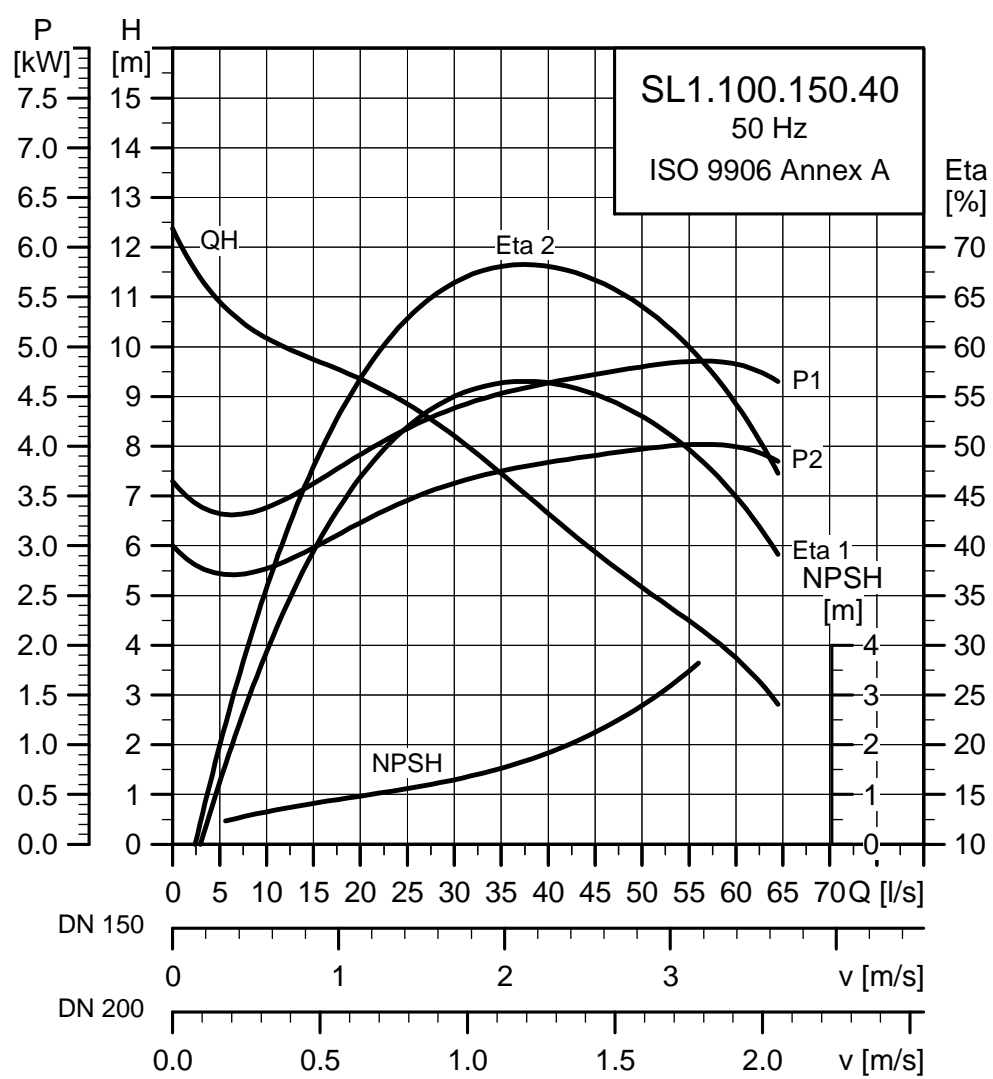
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N			I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4		
SL1.100.100.75.4.51E	3 x 220-240 V D	8.6	7.5	4	1460	SD	26.3	189	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				
SL1.100.100.75.4.51D	3 x 380-415 V D	8.6	7.5	4	1460	SD	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				
SL1.100.100.75.4.50B	3 x 400-415 V D	8.6	7.5	4	1460	DOL	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

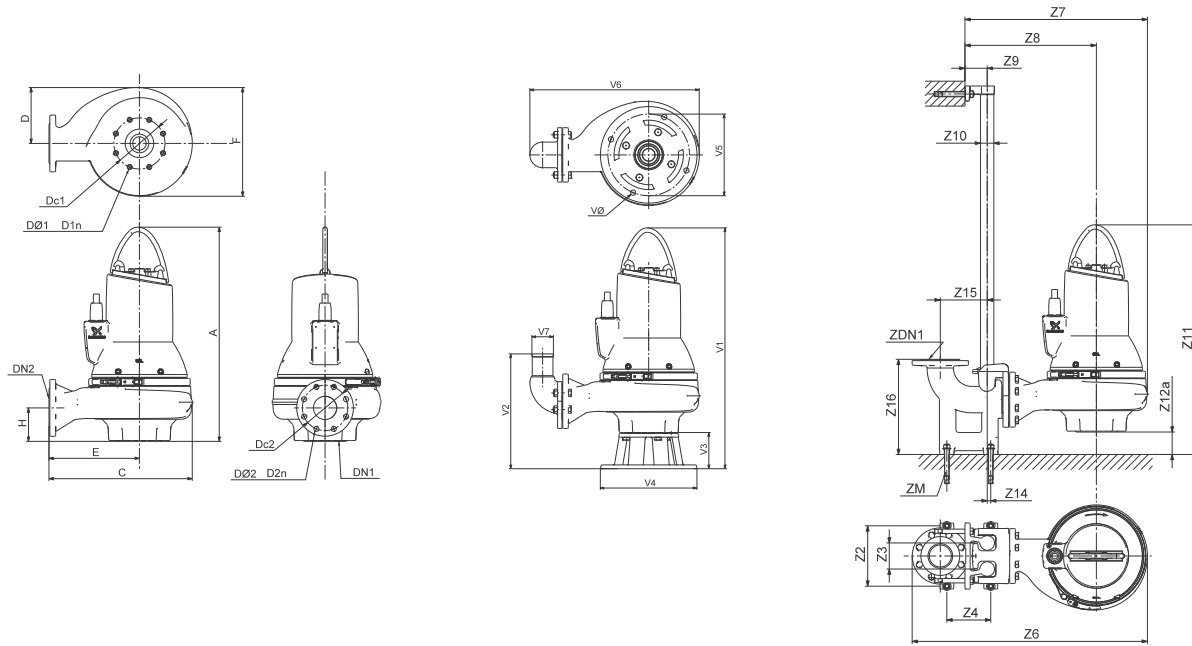
SL1.100.150

Performance curves SL1.100.150.40



TM04 3527 4608

Dimensional sketches SL1.100.150.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
755	541	200	320	440	143	150	240	8 x 20	150	240	8 x 22	157			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
300	110	280	1093	780	559	110	2"	919	164	0	280	450	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
941	555	186	450	400	807	150	22								

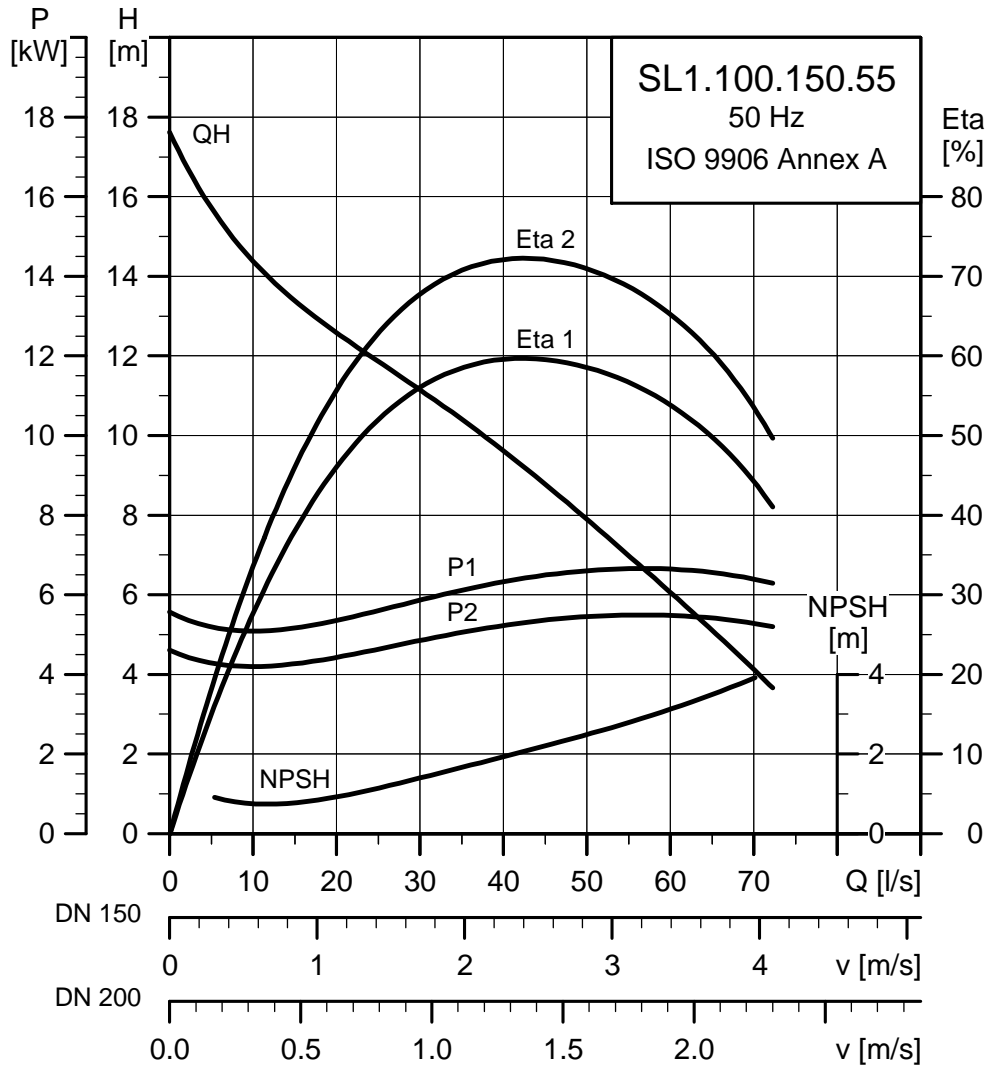
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.100.150.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90
SL1.100.150.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90
SL1.100.150.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.1222	90

Pump data

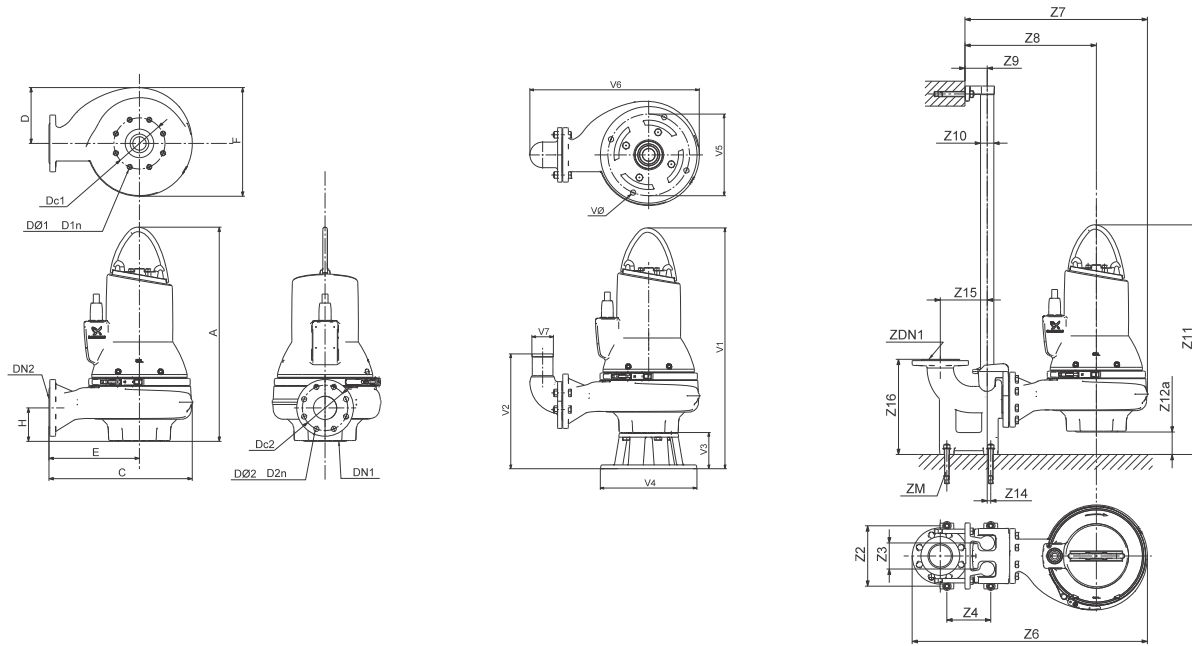
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

Performance curves SL1.100.150.55



TM04 3528 4608

Dimensional sketches SL1.100.150.55



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
762	541	200	320	440	143	150	240	8 x 20	150	240	8 x 22	163			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
300	110	280	1093	780	559	110	2"	926	164	0	280	450	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
948	555	186	450	400	807	150	22								

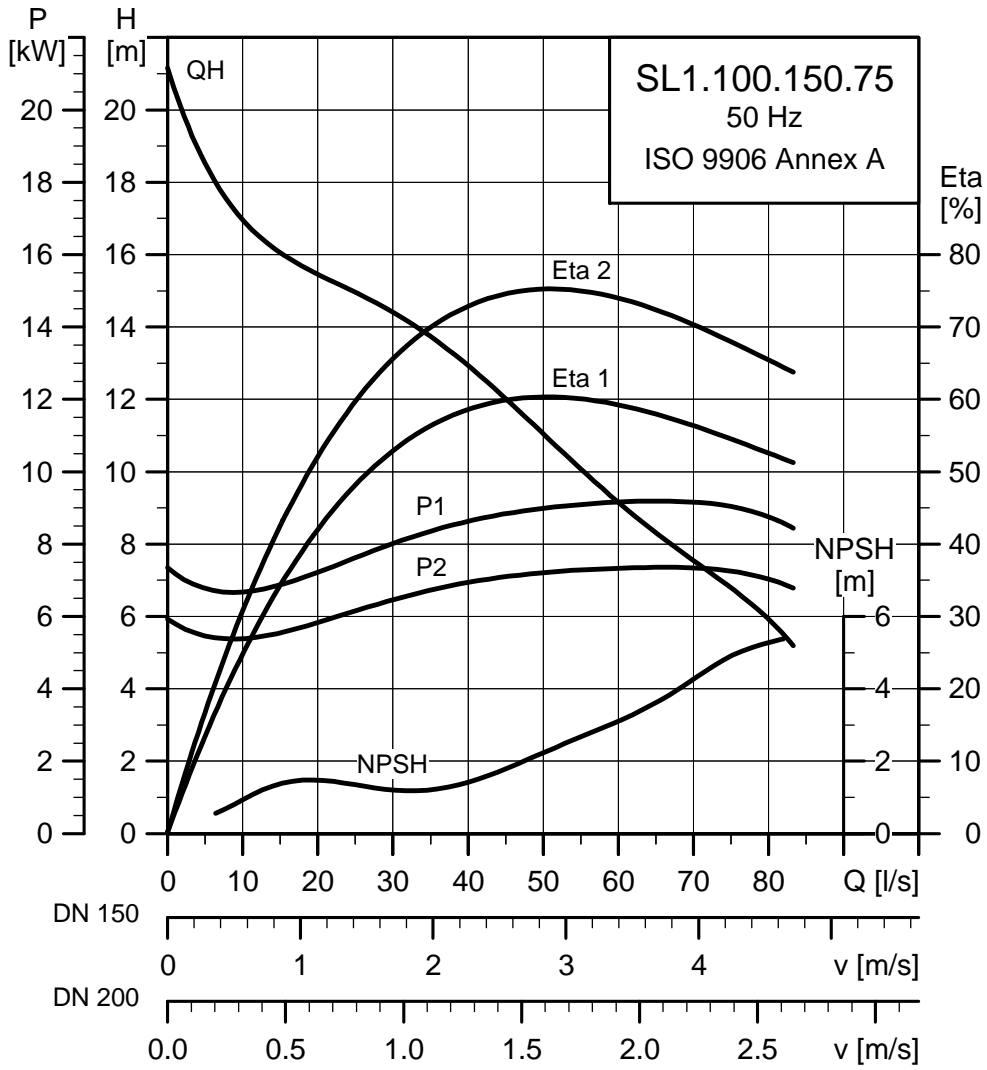
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SL1.100.150.55.4.51E	3 x 220-240 V D	6.4	5.5	4	1460	SD	20.4	140	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110
SL1.100.150.55.4.51D	3 x 380-415 V D	6.4	5.5	4	1460	SD	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110
SL1.100.150.55.4.50B	3 x 400-415 V D	6.4	5.5	4	1460	DOL	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.1393	110

Pump data

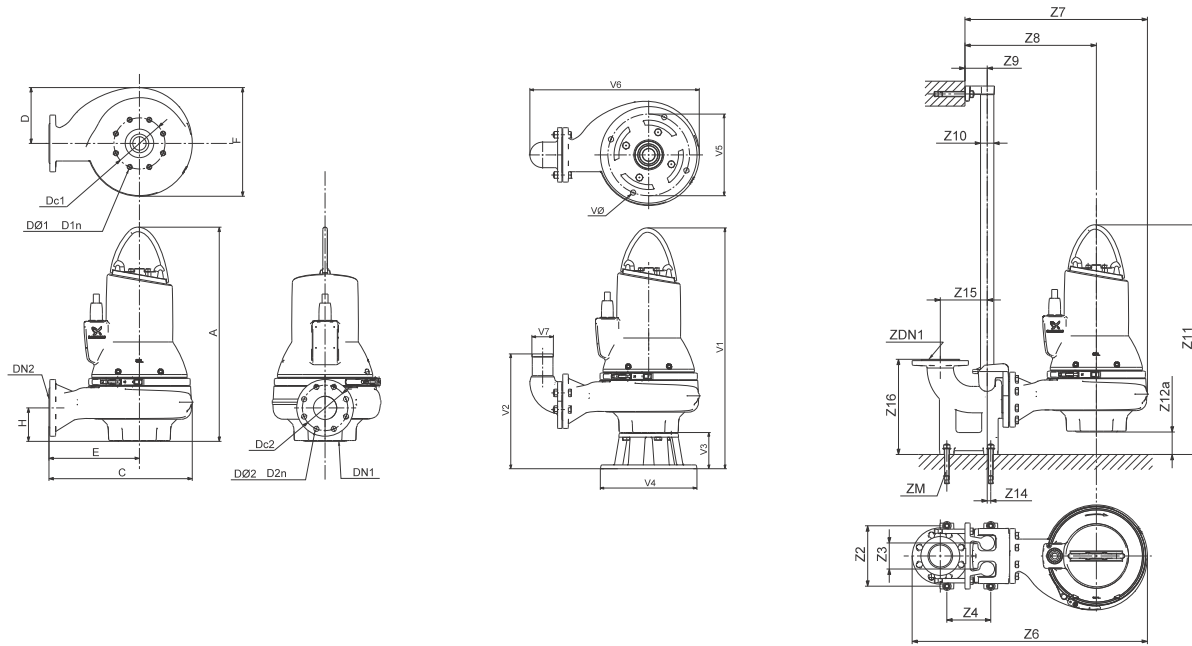
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

Performance curves SL1.100.150.75



TM04 3529 4608

Dimensional sketches SL1.100.150.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
827	541	217	306	472	143	150	240	8 x 20	150	240	8 x 22	204			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
300	110	280	1093	780	545	110	2"	990	164	0	280	450	240	150	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
1013	555	186	450	400	803	150	22								

Electrical data

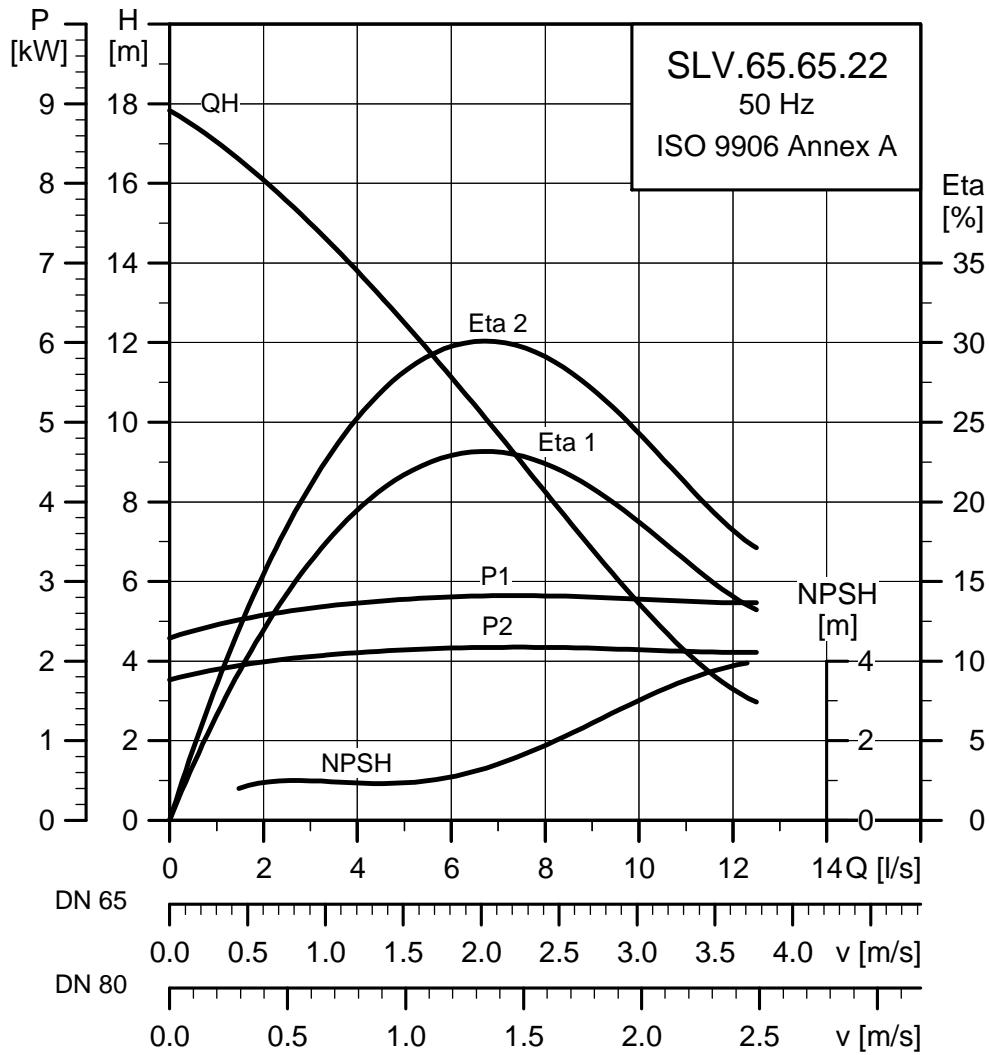
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N			I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	1/2	3/4	1/1		
SL1.100.150.75.4.51E	3 x 220-240 V D	8.6	7.5	4	1460	SD	26.3	189	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				
SL1.100.150.75.4.51D	3 x 380-415 V D	8.6	7.5	4	1460	SD	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				
SL1.100.150.75.4.50B	3 x 400-415 V D	8.6	7.5	4	1460	DOL	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.1860	141				

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
S-tube	100	10	20	20	IP68	F	40	4-14

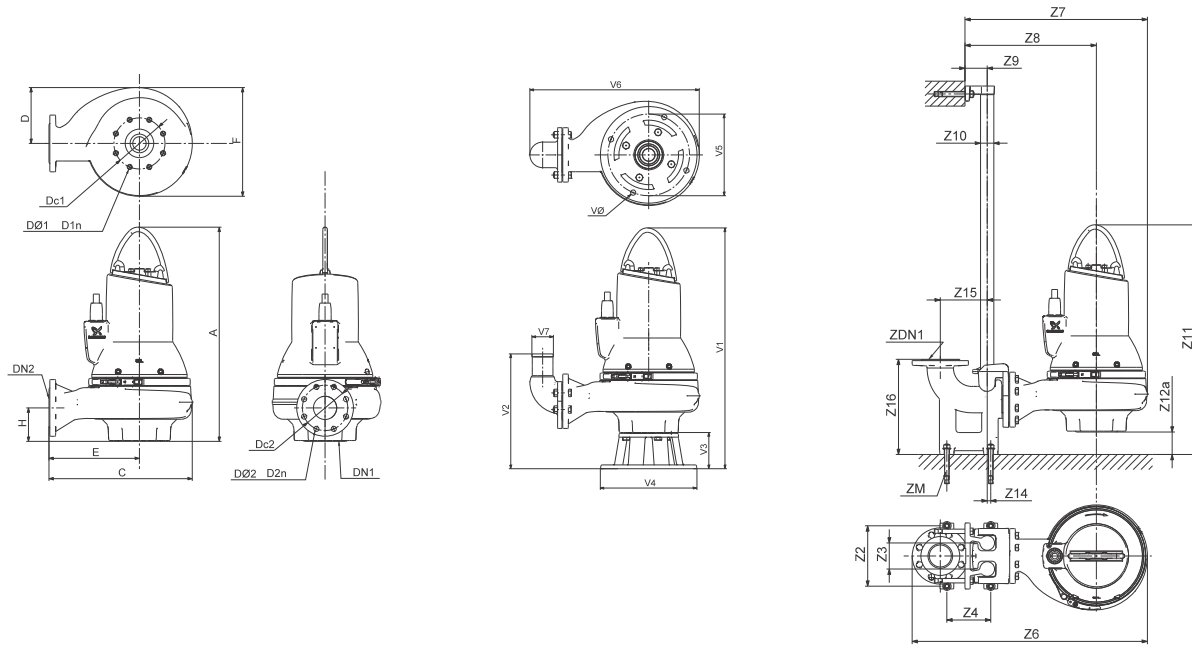
SLV.65.65

Performance curves SLV.65.65.22



TM04 3530 4608

Dimensional sketches SLV.65.65.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
684	396	171	246	321	102	80	160	8 x 16	65	145	4 x 18	88			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	730	543	394	81	1 1/2"	747	63	1	175	266	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	372	128	330	280	524	65	18								

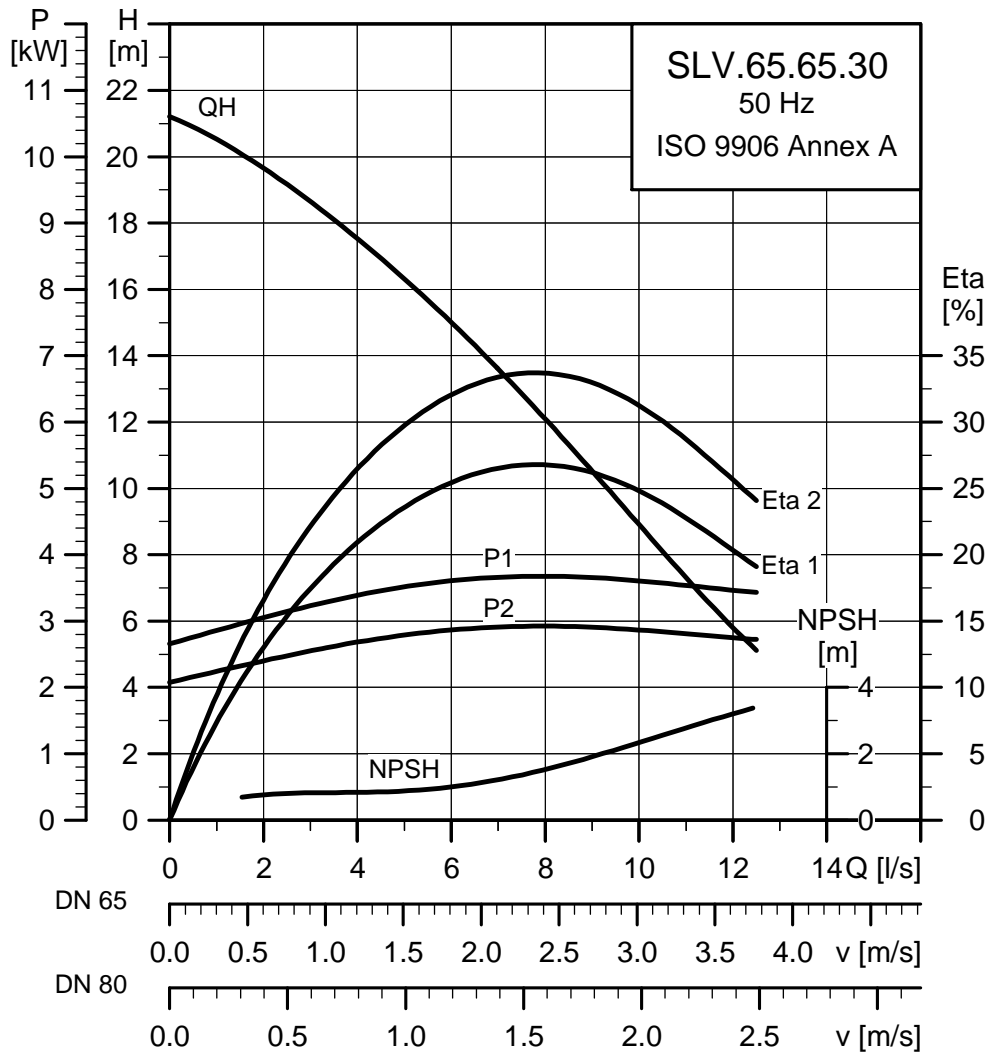
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SLV.65.65.22.2.50E	3 x 220-240 V D	2.8	2.2	2	2990	DOL	8.5	74	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25
SLV.65.65.22.2.51D	3 x 380-415 V D	2.8	2.2	2	2990	SD	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25
SLV.65.65.22.2.50D	3 x 380-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25
SLV.65.65.22.2.50B	3 x 400-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25

Pump data

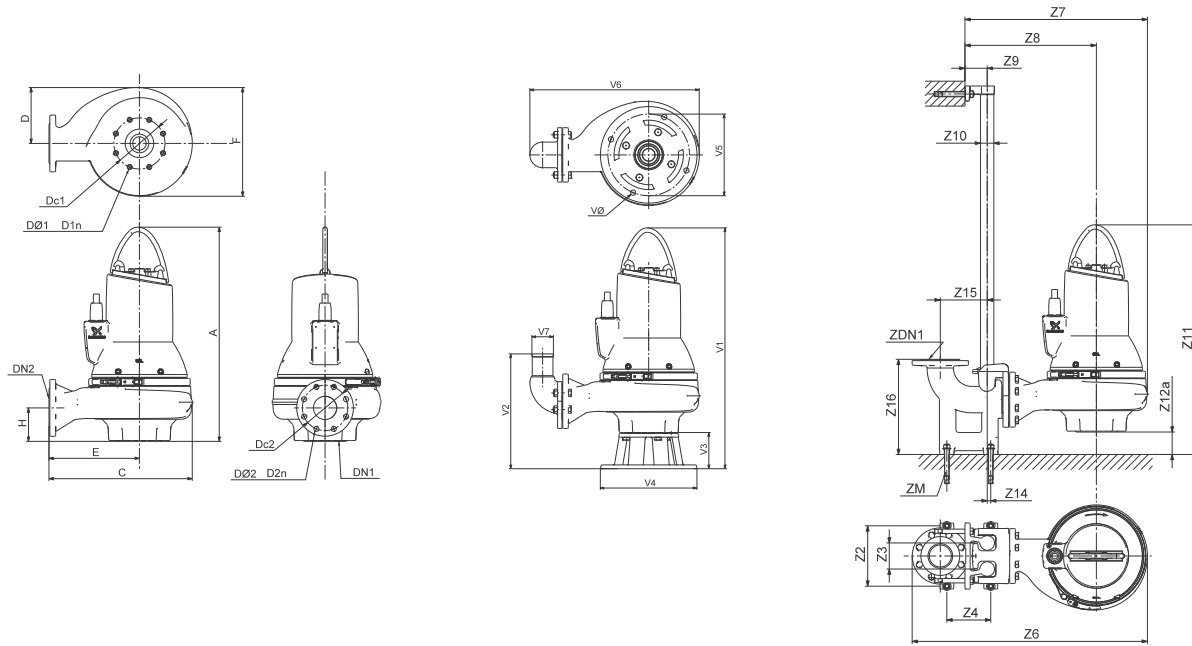
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

Performance curves SLV.65.65.30



TM04 3531 4608

Dimensional sketches SLV.65.65.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
684	396	171	246	321	102	80	160	8 x 16	65	145	4 x 18	91			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	730	543	394	81	1 1/2"	747	63	1	175	266	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
812	372	128	330	280	524	65	18								

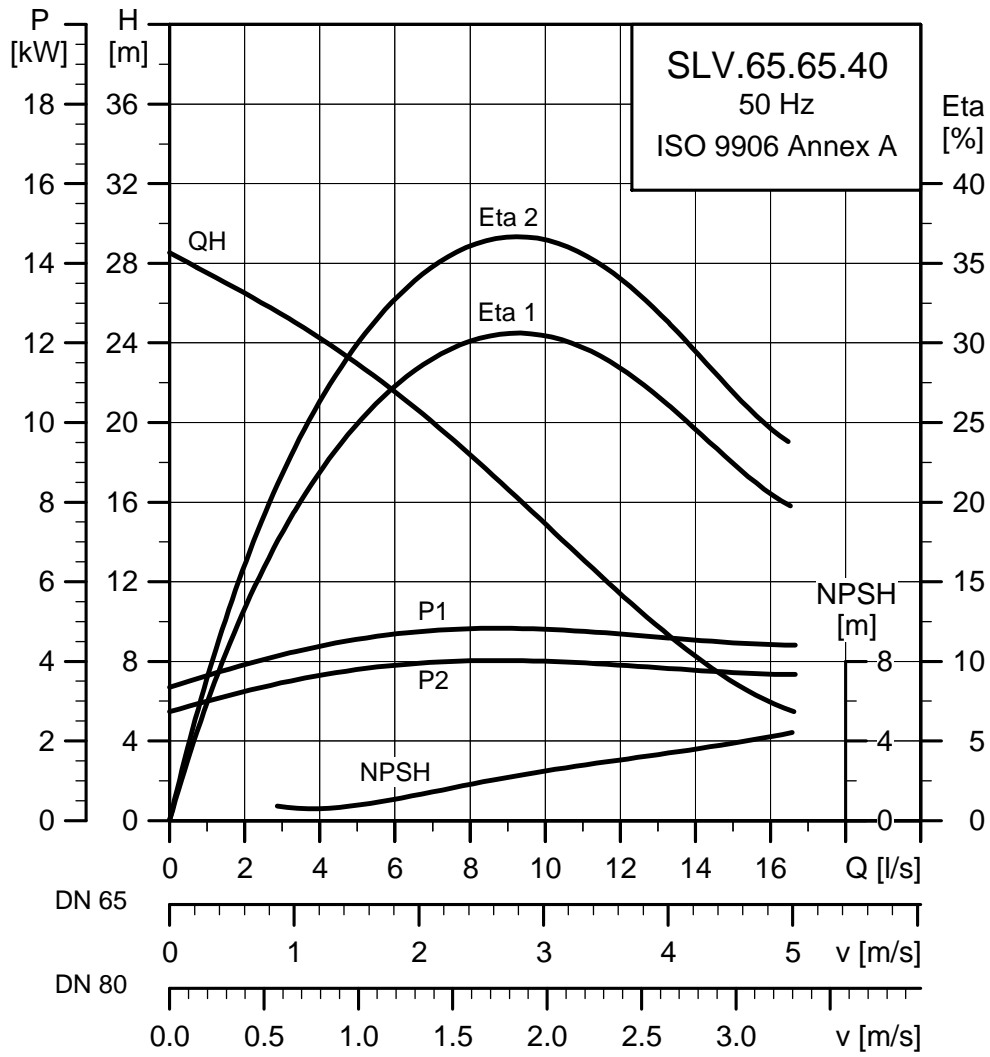
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		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		
SLV.65.65.30.2.50E	3 x 220-240 V D	3.8	3.0	2	2910	DOL	11.8	104	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.65.30.2.51D	3 x 380-415 V D	3.8	3.0	2	2910	SD	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.65.30.2.50D	3 x 380-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.65.30.2.50B	3 x 400-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42

Pump data

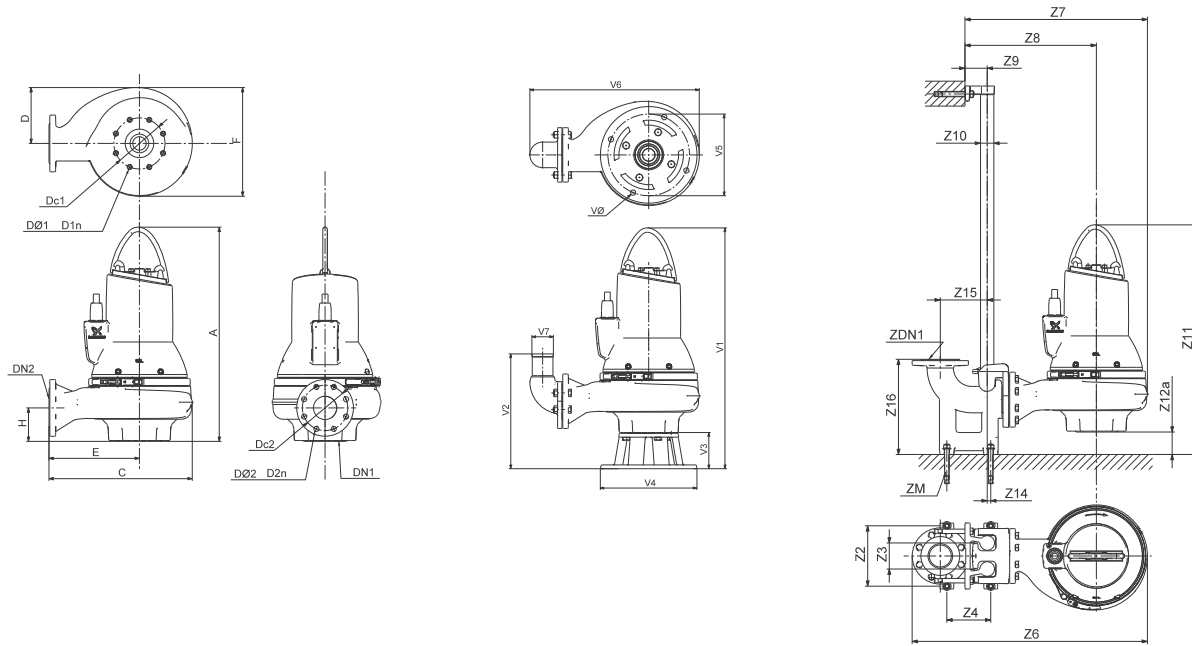
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

Performance curves SLV.65.65.40



TM04 3532 4608

Dimensional sketches SLV.65.65.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
718	456	200	276	380	106	80	160	8 x 16	65	145	4 x 18	117			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
210	95	140	790	604	424	81	1 1/2"	778	60	1	175	266	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
846	376	128	330	280	568	65	18								

Electrical data

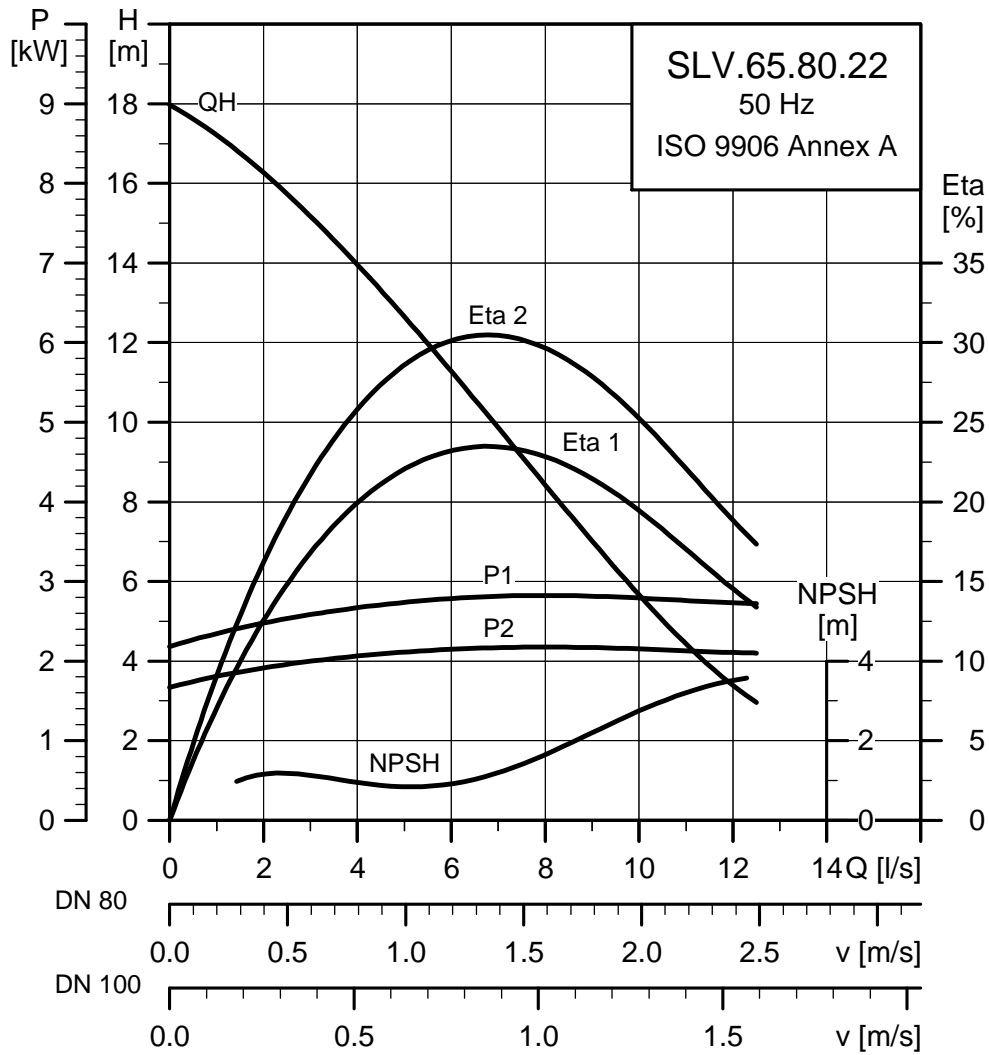
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
SLV.65.65.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56
SLV.65.65.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56
SLV.65.65.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

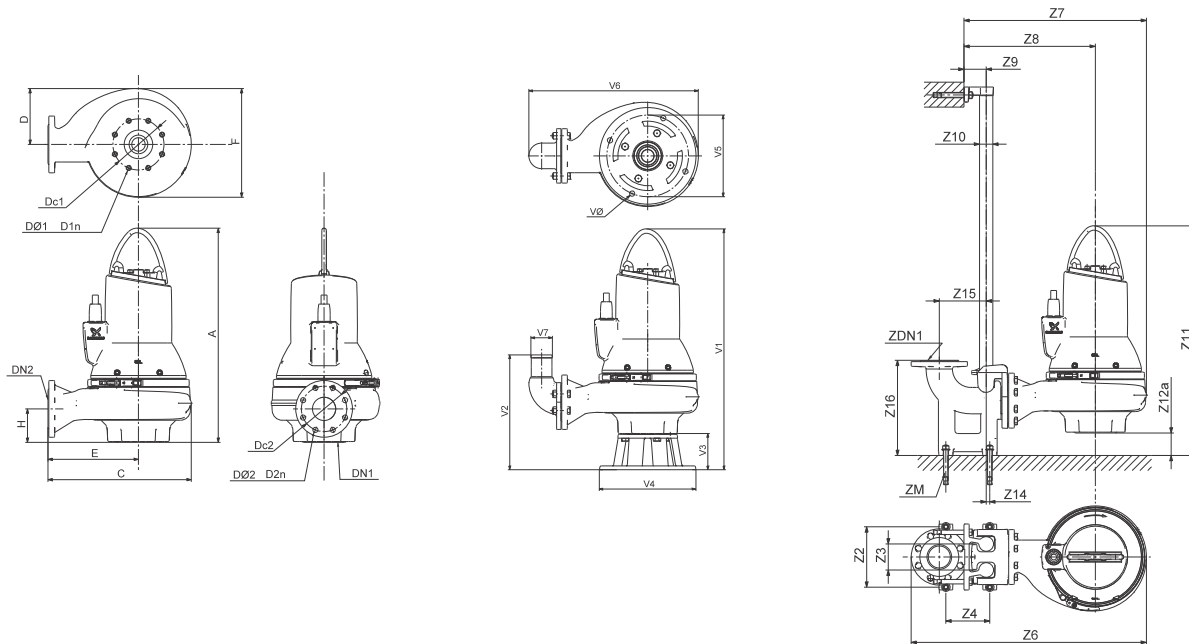
SLV.65.80

Performance curves SLV.65.80.22



TM04 3533 4608

Dimensional sketches SLV.65.80.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
685	397	171	247	321	103	80	160	8 x 16	80	160	8 x 18	89			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	750	557	408	81	1 1/2"	782	97	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
813	373	128	330	280	530	80	18								

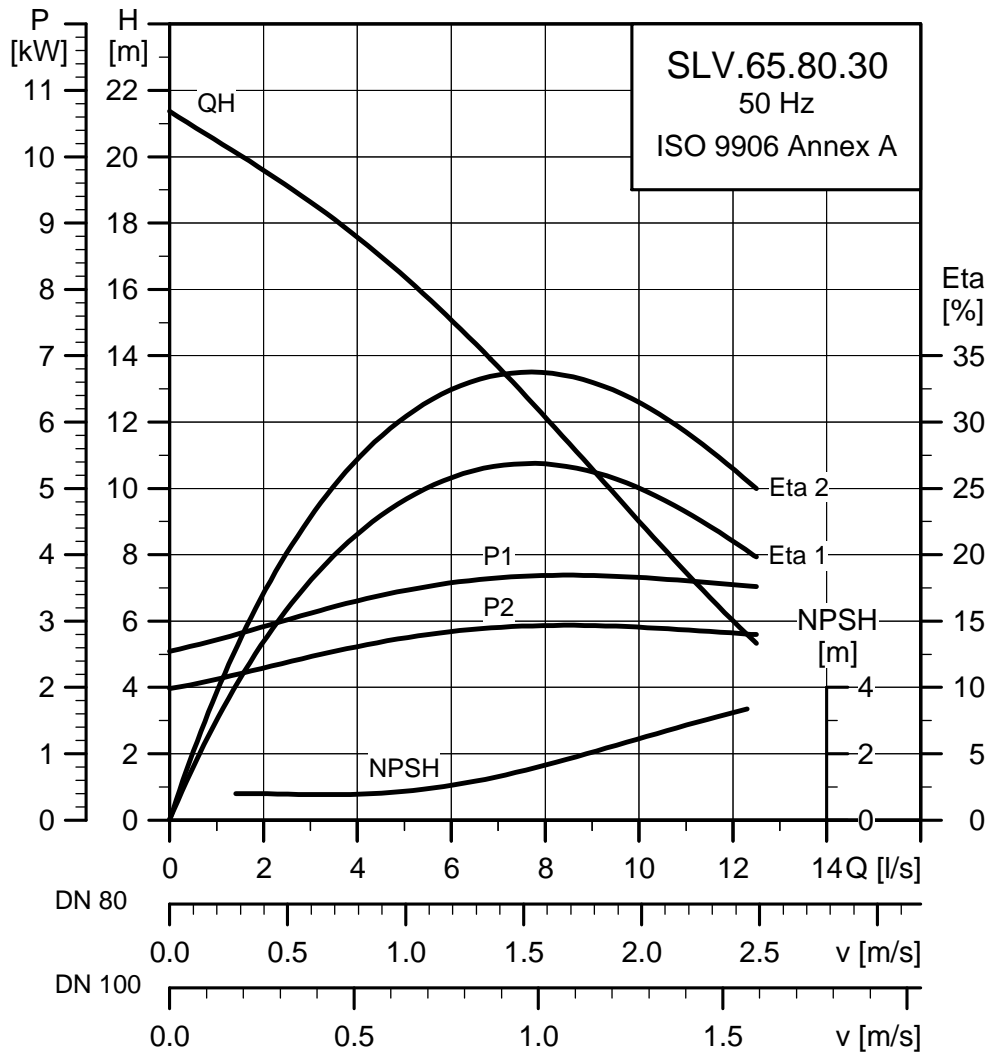
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	1/2	3/4	1/1		
SLV.65.80.22.2.50E	3 x 220-240 V D	2.8	2.2	2	2990	DOL	8.5	74	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25			
SLV.65.80.22.2.51D	3 x 380-415 V D	2.8	2.2	2	2990	SD	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25			
SLV.65.80.22.2.50D	3 x 380-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25			
SLV.65.80.22.2.50B	3 x 400-415 V Y	2.8	2.2	2	2990	DOL	4.9	43	70.3	75.2	76.7	0.79	0.86	0.89	0.0088	25			

Pump data

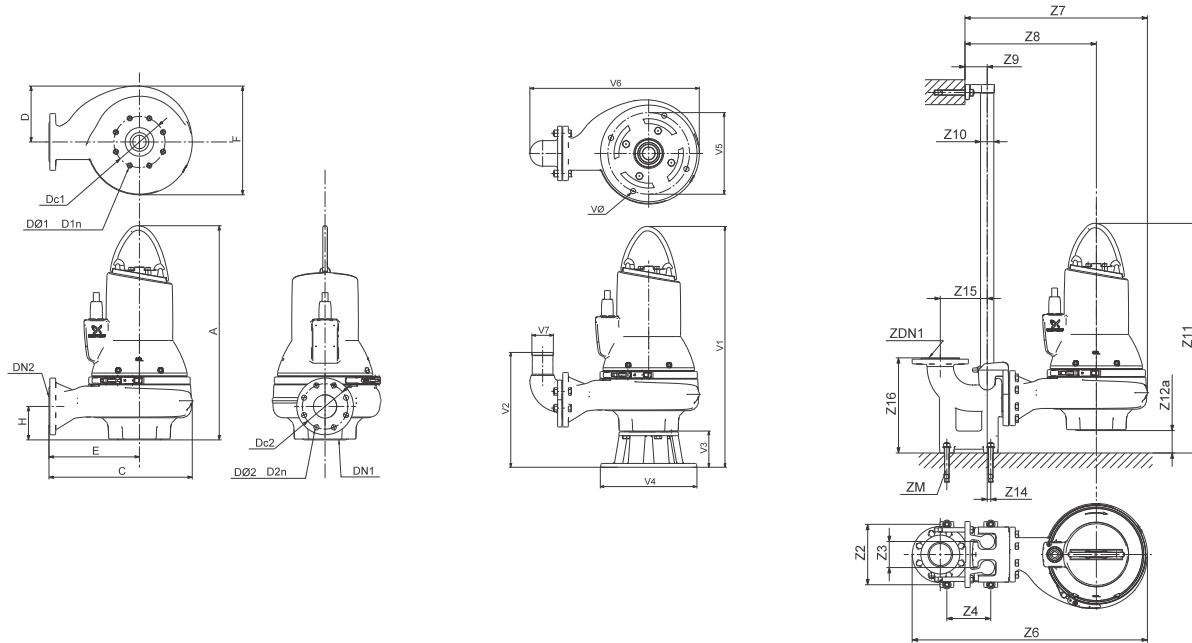
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

Performance curves SLV.65.80.30



TM04 3534 4608

Dimensional sketches SLV.65.80.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
685	397	171	247	321	103	80	160	8 x 16	80	160	8 x 18	92			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	750	557	408	81	1 1/2"	782	97	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
813	373	128	330	280	530	80	18								

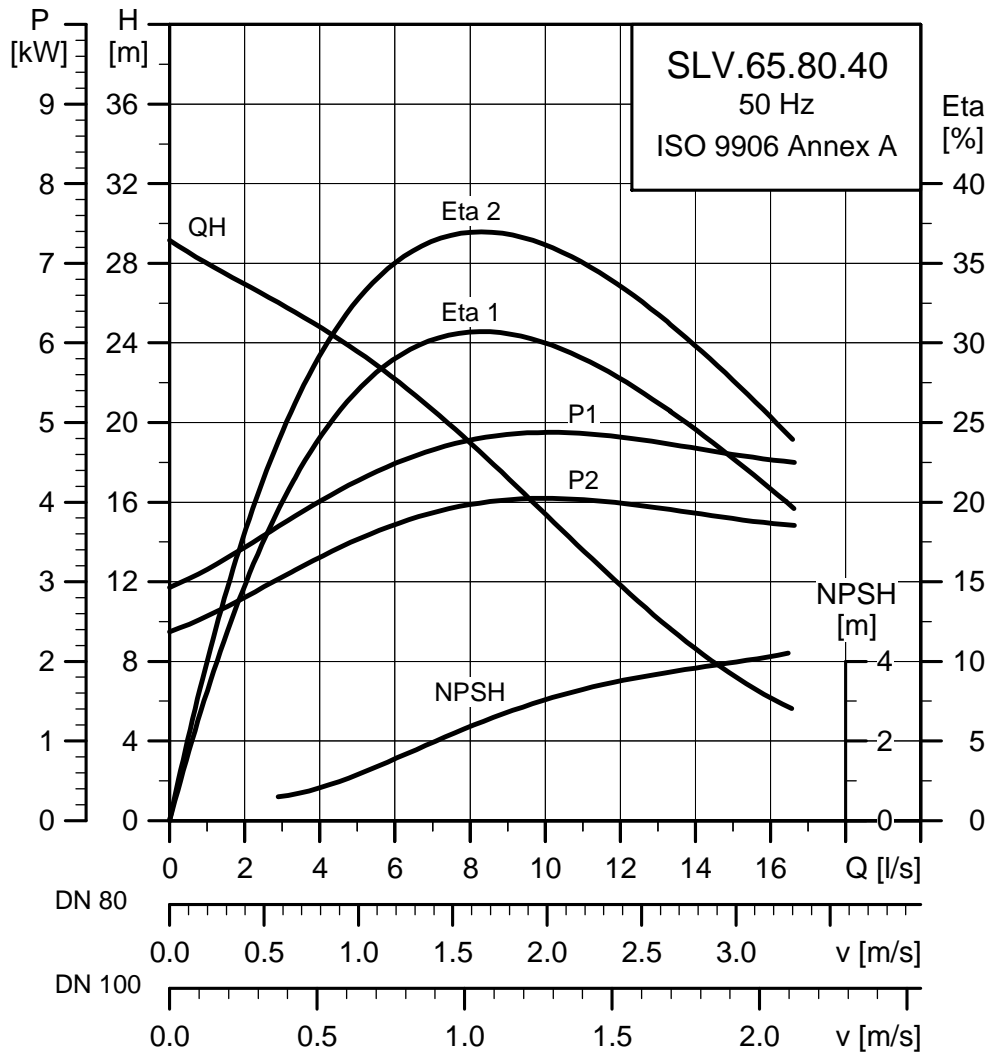
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SLV.65.80.30.2.50E	3 x 220-240 V D	3.8	3.0	2	2910	DOL	11.8	104	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.80.30.2.51D	3 x 380-415 V D	3.8	3.0	2	2910	SD	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.80.30.2.50D	3 x 380-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42
SLV.65.80.30.2.50B	3 x 400-415 V Y	3.8	3.0	2	2910	DOL	6.8	59.8	73.8	78.3	79.6	0.67	0.78	0.84	0.0098	42

Pump data

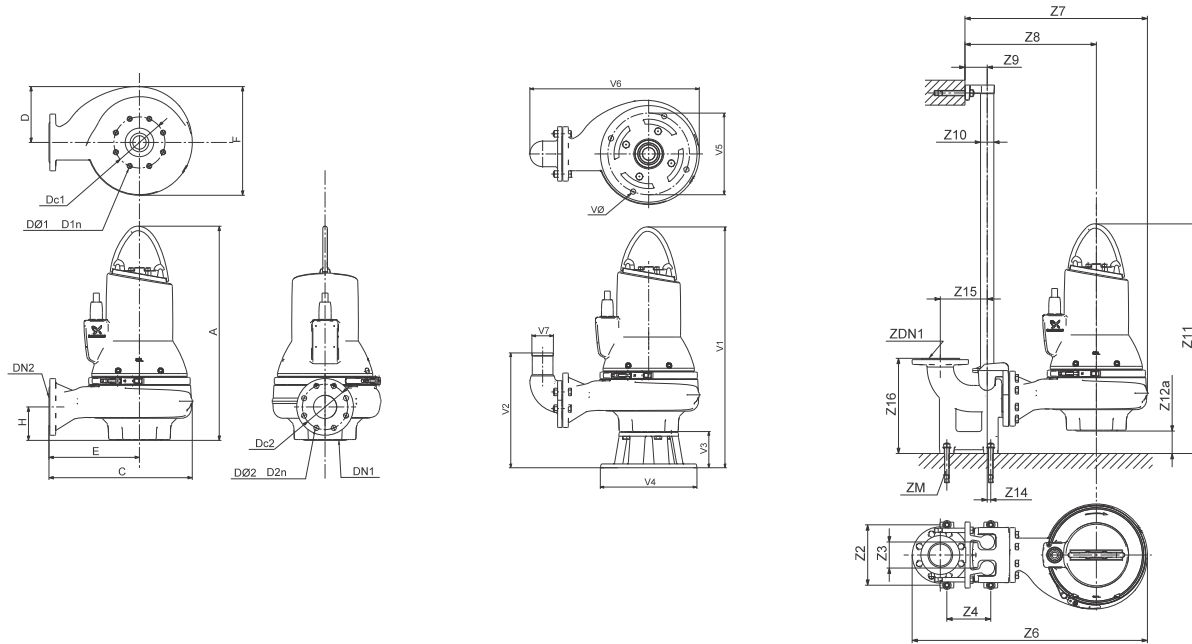
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

Performance curves SLV.65.80.40



TM04 3535 4608

Dimensional sketches SLV.65.80.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
718	455	200	276	379	106	80	160	8 x 16	80	160	8 x 18	117			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	808	616	437	81	1 1/2"	812	94	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
846	376	128	330	280	573	80	18								

Electrical data

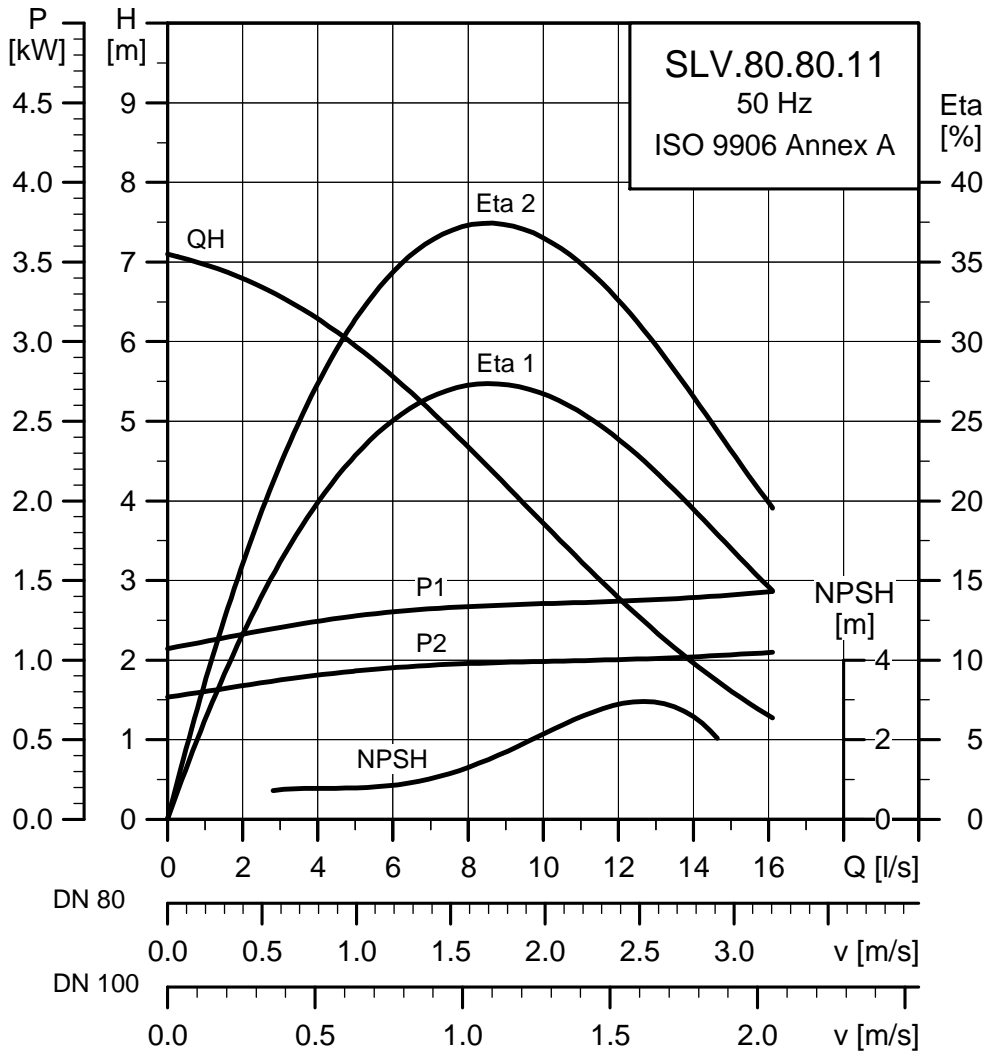
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N		I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	1/2	3/4	1/1		
SLV.65.80.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56			
SLV.65.80.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56			
SLV.65.80.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0126	56			

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	65	10	20	20	IP68	F	40	4-14

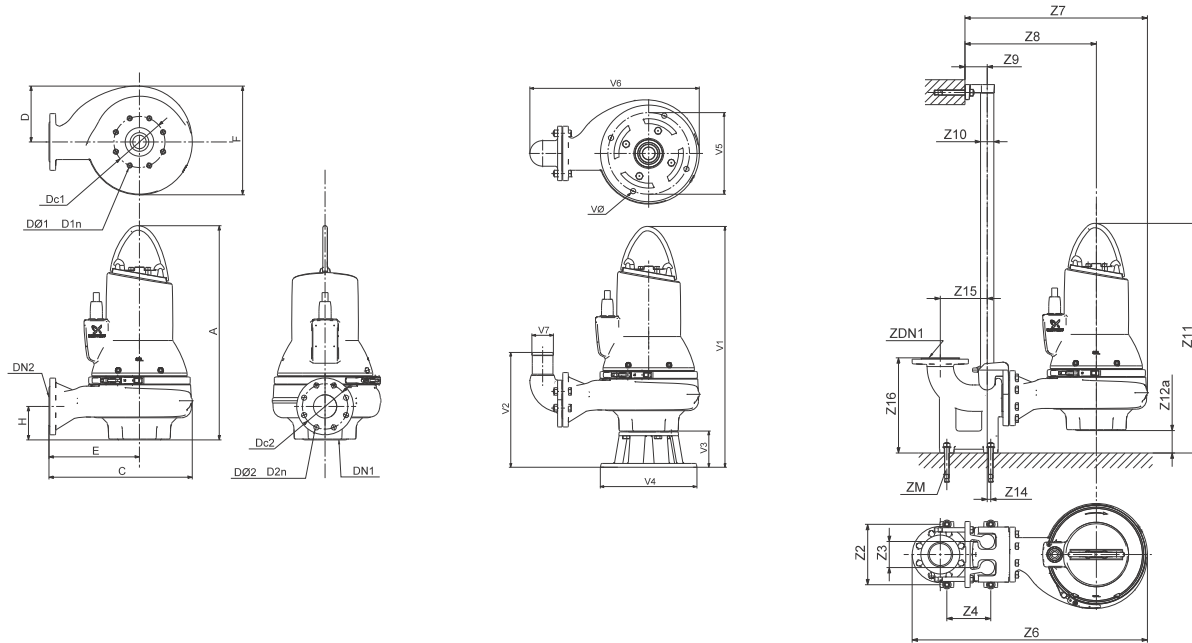
SLV.80.80

Performance curves SLV.80.80.11



TM04 3536 4608

Dimensional sketches SLV.80.80.11



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	409	171	241	339	109	80	160	8 x 18	80	160	8 x 18	94			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	762	569	402	81	1 1/2"	802	91	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
839	379	128	330	280	527	80	18								

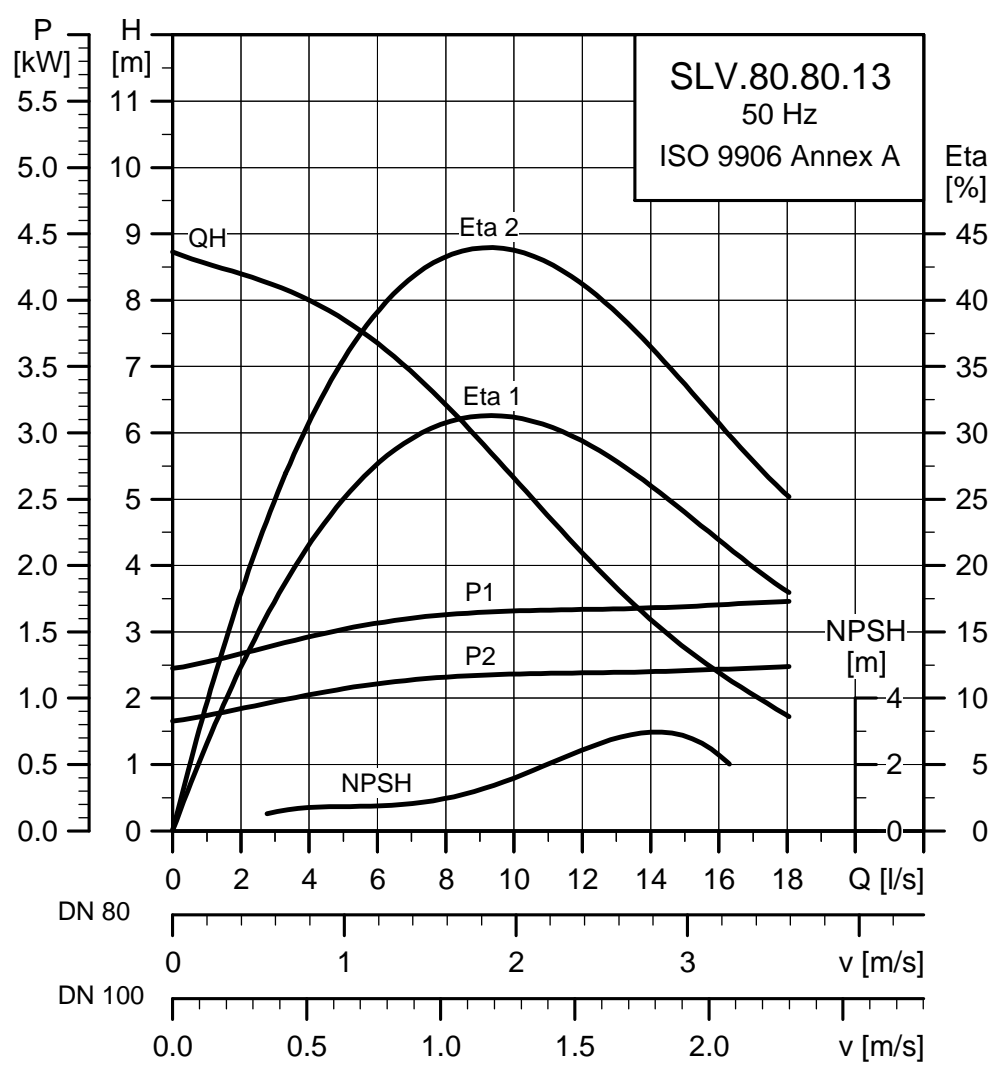
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		I _{start}			η _{motor} [%]			Cos φ			Moment of inertia [kgm ²]	Breakdown torque M _{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.11.4.50E	3 x 220-240 V D	1.5	1.1	4	1450	DOL	5.1	34	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26			
SLV.80.80.11.4.50D	3 x 380-415 V Y	1.5	1.1	4	1450	DOL	3.0	20	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26			
SLV.80.80.11.4.50B	3 x 400-415 V Y	1.5	1.1	4	1450	DOL	3.0	20	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26			

Pump data

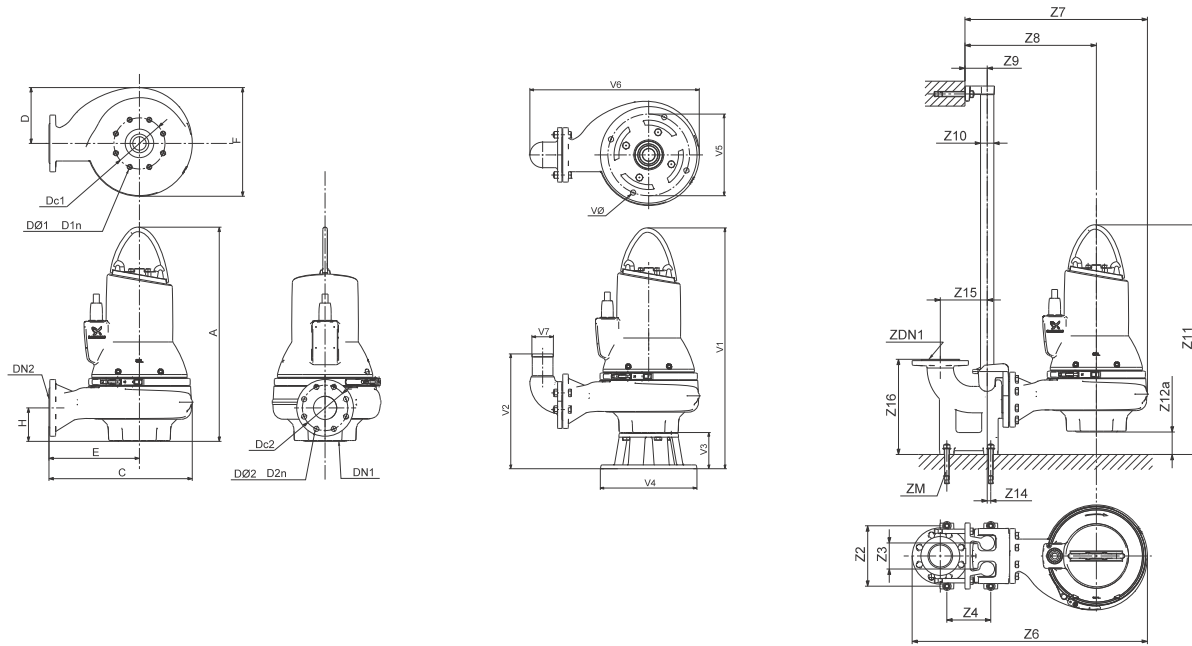
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.13



TM04 3537 4608

Dimensional sketches SLV.80.80.13



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	409	171	241	339	109	80	160	8 x 18	80	160	8 x 18	94			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	762	569	402	81	1 1/2"	802	91	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
839	379	128	330	280	527	80	18								

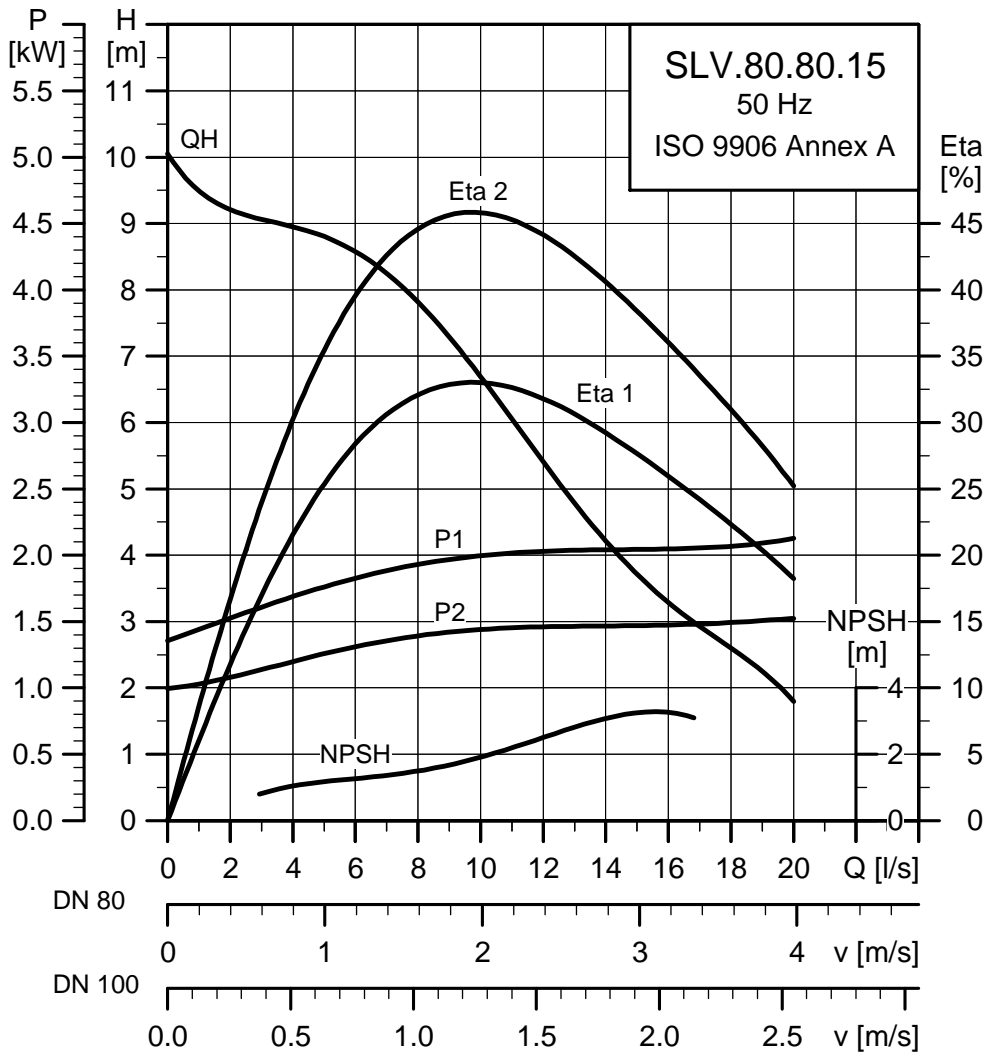
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.80.13.4.50E	3 x 220-240 V D	1.8	1.3	4	1460	DOL	6.2	26	68.2	74.2	76.4	0.53	0.65	0.73	0.0165	34				
SLV.80.80.13.4.50D	3 x 380-415 V Y	1.8	1.3	4	1460	DOL	3.6	26	68.2	74.2	76.4	0.53	0.65	0.73	0.0165	34				
SLV.80.80.13.4.50B	3 x 400-415 V Y	1.8	1.3	4	1460	DOL	3.6	22	68.2	74.2	76.4	0.53	0.65	0.73	0.0165	34				

Pump data

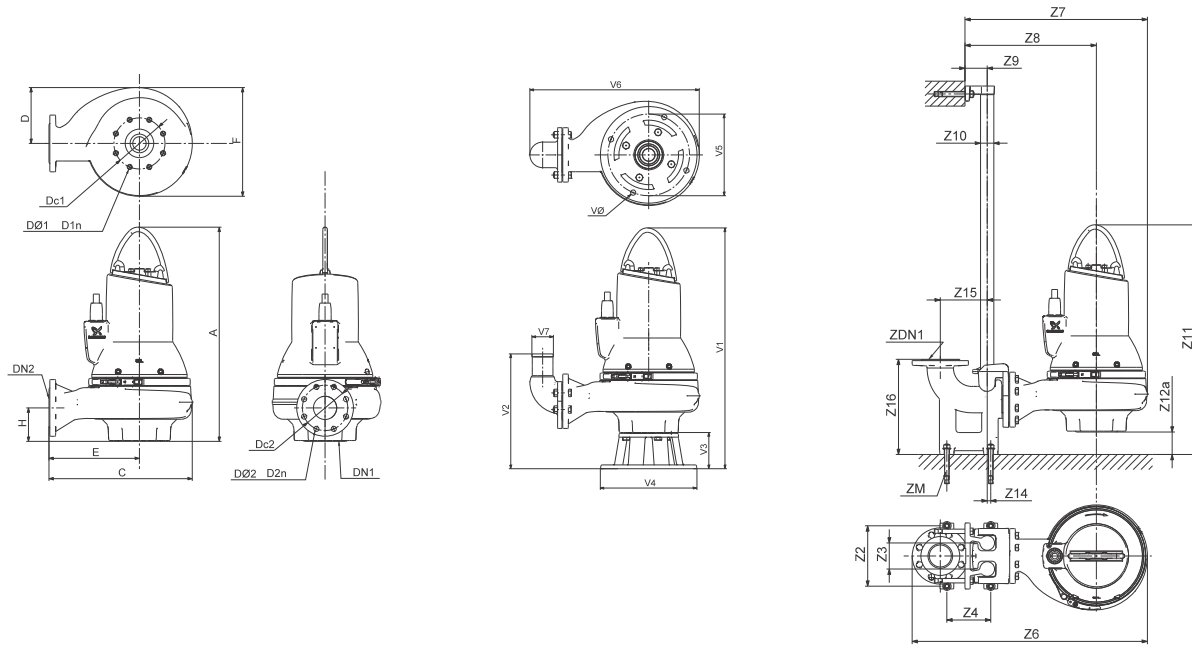
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.15



TM04 3538 4608

Dimensional sketches SLV.80.80.15



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	409	171	241	339	109	80	160	8 x 16	80	160	8 x 18	94			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	762	569	402	81	1 1/2"	802	91	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
839	379	128	330	280	527	80	18								

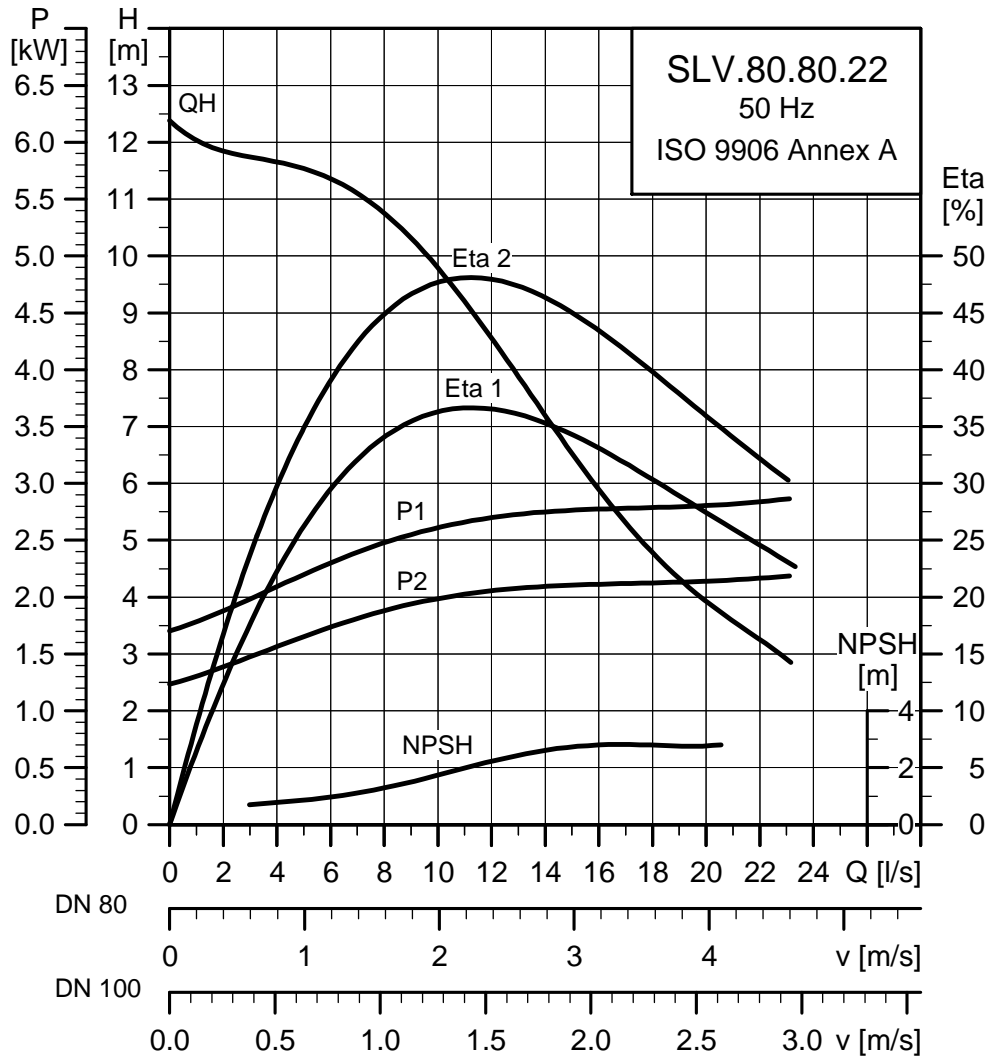
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.15.4.50E	3 x 220-240 V D	2.1	1.5	4	1450	DOL	6.8	45	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				
SLV.80.80.15.4.50D	3 x 380-415 V Y	2.1	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				
SLV.80.80.15.4.50B	3 x 400-415 V Y	2.1	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				

Pump data

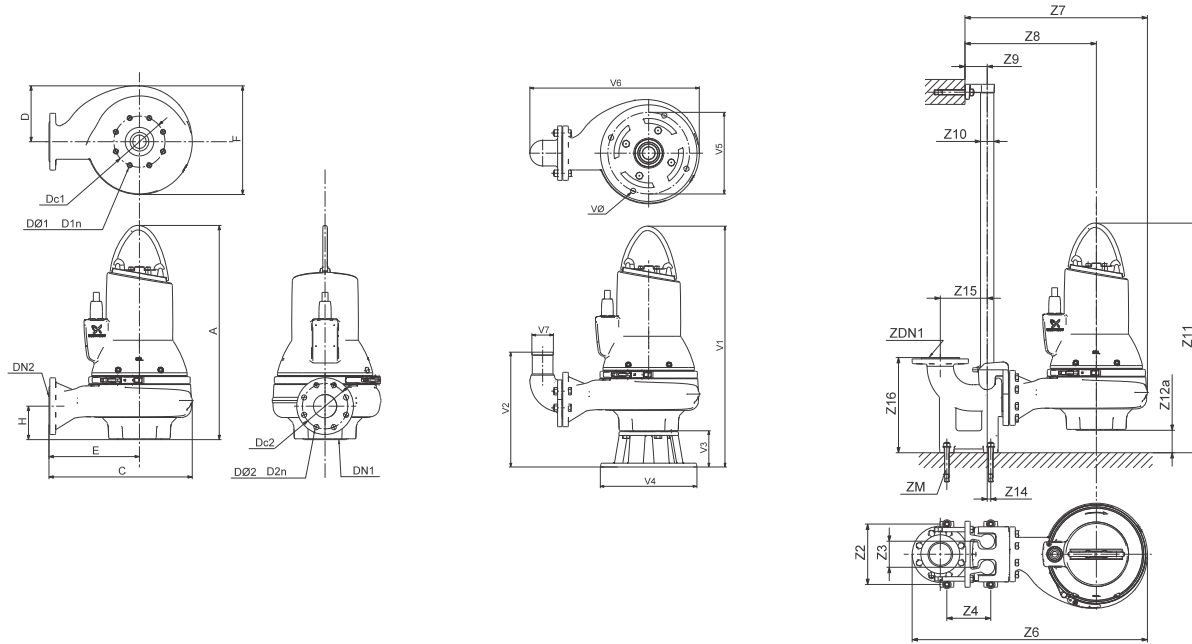
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.22



TM04 3539 4608

Dimensional sketches SLV.80.80.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	409	171	241	339	109	80	160	8 x 16	80	160	8 x 18	106			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	762	569	402	81	1 1/2"	802	91	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
839	379	128	330	280	527	80	18								

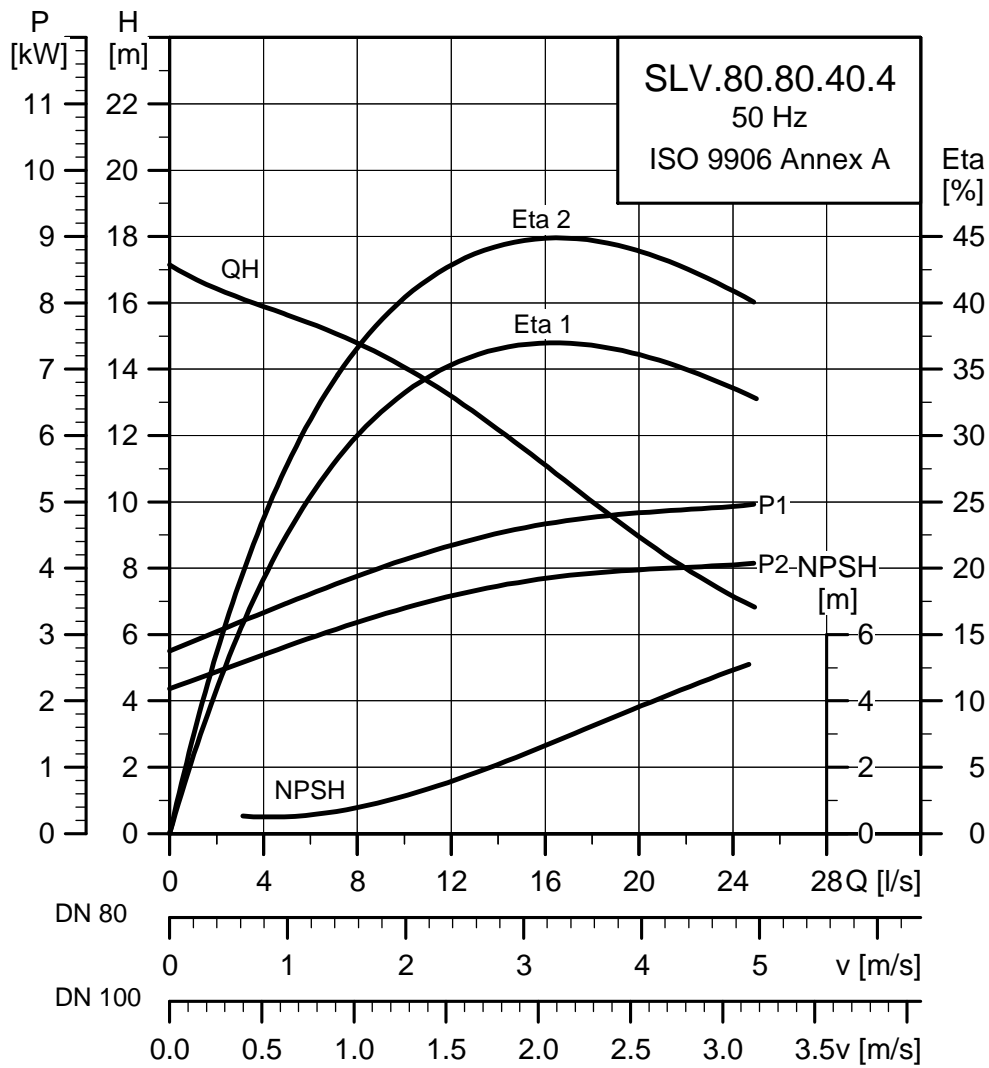
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.22.4.50E	3 x 220-240 V D	2.9	2.2	4	1460	DOL	9.1	66	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.80.22.4.51D	3 x 380-415 V D	2.9	2.2	4	1460	SD	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.80.22.4.50D	3 x 380-415 V Y	2.9	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.80.22.4.50B	3 x 400-415 V Y	2.9	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				

Pump data

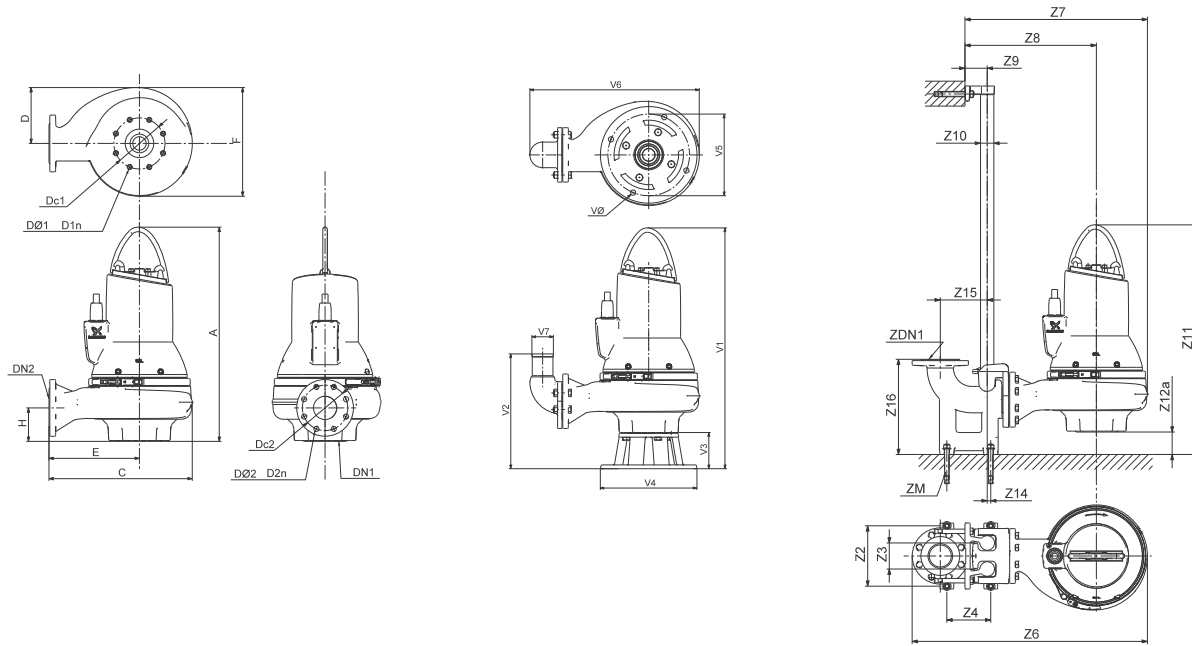
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.40 - 4-pole



TM04 3540 4608

Dimensional sketches SLV.80.80.40 - 4-pole



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
748	460	200	267	393	109	80	160	8 x 16	80	160	8 x 18	134			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	813	620	428	81	1 1/2"	840	97	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
876	379	128	330	280	578	80	18								

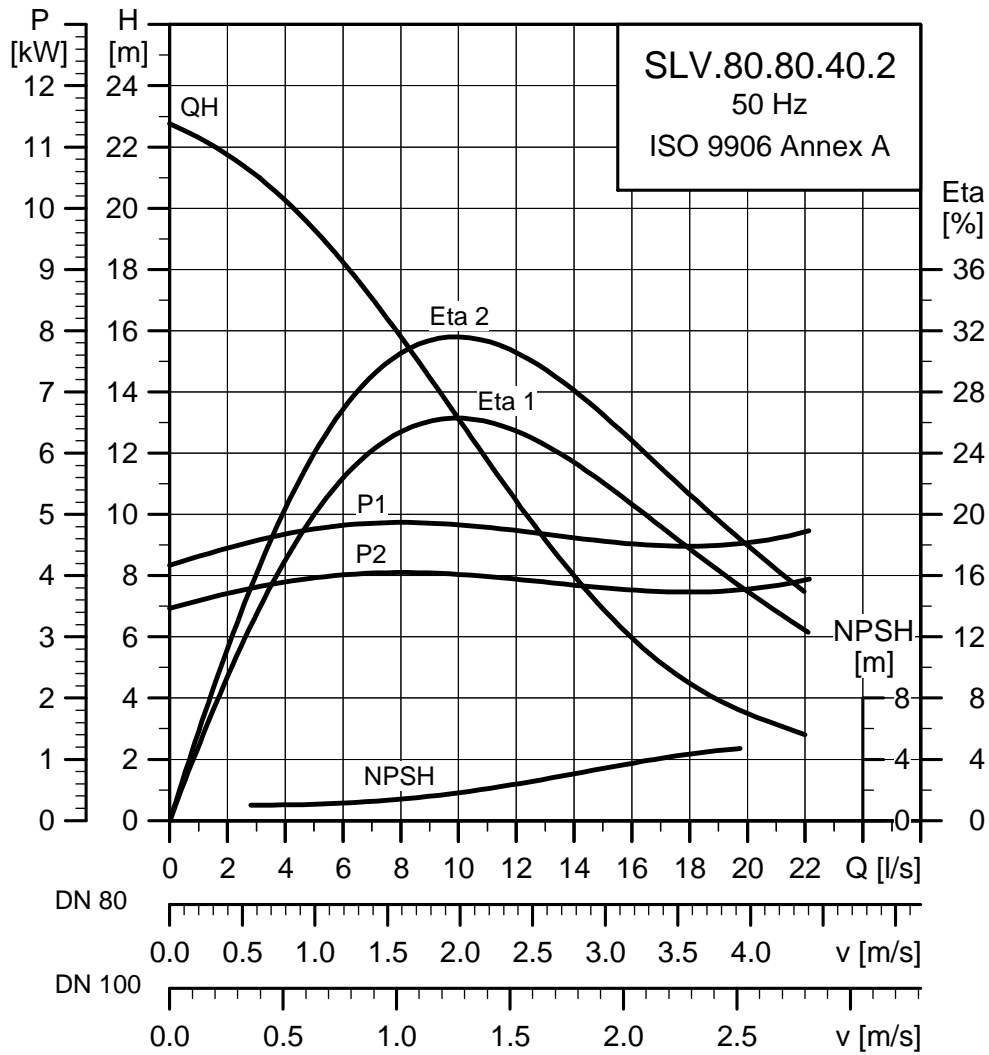
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				
SLV.80.80.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				
SLV.80.80.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				

Pump data

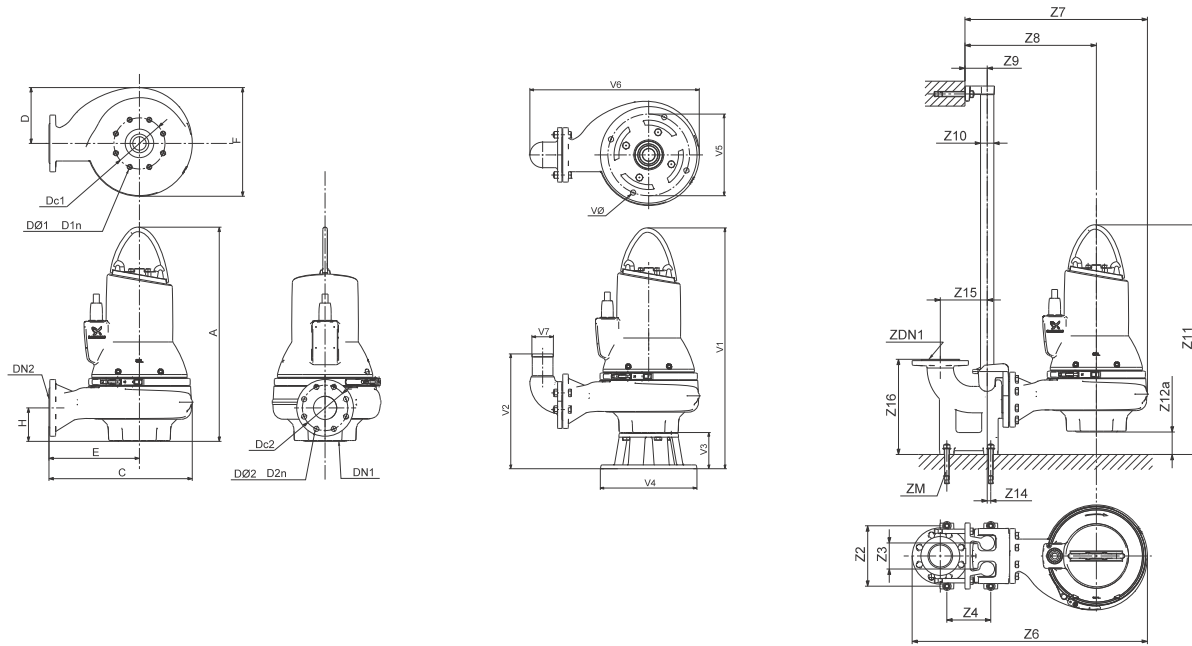
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.40 - 2-pole



TM04 3541 4608

Dimensional sketches SLV.80.80.40 - 2-pole



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
744	456	200	276	380	104	80	160	8 x 16	80	160	8 x 18	121			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	809	617	437	81	1 1/2"	840	96	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
872	374	128	330	280	574	80	18								

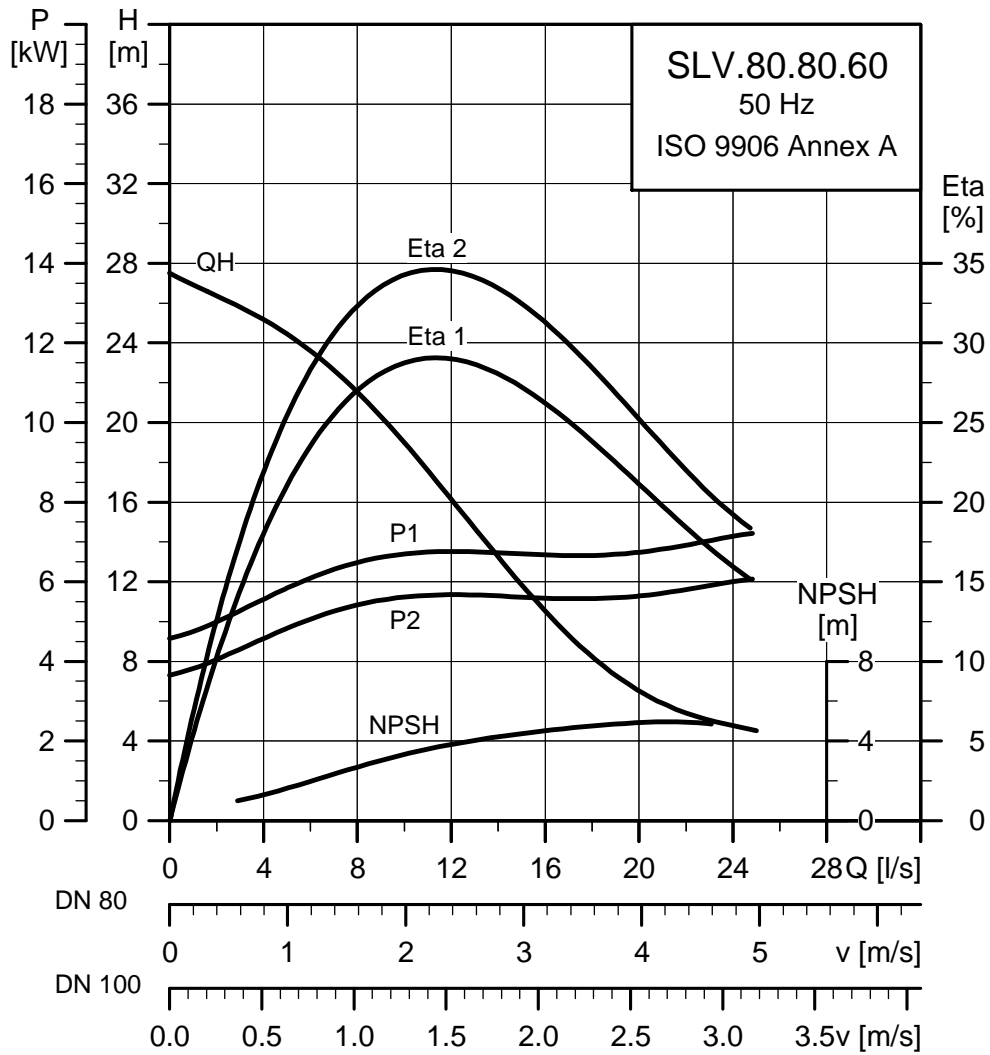
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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	1/2	3/4	1/1		
SLV.80.80.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				
SLV.80.80.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				
SLV.80.80.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				

Pump data

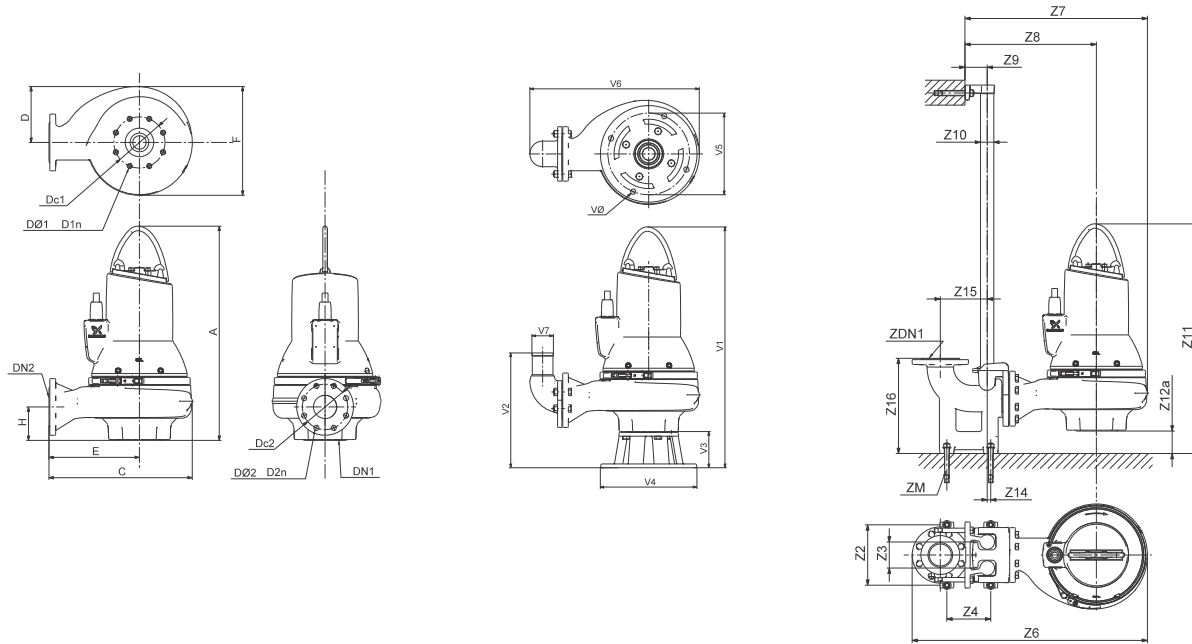
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.60



TM04 3542 4608

Dimensional sketches SLV.80.80.60



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
751	456	200	276	380	104	80	160	8 x 16	80	160	8 x 18	140			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	809	617	437	81	1 1/2"	847	96	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
879	374	128	330	280	574	80	18								

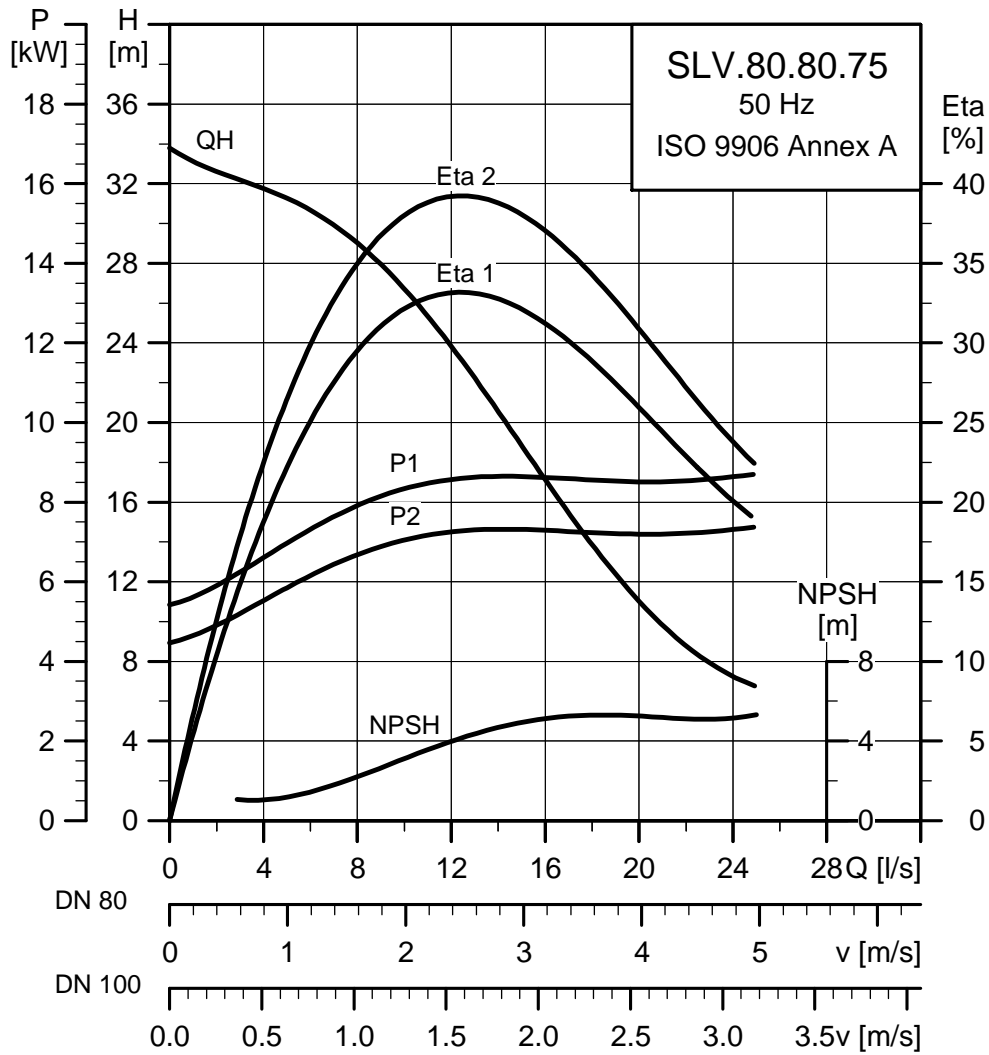
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.80.60.2.51E	3 x 220-240 V D	6.9	6.0	2	2940	SD	21.7	211	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				
SLV.80.80.60.2.51D	3 x 380-415 V D	6.9	6.0	2	2940	SD	12.5	122	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				
SLV.80.80.60.2.50B	3 x 400-415 V D	6.9	6.0	2	2940	DOL	12.5	122	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				

Pump data

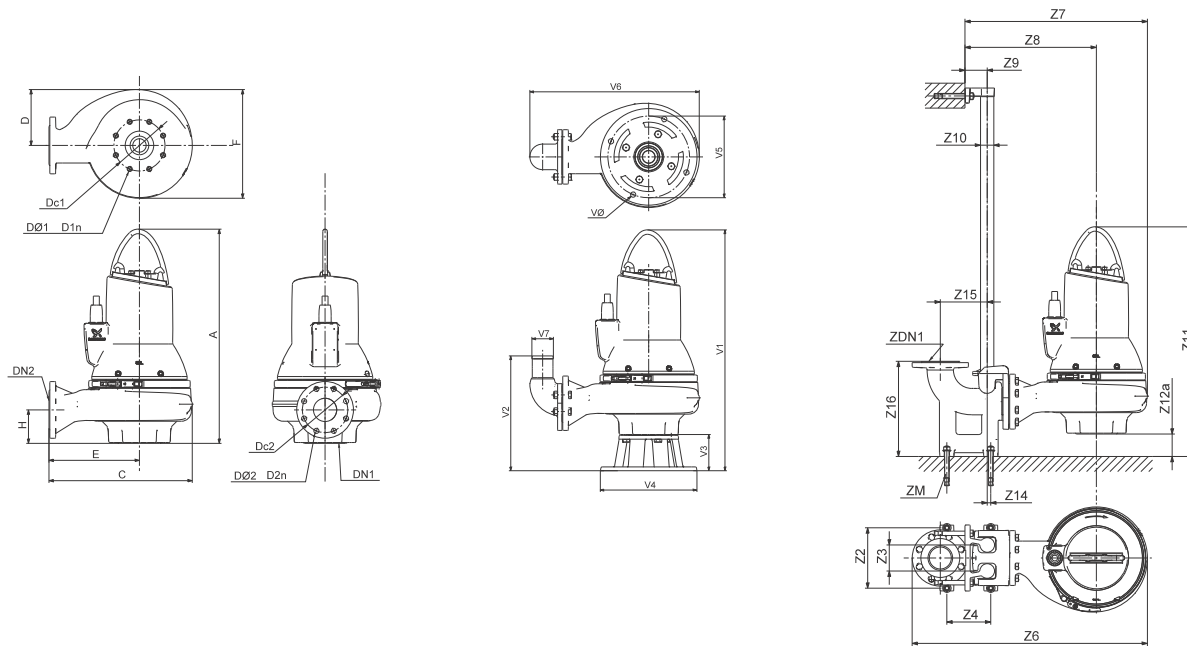
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.75



TM04 3543 4608

Dimensional sketches SLV.80.80.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
751	456	200	276	380	104	80	160	8 x 16	80	160	8 x 18	141			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	809	617	437	81	1 1/2"	847	96	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
879	374	128	330	280	574	80	18								

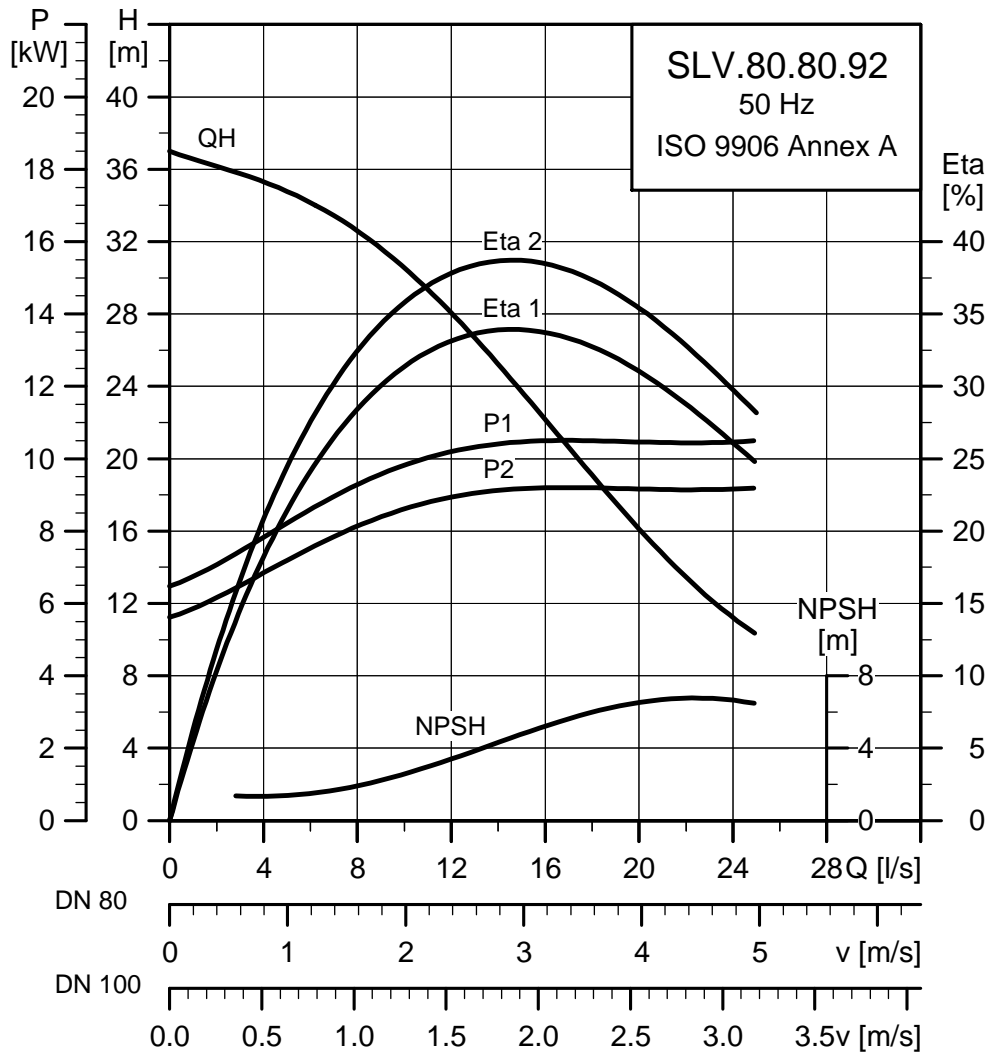
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.80.75.2.51E	3 x 220-240 V D	8.7	7.5	2	2920	SD	26.2	211	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				
SLV.80.80.75.2.51D	3 x 380-415 V D	8.7	7.5	2	2920	SD	15.1	122	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				
SLV.80.80.75.2.50B	3 x 400-415 V D	8.7	7.5	2	2920	DOL	15.1	122	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				

Pump data

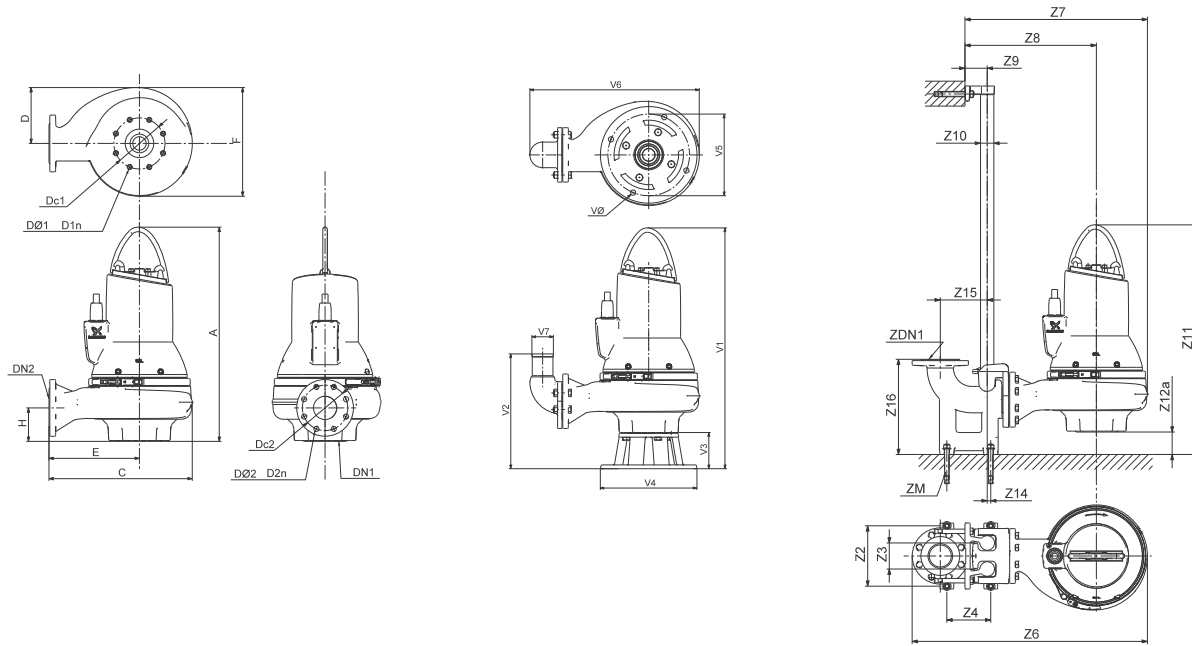
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.92



TM04 3544 4608

Dimensional sketches SLV.80.80.92



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
782	489	217	293	413	123	80	160	8 x 16	80	160	8 x 18	183			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	842	650	454	81	1 1/2"	859	77	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
910	393	128	330	280	607	80	18								

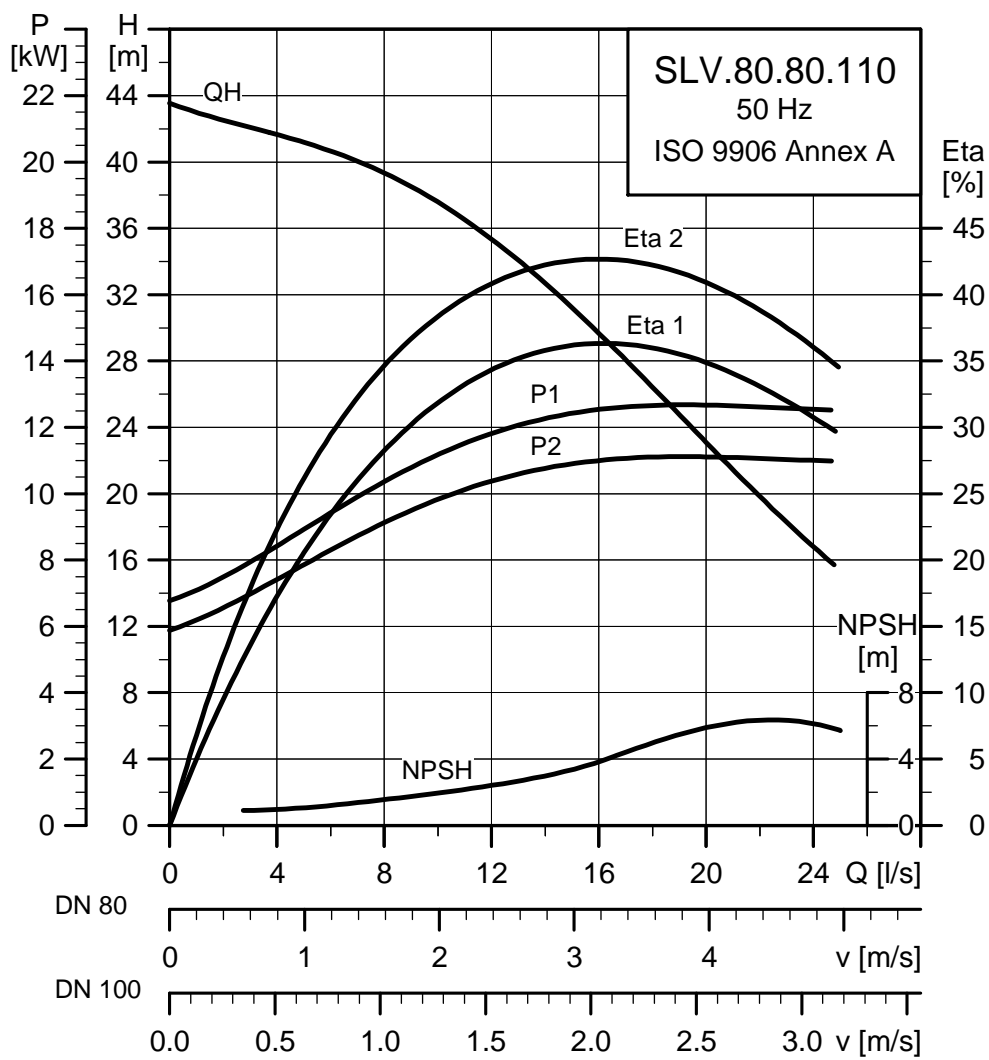
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.92.2.51E	3 x 220-240 V D	10.5	9.2	2	2960	SD	31.2	288	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				
SLV.80.80.92.2.51D	3 x 380-415 V D	10.5	9.2	2	2960	SD	18.0	166	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				
SLV.80.80.92.2.50B	3 x 400-415 V D	10.5	9.2	2	2960	DOL	18.0	166	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				

Pump data

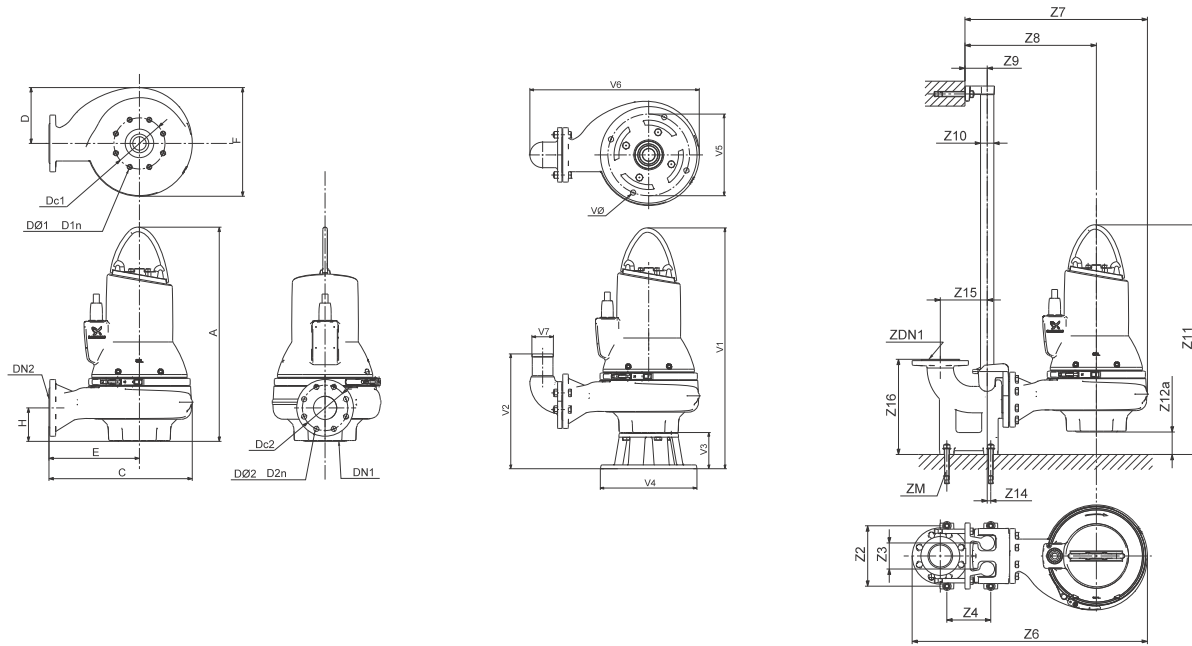
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.80.110



TM04 3545 4608

Dimensional sketches SLV.80.80.110



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
782	489	217	293	413	123	80	160	8 x 16	80	160	8 x 18	183			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
220	95	160	842	650	454	81	1 1/2"	859	77	13	171	345	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
910	393	128	330	280	607	80	18								

Electrical data

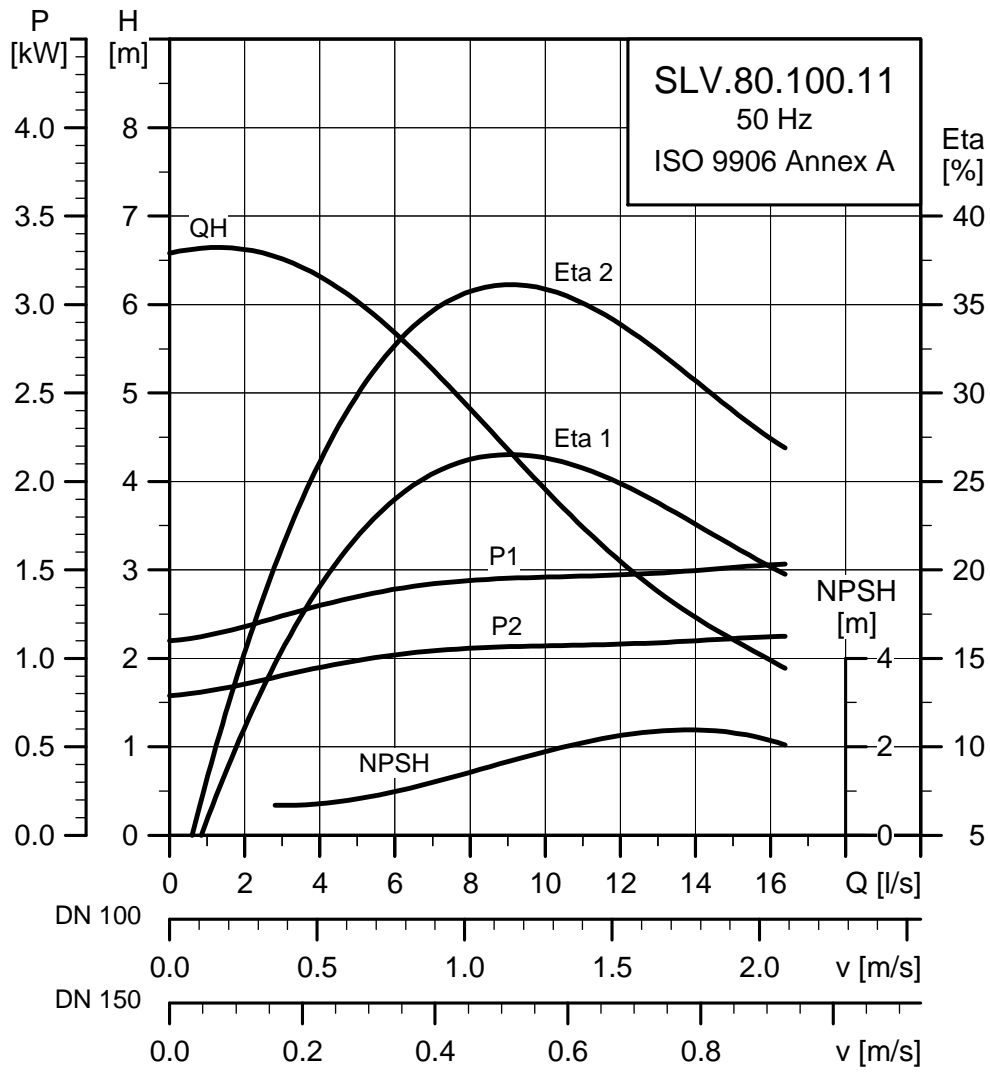
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.80.110.2.51E	3 x 220-240 V D	12.5	11.0	2	2950	SD	37.1	288	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				
SLV.80.80.110.2.51D	3 x 380-415 V D	12.5	11.0	2	2950	SD	21.4	166	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				
SLV.80.80.110.2.50B	3 x 400-415 V D	12.5	11.0	2	2950	DOL	21.4	166	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

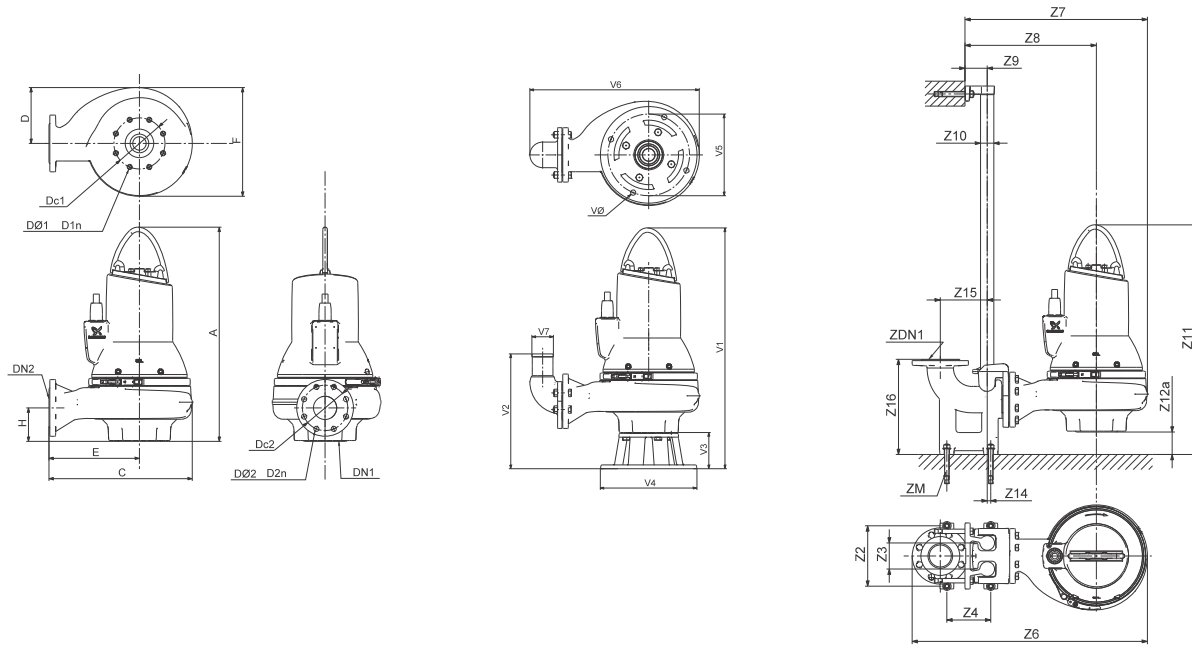
SLV.80.100

Performance curves SLV.80.100.11



TM04 3550 4608

Dimensional sketches SLV.80.100.11



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	407	171	241	337	109	80	160	8 x 16	100	180	8 x 18	95			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	850	624	458	110	2"	842	131	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
840	354	128	330	280	549	100	18								

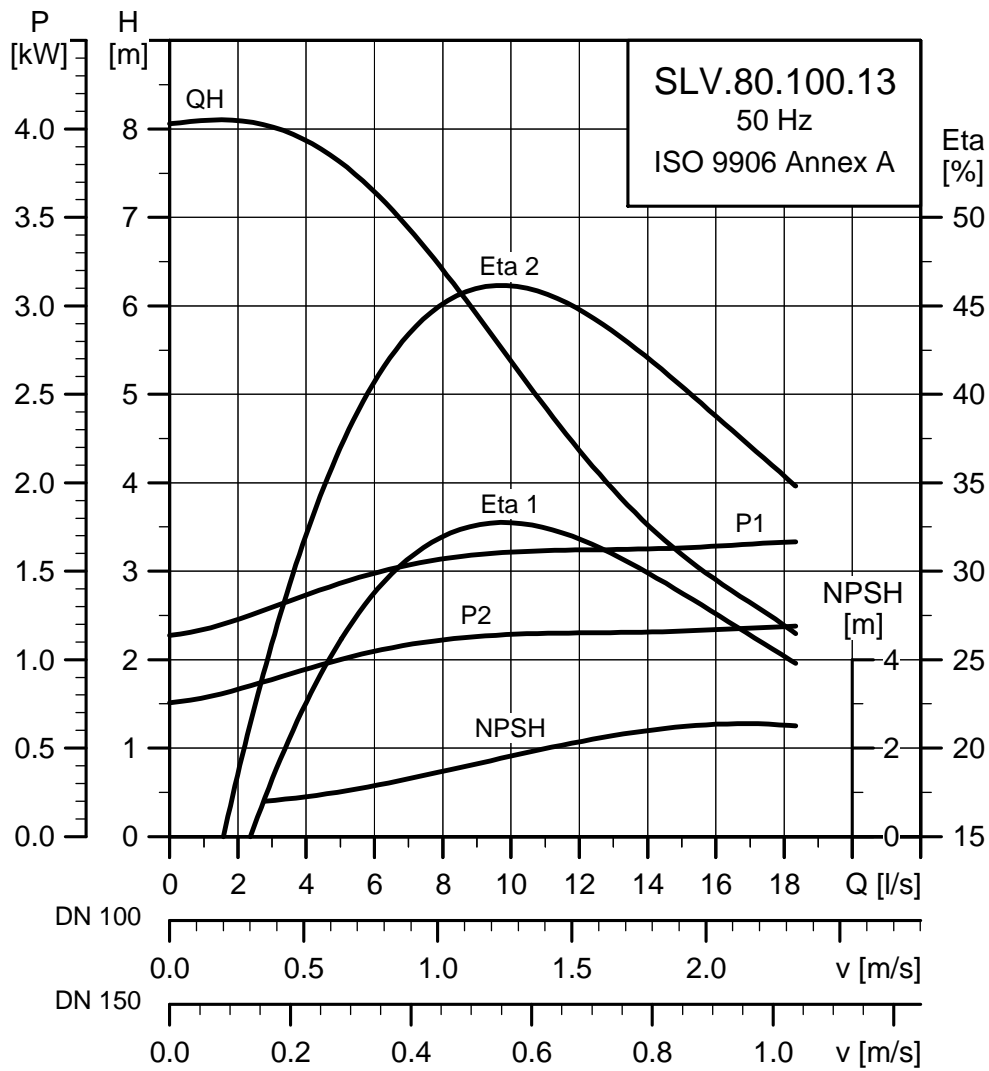
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.100.11.4.50E	3 x 220-240 V D	1.5	1.1	4	1450	DOL	5.1	34	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26				
SLV.80.100.11.4.50D	3 x 380-415 V Y	1.5	1.1	4	1450	DOL	3.0	20	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26				
SLV.80.100.11.4.50B	3 x 400-415 V Y	1.5	1.1	4	1450	DOL	3.0	20	67.2	72.7	75.2	0.58	0.68	0.75	0.0142	26				

Pump data

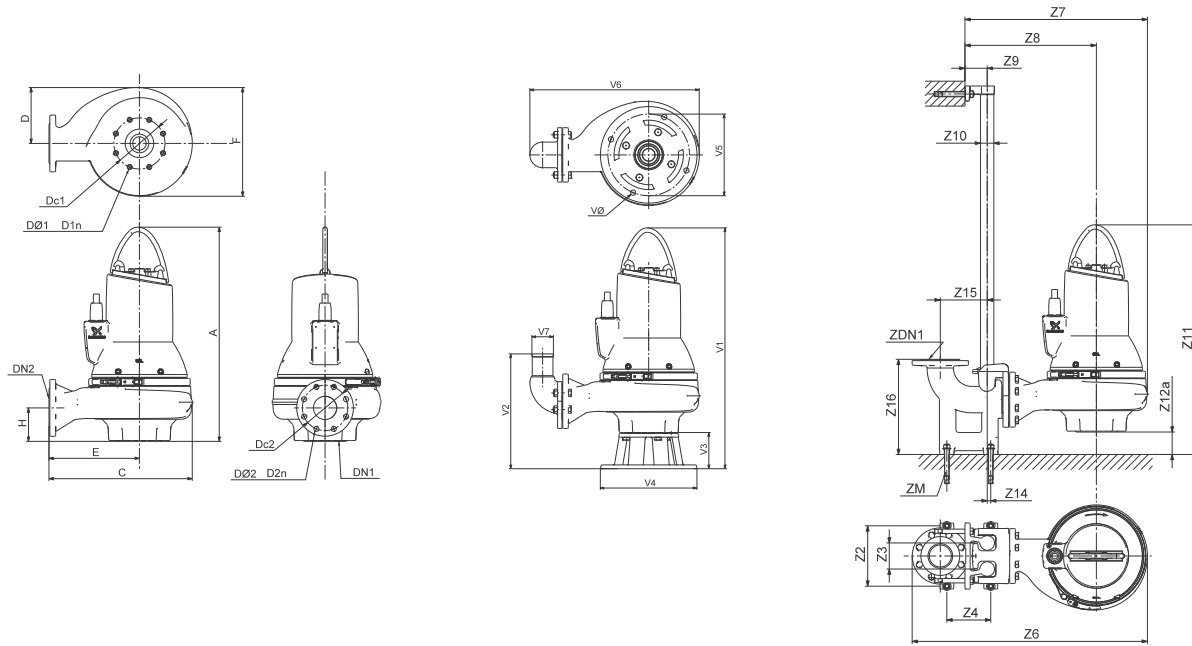
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.13



TM04 3551 4608

Dimensional sketches SLV.80.100.13



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	407	171	241	337	109	80	160	8 x 16	100	180	8 x 18	95			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	270	850	624	458	110	2"	842	131	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
840	354	128	330	280	549	100	18								

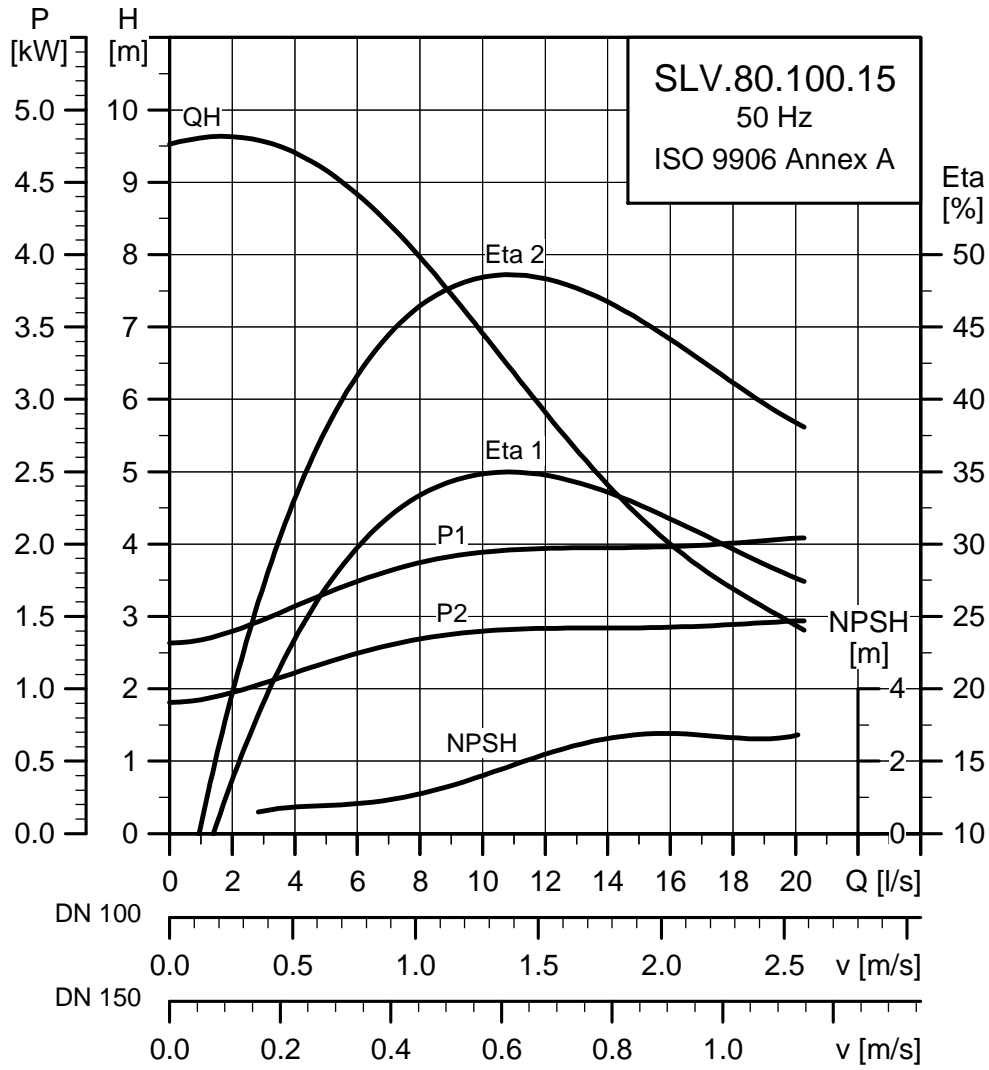
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.100.13.4.50E	3 x 220-240 V D	1.8	1.3	4	1460	DOL	6.2	26	68.2	74.2	76.4	0.53	0.65	0.73	0.0165	34				
SLV.80.100.13.4.50D	3 x 380-415 V Y	1.8	1.3	4	1460	DOL	3.6	26	68.2	74.2	76.4	0.53	0.65	0.73	0.0165	34				

Pump data

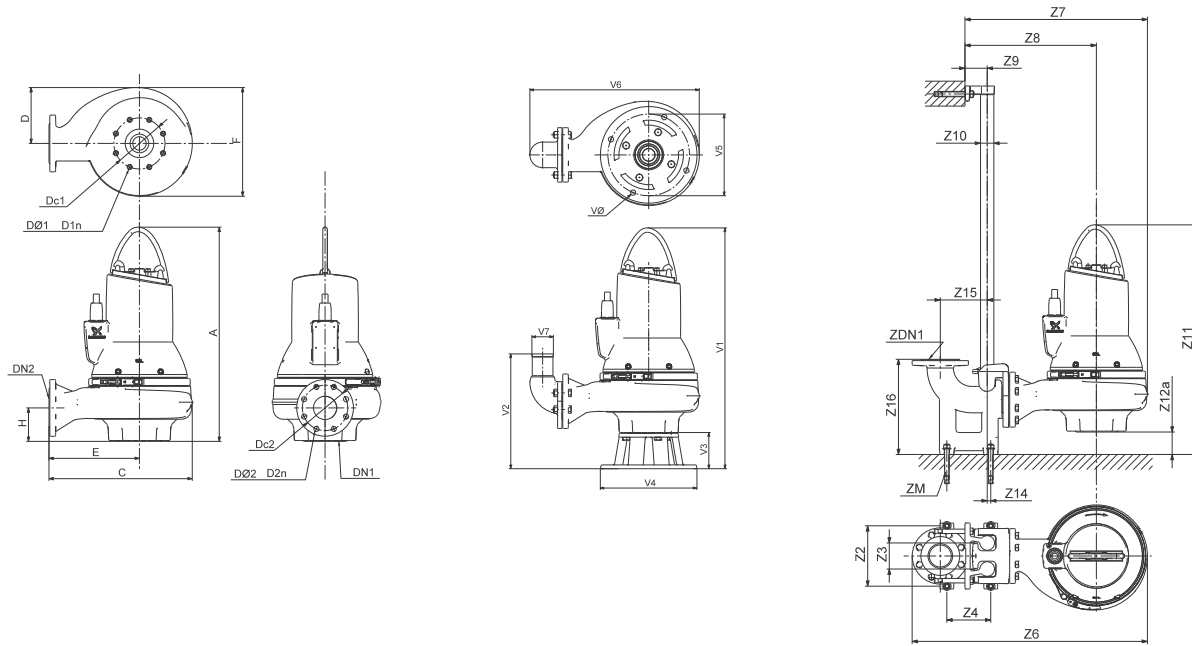
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.15



TM04 3552 4608

Dimensional sketches SLV.80.100.15



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	407	171	241	337	109	80	160	8 x 16	100	180	8 x 18	95			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	850	624	458	110	2"	842	131	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
840	354	128	330	280	549	100	18								

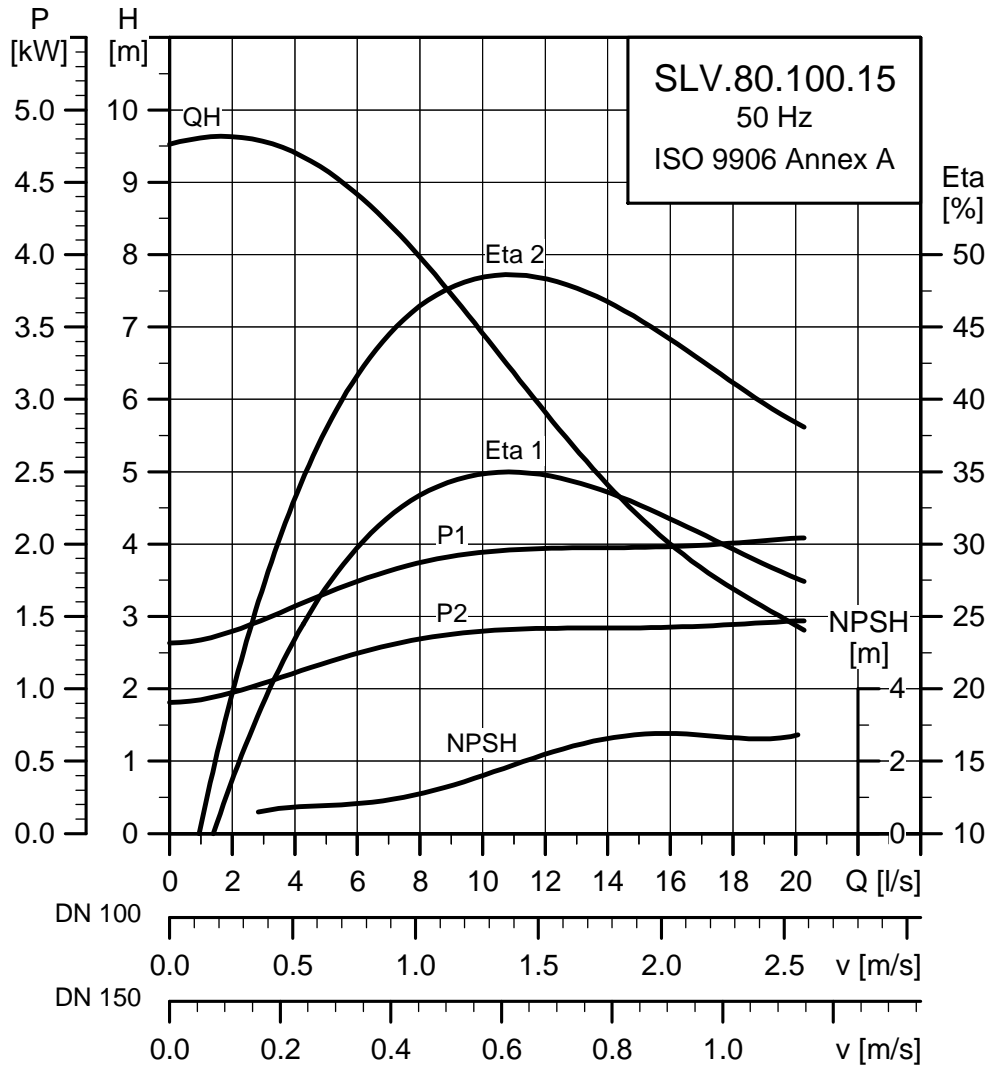
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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	1/2	3/4	1/1		
SLV.80.100.15.4.50E	3 x 220-240 V D	1.9	1.5	4	1450	DOL	6.8	45	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				
SLV.80.100.15.4.50D	3 x 380-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				
SLV.80.100.15.4.50B	3 x 400-415 V Y	1.9	1.5	4	1450	DOL	3.9	26	70.6	75.4	77.1	0.57	0.68	0.76	0.0185	34				

Pump data

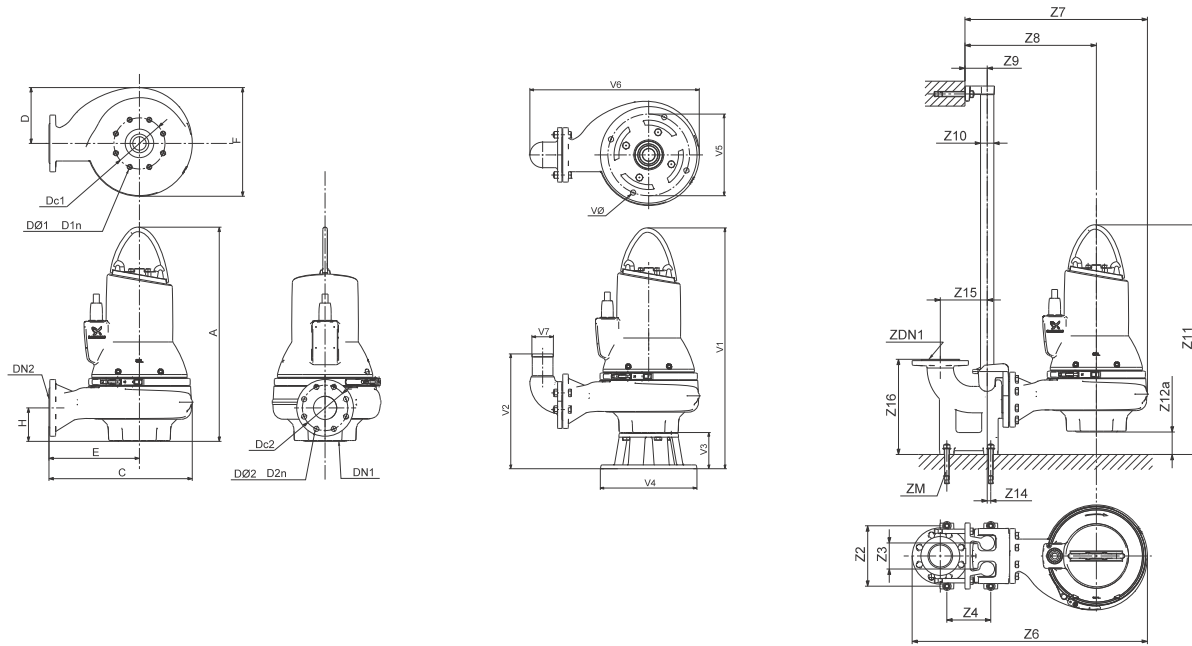
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.22



TM04 3553 4608

Dimensional sketches SLV.80.100.22



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
711	407	171	241	337	109	80	160	8 x 16	100	180	8 x 18	107			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	270	850	624	458	110	2"	842	131	0	220	413	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
840	354	128	330	280	549	100	18								

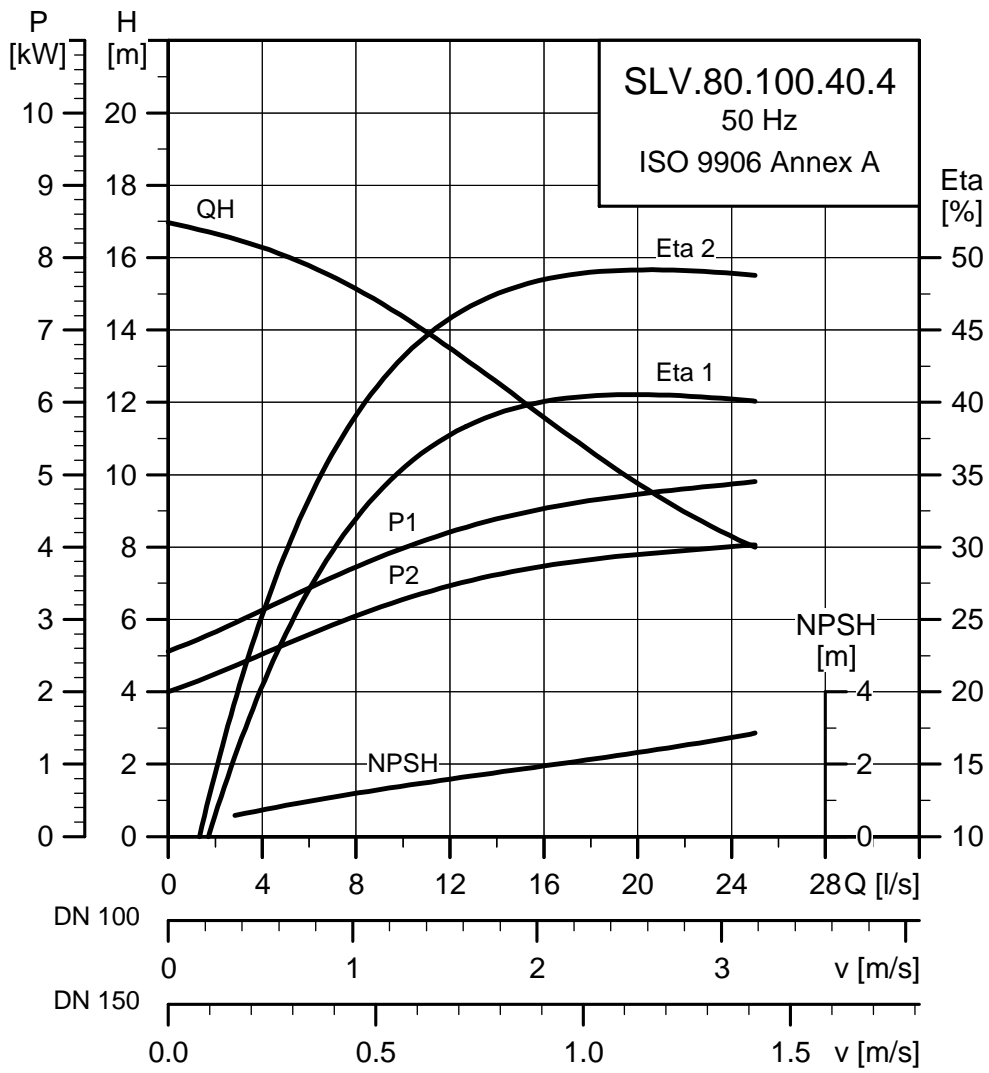
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.100.22.4.50E	3 x 220-240 V D	2.7	2.2	4	1460	DOL	9.1	66	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.100.22.4.51D	3 x 380-415 V D	2.7	2.2	4	1460	SD	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.100.22.4.50D	3 x 380-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				
SLV.80.100.22.4.50B	3 x 400-415 V Y	2.7	2.2	4	1460	DOL	5.3	38.3	78.4	81.7	82.7	0.58	0.70	0.77	0.0240	50				

Pump data

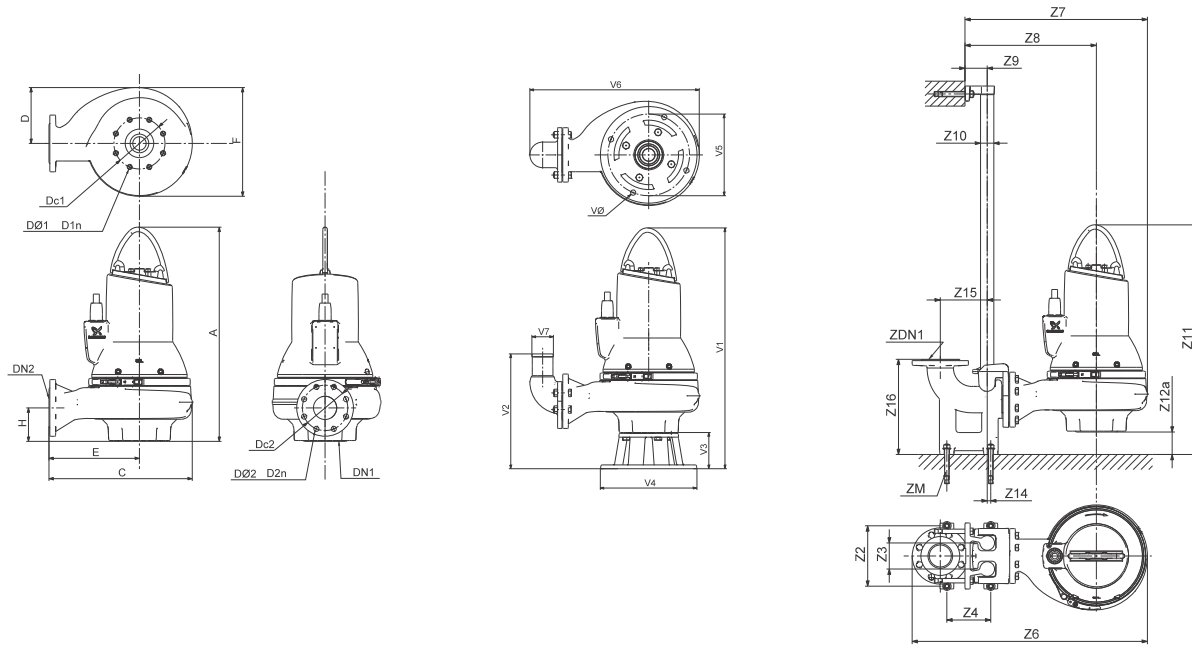
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.40 - 4-pole



TM04 3554 4608

Dimensional sketches SLV.80.100.40 - 4-pole



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
748	458	200	267	391	109	80	160	8 x 16	100	180	8 x 18	135			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	901	675	484	110	2"	857	131	0	220	413	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
876	354	128	330	280	600	100	18								

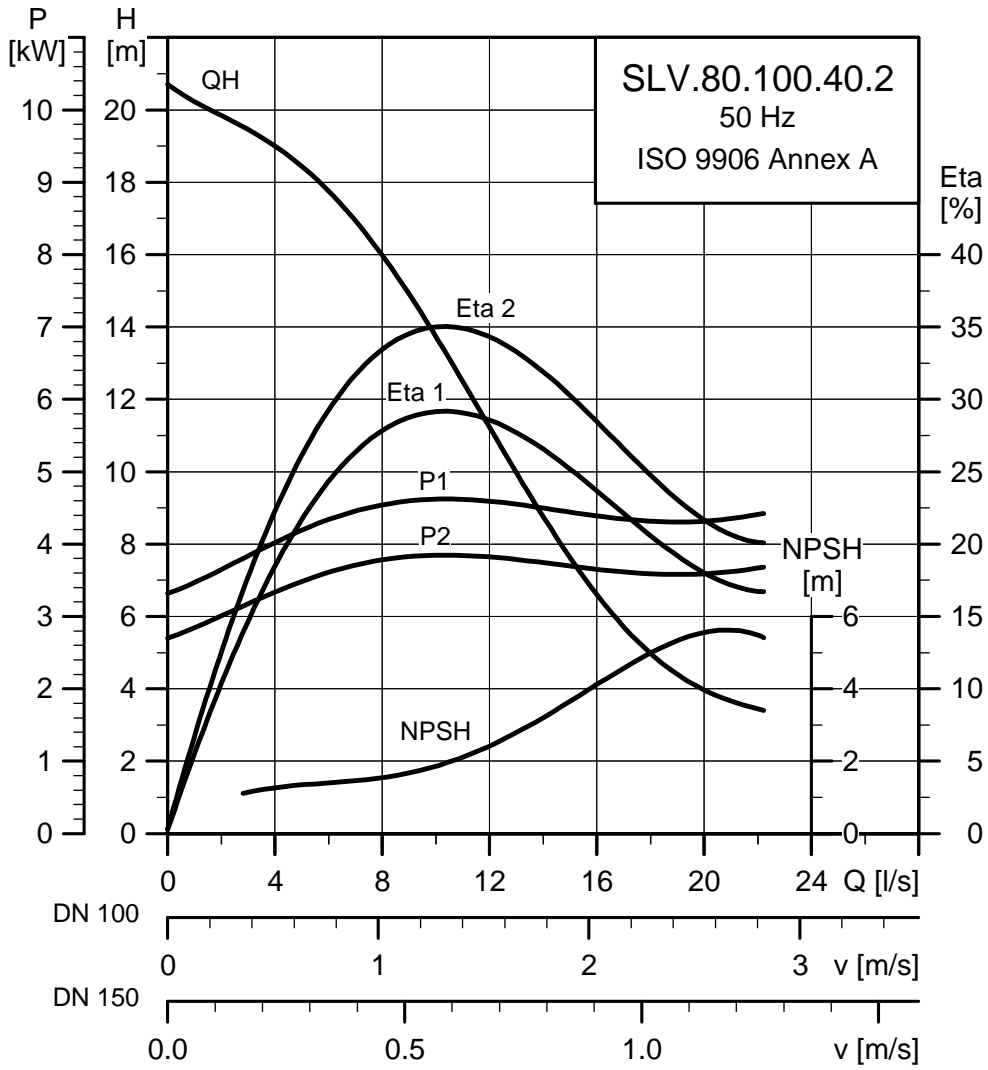
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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	1/2	3/4	1/1		
SLV.80.100.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				
SLV.80.100.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				
SLV.80.100.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0479	90				

Pump data

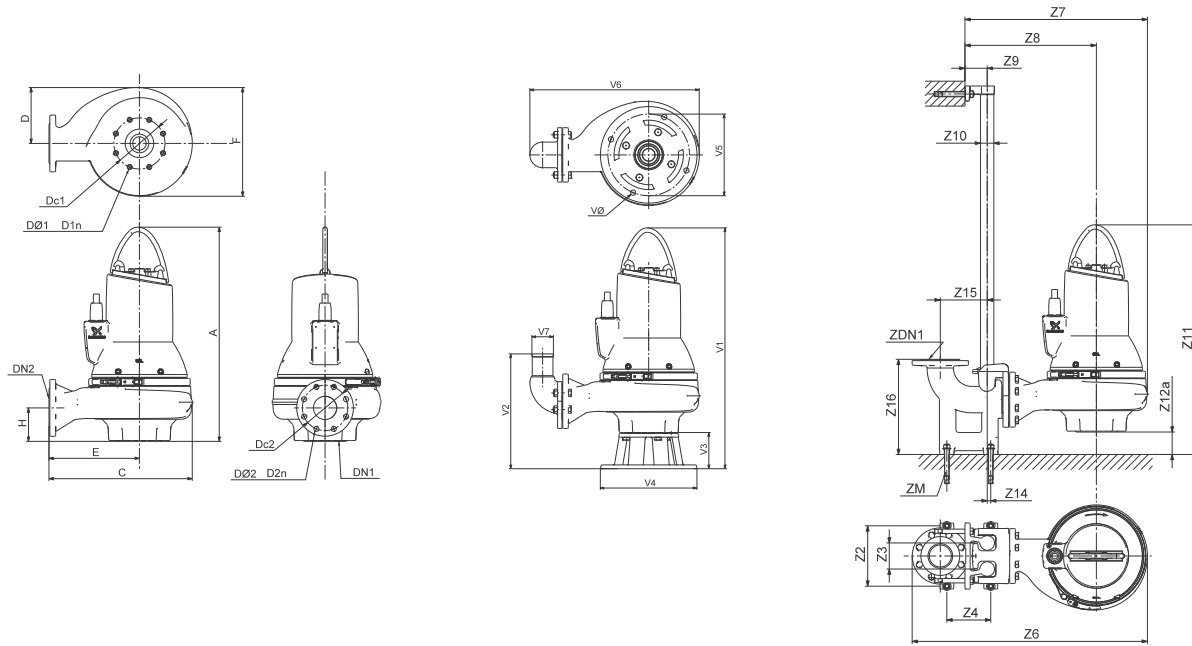
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.40 - 2-pole



TM04 3555 4608

Dimensional sketches SLV.80.100.40 - 2-pole



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
744	466	200	286	380	104	80	160	8 x 16	100	180	8 x 18	122			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	270	909	683	503	110	2"	876	136	0	220	413	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
872	353	128	330	280	598	100	18								

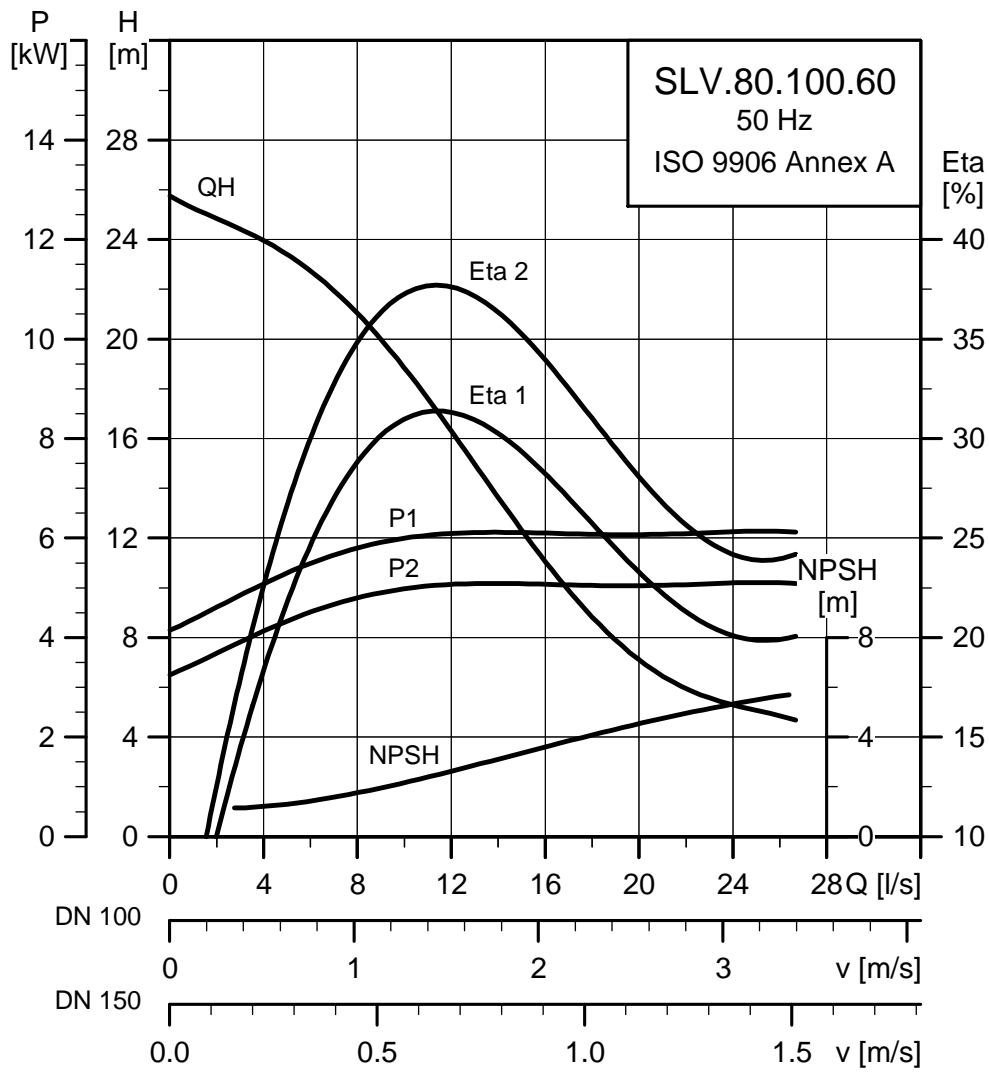
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.100.40.2.51E	3 x 220-240 V D	4.8	4.0	2	2930	SD	14.7	161	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				
SLV.80.100.40.2.51D	3 x 380-415 V D	4.8	4.0	2	2930	SD	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				
SLV.80.100.40.2.50B	3 x 400-415 V D	4.8	4.0	2	2925	DOL	8.5	93	75.8	80.9	82.7	0.71	0.82	0.87	0.0127	56				

Pump data

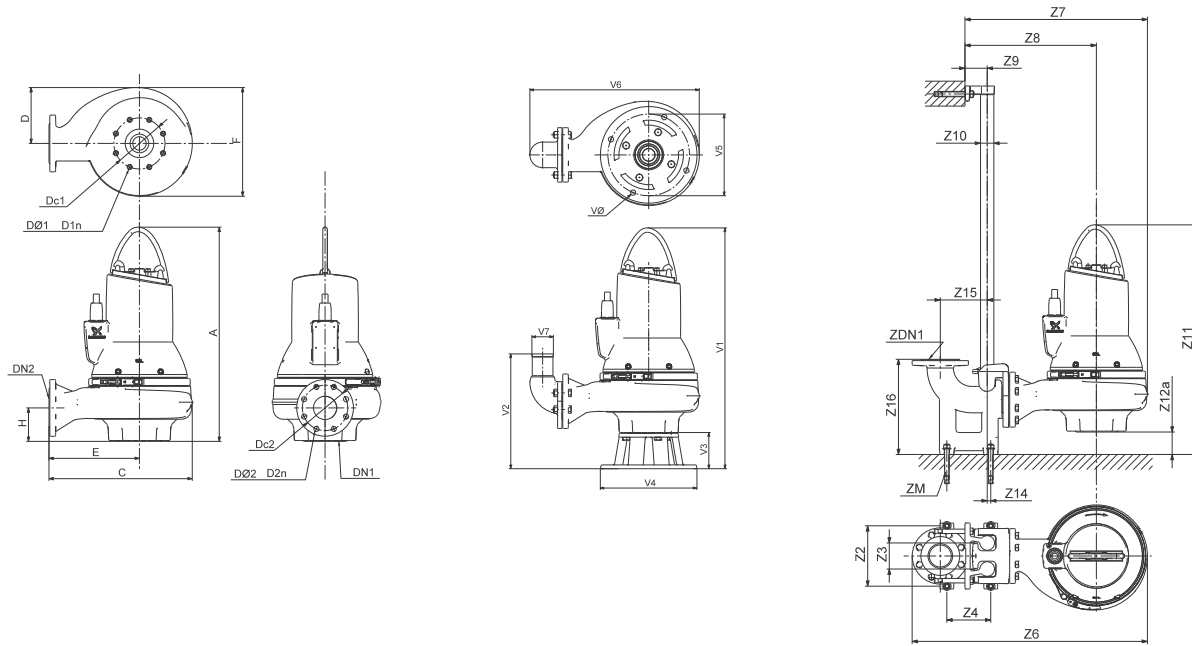
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.60



TM04 3556 4608

Dimensional sketches SLV.80.100.60



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
751	466	200	286	380	104	80	160	8 x 16	100	180	8 x 18	141			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	909	683	503	110	2"	883	136	0	220	413	160	80	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
879	353	128	330	280	598	100	18								

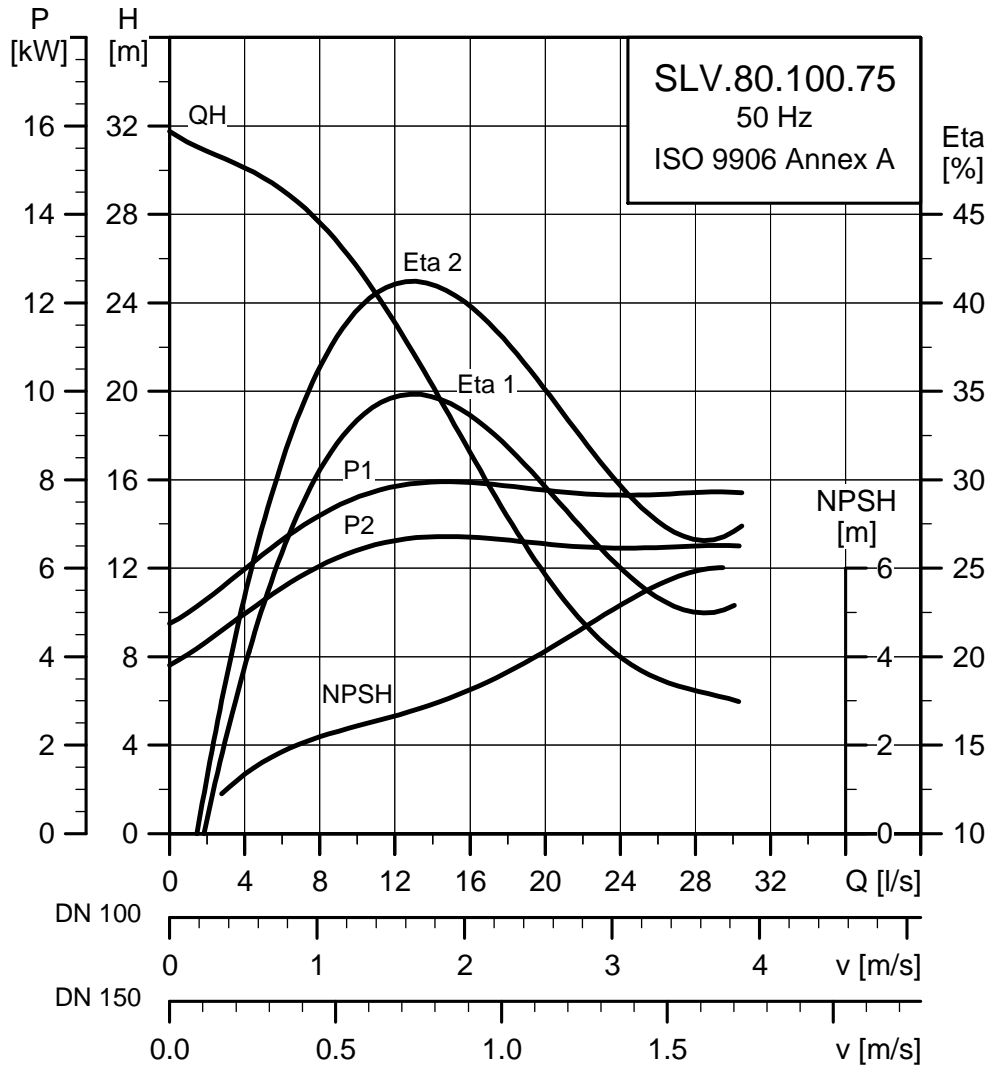
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]	[A]		
SLV.80.100.60.2.51E	3 x 220-240 V D	6.9	6.0	2	2940	SD	21.7	211	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				
SLV.80.100.60.2.51D	3 x 380-415 V D	6.9	6.0	2	2940	SD	12.5	122	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				
SLV.80.100.60.2.50B	3 x 400-415 V D	6.9	6.0	2	2940	DOL	12.5	122	81.9	85.2	86.4	0.68	0.78	0.84	0.0190	83				

Pump data

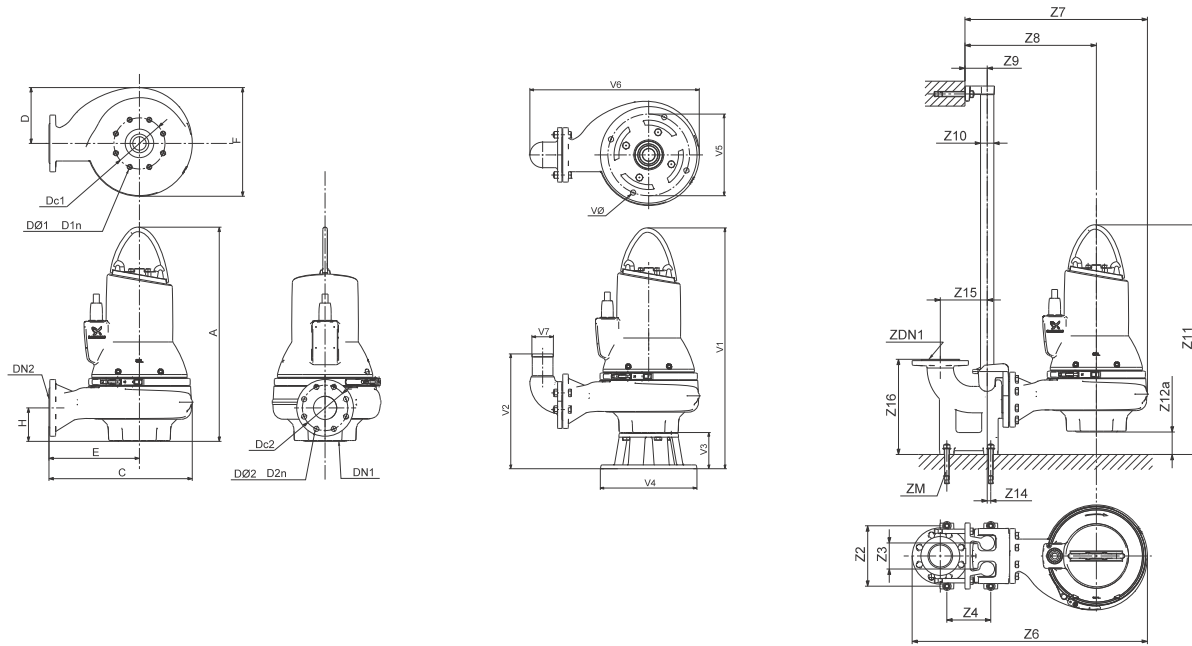
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.75



TM04 3557 4608

Dimensional sketches SLV.80.100.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
751	466	200	286	380	108	80	160	8 x 16	100	180	8 x 18	141			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	909	683	503	110	2"	883	132	0	220	413	160	80	4 x M16
V1	V2		V3		V4	V5	V6	V7	VØ						
879	353		128		330	280	598	100	18						

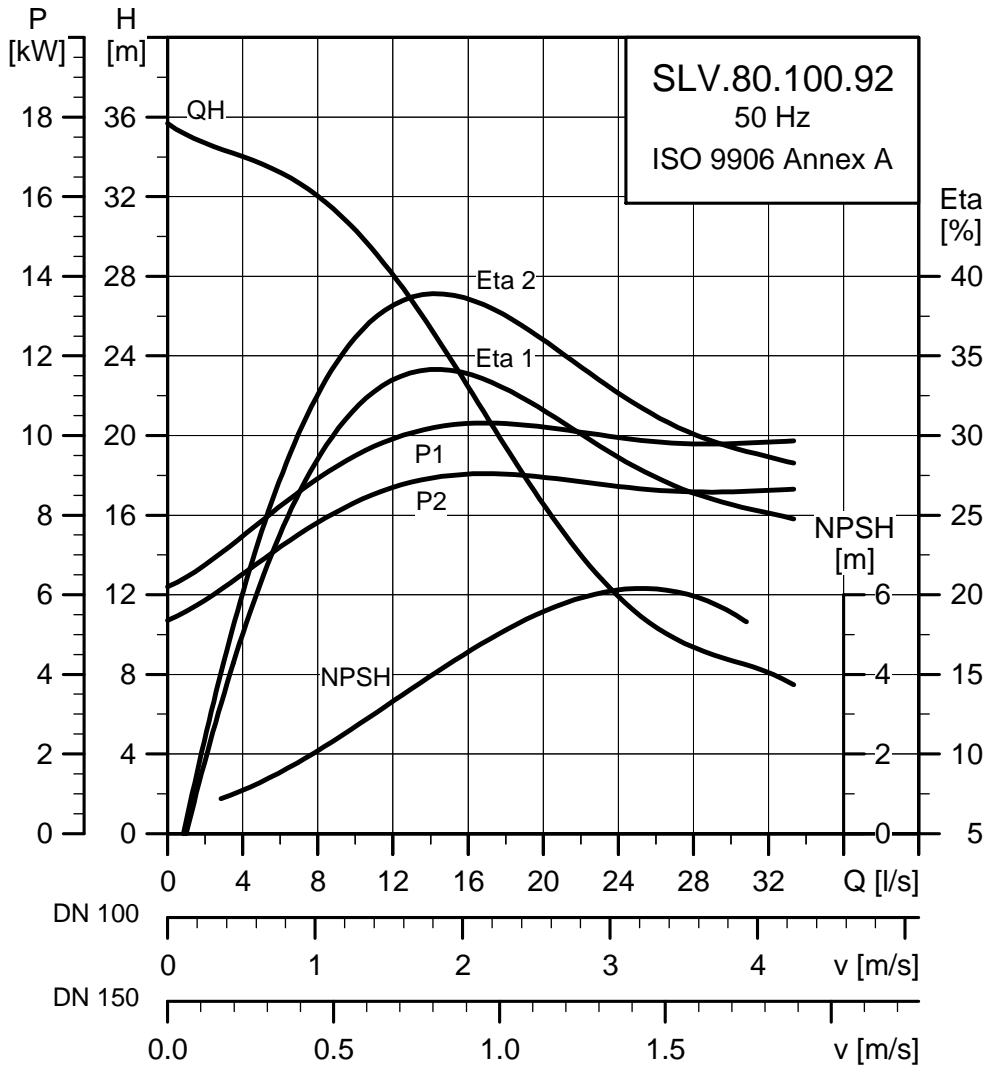
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.100.75.2.51E	3 x 220-240 V D	8.7	7.5	2	2920	SD	26.2	211	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				
SLV.80.100.75.2.51D	3 x 380-415 V D	8.7	7.5	2	2920	SD	15.1	122	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				
SLV.80.100.75.2.50B	3 x 400-415 V D	8.7	7.5	2	2920	DOL	15.1	122	84.1	86.2	86.3	0.74	0.83	0.87	0.0215	83				

Pump data

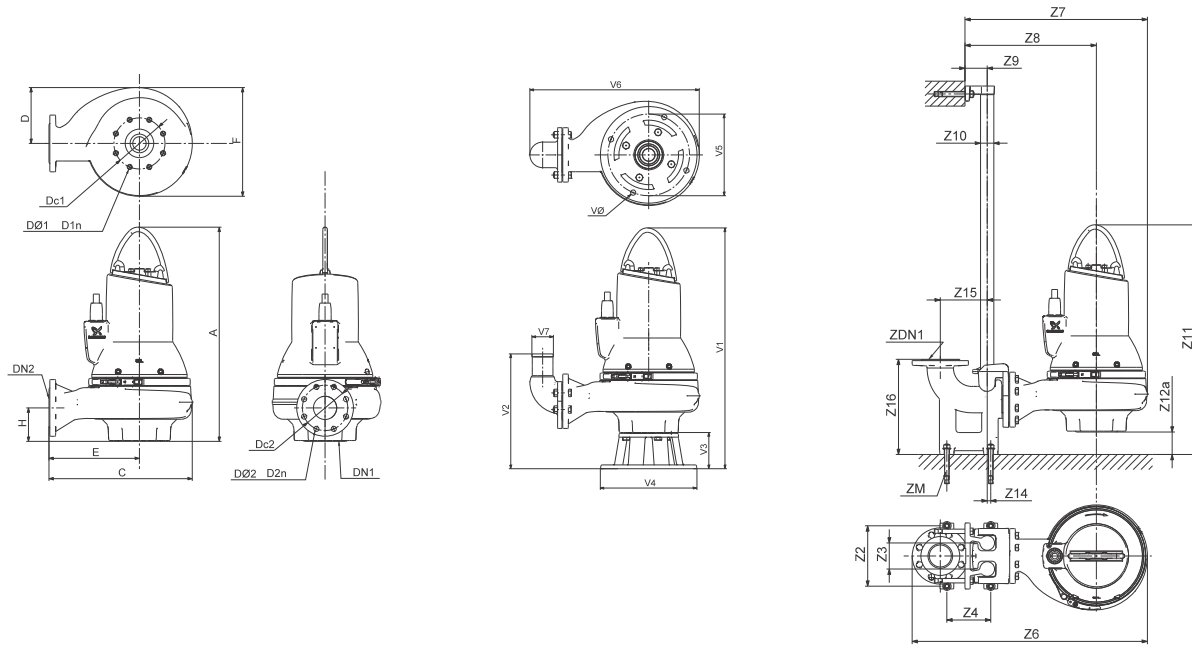
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.92



TM04 3558 4608

Dimensional sketches SLV.80.100.92



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
782	499	217	303	413	123	80	160	8 x 16	100	180	8 x 18	184			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	942	716	520	110	2"	899	117	0	220	413	160	80	4 x M16
V1	V2		V3		V4		V5		V6		V7		VØ		
910	368		128		330		280		641		100		18		

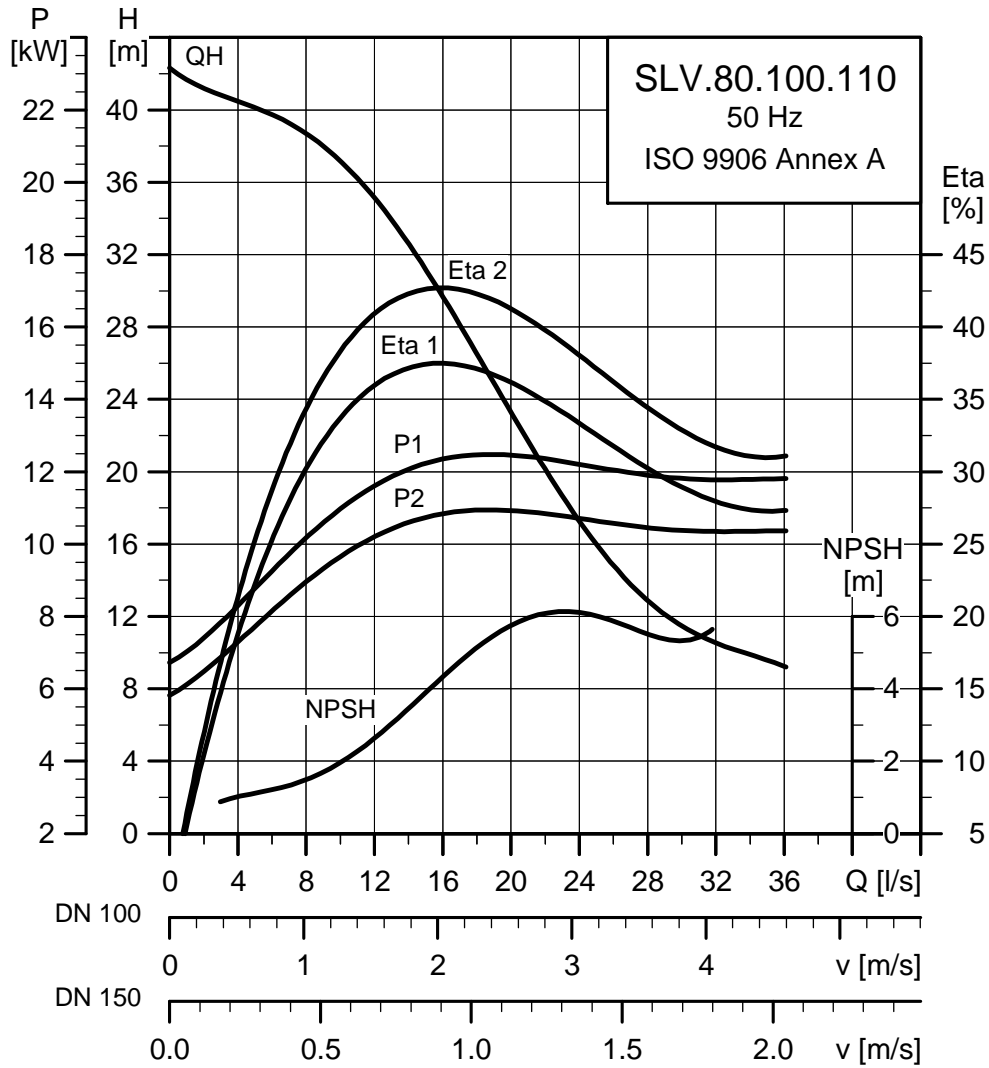
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SLV.80.100.92.2.51E	3 x 220-240 V D	10.5	9.2	2	2960	SD	31.2	288	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				
SLV.80.100.92.2.51D	3 x 380-415 V D	10.5	9.2	2	2960	SD	18.0	166	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				
SLV.80.100.92.2.50B	3 x 400-415 V D	10.5	9.2	2	2960	DOL	18.0	166	85.5	87.6	88.1	0.76	0.84	0.88	0.0334	103				

Pump data

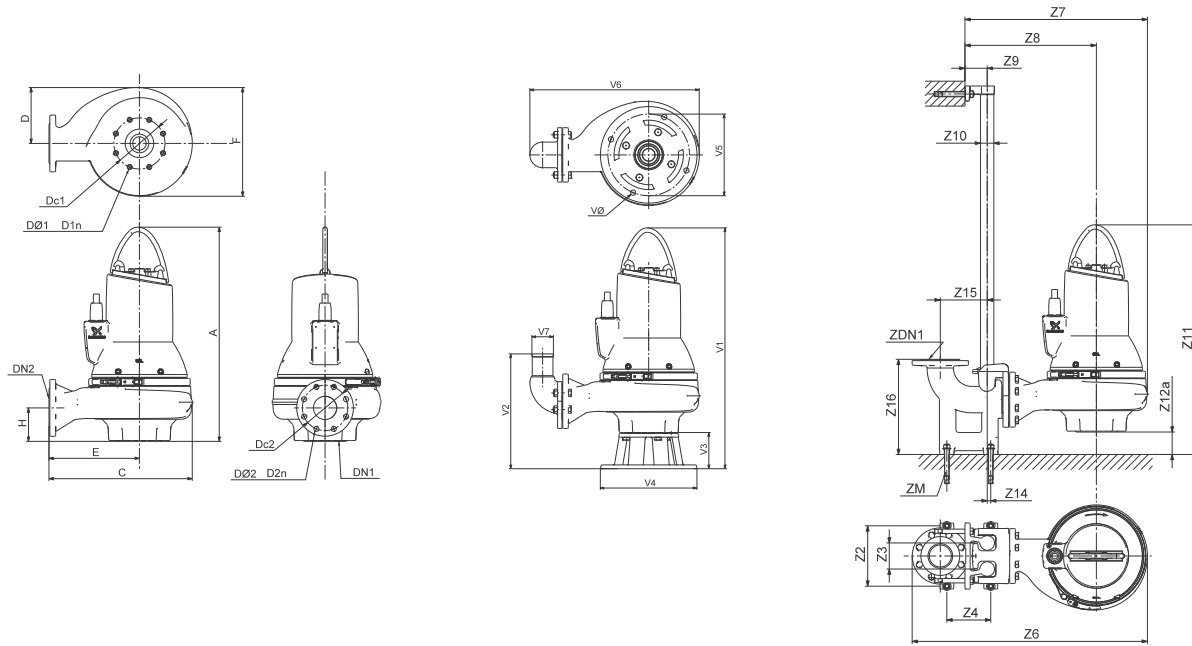
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

Performance curves SLV.80.100.110



TM04 3559 4608

Dimensional sketches SLV.80.100.110



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
782	499	217	303	413	123	80	160	8 x 16	100	180	8 x 18	184			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	942	716	520	110	2"	899	117	0	220	413	80	160	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
910	368	128	330	280	641	100	18								

Electrical data

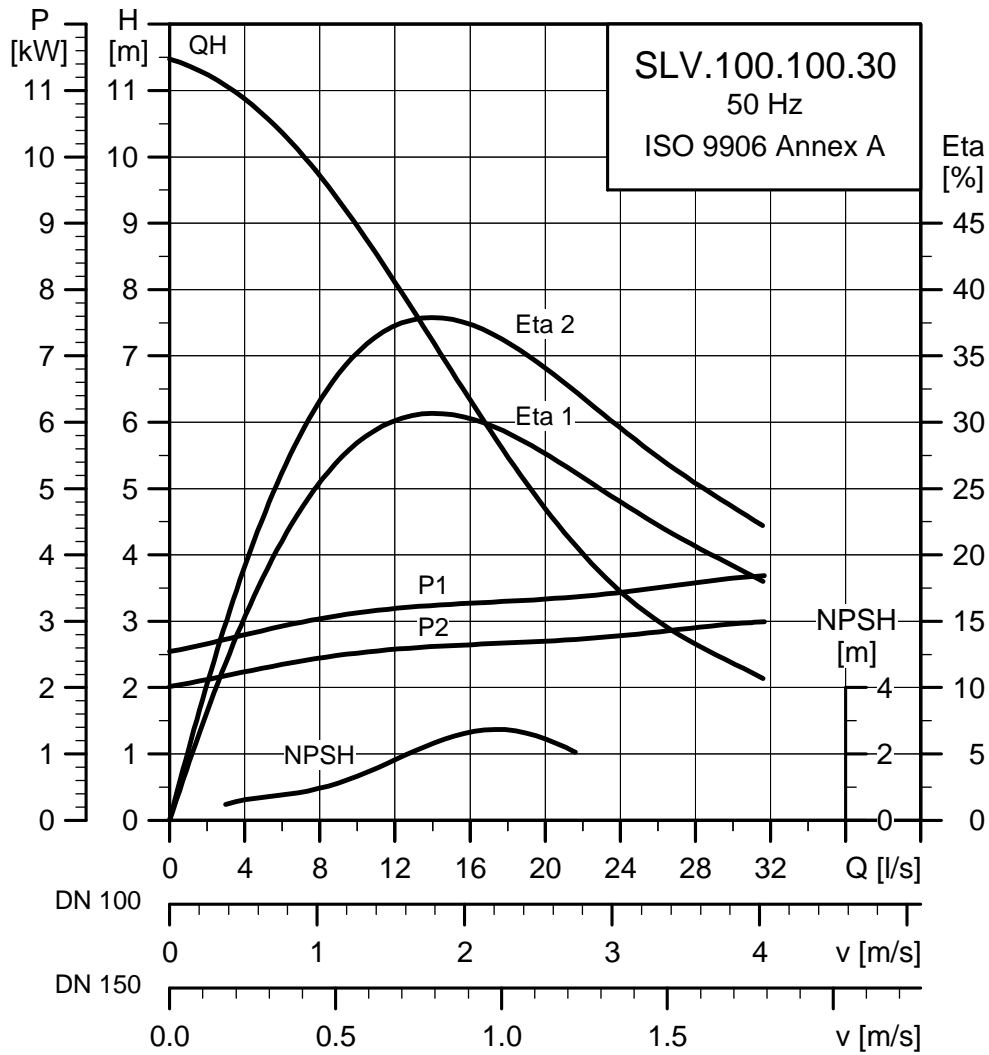
Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_n			I_{start}			η_{motor} [%]			$\cos \phi$			Moment of inertia [kgm ²]	Breakdown torque M_{max} [Nm]
							[A]	[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1					
SLV.80.100.110.2.51E	3 x 220-240 V D	12.5	11.0	2	2950	SD	37.1	288	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				
SLV.80.100.110.2.51D	3 x 380-415 V D	12.5	11.0	2	2950	SD	21.4	166	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				
SLV.80.100.110.2.50B	3 x 400-415 V D	12.5	11.0	2	2950	DOL	21.4	166	86.6	88.0	87.8	0.79	0.86	0.89	0.0368	103				

Pump data

Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	80	10	20	20	IP68	F	40	4-14

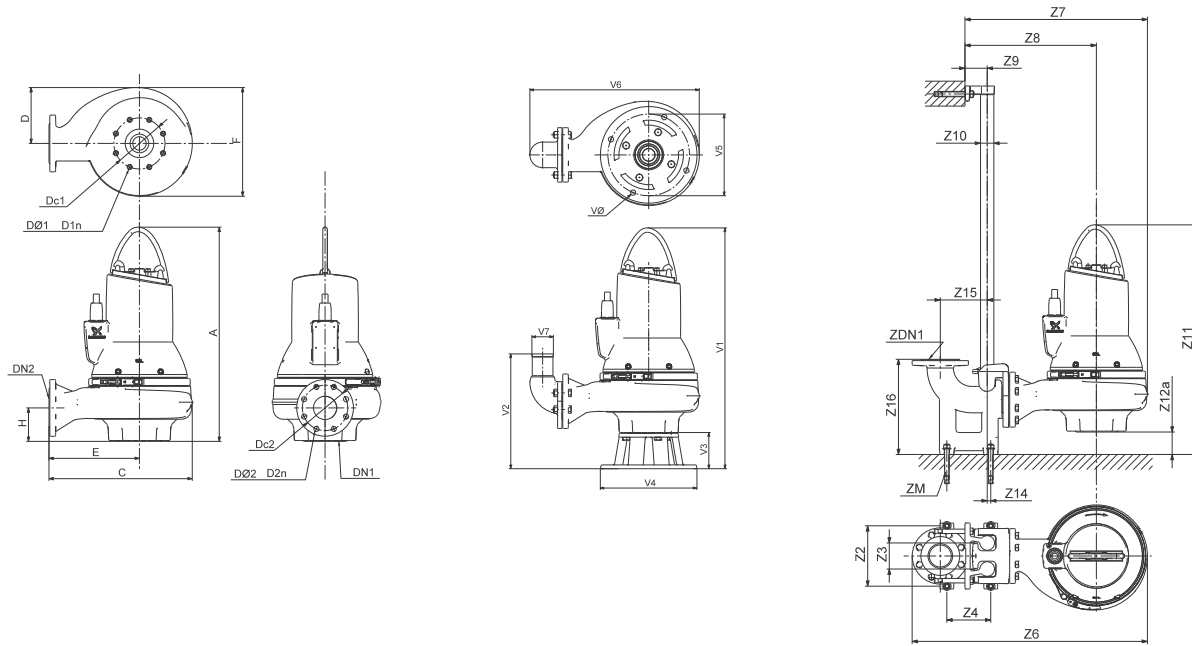
SLV.100.100

Performance curves SLV.100.100.30



TM04 3546 4608

Dimensional sketches SLV.100.100.30



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
737	457	200	277	380	134	100	180	8 x 16	100	160	8 x 18	125			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	270	900	674	494	110	2"	844	106	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
867	411	130	355	300	599	100	19								

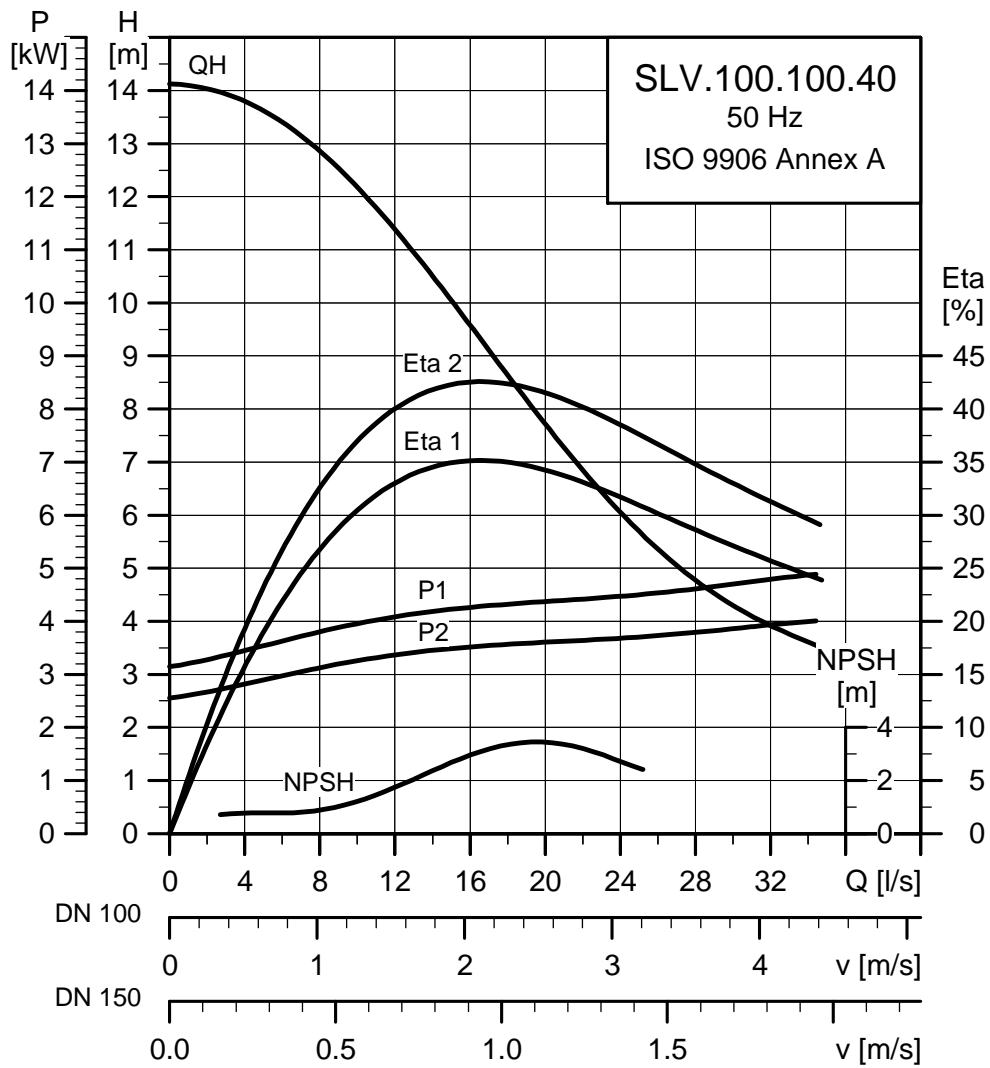
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	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	1/2	3/4	1/1		
SLV.100.100.30.4.50E	3 x 220-240 V D	3.7	3.0	4	1450	DOL	12.5	87	75.4	79.7	80.7	0.58	0.72	0.78	0.0450	64				
SLV.100.100.30.4.51D	3 x 380-415 V D	3.7	3.0	4	1450	SD	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0450	64				
SLV.100.100.30.4.50D	3 x 380-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0450	64				
SLV.100.100.30.4.50B	3 x 400-415 V Y	3.7	3.0	4	1450	DOL	7.2	50	75.4	79.7	80.7	0.58	0.72	0.78	0.0450	64				

Pump data

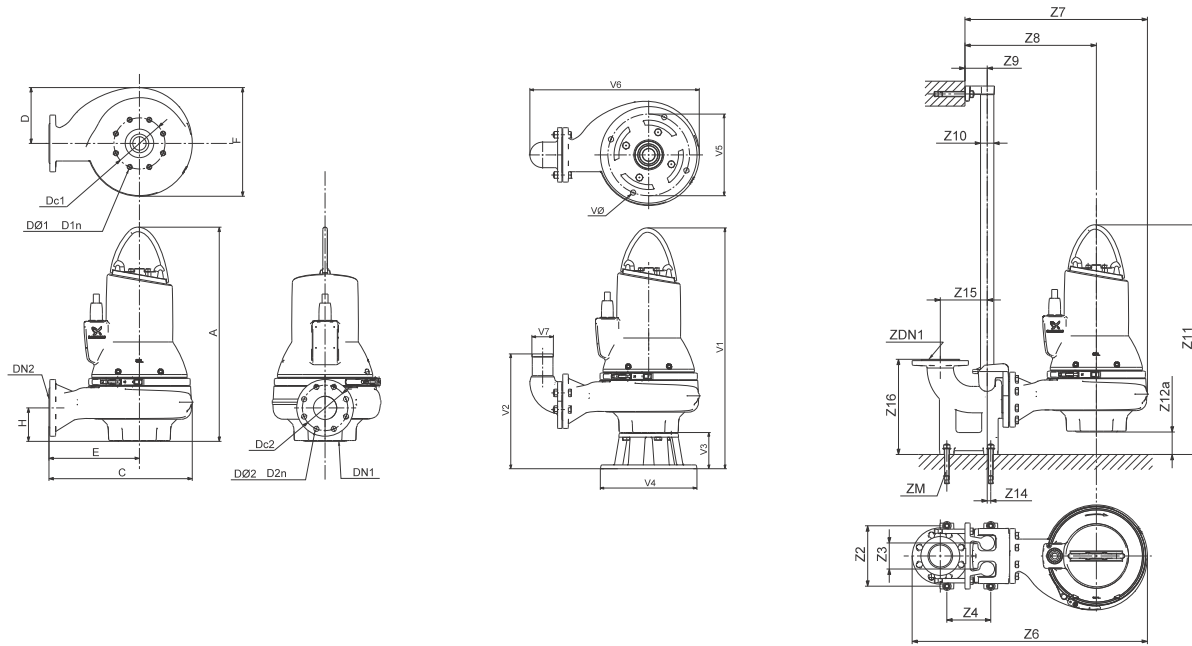
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	100	10	20	20	IP68	F	40	4-14

Performance curves SLV.100.100.40



TM04 3547 4608

Dimensional sketches SLV.100.100.40



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
759	457	200	277	380	134	100	180	8 x 16	100	180	8 x 18	130			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	900	674	494	110	2"	865	106	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
889	411	130	355	300	599	100	19								

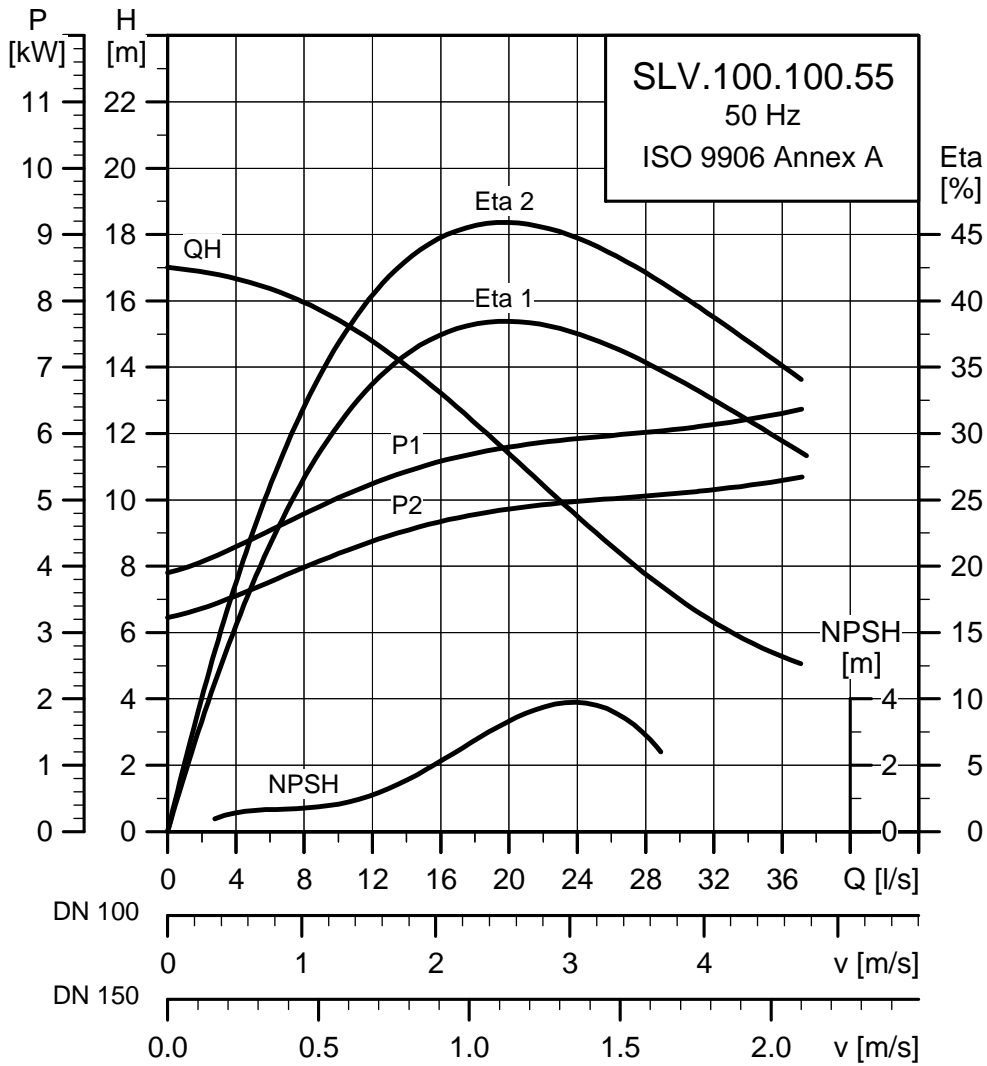
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SLV.100.100.40.4.51E	3 x 220-240 V D	4.8	4.0	4	1460	SD	16.9	88	78.6	82.3	83.6	0.53	0.66	0.75	0.0501	90
SLV.100.100.40.4.51D	3 x 380-415 V D	4.8	4.0	4	1460	SD	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0501	90
SLV.100.100.40.4.50B	3 x 400-415 V D	4.8	4.0	4	1460	DOL	9.7	51	78.6	82.3	83.6	0.53	0.66	0.75	0.0501	90

Pump data

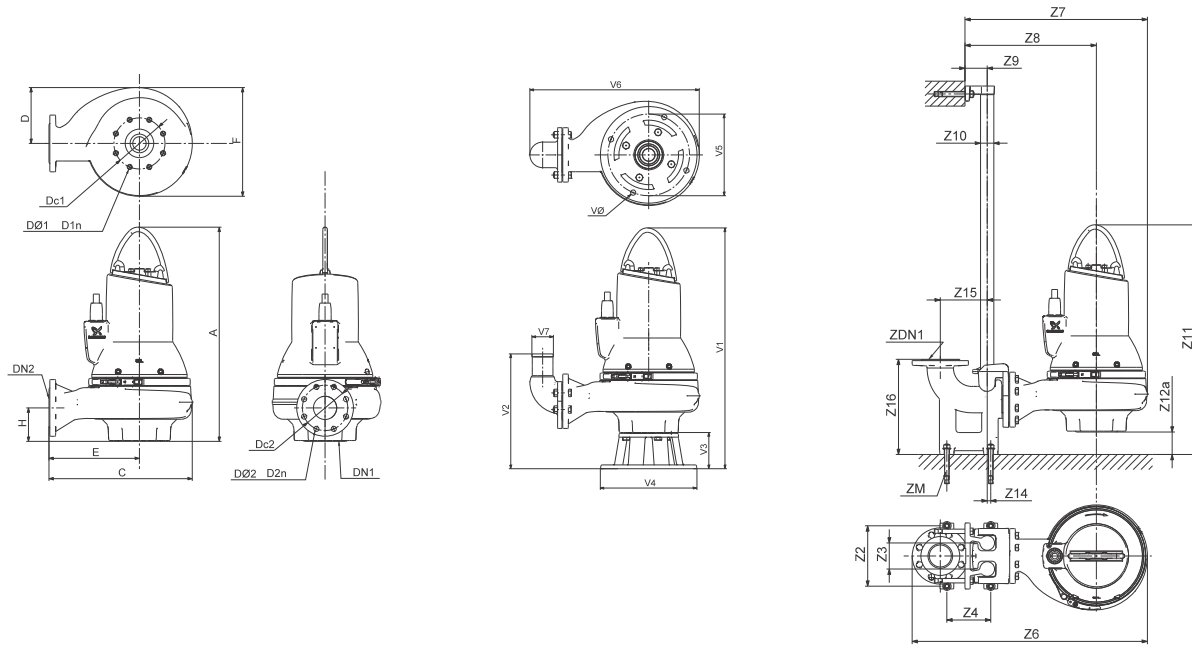
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	100	10	20	20	IP68	F	40	4-14

Performance curves SLV.100.100.55



TM04 3548 4608

Dimensional sketches SLV.100.100.55



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
766	457	200	277	380	134	100	180	8 x 16	100	160	8 x 18	136			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	270	900	674	494	110	2"	873	106	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
896	411	130	355	300	599	100	19								

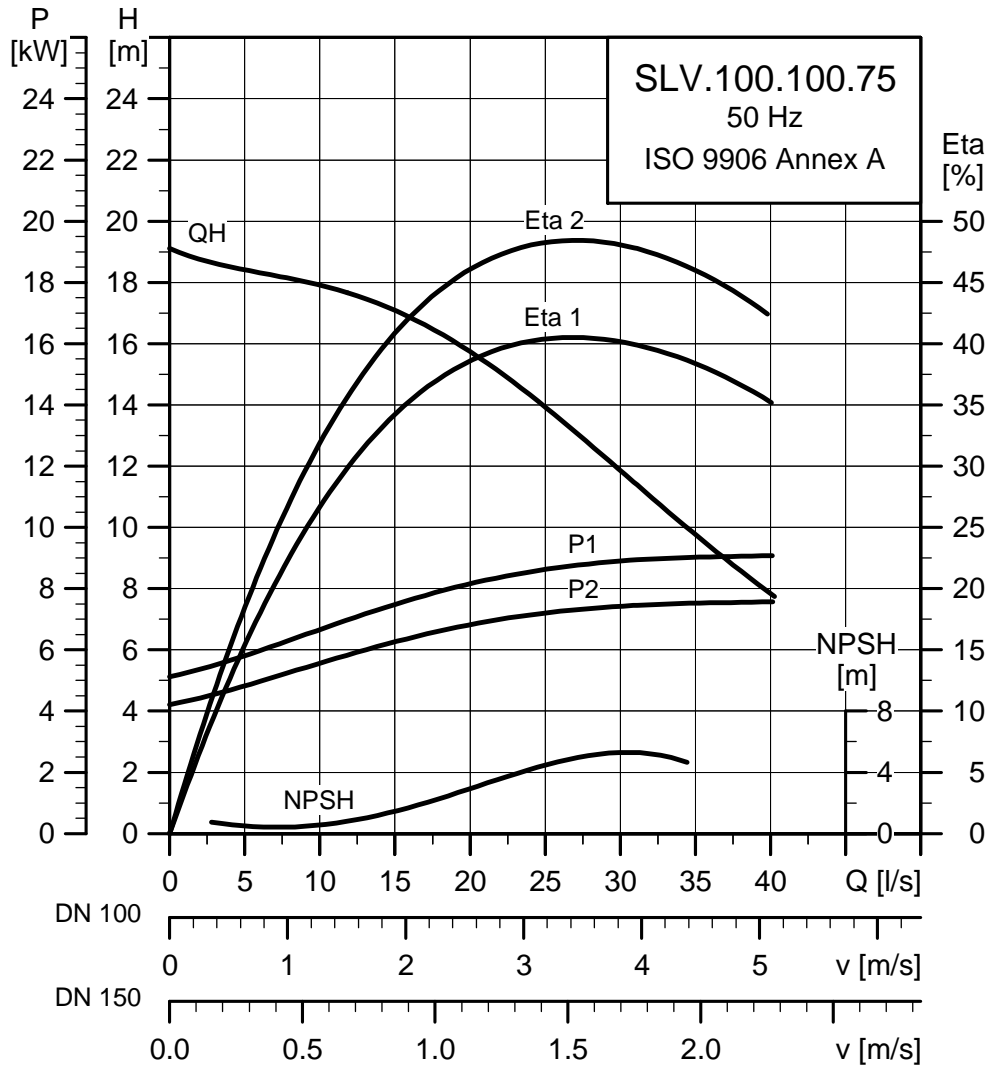
Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I _N		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		
SLV.100.100.55.4.51E	3 x 220-240 V D	6.4	5.5	4	1460	SD	20.4	140	82.0	84.8	85.6	0.67	0.77	0.82	0.0552	110
SLV.100.100.55.4.51D	3 x 380-415 V D	6.4	5.5	4	1460	SD	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.0552	110
SLV.100.100.55.4.50B	3 x 400-415 V D	6.4	5.5	4	1460	DOL	11.8	81	82.0	84.8	85.6	0.67	0.77	0.82	0.0552	110

Pump data

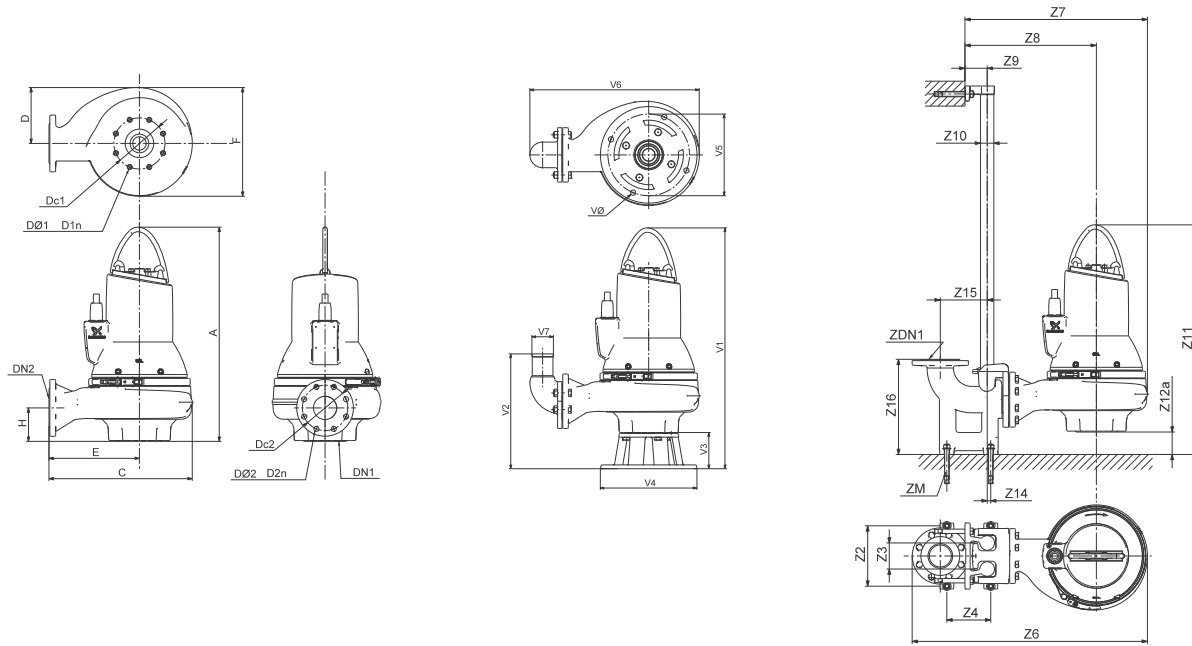
Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	100	10	20	20	IP68	F	40	4-14

Performance curves SLV.100.100.75



TM04 3549 4608

Dimensional sketches SLV.100.100.75



TM04 2793 3008 - TM04 2794 3008 - TM04 2795 3008

A	C	D	E	F	H	DN1	Dc1	DØ1 D1n	DN2	Dc2	DØ2 D2n	Weight [kg]			
842	490	217	294	413	145	100	180	8 x 16	100	180	8 x 18	179			
Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Dc1	DN1	ZM
260	110	220	933	707	511	110	2"	938	95	0	220	413	180	100	4 x M16
V1	V2	V3	V4	V5	V6	V7	VØ								
972	422	130	355	300	632	100	19								

Electrical data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	Rpm	Starting method	I_N			I_{start}			$\eta_{motor} [\%]$			$\cos \phi$			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	1/2	3/4	1/1		
SLV.100.100.75.4.51E	3 x 220-240 V D	8.6	7.5	4	1460	SD	26.3	189	85.7	87.2	87.0	0.72	0.81	0.86	0.0692	141				
SLV.100.100.75.4.51D	3 x 380-415 V D	8.6	7.5	4	1460	SD	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.0692	141				
SLV.100.100.75.4.50B	3 x 400-415 V D	8.6	7.5	4	1460	DOL	15.2	109	85.7	87.2	87.0	0.72	0.81	0.86	0.0692	141				

Pump data


Impeller type	Max. solids size [mm]	Pump housing pressure PN	Max. number of starts per hour	Max. installation depth [m]	Enclosure class	Insulation class	Max. liquid temperature [°C]	pH
SuperVortex	100	10	20	20	IP68	F	40	4-14

11. Accessories

Installation systems

Picture	Description	Dimensions	SL1.50.65	SL1.50.80	SL1.80.80	SL1.80.100	SL1.100.100	SL1.100.150	SLV.65.65	SLV.65.80	SLV.80.80	SLV.80.100	SLV.100.100	Product number	
	Complete auto-coupling system, including guide claw, base plate and upper guide rail bracket. Cast iron, epoxy-coated. With bolts, nuts and gaskets. Note: If your guide rails exceed 4 m, please consider the use of intermediate guide rail brackets to support your system. TM04 4490 1409	DN 65	•						•					96090992	
		DN 80		•	•						•	•			96090993
		DN 80 / DN 65	•							•					96102238
		DN 100				•	•						•	•	96090994
		DN 100 / DN 80			•	•					•	•			96102240
		DN 150							•						96090995
		DN 150 / DN 100					•	•					•	•	96102241
	Intermediate guide rail brackets of stainless steel (EN/DIN 1.4308/AISI 304) TM05 4253 2112	DN 65 / 2 1/2"	•						•					96825119	
		DN 80 / 3"		•	•					•	•			96825142	
		DN 100 / 4"				•	•						•	•	96825161
		DN 150 / 6"							•						96887674
	Ring stand with flanged 90° elbow and hose connection. Cast iron, epoxy-coated. With bolts, nuts, gaskets and anchor bolts. TM04 6086 4809	DN 65 / DN 65 / 2 1/2"	•											96102253	
		DN 65 / DN 80 / 3"		•											96102378
		DN 80 / DN 65 / 2 1/2"								•					96102439
		DN 80 / DN 80 / 3"									•	•			96102254
		DN 80 / DN 100 / 4"											•		96943236
		DN 100 / DN 80 / 3"				•									96102313
		DN 100 / DN 100 / 4"					•							•	96102255
		DN 150 / DN 100 / 4", galvanised steel						•							96102314
		DN 150 / DN 150 / 6", galvanised steel							•						96102256
		DN 65 / DN 65 / R 2 1/2	•												96102379
		DN 65 / DN 80 / R 3		•											96102380
		DN 80 / DN 65 / R 2 1/2"								•					96102440
		DN 80 / DN 80 / R 3									•	•			96102381
		DN 80/DN 100/R 4											•		96943237
		DN 100 / DN 80 / R 3				•									96102382
DN 100 / DN 100 / R 4					•							•	96102383		
DN 150 / DN 100 / R 4, galvanised steel						•							96102384		
DN 150/DN 150/R 6, galvanised steel							•						96102385		

Other accessories

Picture	Description	Max. load [kg]	SL1.50.65	SL1.50.80	SL1.80.80	SL1.80.100	SL1.100.100	SL1.100.150	SLV.65.65	SLV.65.80	SLV.80.80	SLV.100.100	Product number
	4 m hot dip galvanised lifting chain with lifting link and safety hook. With certificates.	800	•	•	•	•	•	•	•	•	•	•	96735550
	6 m hot dip galvanised lifting chain with lifting link and safety hook. With certificates.		•	•	•	•	•	•	•	•	•	•	96735553
	8 m hot dip galvanised lifting chain with lifting link and safety hook. With certificates.		•	•	•	•	•	•	•	•	•	•	96735554
	10 m hot dip galvanised lifting chain with lifting link and safety hook. With certificates.		•	•	•	•	•	•	•	•	•	•	96735556
	12 m hot dip galvanised lifting chain with lifting link and safety hook. With certificates.		•	•	•	•	•	•	•	•	•	•	96735557
	4 m stainless steel lifting chain (according to EN/DIN 1.4401) with lifting link and safety hook. With certificates.		•	•	•	•	•	•	•	•	•	•	•
	6 m stainless steel lifting chain (according to EN/DIN 1.4401) with lifting link and safety hook. With certificates.	•	•	•	•	•	•	•	•	•	•	•	96735564
	8 m stainless steel lifting chain (according to EN/DIN 1.4401) with lifting link and safety hook. With certificates.	•	•	•	•	•	•	•	•	•	•	•	96735566
	10 m stainless steel lifting chain (according to EN/DIN 1.4401) with lifting link and safety hook. With certificates.	•	•	•	•	•	•	•	•	•	•	•	96735567
	12 m stainless steel lifting chain (according to EN/DIN 1.4401) with lifting link and safety hook. With certificates.	•	•	•	•	•	•	•	•	•	•	•	96735569

TM02 6126 5102

Level controllers

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

Controller ranges:

- Dedicated Controls, DC
- LC and LCD level controllers

The LC is designed for one-pump installations, and the LCD is designed for two-pump installations.

The DC is designed for one- to six-pump installations.

Dedicated Controls



Fig. 25 Dedicated Controls control cabinet

Grundfos Dedicated Controls is a control system that can control and monitor one to six Grundfos wastewater pumps and a mixer or a flushing valve.

Dedicated Controls are used in installations requiring advanced control and data communication.

The main components of the Dedicated Controls system are:

- CU 361 control unit
- IO 351B module (general I/O module).

Dedicated Controls is available either as separate components or as control cabinets.

The control system can be operated by:

- float switches
- a level sensor
- a level sensor and safety float switches.

The control cabinet is available for the following pump sizes and starting methods:

- pumps up to and including 9 kW, direct-on-line starting
- pumps up to and including 30 kW, star-delta starting
- pumps up to and including 30 kW, soft starter.

The separate control unit and modules can be built for practically any size of system.

CU 361 control panel

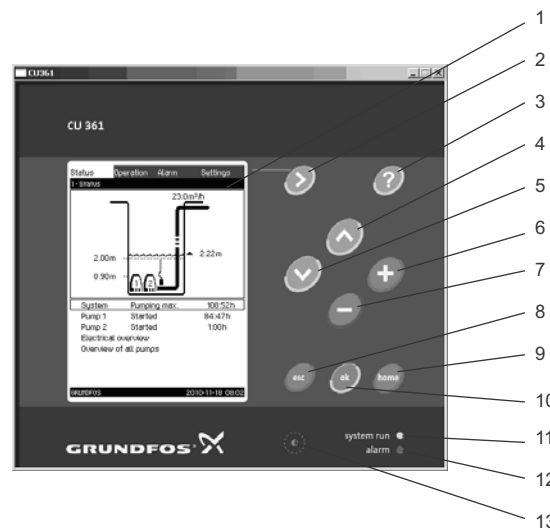


Fig. 26 CU 361 control panel

Pos.	Description
1	Display
2	Right
3	Help
4	Up
5	Down
6	Plus
7	Minus
8	Esc (Escape)
9	Home
10	OK (accept)
11	Indicator light, operation (green)
12	Indicator light, fault (red)
13	Contrast

TM05 0008 0511

GrA6270

Status menu

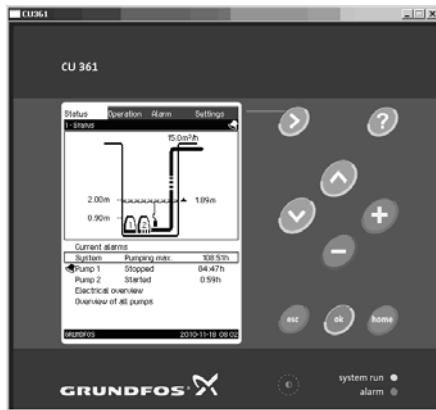


Fig. 27 Status menu

Description

- Graphical illustration of system (upper half of display).
- Clear text parameters.
- Indication of alarms that occur during operation (top and middle of display).
- Reading of performance of system and individual pumps (lower half of display).
- Button for further information.
- Active buttons are illuminated.

Operation menu



Fig. 28 Operation menu

Description

- Setting of basic parameters, for instance start/stop levels.
- Setting of auto/on/off of system or individual pumps.
- Resetting of alarm relays.
- Button for further information.
- Active buttons are illuminated.

Alarm menu



Fig. 29 Alarm menu

Description

- Current alarm and alarm log with detailed information:
 - What is the cause of the fault.
 - Where did the fault occur (system, pump no. 1 etc).
 - When did the fault occur (time and date).
 - When did the fault disappear (time and date).
- Alarm snapshot – reading of system and pump parameters at the time of alarm.
- Alarm log with up to 24 historical warnings and alarms.
- Button for further information.
- Active buttons are illuminated.

Settings menu



Fig. 30 Settings menu

Description

- Various settings:
 - Setting of analog/digital inputs and outputs.
 - Setting of application-optimised functions such as energy optimisation, foam drainage and advanced alternation.
 - Display language.
 - Communication settings.
 - Ethernet etc.
- Button for further information.
- Active buttons are illuminated.

The DC control cabinets can be fitted with various units:

- The CU 361 control unit, which is the "brain" of the Dedicated Controls system, is fitted in the cabinet front. The CU 361 can be fitted with one of the Grundfos CIM communication modules mentioned below, depending on the monitoring needs or the SCADA system:
 - The CIM 200 is a Grundfos communication module used for the Modbus RTU fieldbus protocol.
 - The CIM 250 is a communication module used for GSM/GPRS communication. The CIM 250 establishes communication between the CU 361 and a SCADA system, thereby allowing the application to be monitored and controlled remotely. This module also offers SMS messaging, for example status and alarm messages.
 - The CIM 270 is a communication module for the Grundfos Remote Management system (GRM). The CIM 270 establishes communication between the CU 361 and the GRM, thereby allowing the application to be monitored and controlled remotely.
- The IO 351B module, which is a general I/O module. The IO 351B communicates with the CU 361 via GENIbus.
- The MP 204 motor protector (optional), which provides many electrical status values, for example voltage, current, power, insulation resistance and energy. The MP 204 offers better protection of the pumps than a conventional motor protection device.
- The CUE/VFD (optional), which is either a Grundfos variable-frequency converter or a general variable-frequency converter, also offers better pump protection and a more steady flow through the pit pipes, so the pumps are treated well and the energy consumption is kept at a minimum.

For further information, see the comparison of Dedicated Controls (DC) and the LC and LCD level controllers on page 155 or the technical documentation for Dedicated Controls on www.grundfos.com (WebCAPS).

LC and LCD

The Grundfos LC and LCD ranges of level controllers comprise three series with a total of six variants:

- LC and LCD 107 level controllers operated by air bells
- LC and LCD 108 level controllers operated by float switches
- LC and LCD 110 level controllers operated by electrodes.

All controllers are ideally suited for applications requiring up to 11 kW motors for direct-on-line starting. The LC and LCD can also be supplied with an integrated star-delta starter for applications requiring larger motors up to and including 30 kW.

Features and benefits

- Control of one pump (LC) or two pumps (LCD).
- Automatic alternating operation of two pumps (LCD).
- Automatic test run (prevents shaft seals from becoming jammed in the event of long periods of inactivity).
- Water hammer protection.
- Starting delay after power supply failure.
- Automatic alarm resetting, if required.
- Automatic restarting, if required.
- Alarm output as NO and NC.



Fig. 31 LCD 110 for two-pump installations

When an SMS module (optional) is fitted in an LC or LCD controller, it acts as a time recorder for the pumps, and when programmed (using an ordinary mobile telephone with text messaging facility), it can send text messages containing "high-level alarm" and "general alarm" information about operation and the number of times the pump has started. The SMS module is also available with battery and can thus send text messages that will inform you of power failure and when power has been restored.

For further information, see the data booklet or installation and operating instructions for the LC and LCD controllers on www.grundfos.com (WebCAPS).

TMD4 2360 2408

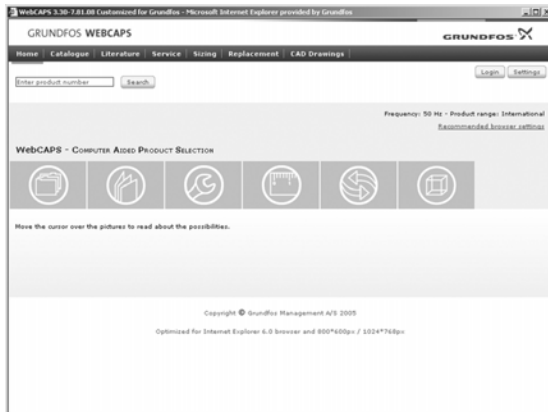
Name	DC	LC	LCD
Application			
One pump	•	•	•
Two pumps	•		•
Mixer	•		
Battery backup	•		
Level sensor			
Float switch	•	•	•
Electrodes		•	•
Air bell		•	•
Pressure sensor	•		
Ultrasonic sensor	•		
Analog level sensor with safety float switches	•		
Starting method			
Direct-on-line starting (DOL)	•	•	•
Star-delta starting	•	•	•
Soft starter	•		
Basic functions			
Start and stop of pump(s)	•	•	•
Pump alternation	•		•
High-level alarm	•	•	•
Dry-running-level alarm	•	•	•
Flow measurement (calculated or via flow sensor)	•		
Pump statistics	•		
Conflicting-levels alarm	•		
Advanced functions			
Start and stop delays (prevent water hammering)	•	•	•
Motor temperature sensor	•	•	•
Test run/anti-seizing	•	•	•
Daily emptying (emptying the pit once a day)	•		
Water-in-oil sensor input	•		
Communication			
SMS messaging	• ¹⁾	• ²⁾	• ²⁾
SCADA communication (GSM/GPRS)	• ¹⁾		
User interface			
Level indication	•	•	•
Graphical display	•		
PC Tool WW Controls	•		

¹⁾ If a CIM 250 GSM/GPRS module is fitted in the CU 361.

²⁾ If an SMS module is fitted.

12. Further product documentation

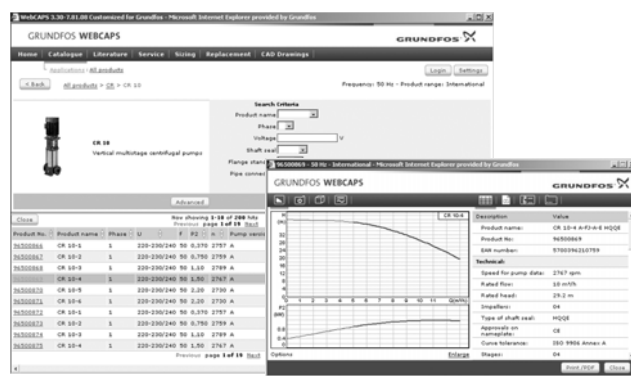
WebCAPS



WebCAPS is a **Web**-based **Computer Aided Product Selection** program available on www.grundfos.com. WebCAPS contains detailed information on more than 220,000 Grundfos products in more than 30 languages.

Information in WebCAPS is divided into six sections:

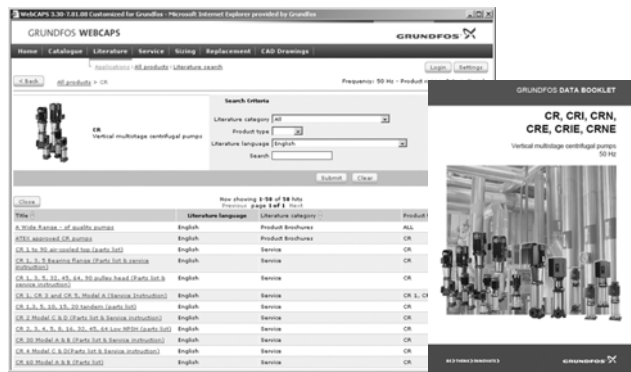
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



Catalogue

Based on fields of application and pump types, this section contains the following:

- 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

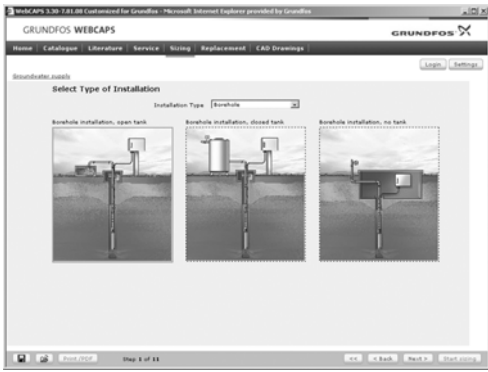
This section contains all the latest documents of a given pump, such as

- 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, the 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 size a product:

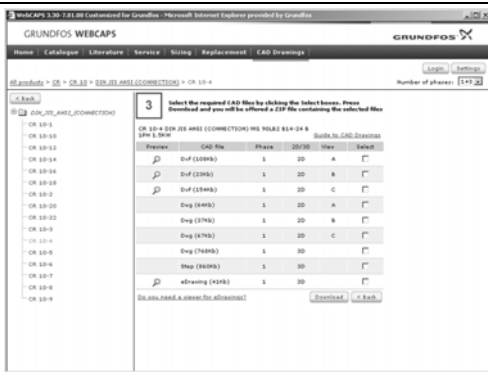
- Select the most suitable and efficient pump for your installation.
- Carry out advanced calculations based on energy, consumption, payback periods, load profiles, life cycle costs, etc.
- Analyse your selected pump via the built-in life cycle cost tool.
- Determine the flow velocity in wastewater applications,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



Replacement

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

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



CAD drawings

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

These formats are available in WebCAPS:

2-dimensional drawings:

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

3-dimensional drawings:

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

WinCAPS



Fig. 32 WinCAPS DVD

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 220,000 Grundfos products in more than 30 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 DVD and updated once a year.

Subject to alterations.

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ECM: 1105111

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