SE1, SEV pumps, Range 48

1.1 to 11 kW
50/60 Hz DIN

GRUNDFOS

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1. Introduction

Introduction

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

Two types of pumps are available:

- SE1 pumps with S-**tube**® impeller
- SEV pumps with SuperVortex (free-flow) impeller.

TM048007

*SE1 (S-**tube**®) and SEV (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 SuperVortex or S-**tube**® impeller pumps are specifically designed for pumping sewage and wastewater in a wide range of municipal, private and industrial applications.

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

The pumps are fitted with IEC IE1 efficiency 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 (spherical) in the pumps is 50 to 100 mm, depending on the pump type. All pump housings have a cast iron, PN 10 outlet flange, size DN 65 to DN 150, according to EN 1092-2.

The pumps are available for the following installation types:

- dry installation, vertical or horizontal
- submerged installation on auto-coupling system
- submerged installation, free-standing on ring stand.

Applications

Typical application is transfer of liquid including:

- wastewater with a high fibre content
- drainage and surface water
- domestic wastewater
- municipal wastewater
- industrial wastewater
- process and cooling water.

The pumps can be used in locations such as:

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

Smartdesign®

smartdesign® describes the functional design of our products that combines elegant appearance with smart features, created with customer needs in mind.

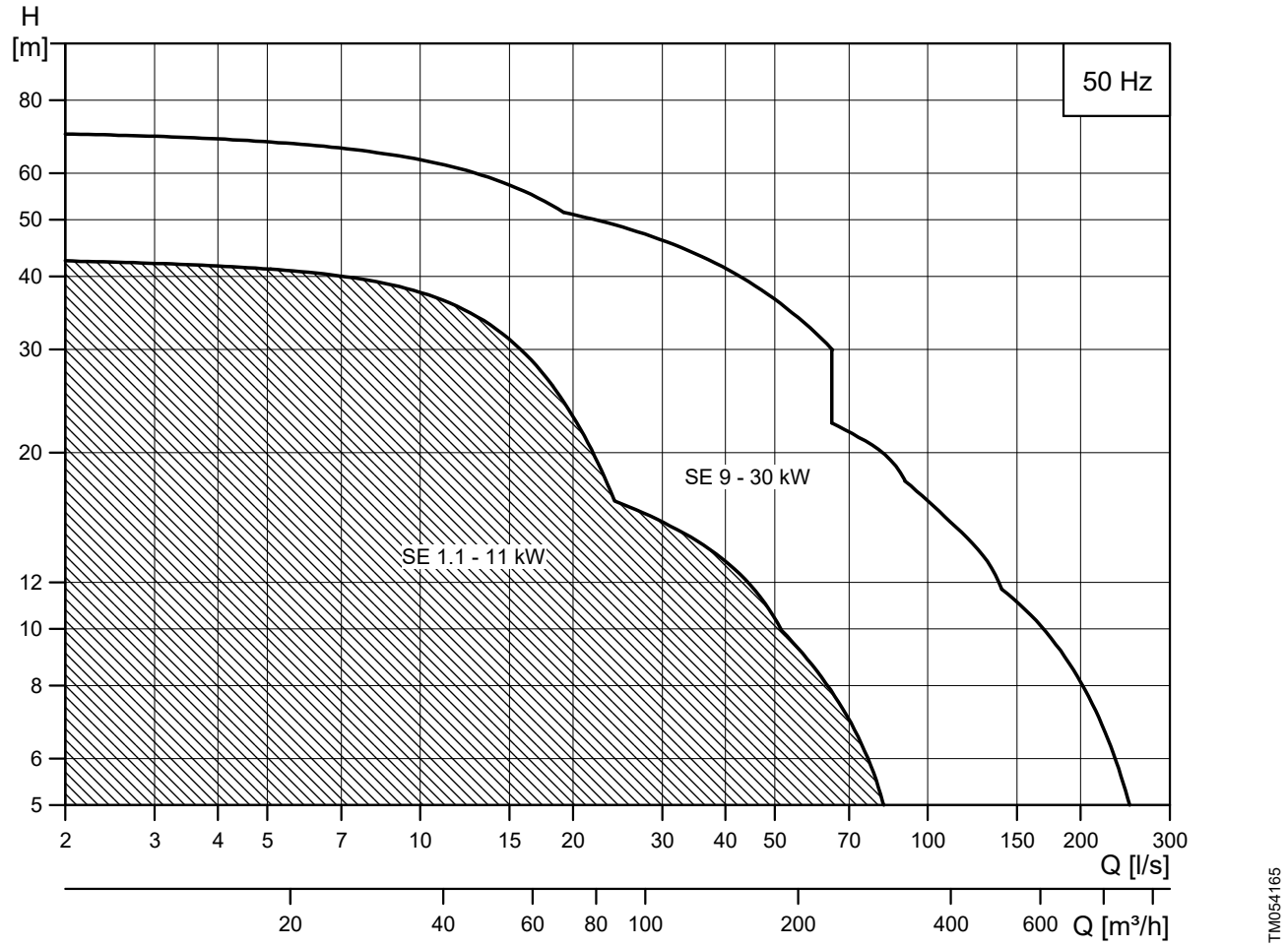
smartdesign® does not only look good; the design also makes installation, operation and maintenance of the product easier and more user-friendly.

The following **smart**design® features are included in the SE1 and SEV pumps:

- cooling jacket for internal cooling of the motor which makes the pumps suitable for dry and submerged installation without the need for external cooling
- moisture-proof cable plug connection made of corrosion-resistant stainless steel with conductors embedded in polyethane sealant
- stainless steel clamp connection between motor housing and pump housing for easy service
- double mechanical cartridge shaft seal for easy service and perfect seal face alignment
- power cable incorporating wires for thermal sensors in the motor windings
- no additional 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 preventing 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 SuperVortex impeller with high pumping efficiency and less downtime
- explosion-proof motors for potentially explosive environments
- motor insulation class F (155 °C)
- enclosure class IP68 with one thermal sensor in each phase.

2. Performance range

Performance overview



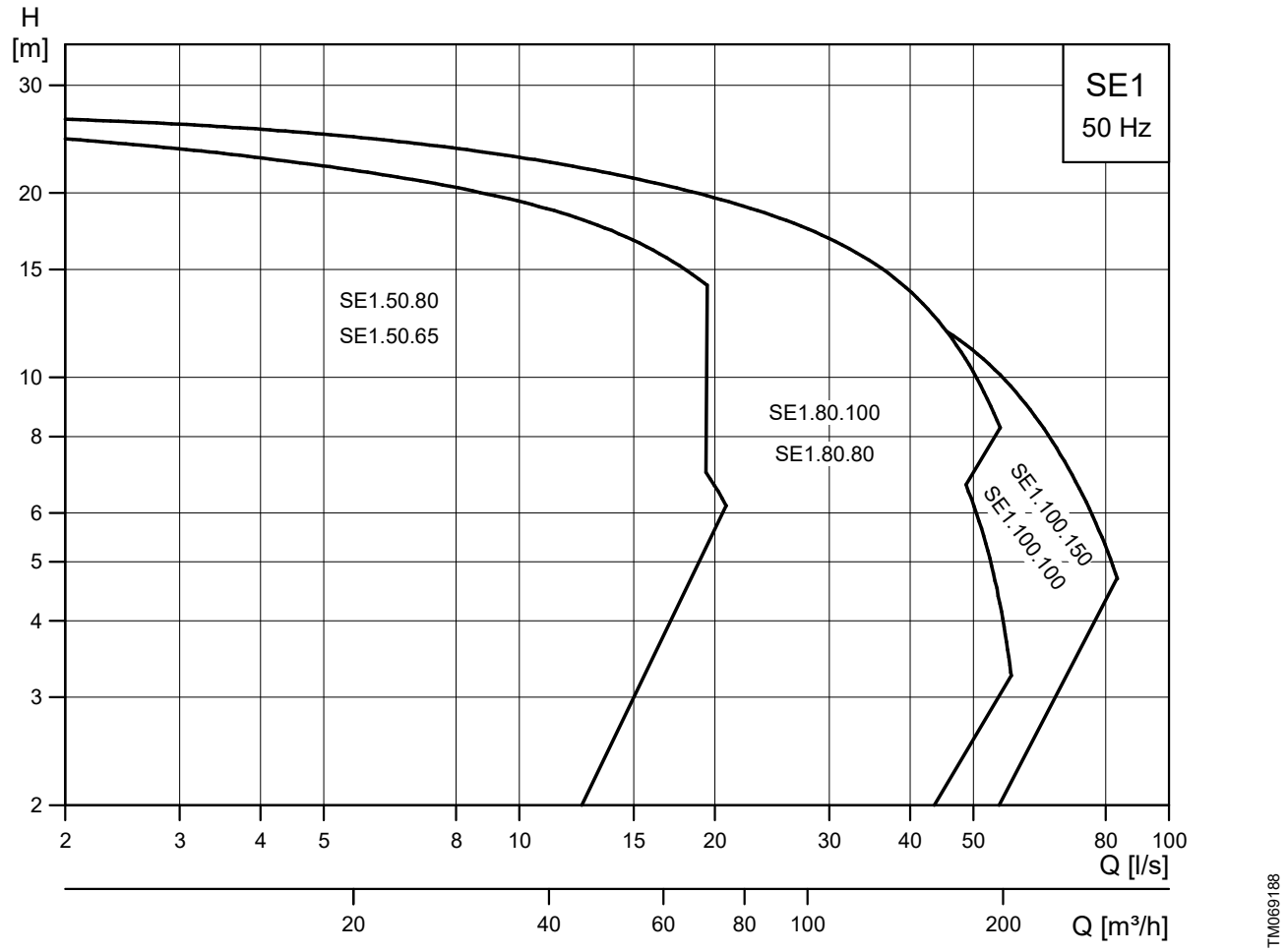
Performance overview

Related information

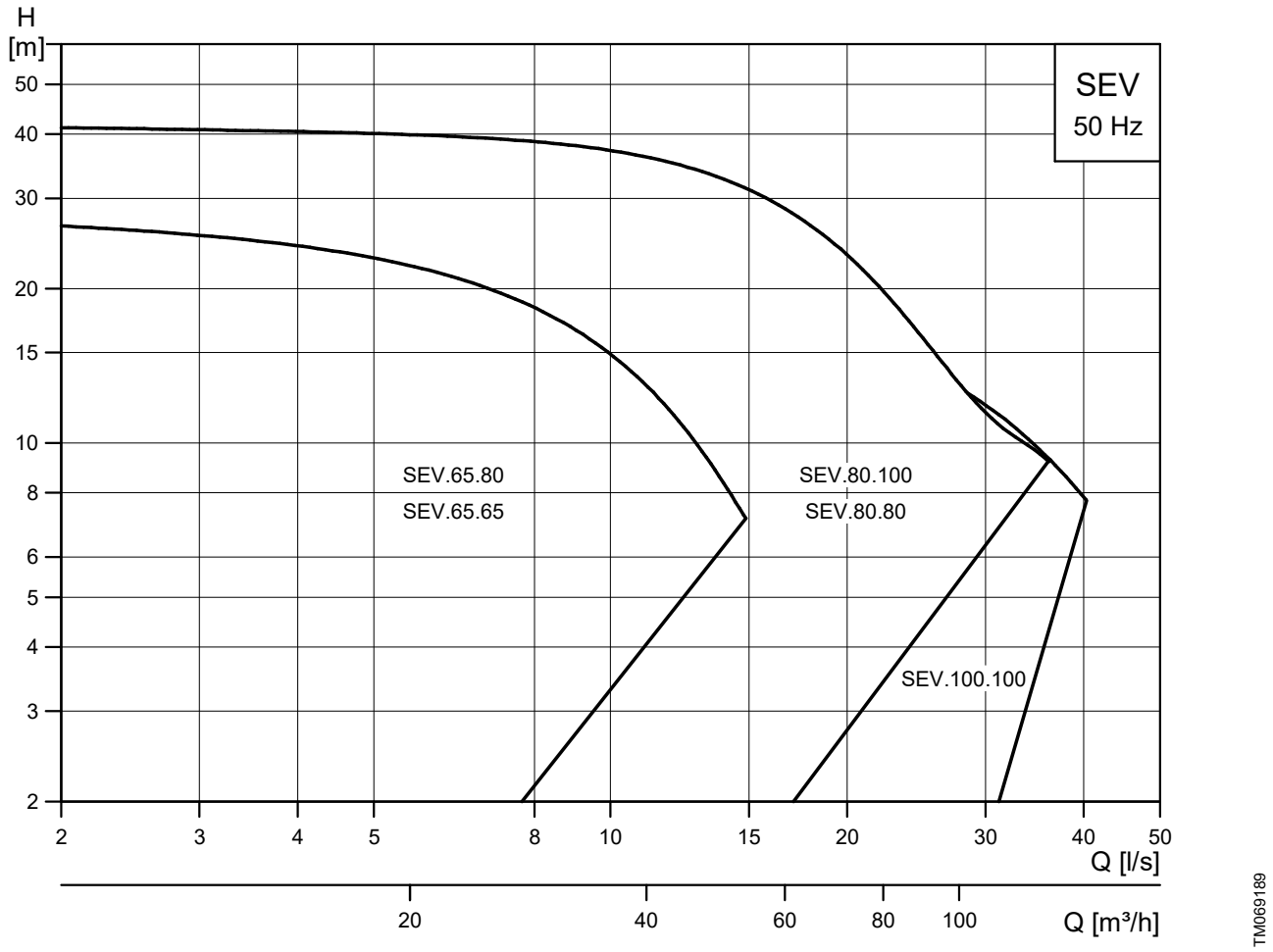
Performance range

Performance range

The figure below gives an overview of the various sizes and impeller types.



Performance range of SE1 pumps



Performance range of SEV pumps

Note: For information about the performance range of each individual pump, see *9. Performance curves and technical data*. If your required duty point exceeds the grey performance range below, see the data booklets of the SL (1/V), SE (1/V) and S range in the Grundfos Product Center.

Performance curves and technical data

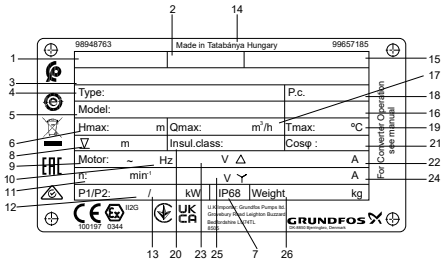
SE1		SEV		SEV	
SE1.50.65.22.(Ex).2	*SE1.50.65.22.(Ex).2*	SEV.65.65.22.(Ex).2	*SEV.65.65.22.(Ex).2*	SEV.80.100.92.(Ex).2	*SEV.80.100.92.(Ex).2*
SE1.50.65.30.(Ex).2	*SE1.50.65.30.(Ex).2*	SEV.65.65.30.(Ex).2	*SEV.65.65.30.(Ex).2*	SEV.80.100.110.(Ex).2	*SEV.80.100.110.(Ex).2*
SE1.50.65.40.(Ex).2	*SE1.50.65.40.(Ex).2*	SEV.65.65.40.(Ex).2	*SEV.65.65.40.(Ex).2*	SEV.100.100.30.(Ex).4	*SEV.100.100.30.(Ex).4*
SE1.50.80.22.(Ex).2	*SE1.50.80.22.(Ex).2*	SEV.65.80.22.(Ex).2	*SEV.65.80.22.(Ex).2*	SEV.100.100.40.(Ex).4	*SEV.100.100.40.(Ex).4*
SE1.50.80.30.(Ex).2	*SE1.50.80.30.(Ex).2*	SEV.65.80.30.(Ex).2	*SEV.65.80.30.(Ex).2*	SEV.100.100.55.(Ex).4	*SEV.100.100.55.(Ex).4*
SE1.50.80.40.(Ex).2	*SE1.50.80.40.(Ex).2*	SEV.65.80.40.(Ex).2	*SEV.65.80.40.(Ex).2*	SEV.100.100.75.(Ex).4	*SEV.100.100.75.(Ex).4*
SE1.80.80.15.(Ex).4	*SE1.80.80.15.(Ex).4*	SEV.80.80.11.(Ex).4	*SEV.80.80.11.(Ex).4*		
SE1.80.80.22.(Ex).4	*SE1.80.80.22.(Ex).4*	SEV.80.80.13.(Ex).4	*SEV.80.80.13.(Ex).4*		
SE1.80.80.30.(Ex).4	*SE1.80.80.30.(Ex).4*	SEV.80.80.15.(Ex).4	*SEV.80.80.15.(Ex).4*		
SE1.80.80.40.(Ex).4	*SE1.80.80.40.(Ex).4*	SEV.80.80.22.(Ex).4	*SEV.80.80.22.(Ex).4*		
SE1.80.80.55.(Ex).4	*SE1.80.80.55.(Ex).4*	SEV.80.80.40.(Ex).4	*SEV.80.80.40.(Ex).4*		
SE1.80.80.75.(Ex).4	*SE1.80.80.75.(Ex).4*	SEV.80.80.40.(Ex).2	*SEV.80.80.40.(Ex).2*		
SE1.80.100.15.(Ex).4	*SE1.80.100.15.(Ex).4*	SEV.80.80.60.(Ex).2	*SEV.80.80.60.(Ex).2*		

SE1		SEV		SEV
SE1.80.100.22.(Ex).4	*SE1.80.100.22.(Ex).4*	SEV.80.80.75.(Ex).2	*SEV.80.80.75.(Ex).2*	
SE1.80.100.30.(Ex).4	*SE1.80.100.30.(Ex).4*	SEV.80.80.92.(Ex).2	*SEV.80.80.92.(Ex).2*	
SE1.80.100.40.(Ex).4	*SE1.80.100.40.(Ex).4*	SEV.80.80.110.(Ex).2	*SEV.80.80.110.(Ex).2*	
SE1.80.100.55.(Ex).4	*SE1.80.100.55.(Ex).4*	SEV.80.100.11.(Ex).4	*SEV.80.100.11.(Ex).4*	
SE1.80.100.75.(Ex).4	*SE1.80.100.75.(Ex).4*	SEV.80.100.13.(Ex).4	*SEV.80.100.13.(Ex).4*	
SE1.100.100.40.(Ex).4	*SE1.100.100.40.(Ex).4*	SEV.80.100.15.(Ex).4	*SEV.80.100.15.(Ex).4*	
SE1.100.100.55.(Ex).4	*SE1.100.100.55.(Ex).4*	SEV.80.100.22.(Ex).4	*SEV.80.100.22.(Ex).4*	
SE1.100.100.75.(Ex).4	*SE1.100.100.75.(Ex).4*	SEV.80.100.40.(Ex).4	*SEV.80.100.40.(Ex).4*	
SE1.100.150.40.(Ex).4	*SE1.100.150.40.(Ex).4*	SEV.80.100.40.(Ex).2	*SEV.80.100.40.(Ex).2*	
SE1.100.150.55.(Ex).4	*SE1.100.150.55.(Ex).4*	SEV.80.100.60.(Ex).2	*SEV.80.100.60.(Ex).2*	
SE1.100.150.75.(Ex).4	*SE1.100.150.75.(Ex).4*	SEV.80.100.75.(Ex).2	*SEV.80.100.75.(Ex).2*	

3. Identification

Nameplate

Fix the extra nameplate supplied with the pump at the installation site or keep it in the cover of this booklet.



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Nameplate

Pos.	Description
1	Approved body and explosion protection classification
2	EU Explosion protection certificate number
3	Explosion protection mark
4	Type designation
5	Product number
6	Maximum head [m]
7	Enclosure class
8	Maximum installation depth [m]
9	Number of phases
10	Frequency [Hz]
11	Speed [min^{-1}]
12	Motor input power P1 [kW]
13	Motor output power P2 [kW]
14	Country of production
15	UK Explosion protection certificate number
16	Standard for wastewater lifting stations for buildings and installation sites
17	Maximum flow rate [m^3/h]
18	Production code (year/week)
19	Maximum liquid temperature [°C]
20	Insulation class
21	Power factor
22	Rated current [A], delta connection
23	Rated voltage [V], delta connection
24	Rated current [A], star connection
25	Rated voltage [V], star connection
26	Net weight [kg]

Type key

Example: **SE1.80.80.40.A.Ex.4.51D.B**

Code	Explanation	Designation
SE	Sewage and wastewater pump	Pump type
1	S-tube® impeller	Impeller type
V	SuperVortex impeller	
80	Maximum solids size [mm]	Pump passage
80	Nominal diameter [mm]	Pump outlet
40	Output power P2/10	Power [kW]
[ ]	Standard (without sensor)	Sensor version
A	Sensor version	
[ ]	Non-explosion-proof pump (standard)	Pump version
Ex	Explosion-proof pump	
2	2-pole	Number of poles
4	4-pole	
50	50 Hz	Frequency [Hz] [1]
60	60 Hz	
0B	400-415 V, DOL	Voltage and starting method
0D	380-415 V, DOL	
1D	380-415 V, Y/D	
0E	220-240 V, DOL	
1E	220-240 V, Y/D	
0F	220-277 V, DOL	
0G	380-480 V, DOL	
1F	220-277 V, D / 380-480 V, Y Y/D	
[ ]	First generation	Generation [2]
B	Second generation	
[ ]	Cast iron impeller, pump housing and top cover	Pump materials
Q	Stainless steel impeller, cast iron pump housing and top cover	
R	Entire pump of stainless steel	
D	Stainless steel	
Z	Custom-built products	Customisation

1) Maximum frequency in case of frequency-converter operation.

2) The generation code distinguishes between pumps of different design but with the same power rating.

4. Selection of product

Ordering the product

When ordering a pump, take these aspects into consideration:

- pump type
- custom-built variation (optional)
- explosion-proof version
- accessories
- 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	SE1	SEV
Liquid and operating characteristics		
Dry solids content up to 3 %	•	•
Dry solids content up to 5 %		•
Relatively low content of fibres and solids	•	•
Relatively high content of fibres and solids		•
Relatively low number of operating hours	•	•
Relatively high number of operating hours	•	
Applications		
Stormwater	•	•
Groundwater	•	•
Drainage and surface water	•	•
Drainage and surface water with small impurities	•	•
Abrasive surface water	•	•
Wastewater with long fibres e.g. from laundries	•	•
Domestic wastewater with discharge from toilets	•	•
Municipal sewage	•	•
Sewage from commercial buildings	•	•
Industrial process water with fibres/solids		•
Industrial process water with solids	•	•
Industrial process water without solids and fibres	•	

The list below is a detailed description of the received product when this pump is ordered:

Pump	Product No
SE1.80.80.40.A.Ex.4.51D.B	96177682

- pump as specified in the type key
- 10 m cable
- paint: NCS 9000N black (RAL 9005), gloss code 30, thickness 100 µm
- thermal switch in motor windings
- tested according to ISO 9906:2012, grade 3B.

See section *Performance curves and technical data*.

Note: Product-specific data for the pump can be seen in the Grundfos Product Center, using the product number 96177682.

Related information

Type key

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 and special materials.

Variants can be seen in the *List of variants* on page *List of variants*.

For requirements or designs not included in the list, please contact Grundfos.

Related information

List of variants

Explosion-proof version

The entire range is available in explosion-proof versions.

Related information

Approvals

Accessories

Depending on installation type and pump variant, accessories my need to be ordered. See *Accessories*.

Note: Ordered accessories are not factory-fitted.

Control options

The following Grundfos pump controllers are available:

- Grundfos Dedicated Controls (DC)
- Grundfos LC controllers.

The 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 is supplied with application-optimised software and can be configured to meet specific pumping needs.

5. Product range

SE1 pumps

	Sensor	Ex-proof	Poles			50Hz				60Hz		Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.50.65.22	-	-	2	96048364	96047509	96047513			93145401	93145402		-
	-	-	2	92739567	92739565	92739566			93145473	93145474		Q
	-	-	2	92739580	92739568	92739569			93145892	93145893		R
	A	EX	2		96177673 92871064				93142849	93142860		-
	A	EX	2		92739589 92871006				93142933	93142934		Q
	A	EX	2		92739591 92871007				93145827	93145828		R
SE1.50.65.30	-	-	2	96048368	96047517	96047521			93145403	93145404		-
	-	-	2	92739595	92739593	92739594			93145475	93145476		Q
	-	-	2	92739598	92739596	92739597			93145894	93145895		R
	A	EX	2		96177674 92871065				93142861	93142862		-
	A	EX	2		92739607 92871008				93142935	93142936		Q
	A	EX	2		92739609 92871009				93145829	93145830		R
SE1.50.65.40	-	-	2	96048372			96047525	96047529			93145405	-
	-	-	2	92739613			92739611	92739612			93145477	Q
	-	-	2	92739616			92739614	92739615			93145896	R
	A	EX	2	92871066			96177675				93142863	-
	A	EX	2	92871020			92739625				93142937	Q
	A	EX	2	92871021			92739627				93145831	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.50.80.22	-	-	2	96047399	96047981	96047985			93145406	93145407		-
	-	-	2	92739631	92739629	92739630			93145478	93145479		Q
	-	-	2	92739634	92739632	92739633			93145832	93145898		R
	A	EX	2		96177676 92871067				93142864	93142865		-
	A	EX	2		92739644 92871022				93142938	93142939		Q
	A	EX	2		92739646 92871023				93145832	93145833		R
SE1.50.80.30	-	-	2	96047395	96047989	96047993			93145408	93145409		-
	-	-	2	92739650	92739648	92739649			93145480	93145481		Q
	-	-	2	92739653	92739651	92739652			93145834	93145900		R
	A	EX	2		96177677 92871068				93142866	93142867		-
	A	EX	2		92739662 92871024				93142940	93142941		Q
	A	EX	2		92739664 92871025				93145834	93145835		R
SE1.50.80.40	-	-	2	96047391			96047997				93145410	-
	-	-	2	92739668			92739666				93145482	Q
	-	-	2	92739671			92739669				93145901	R
	A	EX	2	92871069			96177678	96048001			93142868	-
	A	EX	2	92871026			92739680	92739667			93142942	Q
	A	EX	2	92871027			92739682	92739670			93145836	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.80.80.15	-	-	4	96048376	96047533	96047541			93145411	93145412		-
	-	-	4	92739686	92739684	92739685			93145483	93145484		Q
	-	-	4	92739689	92739687	92739688			93145902	93145903		R
	A	EX	4		96177679 92871070				93142869	93142870		-
	A	EX	4		92739699 92871028				93142943	93142944		Q
	A	EX	4		92739701 92871029				93145837	93145838		R
SE1.80.80.22	-	-	4	96048384	96047549	96047557			93145413	93145414		-
	-	-	4	92739705	92739703	92739704			93145485	93145486		Q
	-	-	4	92739708	92739706	92739707			93145904	93145905		R
	A	EX	4		96177680 92871071				93142871	93142872		-
	A	EX	4		92739715 92871030				93142945	93142946		Q
	A	EX	4		92739717 92871031				93145839	93145840		R
SE1.80.80.30	-	-	4	96048392	96047565	96047581					93145415	-
	-	-	4	92739721	92739719	92739720					93145487	Q
	-	-	4	92739724	92739722	92739723					93145906	R
	A	EX	4		96177681 92871072						93142873	-
	A	EX	4		92739734 92871032						93142947	Q
	A	EX	4		92739736 92871033						93145841	R
SE1.80.80.40	-	-	4	96048408			96047597	96047605			93145416	-
	-	-	4	92739740			92739738	92739739			93145488	Q
	-	-	4	92739743			92739741	92739742			93145907	R
	A	EX	4	92871073			96177682				93142874	-
	A	EX	4	92871034			92739752				93142948	Q
	A	EX	4	92871035			92739754				93145842	R
SE1.80.80.55	-	-	4	96048416			96047613	96047621			93145417	-
	-	-	4	92739758			92739756	92739757			93145489	Q
	-	-	4	92739761			92739759	92739760			93145908	R
	A	EX	4	92871074			96177683				93142875	-
	A	EX	4	92871036			92739770				93142949	Q
	A	EX	4	92871037			92739772				93145844	R
SE1.80.80.75	-	-	4	96048424			96047627	96047635			93145418	-
	-	-	4	92739776			92739774	92739775			93145490	Q
	-	-	4	92739779			92739777	92739778			93145909	R
	A	EX	4	92871075			96177684				93142876	-
	A	EX	4	92871038			92739788				93142950	Q
	A	EX	4	92871039			92739790				93145845	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.80.100.15	-	-	4	96618066 96047387	96048005	96048013			93145419	93145420		-
	-	-	4	92739794	92739792	92739793			93145491	93145492		Q
	-	-	4	92739797	92739795	92739796			93145910	93145911		R
	A	EX	4		96177685 92871076				93142877	93142878		-
	A	EX	4		92739806 92871040				93142951	93142952		Q
	A	EX	4		92739808 92871041				93145846	93145847		R
SE1.80.100.22	-	-	4	96047379	96048021	96048029			93145421	93145422		-
	-	-	4	92739812	92739810	92739811			93145493	93145494		Q
	-	-	4	92739815	92739813	92739814			93145912	93145913		R
	A	EX	4		96177686 92871077				93142879	93142880		-
	A	EX	4		92739824 92871042				93142953	93142954		Q
	A	EX	4		92739826 92871043				93145848	93145849		R
SE1.80.100.30	-	-	4	96047371	96048037	96048061					93145423	-
	-	-	4	92739830	92739828	92739829					93145495	Q
	-	-	4	92739833	92739831	92739832					93145914	R
	A	EX	4		96177687 92871078						93142881	-
	A	EX	4		92739842 92871044						93142955	Q
	A	EX	4		92739844 92871045						93145850	R
SE1.80.100.40	-	-	4	96047355			96048069	96048077			93145424	-
	-	-	4	92739848			92739846	92739847			93145496	Q
	-	-	4	92739851			92739849	92739850			93145915	R
	A	EX	4	92871079			96177688				93142882	-
	A	EX	4	92871046			92739860				93142956	Q
	A	EX	4	92871047			92739862				93145851	R
SE1.80.100.55	-	-	4	96047347			96048085	96048093			93145425	-
	-	-	4	92739866			92739864	92739865			93145497	Q
	-	-	4	92739869			92739867	92739868			93145916	R
	A	EX	4	92871080			96177689				93142883	-
	A	EX	4	92871048			92739878				93142957	Q
	A	EX	4	92871049			92739880				93145852	R
SE1.80.100.75	-	-	4	96047339			96048099	96048107			93145426	-
	-	-	4	92739884			92739882	92739883			93145498	Q
	-	-	4	92739887			92739885	92739886			93145917	R
	A	EX	4	92871081			96177690				93142884	-
	A	EX	4	92871050			92739896				93142958	Q
	A	EX	4	92871051			92739898				93145853	R

	Sensor	Ex-proof	Poles			50Hz				60Hz		Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.80.100.15	-	-	4	96618066 96047387	96048005	96048013			93145419	93145420		-
	-	-	4	92739794	92739792	92739793			93145491	93145492		Q
	-	-	4	92739797	92739795	92739796			93145910	93145911		R
	A	EX	4		96177685 92871076				93142877	93142878		-
	A	EX	4		92739806 92871040				93142951	93142952		Q
	A	EX	4		92739808 92871041				93145846	93145847		R
SE1.80.100.22	-	-	4	96047379	96048021	96048029			93145421	93145422		-
	-	-	4	92739812	92739810	92739811			93145493	93145494		Q
	-	-	4	92739815	92739813	92739814			93145912	93145913		R
	A	EX	4		96177686 92871077				93142879	93142880		-
	A	EX	4		92739824 92871042				93142953	93142954		Q
	A	EX	4		92739826 92871043				93145848	93145849		R
SE1.80.100.30	-	-	4	96047371	96048037	96048061					93145423	-
	-	-	4	92739830	92739828	92739829					93145495	Q
	-	-	4	92739833	92739831	92739832					93145914	R
	A	EX	4		96177687 92871078						93142881	-
	A	EX	4		92739842 92871044						93142955	Q
	A	EX	4		92739844 92871045						93145850	R
SE1.80.100.40	-	-	4	96047355			96048069	96048077			93145424	-
	-	-	4	92739848			92739846	92739847			93145496	Q
	-	-	4	92739851			92739849	92739850			93145915	R
	A	EX	4	92871079			96177688				93142882	-
	A	EX	4	92871046			92739860				93142956	Q
	A	EX	4	92871047			92739862				93145851	R
SE1.80.100.55	-	-	4	96047347			96048085	96048093			93145425	-
	-	-	4	92739866			92739864	92739865			93145497	Q
	-	-	4	92739869			92739867	92739868			93145916	R
	A	EX	4	92871080			96177689				93142883	-
	A	EX	4	92871048			92739878				93142957	Q
	A	EX	4	92871049			92739880				93145852	R
SE1.80.100.75	-	-	4	96047339			96048099	96048107			93145426	-
	-	-	4	92739884			92739882	92739883			93145498	Q
	-	-	4	92739887			92739885	92739886			93145917	R
	A	EX	4	92871081			96177690				93142884	-
	A	EX	4	92871050			92739896				93142958	Q
	A	EX	4	92871051			92739898				93145853	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SE1.100.100.40	-	-	4	96048432			96047641	96047649			93145427	-
	-	-	4	92739902			92739954	92739901			93145499	Q
	-	-	4	92739905			92739957	92739904			93145918	R
	A	EX	4	92871082			96177691				93142885	-
	A	EX	4	92871052			92739914				93142959	Q
	A	EX	4	92871053			92739916				93145854	R
SE1.100.100.55	-	-	4	96048440			96047657	96047665			93145428	-
	-	-	4	92739920			92739972	92739919			93145500	Q
	-	-	4	92739923			92739975	92739922			93145919	R
	A	EX	4	92871083			96177692				93142886	-
	A	EX	4	92871054			92739932				93142960	Q
	A	EX	4	92871055			92739934				93145855	R
SE1.100.100.75	-	-	4	96048448			96047671	96047679			93145429	-
	-	-	4	92739938			92739990	92739937			93145501	Q
	-	-	4	92739941			92739993	92739940			93145930	R
	A	EX	4	92871084			96177693				93142887	-
	A	EX	4	92871056			92739950				93142961	Q
	A	EX	4	92871057			92739952				93145856	R
SE1.100.150.40	-	-	4	96047331			96048113	96048121			93145430	-
	-	-	4	92739956			92739900	92739955			93145503	Q
	-	-	4	92739959			92739903	92739958			93145931	R
	A	EX	4	92871085			96177694				93142888	-
	A	EX	4	92871058			92739968				93142962	Q
	A	EX	4	92871059			92739970				93145857	R
SE1.100.150.55	-	-	4	96047323			96048129	96048137			93145431	-
	-	-	4	92739974			92739918	92739973			93145504	Q
	-	-	4	92739977			92739921	92739976			93145932	R
	A	EX	4	92871086			96177695				93142889	-
	A	EX	4	92871060			92739986				93142963	Q
	A	EX	4	92871061			92739988				93145858	R
SE1.100.150.75	-	-	4	96047315			96048143	96048151			93145432	-
	-	-	4	92739992			92739936	92739991			93145505	Q
	-	-	4	92739995			92739939	92739994			93145933	R
	A	EX	4	92871087			96177696				93142890	-
	A	EX	4	92871062			92740004				93142964	Q
	A	EX	4	92871063			92740006				93145859	R

SEV pumps

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SEV.65.65.22	-	-	2	96048462	96047697	96047705			93145433	93145434		-
	-	-	2	99830609	98450865	98450867			93145506	93145507		Q
	-	-	2		98489849	98489861			93193004	93193005		R
	A	EX	2		96177697 92871088				93142891	93142892		-
	A	EX	2		92887782 92880033				93142965	93142966		Q
	A	EX	2		92887752 92878237				93193008	93193009		R
SEV.65.65.30	-	-	2	96048470	96047713	96047721			93145435	93145436		-
	-	-	2	98451162	98450866	98450868			93145508	93145509		Q
	-	-	2		98489850	98489862			93193006	93193007		R
	A	EX	2		96177698 92871089				93142893	93142894		-
	A	EX	2		92887783 92880034				93142967	93142968		Q
	A	EX	2		92887753 92878238				93193020	93193021		R
SEV.65.65.40	-	-	2	96048478			96047729	96047737			93145437	-
	-	-	2	98451163			98450869	99862651			93145510	Q
	-	-	2				98489863	98489864			93145965	R
	A	EX	2	92871090			96177699				93142895	-
	A	EX	2	92880035			92887784				93142969	Q
	A	EX	2	92878239			92887754				93145890	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SEV.65.80.22	-	-	2	96047301	96048169	96048177			93145438	93145439		-
	-	-	2	99862661	98450871	98450873			93145511	93145512		Q
	-	-	2		98489865	98489867			93193026	93193027		R
	A	EX	2		96177700 92871091				93142896	93142897		-
	A	EX	2		92887785 92880036				93142970	93142971		Q
	A	EX	2		92887755 92878260				93193030	93193031		R
SEV.65.80.30	-	-	2	96047293	96048185	96048193			93145440	93145441		-
	-	-	2	98451165	98450872	98450874			93145513	93145514		Q
	-	-	2		98489866	98489868			93193028	93193029		R
	A	EX	2		96177701 92871092				93142898	93142899		-
	A	EX	2		92887786 92880037				93142972	93142973		Q
	A	EX	2		92887756 92878261				93193032	93193033		R
SEV.65.80.40	-	-	2	96047285			96048201	96048209			93145442	-
	-	-	2	99862662			98450875	99862652			93145515	Q
	-	-	2				98489869	98489870			93145966	R
	A	EX	2	92871093			96177702				93142900	-
	A	EX	2	92880038			92887787				93142974	Q
	A	EX	2	92878262			92887757				93145891	R

	Sensor	Ex-proof	Poles			50Hz				60Hz		Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SEV.80.80.11	-	-	4	96048486	96047745	96047751			93145443	93145444		-
	-	-	4	97638245	97637756	97679037			93145516	93145517		Q
	-	-	4	96962883	96889323	97679507			93145935	93145958		R
	A	EX	4		96177703 92871094				93142901	93142902		-
	A	EX	4		92887788 92880039				93142975	93142976		Q
	A	EX	4		92887758 92878263				93145861	93145883		R
SEV.80.80.13	-	-	4	96048492	96047757	96047763			93145445	93145446		-
	-	-	4	97638246	97637757	97679038			93145518	93145519		Q
	-	-	4	96962885	96889324	97679508			93145936	93145934		R
	A	EX	4		96177704 92871095				93142903	93142904		-
	A	EX	4		92887789 92880050				93142977	93142978		Q
	A	EX	4		92887759 92878264				93145862	93145860		R
SEV.80.80.15	-	-	4	96048498	96047769	96047775			93145447	93145448		-
	-	-	4	97638247	97637758	97679039			93145520	93145521		Q
	-	-	4	96962886	96889325	97679509			93145937	93145959		R
	A	EX	4		96177705 92871096				93142905	93142906		-
	A	EX	4		92887790 92880051				93142979	93142980		Q
	A	EX	4		92887760 92878265				93145863	93145884		R
SEV.80.80.22	-	-	4	96047497	96047781	96047789			93145449	93145450		-
	-	-	4	97638248	97637759	97679040			93145522	93145523		Q
	-	-	4	96962887	96889326	97679510			93145938	93145960		R
	A	EX	4		96177706				93142907	93142908		-
	A	EX	4		92887791 92880052				93142981	93142982		Q
	A	EX	4		92887761				93145864	93145885		R
SEV.80.80.40	-	-	4	93098090 96047489			96047797	96047813			93145451	-
	-	-	4	97638249			97637761	97679041			93145524	Q
	-	-	4	96962889			96889327	97679511			93145948	R
	A	EX	4	92871097			96177707				93142909	-
	A	EX	4	92880053			92887792				93142983	Q
	A	EX	4	92878267			92887762				93145873	R
SEV.80.80.40	-	-	2	96047473			96047829	96047837				-
	-	-	2	97638250			97637760	99862585				Q
	-	-	2	96962888	99058877		96889328	99862620				R
	A	EX	2	92871098			96177708					-
	A	EX	2	92880054			92887793					Q
	A	EX	2	92878965			92887763					R
SEV.80.80.60	-	-	2	96047465			96047845	96047853			93145452	-
	-	-	2	97638251			97637762	99862586			93145525	Q
	-	-	2	96962890	99058880		96889329	99862621			93145943	R
	A	EX	2	92871099			96177709				93142910	-
	A	EX	2	92880055			92887794				93142984	Q
	A	EX	2	92878268			92887764				93145869	R

	Sensor	Ex-proof	Poles	50Hz				60Hz	Variant
SEV.80.80.75	-	-	2	96047457		96047861	96047869	93145453	-
	-	-	2	97638252		97637763	99862587	93145526	Q
	-	-	2	96980890	99058148	96889330	97679514	93145944	R
	A	EX	2	92871100		96177710		93142911	-
	A	EX	2	92880056		92887795		93142985	Q
	A	EX	2	92878269		92887765		93145870	R
SEV.80.80.92	-	-	2	96047201		96047207	96047195	93145454	-
	-	-	2	99862577		97637764	99862588	93145527	Q
	-	-	2	96962891		96889331	99862622	93145945	R
	A	EX	2	92871101		96177711		93142912	-
	A	EX	2	92880057		92887796		93142986	Q
	A	EX	2	92878270		92887766		93145871	R
SEV.80.80.110	-	-	2	96047449		96047877	96047885	93145455	-
	-	-	2	97638254		97637765	97679046	93145528	Q
	-	-	2	96962892		96889332	97679516	93145946	R
	A	EX	2	92871102		96177712		93142913	-
	A	EX	2	92880058		92887797		93142987	Q
	A	EX	2	92878271		92887767		93145872	R

	Sensor	Ex-proof	Poles			50H				60Hz		Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SEV.80.100.11	-	-	4	96780761	96780674	96780675			93145456	93145457		-
	-	-	4	99862578	97637766	97679047			93145529	93145530		Q
	-	-	4	96962934	96889333	97679517			93145939	93145961		R
	A	EX	4		96780734 92871107				93142914	93142915		-
	A	EX	4		92887798 92880059				93142988	93142989		Q
	A	EX	4		92887768 92878272				93145865	93145886		R
SEV.80.100.13	-	-	4	96780762	96780676	96780677			93145458	93145459		-
	-	-	4	97638256	97637767	97679048			93145531	93145532		Q
	-	-	4	96962935	96889334	97679518			93145940	93145962		R
	A	EX	4		96780736 92871108				93142916	93142917		-
	A	EX	4		92887799 92880060				93142990	93142991		Q
	A	EX	4		92887769 92878273				93145866	93145887		R
SEV.80.100.15	-	-	4	96780763	96780678	96780679			93145460	93145461		-
	-	-	4	97638257	97637768	97679049			93145533	93145534		Q
	-	-	4	96962936	96889335	97679519			93145941	93145963		R
	A	EX	4		96780738 92871109				93142918	93142919		-
	A	EX	4		92887800 92880061				93142992	93142993		Q
	A	EX	4		92887770 92878274				93145867	93145888		R
SEV.80.100.22	-	-	4	96780760	96780680	96780681			93145462	93145463		-
	-	-	4	97638258	97637769	97679050			93145535	93145536		Q
	-	-	4	96980821	96889336	97679520			93145942	93145964		R
	A	EX	4		96780740 92878185				93142920	93142921		-
	A	EX	4		92887801 92880062				93142994	93142995		Q
	A	EX	4		92887771 92878276				93145868	93145889		R
SEV.80.100.40	-	-	4	96780759			96780682	96780683			93145464	-
	-	-	4	97638259			97637771	97679051			93145537	Q
	-	-	4	96962938			96889337	97679521			93145953	R
	A	EX	4	92871110			96780742				93142922	-
	A	EX	4	92880064			92887803				93142996	Q
	A	EX	4	92878278			92887773				93145878	R
SEV.80.100.40	-	-	2	96780758			96780684	96780685				-
	-	-	2	97638260			97637770	99862589				Q
	-	-	2	96962937			96889338	99862623				R
	A	EX	2	92871111			96780744					-
	A	EX	2	92880063			92887802					Q
	A	EX	2	92878277			92887772					R
SEV.80.100.60	-	-	2	96780757			96780686	96780687		93145465		-
	-	-	2	99862579			97637772	99862590		93145538		Q
	-	-	2	96962939			96889339	99862624		93145949		R
	A	EX	2	92871112			96780746			93142923		-
	A	EX	2	92880065			92887804			93142997		Q
	A	EX	2	92878279			92887774			93145874		R

	Sensor	Ex-proof	Poles	50H			60Hz	Variant
SEV.80.100.75	-	-	2	96780756	96780688	96780689	93145466	-
	-	-	2	99862580	97637773	99862591	93145540	Q
	-	-	2	96962940	96889340	99862625	93145950	R
	A	EX	2	92871113	96780748		93142924	-
	A	EX	2	92880066	92887805		93142998	Q
	A	EX	2	92878280	92887775		93145875	R
SEV.80.100.92	-	-	2	96780754	96780690	96780691	93145467	-
	-	-	2	99862581	97637774	99862592	93145541	Q
	-	-	2	96962941	96889341	99862626	93145951	R
	A	EX	2	92871114	96780750		93142925	-
	A	EX	2	92880067	92887806		93142999	Q
	A	EX	2	92878281	92887776		93145876	R
SEV.80.100.110	-	-	2	96780755	96780692	96780693	93145468	-
	-	-	2	97638264	97637775	97679056	93145542	Q
	-	-	2	96962942	96889342	97679526	93145952	R
	A	EX	2	92871115	96780752		93142926	-
	A	EX	2	92880068	92887807		93143000	Q
	A	EX	2	92878282	92887777		93145877	R

	Sensor	Ex-proof	Poles	50Hz					60Hz			Variant
Type key	[.A]	[EX]	[.2/.4]	[50B]	[50D]	[50E]	[51D]	[51E]	[60F]	[60G]	[61F]	[-/.Q/.R]
SEV.100.100.30	-	-	4	96047443	96047893	96047909		96047933			93145469	-
	-	-	4	99862582	97637776	97679057		97679058			93145543	Q
	-	-	4	96965899	96889343	97679527		97679528			93145954	R
	A	EX	4	-	96177713 92871103						93142928	-
	A	EX	4	-	92887808 92880069						93143001	Q
	A	EX	4	-	92887778 92878283						93145879	R
SEV.100.100.40	-	-	4	96047427			96047925	96047949			93145470	-
	-	-	4	97638266			97637777	99862593			93145544	Q
	-	-	4	96965900			96889344	99862627			93145955	R
	A	EX	4	92871104			96177714				93142929	-
	A	EX	4	92880070			92887809				93143002	Q
	A	EX	4	92878284			92887779				93145880	R
SEV.100.100.55	-	-	4	96047419			96047941	96047965			93145471	-
	-	-	4	99862583			97637778	99862594			93145545	Q
	-	-	4	96965901			96889345	99862628			93145956	R
	A	EX	4	92871105			96177715				93142930	-
	A	EX	4	92880071			92887810				93143003	Q
	A	EX	4	92878285			92887780				93145881	R
SEV.100.100.75	-	-	4	96047411			96047957				93145472	-
	-	-	4	99862584			97637779				93145546	Q
	-	-	4	96965932			96889346				93145957	R
	A	EX	4	92871106			96177716				93142932	-
	A	EX	4	92880072			92887811				93143004	Q
	A	EX	4	92878286			92887781				93145882	R

6. Variants

List of variants

Motor		
Various cable lengths	**Note:** When you use a cable length different from the standard length, calculate a new cable cross section.	15 m
		20 m
		25 m
		30 m
		40 m
		50 m
EMC power cables	Screened power cables designed for frequency converter operation	10 m
		15 m
		20 m
		25 m
		30 m
		40 m
		50 m

Tests		
Note: Specify all requests regarding the testing when you order the pump.		
Test at specified duty on standard impeller curve		
Trimmed impeller for specified duty test [3)]		
Additional test of entire QH curve (including report)	5-10 duty points from the pump performance curve	
Different test standard	Efficiency guaranteed by Grundfos	ISO 9906:2012, grade 1B tolerance
		ISO 9906:2012, grade 2B tolerance
Customer-requested duty point	Test according to the customer-specified duty point on standard pump curve. Contact Grundfos.	ISO 9906:2012, grades 1 and 2 tolerances
Vibration test (including report)	According to the Grundfos factory quality standard	
String test	Contact Grundfos.	
Witness test	Contact Grundfos.	

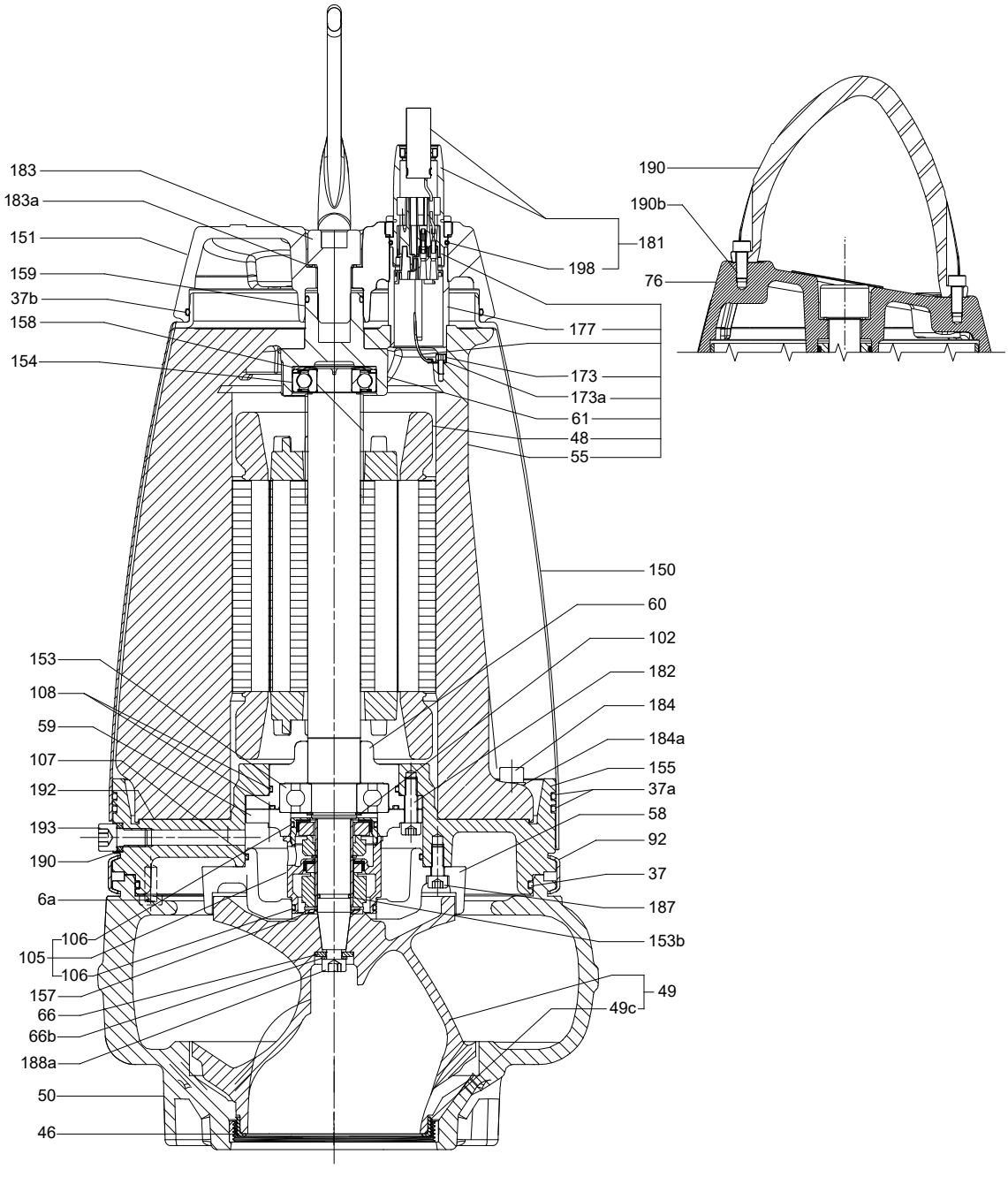
3) SEV impellers can be trimmed on request.

Certificates		
ATEX-approved pump report	Special Grundfos report. Contact Grundfos.	
Certificate of compliance with order	According to EN10204 2.1	According to ISO 9906:2012, grades 1, 2 and 3B.
Pump certificate	According to EN10204 2.2	According to ISO 9906:2012, grades 1, 2 and 3B.
Inspection certificate	According to EN10204 3.1	According to ISO 9906:2012, grades 1, 2 and 3B.
Material specification report	According to EN10204 3.1B	
Material report with certificate	According to EN10204 3.2	Material supplier information
Inspection certificate, Lloyds Register	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.	

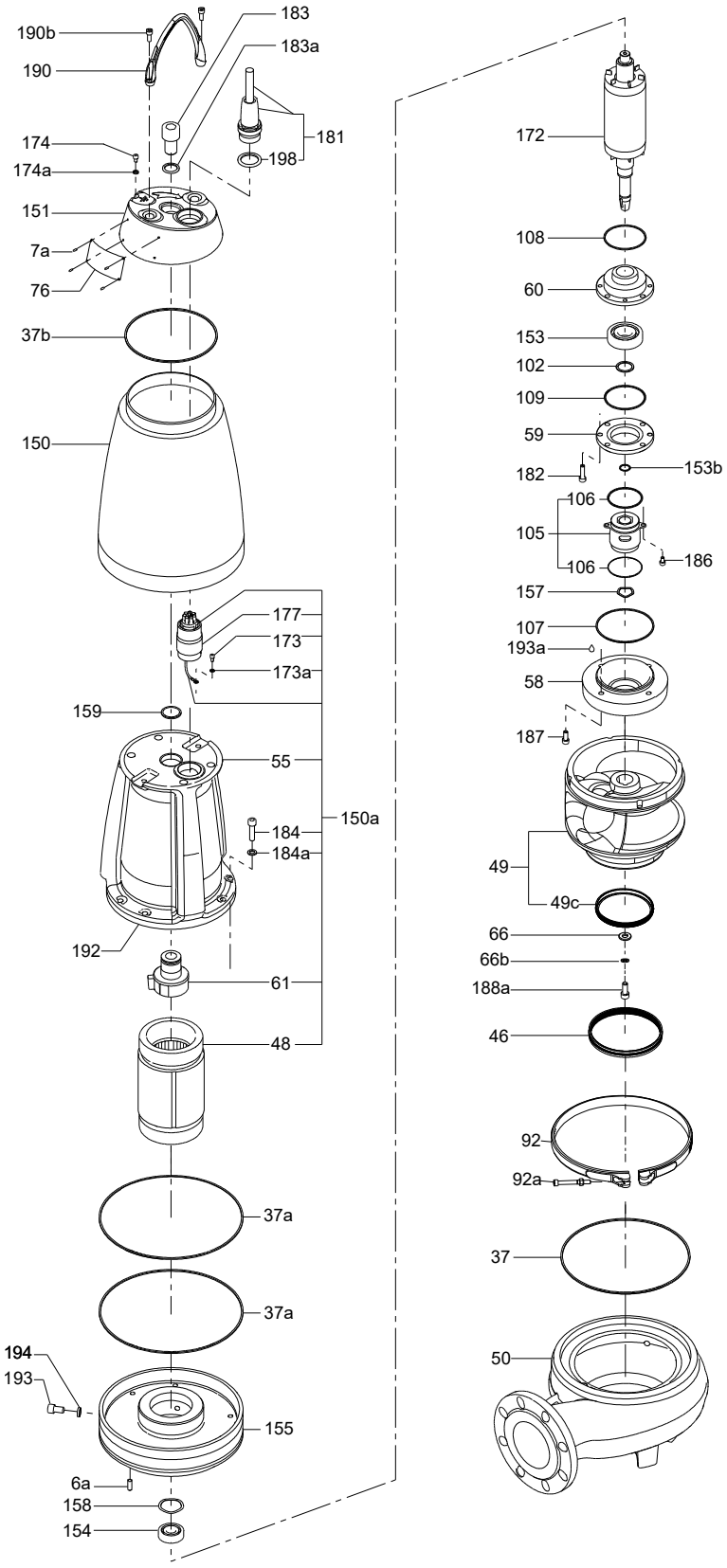
Miscellaneous		
Solution	Customer benefits	
FKM sealing (optional)	Resistant to acids Resistant to mineral oils and vegetable oils Resistant to most solvents (toluene, petrol, trichloroethylene)	Contact Grundfos.
Cable protection hose	Resistant to acids Resistant to most oils Resistant to most solvents	Contact Grundfos.
Heavy-duty wear ring kit	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.
Aluminium anodes	Increased life of pumps in aggressive environments such as maritime applications Increased corrosion resistance	Contact Grundfos.
Stainless steel impeller according to EN 1.4517	Increased wear resistance	Contact Grundfos.
Ceramic coating of impeller and pump housing	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 RAL3000 and other colours)		Contact Grundfos.
Special packaging		Contact Grundfos.
Special nameplate		Contact Grundfos.
Other variants		Contact Grundfos.

7. Construction

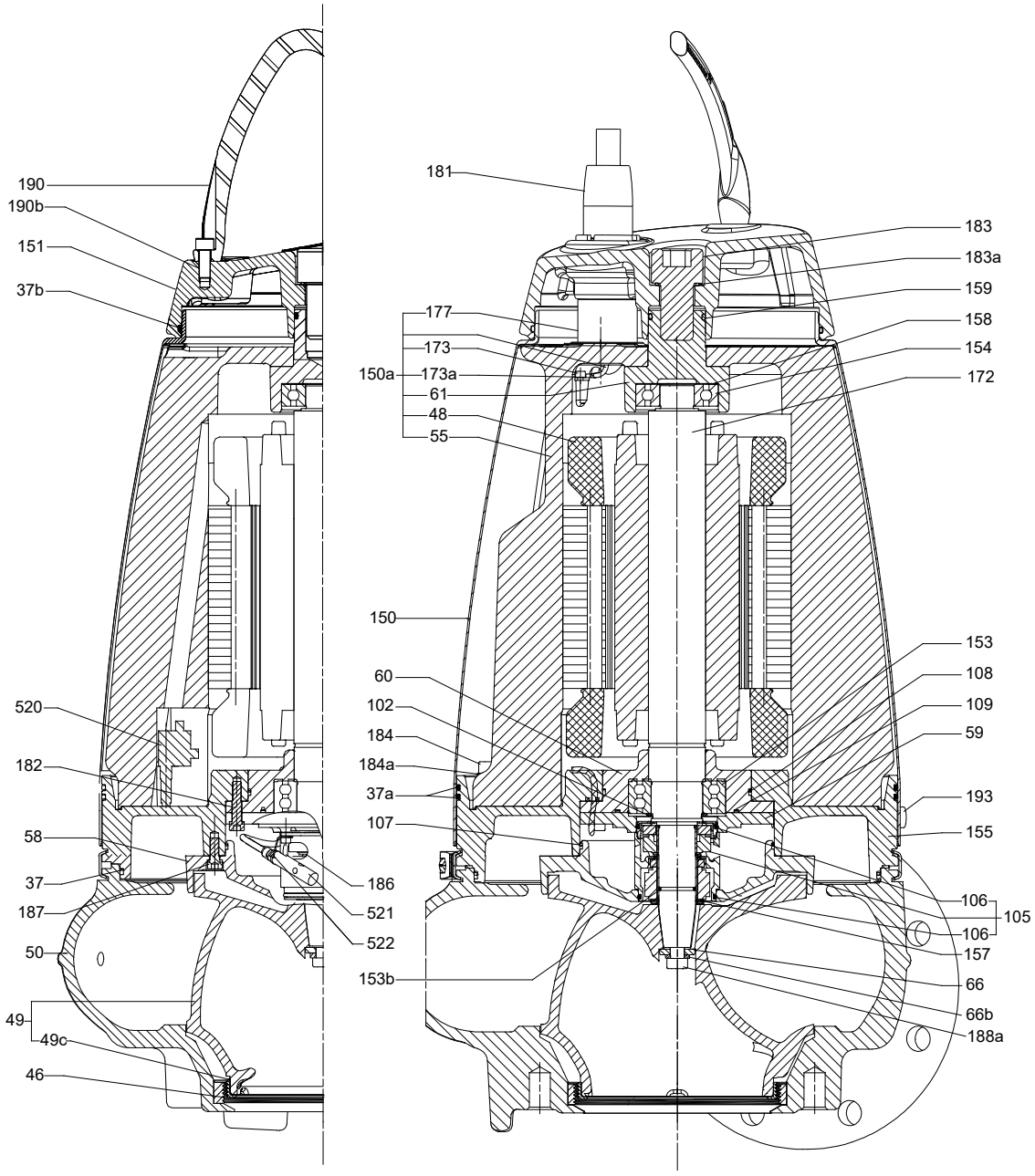
SE1



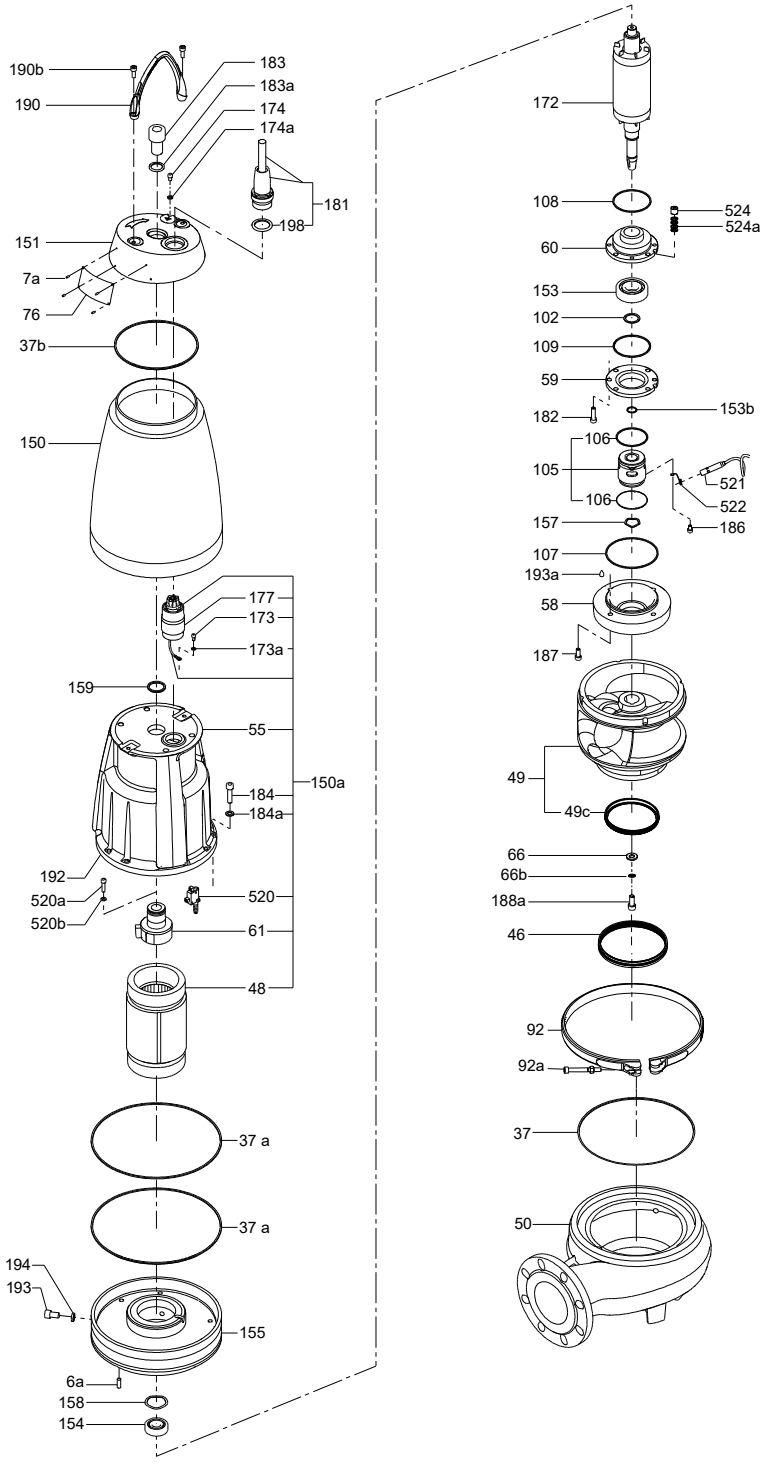
*Sectional drawing, SE1 pump with S-**tube**® impeller*



*Exploded view, SE1 pump with S-**tube**® impeller*

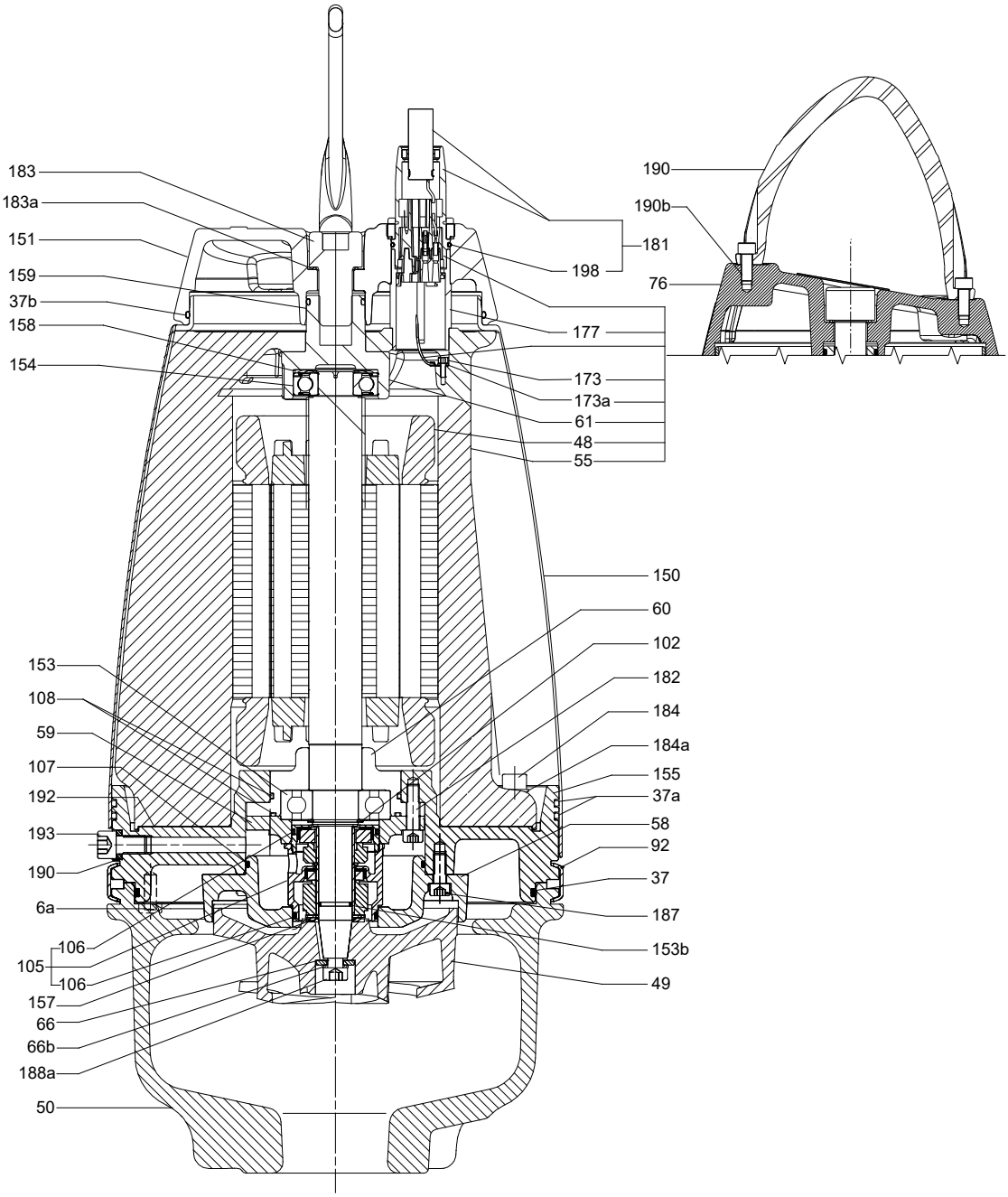


*Sectional drawing, SE1 pump with S-**tube**® impeller, sensor version*

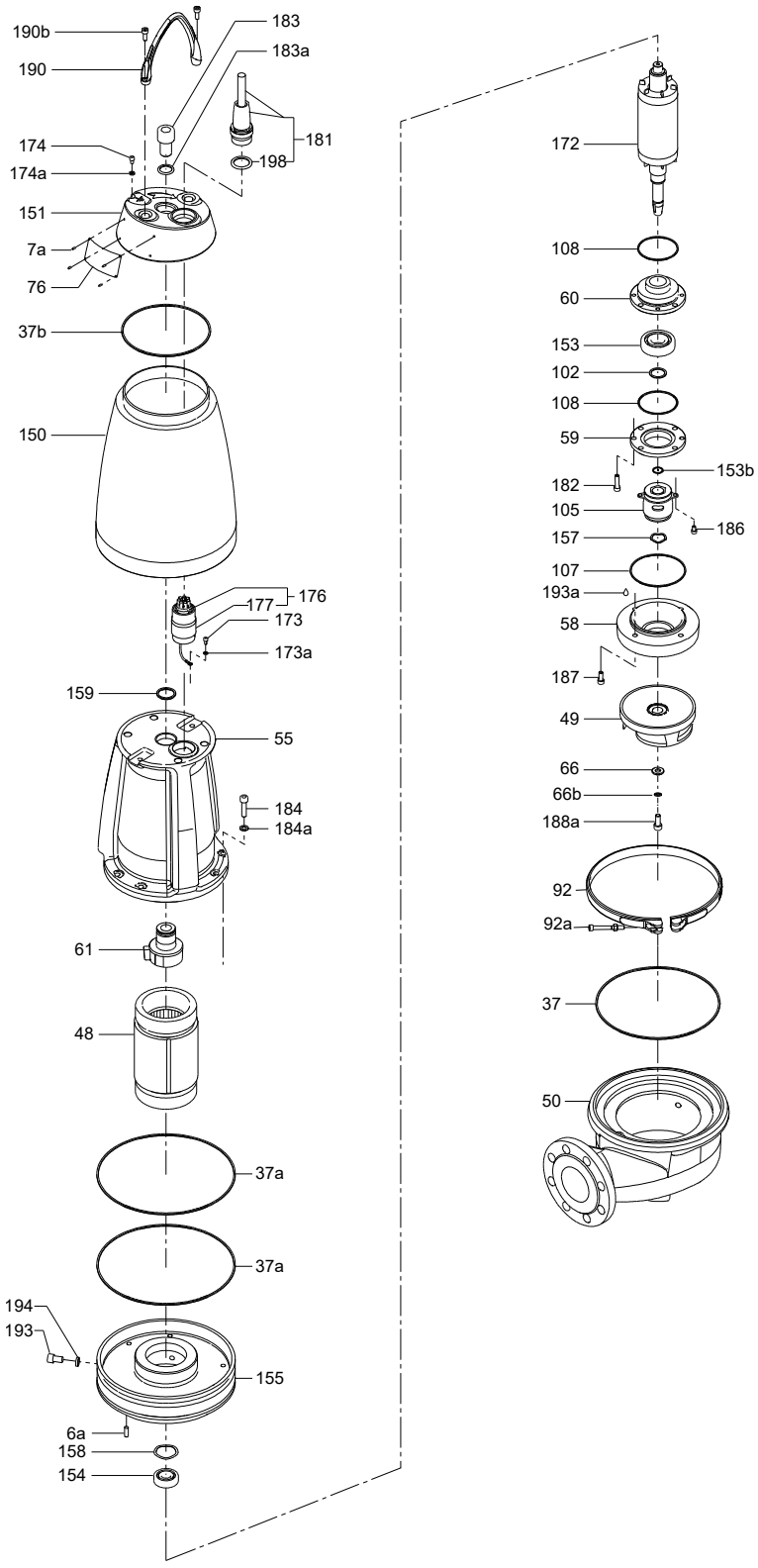


*Exploded view, SE1 pump with S-**tube**® impeller, sensor version*

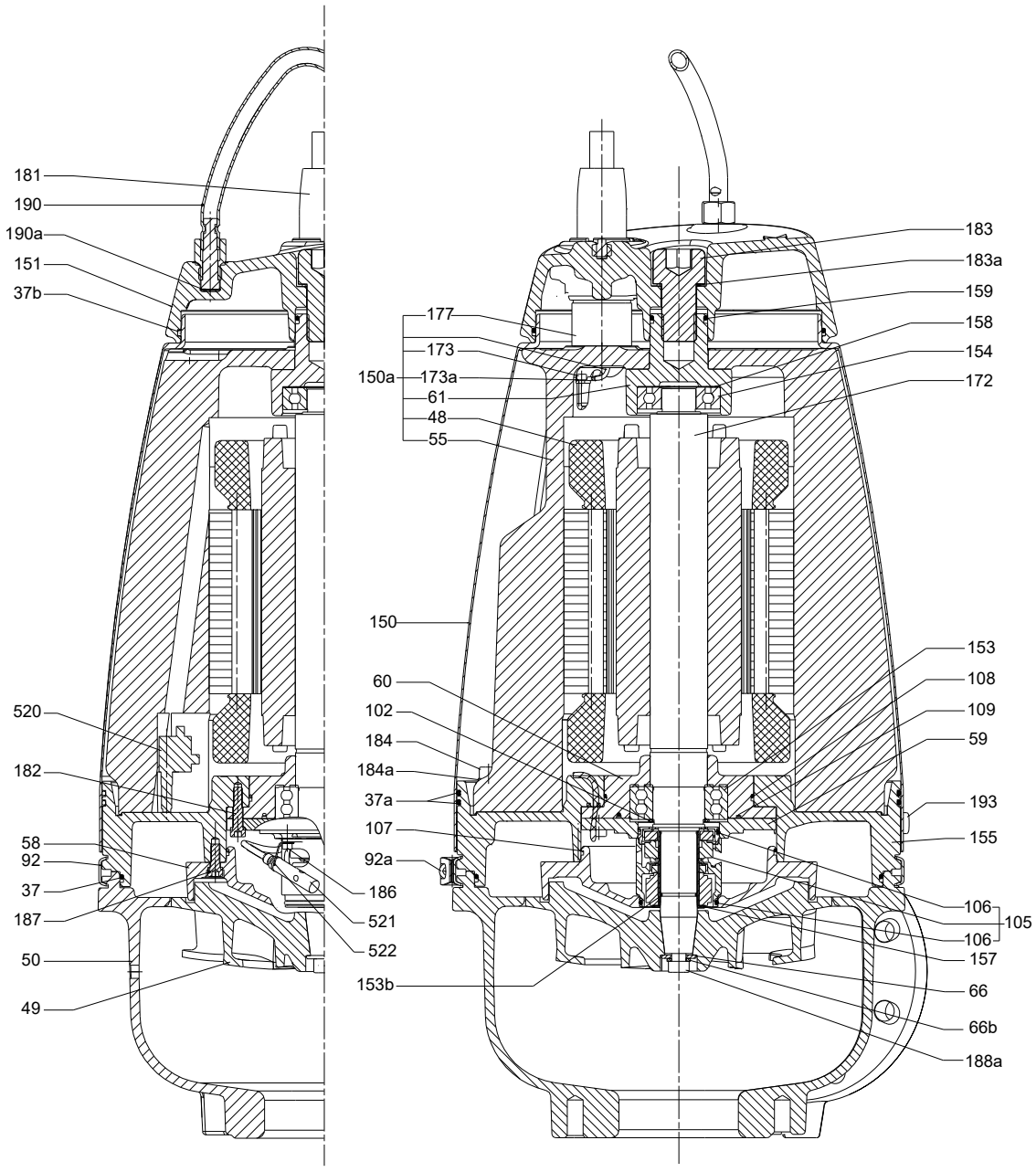
SEV



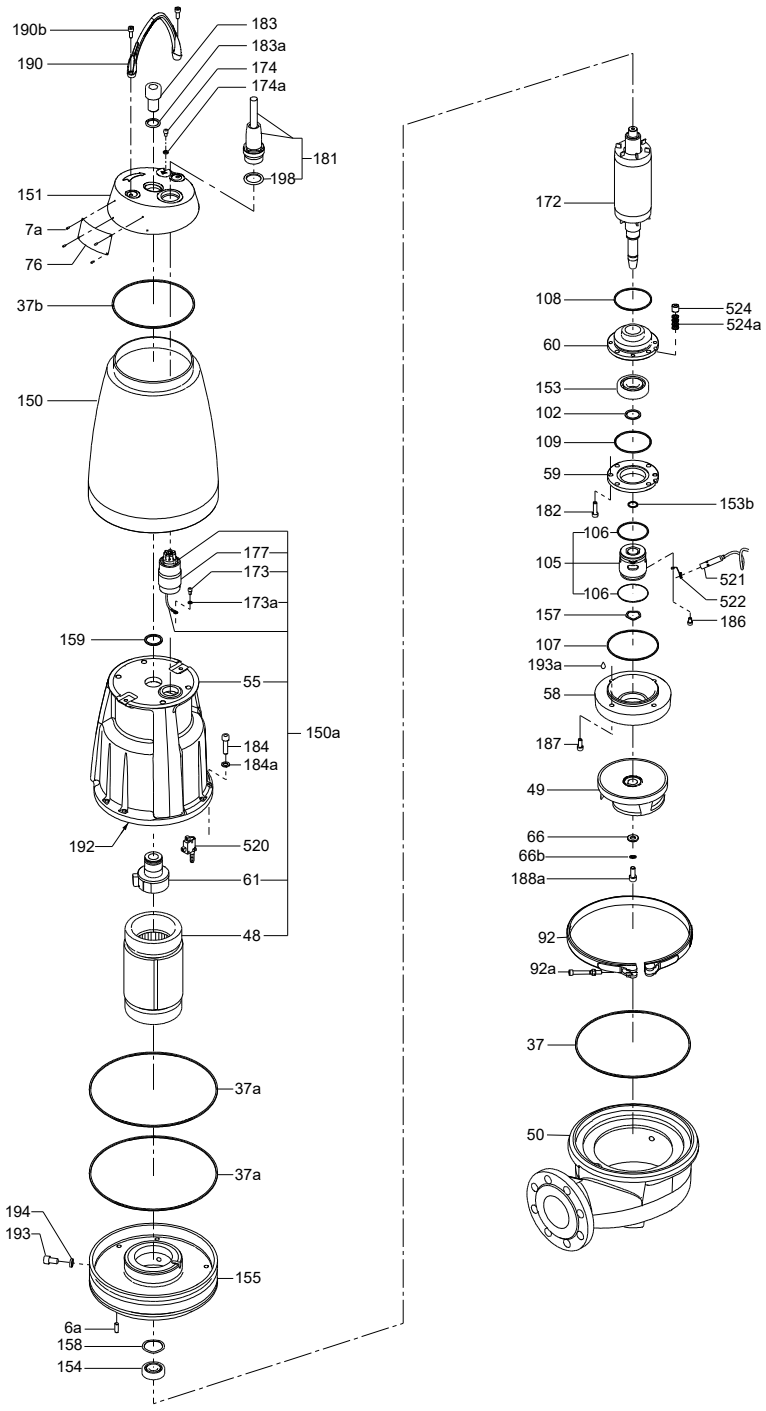
Sectional drawing, SEV pump with SuperVortex impeller



Exploded view, SEV pump with SuperVortex impeller



Sectional drawing, SEV pump with SuperVortex impeller, sensor version



Exploded view, SEV pump with SuperVortex impeller, sensor version

Material specification

Standard variant (cast iron)

Material declaration:

Pos.	Designation		Material	DIN W.-Nr./ EN standard
6a	Tubular pin		Stainless steel	EN 1.4301
7	Lock washer		Stainless steel	EN 1.4401
7a	Blank rivet		Stainless steel	EN 1.4301
37	O-ring		NBR rubber	
37a	O-ring		NBR rubber	
37b	O-ring		NBR rubber	
46	Seal ring, inlet		Stainless steel	EN 1.4301
48	Stator package			
49	SuperVortex impeller		Cast iron	EN-GJL-250/
	S-tube® impeller		Cast iron	EN-GJL-250
49c	Wear ring		Stainless steel	EN 1.4301
50	Pump housing		Cast iron	EN-GJL-250
55	Stator housing		Aluminium	EN AB-AlSi 10 Mg
58	Cover for oil chamber		Cast iron	EN-GJL-250
59	Bearing cover		Cast iron	EN-GJL-250
60	Bearing retainer, lower		Cast iron	EN-GJL-250
61	Bearing retainer, upper		Cast iron	EN-GJS-450-10
66	Washer		Stainless steel	EN 1.4305
76	Nameplate		Stainless steel	EN 1.4301
92	Clamp		Stainless steel	EN 1.4401
92a	Screw		Stainless steel	EN 1.4401
102	Retaining ring			DIN 471
105	Shaft seal complete	Primary seal	SiC/SiC	
		Housing	Stainless steel	EN 1.4408
		Secondary seal	Carbon/ceramics	
106	O-ring		NBR rubber	
107	O-ring		NBR rubber	
108	O-ring		NBR rubber	
109	O-ring		NBR rubber	
150	Sleeve		Stainless steel	EN 1.4301
150a	Stator housing complete			
151	Motor top		Cast iron	EN-GJL-250
153	Ball bearing, lower		6306.2CS.C4	
153b	O-ring		NBR rubber	
154	Ball bearing, upper		6304.2Z.C3	
155	Intermediate flange		Cast iron	EN-GJL-250
157	Corrugated spring		Stainless steel	Inconel X750
158	Corrugated spring		Carbon steel	EN 1.1248
159	O-ring		NBR rubber	
172	Shaft with rotor		Carbon steel/ stainless steel	EN 1.0533/EN 1.4462
173	Earth screw		Stainless steel	EN 1.4301
173a	Lock washer		Stainless steel	EN 1.4301
174	Earth screw, external		Stainless steel	EN 1.4301
174a	Washer		Stainless steel	EN 1.4301
177	Plug protector		Stainless steel	EN 1.4408
181	Cable/outer plug part		H07RN-F / -	
182	Screw		Stainless steel	EN 1.4301
183	Screw		Stainless steel	DIN 912
183a	Washer		Copper Hard	
184	Screw		Stainless steel	DIN 912
184a	Washer		Stainless steel	
186	Screw		Stainless steel	DIN 912
188	Screw		Stainless steel	DIN 912

Pos.	Designation	Material	DIN W.-Nr./ EN standard
188a	Screw	Stainless steel	EN 1.4301
190	Lifting bracket	Stainless steel	EN 1.4301
190b	Screw		
192	Cooling paste		
193	Screw	Stainless steel	EN 1.4301
193a	Oil	Shell Ondina X420	
194	Gasket	Nylon	
198	O-ring	NBR rubber	
520	Moisture switch		
521	Water-in-oil sensor		
522	Bracket for WIO sensor		

Grey cast iron is manufactured according to EN 1561:2012.
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 variants

Position	Description	Material Variant		
		Q	R	D [4]
	Bolts and washers	A2-70	A4-70	EN 1.4539
	O-Rings	NBR	FKM	FKM
	Polyolefin Cable Protection	No	Yes	Yes
48	Seal Ring	EN1.4301	EN1.4401	EN 1.4539
49	Impeller	EN 1.4408	EN 1.4408	EN 1.4517
49C	Wear Ring	EN 1.4301	EN 1.4401	EN 1.4539
50	Volute	EN-GJL-250	EN 1.4408	EN 1.4517
58	Cover for oil Chamber	EN-GJL-250	EN 1.4408	EN 1.4517
92	Clamp	EN 1.4401 / EN 1.4408	EN 1.4401 / EN 1.4408	EN 1.4539 / EN 1.4517
105	Shaft seal	EN 1.4408 / NBR	EN 1.4408 / FKM	EN 1.4539 / FKM
151	Motor Top	EN-GJL-250	EN 1.4408	EN 1.4517
150	Motor Sleeve	EN 1.4301	EN 1.4301	EN 1.4539
155	Intermediate flange	EN-GJL-250	EN 1.4408	EN 1.4517
157	Corrugated Spring	Inconel X750	Hastelloy C-276	Hastelloy C-276
172	Shaft with rotor	1.0533 / EN 1.4462	1.0533 / EN 1.4462	1.0533 / EN 1.4462
190	Lifting handle	EN 1.4301	EN 1.4408	EN 1.4517

[4] Available only on request. For more information, contact Grundfos.

8. Product description

Features

Ball bearings

The ball bearings are greased for life:

- Main bearings: Double-row angular contact ball bearing.
- Support bearings: Single-row deep-groove ball bearing.

Shaft seal

TM050015

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. The design minimises the risk of incorrect fitting.

The primary seal is SiC/SiC, while the secondary is carbon/ceramics.

Motor

The motor is watertight and completely encapsulated.

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

For motor protection and sensors, see *Sensors*.

Surface treatment

As surface treatment, the SE1 and SEV pumps are powder painted: NCS 9000N (black), gloss code 30, thickness 100 µm.

Power supply cables

Standard cable

Cable type [mm²]	Outer cable diameter [mm]	Bending radius	
		Fixed [mm]	Free [mm]
Lyniflex 4 G 1.5 + 3 x 1	15.5 ± 0.5	64	96
Lyniflex 4 G 2.5 + 3 x 1	17.0 ± 0.5	70	105
Lyniflex 7 G 2.5 + 3 x 1	18.5 ± 0.5	98	114
Lyniflex 4 G 1.0 + 3 x 1	14.5 ± 0.5	62	93

EMC cable

Cable type [mm²]	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 *6.1 List of variants*.

The cable dimensions depend on the motor size.

Cable entry

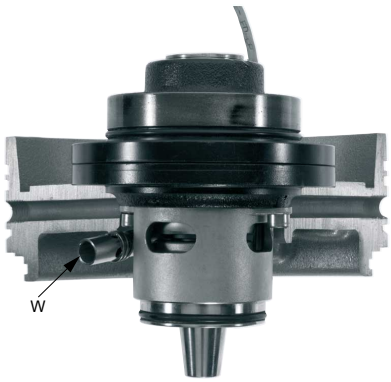
TM080062

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 which is cast into the plug around the conductors of the cable to prevent moisture from penetrating into the motor via the cable core.

Sensors



TM079199

Analog water-in-oil sensor

Pos.	Description
W	WIO sensor

As standard, the pump has thermal switches in the stator windings.

Customised analog sensor options

- Pt1000 sensor in motor windings for stator temperature measurements

- The WIO sensor fitted in the oil chamber of the pump monitors if 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 the 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. See fig. *Analog water-in-oil sensor*.
- 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 trips and sends a signal to the IO 113 sensor module.

Related information

List of variants

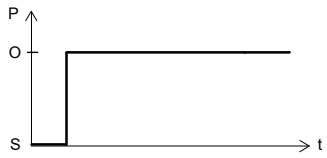
Operating mode

SE1 and SEV pumps are suitable for:

- dry installation without separate motor cooling
- submerged installation.

S1, continuous operation

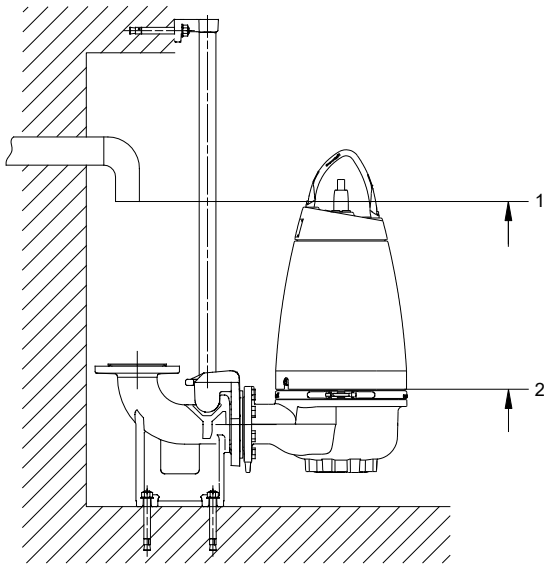
In this operating mode, the pump can operate continuously when the pump housing is completely submerged.



TM044528

S1 operation

Pos.	Description
O	Operation
S	Stop



TM065988

Start and stop levels

Pos.	Description
1	Max.
2	Min.

Pumped liquids

Pump type	Material variant	Installation	Material	pH value
SE1/SEV	Standard	Dry and submerged	Cast-iron pump housing and motor top according to EN-GJL-250.	6.5-14 [5]
SE1/SEV	Q	Dry and submerged	Stainless steel impeller according to EN 1.4408. Cast-iron pump housing and motor top according to EN-GJL-250.	6-14 [5]
SE1/SEV	R	Dry and submerged	Complete pump in stainless steel according to EN 1.4408/1.4301.	1-14
SE1/SEV	D	Dry and submerged	Stainless steel pump according to EN 1.4517/1.4539.	0-14

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

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

Liquid temperature

0-40 °C.

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

For short periods of maximum 1 hour, a temperature of up to 60 °C is permissible. This only applies to non-Ex versions.

Sound pressure level

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

Motor range

Output power [kW]	Number of poles
1.1	4
1.3	4
1.5	4
2.2	2/4
3	2/4
4	2/4
5.5	4
6	2
7.5	2/4
9.2	2
11	2

Approvals

SE1 and SEV pumps have been tested by Dekra/KEMA. The explosion-proof versions have the following examination certificates:

- ATEX(EU): KEMA 04ATEX2201X
- IECEx: IECEx DEK 21.0017X
- UKEX: DEKRA 22UKEX0011X

All certificates are issued by Dekra. The standard versions of SE1 and SEV pumps are tested by VDE.

Approval standards

The standard variants are approved by TÜV Rheinland (LGA) approved body under the Construction Products Directive according to EN 12050-1 or EN 12050-2 as specified on the nameplate.

Explanation of the Ex approval

The SE1 and SEV pumps have the following explosion protection classifications:

- CE 0344  II 2 GD Ex db eb h mb IIB T4 / T3 Gb; Ex h mb tb IIIC T135 °C / 200 °C Db.

Directive or standard	Code	Description
ATEX / UKEX	CE 0344	CE marking of conformity according to ATEX directive 2014/34/EU. 0344 is the number of the approved body which has certified the quality system for ATEX.
	UKCA 8505	UKCA marking of conformity according to UKEX regulation Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016. 8505 is the number of the approved body which has certified the quality system for UKEX.
		The equipment conforms to harmonised European / UK standard.
	II	Equipment group according to the ATEX Directive / UKEX Regulation, defining the requirements applicable to the equipment in this group
	2	Equipment category according to the ATEX Directive / UKEX Regulation, defining the requirements applicable to the equipment in this category
	G	Explosive atmosphere caused by gases, vapours or mists
	D	Explosive atmosphere caused by dust
Harmonised European / UK standard	Ex	Marking of explosion protection
	h	Constructional safety (c) and Liquid immersion (k) according to EN ISO 80079-36 and EN ISO 80079-37
	db	Flameproof enclosure according to EN 60079-1
	eb	WIO sensor protection according to EN 60079-7
	mb	WIO sensor encapsulation according to EN 60079-18
	IIB	Classification of gases, see EN 60079-0. Gas group B includes gas group A.
	T4/T3	The maximum surface temperature is T4 (135 °C) in direct-drive pumps and T3 (200 °C) in pumps operated by frequency converter, according to EN 60079-0[1].
	Gb	Suitable for use in explosive gas atmospheres in zone 1 and zone 2
	tb	Protection by enclosure EN 60079-31
	IIIC	Conductive dust
	T135 °C / T200 °C	The maximum surface temperature is 135 °C in direct-drive pumps and 200 °C in pumps operated by frequency converter, according to EN 60079-0[1].
	Db	Suitable for use in explosive dust atmospheres in zone 1 and zone 2

[1] For motors connected to a frequency converter, the maximum surface temperature T3 is 200 °C.

Australia and New Zealand

Explosion-proof variants for Australia and New Zealand are approved Ex db eb h mb IIB T3/T4 Gb; Ex h mb tb IIIC T135 °C / 200 °C Db.

Standard	Code	Description
IEC Standard	Ex	Area classification according to IEC 60079-10-1
	h	Constructional safety "c" and Liquid immersion "k" according to ISO 80079-36 and ISO 80079-37
	db	Flameproof enclosure according to IEC 60079-1.
	eb	WIO sensor protection according to IEC 60079-7
	mb	WIO sensor encapsulation according to IEC 60079-18.
	IIB	Classification of gases, see IEC 60079-0:2017. Gas group B includes gas group A.
	T4/T3	Maximum surface temperature is 135 °C / 200 °C according to IEC 60079-0.
	Gb	Equipment protection level.

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.

Related information

Controllers

Frequency converter, CUE/VFD

All 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, 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 of the relevant frequency converter on www.grundfos.com (Grundfos Product Center).

Additional features

- anti-blocking
- automatic energy optimisation
- specific-energy test
- output frequency
- monitoring of:
  - voltage[6)]
  - current[6)]
  - phase sequence[6)]
  - power[6)]
  - energy[6)]
  - torque.[6)]
- reverse start
- run flushing
- stop flushing
- PID control.

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

DC and LC control units

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

The following Grundfos pump controllers are available:

- Grundfos Dedicated Controls (DC)
- Grundfos LC controllers.

Grundfos DC Controllers

TM084174

Grundfos Dedicated Controls control cabinet

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

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

Features and benefits:

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

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

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

For further information about Grundfos Dedicated Controls, see www.grundfos.com (Grundfos online selection tool):

- Grundfos Dedicated Controls, brochure http://net.grundfos.com/qr/i/96925597
- Grundfos iSolutions, brochure http://net.grundfos.com/qr/i/99249771

- Grundfos Controls Guide, product guide http://net.grundfos.com/qr/i/96932422
- Grundfos Dedicated Controls, data booklet http://net.grundfos.com/qr/i/96932407.

Additional features, CUE or VFD

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

Features and benefits:

- anti-blocking
- automatic energy optimisation
- specific-energy test
- output frequency
- monitoring of:
  - voltage[7)]
  - current
  - phase sequence[7)]
  - power[7)]
  - energy[7)]
  - torque[7)]
- reverse start[8)]
- run flushing
- stop flushing
- PID control.

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

8) Reversing at full speed is not recommended. When reduced reverse operation settings are applied, make sure that constant torque is enabled in VFD (Grundfos CUE, Siemens Simatic, ABB, Schneider Electric) to have maximum torque available when reversing.

Grundfos LC controllers

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

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

The LC 231 and 241 controllers are designed for level control, monitoring and protection of Grundfos pumping stations featuring one or two pumps, starting direct-on-line with 0-23 A, star-delta with 0-59 A or soft starter with 0-72 A.

TM074000

LC 231 and LC 241 controller units

IO 113 sensor module

GR-1014619

IO 113 sensor module

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

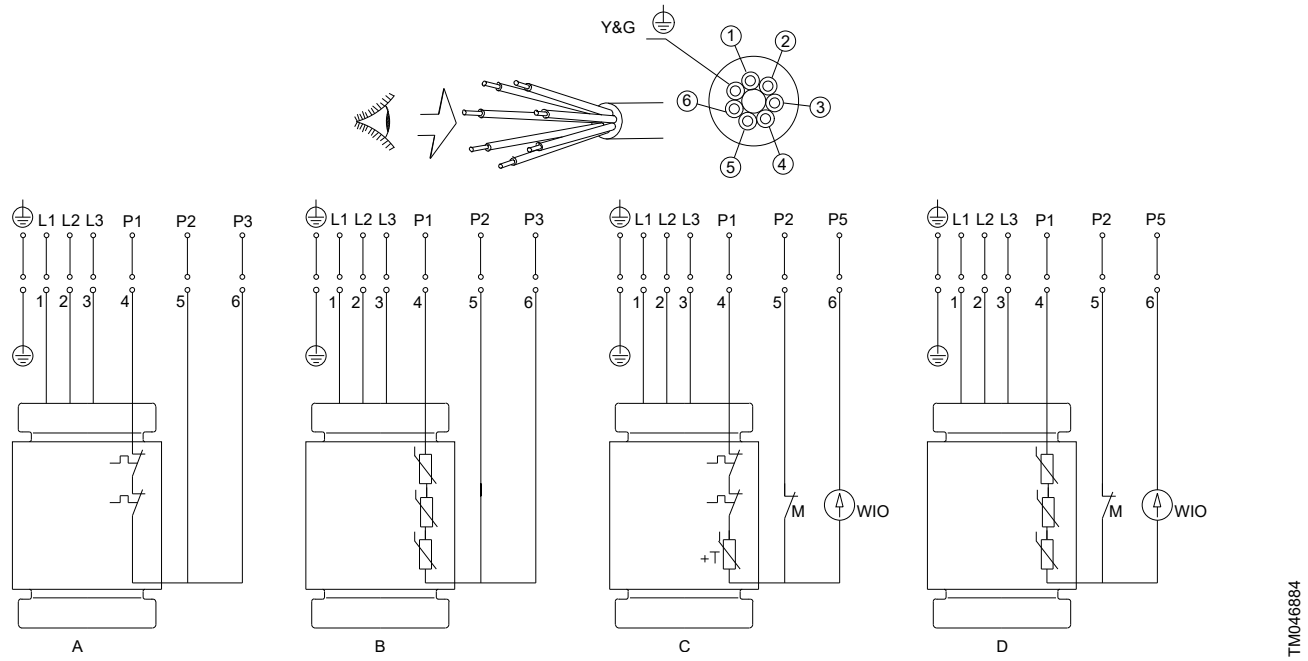
The module has inputs for digital and analog pump sensors and can stop the pump if a sensor detects a pump fault.

It can be connected to the Grundfos Dedicated Controls system which provides advanced monitoring functions:

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

On the Explosion-proof pumps the IO113 relay must be ordered separately if not already available in the installation.

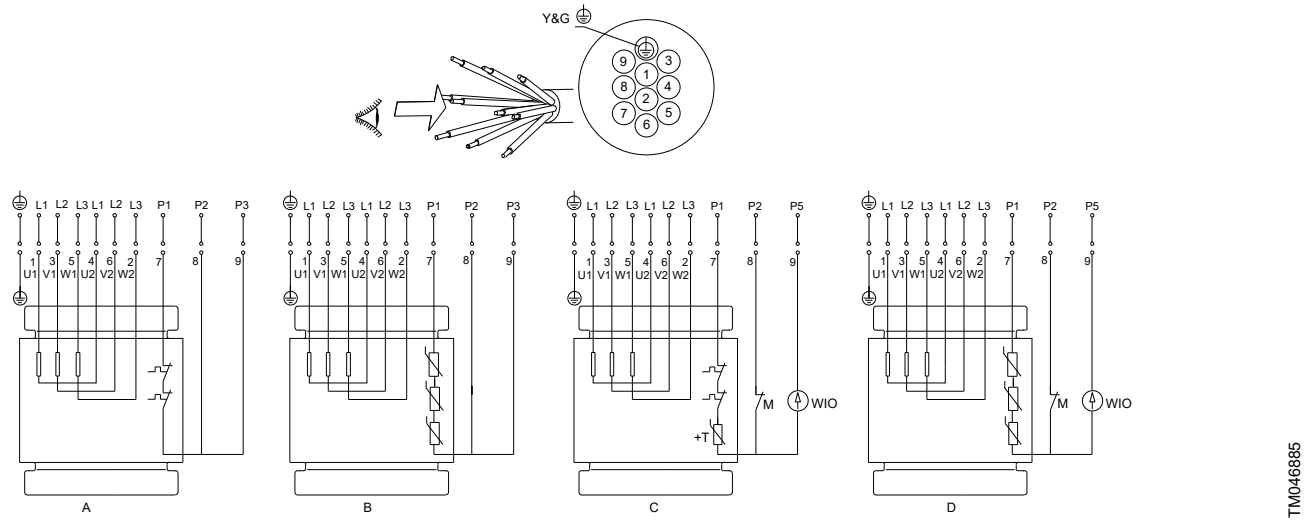
Wiring diagrams



Wiring diagram, 7-core cable, DOL

Pos.	Description
Y&G	Yellow and green
A	Standard version with thermal switches
B	Standard version with PTC thermistors*
C	Sensor version with thermal switches, Pt1000, moisture switch and WIO sensor
D	Sensor version with PTC thermistors, moisture switch and WIO sensor*

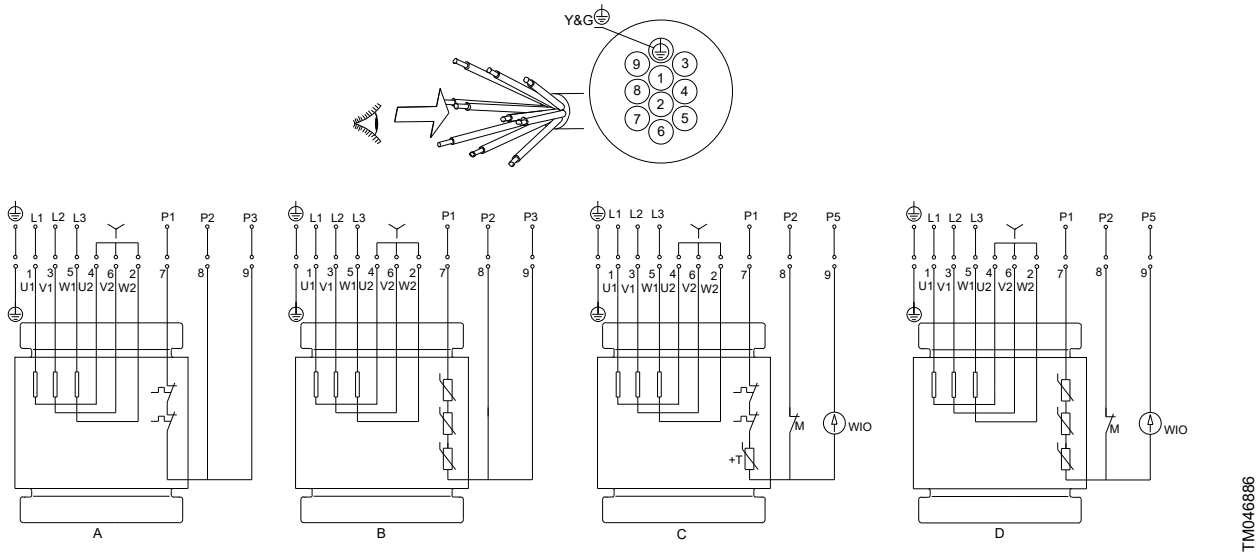
*Pumps with 4 kW and larger motors sold in Australia or New Zealand are fitted with a PTC thermistor.



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

Pos.	Description
Y&G	Yellow and green
A	Standard version with thermal switches
B	Standard version with PTC thermistors*
C	Sensor version with thermal switches, Pt1000, moisture switch and WIO sensor
D	Sensor version with PTC thermistors, moisture switch and WIO sensor*

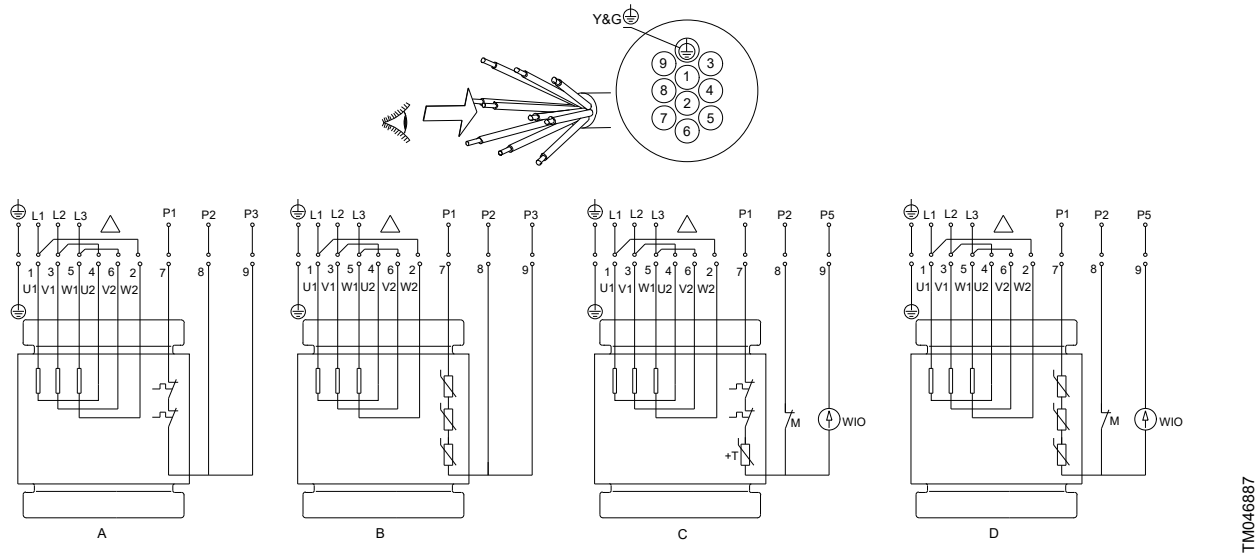
*Pumps with 4 kW and larger motors sold in Australia or New Zealand are fitted with a PTC thermistor.



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

Pos.	Description
Y&G	Yellow and green
A	Standard version with thermal switches
B	Standard version with PTC thermistors*
C	Sensor version with thermal switch, Pt1000, moisture switch and WIO sensor
D	Sensor version with PTC thermistors, moisture switch and WIO sensor*

*Pumps with 4 kW and larger motors sold in Australia or New Zealand are fitted with a PTC thermistor.



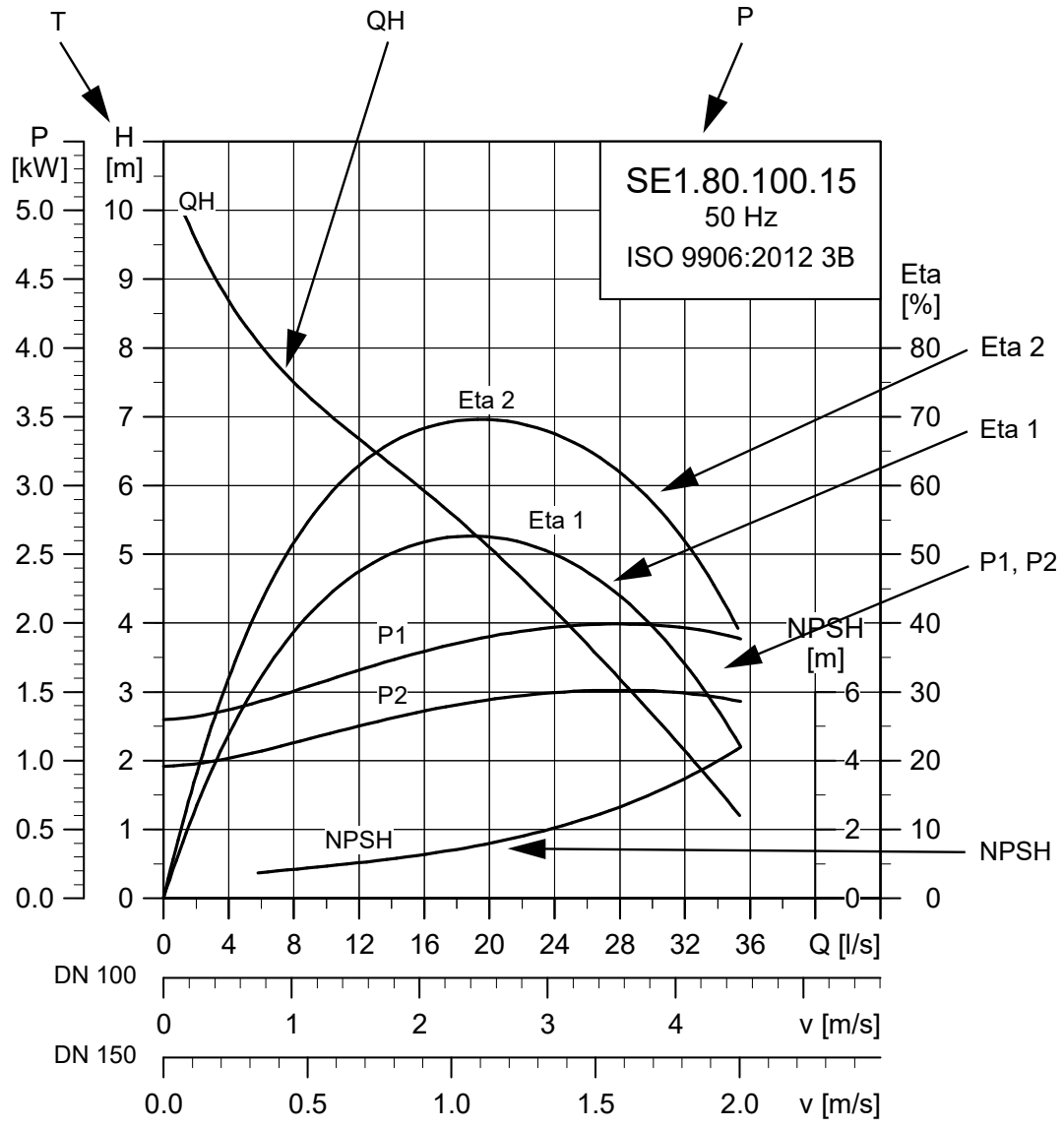
Wiring diagram, 10-core cable, delta-connected (D)

Pos.	Description
Y&G	Yellow and green
A	Standard version with thermal switches
B	Standard version with PTC thermistors*
C	Sensor version with thermal switch, Pt1000, moisture switch and WIO sensor
D	Sensor version with PTC thermistors, moisture switch and WIO sensor*

*Pumps with 4 kW and larger motors sold in Australia or New Zealand are fitted with a PTC thermistor.

9. Performance curves and technical data

How to read the performance curves



Pos.	Description
T	Total pump head $H = H_{total}$
QH	QH curve
P	Pump type
Eta 2	Eta 2 is the hydraulic efficiency (pump).
Eta 1	Eta 1 is the total efficiency (pump + motor).
P1, P2	Power curves indicating motor input power [P_1] and motor output power [P_2] of the pump
NPSH	NPSH curves. When sizing the pumps, add a safety margin of at least 0.5 m.

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

Curve conditions

The guidelines below apply to the curves in *9. Performance curves and technical data*.

- Tolerances are according to ISO 9906:2012, grade 3B.
- The curves show pump performance with different impeller diameters at the rated speed.
- The curves apply to the pumping of airless water at a temperature of +20 °C and a kinematic viscosity of 1 mm^2/s (1 cSt).
- The Eta curves show the efficiency of the pump for the different impeller diameters.
- The NPSH 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 other than 1000 kg/m^3, the outlet pressure is proportional to the density.
- When pumping liquids with a density higher than 1000 kg/m^3, use motors with correspondingly higher outputs.

Calculation of total head

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

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

H_{geo}: height difference between measuring points.

H_{stat}: differential head across the pump.

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

Test types

Two types of performance tests are available:

- duty-point-verification test
- curve test.

Performance tests

All pumps are performance-tested before leaving the production site. The testers are all capable of performing hydraulic performance tests according to ISO 9906:2012 requirements.

The standard ISO 9906:2012 sets standards for "rotodynamic pumps, hydraulic performance acceptance tests, grades 1, 2 and 3". It specifies a performance test for one guarantee point. This guarantee point is defined by a minimum of five measured test points.

Duty point verification test

This test method offers the possibility to perform a duty point verification of flow, head, and optionally efficiency or power consumption (P1).

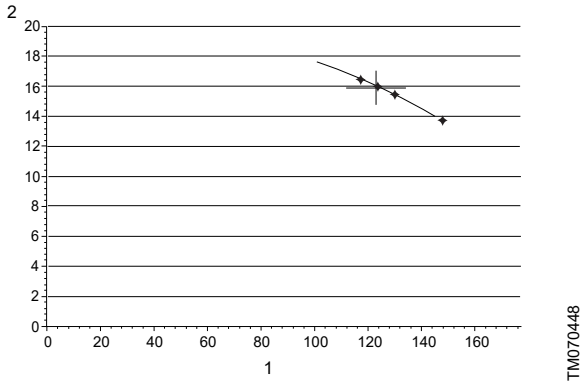
The requested duty point for each pump is tested according to ISO 9906:2012, providing five measured points.

Test grade 3B is standard. Grades 2B, 2U or 1B, 1E, 1U are available on request.

Grundfos performs all test grades for one guarantee point at full speed (50 or 60 Hz). The customer has to define which duty point to verify.

The test is saved for at least five years and can be traced using the pump's unique serial number.

Duty point verification, grade 3B



Duty point verification with grade 3B tolerances

Pos.	Description
1	Q [m^3/h]
2	H [m]

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

If performance testing is required for SuperVortex impellers according to grades 1B, 1E, 1U or grades 2B, 2U, and optionally verification of efficiency (Eta) or power consumption (P1), a request must be submitted to the local customer service unit (CSU). The CSU clarifies whether testing according to the required grade can be performed and informs on guarantee values.

Grade 1E duty point verification

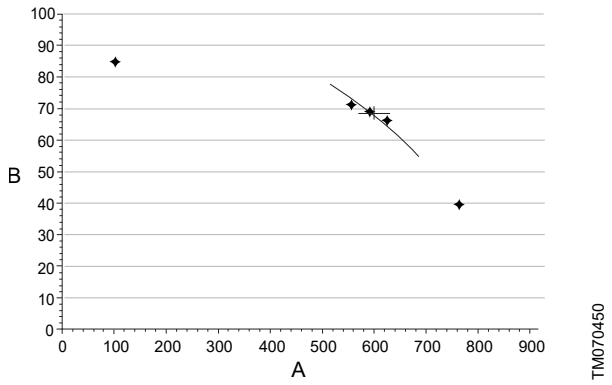
The following example illustrates performance testing according to grade 1E.

Flow and head are mandatory, while efficiency or power consumption (P1) is optional.

Tolerances for a grade 1E test are the following:

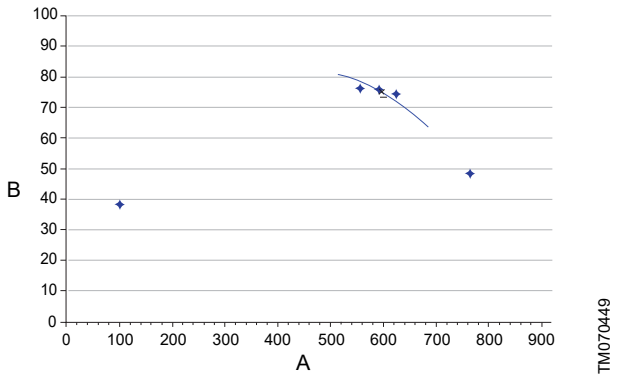
- Flow: + 5 %
- Head: + 3 %
- Efficiency: 0 %, only equal to or better than the guaranteed value
- P1: + 4 %

1. Q, H and Eta (efficiency) is tested and verified



Measured values for flow and head

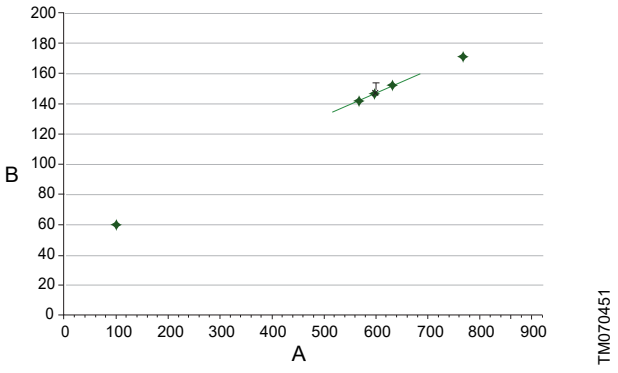
Pos.	Description
A	Q [m³/h]
B	H [m]



Measured values for efficiency

Pos.	Description
A	Q [m³/h]
B	Eta total [%]

2. Q, H and P1 is tested and verified



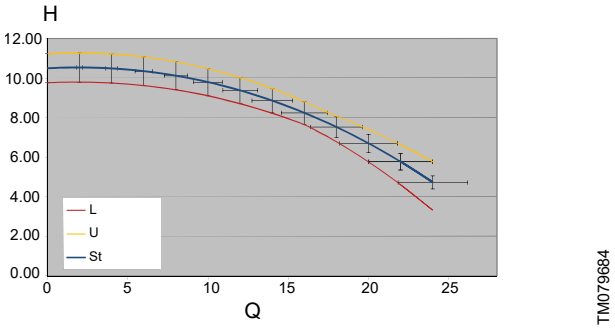
Measured values for power consumption

Pos.	Description
A	Q [m³/h]
B	P1 [kW]

Note: Other points than the guarantee point can be measured and displayed in a curve-test report according to grade 3B tolerances.

Curve test, grade 3B

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



Example of Q-H curve with tolerance crosses on complete performance range

Pos.	Description
Q	[m³/h]
H	[m]

Tolerance crosses according to grade 3B are distributed across the complete performance range of a pump. The upper and lower limit of the performance curve is generated by drawing two curves at the outlines of these crosses.

When the pump is tested and the measured point is located within the range between the upper and lower limit, it is qualified to ISO 9906:2012, grade 3B tolerances. This way of qualifying the pump performance is stricter than a duty point verification test for grade 3B.

Test curves

The following curve tests are available:

- reference curve test
- performance curve test.

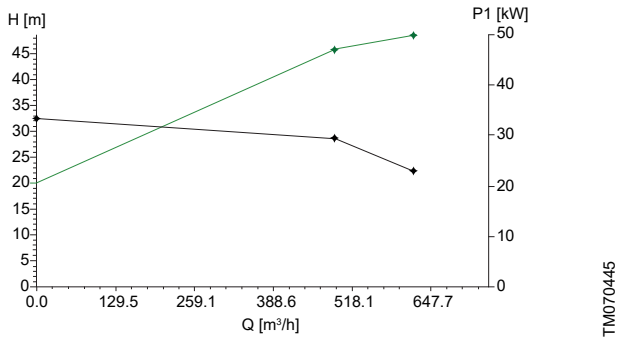
Reference curve test, grade 3B

A reference test is made when a curve test report is not specified in the order. Three or four test points are measured depending on the production site, test reports are not supplied with the pump.

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

The test results are preserved for at least five years and can be traced by using the pump's unique serial number.

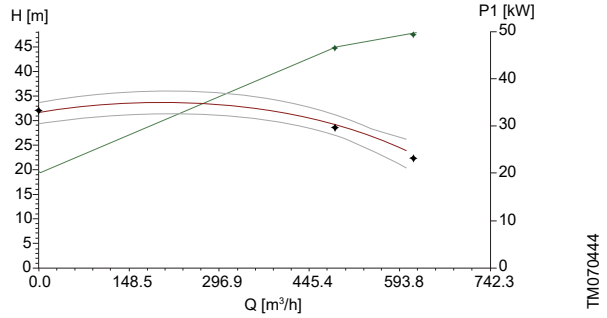
Reference curve test example



Measured values for tested pump

Pos.	Description
A	Q [m^3/h]
B	H [m]
C	P1 [kW]

Test results are compared to a reference performance curve.



Reference performance curve

Pos.	Description
A	Q [m^3/h]
B	H [m]
C	P1 [kW]

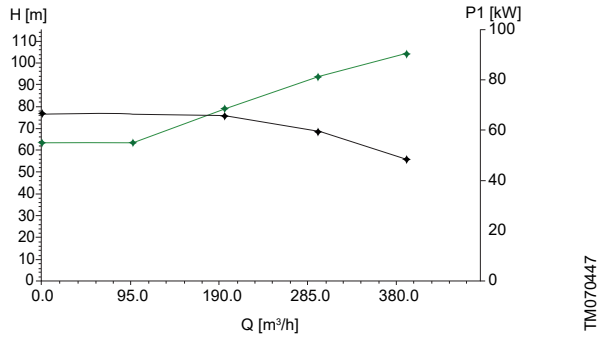
If a pump performance report is requested later, only reference test data are available.

Performance curve test, grade 3B

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

The pump is tested at pre-specified flows, distributed over the full pump curve (a minimum of five points), and test grade tolerances are set for grade 3B but without certification.

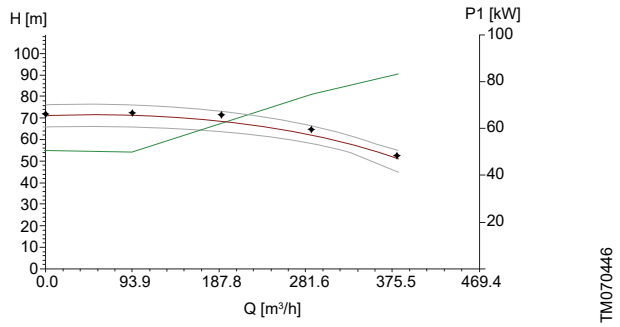
Performance curve test example



Measured values for tested pump

Pos.	Description
A	Q [m^3/h]
B	H [m]
C	P1 [kW]

Test results are compared to a reference performance curve.



Reference performance curve

Pos.	Description
A	Q [m^3/h]
B	H [m]
C	P1 [kW]

If more points on the performance curve need to be checked, individual measurements must be made. This is not part of the standard curve test report.

The test results are preserved for at least five years and can be traced by using the pump's unique serial number.

Note: It is not possible to change the acceptance grade on an already tested and supplied pump. If this is required, the pump must be re-tested.

Certificates

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

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

Witness test

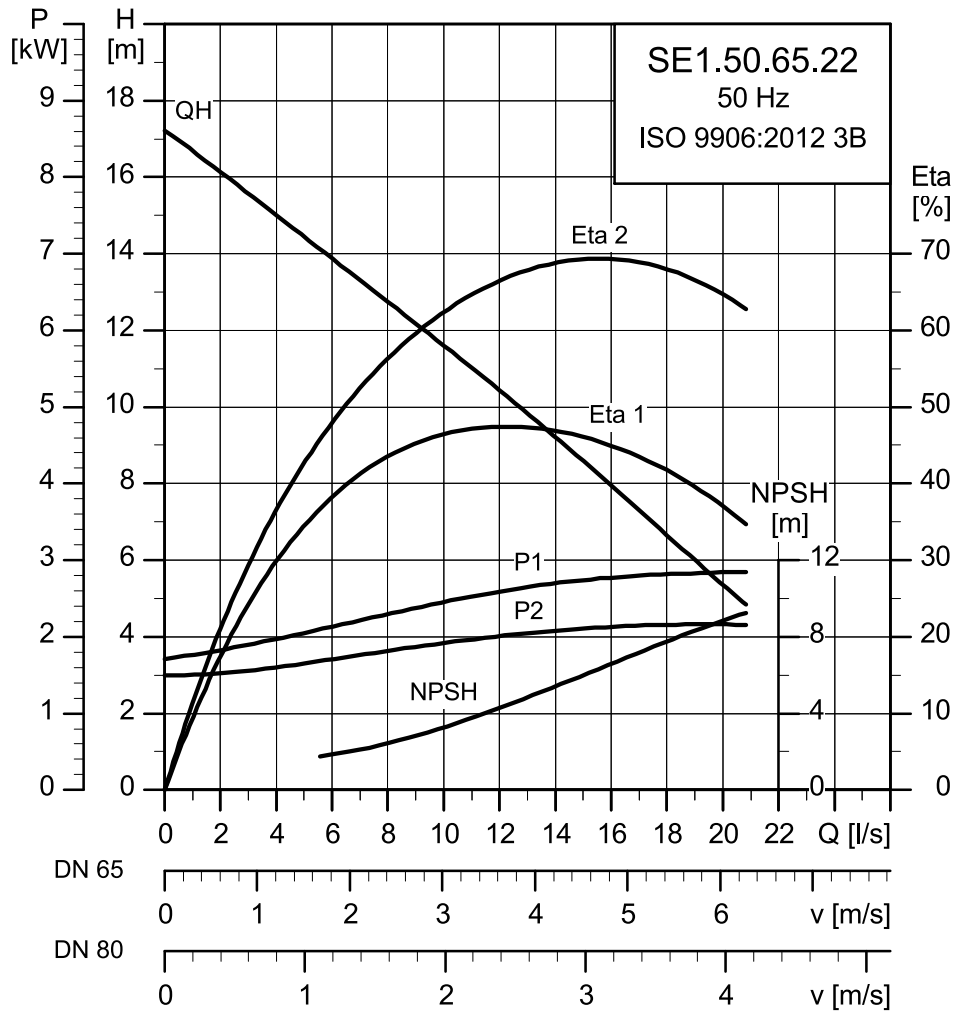
The customer can witness the testing procedure according to ISO 9906:2012, grade 3B.

The witness test is the only guarantee that everything is carried out as prescribed in the testing procedure.

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

50 Hz

SE1.50.65.22.(Ex).2



TM027955

Electrical data

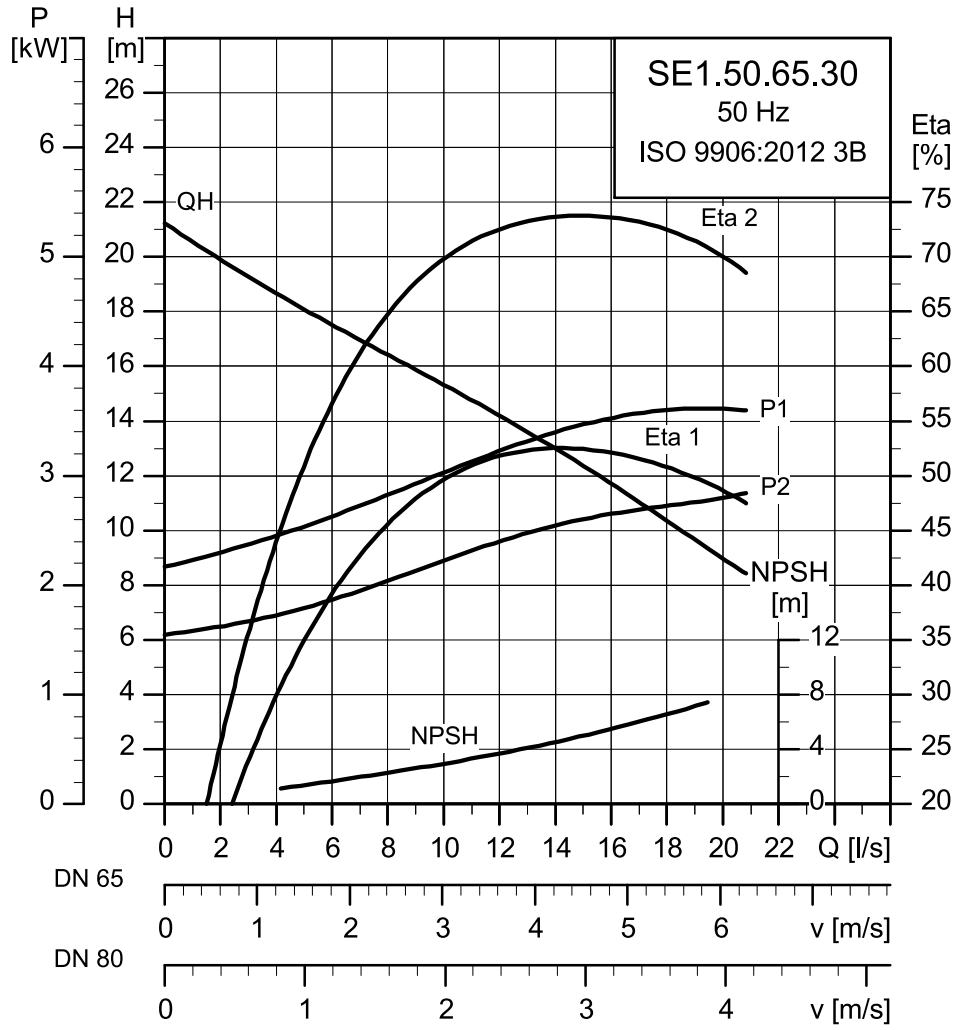
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.8	2.2	2	2895	DOL	5.1/5.0	37	73.5	76.6	77	0.72	0.81	0.86	0.01	23
50E.B	3 × 220-240 D	2.8	2.2	2	2895	DOL	8.9/8.7	64	73.5	76.6	77	0.72	0.81	0.86	0.01	23

[1] Low voltage - high voltage

Pump data

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

SE1.50.65.30.(Ex).2



Electrical data

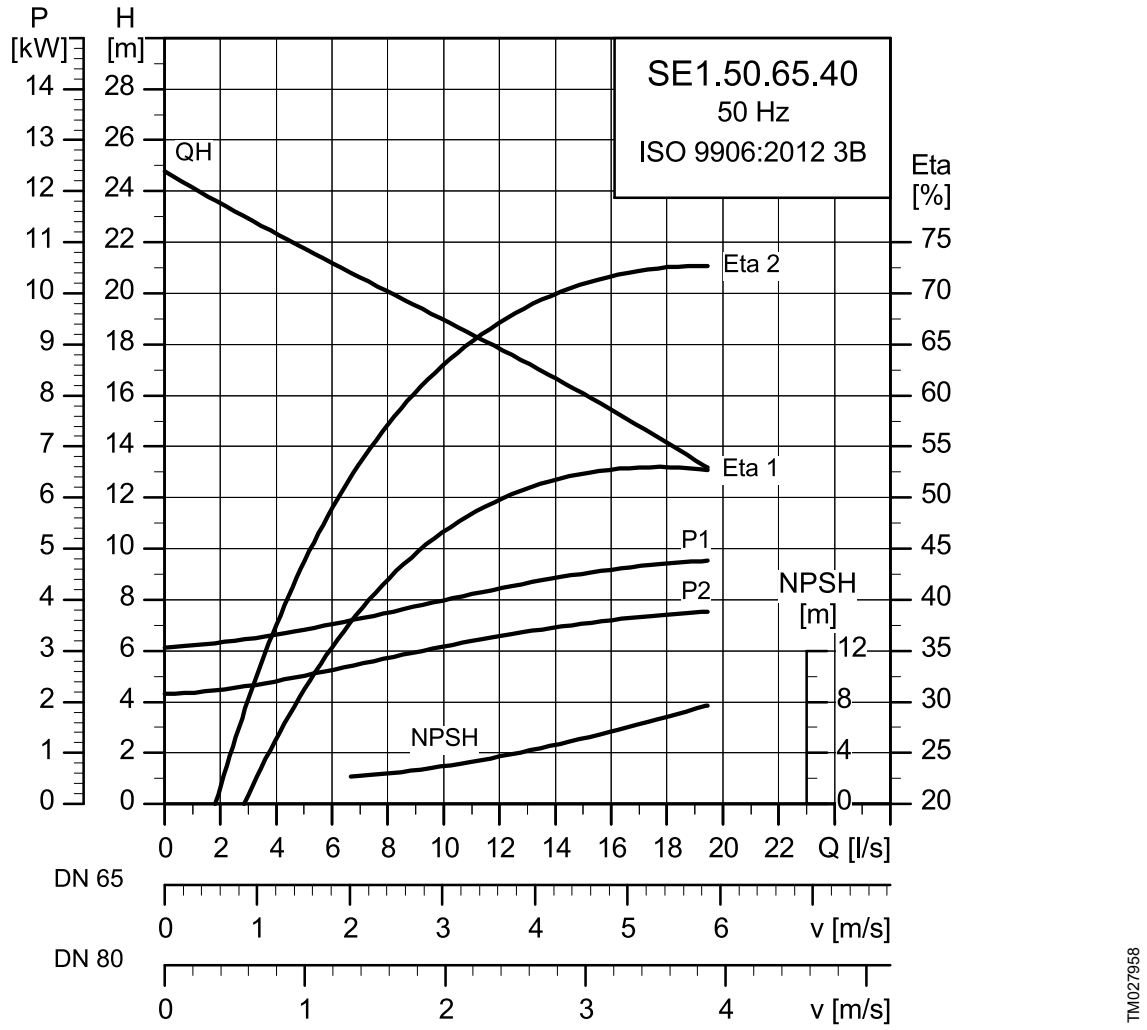
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	3.8	3.0	2	2910	DOL	6.8/6.5	51	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33
50E.B	3 × 220-240 D	3.8	3.0	2	2910	DOL	11.8/11.2	88	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33

[1] Low voltage - high voltage

Pump data

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

SE1.50.65.40.(Ex).2



Electrical data

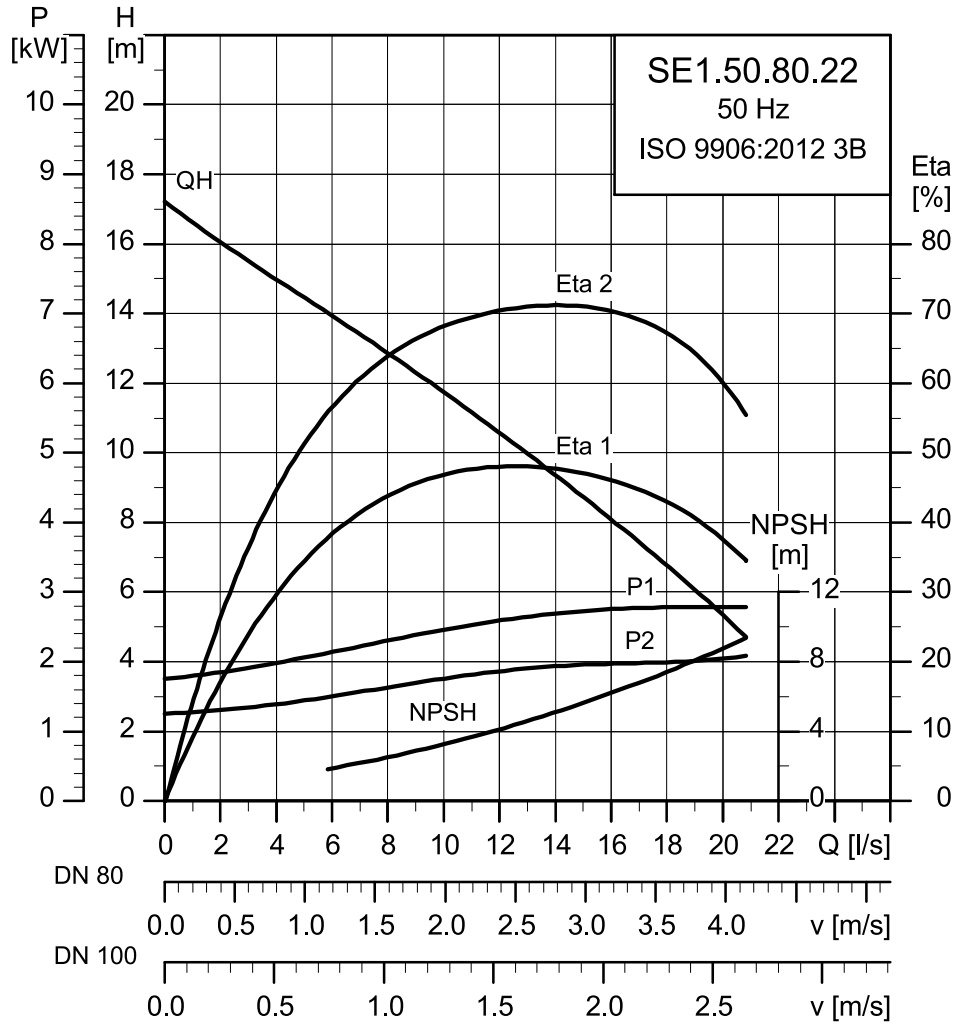
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.8	4.0	2	2925	Y/D	8.7/8.5	71	79.2	82.4	83.3	0.68	0.78	0.84	0.02	54
51E.B	3 × 220-240 D	4.8	4.0	2	2925	Y/D	15.1/14.7	123	79.2	82.4	83.3	0.68	0.78	0.84	0.02	54

1) Low voltage - high voltage

Pump data

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

SE1.50.80.22.(Ex).2



Electrical data

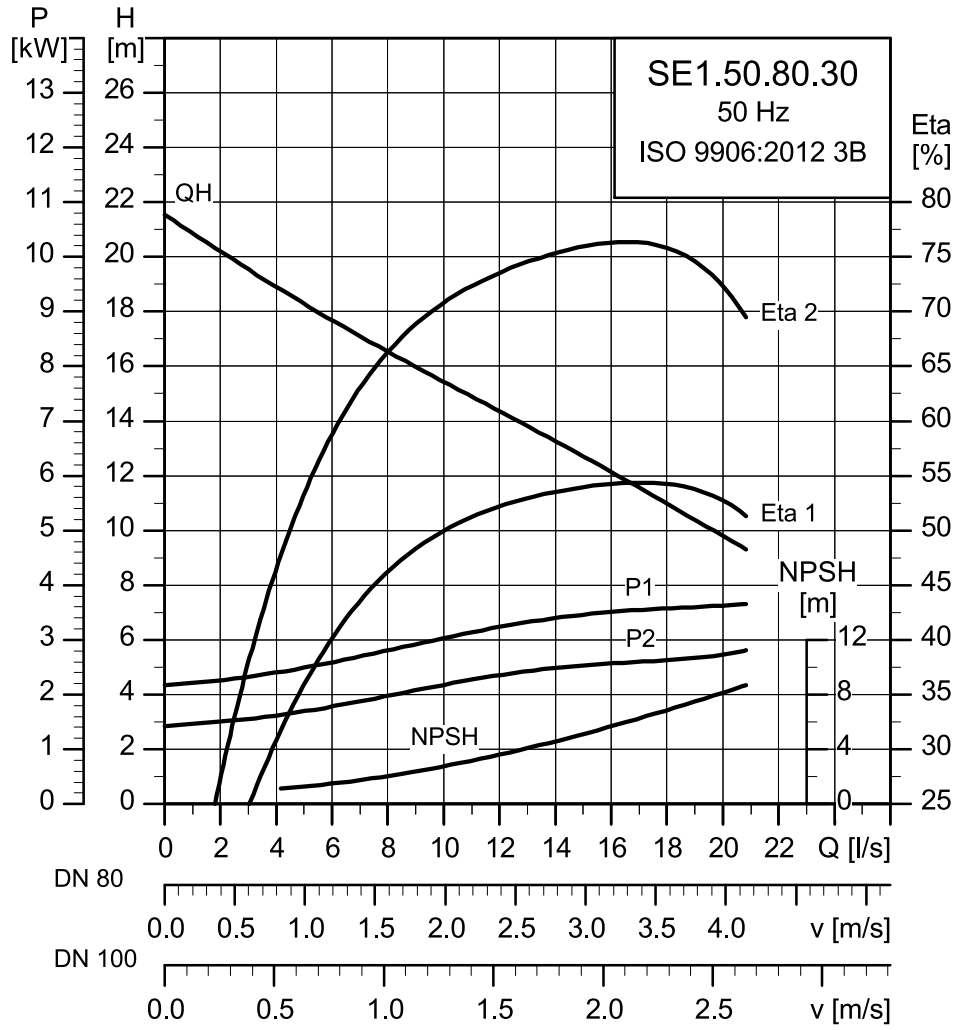
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.8	2.2	2	2895	DOL	5.1/5.0	37	73.5	76.6	77	0.72	0.81	0.86	0.01	23
50E.B	3 × 220-240 D	2.8	2.2	2	2895	DOL	8.9/8.7	64	73.5	76.6	77	0.72	0.81	0.86	0.01	23

[1] Low voltage - high voltage

Pump data

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

SE1.50.80.30.(Ex).2



TM027957

Electrical data

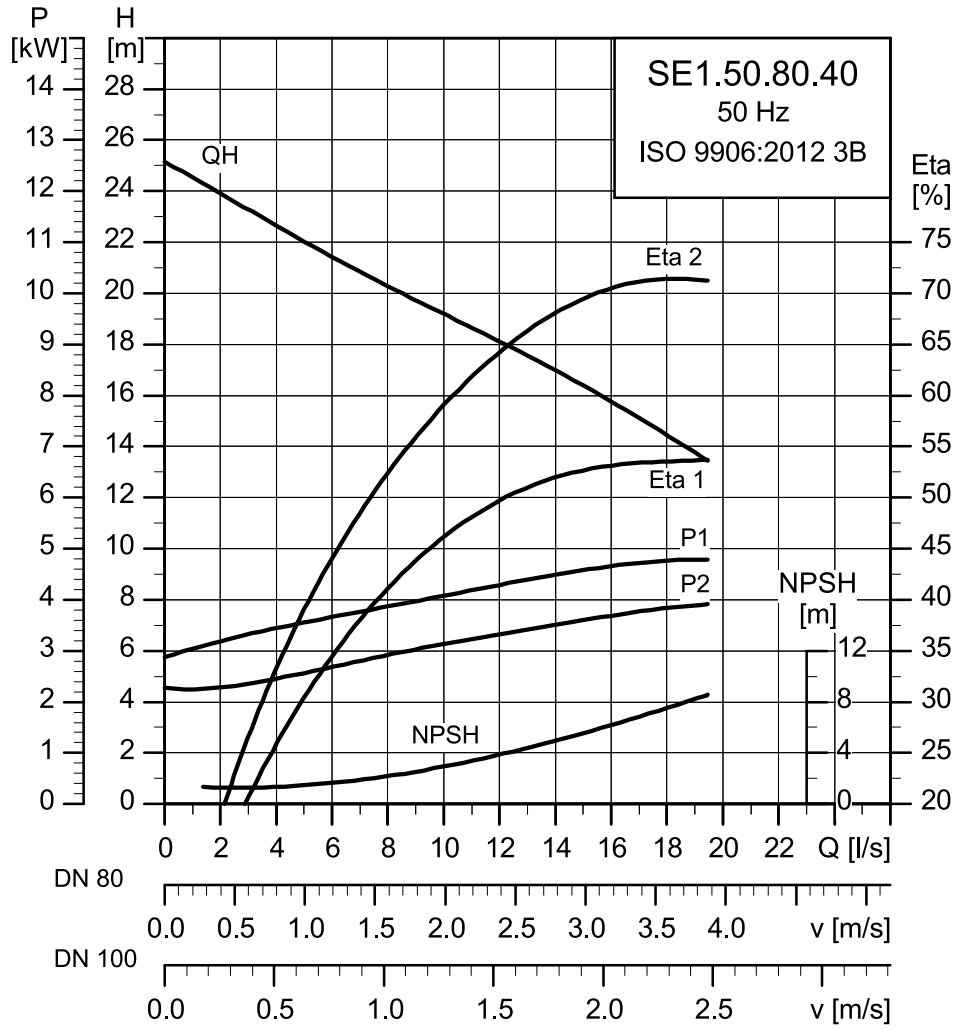
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	3.8	3.0	2	2910	DOL	6.8/6.5	51	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33
50E.B	3 × 220-240 D	3.8	3.0	2	2910	DOL	11.8/11.2	88	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33

1) Low voltage - high voltage

Pump data

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

SE1.50.80.40.(Ex).2



Electrical data

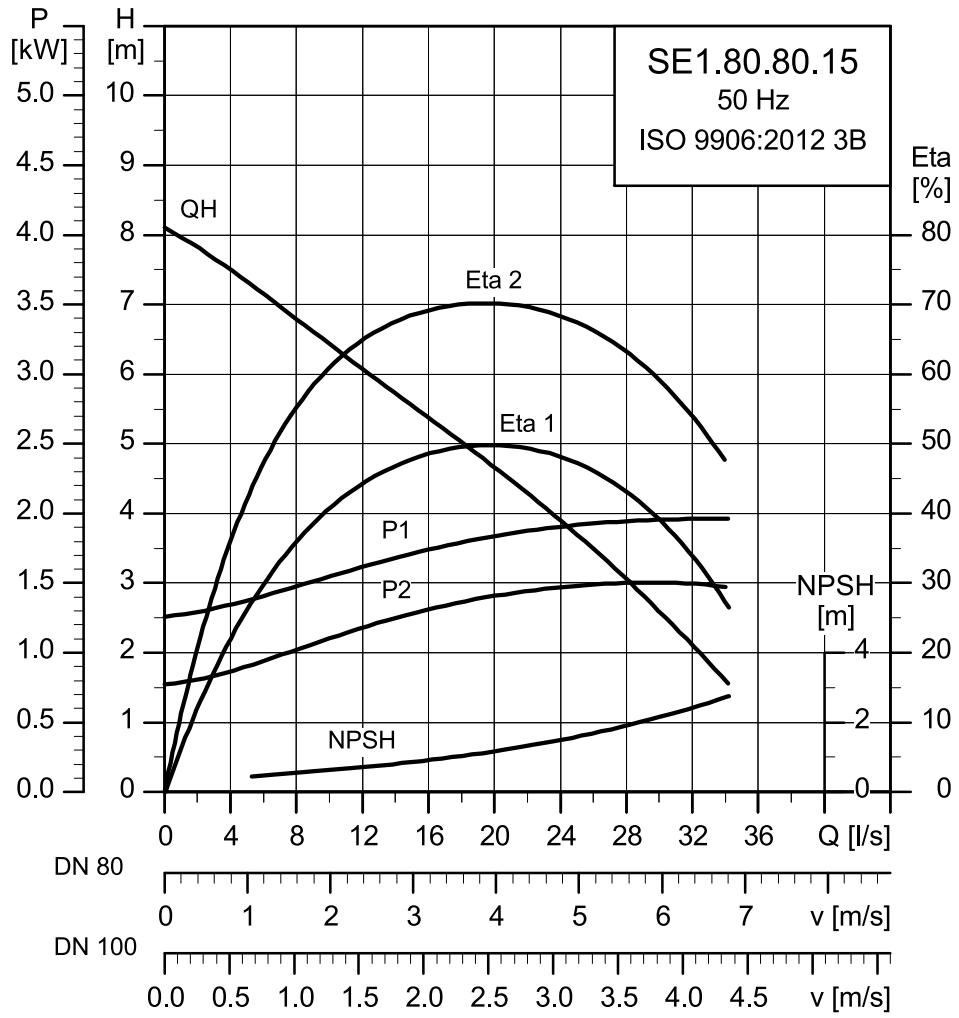
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.8	4.0	2	2925	Y/D	8.7/8.5	71	79.2	82.4	83.3	0.68	0.78	0.84	0.02	54
51E.B	3 × 220-240 D	4.8	4.0	2	2925	Y/D	15.1/14.7	123	79.2	82.4	83.3	0.68	0.78	0.84	0.02	54

1) Low voltage - high voltage

Pump data

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

SE1.80.80.15.(Ex).4



Electrical data

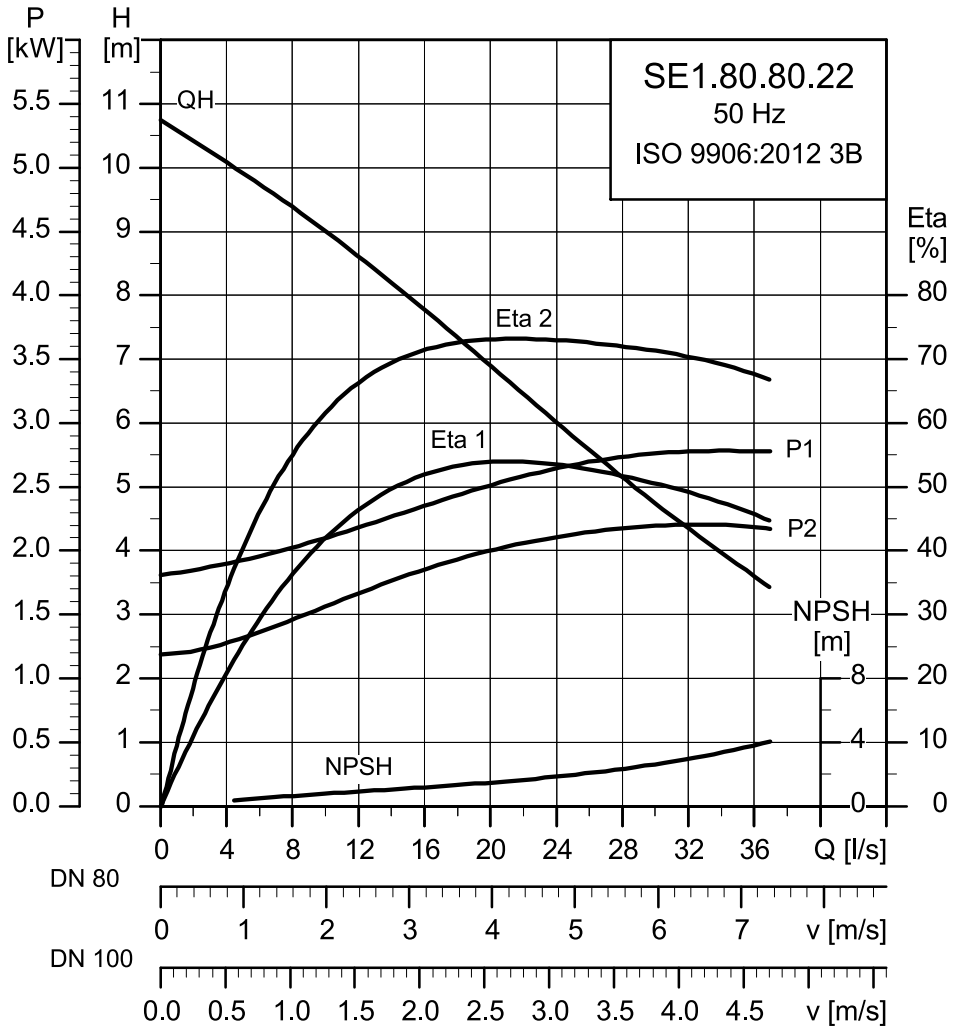
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.1	1.5	4	1435	DOL	4.2/4.2	22	67	71	72	0.56	0.68	0.76	0.05	28
50E.B	3 × 220-240 D	2.1	1.5	4	1435	DOL	7.3/7.3	38	67	71	72	0.56	0.68	0.76	0.05	28

[1] Low voltage - high voltage

Pump data

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

SE1.80.80.22.(Ex).4



Electrical data

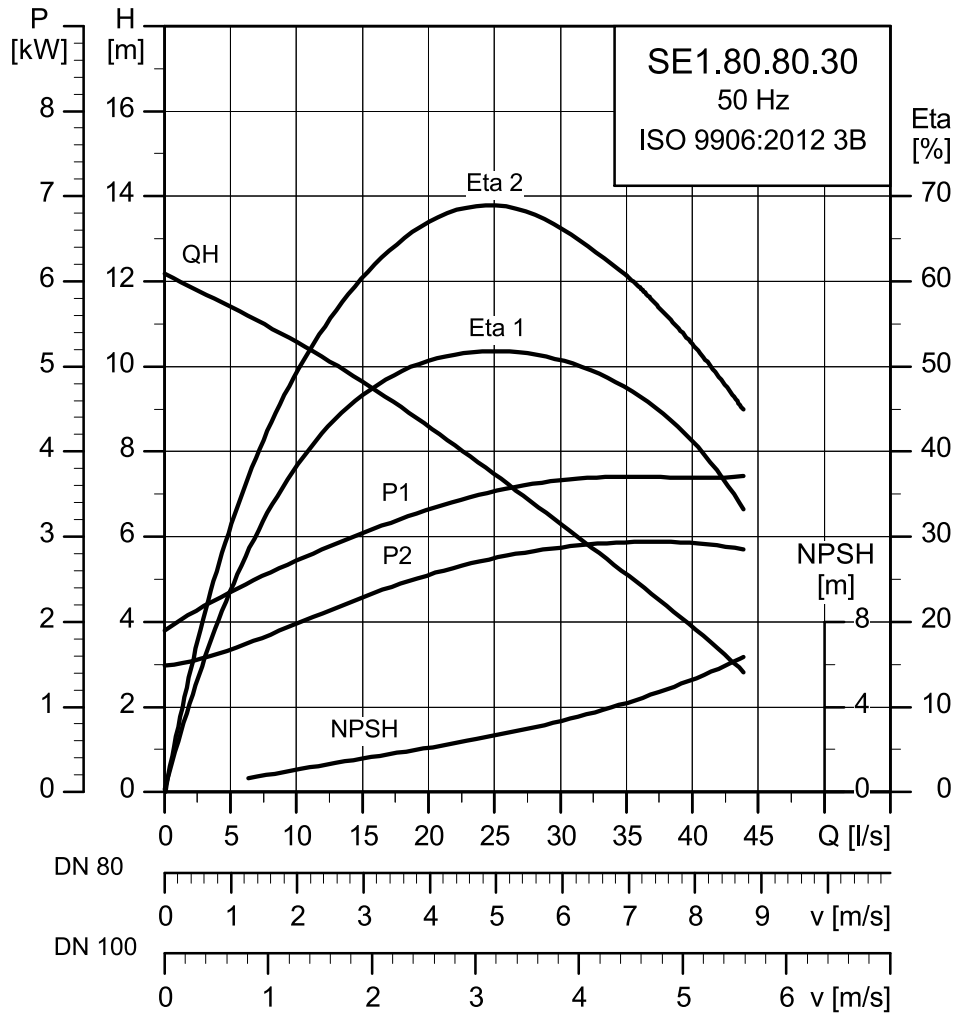
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1)] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.9	2.2	4	1445	DOL	6.0/6.0	32	70.9	75.2	76.3	0.53	0.66	0.74	0.07	45
50E.B	3 × 220-240 D	2.9	2.2	4	1445	DOL	10.3/10.3	55	70.9	75.2	76.3	0.53	0.66	0.74	0.07	45

1) Low voltage - high voltage

Pump data

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

SE1.80.80.30.(Ex).4



TM027964

Electrical data

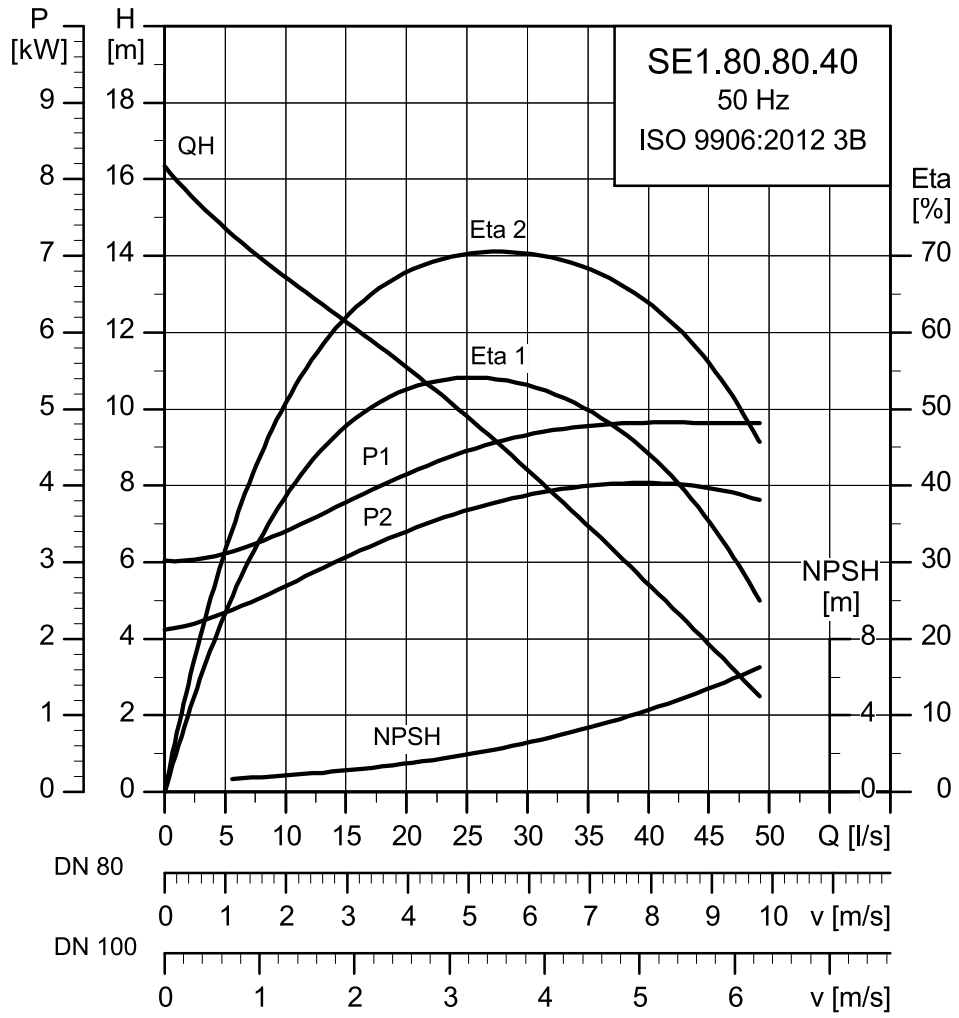
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	3.7	3	4	1455	DOL	7.8/8.0	43	76.4	79.9	81.2	0.5	0.64	0.73	0.11	71
50E.B	3 × 220-240 D	3.7	3	4	1455	DOL	13.4/13.8	74	76.4	79.9	81.2	0.5	0.64	0.73	0.11	71

1) Low voltage - high voltage

Pump data

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

SE1.80.80.40.(Ex).4



Electrical data

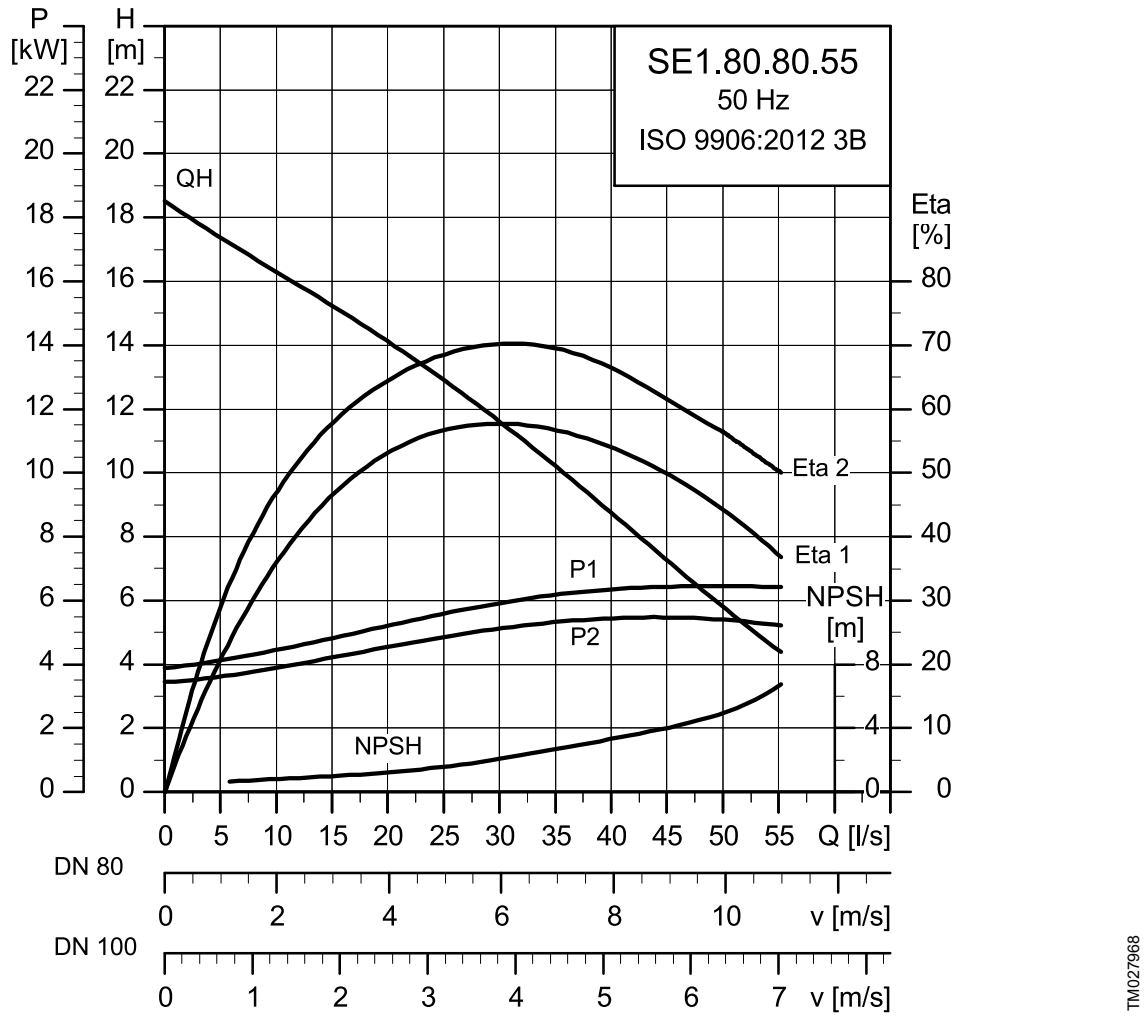
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.9	4	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100
51E.B	3 × 220-240 D	4.9	4	4	1460	Y/D	17.2/17.6	116	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100

[1] Low voltage - high voltage

Pump data

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

SE1.80.80.55.(Ex).4



Electrical data

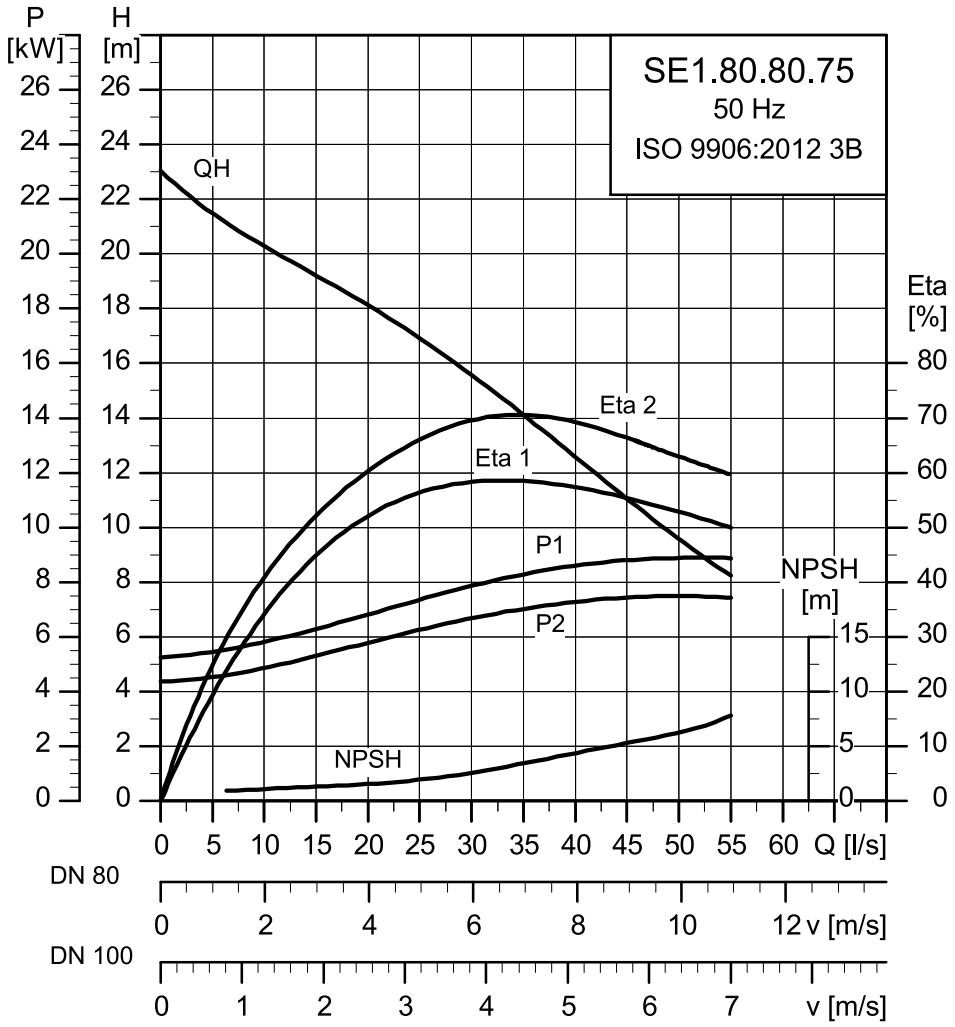
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	6.5	5.5	4	1455	Y/D	13.3/13.8	87	81	83.3	83.9	0.52	0.65	0.74	0.17	122
51E.B	3 × 220-240 D	6.5	5.5	4	1455	Y/D	23.0/23.8	150	81	83.3	83.9	0.52	0.65	0.74	0.17	122

[1] Low voltage - high voltage

Pump data

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

SE1.80.80.75.(Ex).4



TM027970

Electrical data

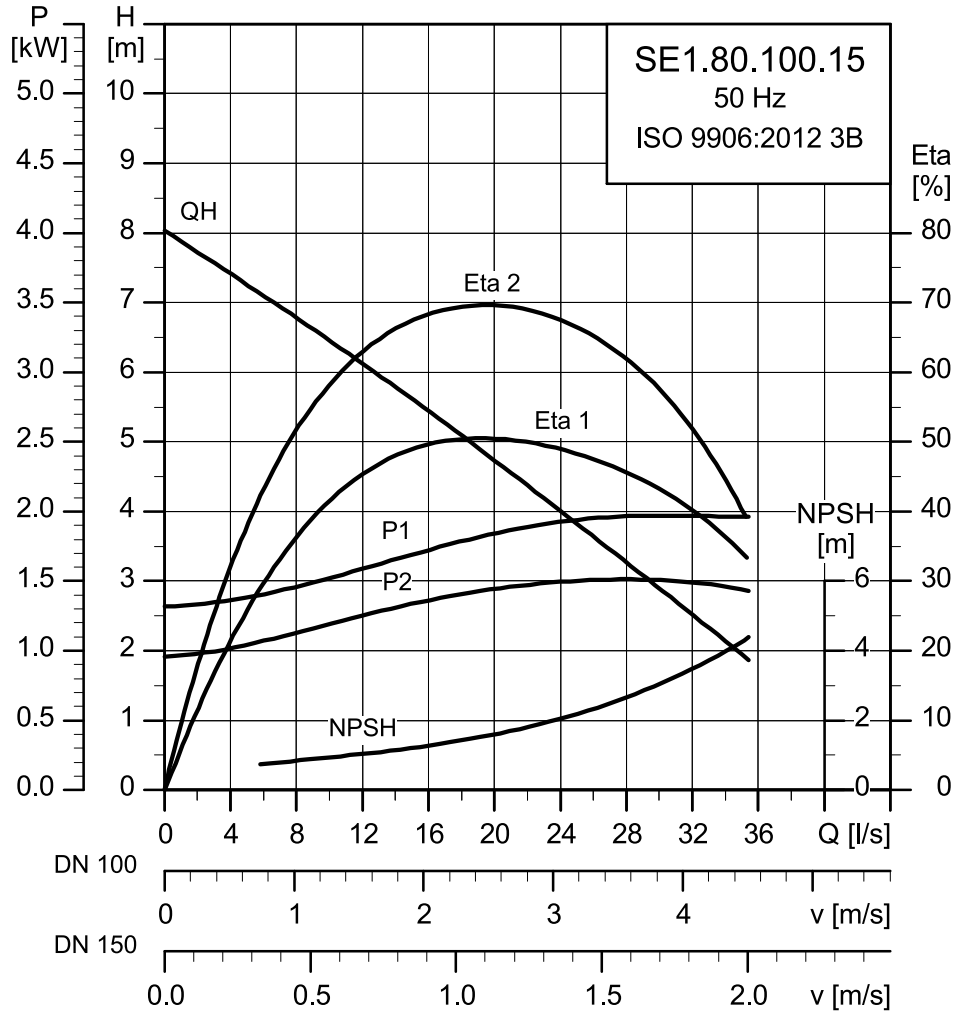
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	9	7.5	4	1455	Y/D	17.7/17.5	107	81.3	83.5	83.4	0.61	0.72	0.79	0.23	141
51E.B	3 × 220-240 D	9	7.5	4	1455	Y/D	30.7/30.3	185	81.3	83.5	83.4	0.61	0.72	0.79	0.23	141

[1] Low voltage - high voltage

Pump data

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

SE1.80.100.15.(Ex).4



TM027961

Electrical data

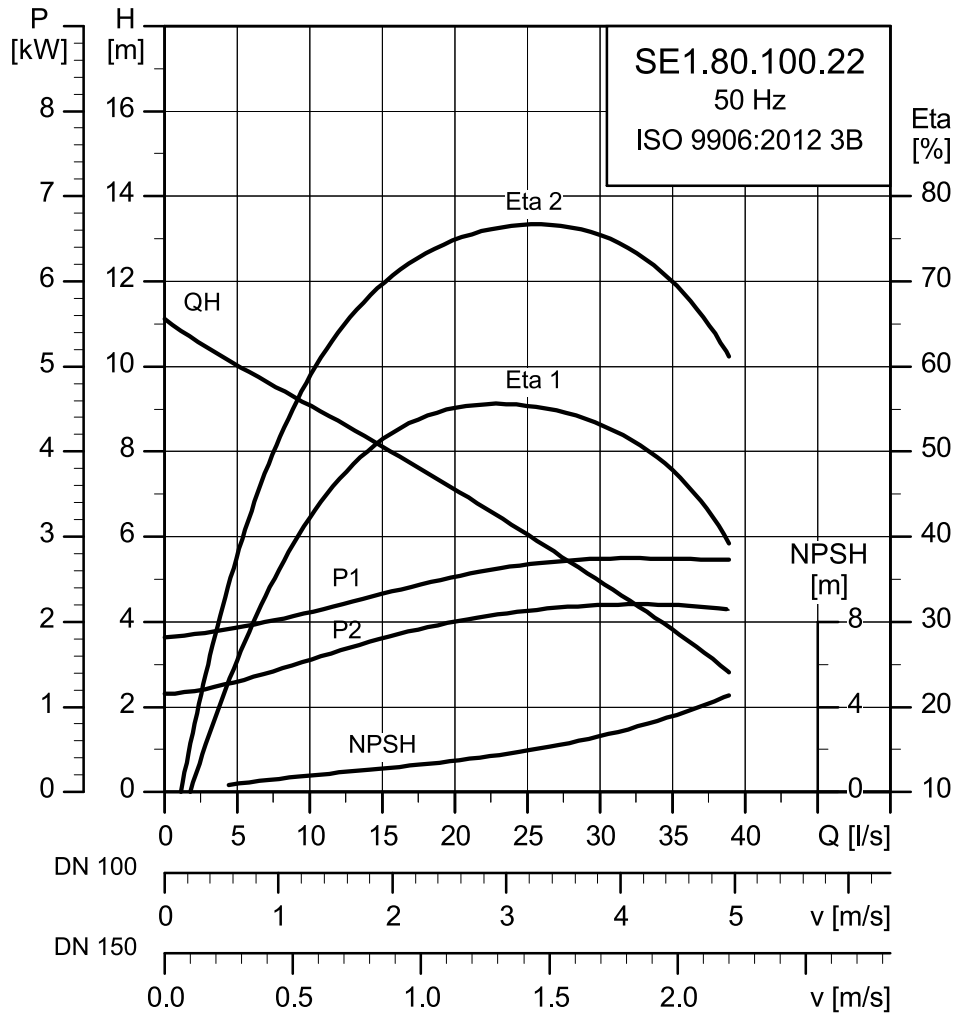
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.1	1.5	4	1435	DOL	4.2/4.2	22	67	71	72	0.56	0.68	0.76	0.05	28
50E.B	3 × 220-240 D	2.1	1.5	4	1435	DOL	7.3/7.3	38	67	71	72	0.56	0.68	0.76	0.05	28

[1] Low voltage - high voltage

Pump data

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

SE1.80.100.22.(Ex).4



TM027963

Electrical data

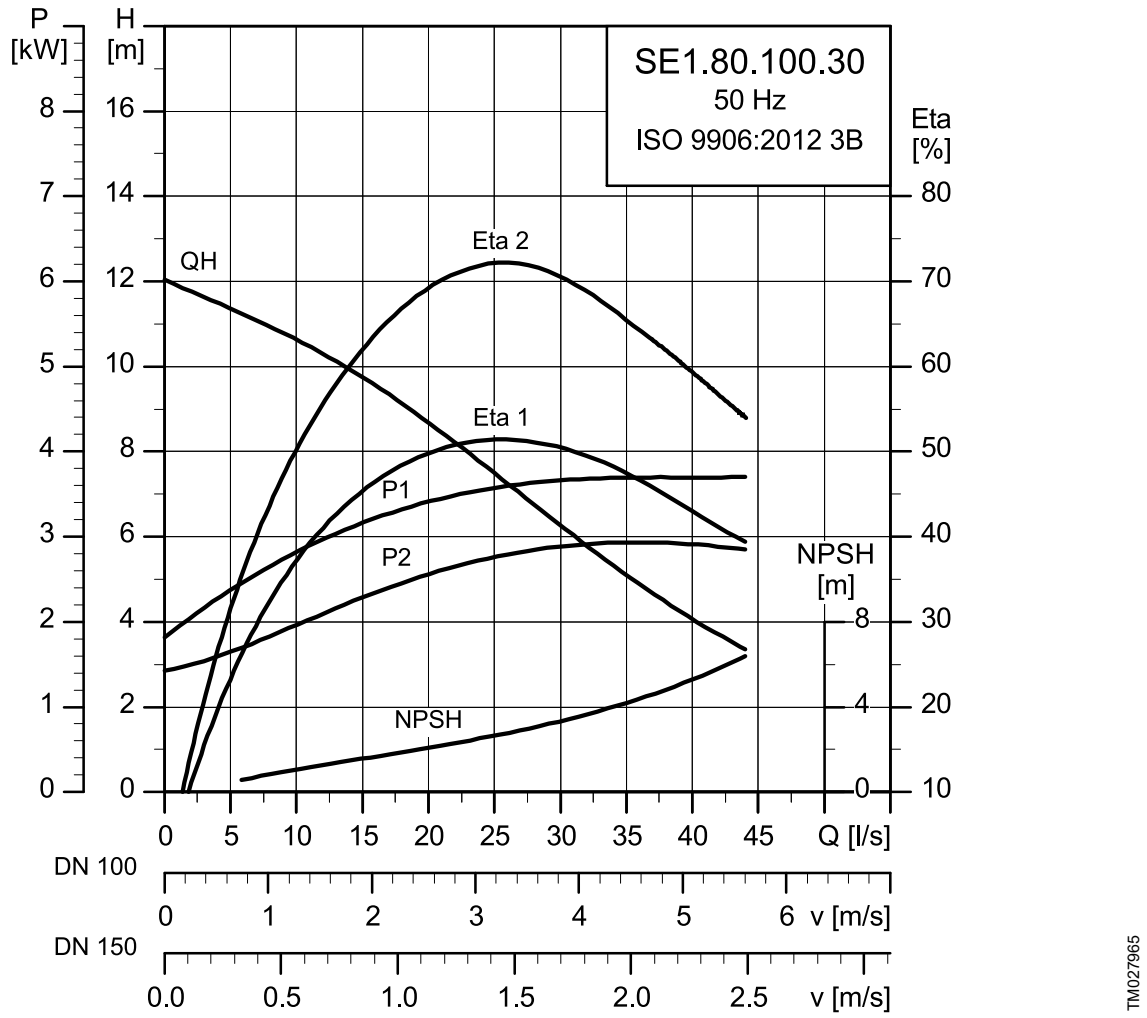
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	2.9	2.2	4	1445	DOL	6/6	32	70.9	75.2	76.3	0.53	0.66	0.74	0.07	45
50E.B	3 × 220-240 D	2.9	2.2	4	1445	DOL	10.3/10.3	55	70.9	75.2	76.3	0.53	0.66	0.74	0.07	45

1) Low voltage - high voltage

Pump data

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

SE1.80.100.30.(Ex).4



Electrical data

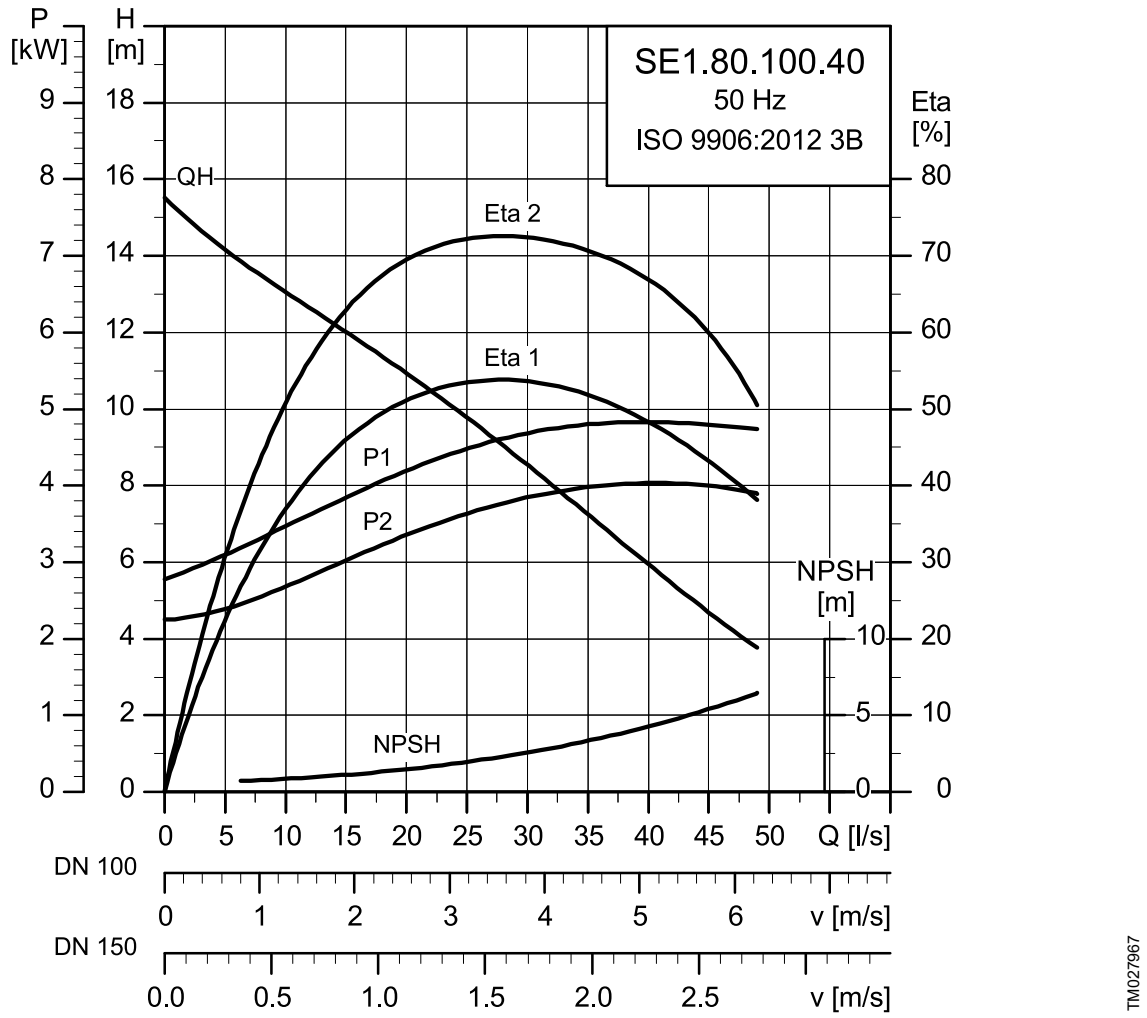
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
50D.B	3 × 380-415 Y	3.7	3	4	1455	DOL	7.8/8.0	43	76.4	79.9	81.2	0.5	0.64	0.73	0.11	71
50E.B	3 × 220-240 D	3.7	3	4	1455	DOL	13.4/13.8	74	76.4	79.9	81.2	0.5	0.64	0.73	0.11	71

1) Low voltage - high voltage

Pump data

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

SE1.80.100.40.(Ex).4



Electrical data

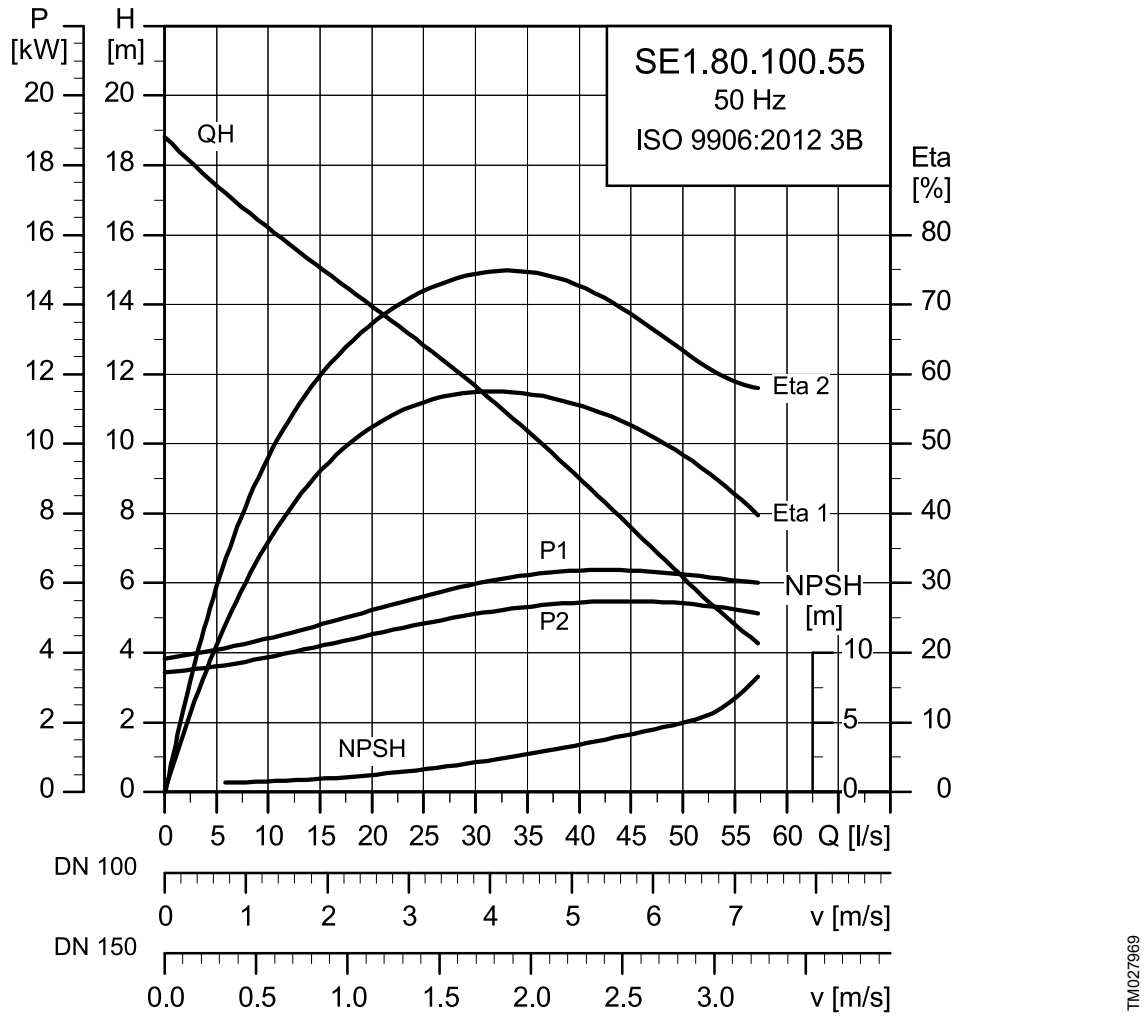
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.9	4	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100
51E.B	3 × 220-240 D	4.9	4	4	1460	Y/D	17.2/17.6	116	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100

[1] Low voltage - high voltage

Pump data

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

SE1.80.100.55.(Ex).4



Electrical data

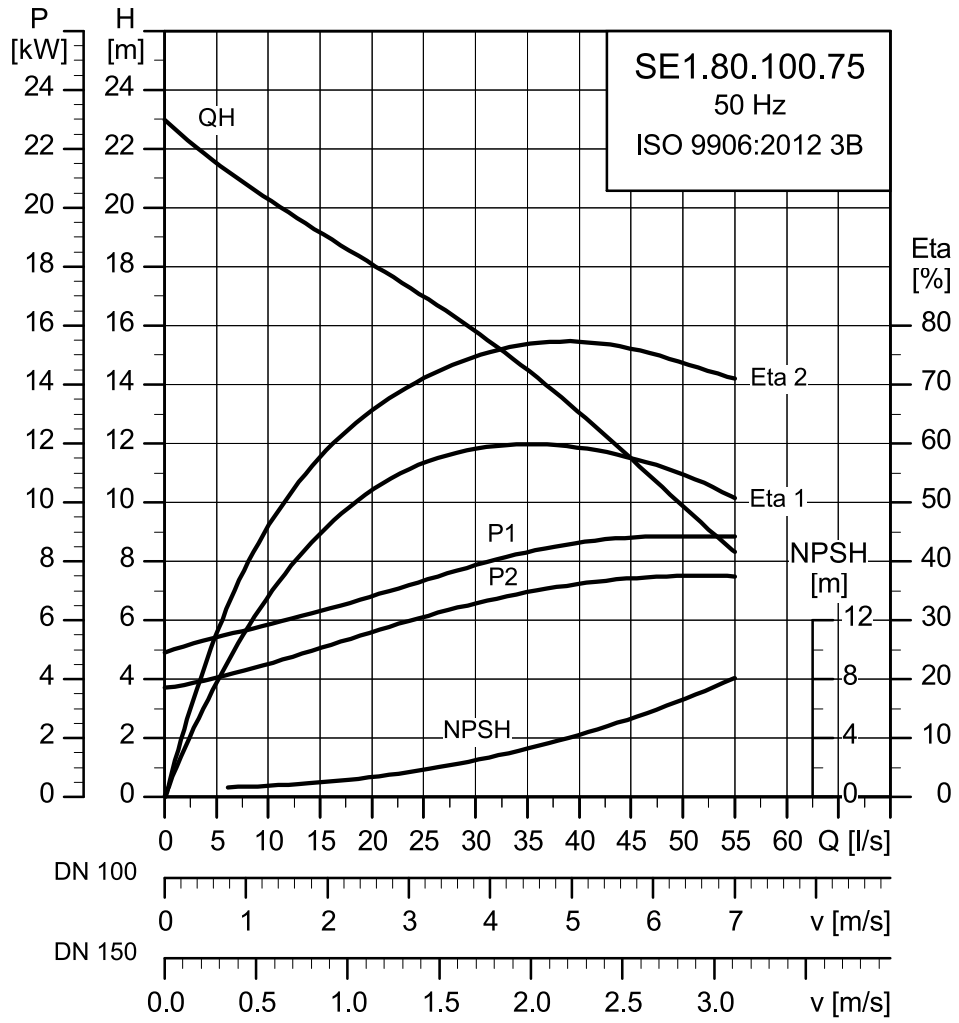
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	6.5	5.5	4	1455	Y/D	13.3/13.8	87	81	83.3	83.9	0.52	0.65	0.74	0.17	122
51E.B	3 × 220-240 D	6.5	5.5	4	1455	Y/D	23.0/23.8	150	81	83.3	83.9	0.52	0.65	0.74	0.17	122

[1] Low voltage - high voltage

Pump data

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

SE1.80.100.75.(Ex).4



TM027971

Electrical data

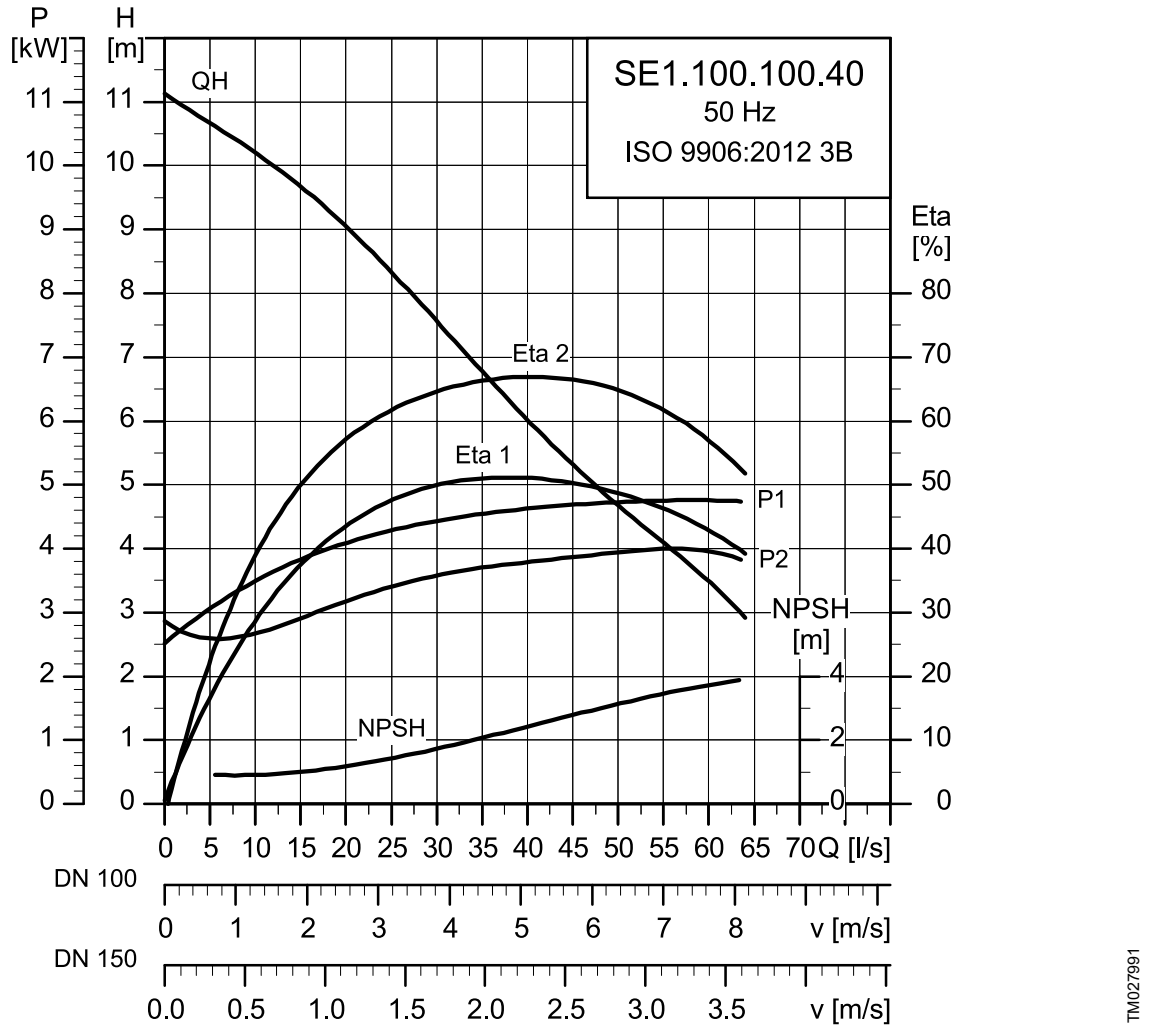
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	9	7.5	4	1455	Y/D	17.7/17.5	107	81.3	83.5	83.4	0.61	0.72	0.79	0.23	141
51E.B	3 × 220-240 D	9	7.5	4	1455	Y/D	30.7/30.3	185	81.3	83.5	83.4	0.61	0.72	0.79	0.23	141

1) Low voltage - high voltage

Pump data

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

SE1.100.100.40.(Ex).4



Electrical data

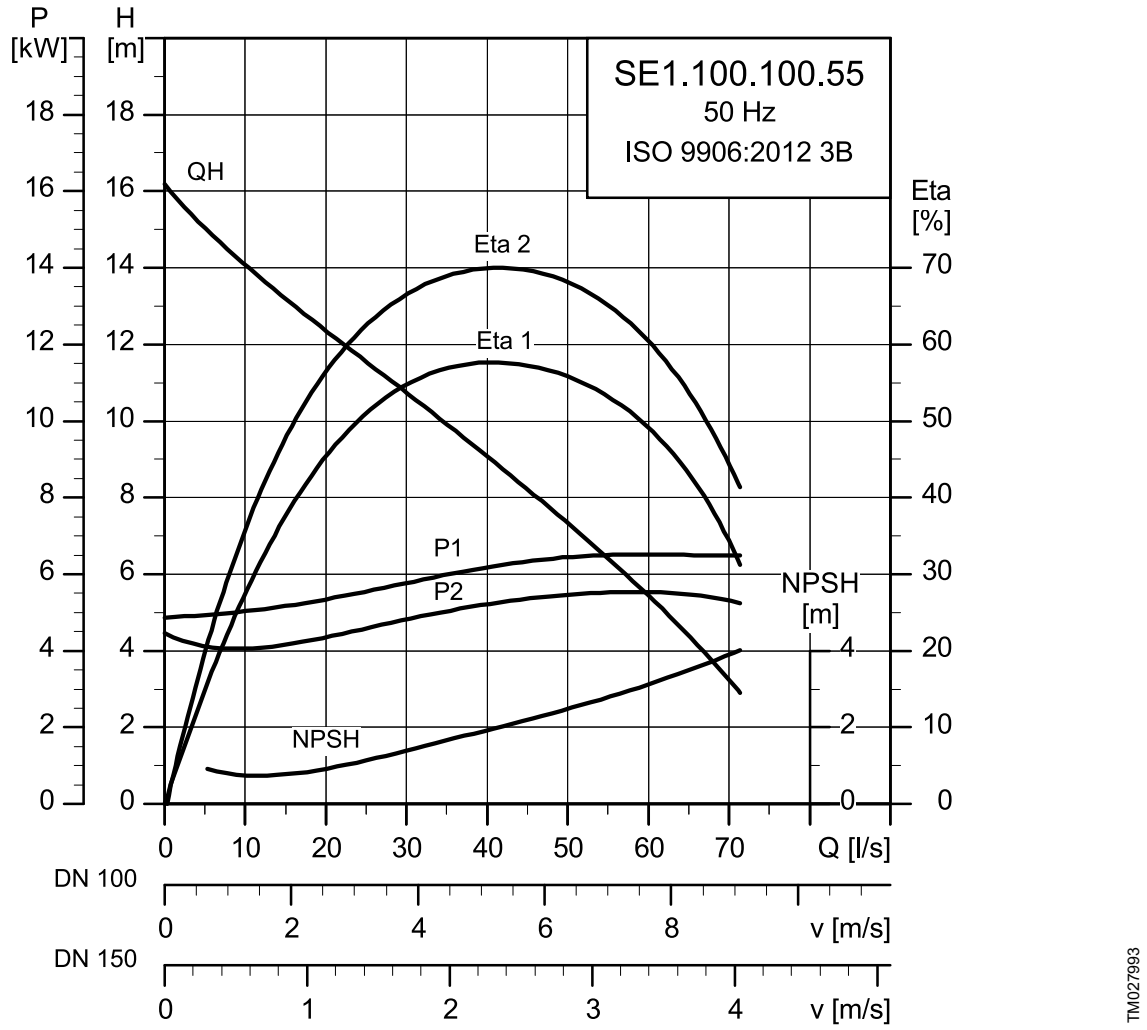
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.9	4	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100
51E.B	3 × 220-240 D	4.9	4	4	1460	Y/D	17.2/17.6	116	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100

1) Low voltage - high voltage

Pump data

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

SE1.100.100.55.(Ex).4



Electrical data

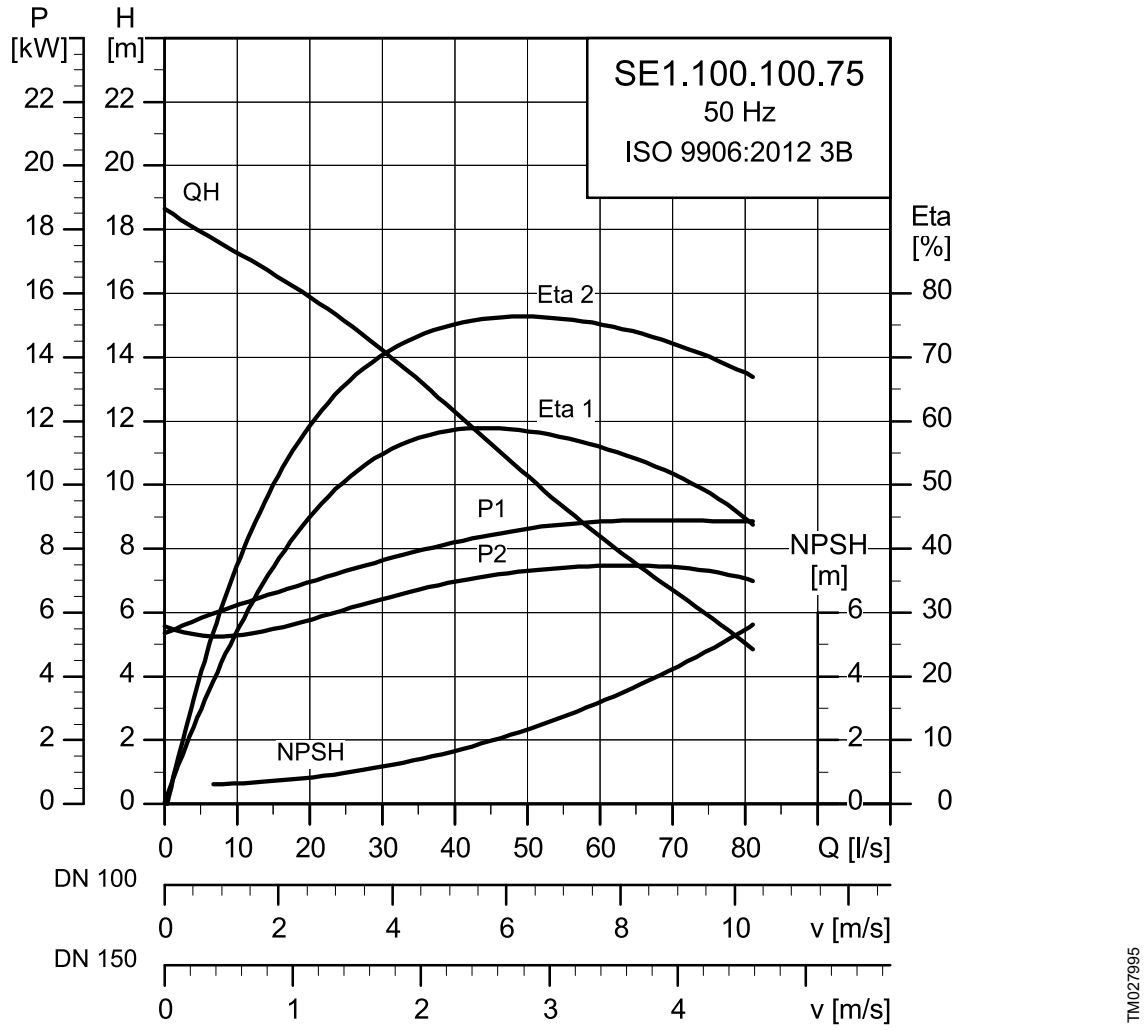
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N[1)] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	6.5	5.5	4	1455	Y/D	13.3/13.8	87	81	83.3	83.9	0.52	0.65	0.74	0.17	122
51E.B	3 × 220-240 D	6.5	5.5	4	1455	Y/D	23.0/23.8	150	81	83.3	83.9	0.52	0.65	0.74	0.17	122

1) Low voltage - high voltage

Pump data

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

SE1.100.100.75.(Ex).4



Electrical data

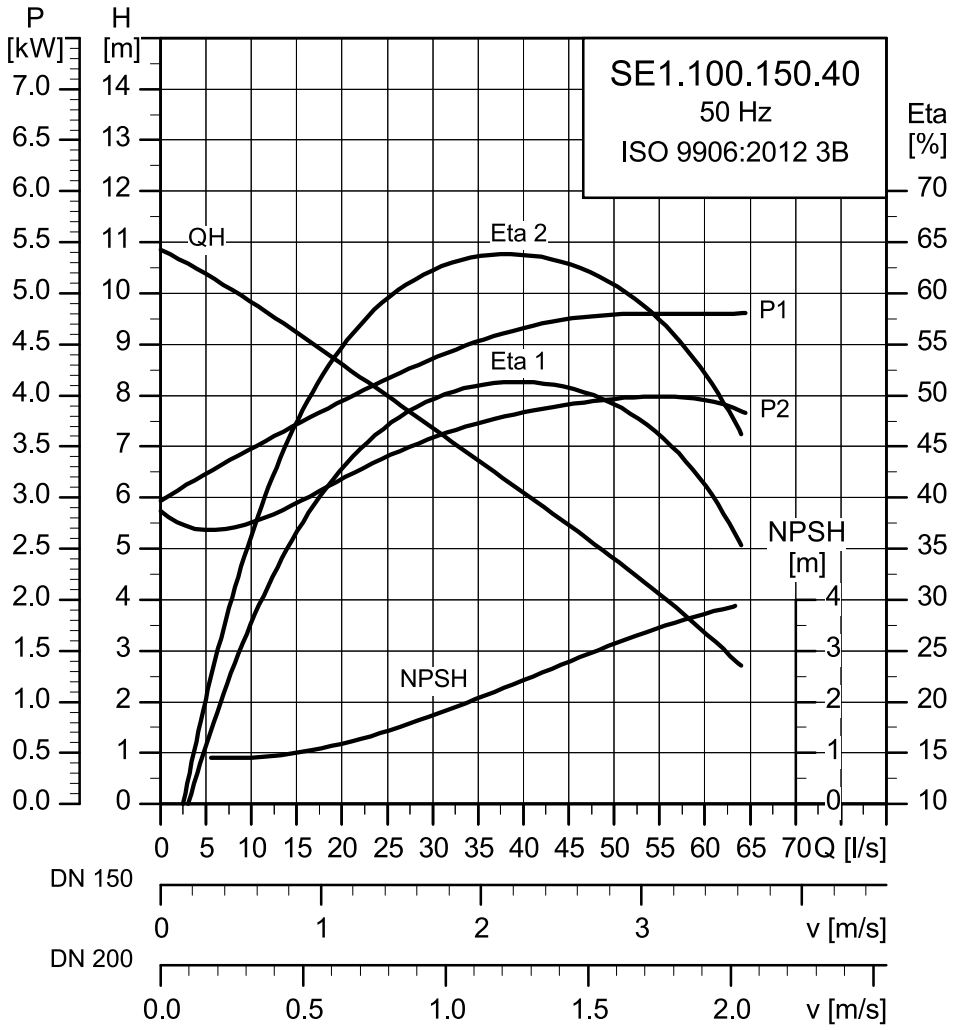
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	9	7.5	4	1455	Y/D	17.7/17.5	107	81.3	83.5	83.4	0.61	0.72	0.79	0.22	141
51E.B	3 × 220-240 D	9	7.5	4	1455	Y/D	30.7/30.3	185	81.3	83.5	83.4	0.61	0.72	0.79	0.22	141

1) Low voltage - high voltage

Pump data

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

SE1.100.150.40.(Ex).4



Electrical data

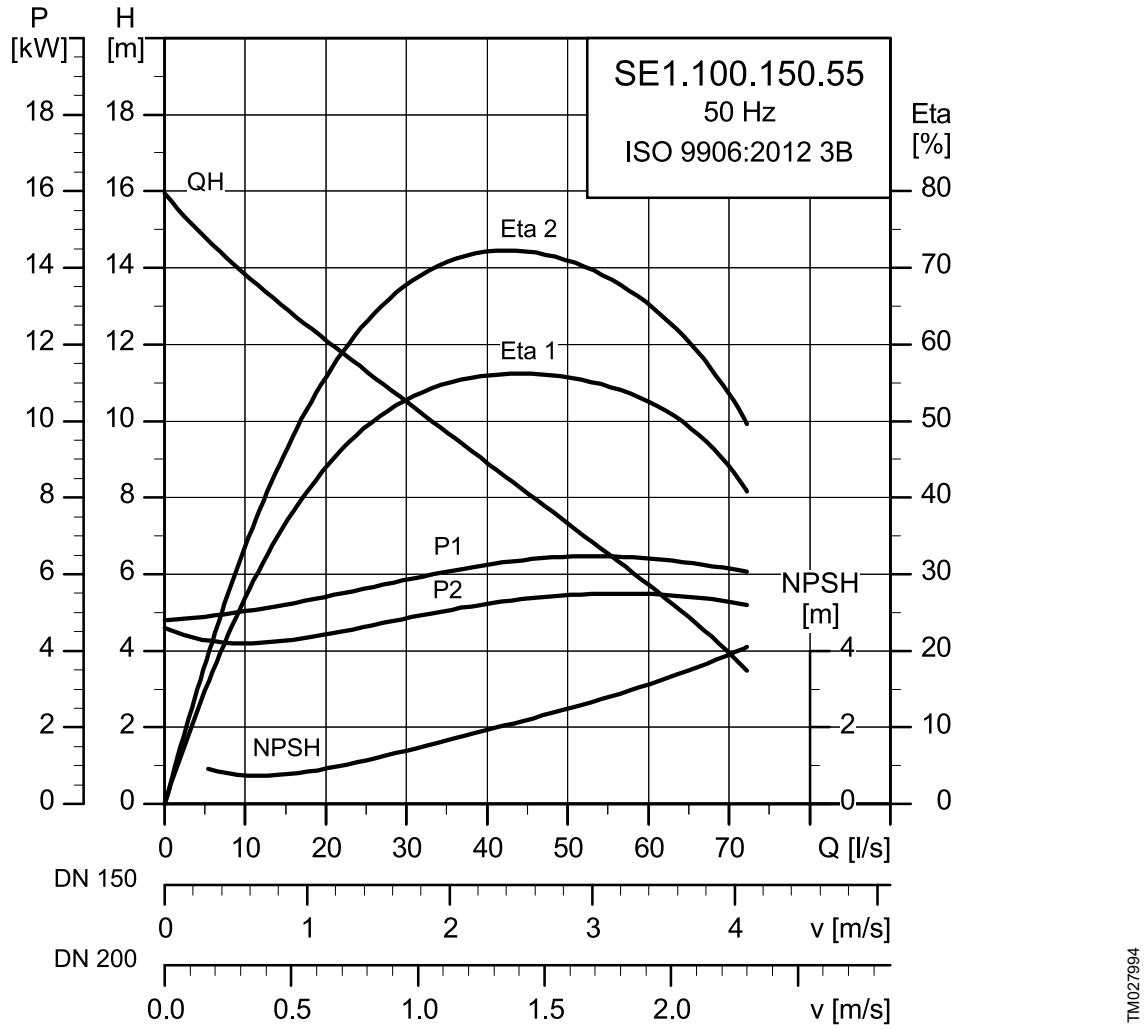
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N 1) [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm²]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	4.9	4	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100
51E.B	3 × 220-240 D	4.9	4	4	1460	Y/D	17.2/17.6	116	78.2	81.7	82.2	0.52	0.65	0.73	0.13	100

1) Low voltage - high voltage

Pump data

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

SE1.100.150.55.(Ex).4



Electrical data

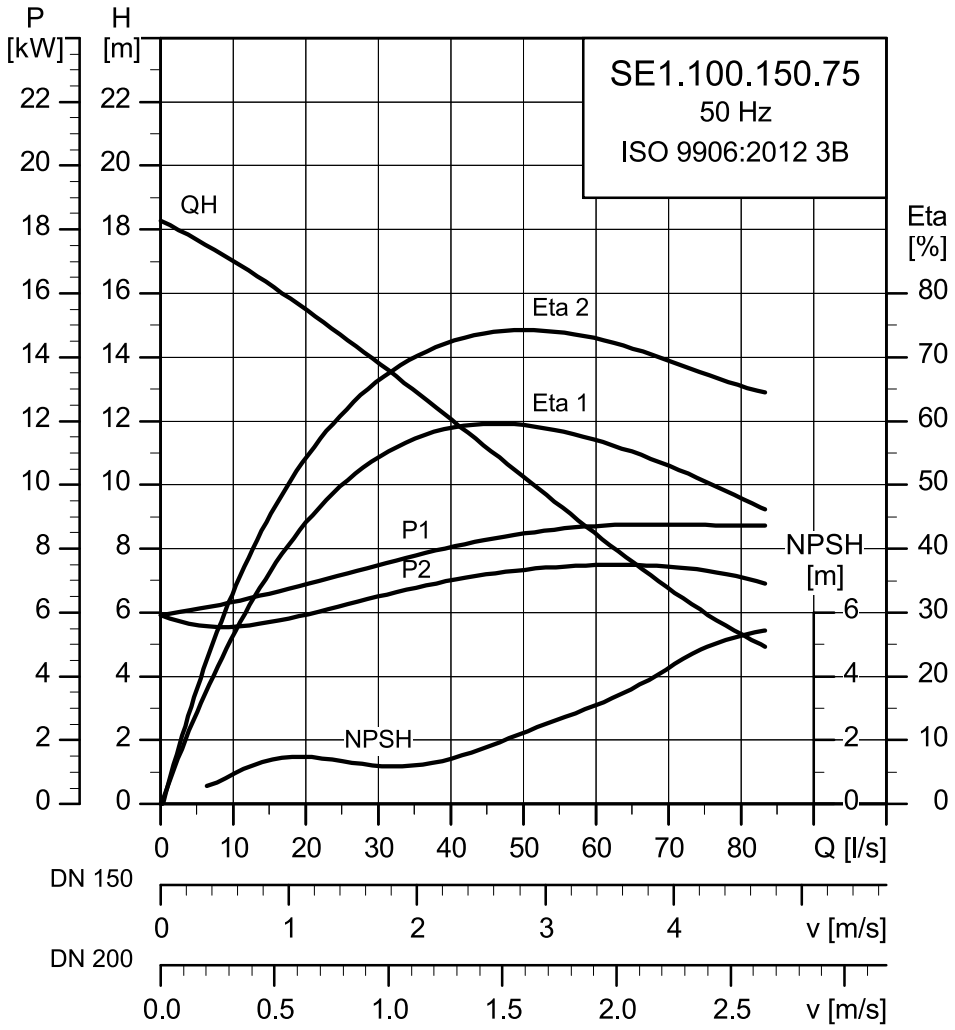
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1)] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	6.5	5.5	4	1455	Y/D	13.3/13.8	87	81	83.3	83.9	0.52	0.65	0.74	0.17	122
51E.B	3 × 220-240 D	6.5	5.5	4	1455	Y/D	23.0/23.8	150	81	83.3	83.9	0.52	0.65	0.74	0.17	122

1) Low voltage - high voltage

Pump data

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

SE1.100.150.75.(Ex).4



TM027996

Electrical data

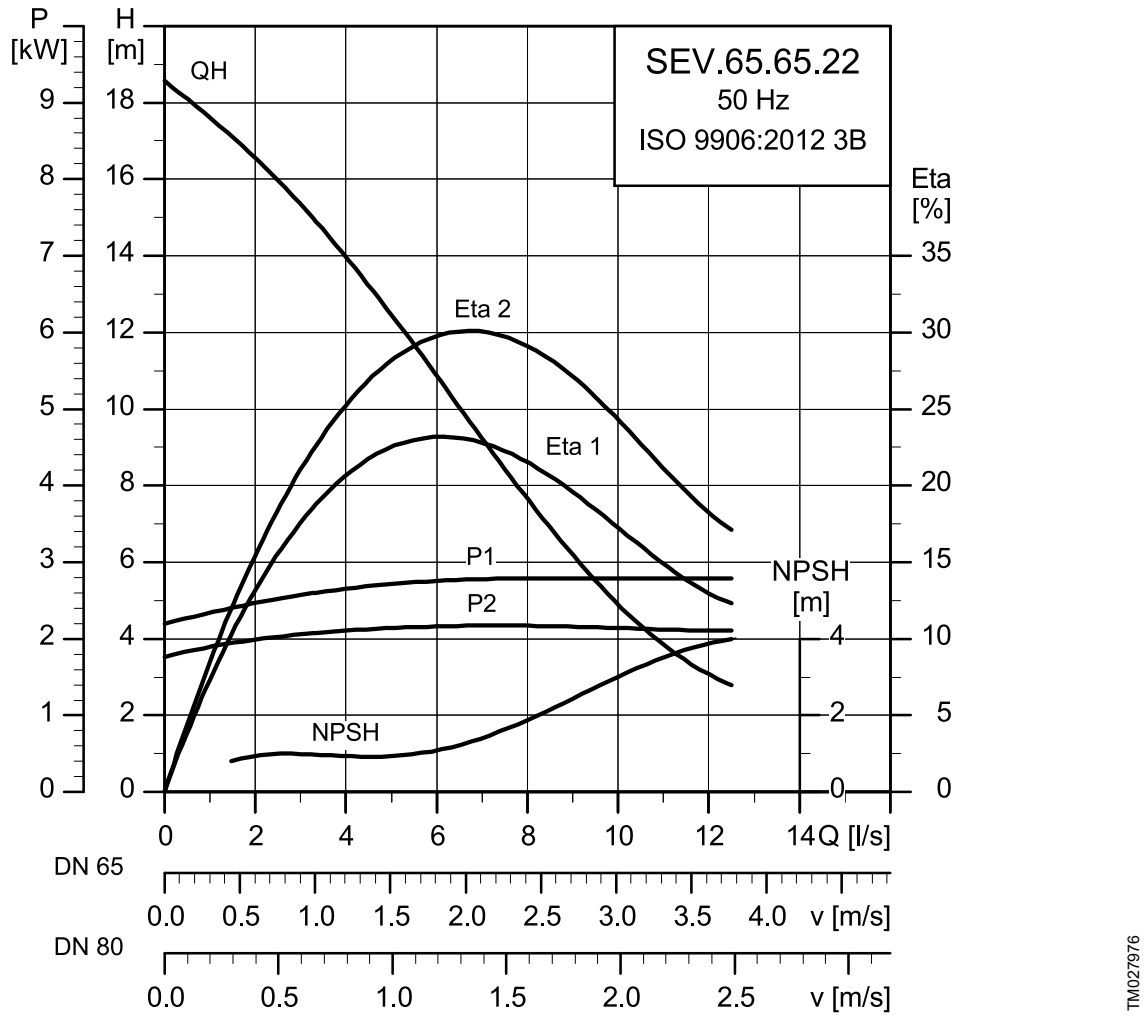
Voltage code	Voltage [V]	P1 [kW]	P2 [kW]	No of poles	RPM	Starting	I_N [1] [A]	I_{start} [A]	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque M_{max} [Nm]
									1/2	3/4	1/1	1/2	3/4	1/1		
51D.B	3 × 380-415 D	9	7.5	4	1455	Y/D	17.7/17.5	107	81.3	83.5	83.4	0.61	0.72	0.79	0.22	141
51E.B	3 × 220-240 D	9	7.5	4	1455	Y/D	30.7/30.3	185	81.3	83.5	83.4	0.61	0.72	0.79	0.22	141

[1] Low voltage - high voltage

Pump data

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

SEV.65.65.22.(Ex).2



Electrical data

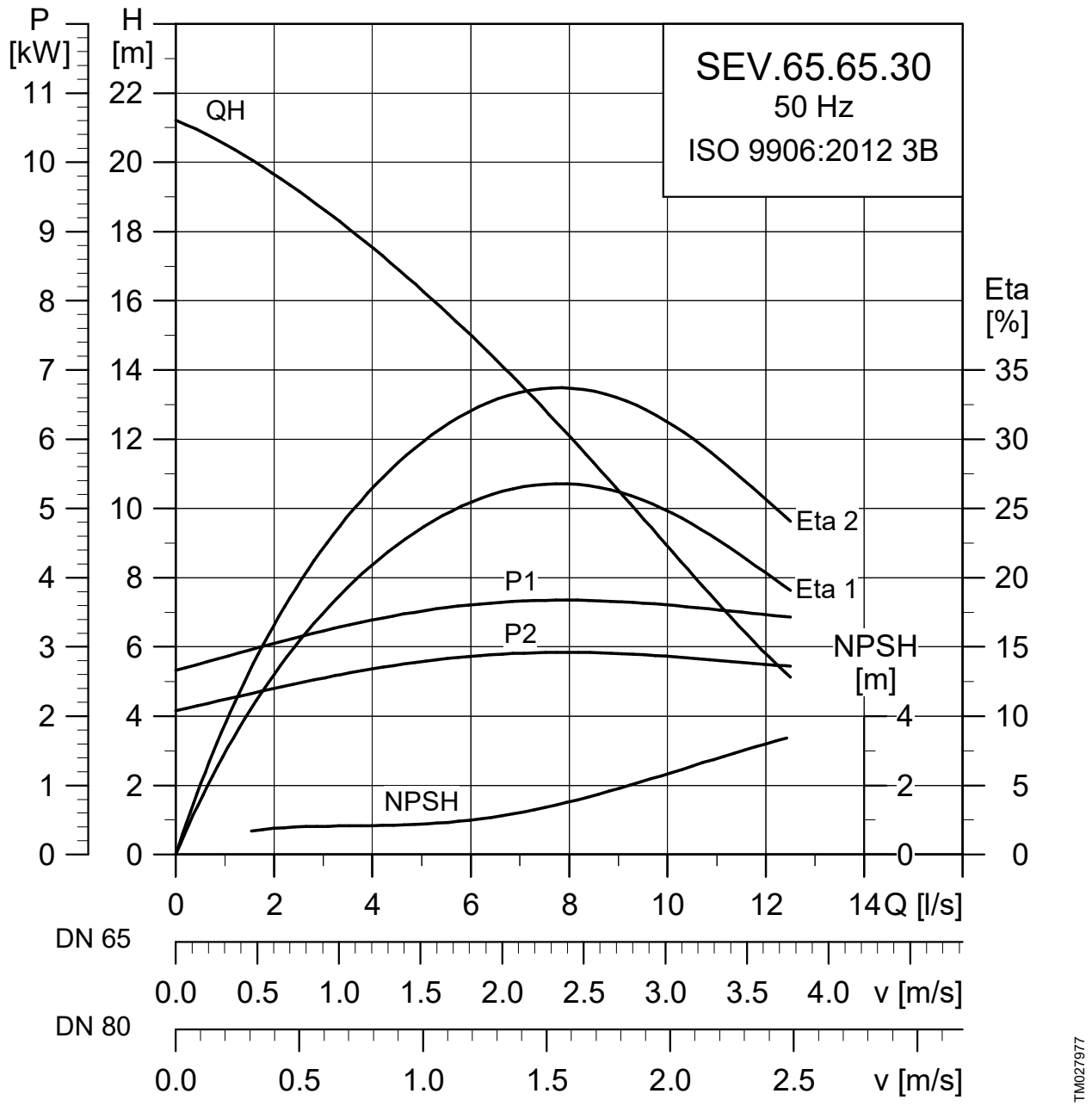
Voltage	P1	P2	Number of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.8	2.2	2	2895	DOL	5.1/5.0	37	73.5	76.6	77	0.72	0.81	0.86	0.01	23

[1] Low voltage - high voltage

Pump data

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

SEV.65.65.30.(Ex).2



Electrical data

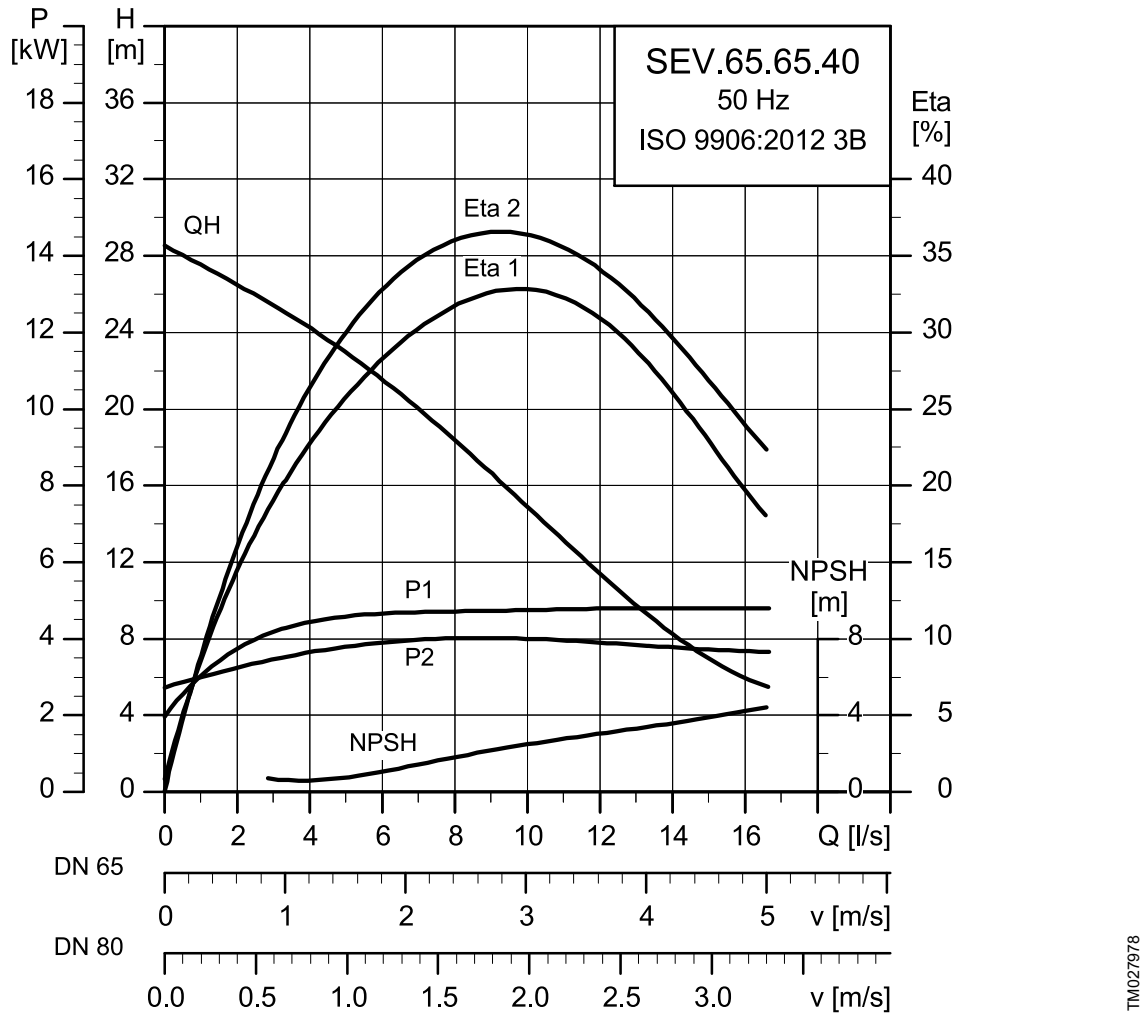
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N[1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	3.8	3.0	2	2910	DOL	6.8/6.5	51	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33

1) Low voltage - high voltage

Pump data

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

SEV.65.65.40.(Ex).2



Electrical data

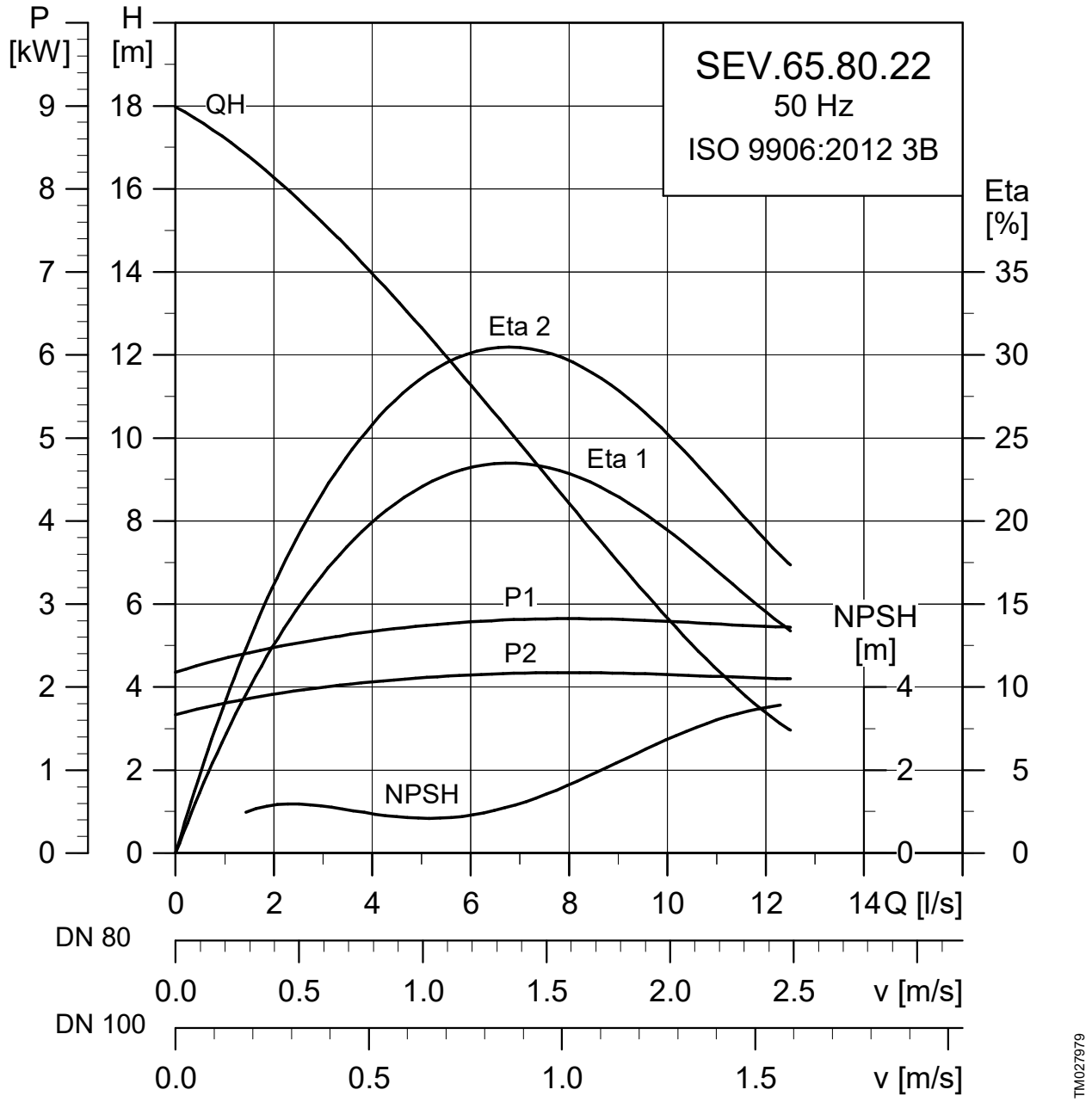
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.8	4.0	2	2925	Y/D	8.7/8.5	71	79.2	82.4	83.3	0.68	0.78	0.84	0.0126	54

[1] Low voltage - high voltage

Pump data

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

SEV.65.80.22.(Ex).2



Electrical data

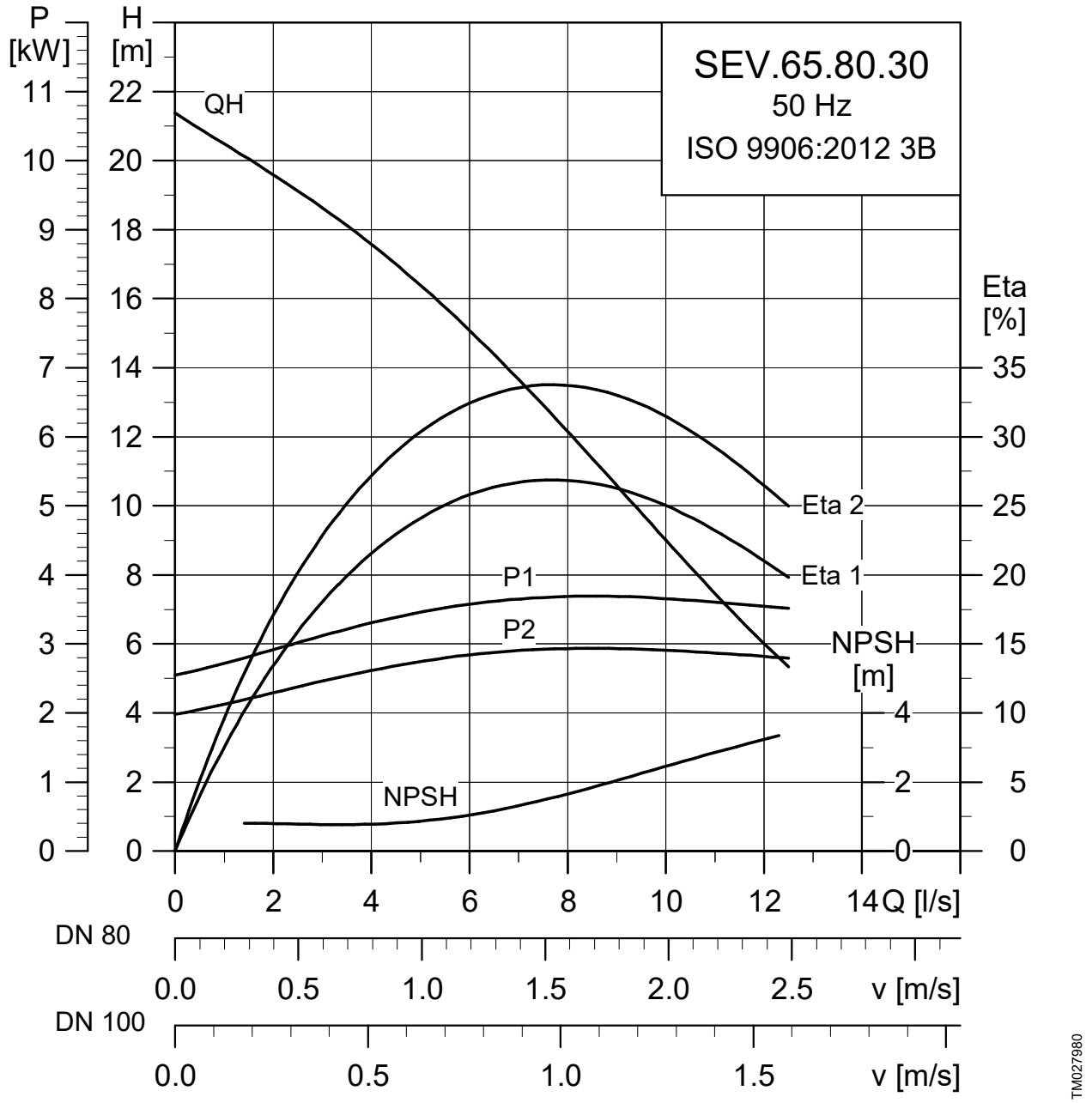
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.8	2.2	2	2895	DOL	5.1/5.0	37	73.5	76.6	77	0.72	0.81	0.86	0.01	23

[1] Low voltage - high voltage

Pump data

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

SEV.65.80.30.(Ex).2



Electrical data

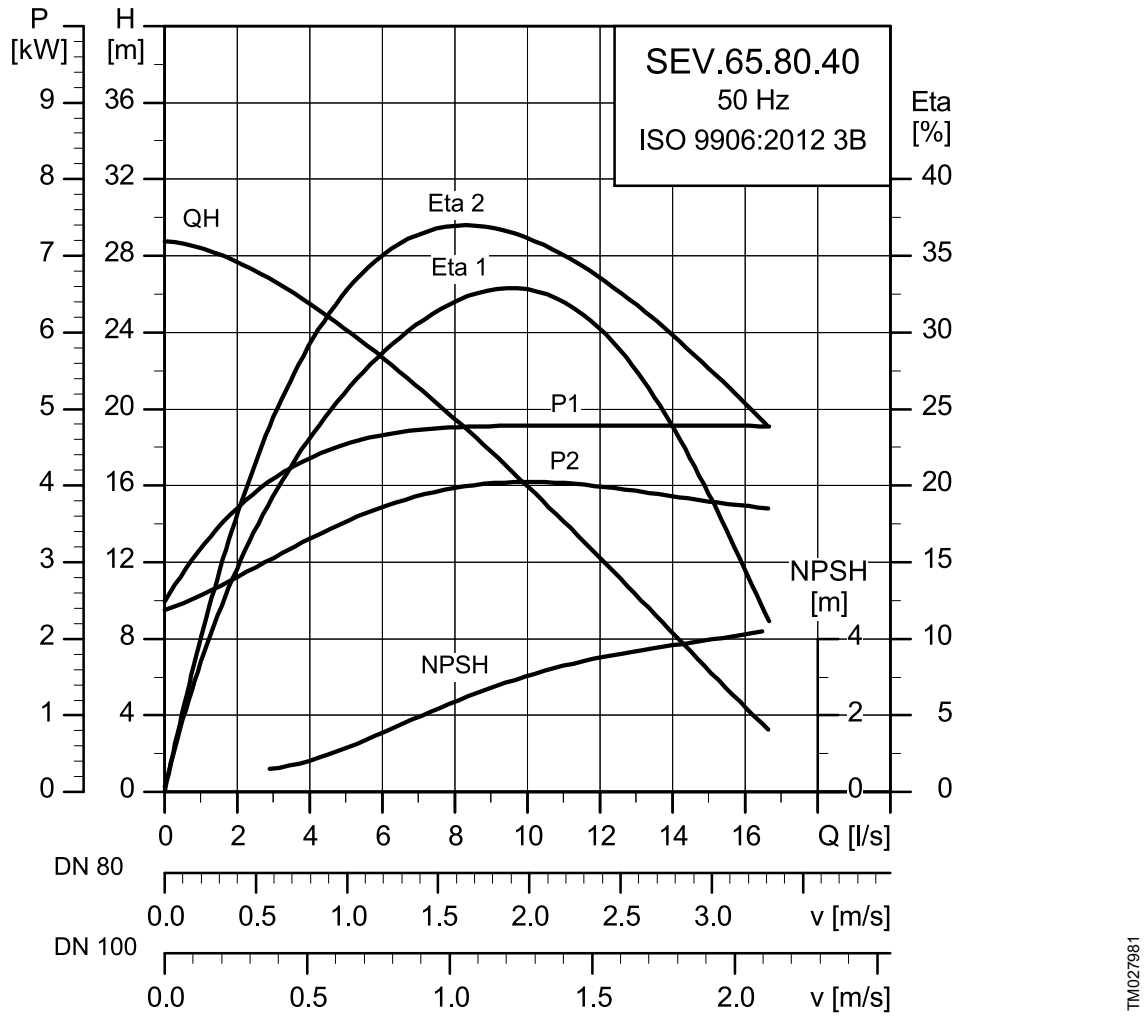
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N[1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	3.8	3.0	2	2910	DOL	6.8/6.5	51	75.1	78.5	79.6	0.74	0.83	0.87	0.01	33

[1)] Low voltage - high voltage

Pump data

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

SEV.65.80.40.(Ex).2



Electrical data

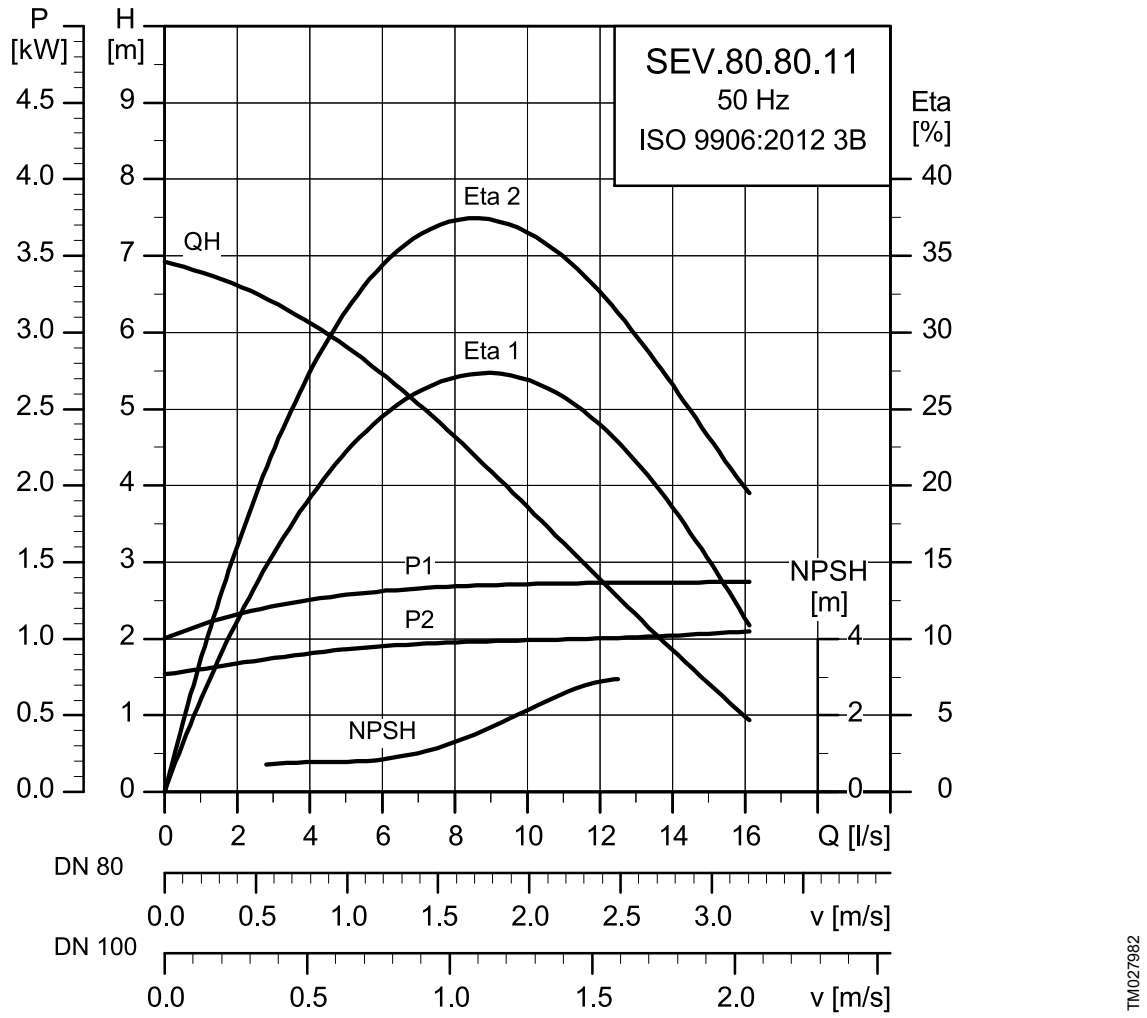
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.8	4.0	2	2925	Y/D	8.7/8.5	71	79.2	82.4	83.3	0.68	0.78	0.84	0.0126	54

[1] Low voltage - high voltage

Pump data

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

SEV.80.80.11.(Ex).4



Electrical data

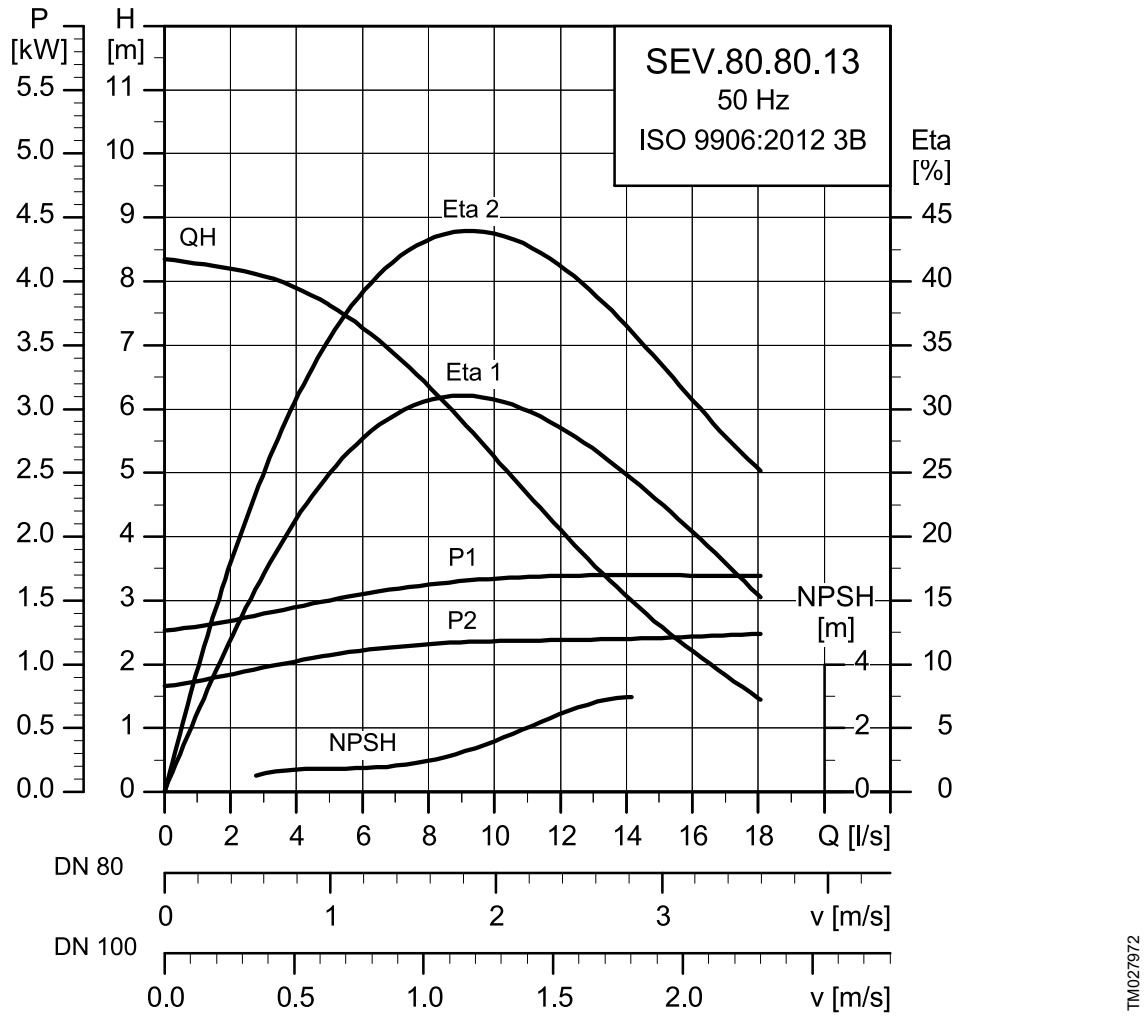
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	1.5	1.1	4	1440	DOL	2.8/2.9	13	65.6	71.2	73.2	0.52	0.64	0.73	0.0142	21

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.13.(Ex).4



Electrical data

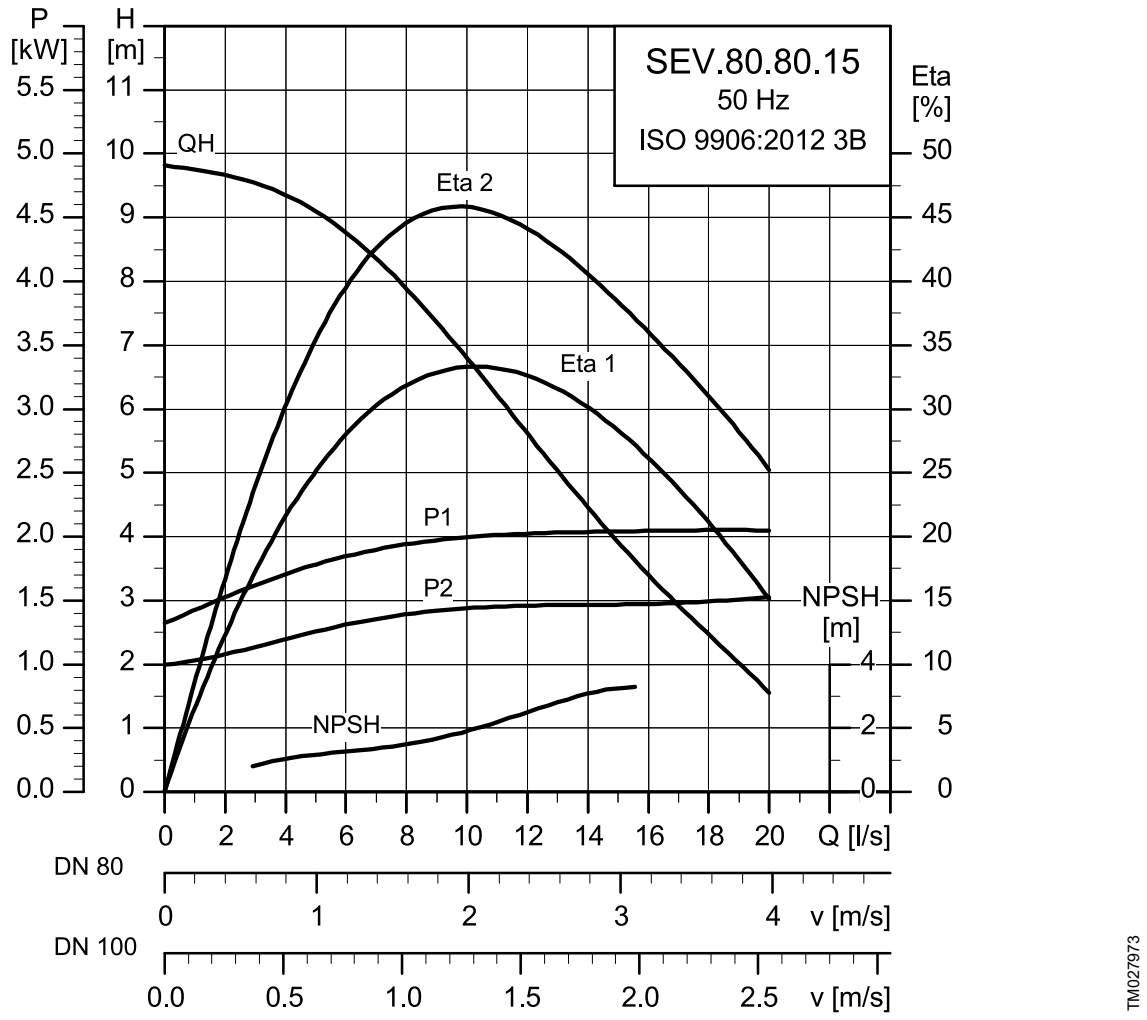
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	1.8	1.3	4	1440	DOL	3.8/3.9	22	63.9	69.6	71.7	0.51	0.63	0.72	0.0165	28

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.15.(Ex).4



Electrical data

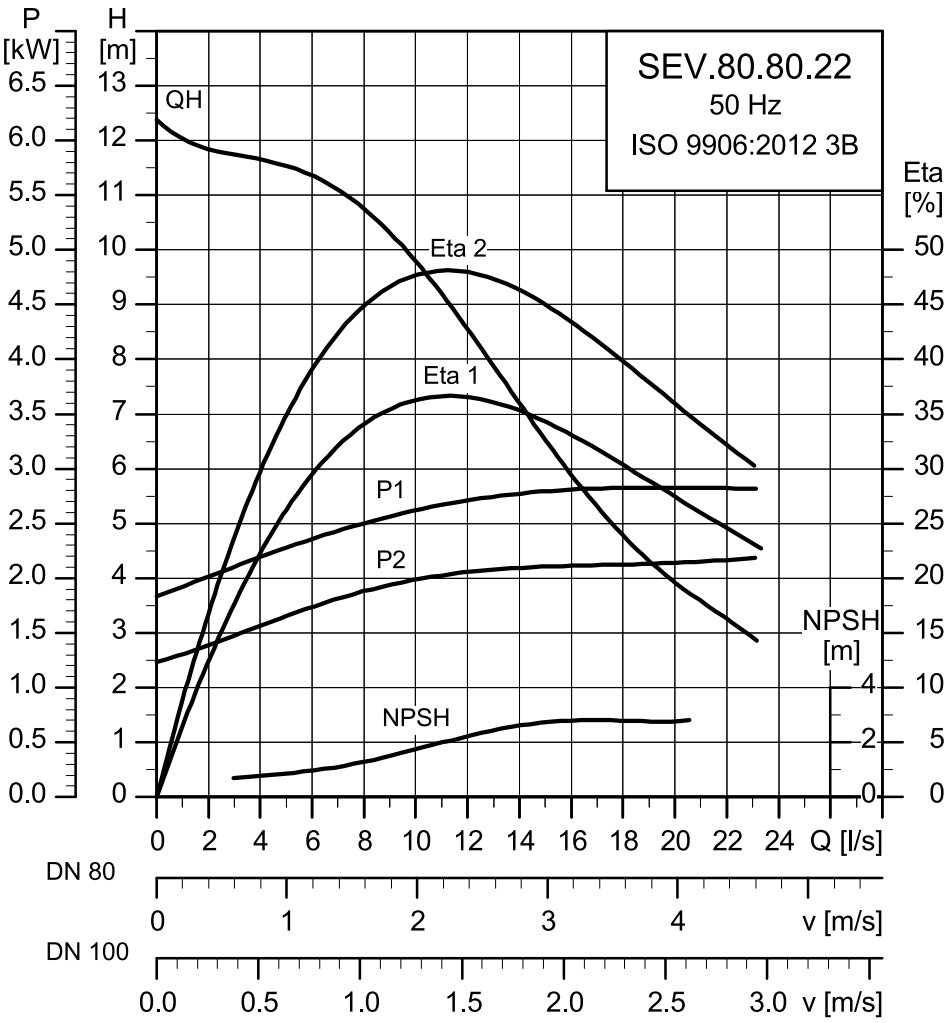
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.1	1.5	4	1435	DOL	4.2/4.2	22	67	71	72	0.56	0.68	0.76	0.0185	28

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.22.(Ex).4



Electrical data

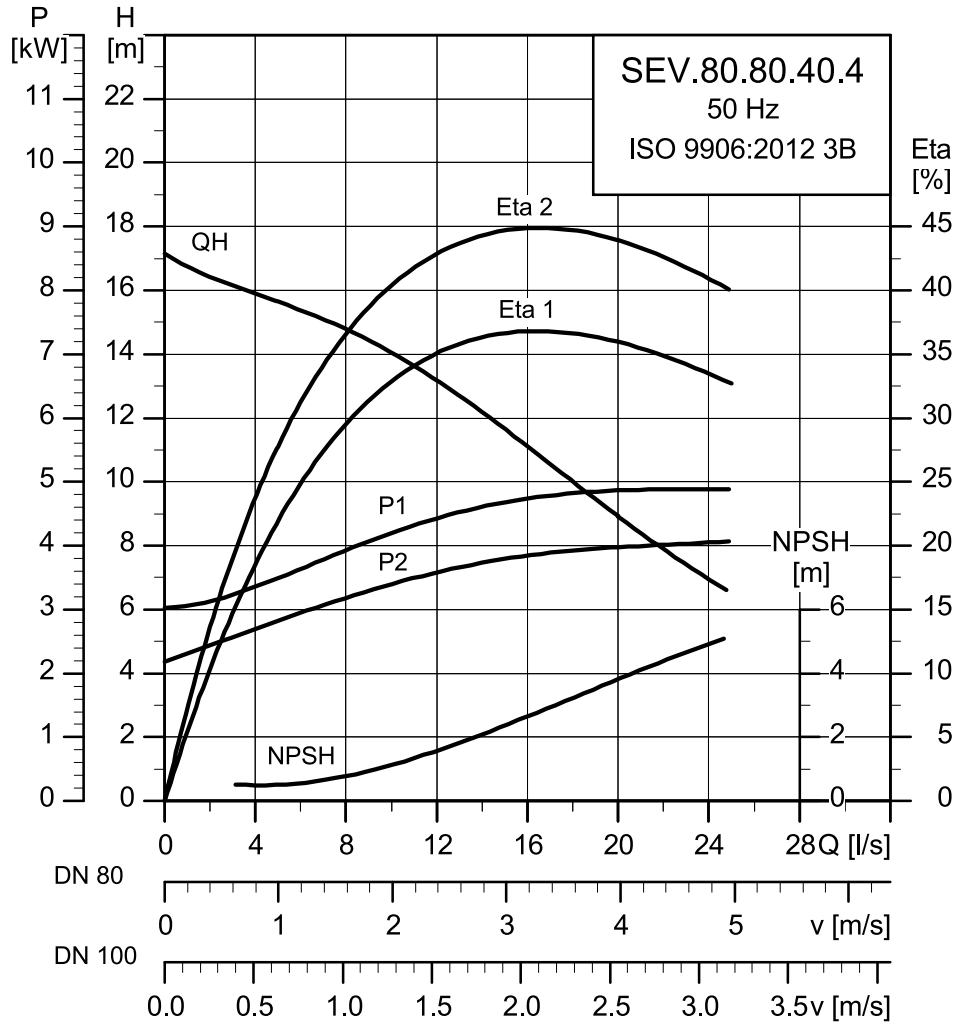
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.9	2.2	4	1445	DOL	6.0/6.0	32	70.9	75.2	76.3	0.53	0.66	0.74	0.0240	45

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.40.(Ex).4



Electrical data

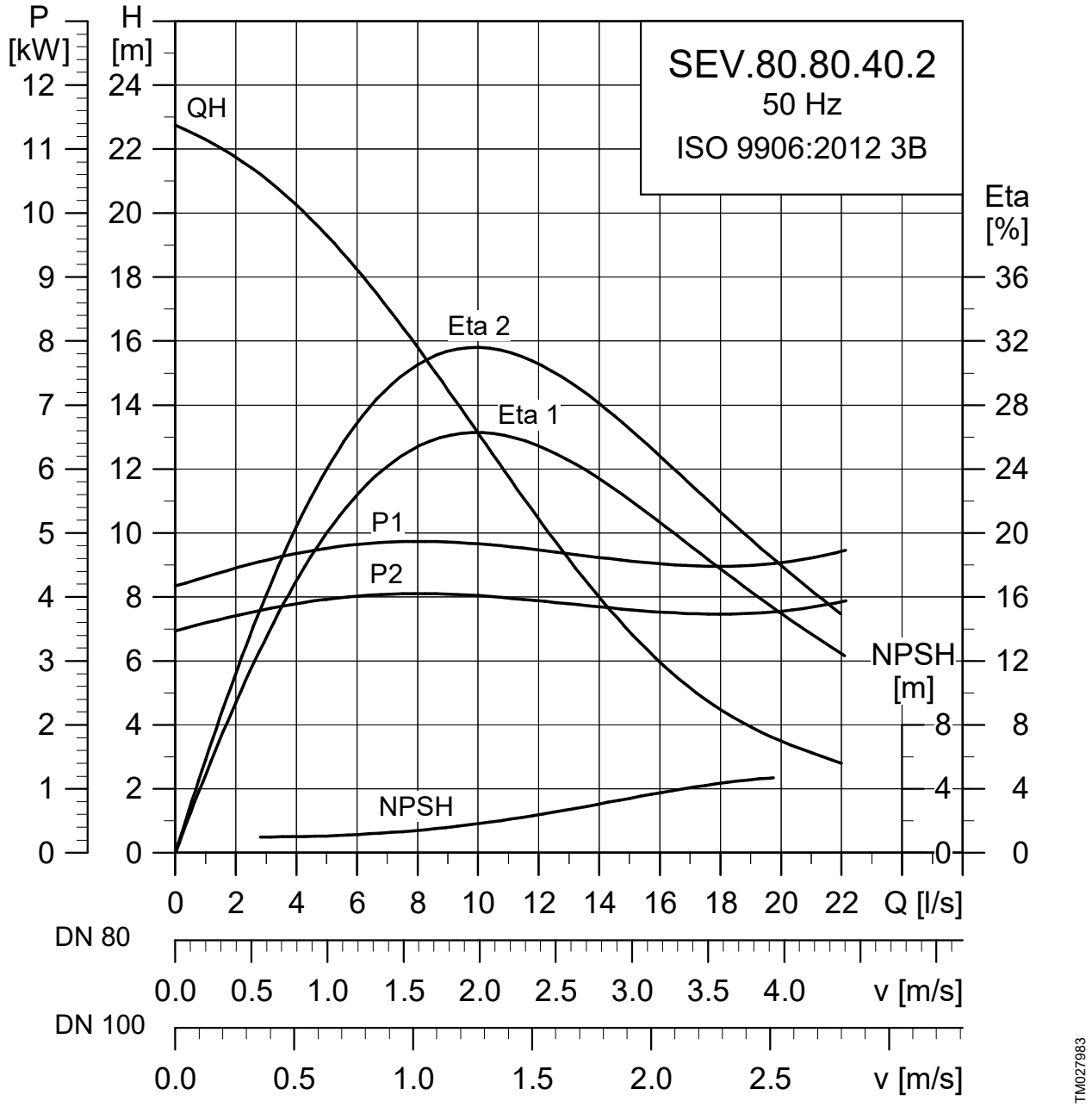
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.9	4.0	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.0479	100

[1] Low voltage - high voltage

Pump data

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

SEV.80.80.40.(Ex).2



Electrical data

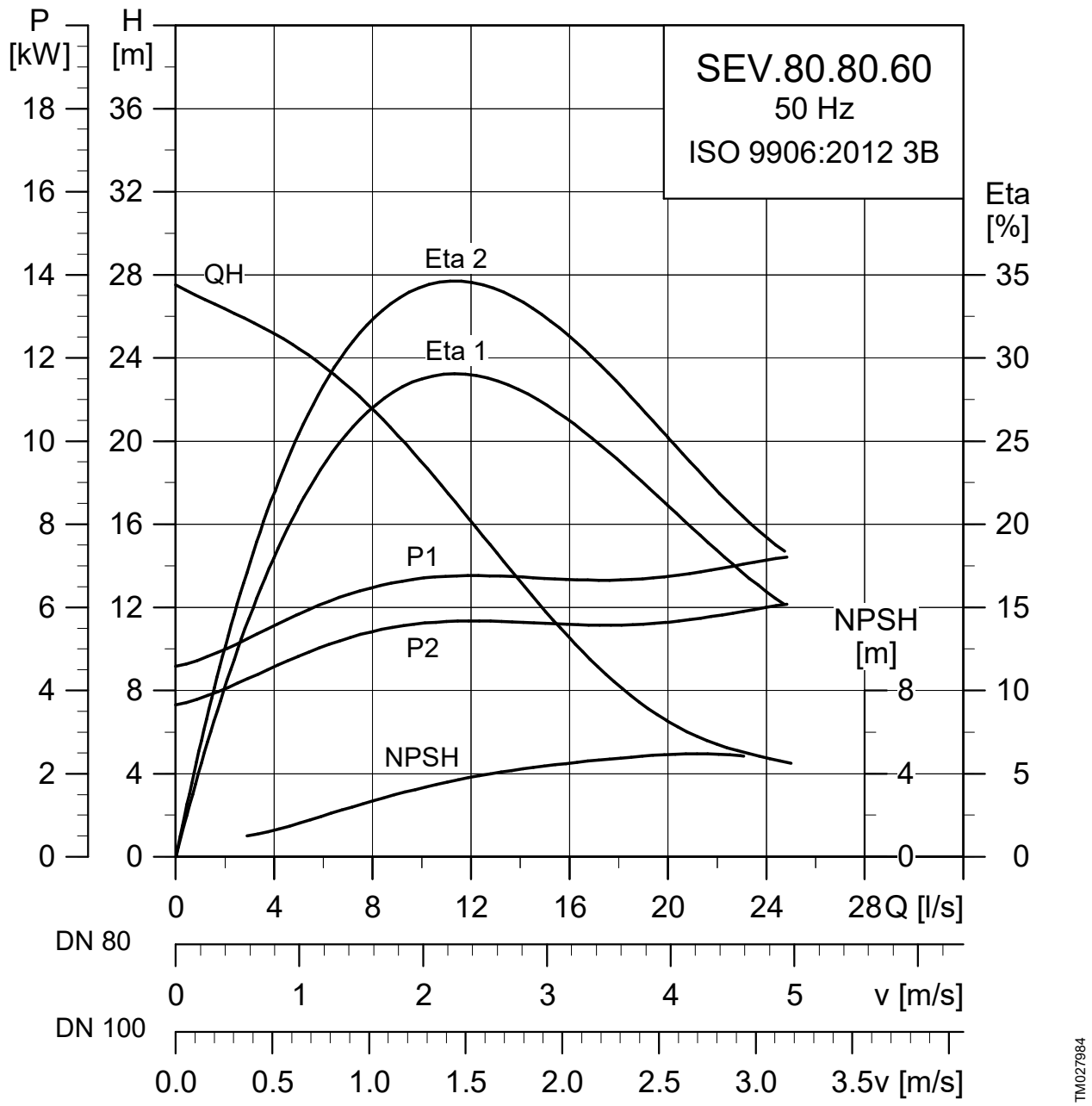
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N[1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.8	4.0	2	2925	Y/D	8.7/8.5	71	79.2	82.4	83.3	0.68	0.78	0.84	0.0127	54

[1)]Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.60.(Ex).2



Electrical data

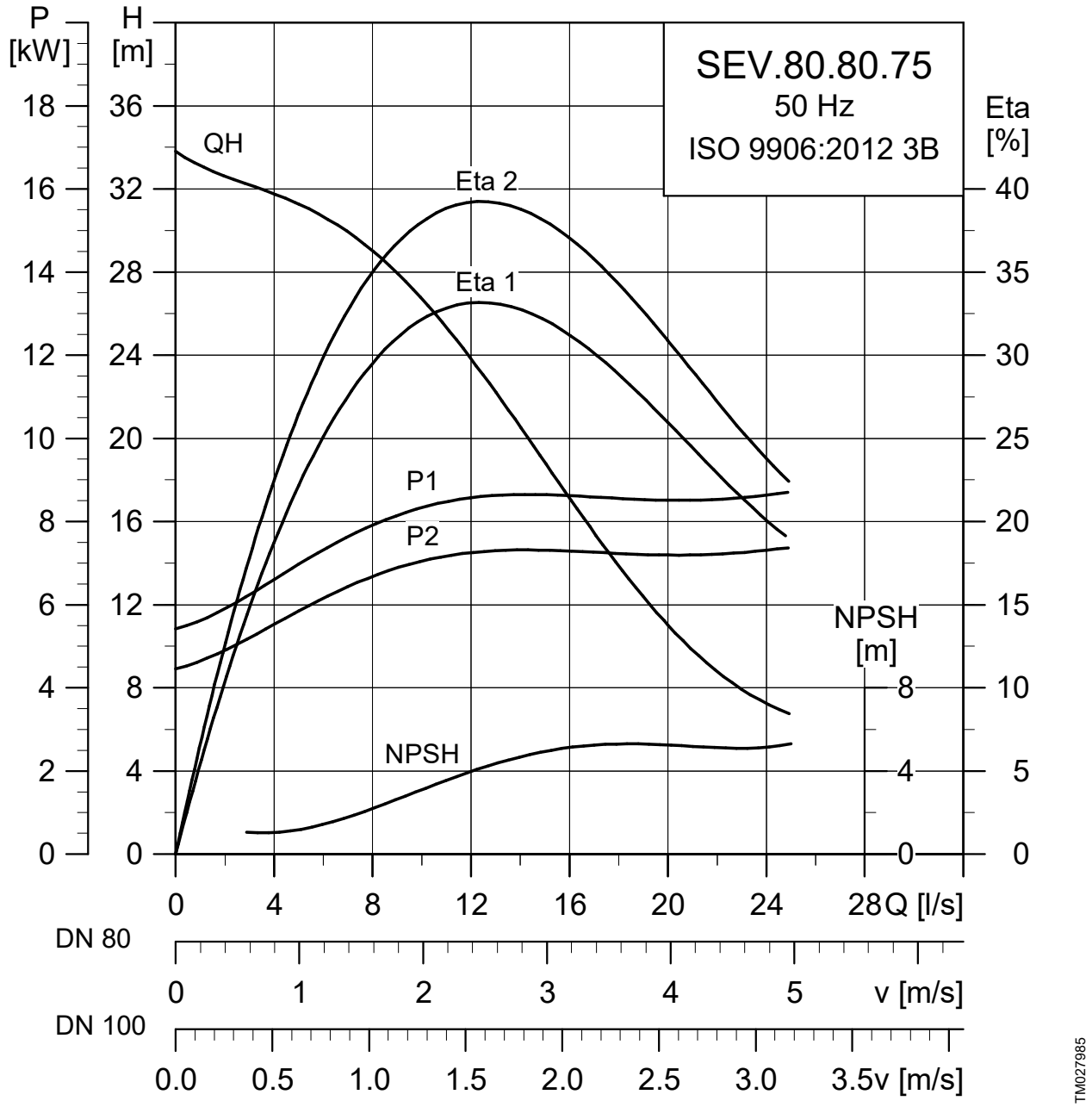
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	7.1	6.0	2	2945	Y/D	13.7/14.2	148	77.5	82.2	84.1	0.58	0.7	0.78	0.0190	112

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.75.(Ex).2



Electrical data

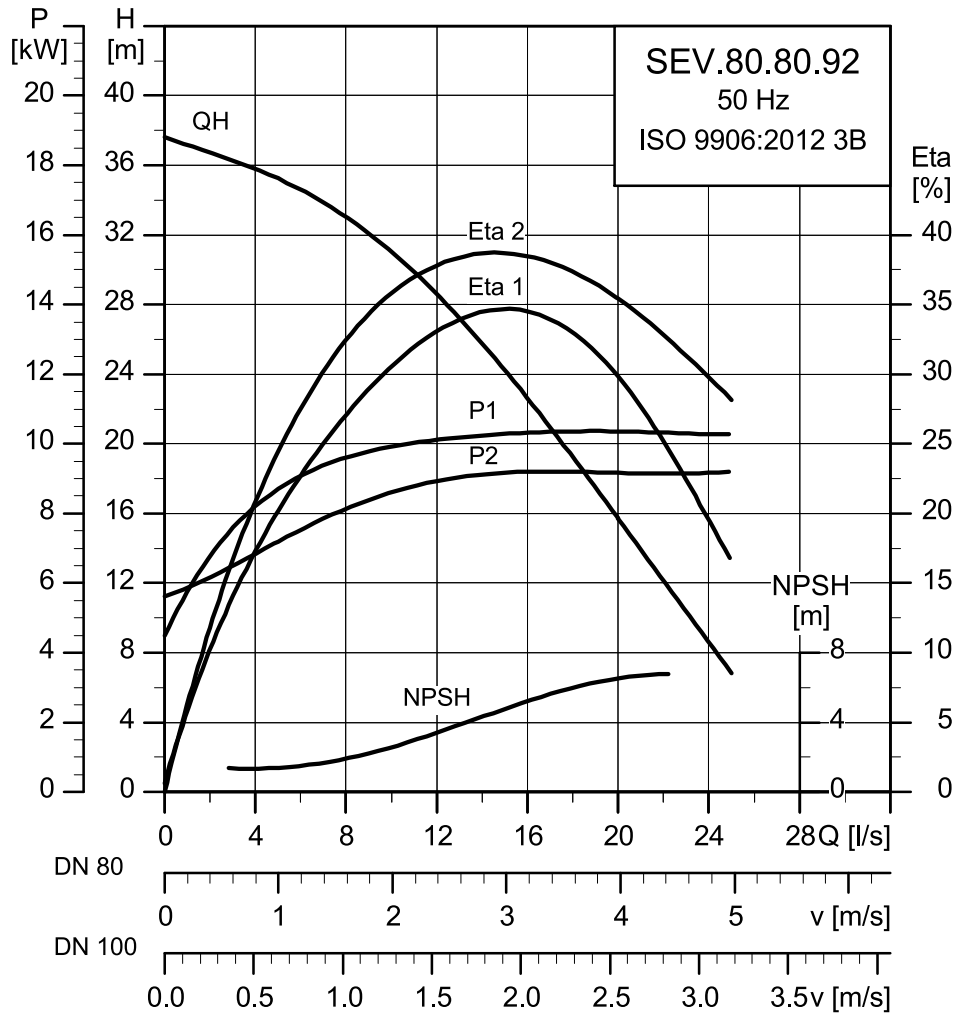
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm²]	[Nm]
3 × 380-415	8.9	7.5	2	2940	Y/D	16.5/16.2	152	80.1	83.8	84.8	0.65	0.76	0.83	0.0215	112

[1)]Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.92.(Ex).2



Electrical data

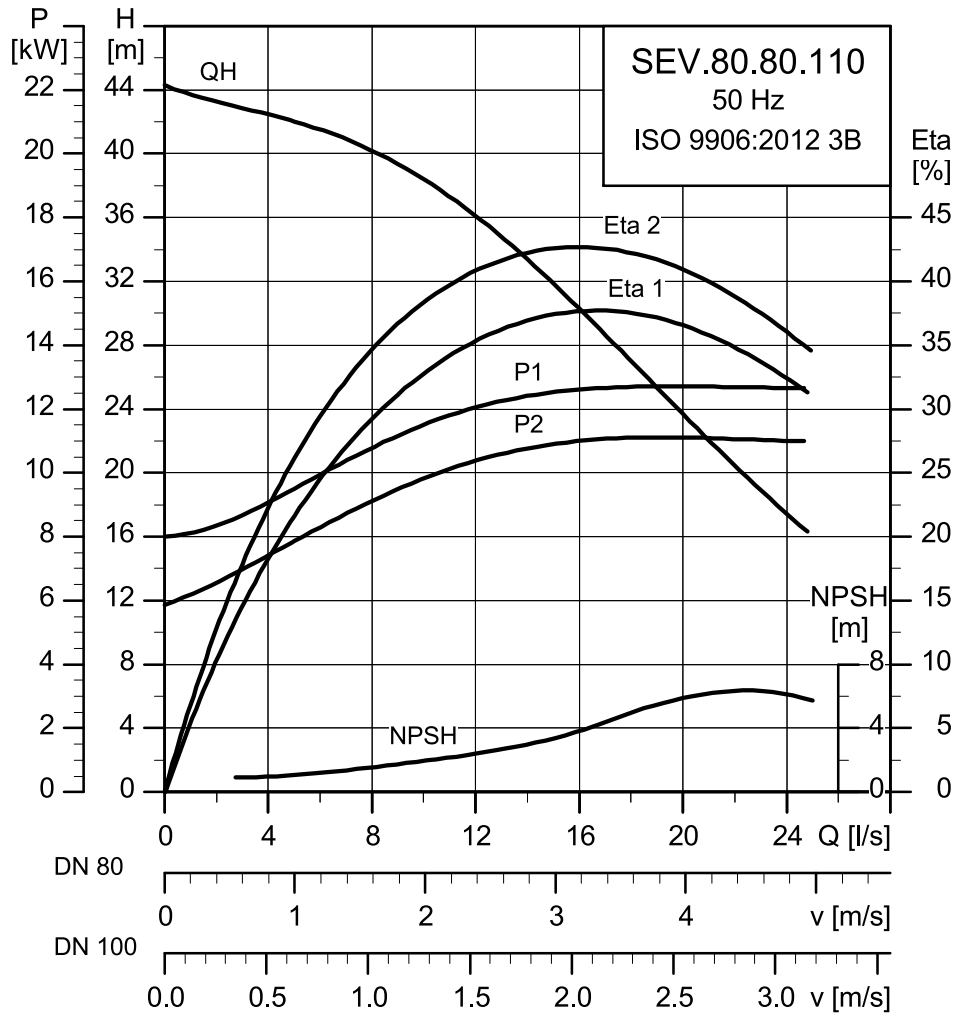
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	start	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	10.5	9.2	2	2935	Y/D	18.8/17.5	162	85.4	87.4	87.6	0.78	0.85	0.89	0.0334	99

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.80.110.(Ex).2



Electrical data

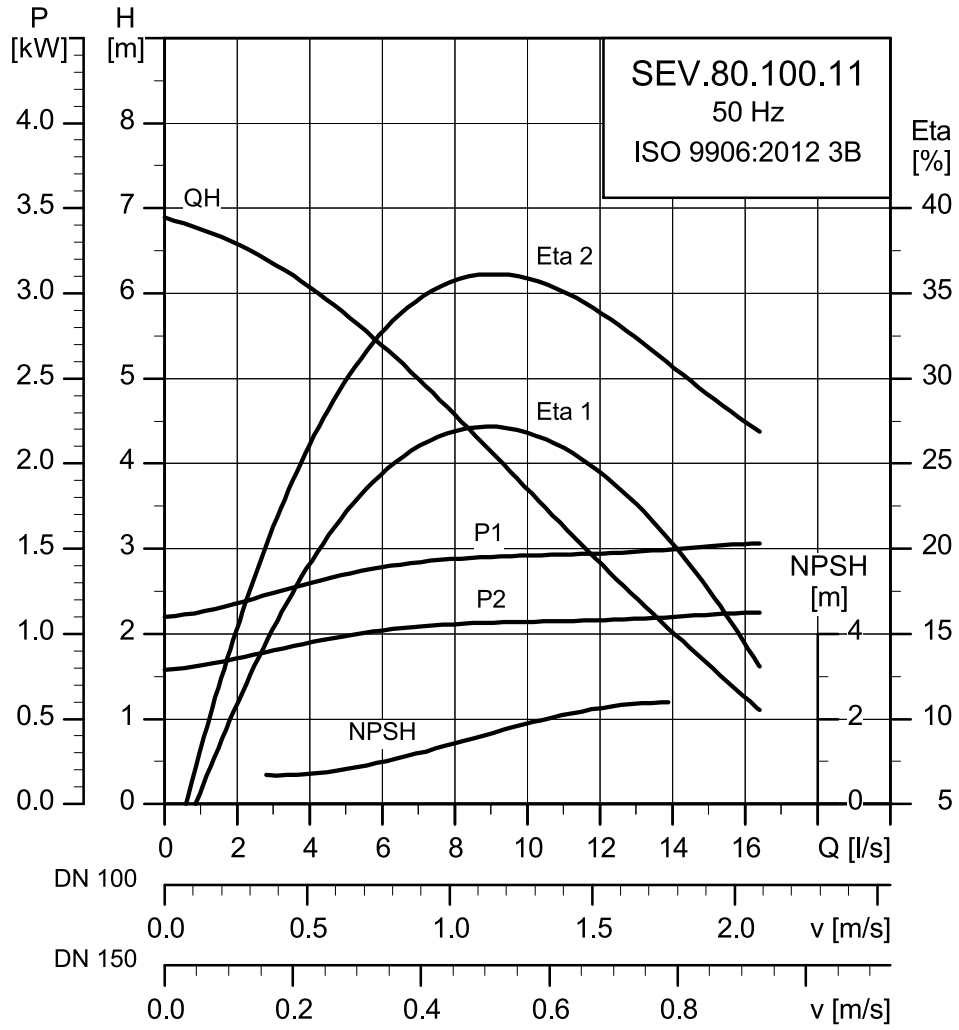
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	12.6	11.0	2	2935	Y/D	22.7/21.4	162	86.4	88.1	87.7	0.75	0.84	0.88	0.0368	118

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.11.(Ex).4



Electrical data

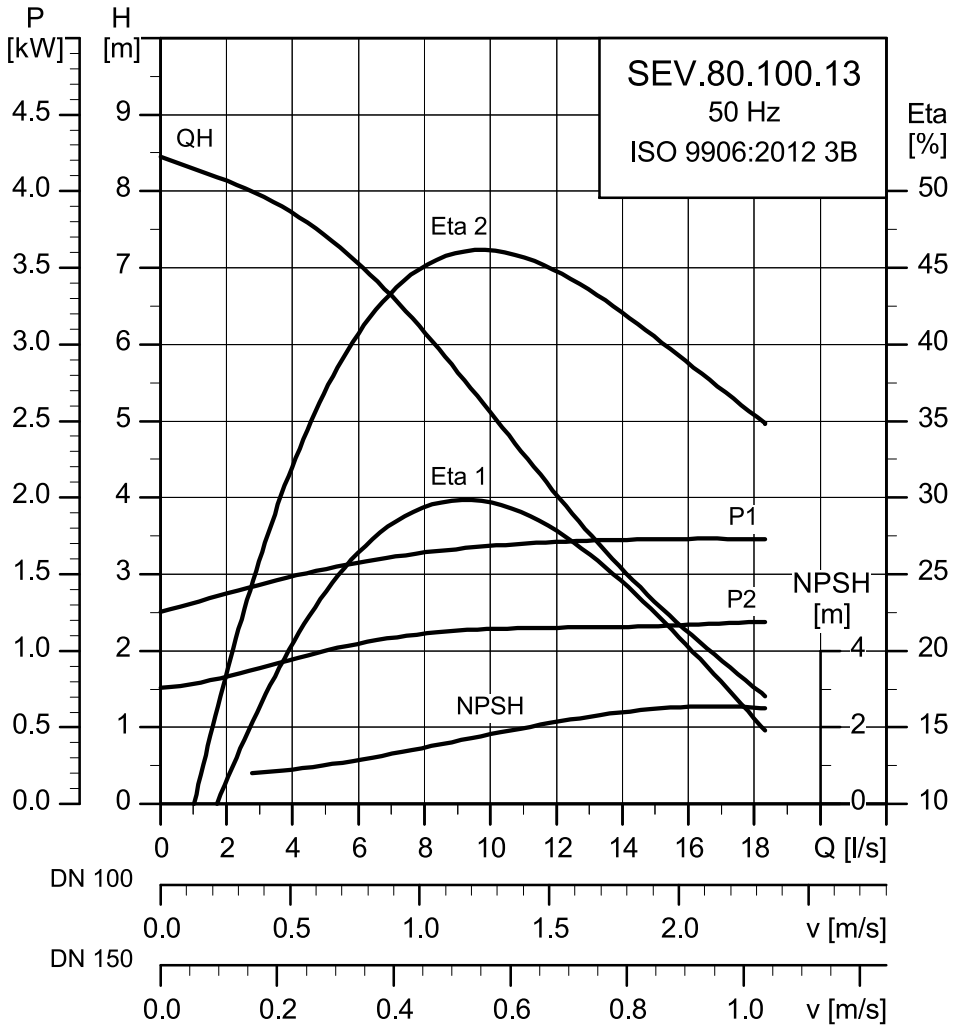
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	1.5	1.1	4	1440	DOL	2.8/2.9	12	65.6	71.2	73.2	0.52	0.64	0.73	0.0142	21

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.13.(Ex).4



Electrical data

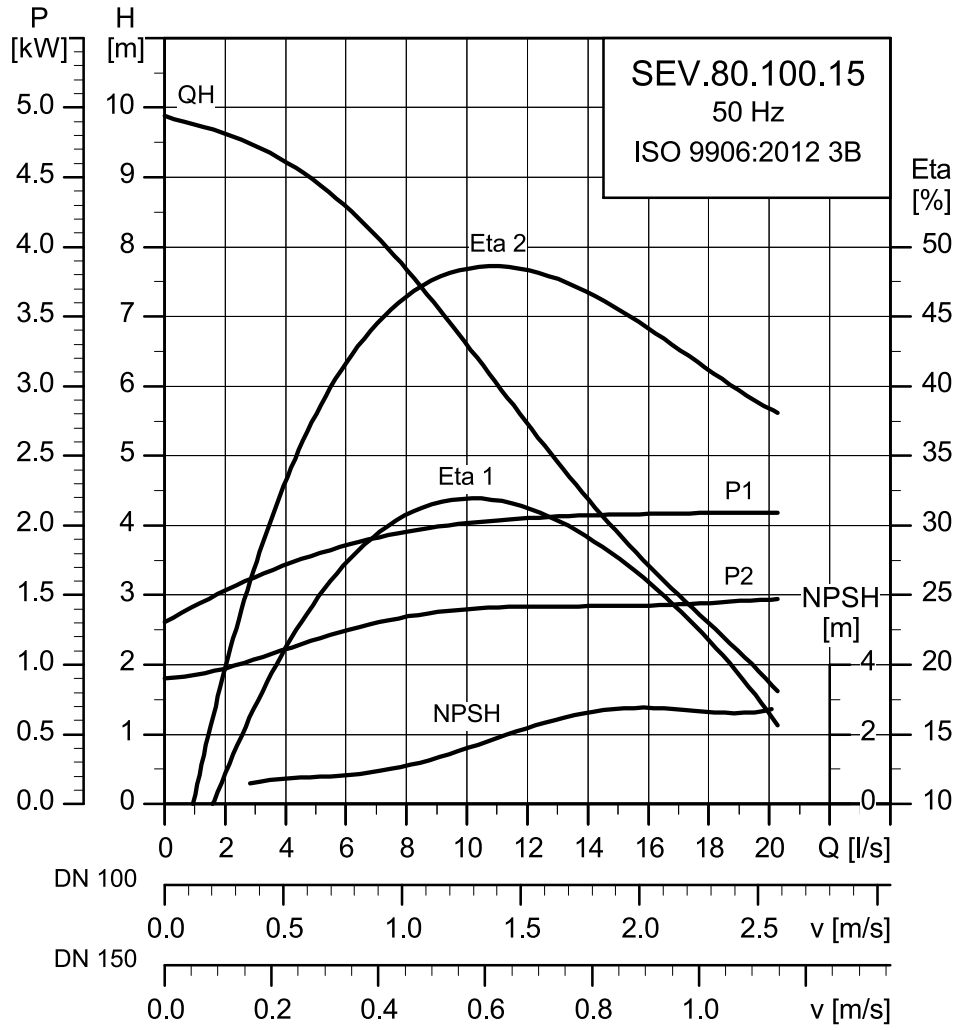
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	1.8	1.3	4	1440	DOL	3.8/3.9	21	63.9	69.6	71.7	0.51	0.63	0.72	0.0165	28

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.15.(Ex).4



Electrical data

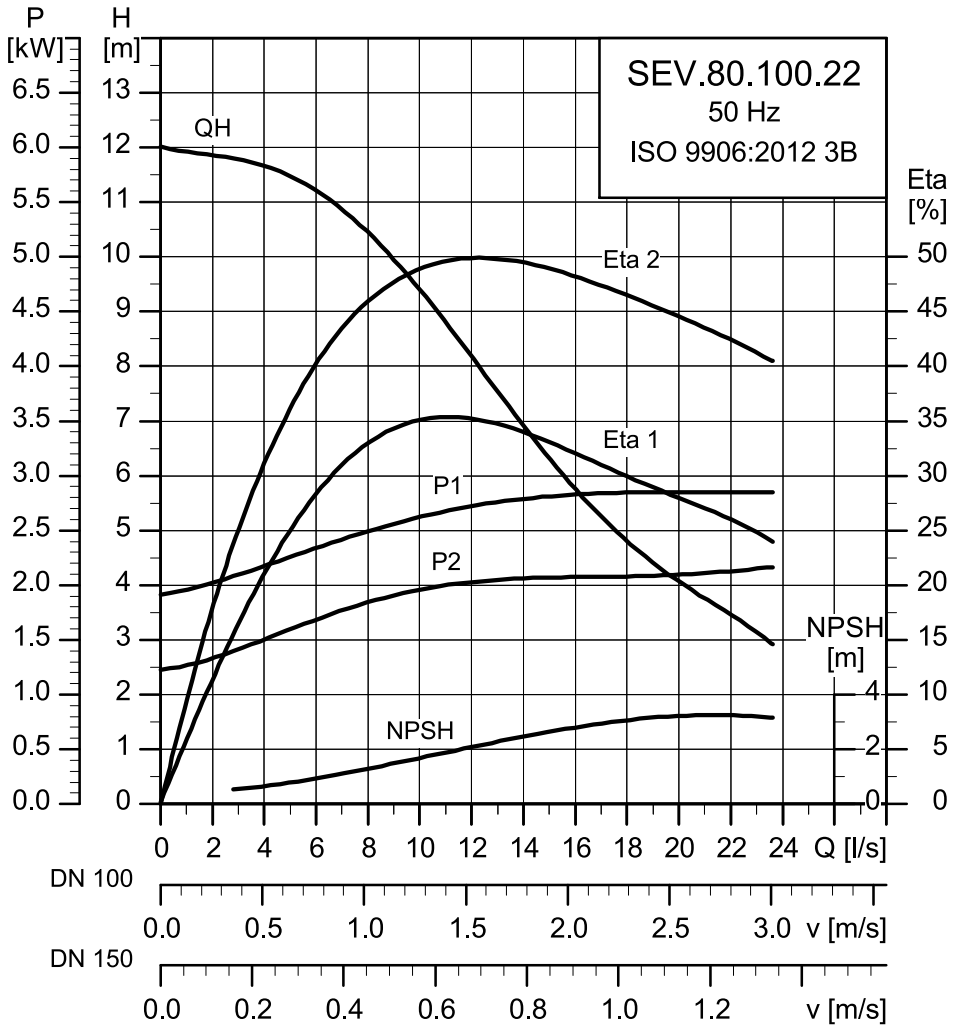
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.1	1.5	4	1435	DOL	4.2/4.3	21	67	71	72	0.56	0.68	0.76	0.0185	28

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.22.(Ex).4



Electrical data

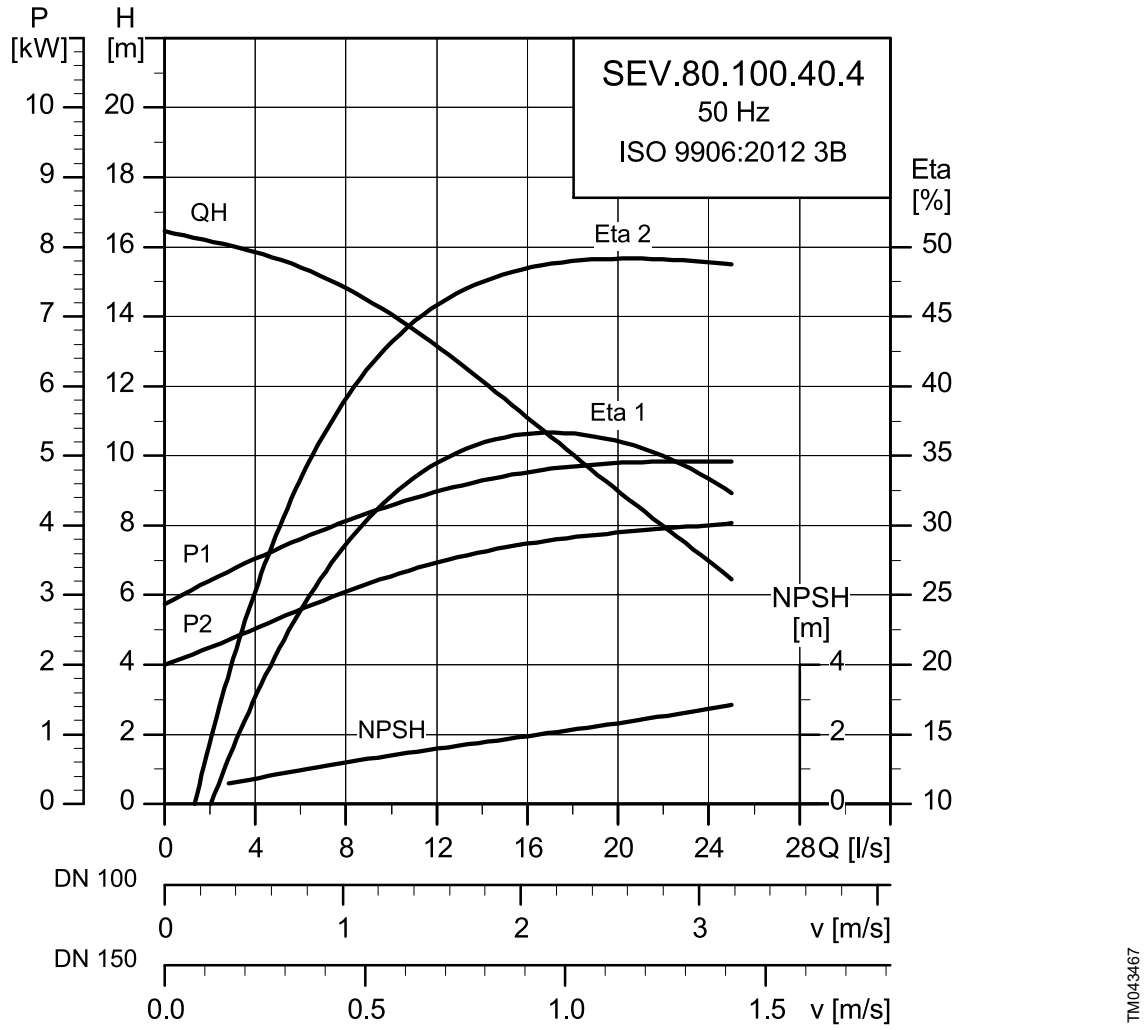
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	2.9	2.2	4	1445	DOL	6.0/6.0	32	70.9	75.2	76.3	0.53	0.66	0.74	0.024	45

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.40.(Ex).4



Electrical data

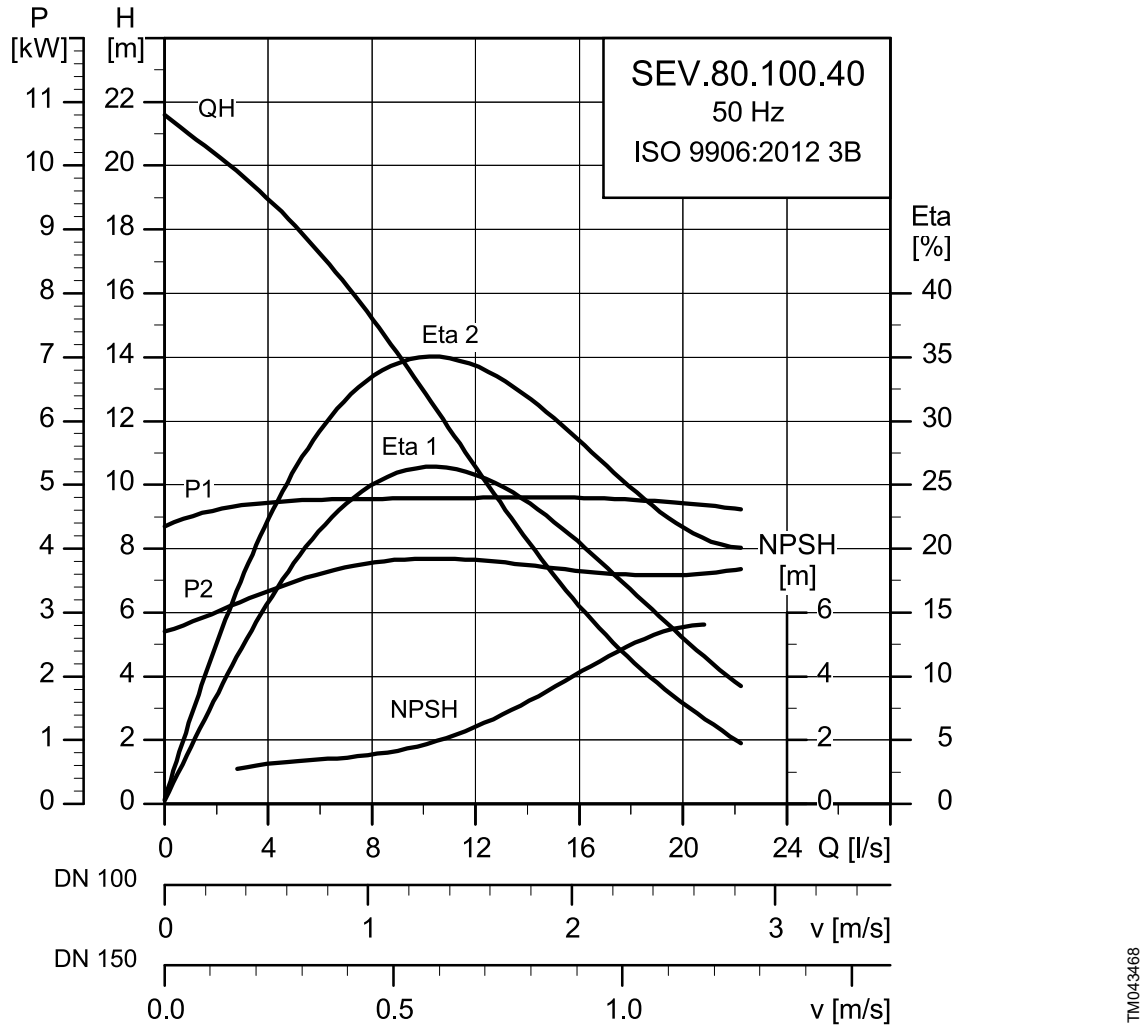
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.9	4	4	1460	DOL	10.0/10.2	64	78.2	81.7	82.2	0.52	0.65	0.73	0.0479	100

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.40.(Ex).2



Electrical data

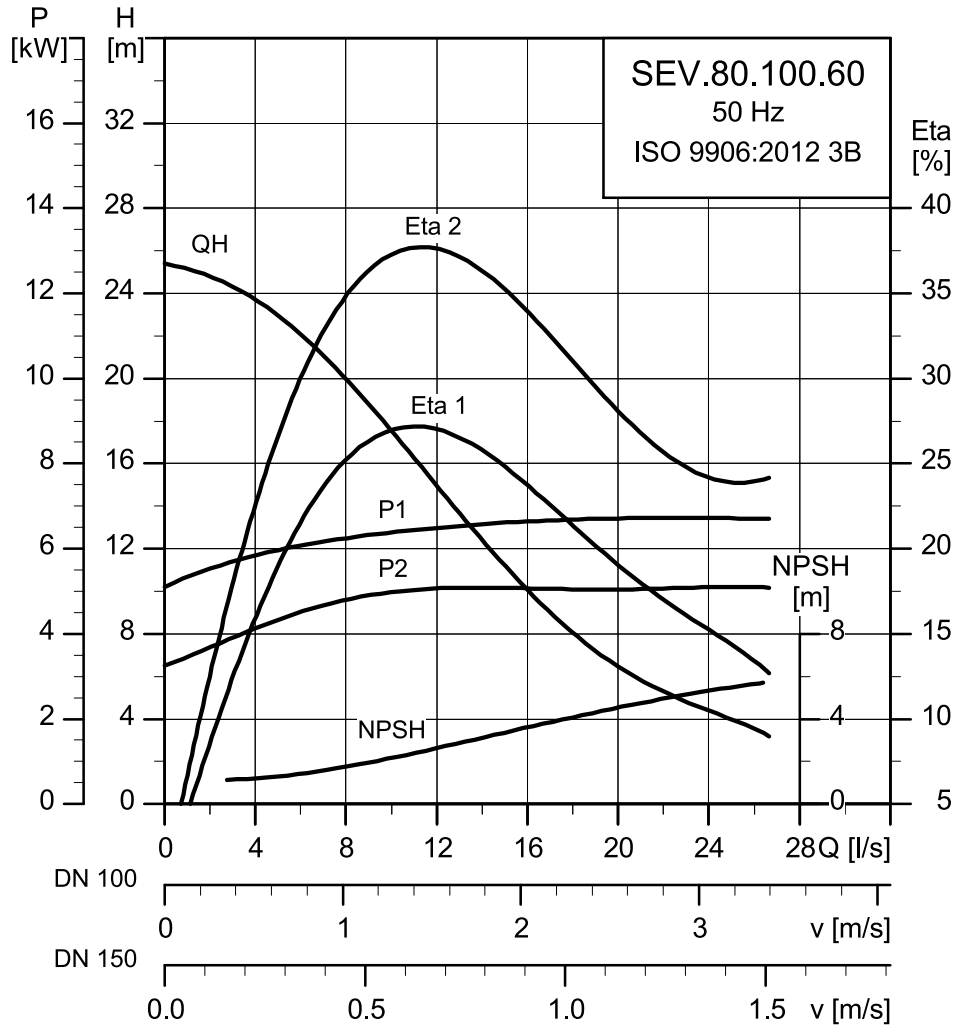
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.9	4	2	2925	DOL	8.7/8.5	68	79.2	82.4	83.3	0.68	0.78	0.84	0.0127	54

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.60.(Ex).2



Electrical data

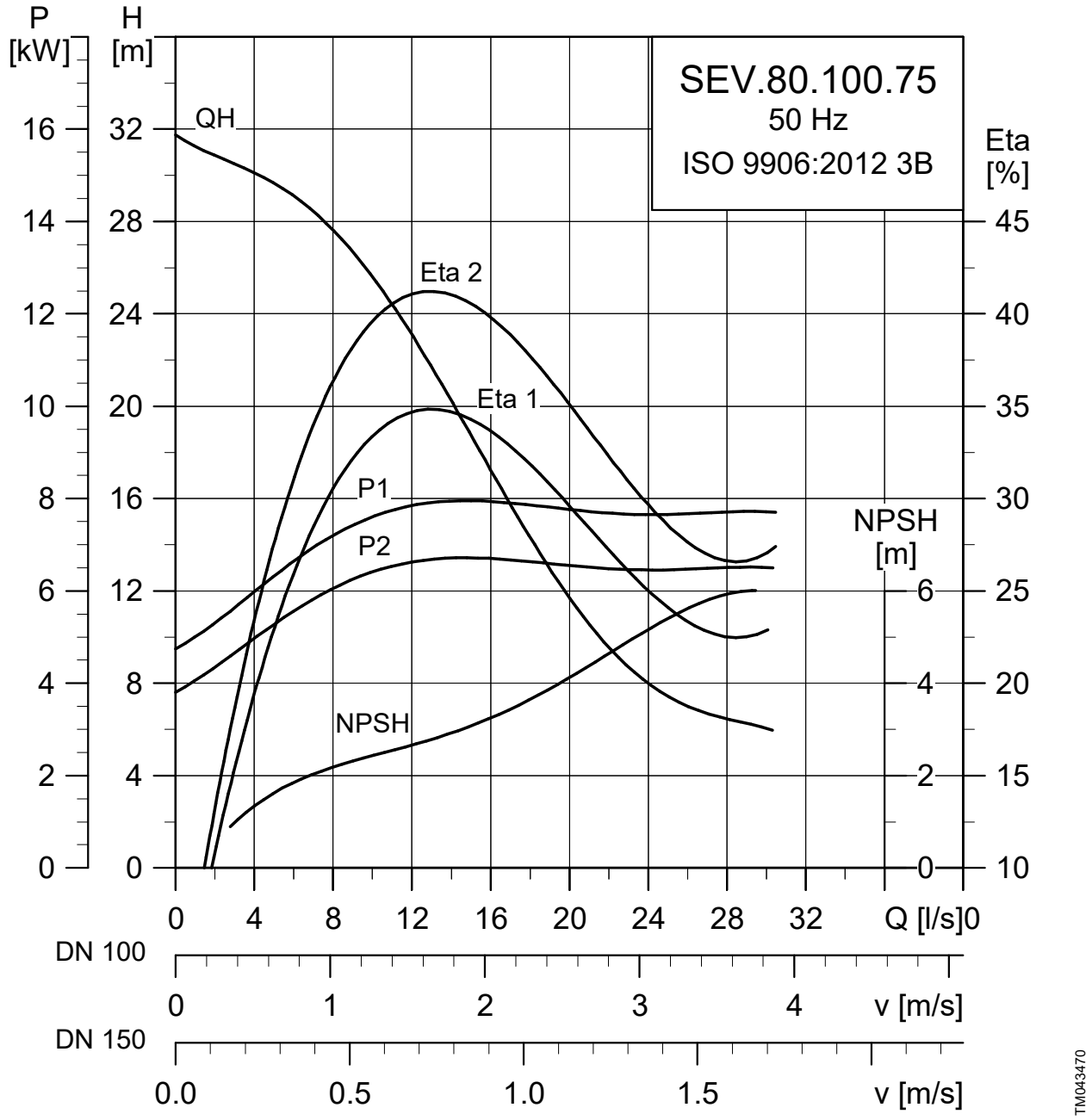
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	7.1	6	2	2945	DOL	13.7/14.2	143	77.5	82.2	84.1	0.58	0.7	0.78	0.019	112

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.75.(Ex).2



Electrical data

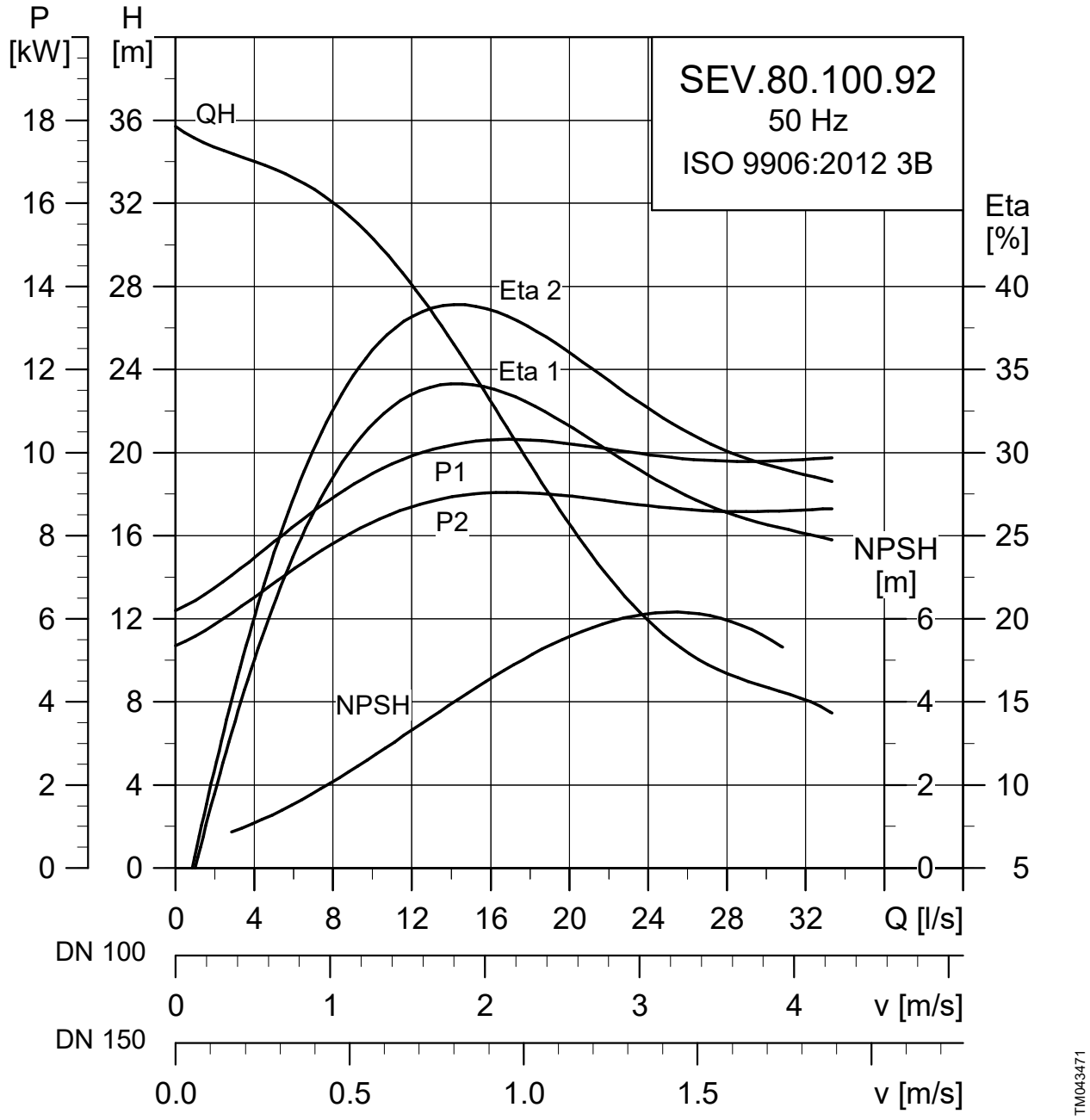
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	8.9	7.5	2	2940	DOL	16.5/16.2	146	80.1	83.8	84.8	0.65	0.76	0.83	0.0215	112

[1)]Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.92.(Ex).2



Electrical data

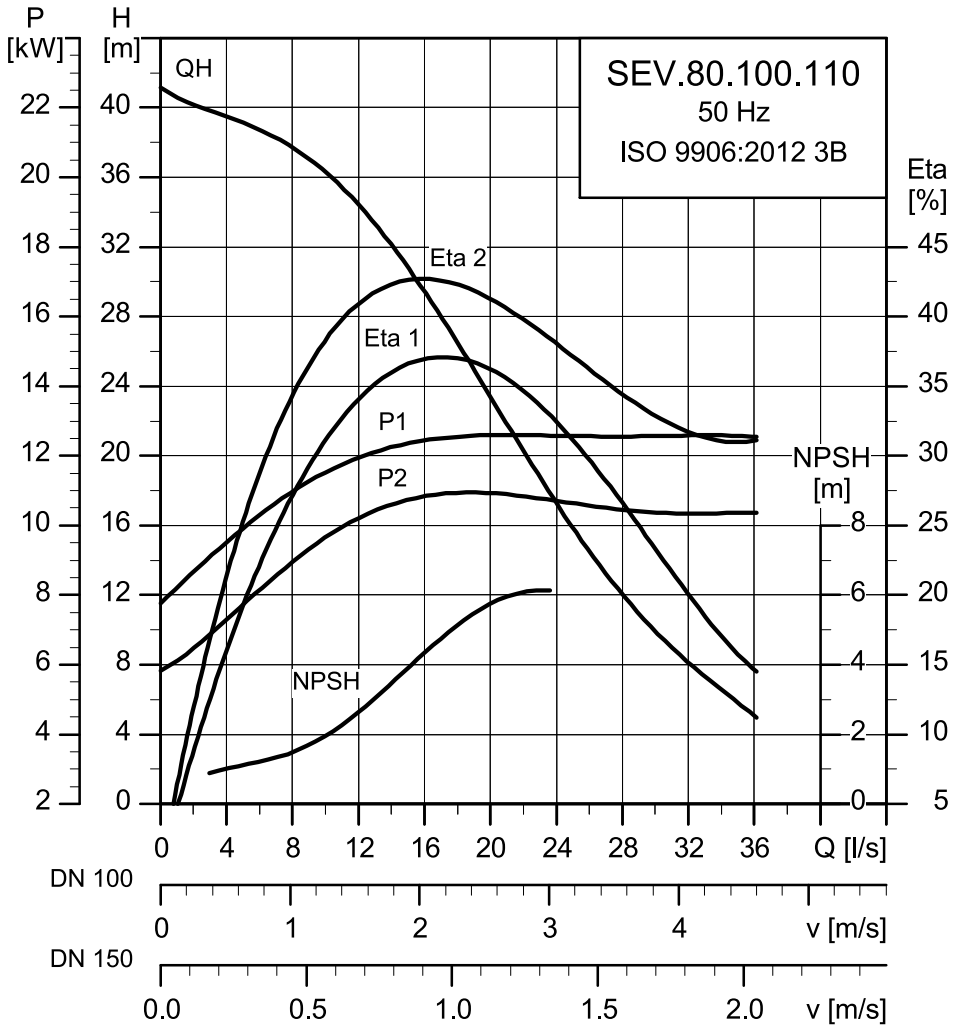
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	10.5	9.2	2	2935	DOL	18.8/17.5	156	85.4	87.4	87.6	0.78	0.85	0.89	0.0334	99

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.80.100.110.(Ex).2



Electrical data

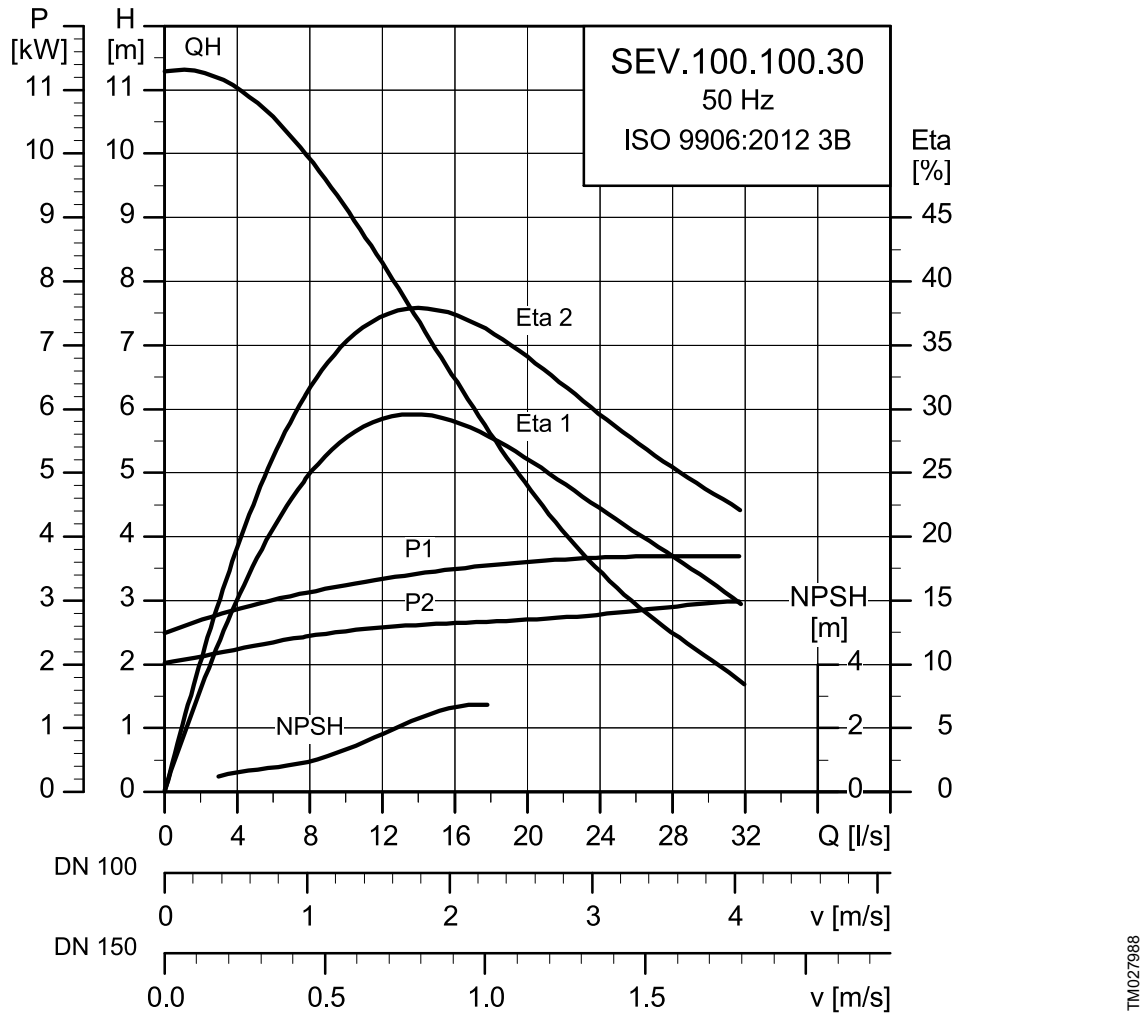
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	12.6	11	2	2935	DOL	22.7/21.4	155	86.4	88.1	87.7	0.75	0.84	0.88	0.0368	118

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	80	20	20	IP68	F	40	See *Pumped liquids*

SEV.100.100.30.(Ex).4



Electrical data

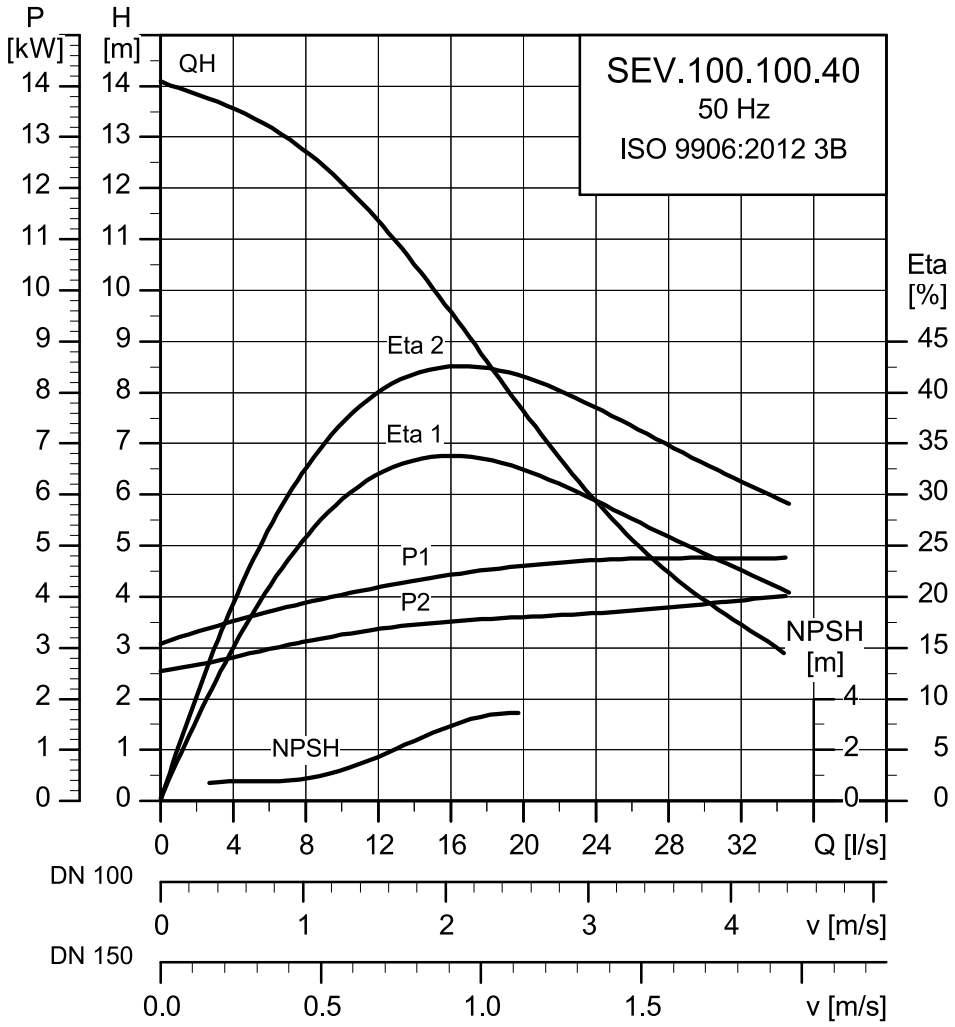
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	3.7	3.0	4	1455	DOL	7.8/8.0	74	76.4	79.9	81.2	0.5	0.64	0.73	0.0450	71

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	100	20	20	IP68	F	40	See *Pumped liquids*

SEV.100.100.40.(Ex).4



Electrical data

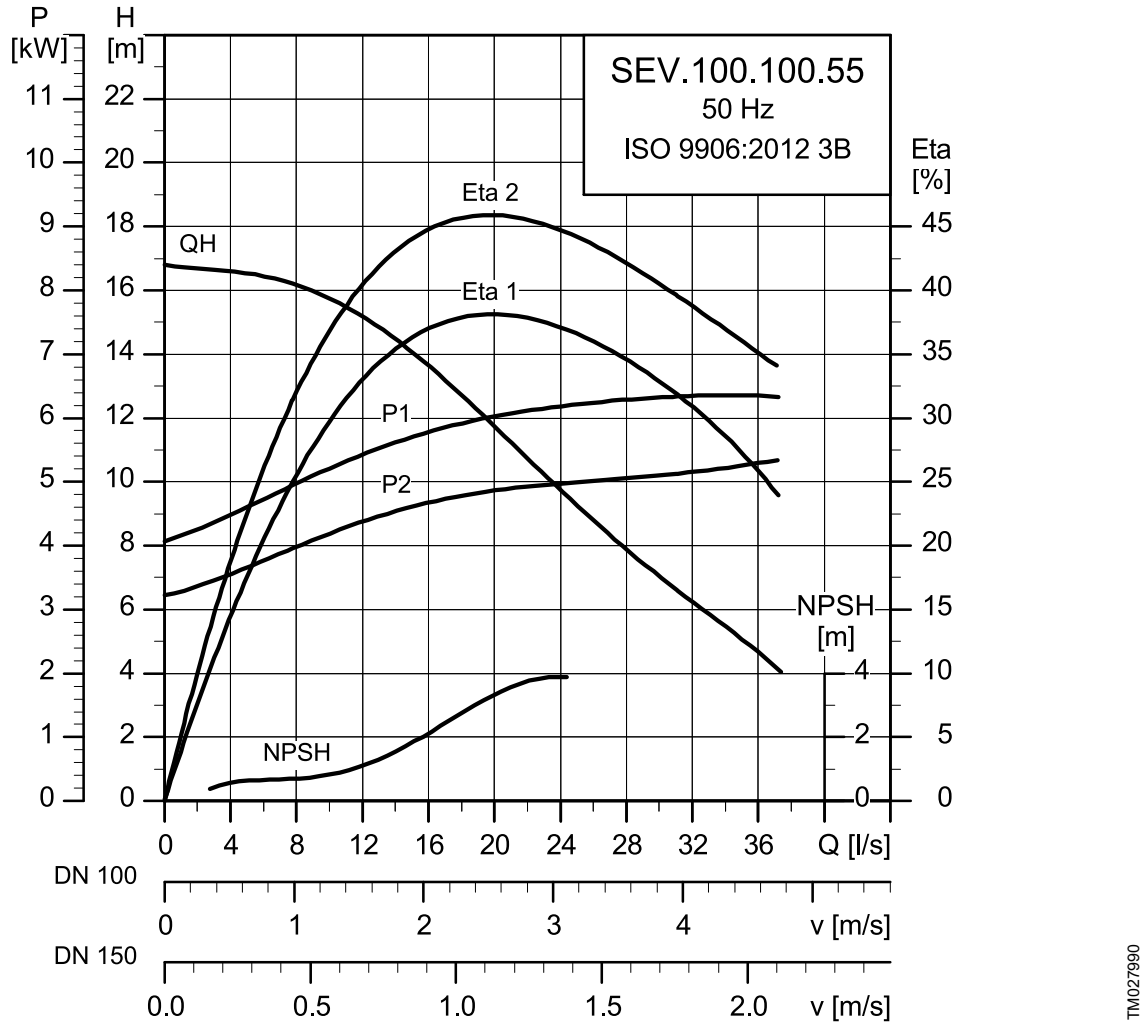
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	4.9	4.0	4	1460	Y/D	10.0/10.2	67	78.2	81.7	82.2	0.52	0.65	0.73	0.0501	100

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	100	20	20	IP68	F	40	See *Pumped liquids*

SEV.100.100.55.(Ex).4



Electrical data

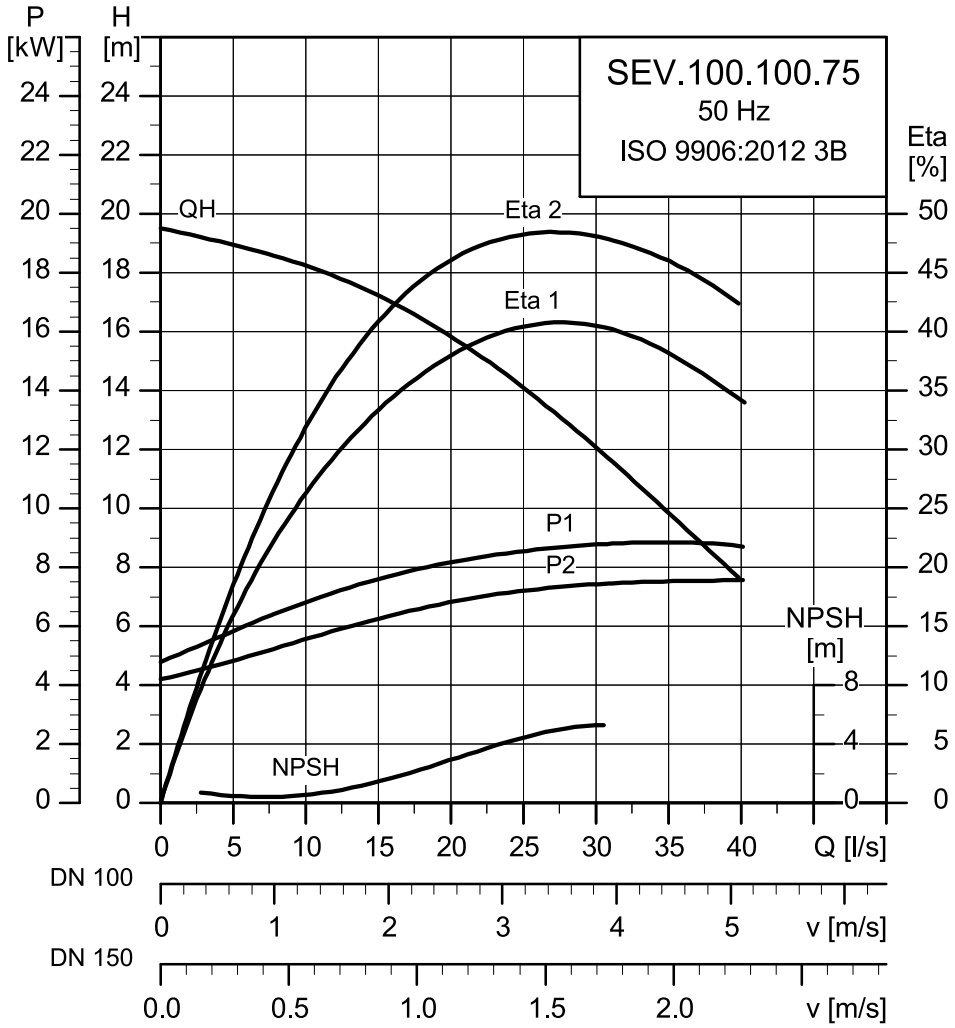
Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	6.5	5.5	4	1455	Y/D	13.3/13.8	87	81	83.3	83.9	0.52	0.65	0.74	0.0552	122

[1] Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	100	20	20	IP68	F	40	See *Pumped liquids*

SEV.100.100.75.(Ex).4



Electrical data

Voltage	P1	P2	No of poles	Rpm	Starting method	I_N [1)]	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque $M_{max.}$
[V]	[kW]	[kW]				[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	[Nm]
3 × 380-415	9.0	7.5	4	1455	Y/D	17.7/17.5	107	81.3	83.5	83.4	0.61	0.72	0.79	0.0692	141

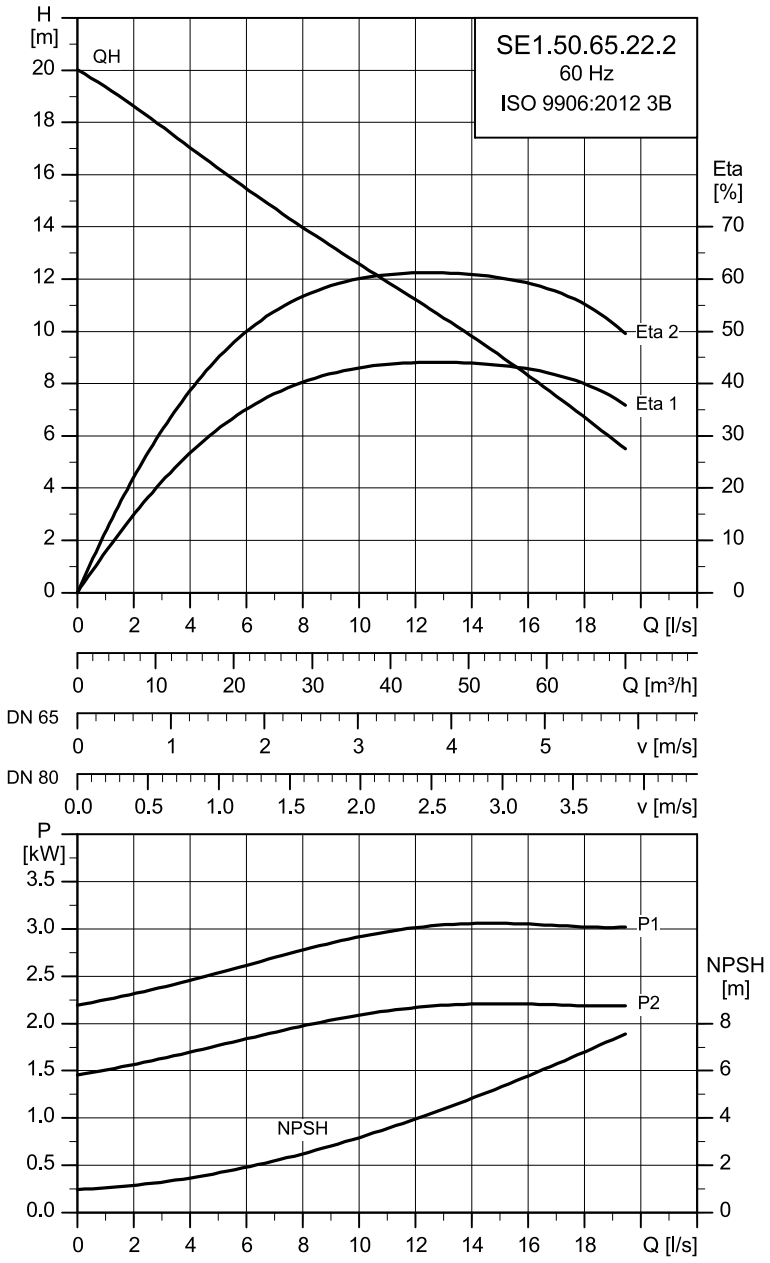
[1)]Low voltage - high voltage

Pump data

Impeller type	Max. solids size	Max. number of starts per hour	Max. installation depth	Enclosure class	Insulation class	Max. liquid temperature	pH
	[mm]		[m]			[°C]	
SuperVortex	100	20	20	IP68	F	40	See *Pumped liquids*

60 Hz

SE1.50.65.22.2



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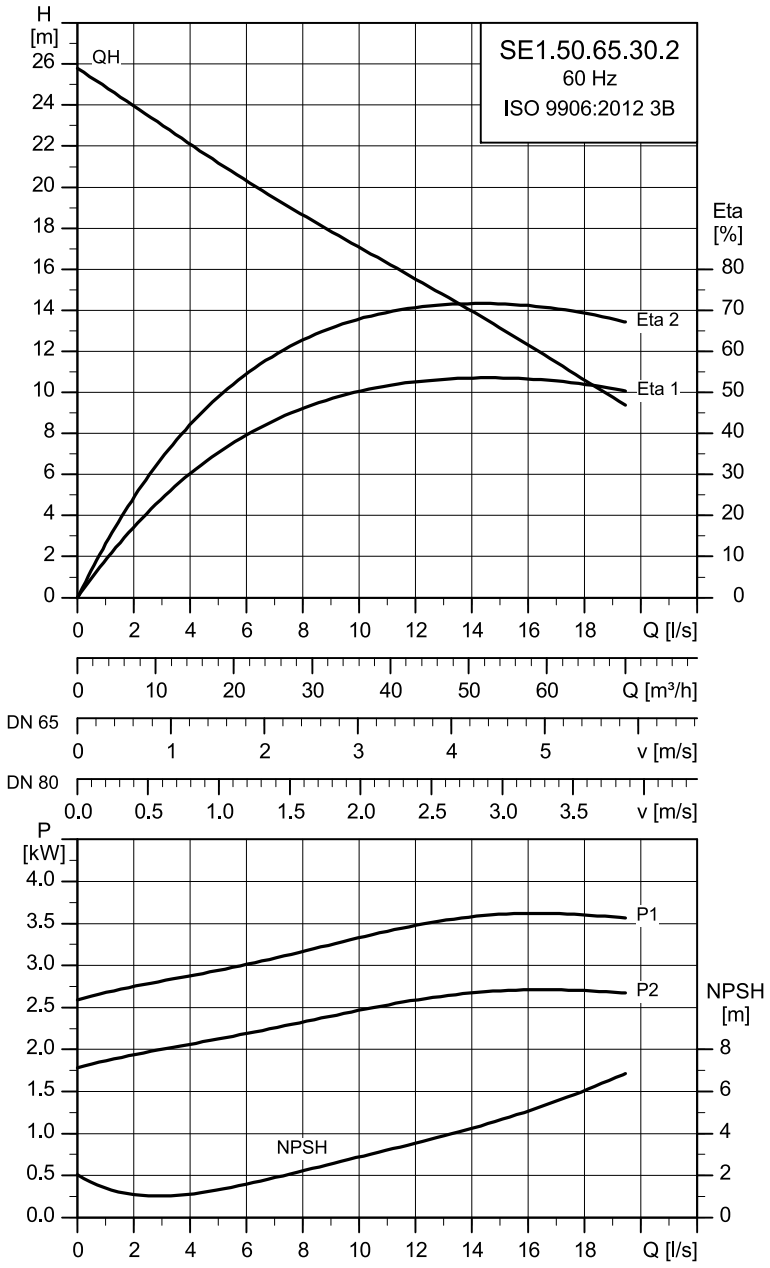
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.65.22.A.EX.2.60F.B	230	3	2.2	2	3472	Direct-on-line (DOL)	8.7	50	80.5	82.6	82.3	0.83	0.88	0.9
SE1.50.65.22.A.EX.2.60G.B	460	3	2.2	2	3510	Direct-on-line (DOL)	5	34.5	78.4	82.4	83.7	0.7	0.8	0.85

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SE1.50.65.22.A.EX.2.60F.B	108.5	0.00380	PN 10	12	0.00190	14.6
SE1.50.65.22.A.EX.2.60G.B	108.5	0.00380	PN 10	12	0.00190	21.8

SE1.50.65.30.2



TM087455

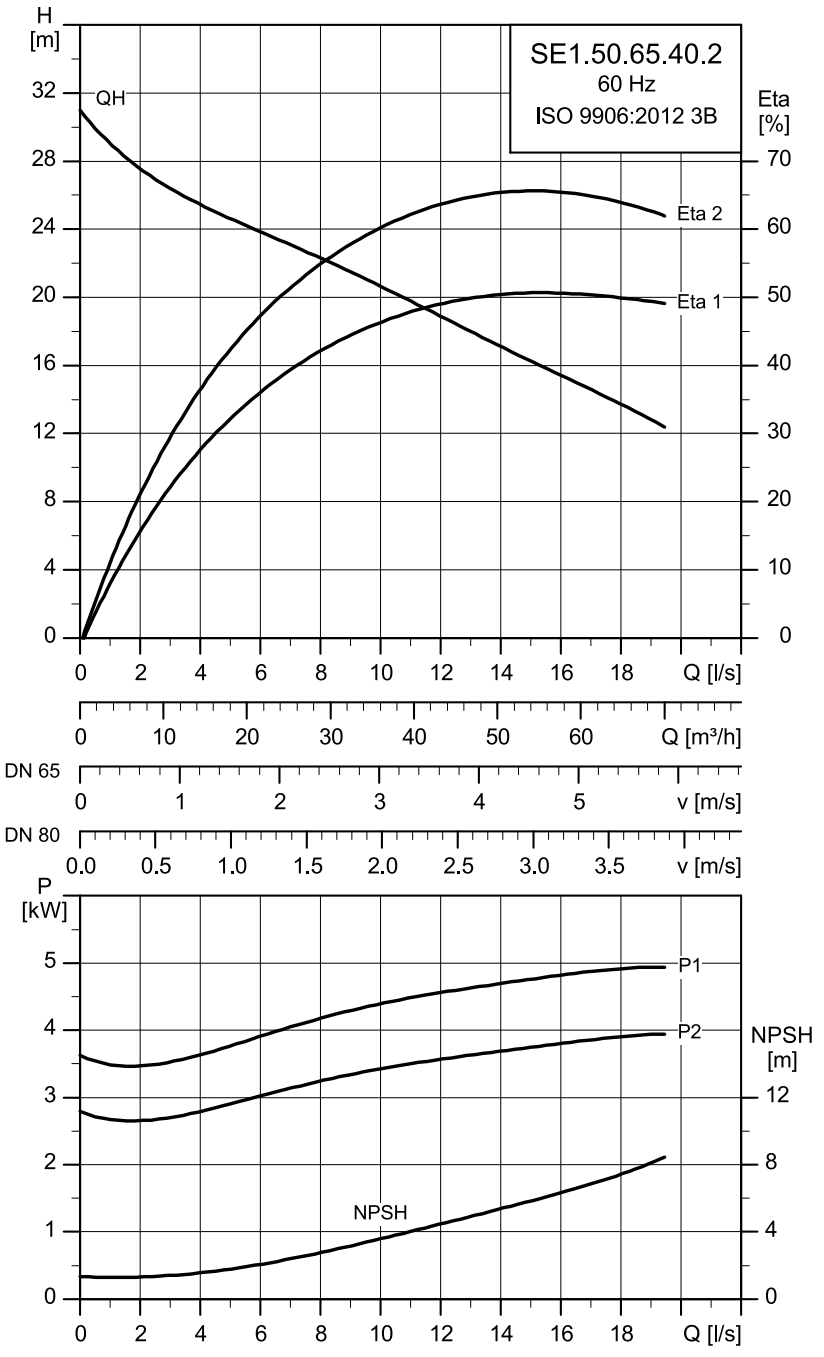
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.65.30.A.EX.2.60F.B	230	4	3	2	3463	Direct-on-line (DOL)	10.14	66	81.2	82.9	82.1	0.85	0.89	0.91
SE1.50.65.30.A.EX.2.60G.B	460	4	3	2	3506	Direct-on-line (DOL)	5.07	46	79.9	83.4	84.3	0.77	0.85	0.88

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.50.65.30.A.EX.2.60F.B	119	0.00482	PN 10	12	0.00260	16.4
SE1.50.65.30.A.EX.2.60G.B	119	0.00482	PN 10	12	0.00260	23.4

SE1.50.65.40.2



TM087456

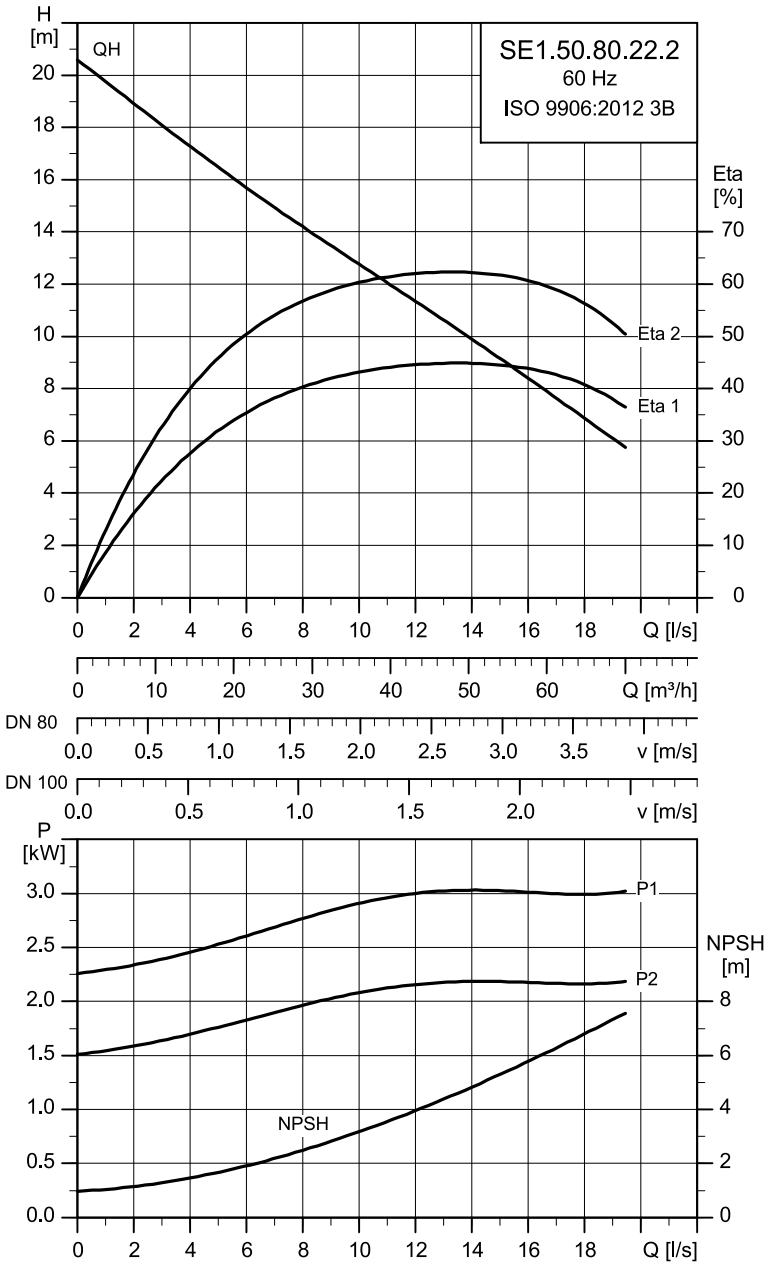
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.65.40.A.EX.2.61F.B	230	5.2	4.1	2	3485	Star-delta (YD)	13.05	93.5	84.5	86	85.6	0.82	0.88	0.9
	460						6.7	63.5	83.5	86.3	87.1	0.71	0.81	0.86

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.50.65.40.A.EX.2.61F.B	127	0.00755	PN 10	12	0.00540	31
						45.5

SE1.50.80.22.2



TM087457

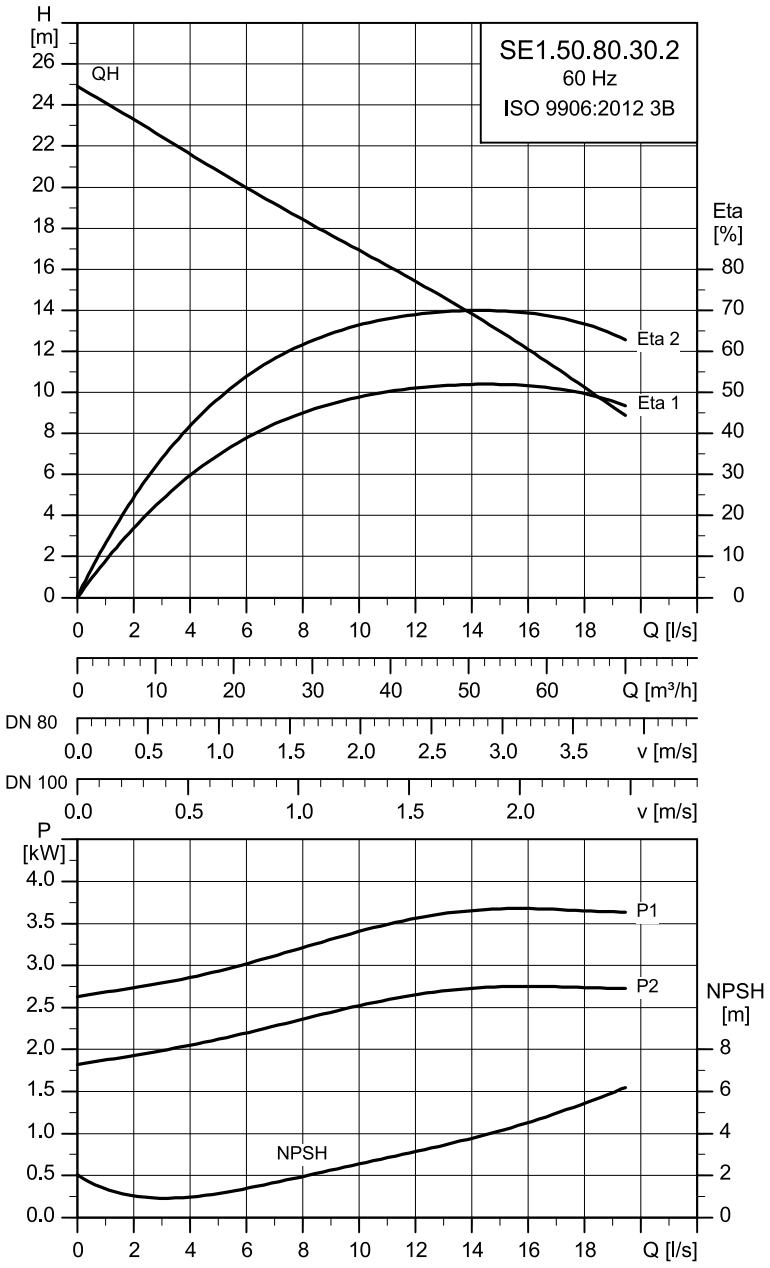
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.80.22.A.EX.2.60F.B	230	3	2.2	2	3472	Direct-on-line (DOL)	8.7	50	80.5	82.6	82.3	0.83	0.88	0.9
SE1.50.80.22.A.EX.2.60G.B	460	3	2.2	2	3510	Direct-on-line (DOL)	5	34.5	78.4	82.4	83.7	0.7	0.8	0.85

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.50.80.22.A.EX.2.60F.B	108.5	0.00380	PN 10	12	0.00190	14.6
SE1.50.80.22.A.EX.2.60G.B	108.5	0.00380	PN 10	12	0.00190	21.8

SE1.50.80.30.2



TM087458

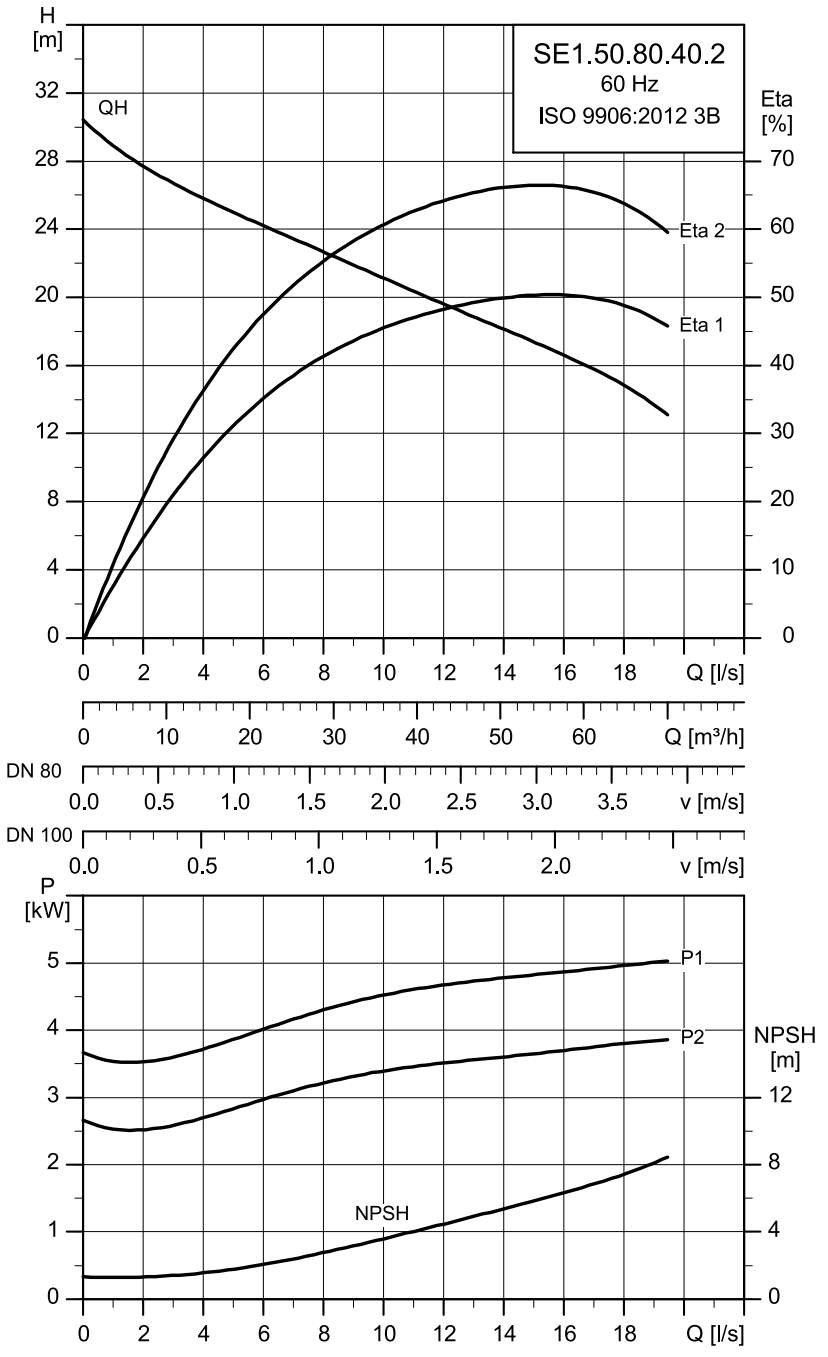
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [Hp]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.80.30.A.EX.2.60F.B	230	4	3	2	3463	Direct-on-line (DOL)	10.14	66	81.2	82.9	82.1	0.85	0.89	0.91
SE1.50.80.30.A.EX.2.60G.B	460	4	3	2	3506	Direct-on-line (DOL)	5.07	46	79.9	83.4	84.3	0.77	0.85	0.88

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.50.80.30.A.EX.2.60F.B	119	0.00482	PN 10	12	0.00260	16.4
SE1.50.80.30.A.EX.2.60G.B	119	0.00482	PN 10	12	0.00260	23.4

SE1.50.80.40.2



TM087459

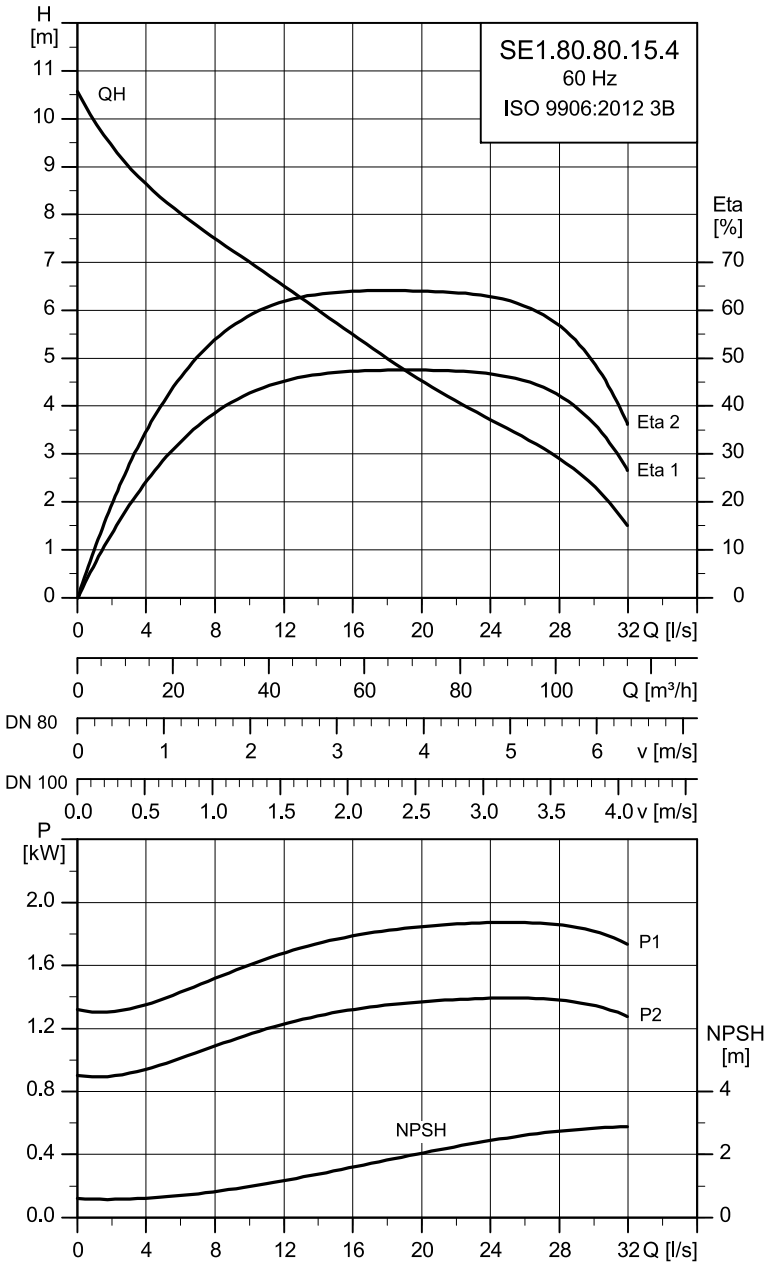
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.50.80.40.A.EX.2.61F.B	230	5.2	4.1	2	3485	Star-delta (YD)	13.05	93.5	84.5	86	85.6	0.82	0.88	0.9
	460						6.7	63.5	83.5	86.3	87.1	0.71	0.81	0.86

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SE1.50.80.40.A.EX.2.61F.B	127	0.00755	PN 10	12	0.00540	31
						45.5

SE1.80.80.15.4



TM087460

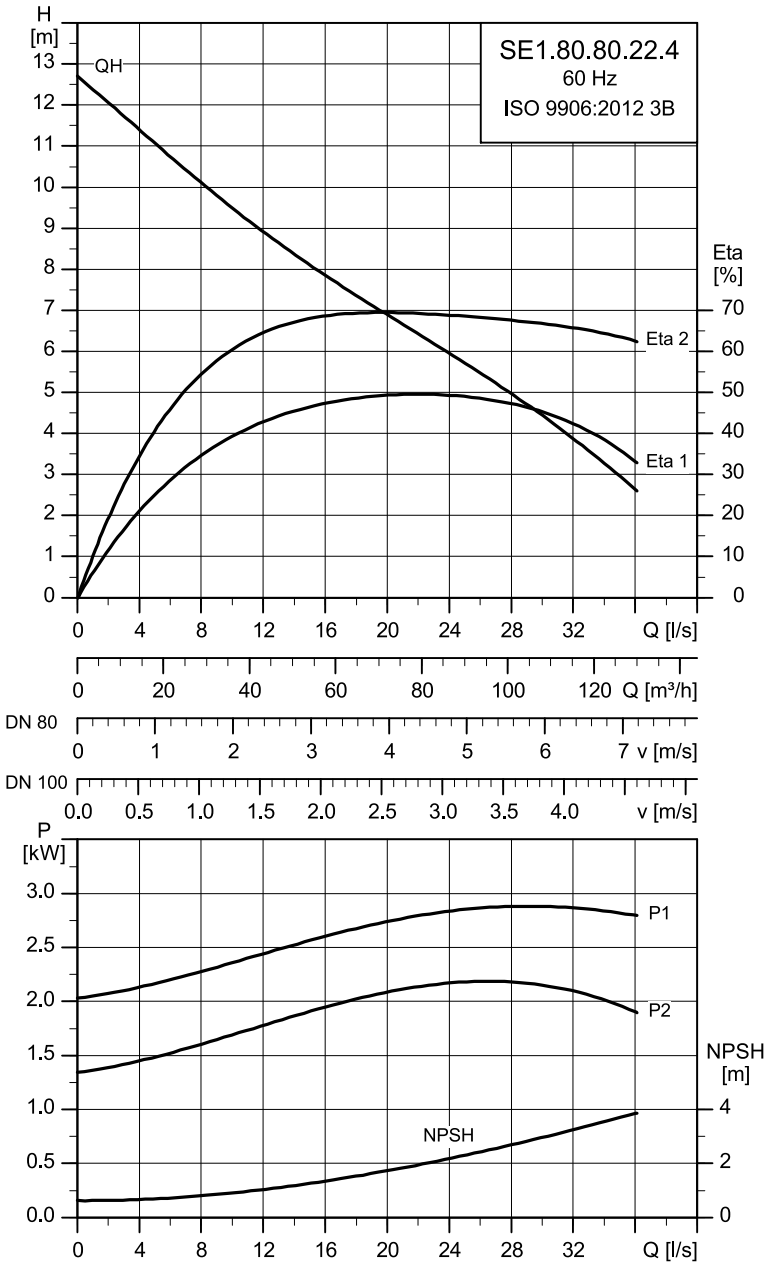
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.15.A.EX.4.60F.B	230	2	1.5	4	1703	Direct-on-line (DOL)	7.3	29.5	77.5	79	77.1	0.71	0.79	0.83
SE1.80.80.15.A.EX.4.60G.B	460	2	1.5	4	1739	Direct-on-line (DOL)	4.2	20.2	74.7	78.9	80	0.57	0.69	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.80.15.A.EX.4.60F.B	152	0.01931	PN 10	12	0.00330	19.4
SE1.80.80.15.A.EX.4.60G.B	152	0.01931	PN 10	12	0.00330	26.5

SE1.80.80.22.4



TM087461

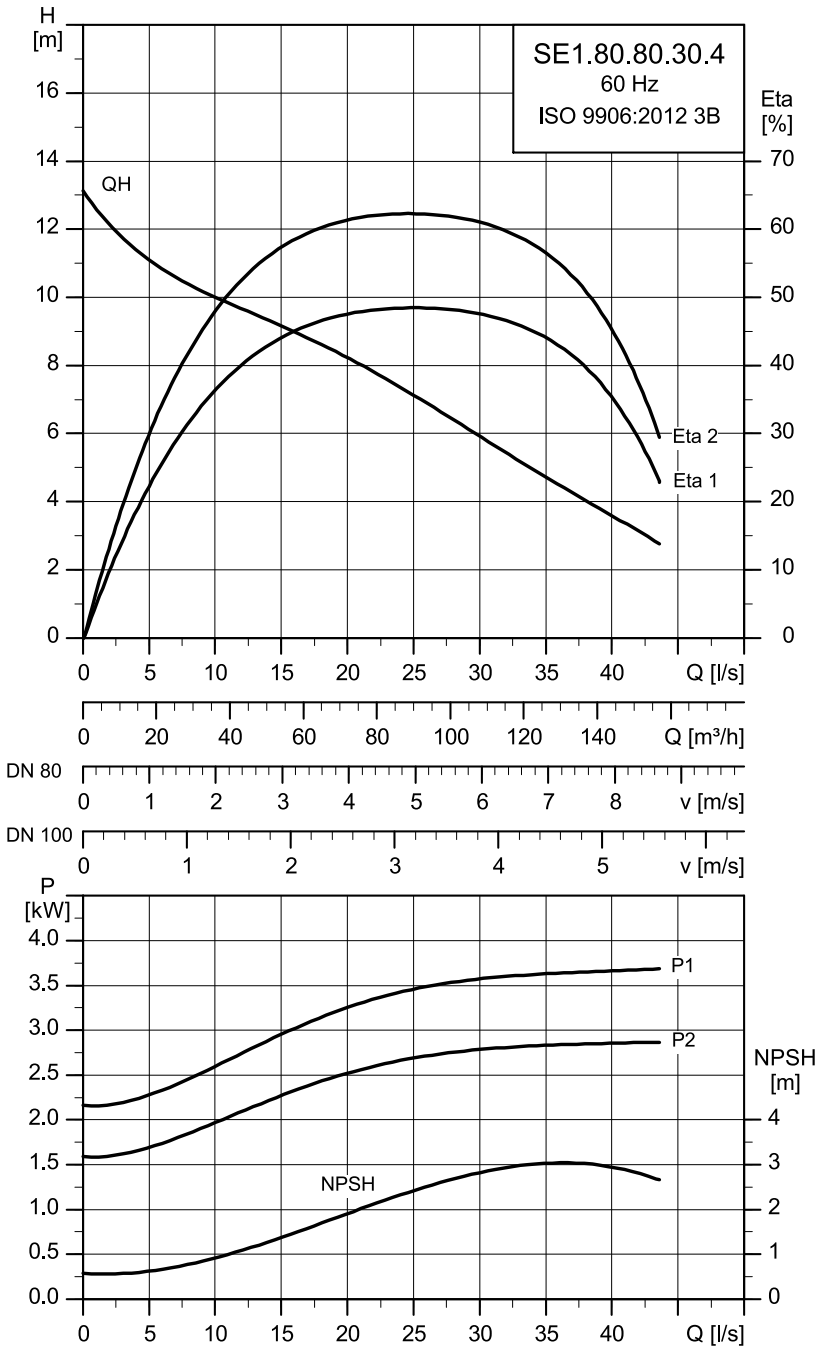
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.22.A.EX.4.60F.B	230	2.8	2.2	4	1717	Direct-on-line (DOL)	8.19	51.5	80.6	82.1	81	0.69	0.78	0.83
SE1.80.80.22.A.EX.4.60G.B	460	2.8	2.2	4	1743	Direct-on-line (DOL)	5.9	35.5	77.2	81.1	82.4	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.80.22.A.EX.4.60F.B	172	0.03163	PN 10	12	0.00440	33.5
SE1.80.80.22.A.EX.4.60G.B	172	0.03163	PN 10	12	0.00440	45.5

SE1.80.80.30.4



TM087462

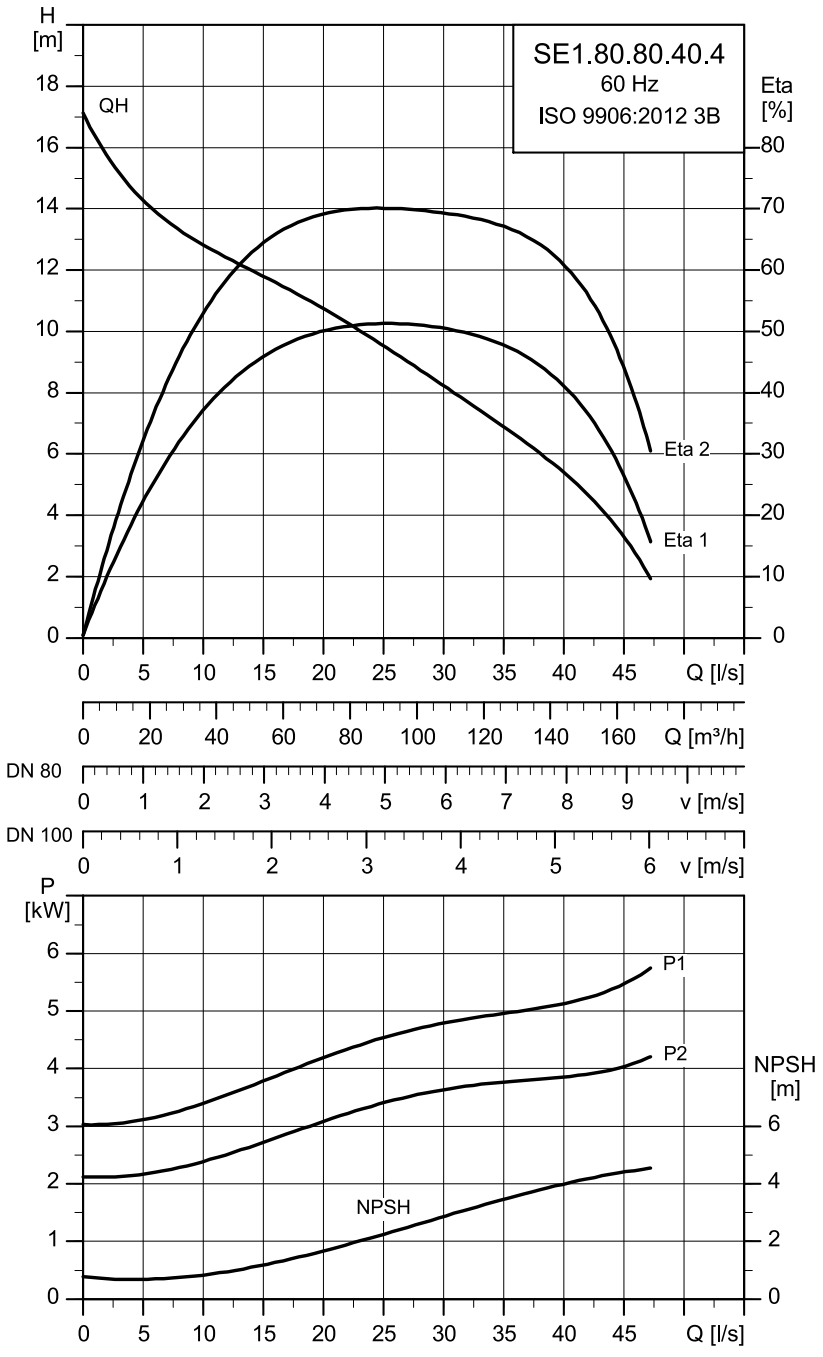
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.30.A.EX.4.61F.B	230	3.8	2.9	4	1739	Star-delta (YD)	10.59	68	84.7	85.6	84.8	0.69	0.79	0.83
	460						5.69	47	82.6	85.5	86.3	0.55	0.68	0.76

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.80.30.A.EX.4.61F.B	171	0.03829	PN 10	12	0.01040	47.5
						64.5

SE1.80.80.40.4



TM087463

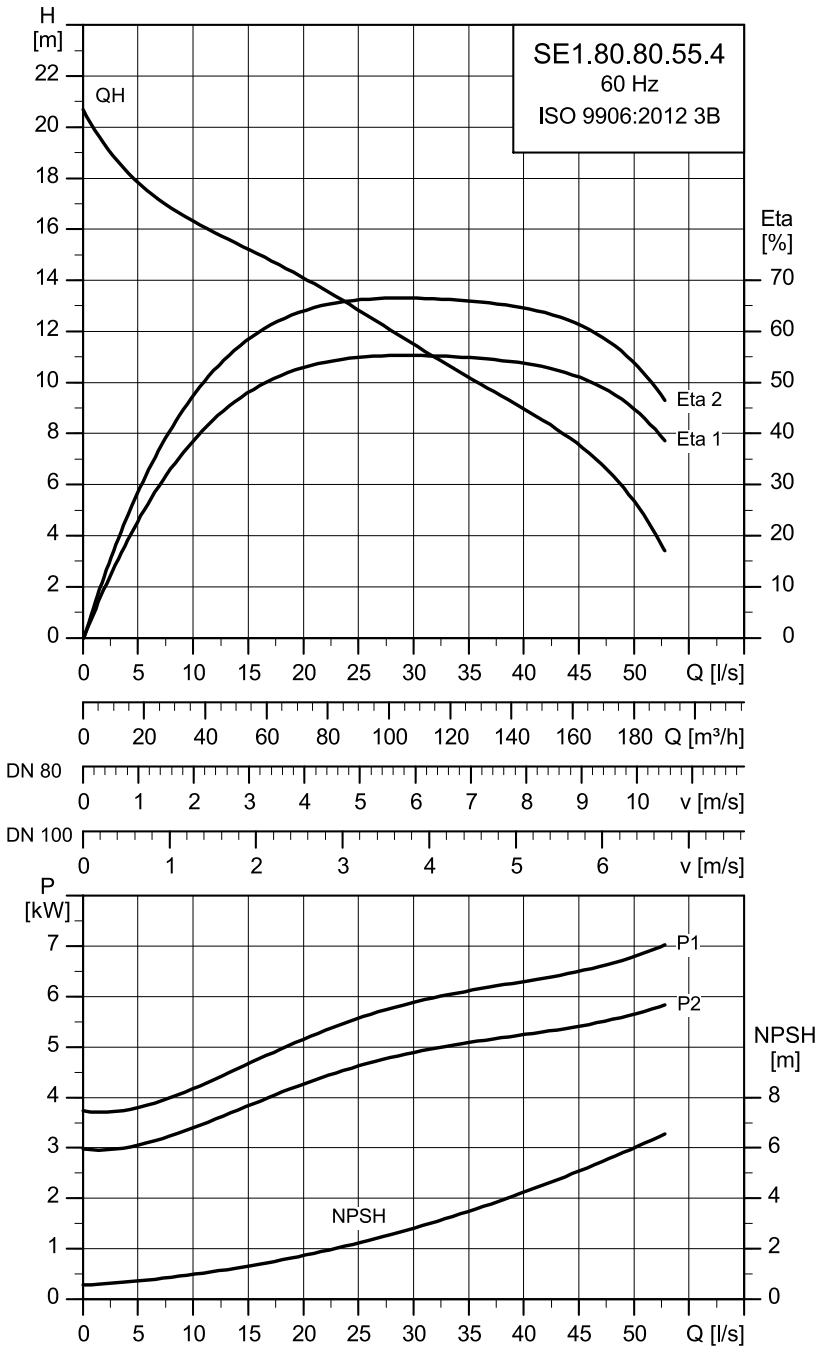
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.40.A.EX.4.61F.B	230	4.7	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.80.40.A.EX.4.61F.B	221	0.04625	PN 10	12	0.01280	52
						71

SE1.80.80.55.4



TM087464

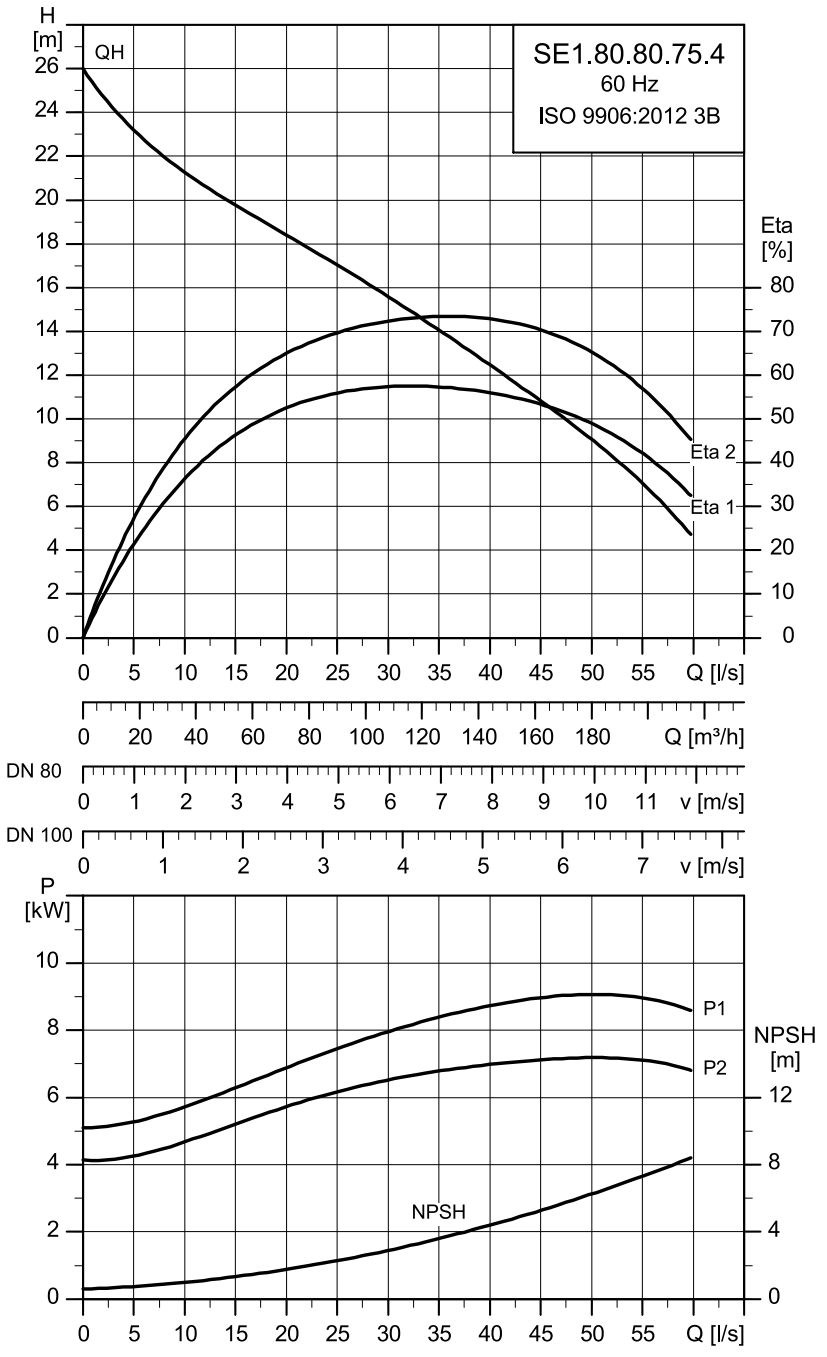
Motor data

Pump type	Voltage [V]	P1 [Hp]	P2 [Hp]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.55.A.EX.4.61F.B	230	6.5	5.5	4	1727	Star-delta (YD)	19.1	120	86.4	86.6	85.1	0.69	0.8	0.85
	460						10.3	82.5	84.4	86.6	86.8	0.54	0.68	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SE1.80.80.55.A.EX.4.61F.B	200	0.05869	PN 10	12	0.01420	89
						120

SE1.80.80.75.4



TM087465

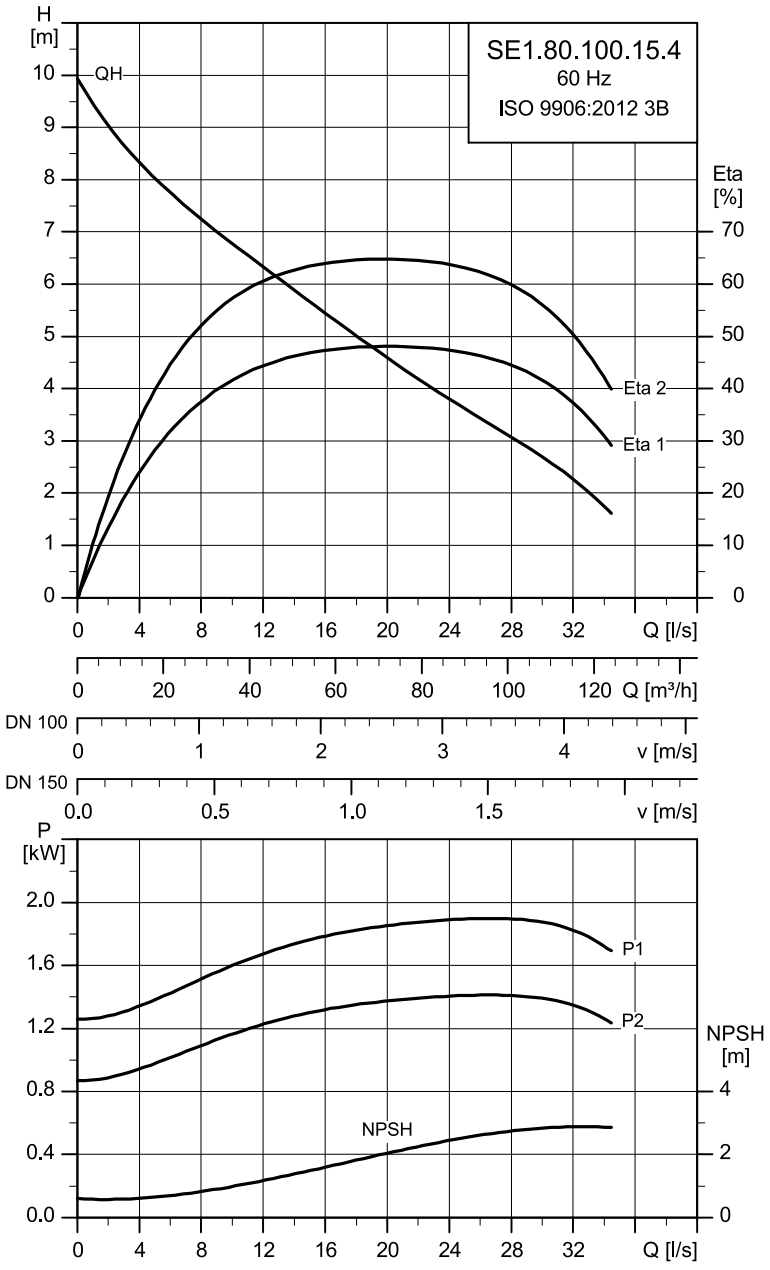
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.80.75.A.EX.4.61F.B	230	8.7	7.4	4	1709	Star-delta (YD)	27.6	104	79.6	80.9	79.4	0.82	0.85	0.86
	460						13.4	78	79.3	82.5	83.2	0.71	0.8	0.84

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SE1.80.80.75.A.EX.4.61F.B	224	0.08408	PN 10	12	0.02490	70
						99

SE1.80.100.15.4



TM087466

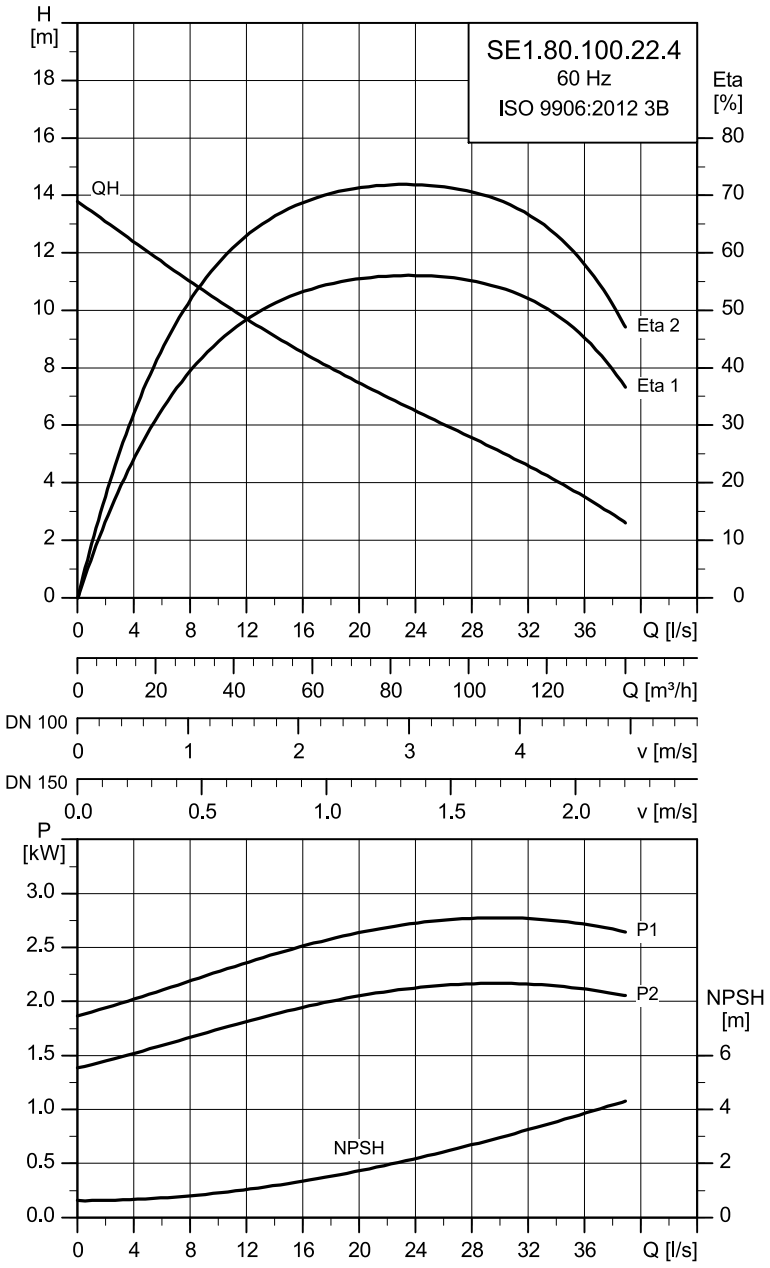
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.15.A.EX.4.60F.B	230	2	1.5	4	1703	Direct-on-line (DOL)	7.3	29.5	77.5	79	77.1	0.71	0.79	0.83
SE1.80.100.15.A.EX.4.60G.B	460	2	1.5	4	1739	Direct-on-line (DOL)	4.2	20.2	74.7	78.9	80	0.57	0.69	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.15.A.EX.4.60F.B	152	0.01931	PN 10	12	0.00330	19.4
SE1.80.100.15.A.EX.4.60G.B	152	0.01931	PN 10	12	0.00330	26.5

SE1.80.100.22.4



TM087467

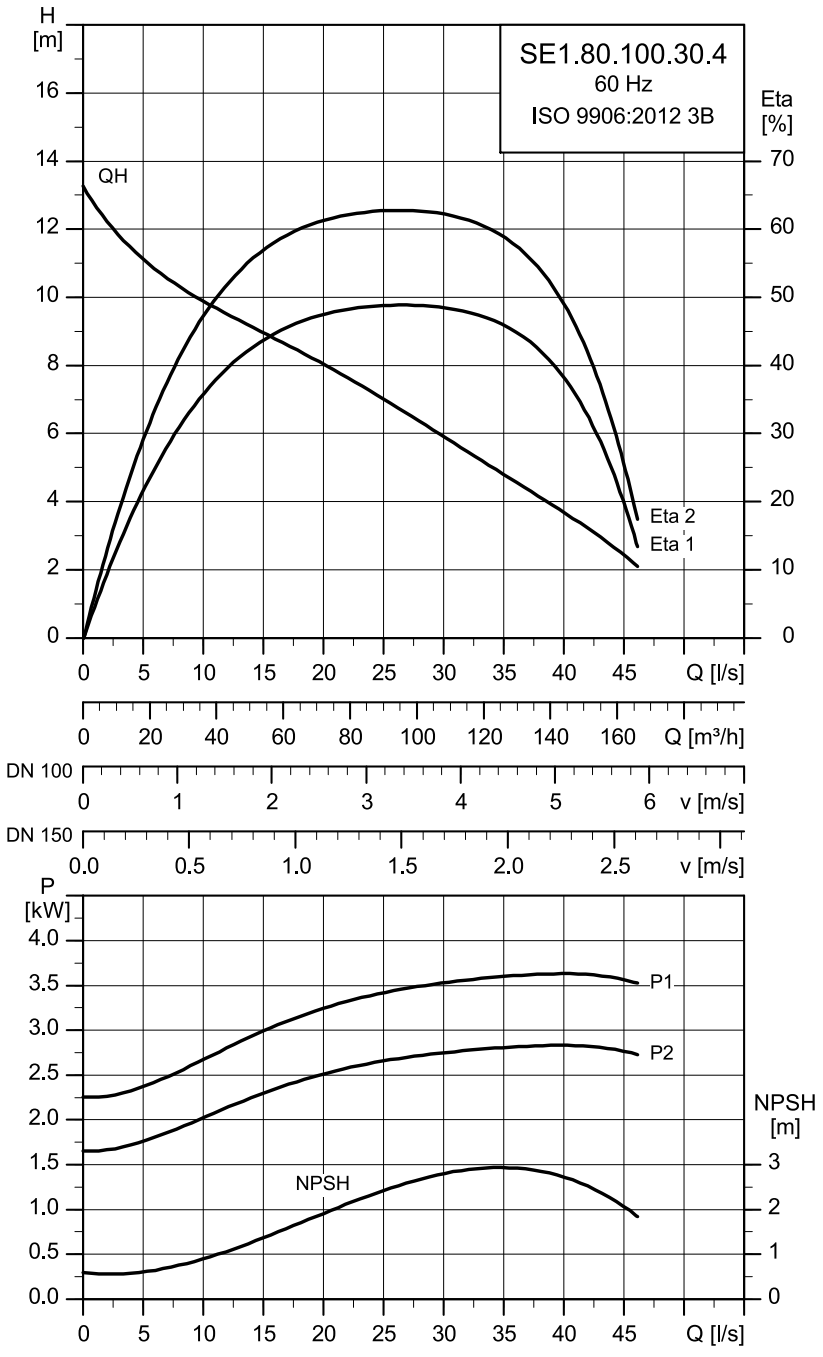
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.22.A.EX.4.60F.B	230	2.8	2.2	4	1717	Direct-on-line (DOL)	8.19	51.5	80.6	82.1	81	0.69	0.78	0.83
SE1.80.100.22.A.EX.4.60G.B	460	2.8	2.2	4	1743	Direct-on-line (DOL)	5.9	35.5	77.2	81.1	82.4	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.22.A.EX.4.60F.B	172	0.03163	PN 10	12	0.00440	33.5
SE1.80.100.22.A.EX.4.60G.B	172	0.03163	PN 10	12	0.00440	45.5

SE1.80.100.30.4



TM087468

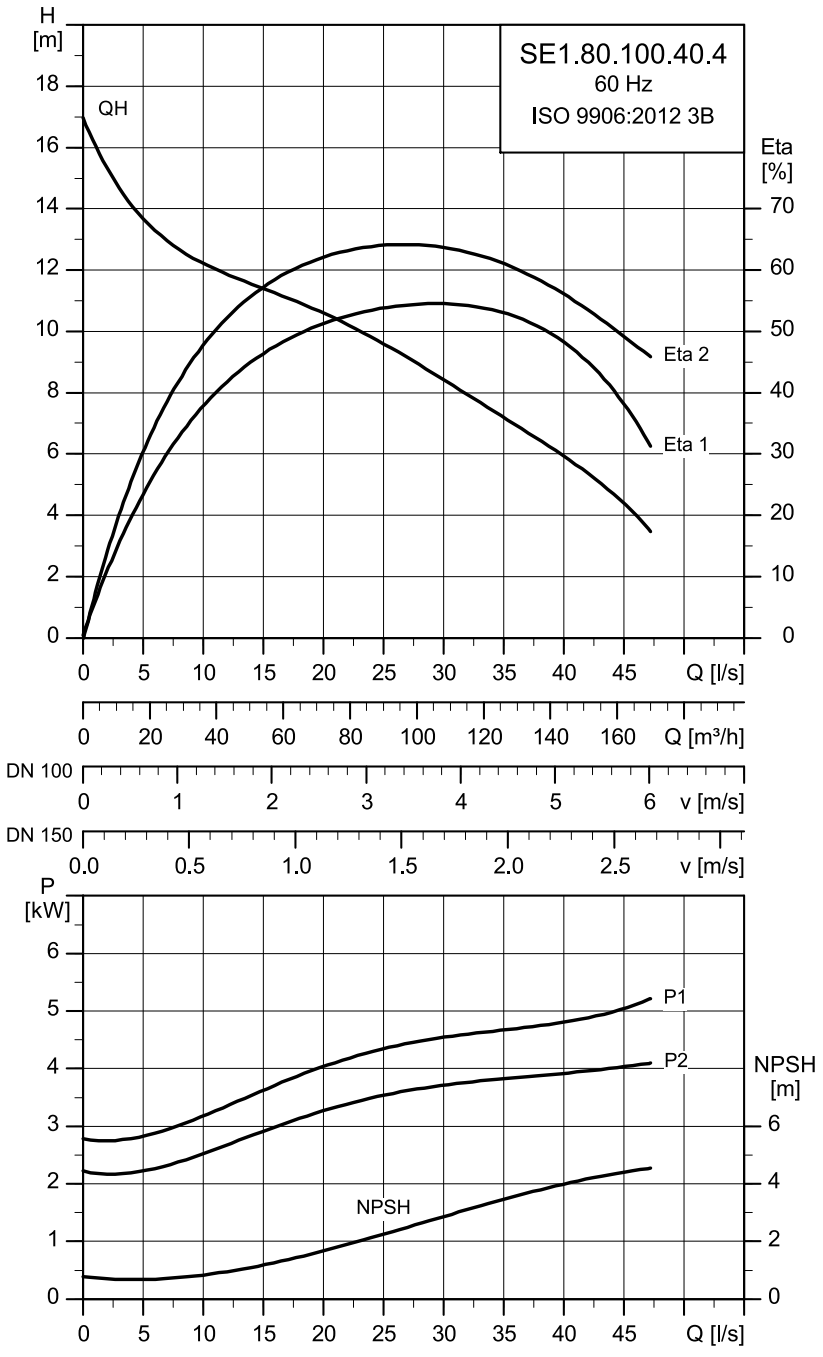
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.30.A.EX.4.61F.B	230	3.8	2.9	4	1739	Star-delta (YD)	10.59	68	84.7	85.6	84.8	0.69	0.79	0.83
	460						5.69	47	82.6	85.5	86.3	0.55	0.68	0.76

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.30.A.EX.4.61F.B	171	0.03829	PN 10	12	0.01040	47.5
						64.5

SE1.80.100.40.4



TM087469

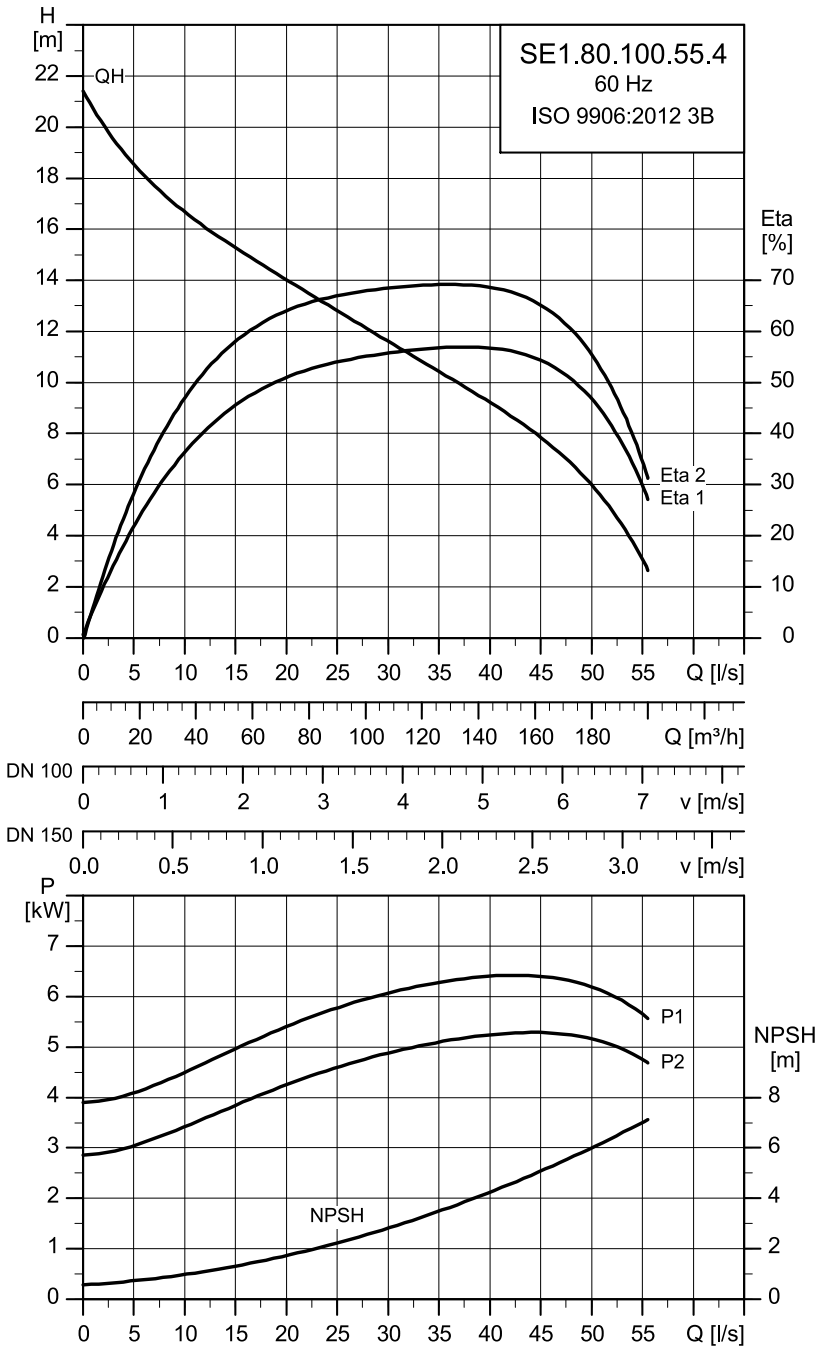
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [Hp]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.40.A.EX.4.61F.B	230	4.9	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.40.A.EX.4.61F.B	221	0.04600	PN 10	12	0.01280	52
						71

SE1.80.100.55.4



TM087470

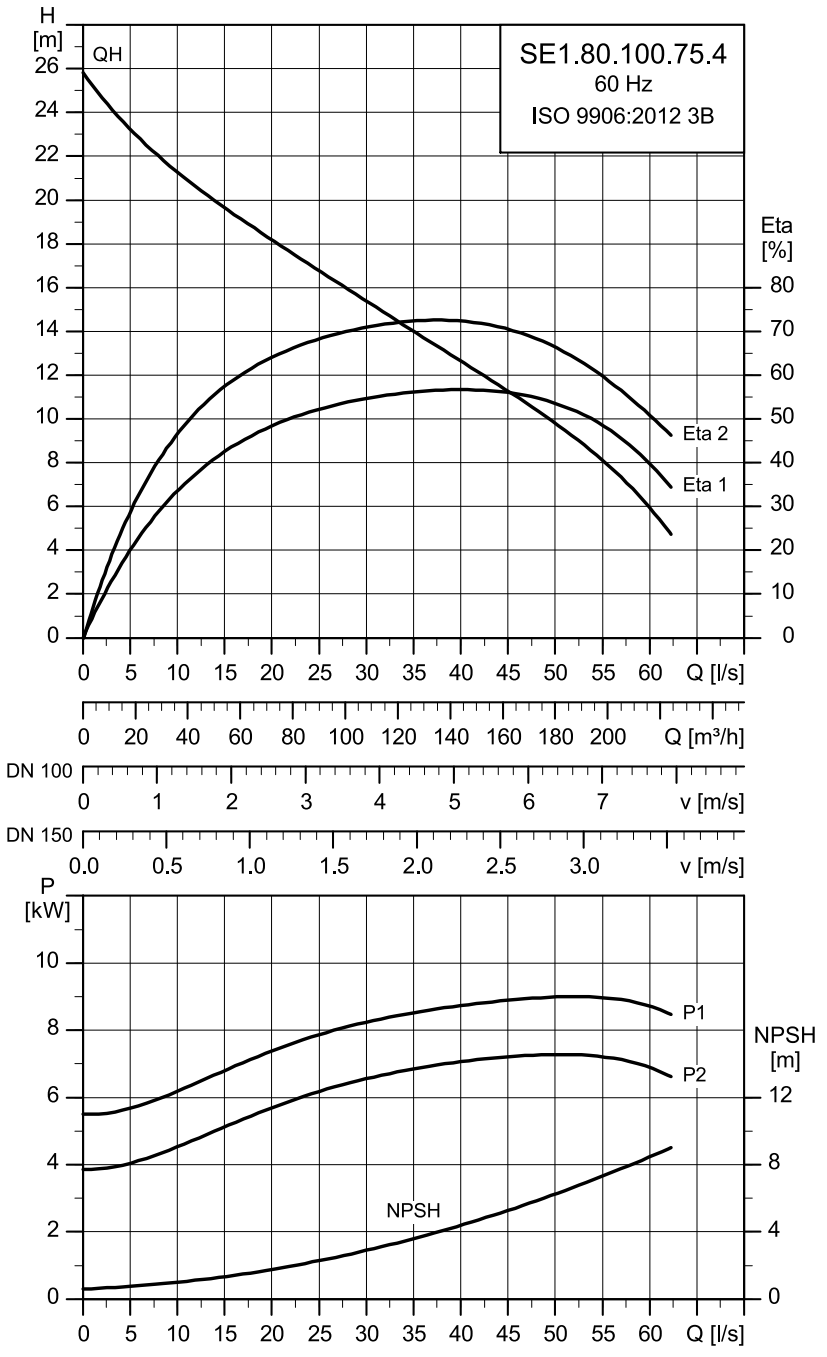
Motor data

Pump type	Voltage [V]	P1 [Hp]	P2 [Hp]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.55.A.EX.4.61F.B	230	6.5	5.5	4	1727	Star-delta (YD)	19.1	120	86.4	86.6	85.1	0.69	0.8	0.85
	460						10.3	82.5	84.4	86.6	86.8	0.54	0.68	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.55.A.EX.4.61F.B	200	0.05869	PN 10	12	0.01420	89
						120

SE1.80.100.75.4



TM087471

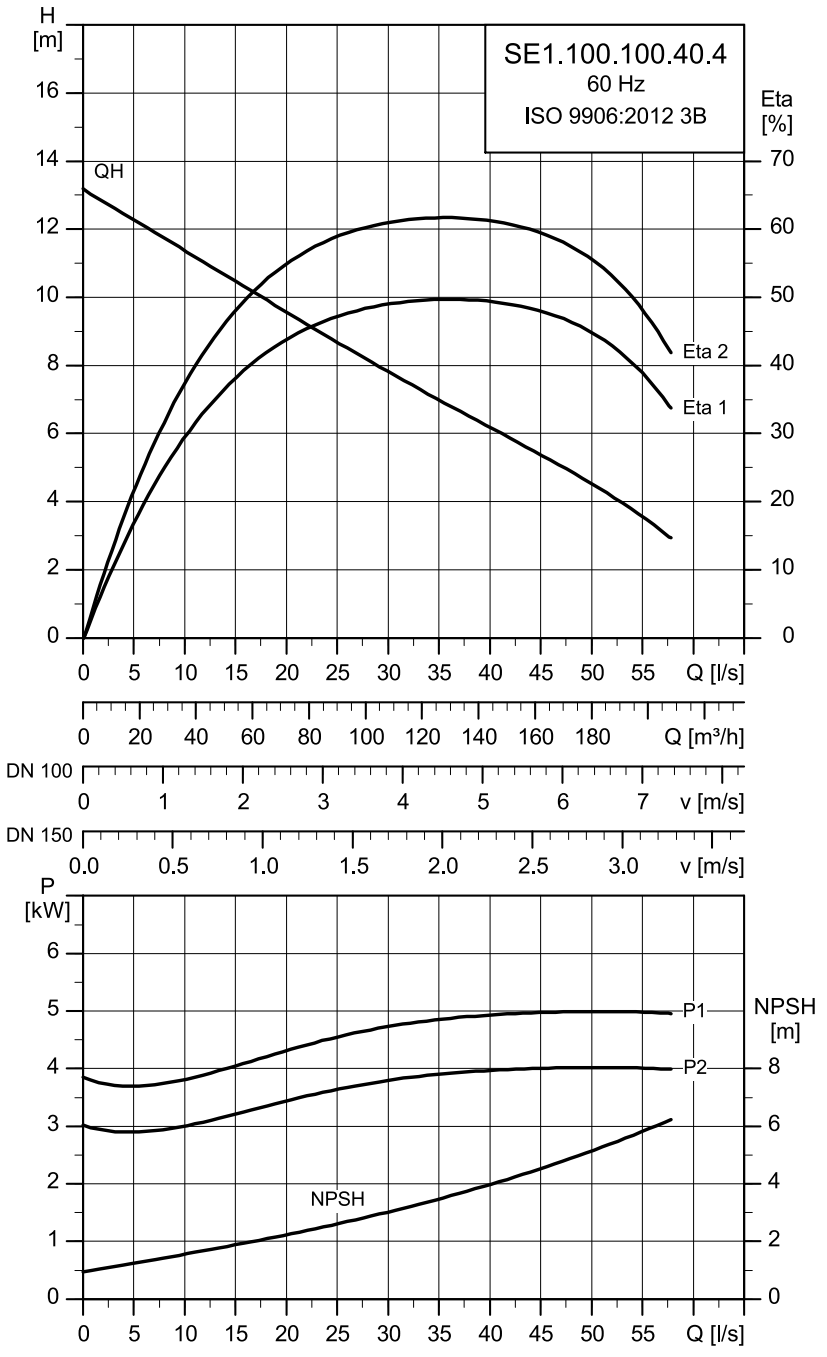
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.80.100.75.A.EX.4.61F.B	230	8.7	7.4	4	1709	Star-delta (YD)	27.6	104	79.6	80.9	79.4	0.82	0.85	0.86
	460						13.4	78	79.3	82.5	83.2	0.71	0.8	0.84

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.80.100.75.A.EX.4.61F.B	224	0.08408	PN 10	12	0.02490	70
						99

SE1.100.100.40.4



TM087472

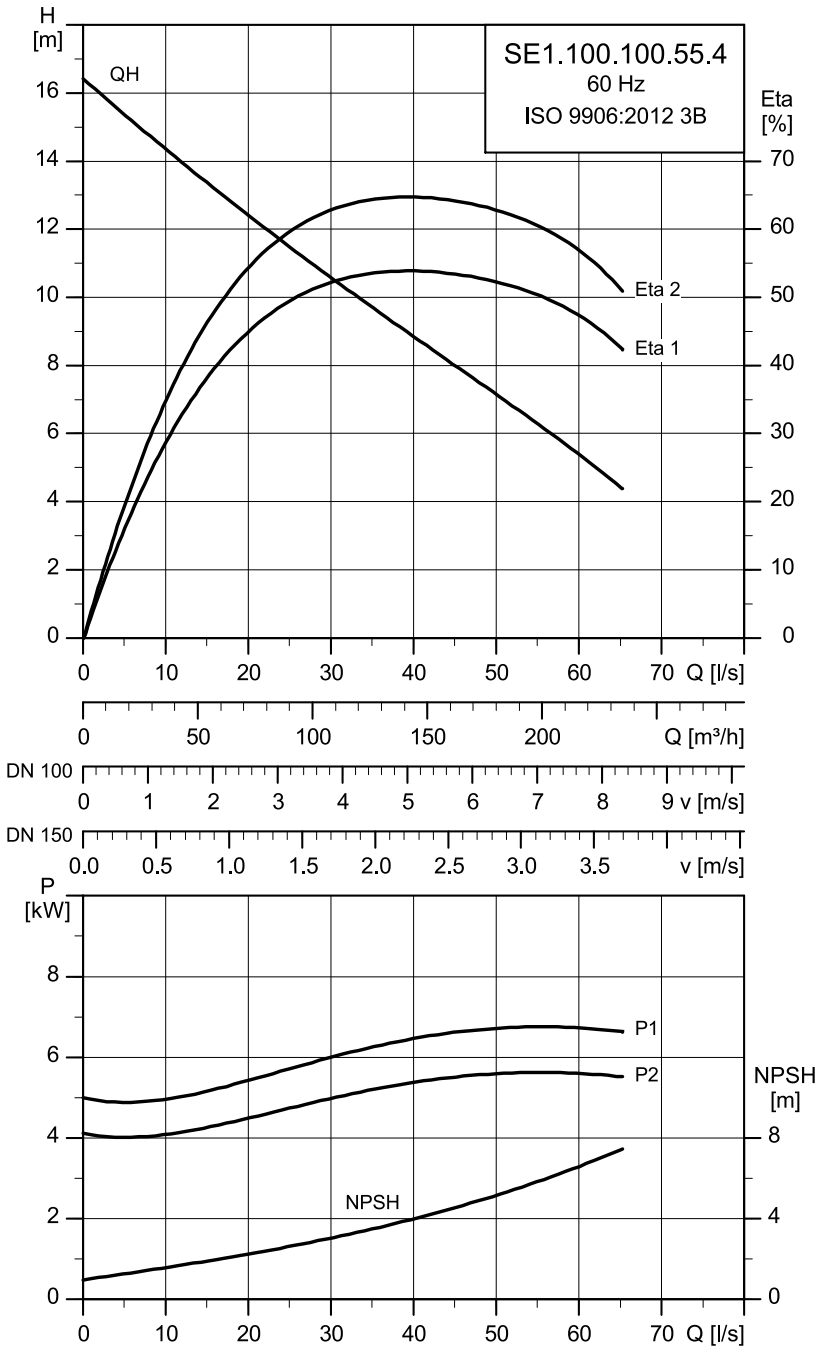
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.100.40.A.EX.4.61F.B	230	4.9	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.100.100.40.A.EX.4.61F.B	181	0.06320	PN 10	12	0.01280	52
						71

SE1.100.100.55.4



TM087473

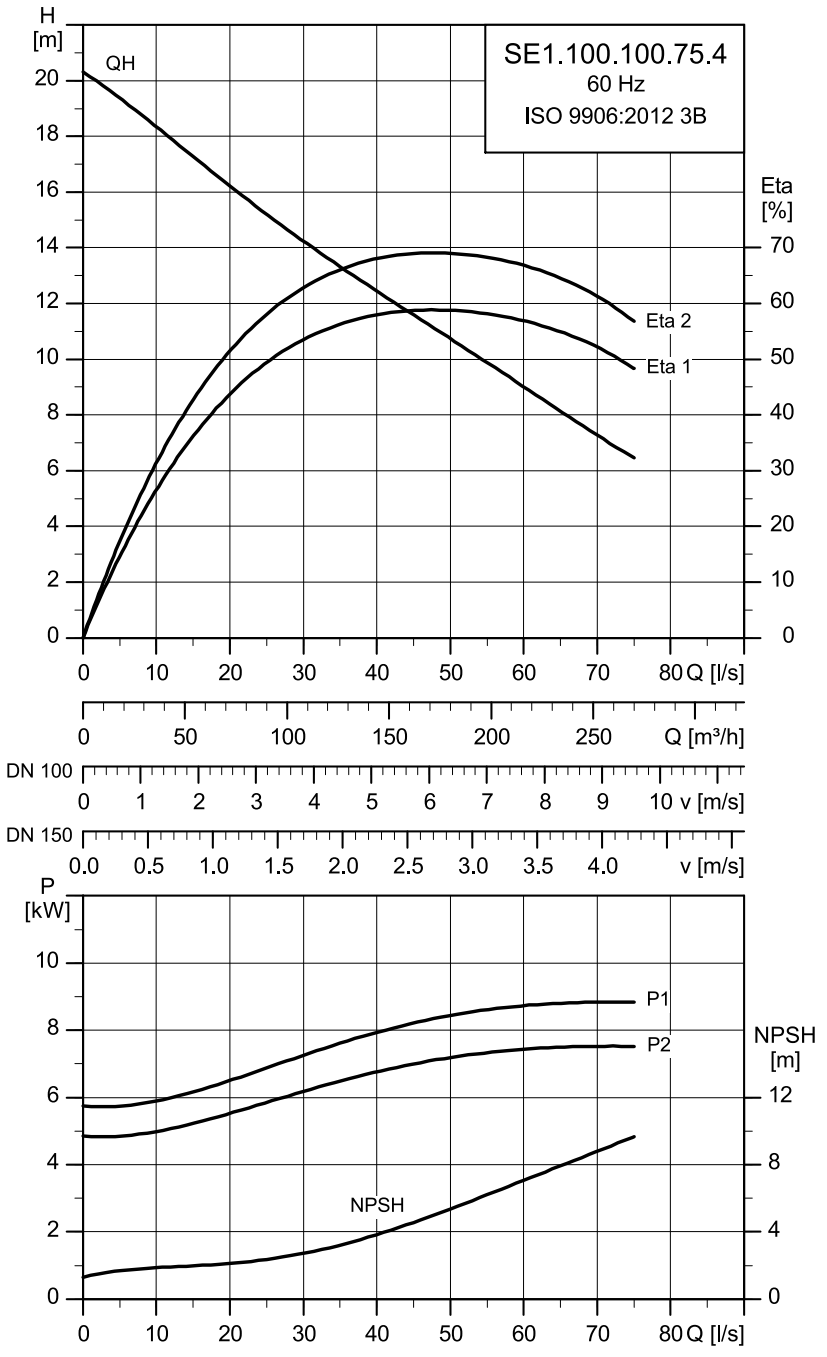
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.100.55.A.EX.4.61F.B	230	6.5	5.5	4	1727	Star-delta (YD)	19.1	120	86.4	86.6	85.1	0.69	0.8	0.85
	460						10.3	82.5	84.4	86.6	86.8	0.54	0.68	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.100.100.55.A.EX.4.61F.B	196	0.07415	PN 10	12	0.01420	89
						120

SE1.100.100.75.4



TM087474

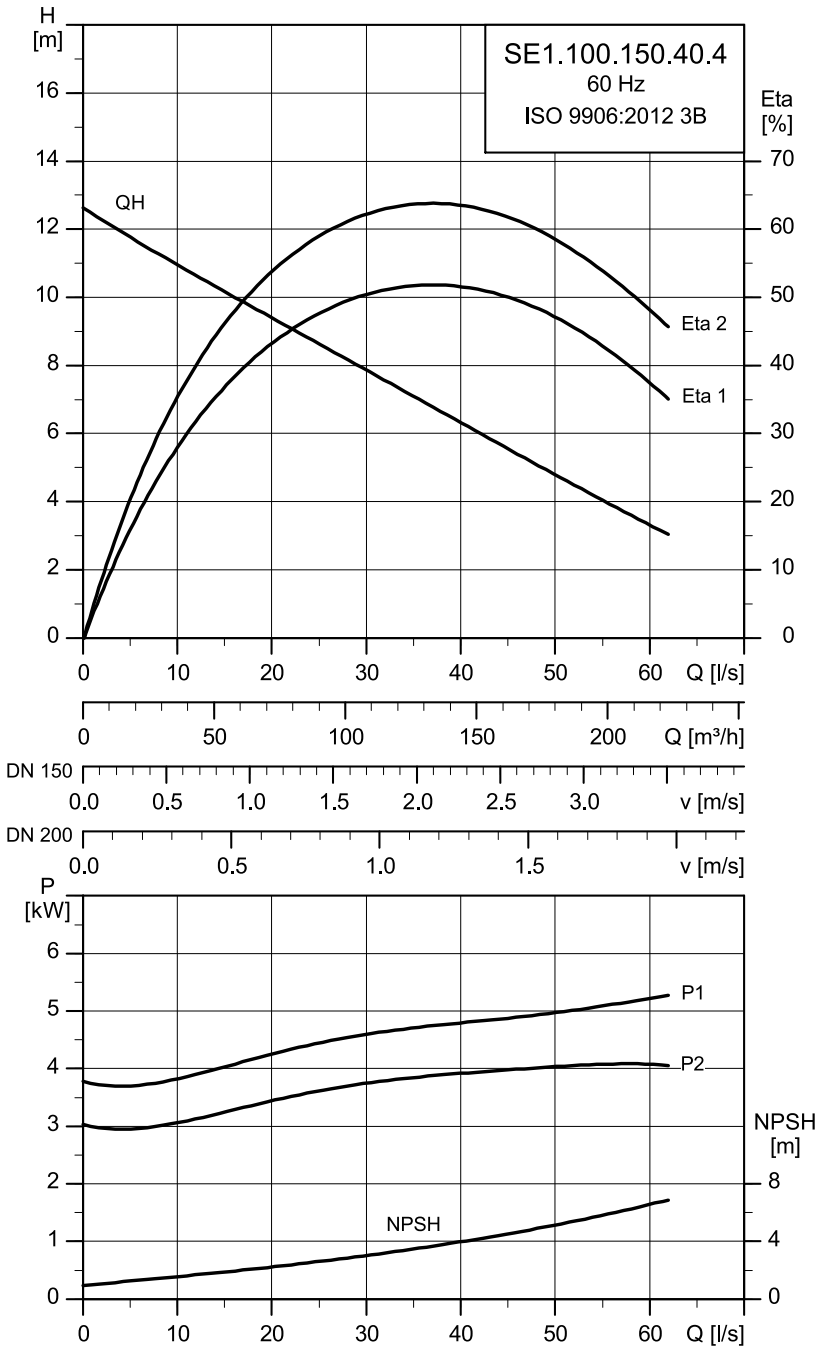
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.100.75.A.EX.4.61F.B	230	8.7	7.4	4	1709	Star-delta (YD)	27.6	104	79.6	80.9	79.4	0.82	0.85	0.86
	460						13.4	78	79.3	82.5	83.2	0.71	0.8	0.84

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SE1.100.100.75.A.EX.4.61F.B	210	0.08149	PN 10	12	0.02490	70
						99

SE1.100.150.40.4



TM087475

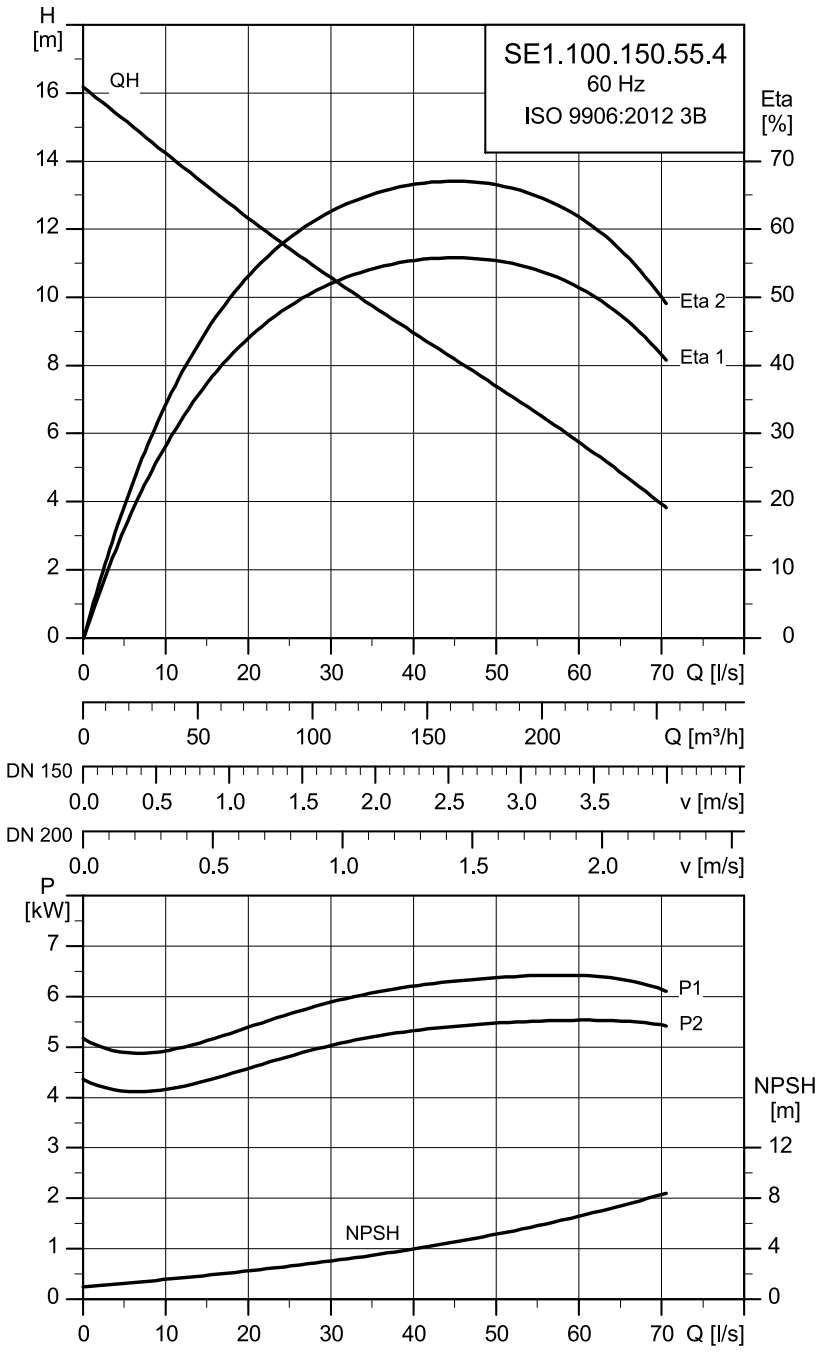
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.150.40.A.EX.4.61F.B	230	4.6	4	4	1.741	Star-delta (YD)	14,04	84	86,8	86,9	85,5	0,72	0,8	0,83
	460						7,26	58.5	85,7	87,6	87,7	0,59	0,72	0,79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.100.150.40.A.EX.4.61F.B	181	0,06320	PN 10	12	0,01280	52
						71

SE1.100.150.55.4



TM087476

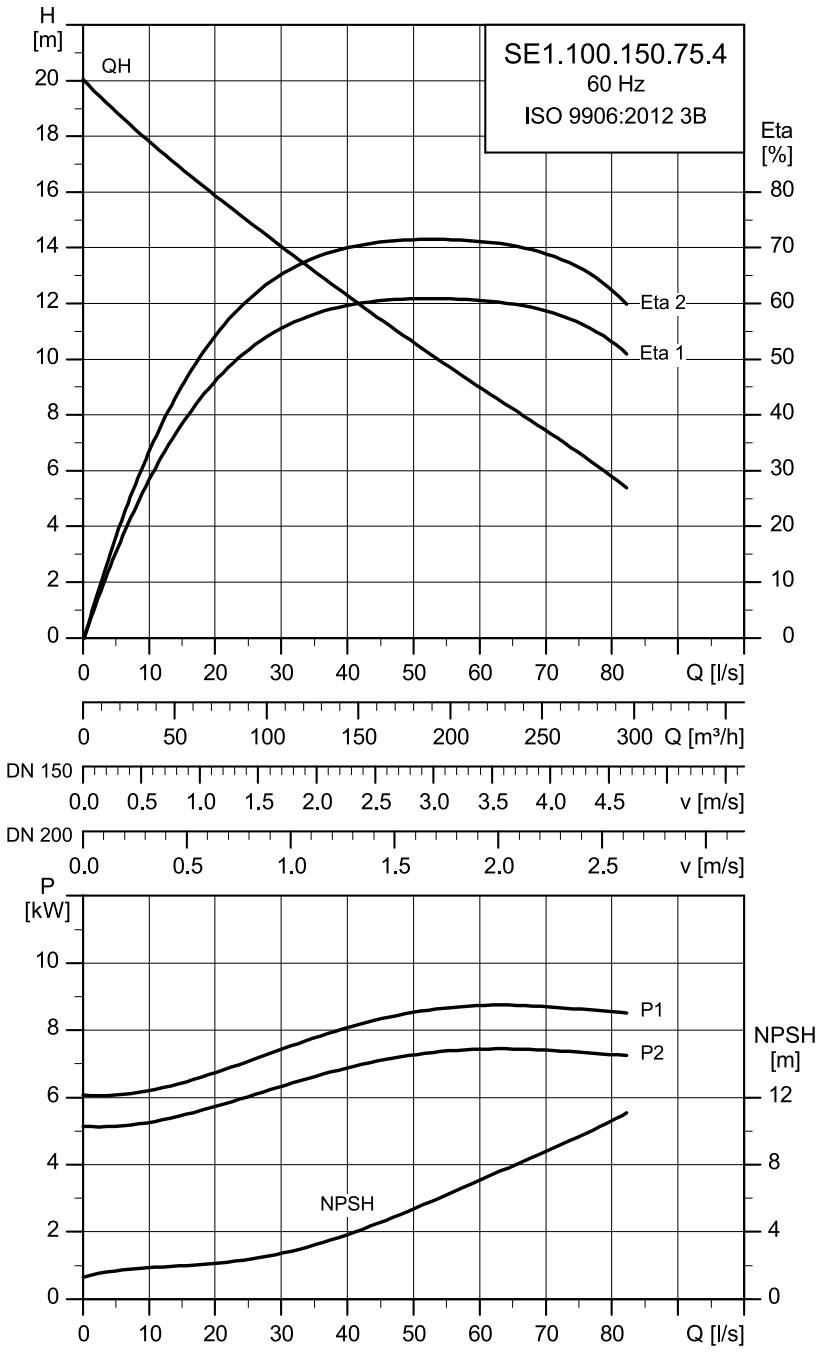
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.150.55.A.EX.4.61F.B	230	6.4	5.5	4	1727	Star-delta (YD)	19,1	120	86,4	86,6	85,1	0,69	0,8	0,85
	460						10,3	82.5	84,4	86,6	86,8	0,54	0,68	0,77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.100.150.55.A.EX.4.61F.B	196	0,07415	PN 10	12	0,01420	89
						120

SE1.100.150.75.4



TM087477

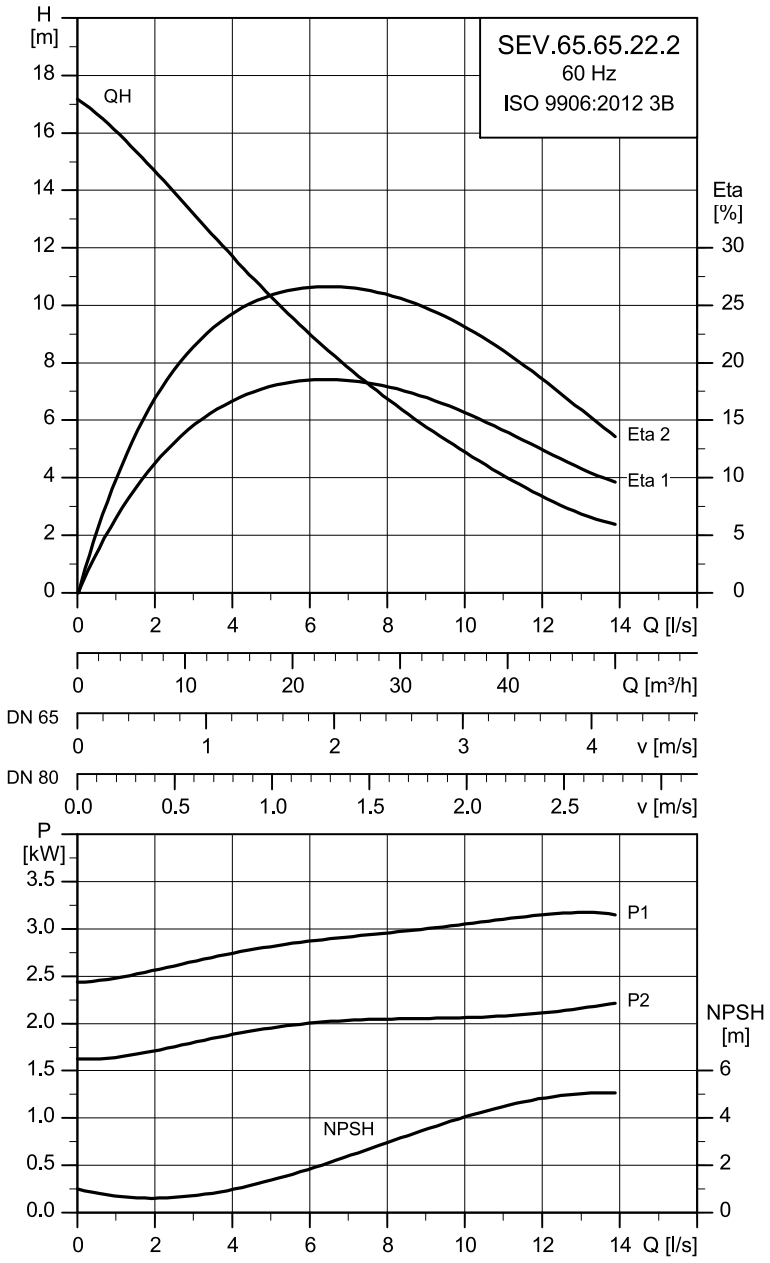
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE1.100.150.75.A.EX.4.61F.B	230	8.7	7.4	4	1.709	Star-delta (YD)	27,6	104	79,6	80,9	79,4	0,82	0,85	0,86
	460						13,4	78	79,3	82,5	83,2	0,71	0,8	0,84

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SE1.100.150.75.A.EX.4.61F.B	210	0,08149	PN 10	12	0,02490	70
						99

SEV.65.65.22.2



TM087478

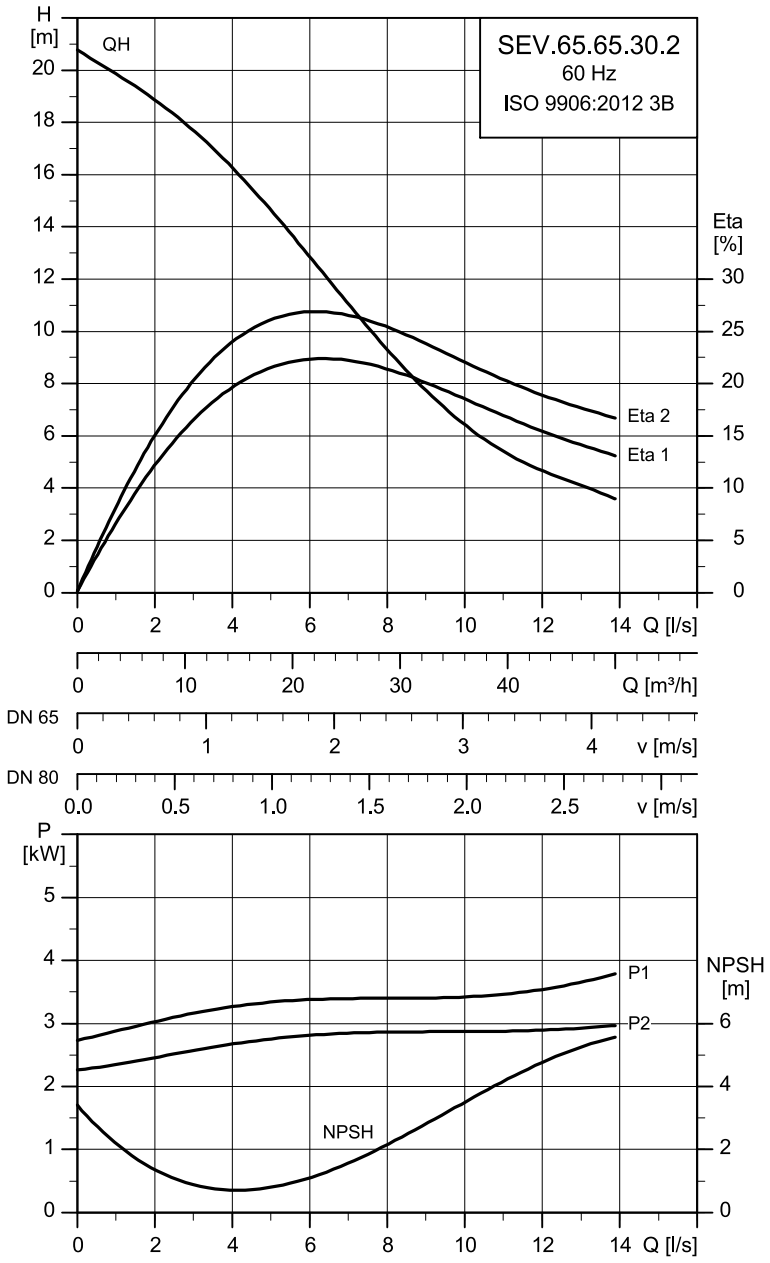
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.65.22.A.EX.2.60F	230	3.1	2.2	2	3472	Direct-on-line (DOL)	8.7	50	80.5	82.6	82.3	0.83	0.88	0.9
SEV.65.65.22.A.EX.2.60G	460	3.1	2.2	2	3510	Direct-on-line (DOL)	5	34.5	78.4	82.4	83.7	0.7	0.8	0.85

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.65.65.22.A.EX.2.60F	128.3	0.00303	PN 10	12	0.00190	14.6
SEV.65.65.22.A.EX.2.60G	128.3	0.00303	PN 10	12	0.00190	21.8

SEV.65.65.30.2



TM087479

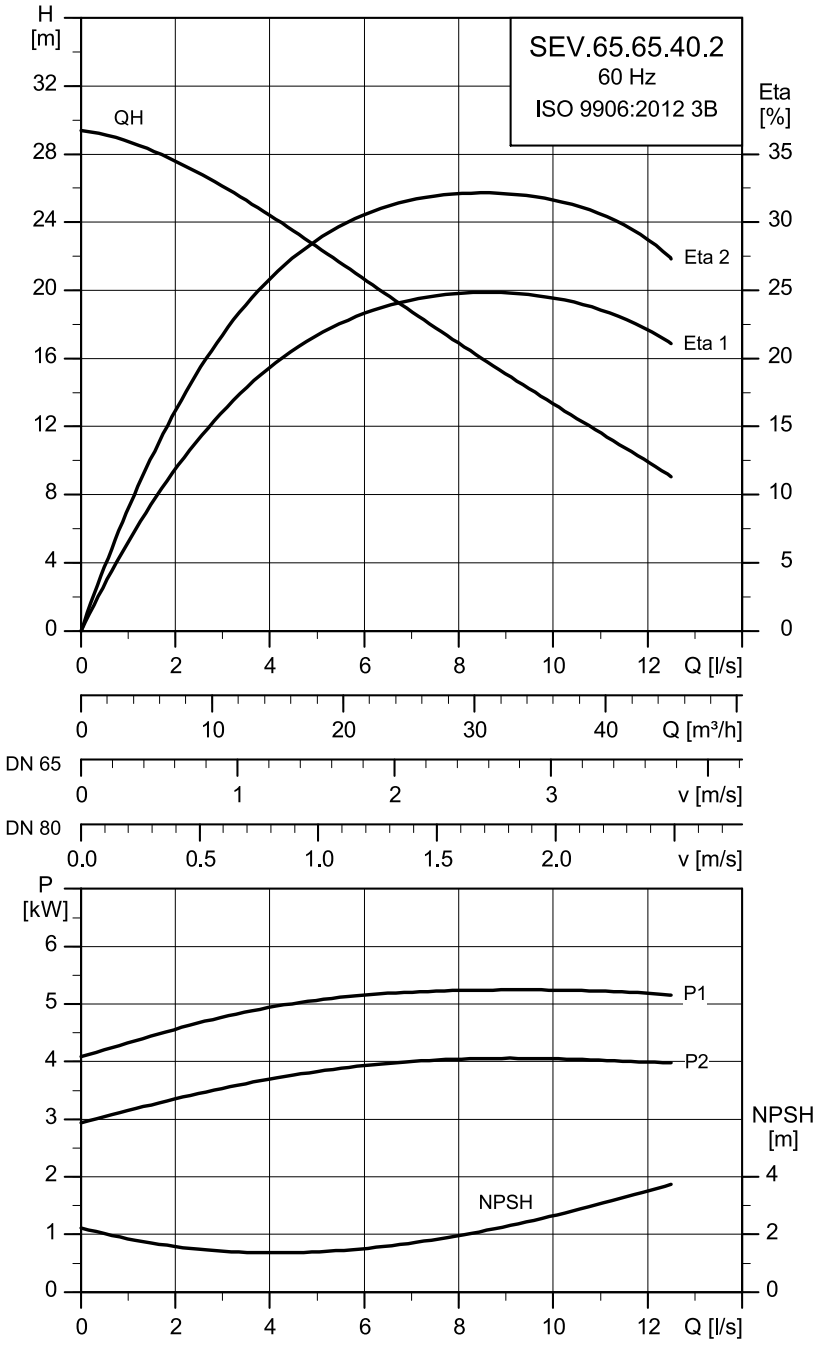
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.65.30.A.EX.2.60F	230	3.5	2.9	2	3463	Direct-on-line (DOL)	10.14	66	81.2	82.9	82.1	0.85	0.89	0.91
SEV.65.65.30.A.EX.2.60G	460	3.5	2.9	2	3506	Direct-on-line (DOL)	5.07	46	79.9	83.4	84.3	0.77	0.85	0.88

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.65.65.30.A.EX.2.60F	129	0.00346	PN 10	12	0.00260	16.4
SEV.65.65.30.A.EX.2.60G	129	0.00346	PN 10	12	0.00260	23.4

SEV.65.65.40.2



TM087480

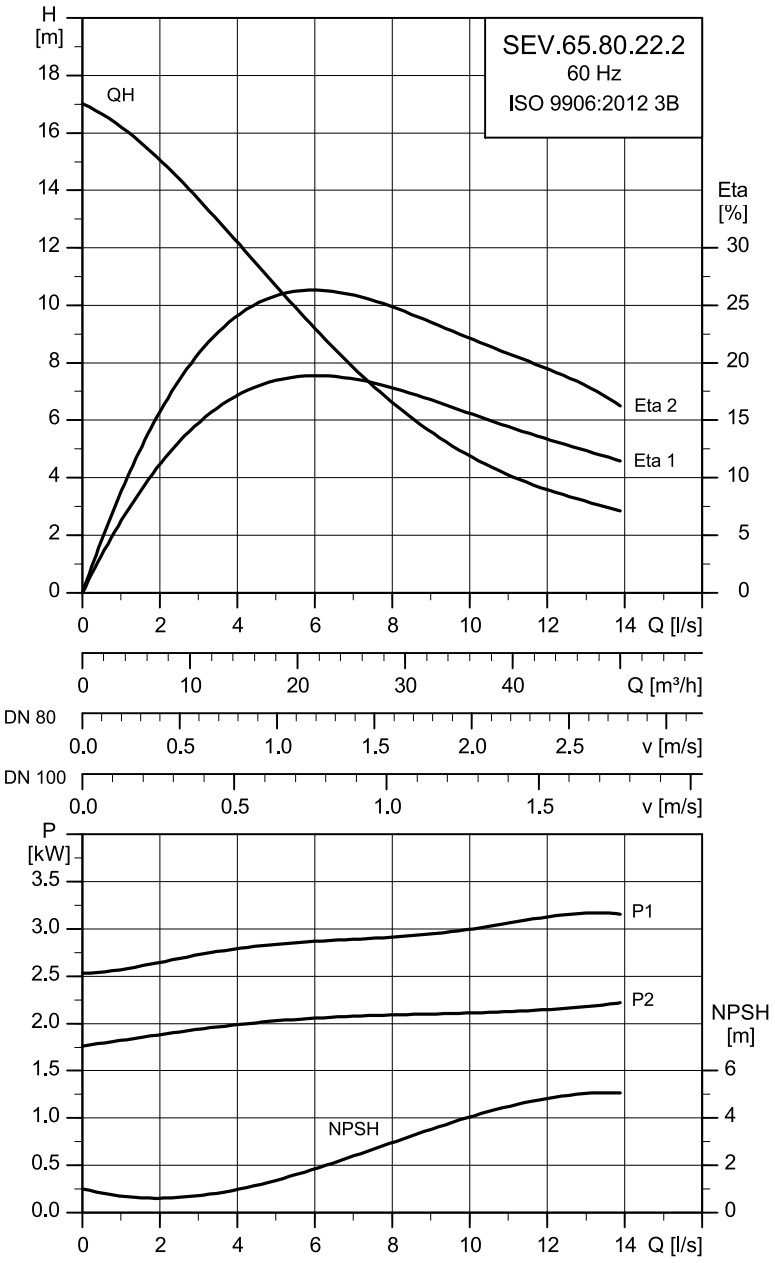
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.65.40.A.EX.2.61F	230	5.1	4	2	3485	Star-delta (YD)	13.05	93.5	84.5	86	85.6	0.82	0.88	0.9
	460						6.7	63.5	83.5	86.3	87.1	0.71	0.81	0.86

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.65.65.40.A.EX.2.61F	149	0.00600	PN 10	12	0.00540	31
						45.5

SEV.65.80.22.2



TM087481

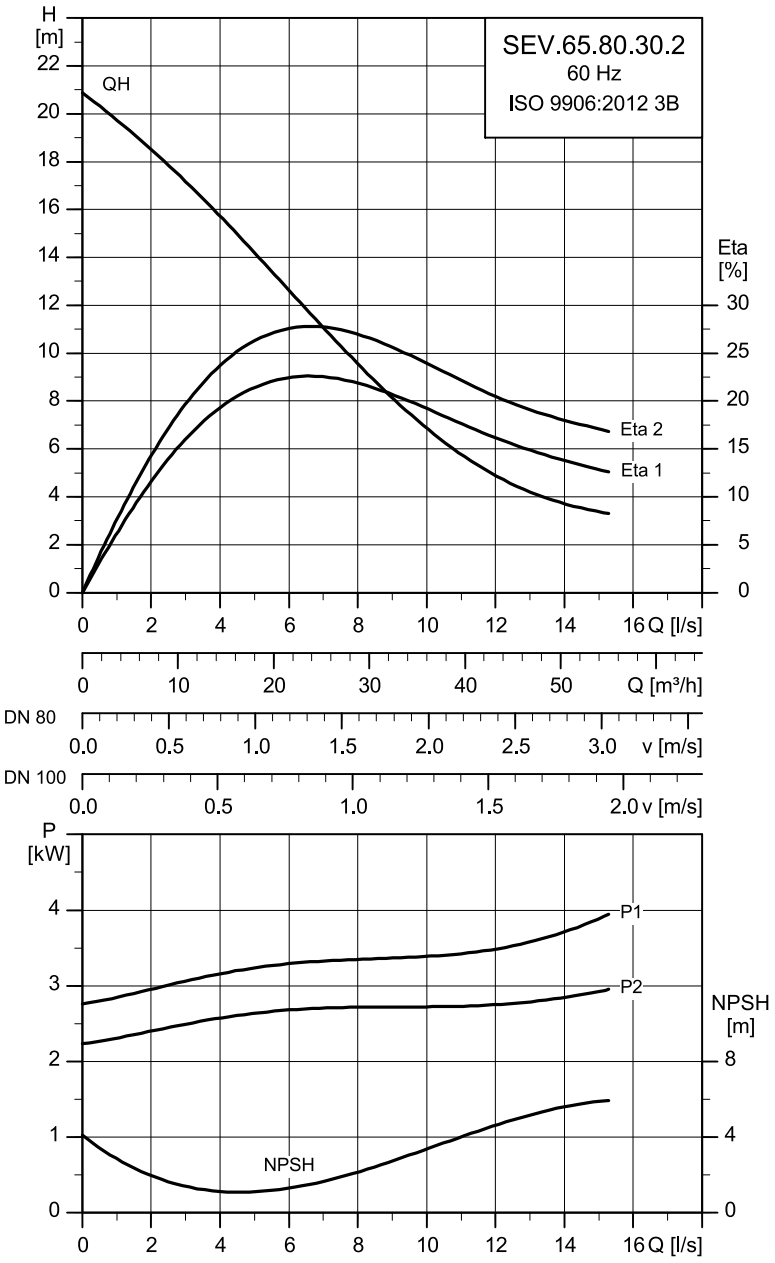
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.80.22.A.EX.2.60F	230	3	2.2	2	3472	Direct-on-line (DOL)	8.7	50	80.5	82.6	82.3	0.83	0.88	0.9
SEV.65.80.22.A.EX.2.60G	460	3	2.2	2	3510	Direct-on-line (DOL)	5	34.5	78.4	82.4	83.7	0.7	0.8	0.85

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.65.80.22.A.EX.2.60F	128.3	0.00303	PN 10	12	0.00190	14.6
SEV.65.80.22.A.EX.2.60G	128.3	0.00303	PN 10	12	0.00190	21.8

SEV.65.80.30.2



TM087482

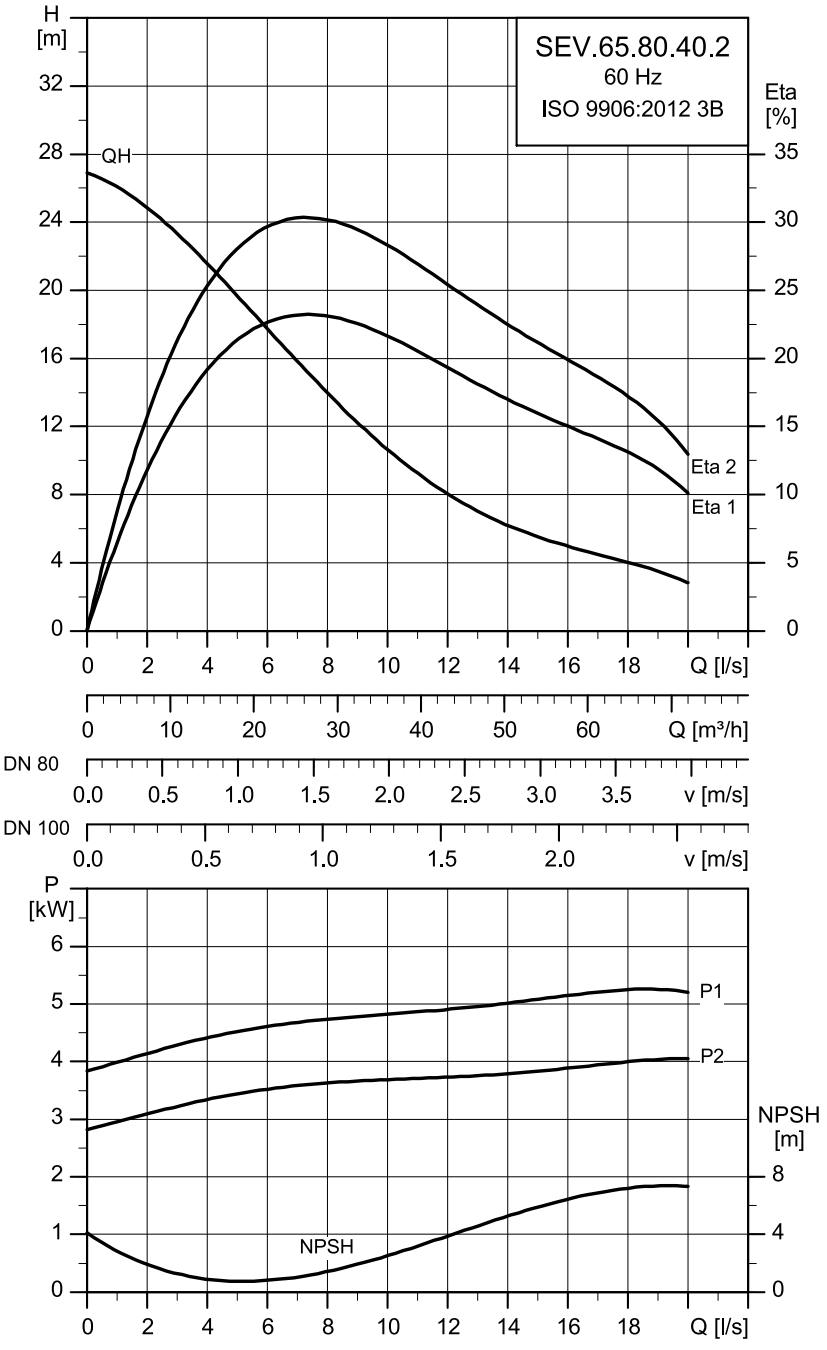
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.80.30.A.EX.2.60F	230	3.6	2.9	2	3463	Direct-on-line (DOL)	10.14	66	81.2	82.9	82.1	0.85	0.89	0.91
SEV.65.80.30.A.EX.2.60G	460	3.6	2.9	2	3506	Direct-on-line (DOL)	5.07	46	79.9	83.4	84.3	0.77	0.85	0.88

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.65.80.30.A.EX.2.60F	129	0.00346	PN 10	12	0.00260	16.4
SEV.65.80.30.A.EX.2.60G	129	0.00346	PN 10	12	0.00260	23.4

SEV.65.80.40.2



TM087483

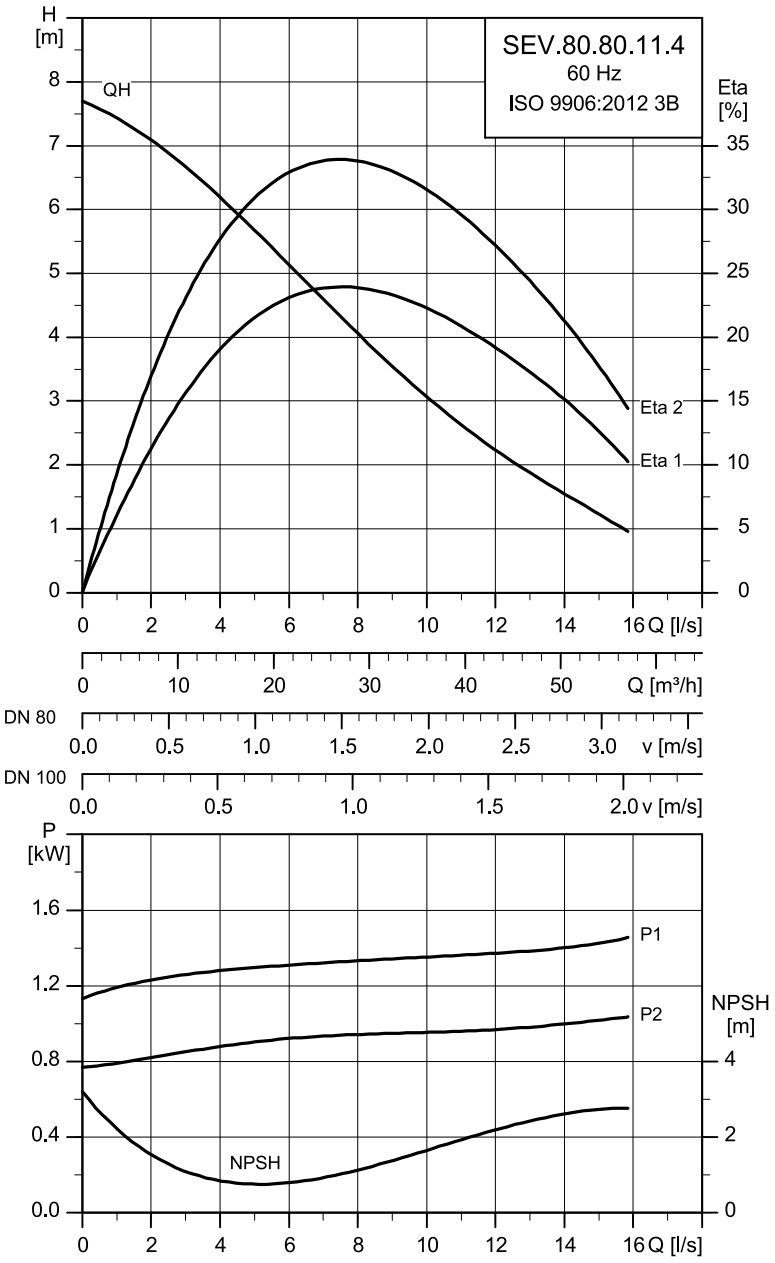
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.65.80.40.A.EX.2.61F	230	5.1	4	2	3485	Star-delta (YD)	13.05	93.5	84.5	86	85.6	0.82	0.88	0.9
	460						6.7	63.5	83.5	86.3	87.1	0.71	0.81	0.86

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.65.80.40.A.EX.2.61F	144	0.00552	PN 10	12	0.00540	31
						45.5

SEV.80.80.11.4



TM087484

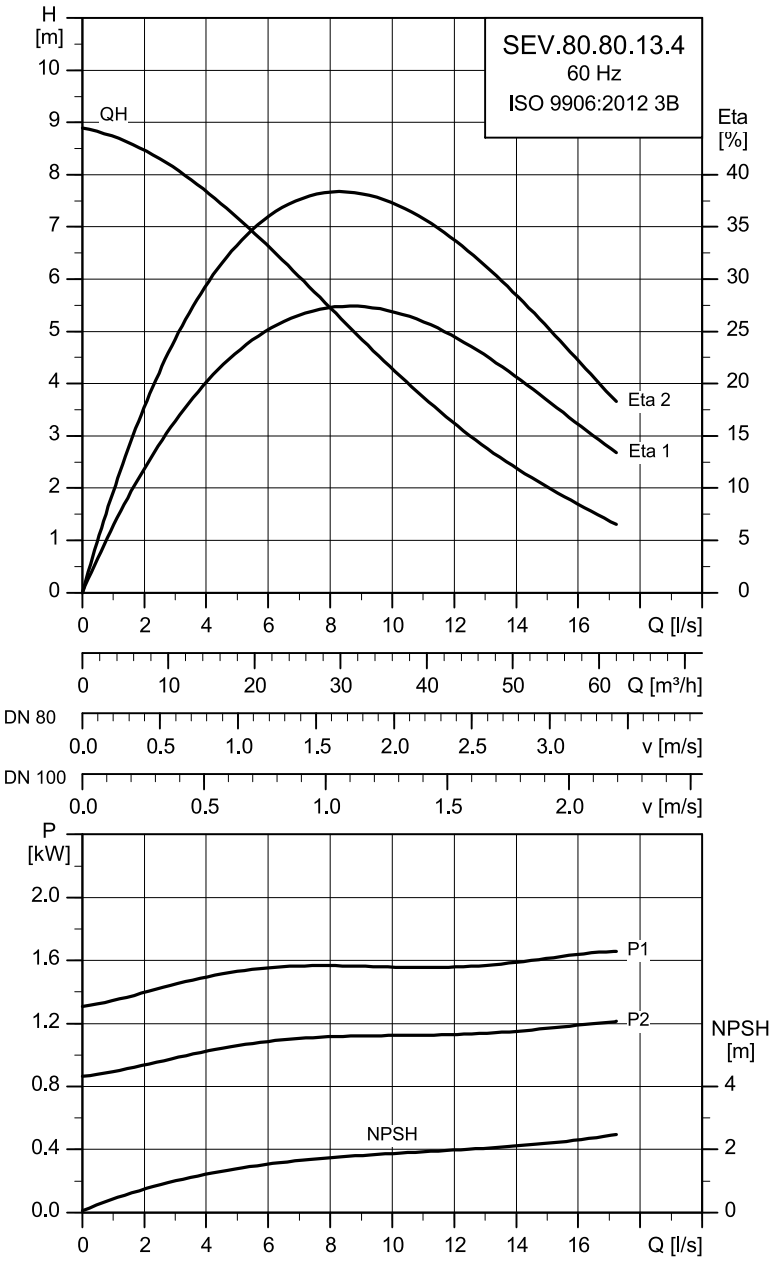
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.11.A.EX.4.60F	230	1.5	1.1	4	1714	Direct-on-line (DOL)	4.28	19.8	76.8	78.5	77.5	0.68	0.78	0.83
SEV.80.80.11.A.EX.4.60G	460	1.5	1.1	4	1742	Direct-on-line (DOL)	3.8	13.4	72.6	77.4	79	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.11.A.EX.4.60F	155	0.00964	PN 10	12	0.00260	14
SEV.80.80.11.A.EX.4.60G	155	0.00964	PN 10	12	0.00260	19

SEV.80.80.13.4



TM087485

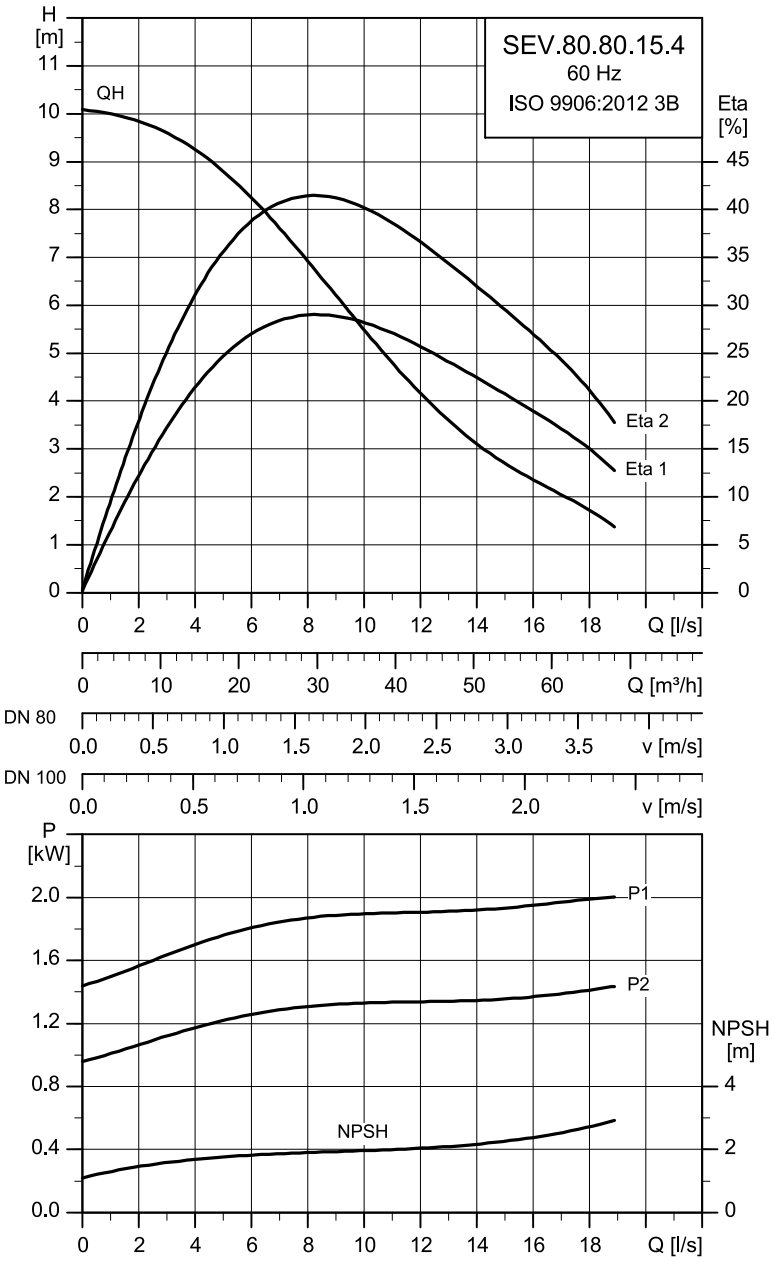
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.13.A.EX.4.60F	230	1.8	1.3	4	1724	Direct-on-line (DOL)	5.128	29.5	75.9	78.8	78.4	0.67	0.76	0.81
SEV.80.80.13.A.EX.4.60G	460	1.8	1.3	4	1749	Direct-on-line (DOL)	4.2	20.2	72.5	77.7	79	0.53	0.65	0.73

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.13.A.EX.4.60F	163	0.01113	PN 10	12	0.00330	19.4
SEV.80.80.13.A.EX.4.60G	163	0.01113	PN 10	12	0.00330	26.5

SEV.80.80.15.4



TM087486

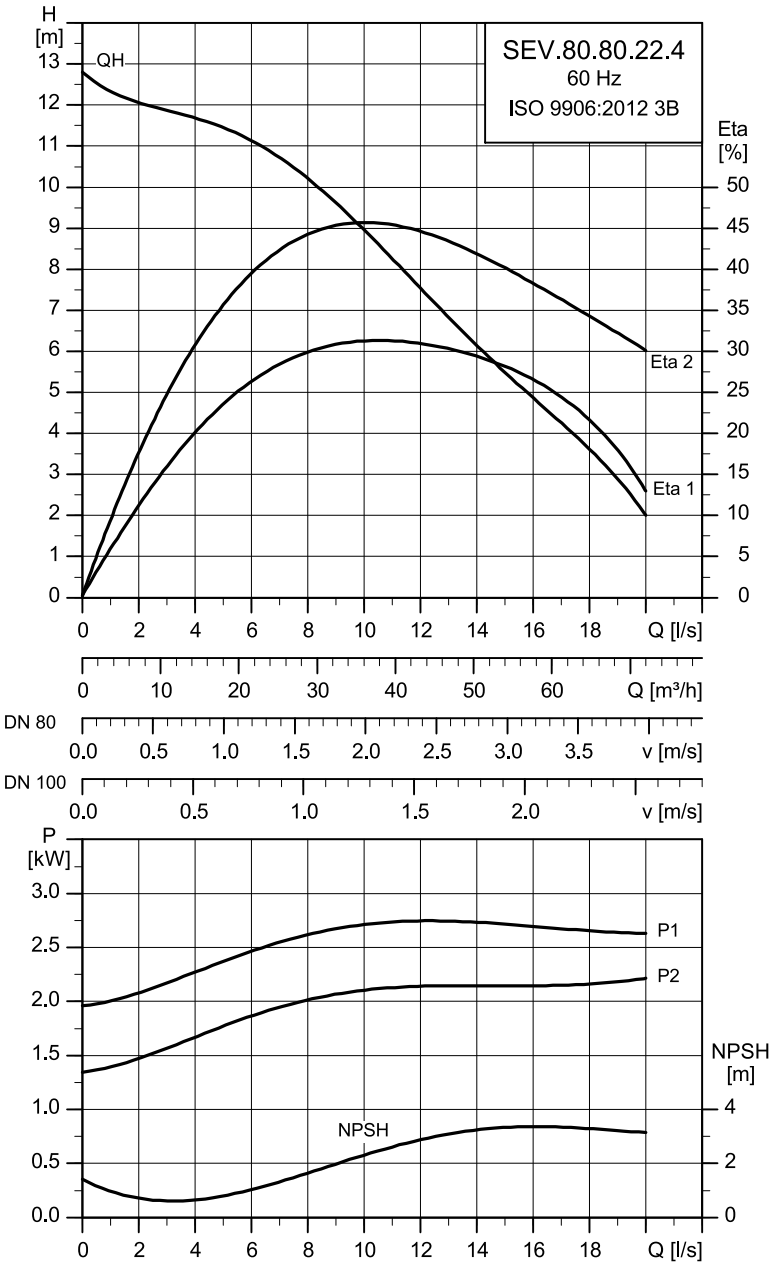
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.15.A.EX.4.60F	230	2.1	1.5	4	1703	Direct-on-line (DOL)	7.3	29.5	77.5	79	77.1	0.71	0.79	0.83
SEV.80.80.15.A.EX.4.60G	460	2.1	1.5	4	1739	Direct-on-line (DOL)	4.2	20.2	74.7	78.9	80	0.57	0.69	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.80.15.A.EX.4.60F	170	0.01250	PN 10	12	0.00330	19.4
SEV.80.80.15.A.EX.4.60G	170	0.01250	PN 10	12	0.00330	26.5

SEV.80.80.22.4



TM087487

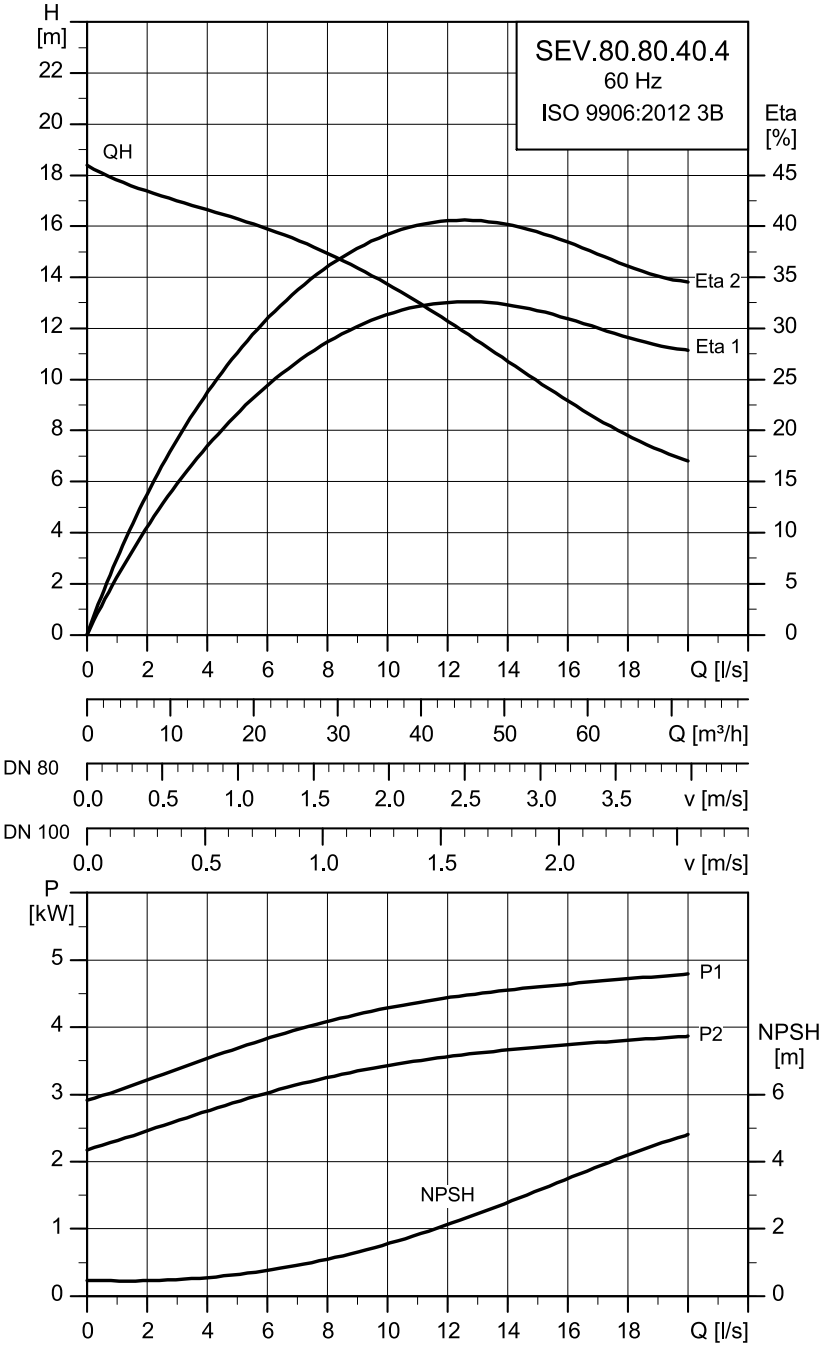
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.22.A.EX.4.60F	230	2.8	2.2	4	1717	Direct-on-line (DOL)	8.19	51.5	80.6	82.1	81	0.69	0.78	0.83
SEV.80.80.22.A.EX.4.60G	460	2.8	2.2	4	1743	Direct-on-line (DOL)	5.9	35.5	77.2	81.1	82.4	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.22.A.EX.4.60F	188	0.01639	PN 10	12	0.00440	33.5
SEV.80.80.22.A.EX.4.60G	188	0.01639	PN 10	12	0.00440	45.5

SEV.80.80.40.4



TM087488

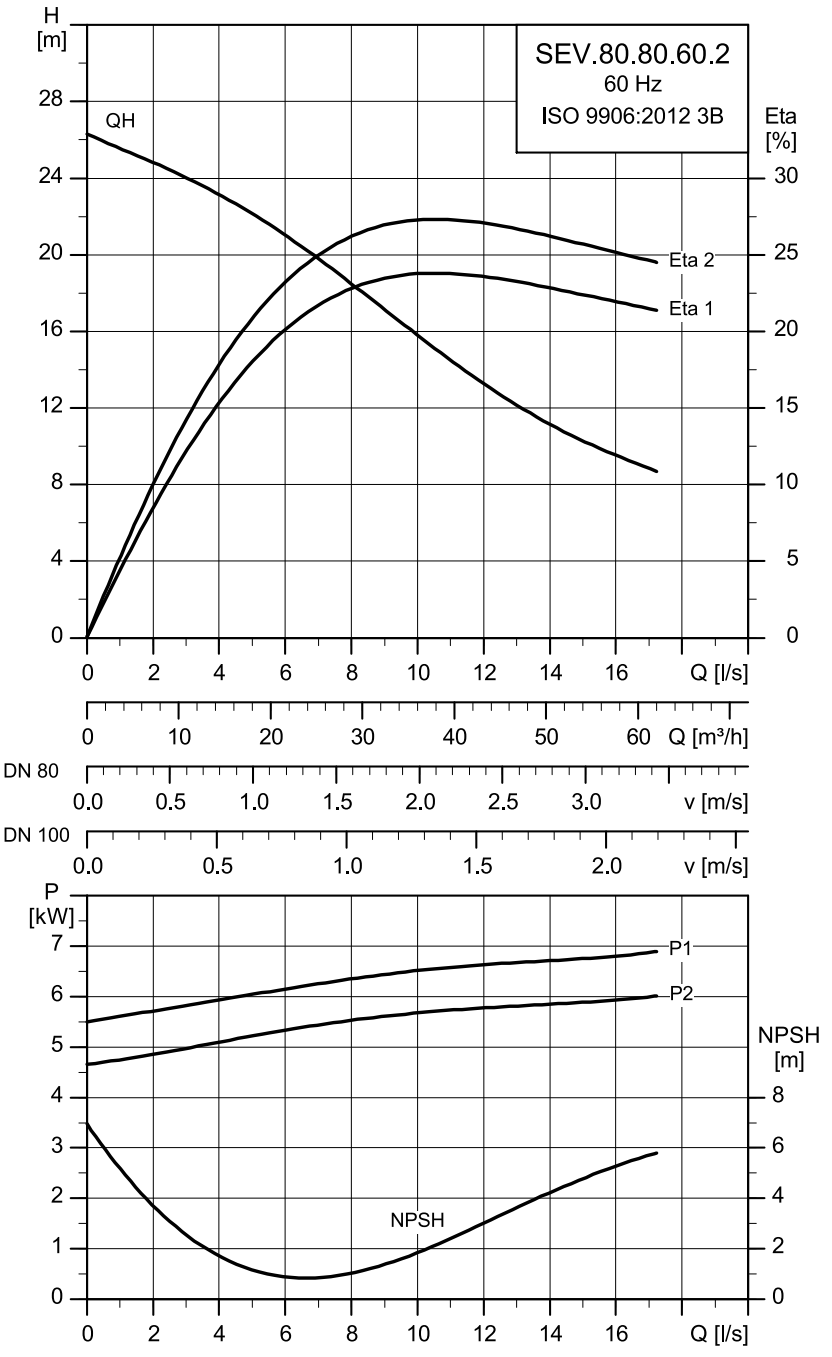
Motor data

Pump type	Voltage [V]	P1 [Hp]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.40.A.EX.4.61F	230	6.646	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.80.40.A.EX.4.61F	208	0.03780	PN 10	12	0.01280	52
						71

SEV.80.80.60.2



TM087489

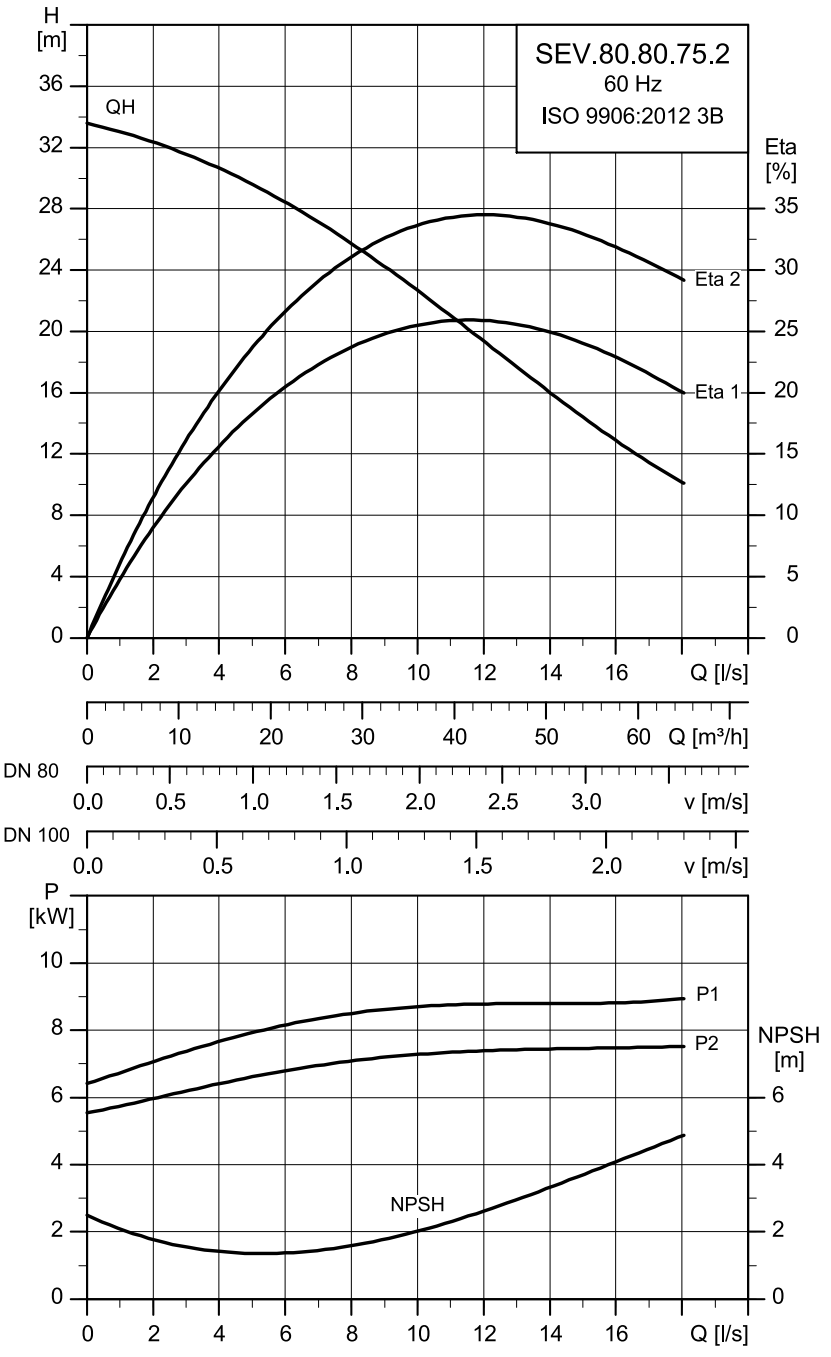
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.60.A.EX.2.61F	230	6.8	5.9	2	3510	Star-delta (YD)	19.3	214	85.8	87.9	88.2	0.76	0.85	0.88
	460						10.9	146	83.5	86.9	88.2	0.56	0.7	0.78

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.60.A.EX.2.61F	151	0.00718	PN 10	12	0.00800	74.5
						104

SEV.80.80.75.2



TM087490

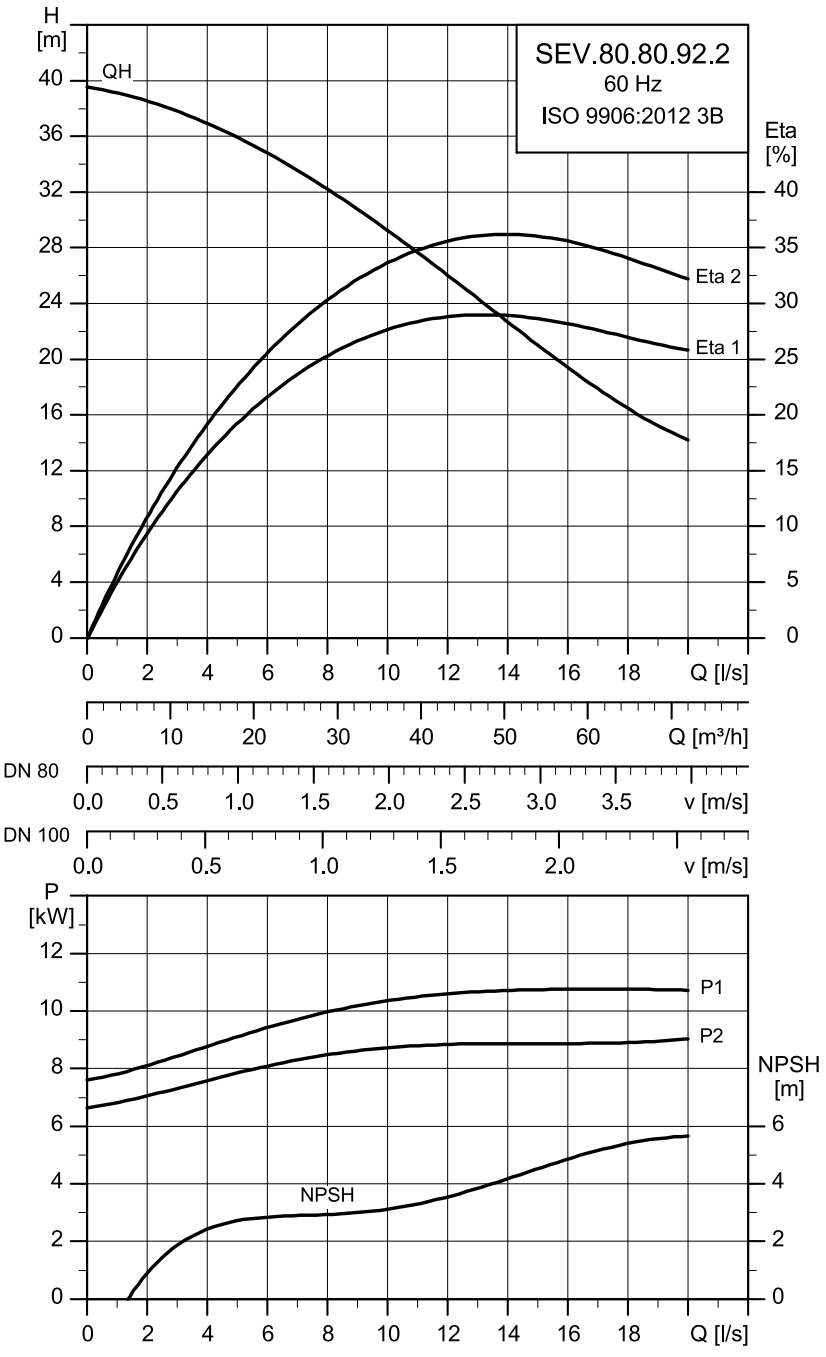
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.75.A.EX.2.61F	230	8.6	7.4	2	3484	Star-delta (YD)	23.72	214	87.2	88.2	87.7	0.81	0.88	0.9
	460						12.8	146	85.6	88	88.6	0.64	0.76	0.83

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.75.A.EX.2.61F	165	0.00997	PN 10	12	0.00800	74.5
						104

SEV.80.80.92.2



TM087491

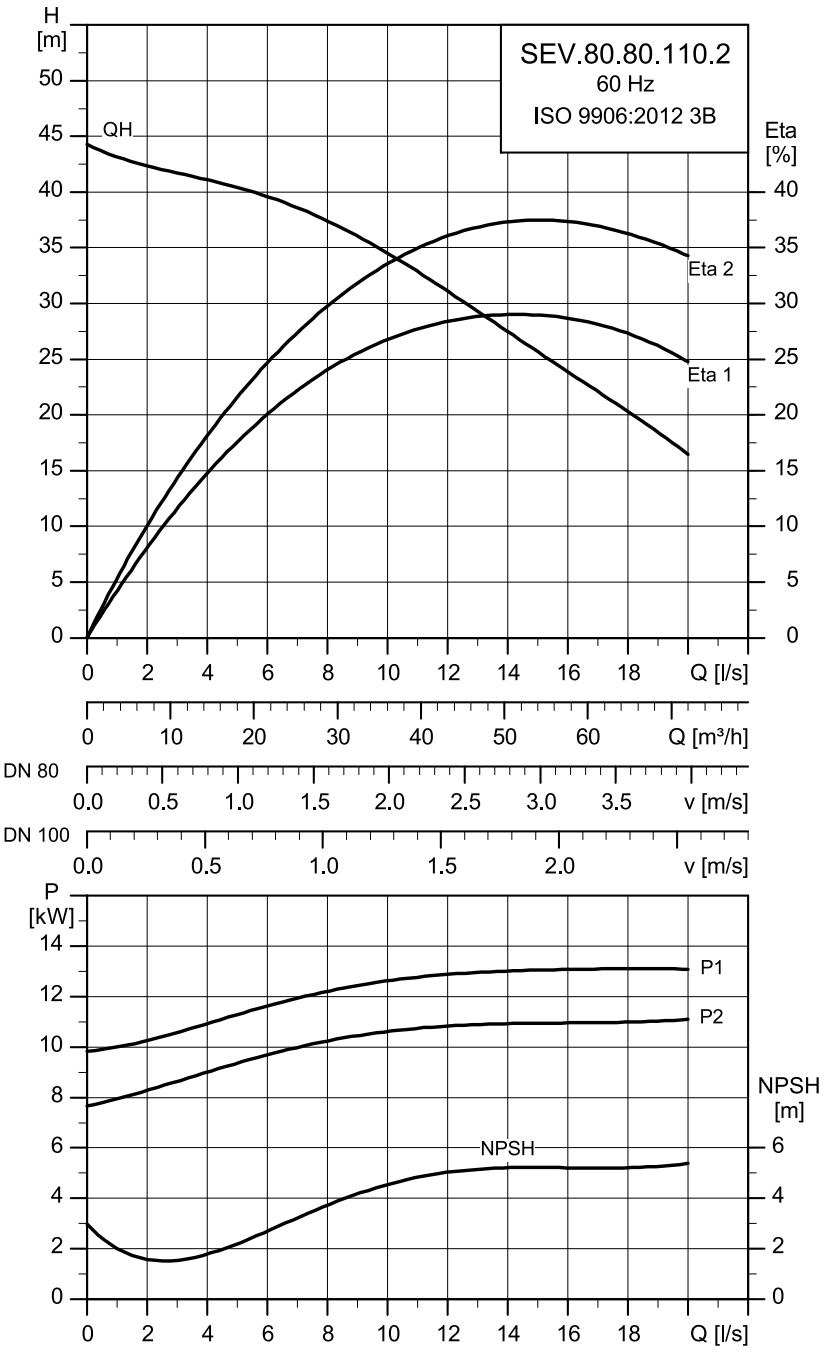
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.92.A.EX.2.61F	230	10.9	9.2	2	3496	Star-delta (YD)	34.73	164	90.1	90.1	88.6	0.65	0.73	0.75
	460						20.5	112	86.4	88.5	88.9	0.43	0.55	0.63

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.80.92.A.EX.2.61F	173	0.01235	PN 10	12	0.01580	49.5
						71.5

SEV.80.80.110.2



TM087492

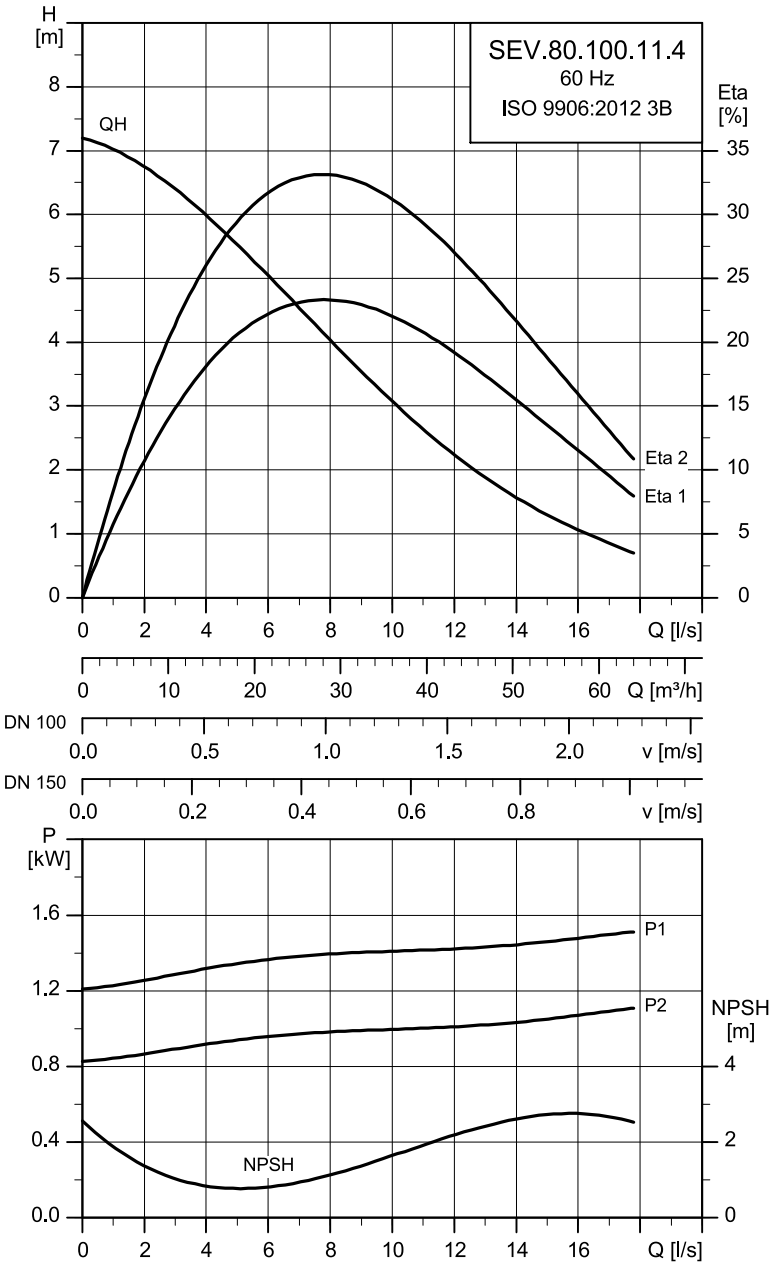
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.80.110.A.EX.2.61F	230	12.3	11	2	3503	Star-delta (YD)	43.78	206	88.8	89.5	88.5	0.54	0.66	0.71
	460						29.7	144	81.8	85.3	86.5	0.33	0.45	0.54

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.80.110.A.EX.2.61F	181	0.01469	PN 10	12	0.01580	65
						104

SEV.80.100.11.4



TM087493

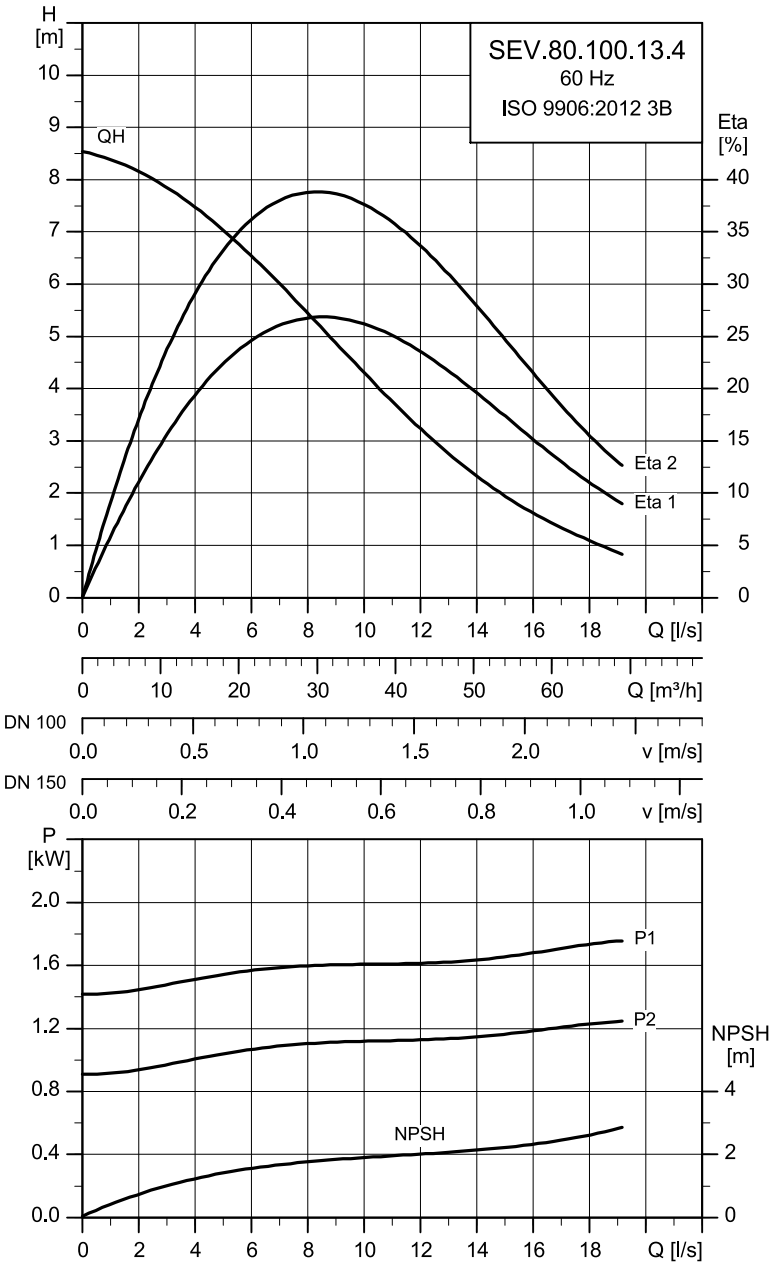
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.11.A.EX.4.60F	230	1.5	1.1	4	1714	Direct-on-line (DOL)	4.28	19.8	76.8	78.5	77.5	0.68	0.78	0.83
SEV.80.100.11.A.EX.4.60G	460	1.5	1.1	4	1742	Direct-on-line (DOL)	3.8	13.4	72.6	77.4	79	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.11.A.EX.4.60F	155	0.00964	PN 10	12	0.00260	14
SEV.80.100.11.A.EX.4.60G	155	0.00964	PN 10	12	0.00260	19

SEV.80.100.13.4



TM087494

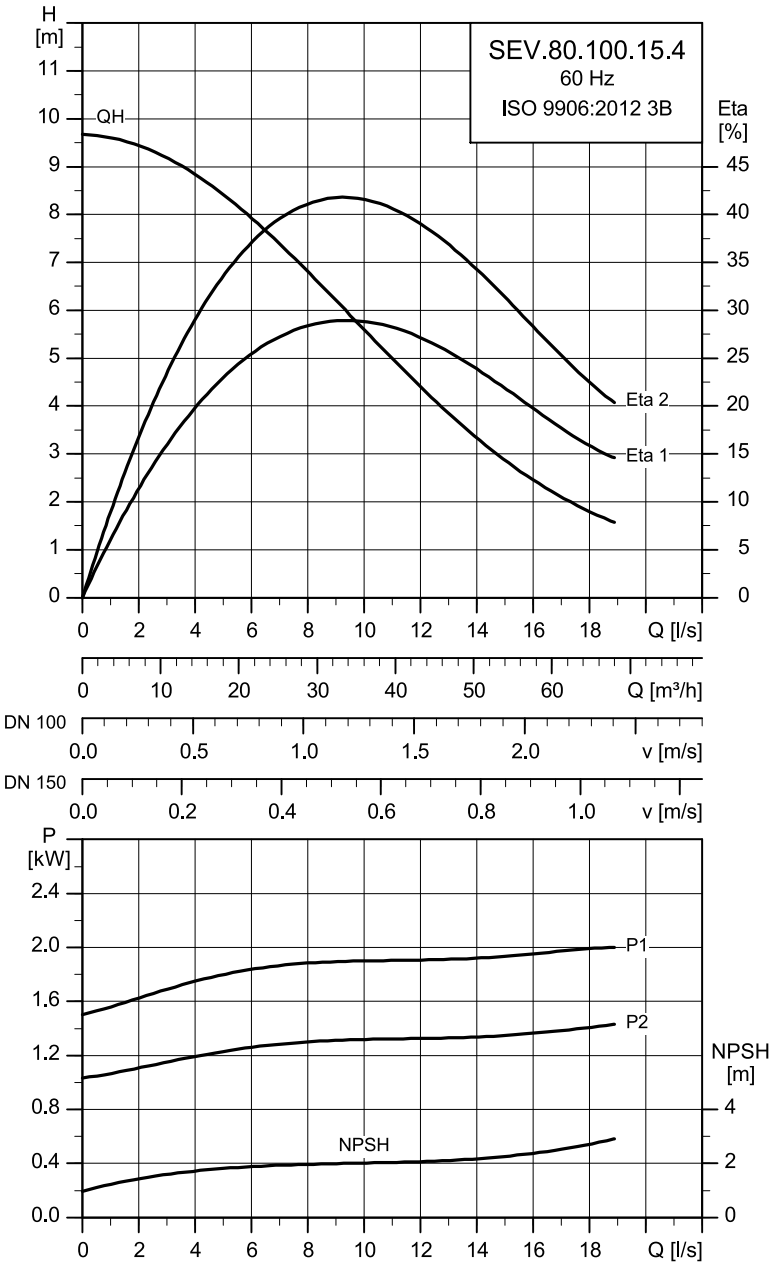
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.13.A.EX.4.60F	230	1.8	1.3	4	1724	Direct-on-line (DOL)	5.128	29.5	75.9	78.8	78.4	0.67	0.76	0.81
SEV.80.100.13.A.EX.4.60G	460	1.8	1.3	4	1749	Direct-on-line (DOL)	4.2	20.2	72.5	77.7	79	0.53	0.65	0.73

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.13.A.EX.4.60F	163	0.01113	PN 10	12	0.00330	19.4
SEV.80.100.13.A.EX.4.60G	163	0.01113	PN 10	12	0.00330	26.5

SEV.80.100.15.4



TM087495

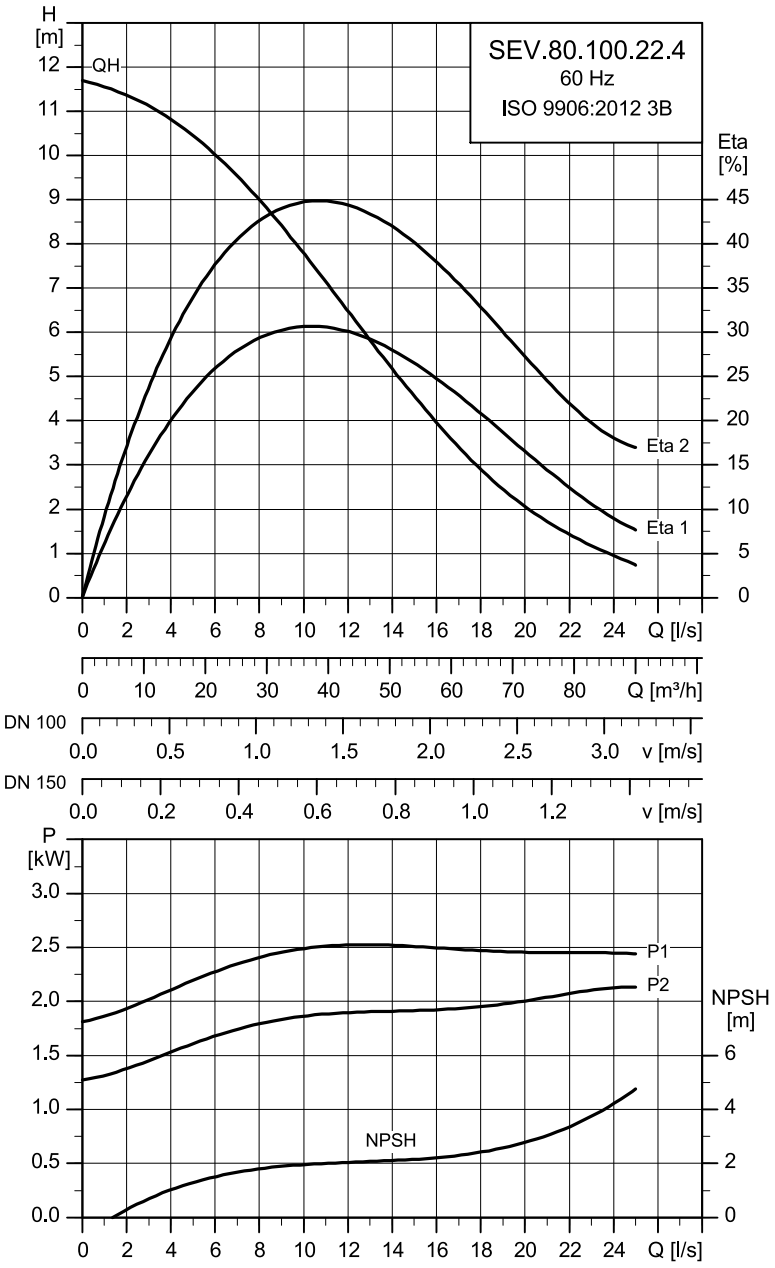
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.15.A.EX.4.60F	230	2.1	1.5	4	1703	Direct-on-line (DOL)	7.3	29.5	77.5	79	77.1	0.71	0.79	0.83
SEV.80.100.15.A.EX.4.60G	460	2.1	1.5	4	1739	Direct-on-line (DOL)	4.2	20.2	74.7	78.9	80	0.57	0.69	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.15.A.EX.4.60F	170	0.01250	PN 10	12	0.00330	19.4
SEV.80.100.15.A.EX.4.60G	170	0.01250	PN 10	12	0.00330	26.5

SEV.80.100.22.4



TM087496

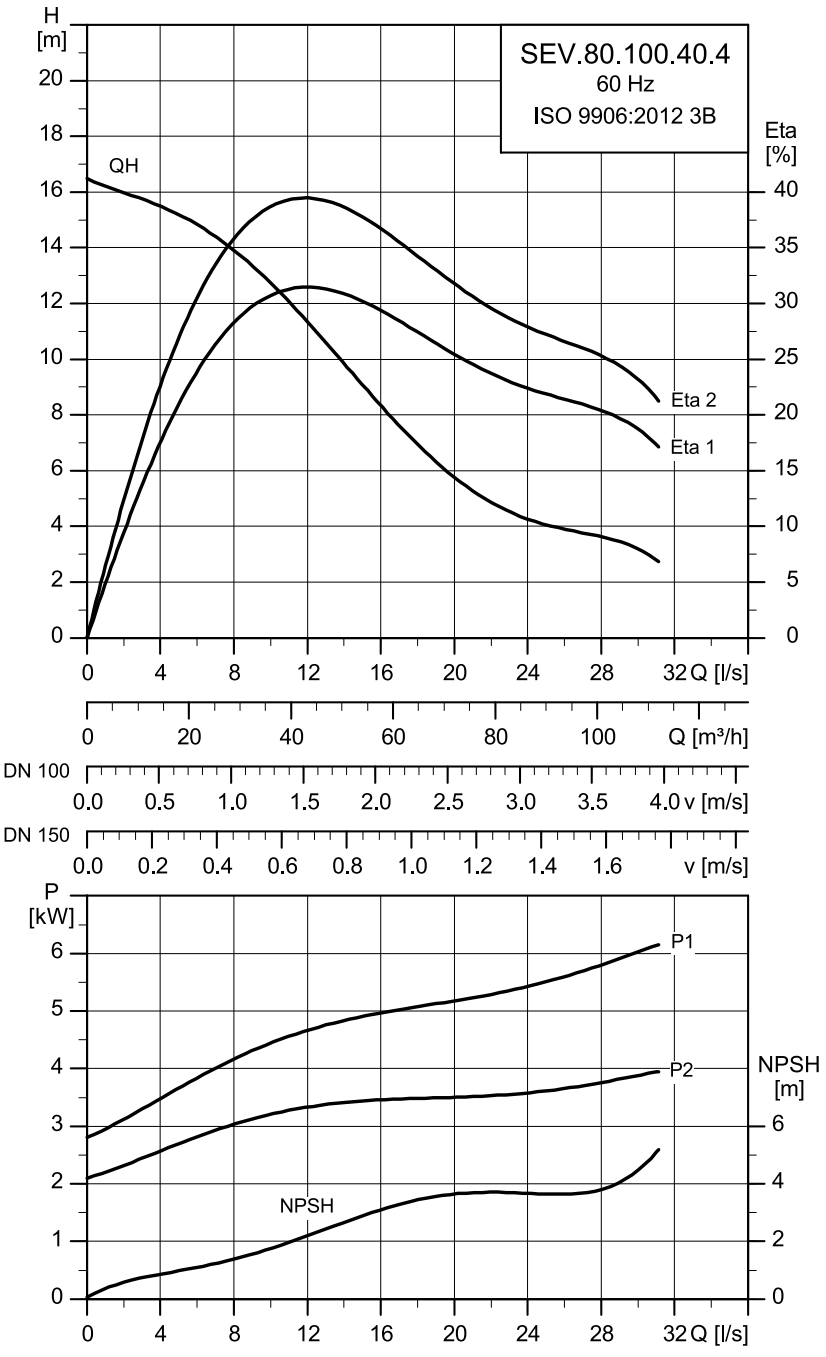
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.22.A.EX.4.60F	230	2.8	2.2	4	1717	Direct-on-line (DOL)	8.19	51.5	80.6	82.1	81	0.69	0.78	0.83
SEV.80.100.22.A.EX.4.60G	460	2.8	2.2	4	1743	Direct-on-line (DOL)	5.9	35.5	77.2	81.1	82.4	0.52	0.65	0.74

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.22.A.EX.4.60F	184	0.01547	PN 10	12	0.00440	33.5
SEV.80.100.22.A.EX.4.60G	184	0.01547	PN 10	12	0.00440	45.5

SEV.80.100.40.4



TM087497

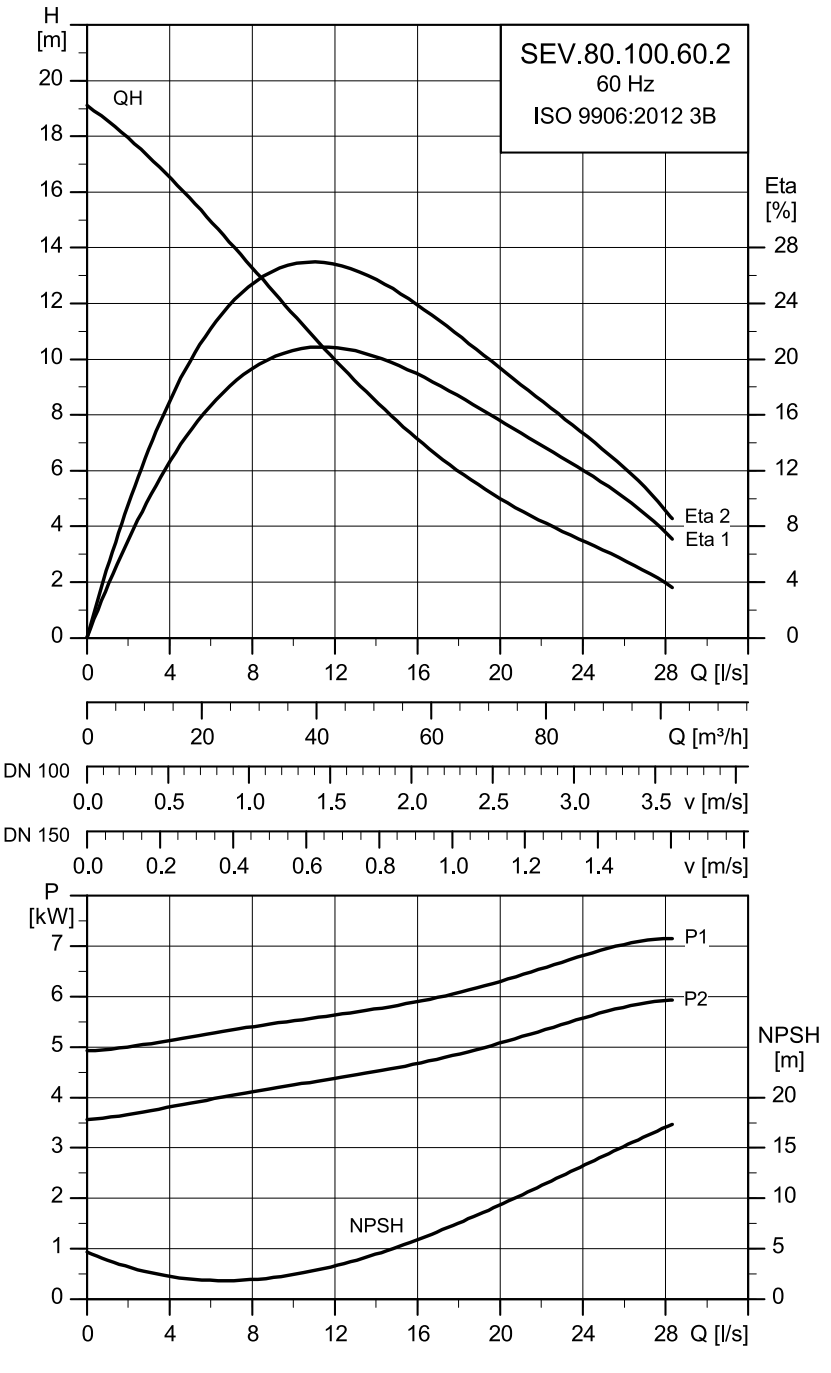
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.40.A.EX.4.61F	230	4.9	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.40.A.EX.4.61F	203	0.03702	PN 10	12	0.01280	52
						71

SEV.80.100.60.2



TM087498

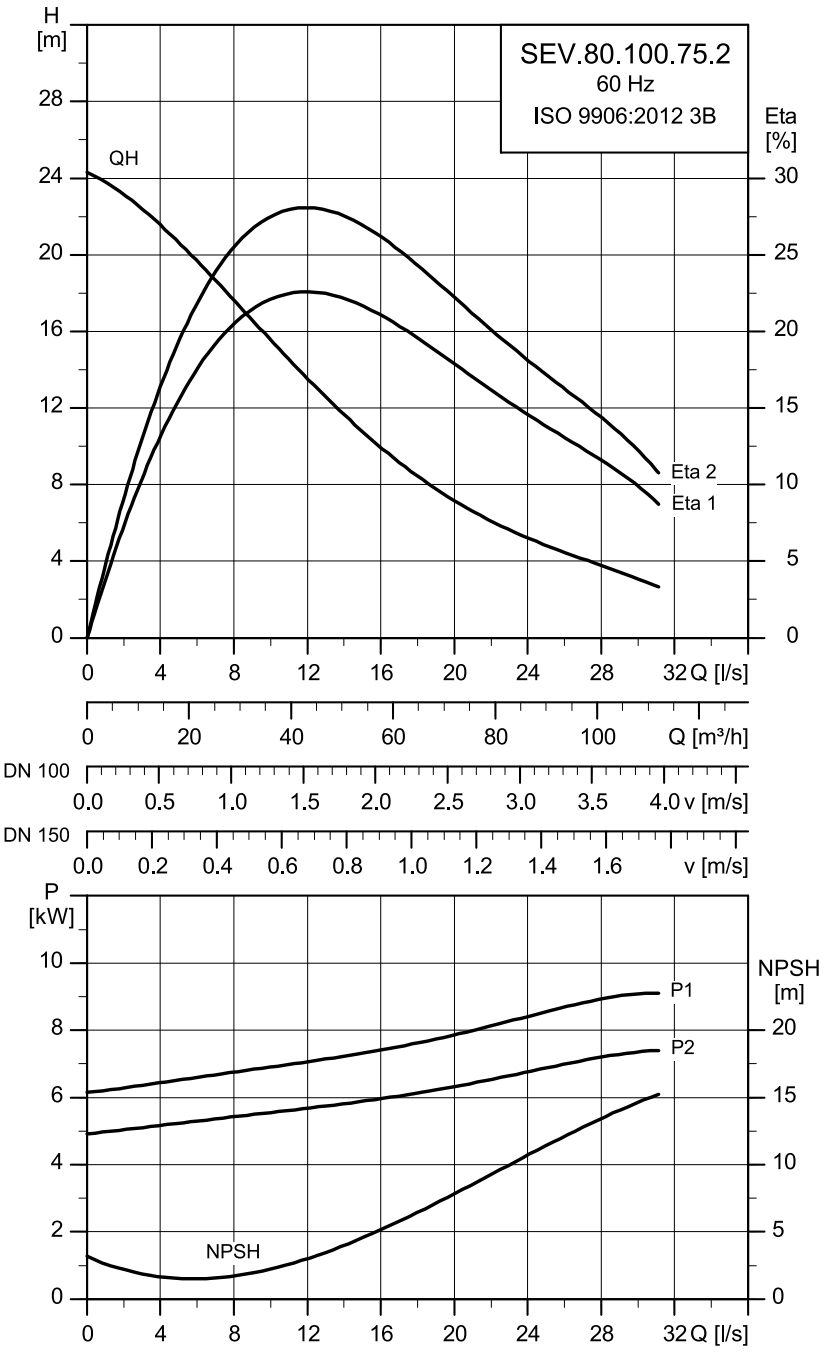
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.60.A.EX.2.61F	230	7.1	5.9	2	3510	Star-delta (YD)	19.3	214	85.8	87.9	88.2	0.76	0.85	0.88
	460						10.9	146	83.5	86.9	88.2	0.56	0.7	0.78

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.60.A.EX.2.61F	142	0.00652	PN 10	12	0.00800	74.5
						104

SEV.80.100.75.2



TM087499

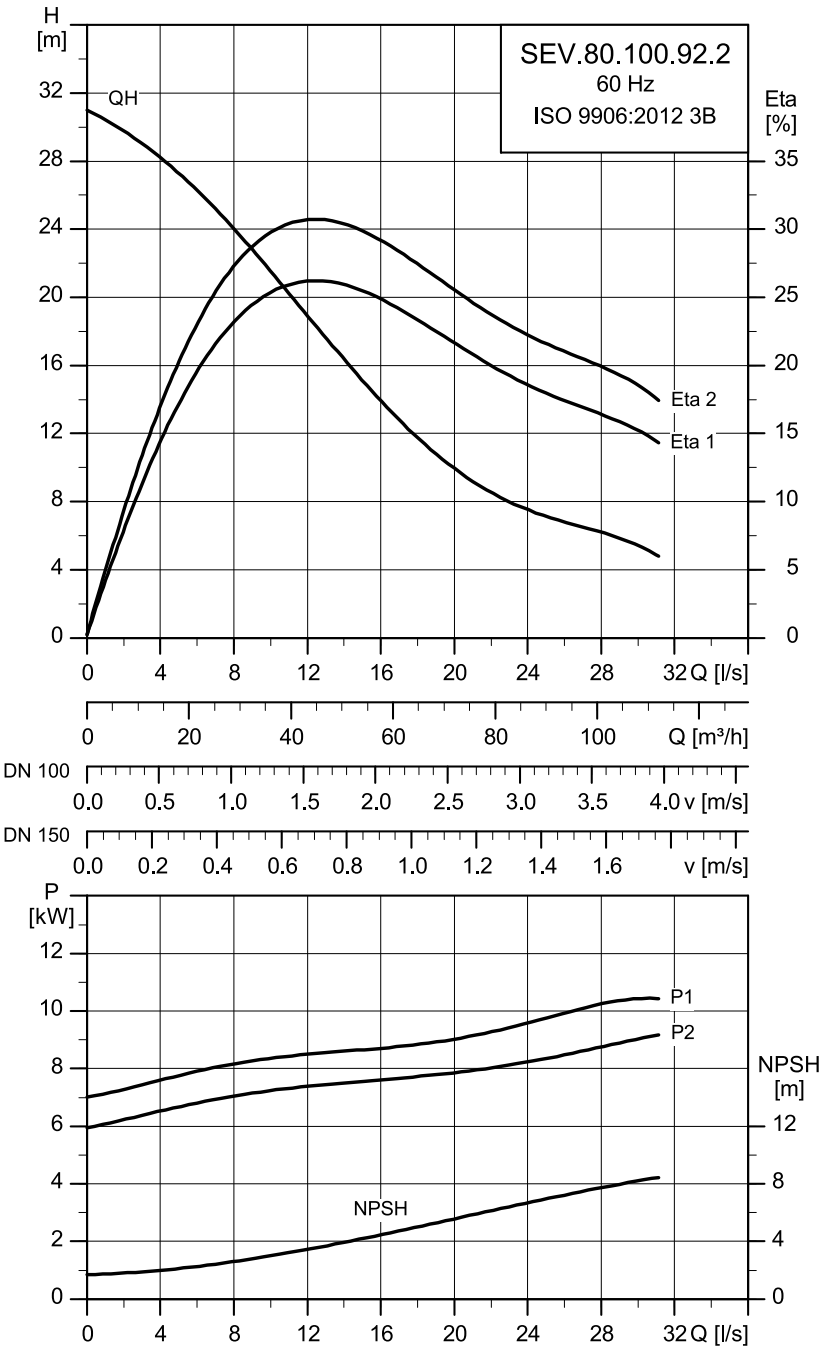
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.75.A.EX.2.61F	230	9.1	7.4	2	3484	Star-delta (YD)	23.72	214	87.2	88.2	87.7	0.81	0.88	0.9
	460						12.8	146	85.6	88	88.6	0.64	0.76	0.83

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.75.A.EX.2.61F	153	0.00734	PN 10	12	0.00800	74.5
						104

SEV.80.100.92.2



TM087500

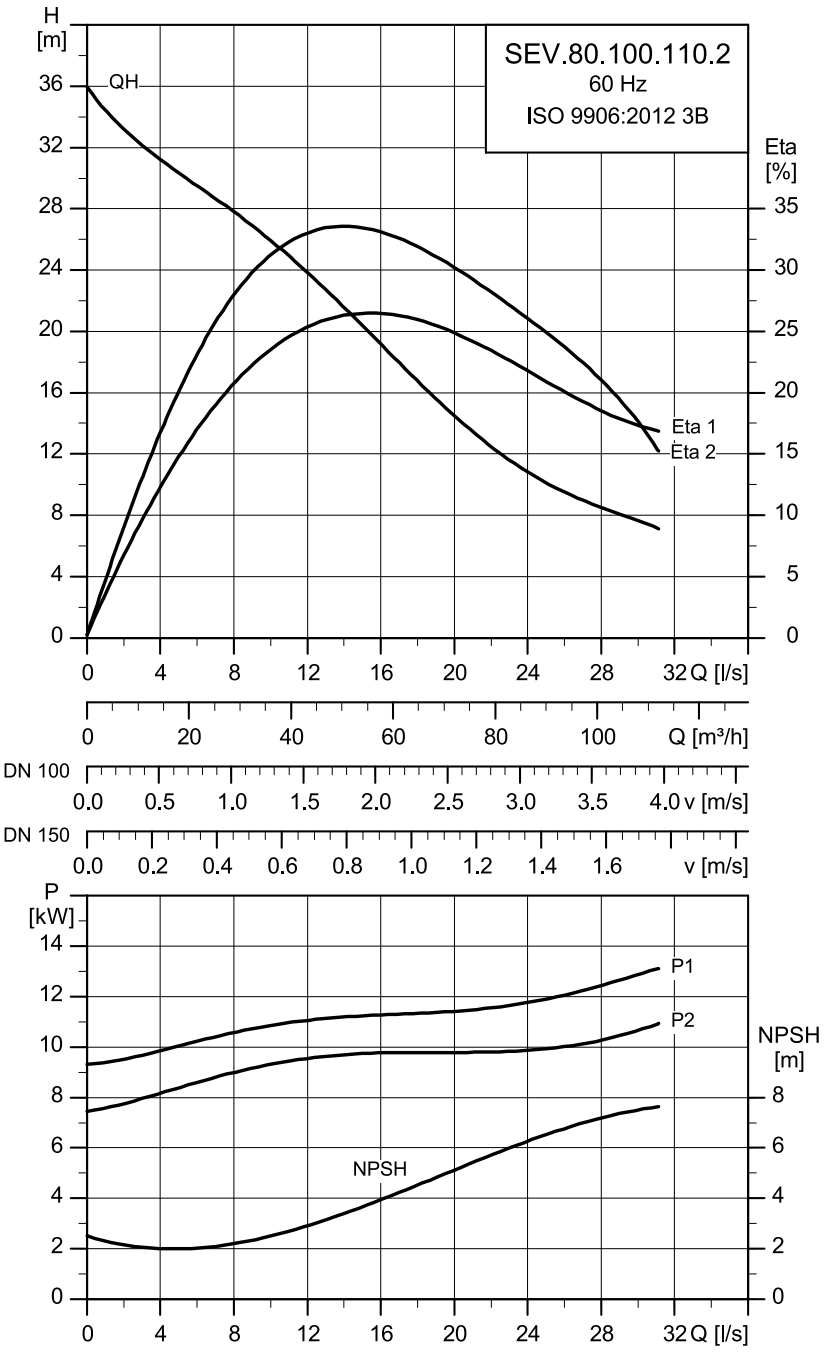
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.92.A.EX.2.61F	230	10.9	9.2	2	3496	Star-delta (YD)	34.73	164	90.1	90.1	88.6	0.65	0.73	0.75
	460						20.5	112	86.4	88.5	88.9	0.43	0.55	0.63

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.80.100.92.A.EX.2.61F	164.5	0.00996	PN 10	12	0.01580	49.5
						71.5

SEV.80.100.110.2



TM087501

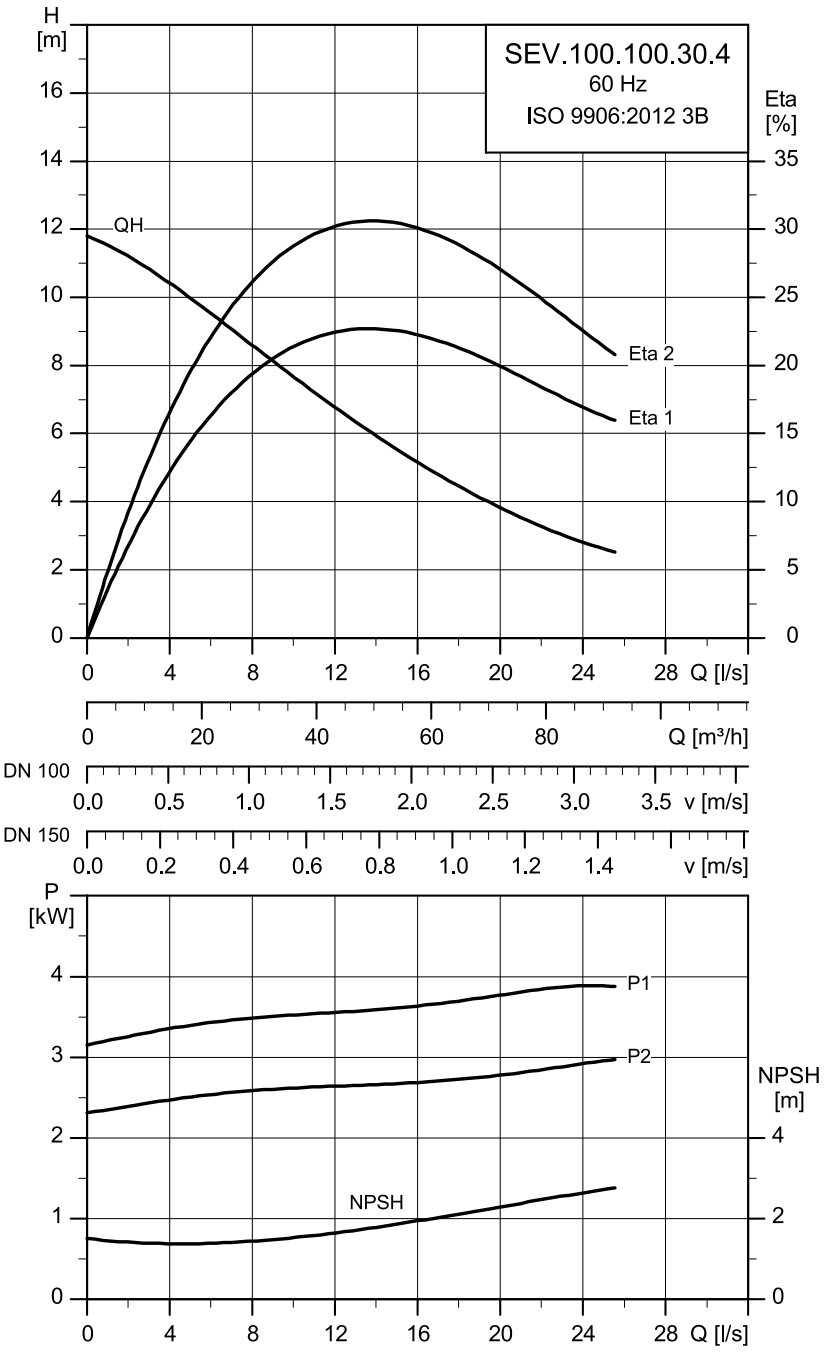
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.80.100.110.A.EX.2.61F	230	13	11	2	3503	Star-delta (YD)	43.78	206	88.8	89.5	88.5	0.54	0.66	0.71
	460						29.7	144	81.8	85.3	86.5	0.33	0.45	0.54

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.80.100.110.A.EX.2.61F	174	0.01261	PN 10	12	0.01580	65
						104

SEV.100.100.30.4



TM087502

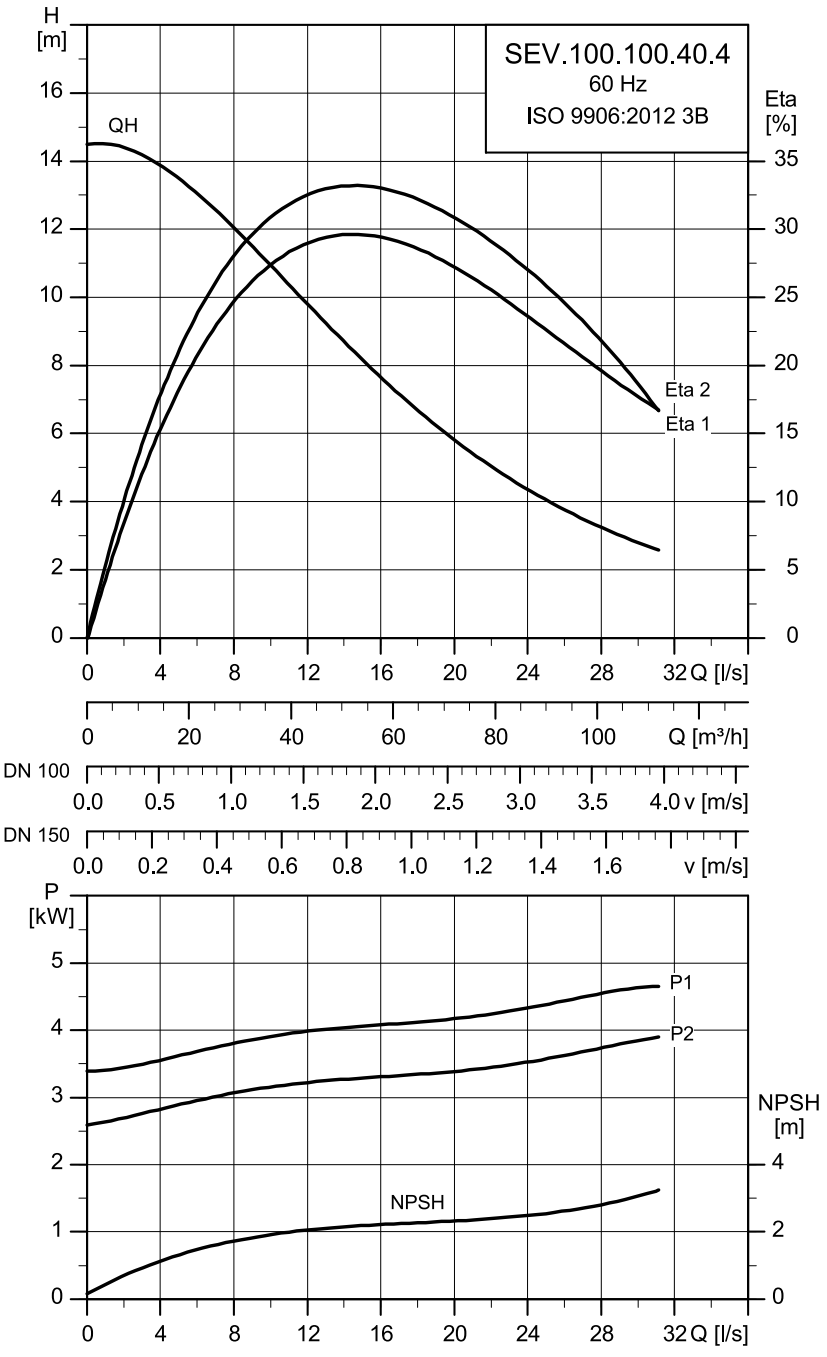
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.100.100.30.A.EX.4.61F	230	3.9	2.9	4	1739	Star-delta (YD)	10.59	68	84.7	85.6	84.8	0.69	0.79	0.83
	460						5.69	47	82.6	85.5	86.3	0.55	0.68	0.76

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.100.100.30.A.EX.4.61F	188	0.03881	PN 10	12	0.01040	47.5
						64.5

SEV.100.100.40.4



TM087503

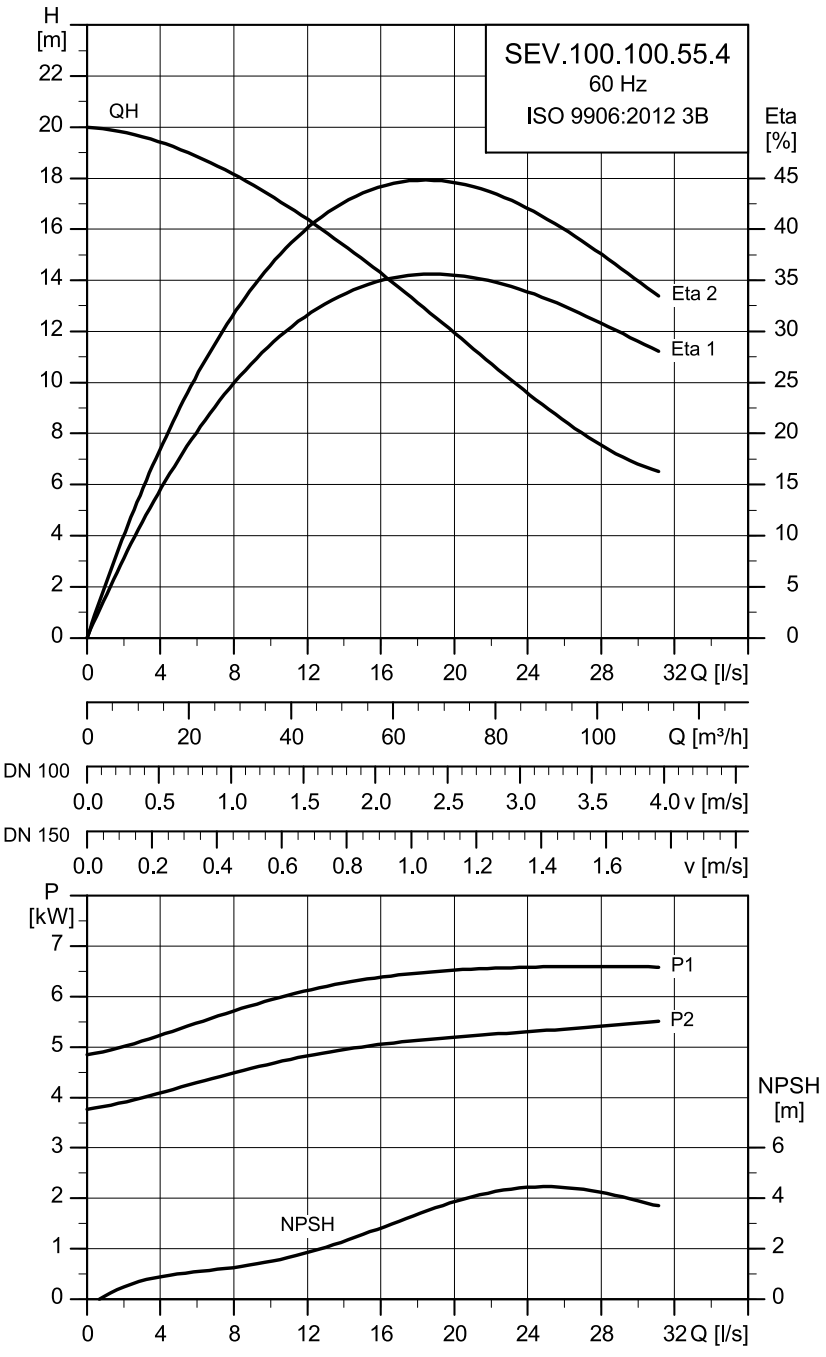
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.100.100.40.A.EX.4.61F	230	4.9	4	4	1741	Star-delta (YD)	14.04	84	86.8	86.9	85.5	0.72	0.8	0.83
	460						7.26	58.5	85.7	87.6	87.7	0.59	0.72	0.79

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.100.100.40.A.EX.4.61F	200	0.04060	PN 10	12	0.01280	52
						71

SEV.100.100.55.4



TM087504

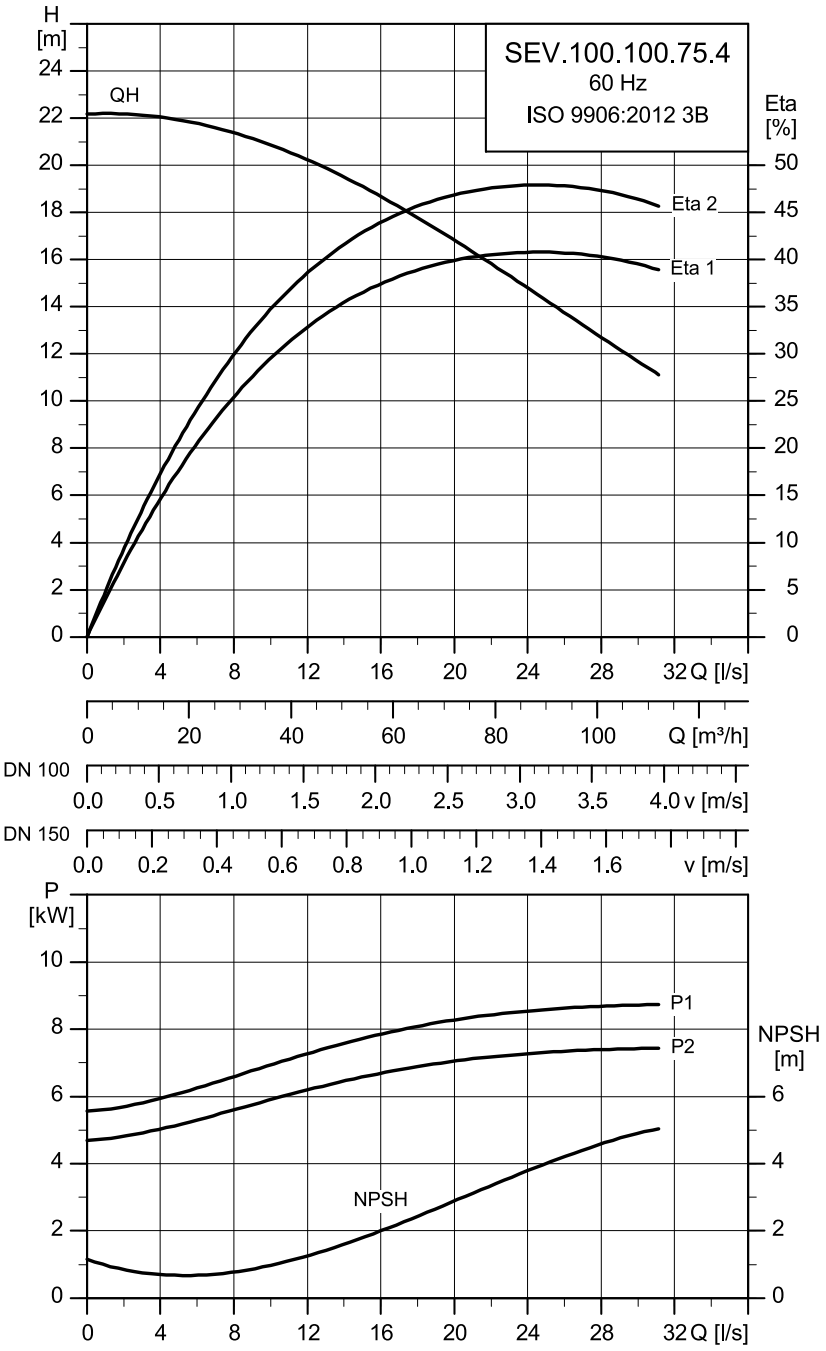
Motor data

Pump type	Voltage [V]	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.100.100.55.A.EX.4.61F	230	6.5	5.5	4	1727	Star-delta (YD)	19.1	120	86.4	86.6	85.1	0.69	0.8	0.85
	460						10.3	82.5	84.4	86.6	86.8	0.54	0.68	0.77

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm²]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm²]	Breakdown torque M_{max} [Nm]
SEV.100.100.55.A.EX.4.61F	226	0.04492	PN 10	12	0.01420	89
						120

SEV.100.100.75.4



TM087505

Motor 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		
									1/2	3/4	1/1	1/2	3/4	1/1
SEV.100.100.75.A.EX.4.61F	230	9.1	7.4	2	3484	Star-delta (YD)	23.72	214	87.2	88.2	87.7	0.81	0.88	0.9
	460						12.8	146	85.6	88	88.6	0.64	0.76	0.83

Pump data

Pump type	Impeller diameter [mm]	Moment of inertia (impeller) [kgm^2]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth	Moment of inertia (motor) [kgm^2]	Breakdown torque M_{max} [Nm]
SEV.100.100.75.A.EX.4.61F	153	0.00734	PN 10	12	0.00800	74.5
						104

10. Accessories

Installation systems

Picture	Description	Dimensions	Material	SE1.50.65	SE1.50.80	SE1.80.80	SE1.80.100	SE1.100.100	SE1.100.150	SEV.65.65	SEV.65.80	SEV.80.80	SEV.80.100	SEV.100.100	Product number
 TM044490	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 metres, consider using intermediate guide rail brackets to support your system.	DN 65	Cast iron	•						•					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
		DN 65	Stainless steel [9], 1.4408	•						•					96825104
		DN 80			•	•					•	•			96825106
		DN 100					•	•					•	•	96825108
		DN 150							•						96945381
 TM054253	Intermediate guide rail brackets in stainless steel.	DN 65	Stainless steel	•						•					96825119
		DN 80				•					•	•			96825142
		DN 100					•	•					•	•	96825161
		DN 150							•						96887674

Picture	Description	Dimensions	Material	SE1.50.65	SE1.50.80	SE1.80.80	SE1.80.100	SE1.100.100	SE1.100.150	SEV.65.65	SEV.65.80	SEV.80.80	SEV.80.100	SEV.100.100	Product number
 TM046086	Ring stand with flanged 90° elbow and hose connection. With bolts, nuts, and gaskets.	DN 65/DN 65	Cast iron, epoxy-coated	•											96102253
		DN 65/DN 80			•										96102378
		DN 80/DN 65								•					96102439
		DN 80/DN 80									•	•			96102254
		DN 100/DN 80				•									96102313
		DN 80/DN 100											•		96943236
		DN 100/DN 100					•							•	96102255
		DN 150/DN 100	Galvanised steel					•							96102314
		DN 150/DN 150							•						96102256
	Ring stand with flanged 90° elbow and outside thread connection. With bolts, nuts, and gaskets.	DN 65/DN 65	Cast iron, epoxy-coated	•											96102379
		DN 65/DN 80			•										96102380
		DN 80/DN 65								•					96102440
		DN 80/DN 80									•	•			96102381
		DN 100/DN 80				•									96102382
		DN 80/DN 100											•		96943236
		DN 100/DN 100					•							•	96102383
		DN 150/DN 100	Galvanised steel					•							96102384
		DN 150/DN 150							•						96102385
 TM044493	Base stand for vertical dry installation, including 90° elbow. Galvanised steel. With bolts, gaskets and anchor bolts.	DN 65	Galvanised steel	•	•										96102257
		DN 80								•	•	•	•		96102258
		DN 100/DN 80								•	•	•	•		96567174
		DN 100				•	•							•	96102259
		DN 150/DN 100				•	•				•			•	96567175
		DN 150						•	•						96102260
		DN 200/DN 150						•	•						96567176

Picture	Description	Dimensions	Material	SE1.50.65	SE1.50.80	SE1.80.80	SE1.80.100	SE1.100.100	SE1.100.150	SEV.65.65	SEV.65.80	SEV.80.80	SEV.80.100	SEV.100.100	Product number
 TM044494	Brackets for horizontal dry installation.	DN 65	Galvanised steel	•	•										93086375
		DN 65		•	•										93086379
		DN 80								•	•				93086381
		DN 80										•	•		93086381
		DN 80								•	•	•	•		93086383
		DN 80										•	•		93086383
		DN 80										•	•		93086385
		DN 100				•	•								93086387
		DN 100				•	•							•	93086389
		DN 100				•	•							•	93086401
		DN 150						•	•						93086402
		DN 150						•	•						93086403
 TM044506	With bolts, gaskets and anchor bolts.	DN 65	Stainless steel [9], 1.4401	•	•										98433369
		DN 65		•	•										98433370
		DN 80								•	•				98433363
		DN 80										•	•		98433363
		DN 80								•	•	•	•		98433365
		DN 80										•	•		98433365
		DN 80										•	•		98433372
		DN 100				•	•								98433366
		DN 100				•	•								98433364
		DN 100				•	•								98433367
		DN 150						•	•						98433371
		DN 150						•	•						98433368

9) Available only on request. For more information, contact Grundfos.

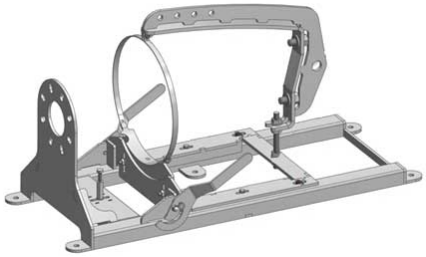
Lifting chain

- complete, certified lifting chain for all pump types
- maximum load: 800 kg
- material variants:
  - galvanised steel
  - stainless steel.

TM026126

Material	Length [m]	Product number
Galvanised steel	2	98425759
	4	98425760
	6	98425781
	8	98425782
	10	98425783
Stainless steel	2	98425796
	4	98425797
	6	98425798
	8	98425799
	10	98425800

Service sledge

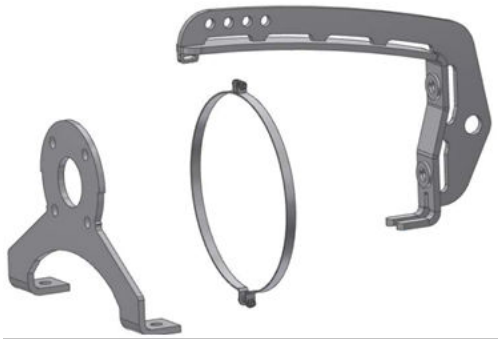


TM080185

Pump to be installed					Service sledge	
Pump/Impeller type	Pump passage [mm]	Pump outlet	Power [kW]	Poles	Service sledge type key	Product number
SE sledge: B.SE1.50.2.2-3.2.50 DIN						
SE1	50	65	22	2	SE sledge: SE1.50.65.2.2.2.50 DIN	
SE1	50	65	30	2	SE sledge: SE1.50.65.3.2.50 DIN	98827089
SE1	50	80	22	2	SE sledge: SE1.50.80.2.2.2.50 DIN	
SE1	50	80	30	2	SE sledge: SE1.50.80.3.2.50 DIN	
SE sledge: B.SEV.65.2/SE1.80.4.50 DIN						
SEV	65	65	22	2	SE sledge: SEV.65.65.2.2.2.50 DIN	
SEV	65	65	30	2	SE sledge: SEV.65.65.3.2.50 DIN	
SEV	65	80	22	2	SE sledge: SEV.65.80.2.2.2.50 DIN	
SEV	65	80	30	2	SE sledge: SEV.65.80.3.2.50 DIN	98902585
SE1	80	80	15	4	SE sledge: SE1.80.80.1.5.4.50 DIN	
SE1	80	80	22	4	SE sledge: SE1.80.80.2.2.4.50 DIN	
SE1	80	100	15	4	SE sledge: SE1.80.100.1.5.4.50 DIN	
SE1	80	100	22	4	SE sledge: SE1.80.100.2.2.4.50 DIN	
SE sledge: B.SEV.80.80.4.50 DIN						
SEV	80	80	11	4	SE sledge: SEV.80.80.1.1.4.50 DIN	
SEV	80	80	13	4	SE sledge: SEV.80.80.1.3.4.50 DIN	
SEV	80	80	15	4	SE sledge: SEV.80.80.1.5.4.50 DIN	
SEV	80	80	22	4	SE sledge: SEV.80.80.2.2.4.50 DIN	98902589
SEV	80	100	11	4	SE sledge: SEV.80.100.1.1.4.50 DIN	
SEV	80	100	13	4	SE sledge: SEV.80.100.1.3.4.50 DIN	
SEV	80	100	15	4	SE sledge: SEV.80.100.1.5.4.50 DIN	
SEV	80	100	22	4	SE sledge: SEV.80.100.2.2.4.50 DIN	
SE sledge: C.SE1.50.4.2.50 DIN						
SE1	50	65	40	2	SE sledge: SE1.50.65.4.2.50 DIN	98827090
SE1	50	65	40	2	SE sledge: SE1.50.65.4.2.50 DIN	
SE sledge: C.SEV.65.4.2.50 DIN						
SEV	65	65	40	2	SE sledge: SEV.65.65.4.2.50 DIN	98902602
SEV	65	80	40	2	SE sledge: SEV.65.80.4.2.50 DIN	

Pump to be installed					Service sledge	
Pump/Impeller type	**Pump passage [mm]**	**Pump outlet**	**Power [kW]**	**Poles**	**Service sledge type key**	**Product number**
SE sledge: C.SEV.80.SE1.80.50 DIN						
SEV	80	80	40	4	SE sledge: SEV.80.80.4.4.50 DIN	
SEV	80	80	40	2	SE sledge: SEV.80.80.4.2.50 DIN	
SEV	80	80	60	2	SE sledge: SEV.80.80.6.2.50 DIN	
SEV	80	80	75	2	SE sledge: SEV.80.80.7.5.2.50 DIN	
SEV	80	100	40	4	SE sledge: SEV.80.100.4.4.50 DIN	
SEV	80	100	40	2	SE sledge: SEV.80.100.4.2.50 DIN	
SEV	80	100	60	2	SE sledge: SEV.80.100.6.2.50 DIN	98902603
SEV	80	100	75	2	SE sledge: SEV.80.100.7.5.2.50 DIN	
SE1	80	80	30	4	SE sledge: SE1.80.80.3.4.50 DIN	
SE1	80	80	40	4	SE sledge: SE1.80.80.4.4.50 DIN	
SE1	80	80	55	4	SE sledge: SE1.80.80.5.5.4.50 DIN	
SE1	80	100	30	4	SE sledge: SE1.80.100.3.4.50 DIN	
SE1	80	100	40	4	SE sledge: SE1.80.100.4.4.50 DIN	
SE1	80	100	55	4	SE sledge: SE1.80.100.5.5.4.50 DIN	
SE sledge: C.SEV.100.100.50 DIN						
SEV	100	100	40	4	SE sledge: SEV.100.100.4.4.50 DIN	98902606
SEV	100	100	40	4	SE sledge: SEV.100.100.4.4.50 DIN	
SEV	100	100	60	4	SE sledge: SEV.100.100.6.4.50 DIN	
SE sledge: C.SE1.100.100.4.50 DIN						
SE1	100	100	40	4	SE sledge: SE1.100.100.4.4.50 DIN	
SE1	100	100	55	4	SE sledge: SE1.100.100.5.5.4.50 DIN	98902607
SE1	100	150	40	4	SE sledge: SE1.100.150.4.4.50 DIN	
SE1	100	150	55	4	SE sledge: SE1.100.150.5.5.4.50 DIN	
SE sledge: D.SEV.80.SE1.80.50 DIN						
SEV	80	80	92	2	SE sledge: SEV.80.80.9.2.2.50 DIN	
SEV	80	80	110	2	SE sledge: SEV.80.80.11.2.50 DIN	
SEV	80	100	110	2	SE sledge: SEV.80.100.11.2.50 DIN	98827091
SEV	80	100	110	2	SE sledge: SEV.80.100.11.2.50 DIN	
SE1	80	80	75	4	SE sledge: SE1.80.80.7.5.4.50 DIN	
SE1	80	100	75	4	SE sledge: SE1.80.100.7.5.4.50 DIN	
SE sledge: D.SEV.100.75.4.50 DIN						98902608
SEV	100	100	75	4	SE sledge: SEV.100.100.7.5.4.50 DIN	
SE sledge: D.SE1.100.75.4.50 DIN						
SE1	100	100	75	4	SE sledge: SE1.100.100.7.5.4.50 DIN	98902609
SE1	100	150	75	4	SE sledge: SE1.100.150.7.5.4.50 DIN	

Horizontal bracket installation



TM080184

Pump to be installed						Horizontal bracket installation
Pump/Impeller type	**Pump passage [mm]**	**Pump outlet**	**Power [KW]**	**Poles**	**Frequency [Hz]**	**Product number**
Horizontal bracket installation B.65.50 DIN						
SE1	50	65	22	2	50	
SE1	50	65	30	2	50	98902621
SE1	50	80	22	2	50	
SE1	50	80	30	2	50	
Horizontal bracket installation B.80/100.50 DIN						
SEV	65	65	22	2	50	
SEV	65	65	30	2	50	
SEV	65	80	22	2	50	
SEV	65	80	30	2	50	
SE1	80	80	15	4	50	
SE1	80	80	22	4	50	
SE1	80	100	15	4	50	
SE1	80	100	22	4	50	98902622
SEV	80	80	11	4	50	
SEV	80	80	13	4	50	
SEV	80	80	15	4	50	
SEV	80	80	22	4	50	
SEV	80	100	11	4	50	
SEV	80	100	13	4	50	
SEV	80	100	15	4	50	
SEV	80	100	22	4	50	
Horizontal bracket installation C.65.50 DIN						
SE1	50	65	40	2	50	98902623
SE1	50	65	40	2	50	

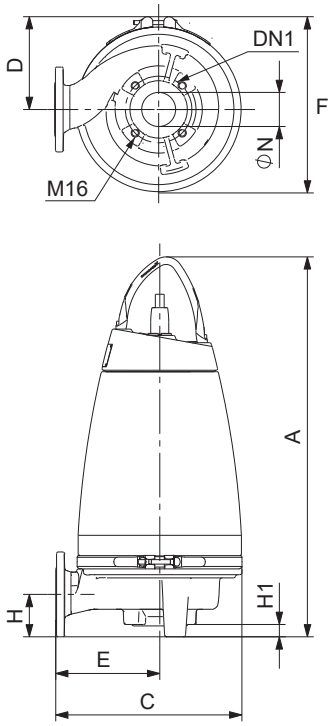
Pump to be installed						Horizontal bracket installation
Pump/Impeller type	Pump passage [mm]	Pump outlet	Power [KW]	Poles	Frequency [Hz]	Product number
Horizontal bracket installation C.80/100.50 DIN						
SEV	65	65	40	2	50	98902625
SEV	65	80	40	2	50	
SEV	80	80	40	4	50	
SEV	80	80	40	2	50	
SEV	80	80	60	2	50	
SEV	80	80	75	2	50	
SEV	80	100	40	4	50	
SEV	80	100	40	2	50	
SEV	80	100	60	2	50	
SEV	80	100	75	2	50	
SE1	80	80	30	4	50	
SE1	80	80	40	4	50	
SE1	80	80	55	4	50	
SE1	80	100	30	4	50	
SE1	80	100	40	4	50	
SE1	80	100	55	4	50	
SEV	100	100	40	4	50	
SEV	100	100	40	4	50	
SEV	100	100	60	4	50	
Horizontal bracket installation C.150.50 DIN						
SE1	100	100	40	4	50	98902626
SE1	100	100	55	4	50	
SE1	100	150	40	4	50	
SE1	100	150	55	4	50	
Horizontal bracket installation C.80/100.50 DIN						
SEV	80	80	92	2	50	98902628
SEV	80	80	110	2	50	
SEV	80	100	110	2	50	
SEV	80	100	110	2	50	
SE1	80	80	75	4	50	
SE1	80	100	75	4	50	
SEV	100	100	75	4	50	
Horizontal bracket installation D.150.50 DIN						
SE1	100	100	75	4	50	98902630
SE1	100	150	75	4	50	

11. Dimensions and weights

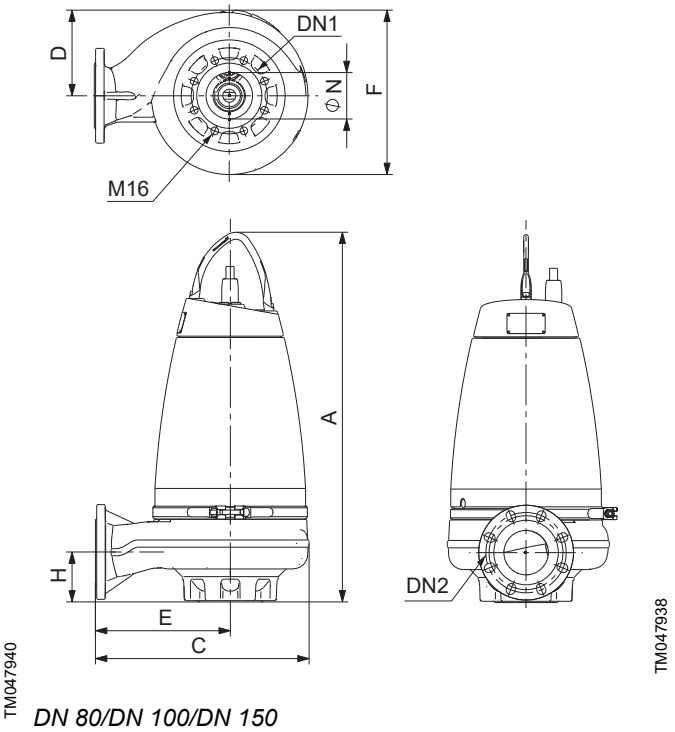
Dimensions

Pumps without accessories

SE1



DN 65



DN 80/DN 100/DN 150

SE1.50, DN 65 or DN 80 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SE1.50.65.22	748	368	170	216	322	93	29	50	65	65
SE1.50.65.30	748	368	170	216	322	93	29	50	65	65
SE1.50.65.40	828	408	199	227	380	93	27	50	65	65
SE1.50.80.22	756	368	170	216	322	100	36	50	65	80
SE1.50.80.30	756	368	170	216	322	100	36	50	65	80
SE1.50.80.40	836	408	199	227	380	100	27	50	65	80

SE1.80, DN 80 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SE1.80.80.15	772	434	176	272	330	100	11	80	100	80
SE1.80.80.22	772	434	176	272	330	100	11	80	100	80
SE1.80.80.30	876	508	202	319	385	118	0	80	100	80
SE1.80.80.40	876	508	202	319	385	118	0	80	100	80
SE1.80.80.55	876	508	202	319	385	118	0	80	100	80
SE1.80.80.75	939	529	216	328	416	118	0	80	100	80

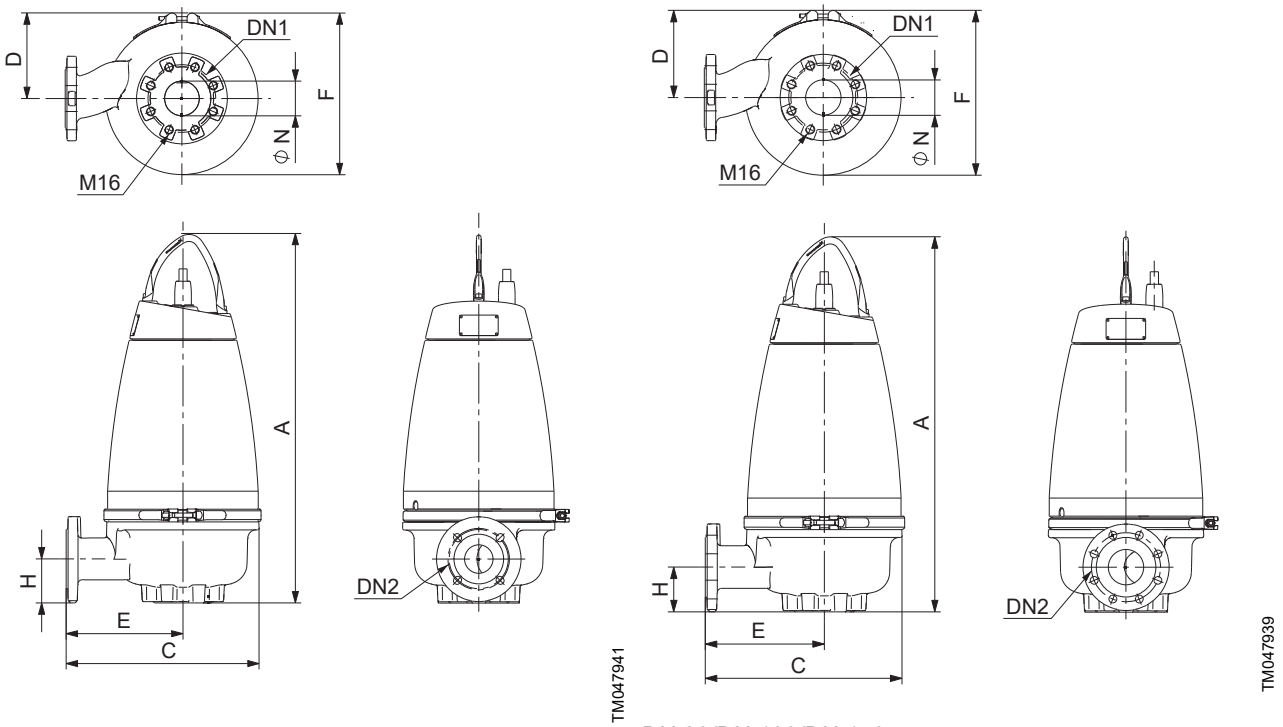
SE1.80, DN 100 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SE1.80.100.15	782	434	176	272	330	110	21	80	100	100
SE1.80.100.22	782	434	176	272	330	110	21	80	100	100
SE1.80.100.30	876	508	202	319	385	118	0	80	100	100
SE1.80.100.40	876	508	202	319	385	118	0	80	100	100
SE1.80.100.55	876	508	202	319	385	118	0	80	100	100
SE1.80.100.75	939	529	216	328	416	118	0	80	100	100

SE1.100, DN 100 or DN 150 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SE1.100.100.40.4	882	525	226	320	414	115	0	100	150	100
SE1.100.100.55.4	882	525	226	320	414	115	0	100	150	100
SE1.100.100.75.4	947	519	224	312	427	115	0	100	150	100
SE1.100.150.40.4	914	525	227	320	412	143	35	100	150	100
SE1.100.150.55.4	914	525	227	320	412	143	32	100	150	100
SE1.100.150.75.4	979	522	241	306	445	142	35	100	150	100

SEV



DN 80/DN 100/DN 150

DN 65

SEV.65, DN 65 or DN 80 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SEV.65.65.22	766	397	170	247	320	102	0	65	80	65
SEV.65.65.30	766	397	170	247	320	102	0	65	80	65
SEV.65.65.40	846	456	199	276	379	106	0	65	80	65
SEV.65.80.22	767	397	170	247	320	103	0	65	80	80
SEV.65.80.30	767	397	170	247	320	103	0	65	80	80
SEV.65.80.40	846	457	199	277	379	106	0	65	80	80

SEV.80, DN 80 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SEV.80.80.11	793	409	170	241	338	109	0	80	80	80
SEV.80.80.13	793	409	170	241	338	109	0	80	80	80
SEV.80.80.15	793	409	170	241	338	109	0	80	80	80
SEV.80.80.22	793	409	170	241	338	109	0	80	80	80
SEV.80.80.40	872	456	199	276	380	104	0	80	80	80
SEV.80.80.60	872	456	199	276	380	104	0	80	80	80
SEV.80.80.75	872	456	199	276	380	104	0	80	80	80
SEV.80.80.92	937	489	216	293	412	123	0	80	80	80
SEV.80.80.110	937	489	216	293	412	123	0	80	80	80

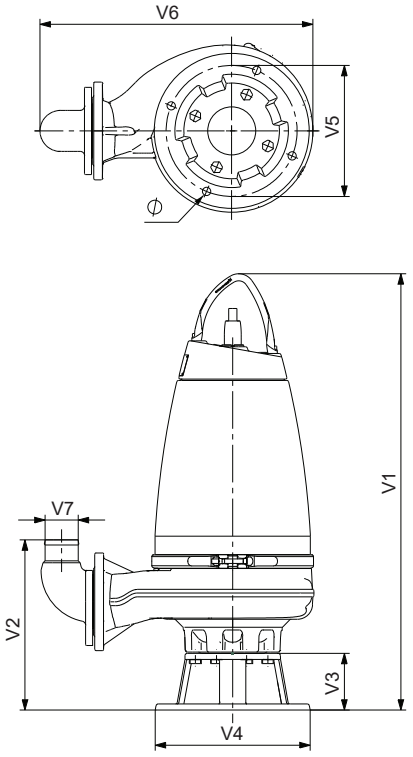
SEV.80, DN 100 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SEV.80.100.11	793	407	170	241	336	109	0	80	80	80
SEV.80.100.13	793	407	170	241	336	109	0	80	80	80
SEV.80.100.15	793	407	170	241	336	109	0	80	80	80
SEV.80.100.22	793	407	170	241	336	109	0	80	80	80
SEV.80.100.40	872	466	199	286	380	104	0	80	80	80
SEV.80.100.60	872	466	199	286	380	104	0	80	80	80
SEV.80.100.75	872	466	199	286	380	104	0	80	80	80
SEV.80.100.92	937	499	216	303	412	123	0	80	80	80
SEV.80.100.110	937	499	216	303	412	123	0	80	80	80

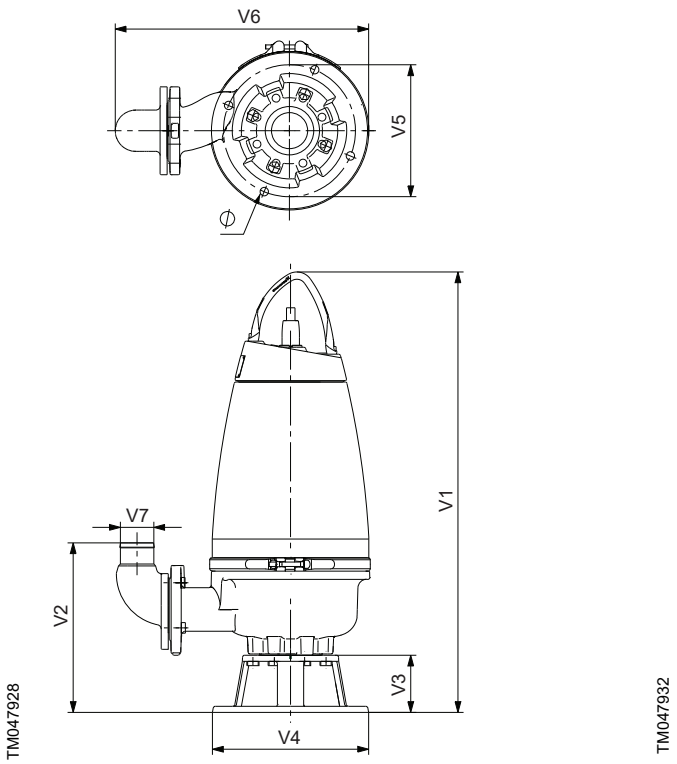
SEV.100, DN 100 outlet

Pump type	A	C	D	E	F	H	H1	ØN	DN1	DN2
SEV.100.100.30	887	457	199	277	379	134	0	100	100	100
SEV.100.100.40	887	457	199	277	379	134	0	100	100	100
SEV.100.100.55	887	457	199	277	379	134	0	100	100	100
SEV.100.100.75	963	490	216	294	416	145	0	100	100	100

Free-standing submerged pump on ring stand



SE1



SEV

SE1.50, DN 65 and DN 80 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SE1.50.65.22.2	853	356	130	325	270	493	61	19
SE1.50.65.30.2	853	356	130	325	270	493	61	19
SE1.50.65.40.2	934	358	130	325	270	522	61	19
SE1.50.80.22.2	853	371	130	325	270	496	76	19
SE1.50.80.30.2	853	371	130	325	270	496	76	19
SE1.50.80.40.2	934	373	130	325	270	526	76	19

SE1.80, DN 80 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SE1.80.80.15.4	894	396	130	355	300	567	76	19
SE1.80.80.22.4	894	396	130	355	300	567	76	19
SE1.80.80.30.4	1006	422	130	355	300	626	76	19
SE1.80.80.40.4	1006	422	130	355	300	626	76	19
SE1.80.80.55.4	1006	422	130	355	300	626	76	19
SE1.80.80.75.4	1069	422	130	355	300	646	76	19

SE1.80, DN 100 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SE1.80.100.15.4	894	399	130	355	300	591	102	19
SE1.80.100.22.4	894	399	130	355	300	591	102	19
SE1.80.100.30.4	1006	425	130	355	300	650	102	19
SE1.80.100.40.4	1006	425	130	355	300	650	102	19
SE1.80.100.55.4	1006	425	130	355	300	650	102	19
SE1.80.100.75.4	1069	425	130	355	300	671	102	19

SE1.100, DN 100 or DN 150 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SE1.100.100.40.4	1068	445	186	450	400	712	102	22
SE1.100.100.55.4	1068	445	186	450	400	712	102	22
SE1.100.100.75.4	1133	445	186	450	400	704	102	22
SE1.100.150.40.4	1068	570	186	450	400	809	148	22
SE1.100.150.55.4	1068	570	186	450	400	809	148	22
SE1.100.150.75.4	1133	570	186	450	400	795	148	22

SEV.65, DN 65 or DN 80 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SEV.65.65.22.2	894	389	128	330	280	527	61	18
SEV.65.65.30.2	894	389	128	330	280	527	61	18
SEV.65.65.40.2	974	393	128	330	280	570	61	18
SEV.65.80.22.2	895	405	128	330	280	530	76	18
SEV.65.80.30.2	895	405	128	330	280	530	76	18
SEV.65.80.40.2	974	408	128	330	280	575	76	18

SEV.80, DN 80 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SEV.80.80.11.4	921	411	128	330	280	527	76	18
SEV.80.80.13.4	921	411	128	330	280	527	76	18
SEV.80.80.15.4	921	411	128	330	280	527	76	18
SEV.80.80.22.4	921	411	128	330	280	527	76	18
SEV.80.80.40.2	1000	406	128	330	280	574	76	18
SEV.80.80.60.2	1000	406	128	330	280	574	76	18
SEV.80.80.75.2	1000	406	128	330	280	574	76	18
SEV.80.80.92.2	1065	425	128	330	280	607	76	18
SEV.80.80.110.2	1065	425	128	330	280	607	76	18

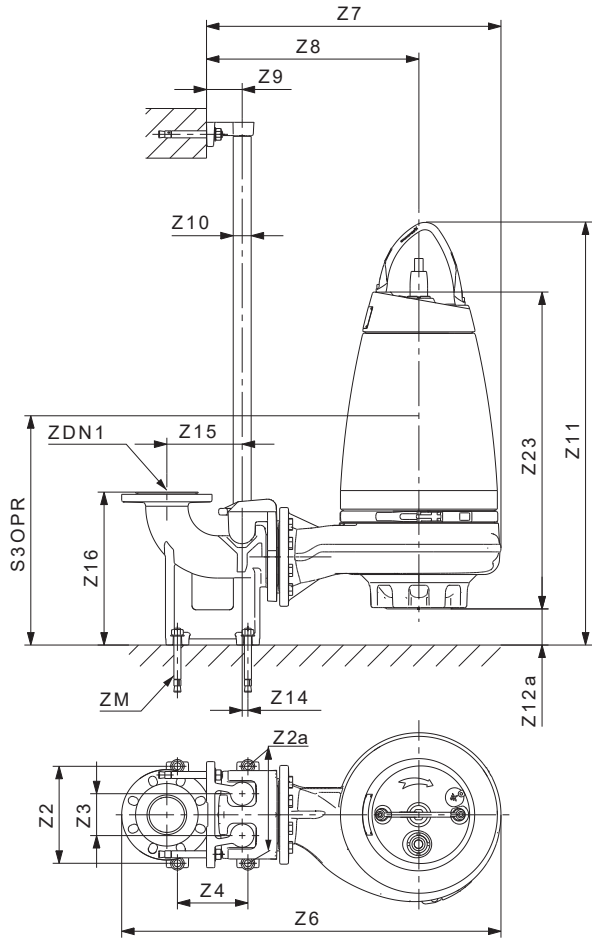
SEV.80, DN 100 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SEV.80.100.11.4	921	414	128	330	280	549	102	18
SEV.80.100.13.4	921	414	128	330	280	549	102	18
SEV.80.100.15.4	921	414	128	330	280	549	102	18
SEV.80.100.22.4	921	414	128	330	280	549	102	18
SEV.80.100.40.2	1000	409	128	330	280	608	102	18
SEV.80.100.60.2	1000	409	128	330	280	608	102	18
SEV.80.100.75.2	1000	409	128	330	280	608	102	18
SEV.80.100.92.2	1065	428	128	330	280	641	102	18
SEV.80.100.110.2	1065	428	128	330	280	641	102	18

SEV.100, DN 100 outlet

Pump type	V1	V2	V3	V4	V5	V6	V7	Ø
SEV.100.100.30.4	1017	441	130	355	300	599	102	19
SEV.100.100.40.4	1017	441	130	355	300	599	102	19
SEV.100.100.55.4	1017	441	130	355	300	599	102	19
SEV.100.100.75.4	1093	452	130	355	300	632	102	19

Submerged pump on auto coupling



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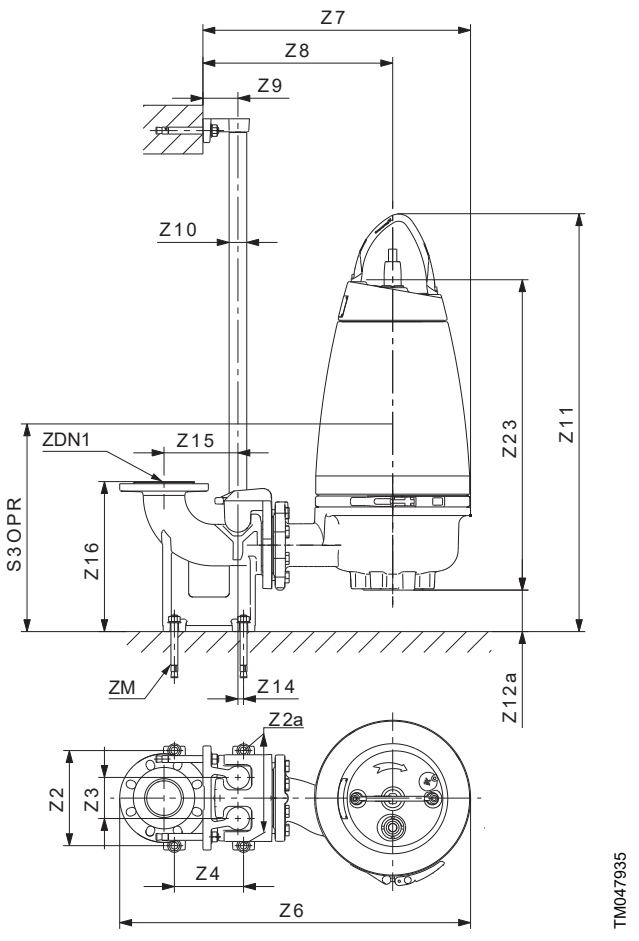


SEV

SE1.50, DN 65 or DN 80 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SE1.50.65.22.2	210	210	95	140	702	516	364	81	1 1/2"	822	99	1	175	268	597	M16	65	236
SE1.50.65.30.2	210	210	95	140	702	516	364	81	1 1/2"	822	99	1	175	268	596	M16	65	236
SE1.50.65.40.2	210	210	95	140	741	554	373	81	1 1/2"	902	97	1	175	268	653	M16	65	235
SE1.50.80.22.2	220	220	95	160	721	528	376	81	1 1/2"	856	133	13	171	347	597	M16	80	270
SE1.50.80.30.2	220	220	95	160	721	528	376	81	1 1/2"	856	133	13	171	347	597	M16	80	270
SE1.50.80.40.2	220	220	95	160	760	568	387	81	1 1/2"	936	131	13	171	347	635	M16	80	269

SE1.80, DN 80 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SE1.80.80.15.4	220	220	95	160	787	595	432	81	1 1/2"	872	108	13	171	347	638	M16	80	291
SE1.80.80.22.4	220	220	95	160	787	595	432	81	1 1/2"	872	108	13	171	347	638	M16	80	291
SE1.80.80.30.4	220	220	95	160	861	668	479	81	1 1/2"	958	82	13	171	347	725	M16	80	292
SE1.80.80.40.4	220	220	95	160	861	668	479	81	1 1/2"	958	82	13	171	347	725	M16	80	292
SE1.80.80.55.4	220	220	95	160	861	668	479	81	1 1/2"	958	82	13	171	347	725	M16	80	292
SE1.80.80.75.4	220	220	95	160	882	689	489	81	1 1/2"	1021	82	13	171	347	768	M16	80	293

SE1.80, DN 100 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SE1.80.100.15.4	230	260	110	220	876	650	488	110	2"	912	148	0	220	415	638	M16	100	330
SE1.80.100.22.4	230	260	110	220	876	650	488	110	2"	912	148	0	220	415	638	M16	100	330
SE1.80.100.30.4	230	260	110	220	950	724	535	110	2"	998	122	0	220	415	725	M16	100	335

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SE1.80.100.40.4	230	260	110	220	950	724	535	110	2"	998	122	0	220	415	725	M16	100	335
SE1.80.100.55.4	230	260	110	220	950	724	535	110	2"	998	122	0	220	415	725	M16	100	335
SE1.80.100.75.4	230	260	110	220	971	745	544	110	2"	1061	122	0	220	415	768	M16	100	332

SE1.100, DN 100 or DN 150 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SE1.100.100.40.4	230	260	110	220	976	741	536	110	2"	1007	125	0	220	415	731	M16	100	347
SE1.100.100.55.4	230	260	110	220	976	741	536	110	2"	1007	125	0	220	415	731	M16	100	347
SE1.100.100.75.4	230	260	110	220	961	735	528	110	2"	1072	125	0	220	415	776	M16	100	341
SE1.100.150.40.4	300	300	110	280	1077	763	558	110	2"	1047	164	0	280	452	731	M16	150	386
SE1.100.150.55.4	300	300	110	280	1077	763	558	110	2"	1047	164	0	280	452	731	M16	150	386
SE1.100.150.75.4	300	300	110	280	1073	760	544	110	2"	1112	164	0	280	452	777	M16	150	380

SEV.65, DN 65 or DN 80 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SEV.65.65.22.2	210	210	95	140	731	545	395	81	1 1/2"	829	64	1	175	268	639	M16	65	255
SEV.65.65.30.2	210	210	95	140	731	545	395	81	1 1/2"	829	64	1	175	268	639	M16	65	255
SEV.65.65.40.2	210	210	95	140	790	604	424	81	1 1/2"	906	60	1	175	268	694	M16	65	251
SEV.65.80.22.2	220	220	95	160	750	557	407	81	1 1/2"	863	97	13	171	347	640	M16	80	288
SEV.65.80.30.2	220	220	95	160	750	557	407	81	1 1/2"	863	97	13	171	347	640	M16	80	288
SEV.65.80.40.2	220	220	95	160	810	617	437	81	1 1/2"	940	94	13	171	347	695	M16	80	285

SEV.80, DN 80 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SEV.80.80.11.4	220	220	95	160	762	569	401	81	1 1/2"	884	91	13	171	347	667	M16	80	301
SEV.80.80.13.4	220	220	95	160	762	569	401	81	1 1/2"	884	91	13	171	347	667	M16	80	301
SEV.80.80.15.4	220	220	95	160	762	569	401	81	1 1/2"	884	91	13	171	347	667	M16	80	301
SEV.80.80.22.4	220	220	95	160	762	569	401	81	1 1/2"	884	91	13	171	347	667	M16	80	301
SEV.80.80.40.2	220	220	95	160	809	617	436	81	1 1/2"	968	96	13	171	347	720	M16	80	312
SEV.80.80.60.2	220	220	95	160	809	617	436	81	1 1/2"	968	96	13	171	347	720	M16	80	312
SEV.80.80.75.2	220	220	95	160	809	617	436	81	1 1/2"	968	96	13	171	347	720	M16	80	312
SEV.80.80.92.2	220	220	95	160	842	650	453	81	1 1/2"	1014	77	13	171	347	766	M16	80	290
SEV.80.80.110.2	220	220	95	160	842	650	453	81	1 1/2"	1014	77	13	171	347	766	M16	80	290

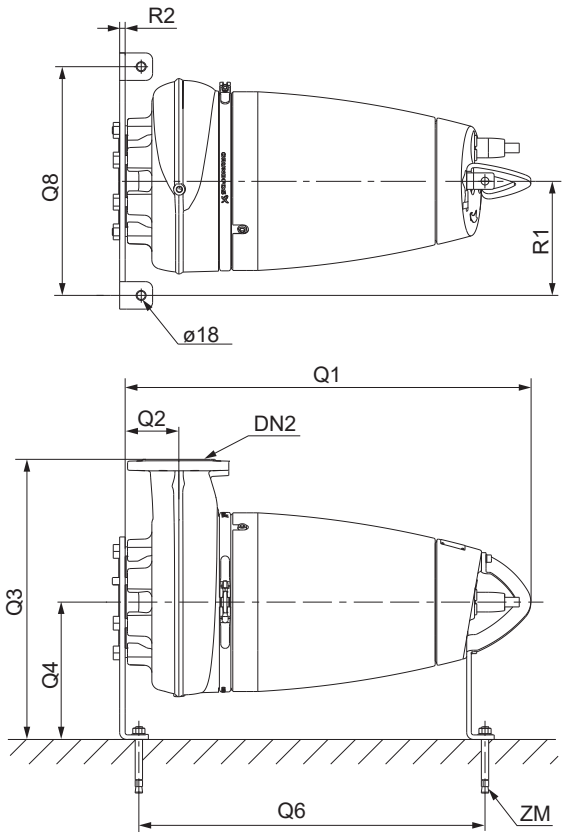
SEV.80, DN 100 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SEV.80.100.11.4	260	230	110	220	849	623	457	110	2"	924	131	0	220	415	667	M16	100	344
SEV.80.100.13.4	260	230	110	220	849	623	457	110	2"	924	131	0	220	415	667	M16	100	344
SEV.80.100.15.4	260	230	110	220	849	623	457	110	2"	924	131	0	220	415	667	M16	100	344
SEV.80.100.22.4	260	230	110	220	849	623	457	110	2"	924	131	0	220	415	667	M16	100	344
SEV.80.100.40.2	260	230	110	220	908	682	502	110	2"	1008	136	0	220	415	720	M16	100	345
SEV.80.100.60.2	260	230	110	220	908	682	502	110	2"	1008	136	0	220	415	720	M16	100	345
SEV.80.100.75.2	260	230	110	220	908	682	502	110	2"	1008	136	0	220	415	720	M16	100	345
SEV.80.100.92.2	260	230	110	220	941	715	519	110	2"	1054	117	0	220	415	766	M16	100	326
SEV.80.100.110.2	260	230	110	220	941	715	519	110	2"	1054	117	0	220	415	766	M16	100	326

SEV.100, DN 100 outlet

Pump type	Z2	Z2a	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z14	Z15	Z16	Z23	ZM	ZDN1	S3OPR
SEV.100.100.30.4	260	230	110	220	899	673	493	110	2"	993	106	0	220	415	736	M16	100	332
SEV.100.100.40.4	260	230	110	220	899	673	493	110	2"	993	106	0	220	415	736	M16	100	332
SEV.100.100.55.4	260	230	110	220	899	673	493	110	2"	993	106	0	220	415	736	M16	100	332
SEV.100.100.75.4	260	230	110	220	932	706	510	110	2"	1058	95	0	220	415	792	M16	100	320

Horizontal dry installation with brackets



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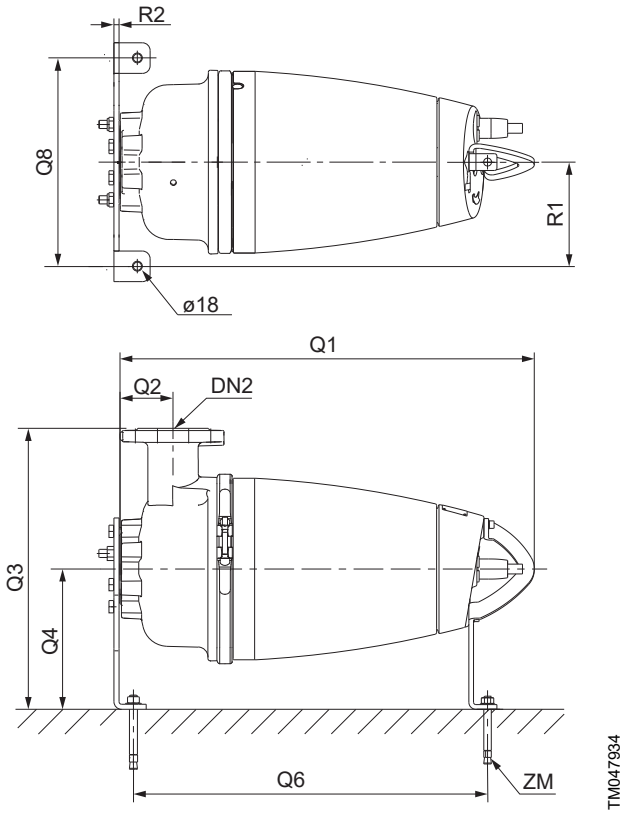


SEV

SE1.50, DN 65 or DN 80 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SE1.50.65.22.2	175	10	684	69	416	200	581	350	M16	65
SE1.50.65.30.2	175	10	684	69	416	200	581	350	M16	65
SE1.50.65.40.2	175	10	761	71	427	200	632	350	M16	65
SE1.50.80.22.2	175	10	684	69	416	200	581	350	M16	80
SE1.50.80.30.2	175	10	684	69	416	200	581	350	M16	80
SE1.50.80.40.2	175	10	761	71	427	200	631	350	M16	80

SE1.80, DN 80 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SE1.80.80.15.4	175	10	725	94	472	200	622	350	M16	80
SE1.80.80.22.4	175	10	725	94	472	200	622	350	M16	80
SE1.80.80.30.4	175	10	832	120	519	200	703	350	M16	80
SE1.80.80.40.4	175	10	824	120	519	200	703	350	M16	80
SE1.80.80.55.4	175	10	832	120	519	200	703	350	M16	80
SE1.80.80.75.4	175	10	878	120	538	210	743	350	M16	80

SE1.80, DN 100 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SE1.80.100.15.4	175	10	725	94	472	200	622	350	M16	100
SE1.80.100.22.4	175	10	725	94	472	200	622	350	M16	100
SE1.80.100.30.4	175	10	832	120	519	200	703	350	M16	100
SE1.80.100.40.4	175	10	832	120	519	200	703	350	M16	100
SE1.80.100.55.4	175	10	832	120	519	200	703	350	M16	100
SE1.80.100.75.4	175	10	878	120	538	210	743	350	M16	100

SE1.100, DN 100 or DN 150 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SE1.100.100.40.4	250	12	831	117	620	300	710	500	M16	100
SE1.100.100.55.4	250	12	831	117	620	300	710	500	M16	100
SE1.100.100.75.4	250	12	886	117	612	300	751	500	M16	100
SE1.100.150.40.4	250	12	831	113	620	300	710	500	M16	150
SE1.100.150.55.4	250	12	831	113	620	300	710	500	M16	150
SE1.100.150.75.4	250	12	886	113	606	300	751	500	M16	150

SEV.65, DN 65 or DN 80 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SEV.65.65.22.2	175	10	727	104	447	200	624	350	M16	65
SEV.65.65.30.2	175	10	727	104	447	200	624	350	M16	65
SEV.65.65.40.2	175	10	802	108	476	200	673	350	M16	65
SEV.65.80.22.2	175	10	727	104	447	200	624	350	M16	80
SEV.65.80.30.2	175	10	727	104	447	200	624	350	M16	80
SEV.65.80.40.2	175	10	802	108	476	200	673	350	M16	80

SEV.80, DN 80 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SEV.80.80.11.4	175	10	755	111	441	200	651	350	M16	80
SEV.80.80.13.4	175	10	755	111	441	200	651	350	M16	80
SEV.80.80.15.4	175	10	755	111	441	200	651	350	M16	80
SEV.80.80.22.4	175	10	755	111	441	200	651	350	M16	80
SEV.80.80.40.2	175	10	828	106	476	200	699	350	M16	80
SEV.80.80.60.2	175	10	828	106	476	200	699	350	M16	80
SEV.80.80.75.2	175	10	828	106	476	200	699	350	M16	80
SEV.80.80.92.2	175	10	876	125	503	210	741	350	M16	80
SEV.80.80.110.2	175	10	876	125	503	210	741	350	M16	80

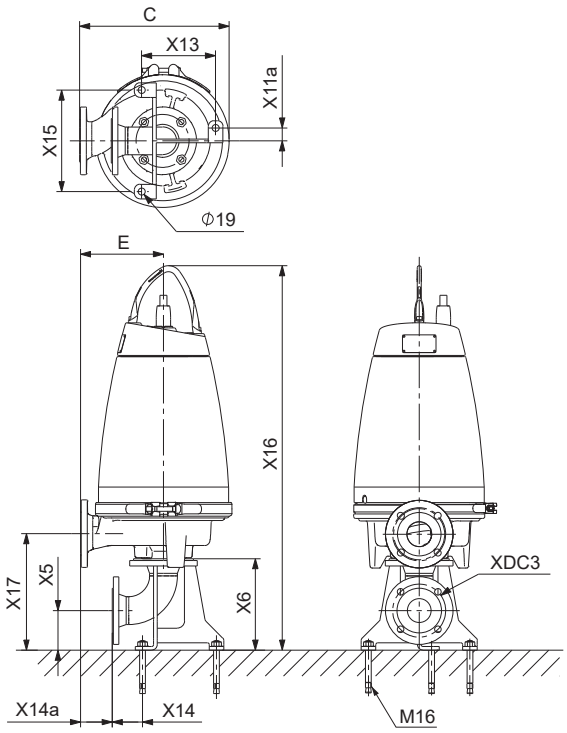
SEV.80, DN 100 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SEV.80.100.11.4	175	10	755	111	441	200	651	350	M16	100
SEV.80.100.13.4	175	10	755	111	441	200	651	350	M16	100
SEV.80.100.15.4	175	10	755	111	441	200	651	350	M16	100
SEV.80.100.22.4	175	10	755	111	441	200	651	350	M16	100
SEV.80.100.40.2	175	10	828	106	486	200	699	350	M16	100
SEV.80.100.60.2	175	10	828	106	486	200	699	350	M16	100
SEV.80.100.75.2	175	10	828	106	486	200	699	350	M16	100
SEV.80.100.92.2	175	10	876	125	513	210	741	350	M16	100
SEV.80.100.110.2	175	10	876	125	513	210	741	350	M16	100

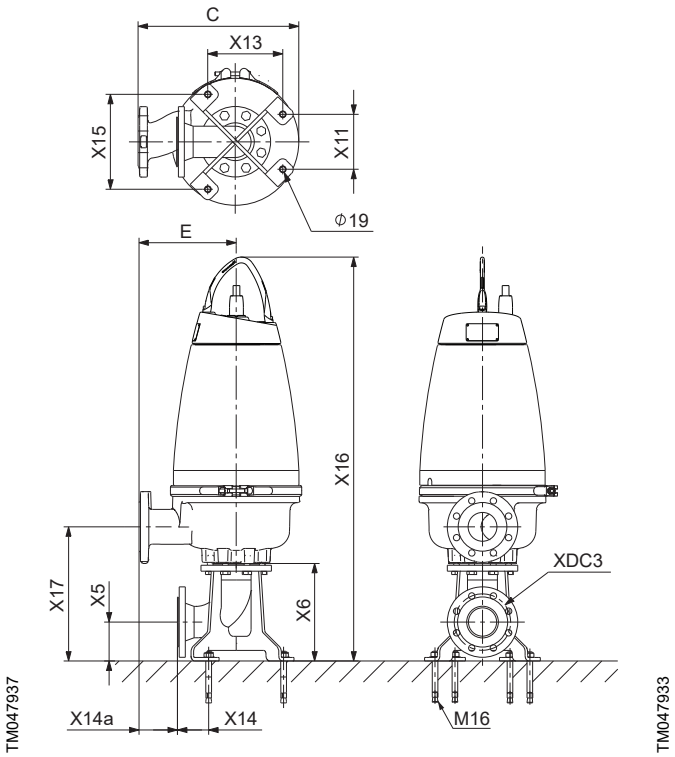
SEV.100, DN 100 outlet

Pump type	R1	R2	Q1	Q2	Q3	Q4	Q6	Q8	ZM	DN2
SEV.100.100.30.4	175	10	843	136	477	200	715	350	M16	100
SEV.100.100.40.4	175	10	843	136	477	200	715	350	M16	100
SEV.100.100.55.4	175	10	843	136	477	200	715	350	M16	100
SEV.100.100.75.4	175	10	902	147	504	210	767	350	M16	100

Vertical dry installation



SE1



SEV

SE1.50, DN 65 or DN 80 outlet

Pump type	C	E	X5	X6	X11a	X13	X14	X14a	X15	X16	X17	XDC3
SE1.50.65.22.2	381	216	108	248	35	202	83	76	278	973	317	65
SE1.50.65.30.2	381	216	108	248	35	202	83	76	278	973	317	65
SE1.50.65.40.2	408	227	108	248	35	202	83	87	278	1054	319	65
SE1.50.80.22.2	381	216	108	248	35	202	83	76	278	973	317	65
SE1.50.80.30.2	381	216	108	248	35	202	83	76	278	973	317	65
SE1.50.80.40.2	408	227	108	248	35	202	83	87	278	1054	319	65

SE1.80, DN 80 outlet

Pump type	C	E	X5	X6	X11a [10]	X13	X14	X14a	X15	X16	X17	XDC3
SE1.80.80.15.4	457	272	136	340	99	255	106	67	311	1106	434	100
SE1.80.80.22.4	457	272	136	340	99	255	106	67	311	1106	434	100
SE1.80.80.30.4	508	319	136	340	99	255	106	115	311	1218	460	100
SE1.80.80.40.4	508	319	136	340	99	255	106	115	311	1218	460	100
SE1.80.80.55.4	508	319	136	340	99	255	106	115	311	1218	460	100
SE1.80.80.75.4	529	328	136	340	99	255	106	124	311	1281	460	100

[10] Base plate DN 150 or DN 100, X11a = 177.5 mm.

SE1.80, DN 100 outlet

Pump type	C	E	X5	X6	X11a [11]	X13	X14	X14a	X15	X16	X17	XDC3
SE1.80.100.15.4	457	272	136	340	99	255	106	67	311	1106	433	100
SE1.80.100.22.4	457	272	136	340	99	255	106	67	311	1106	433	100
SE1.80.100.30.4	508	319	136	340	99	255	106	115	311	1218	460	100

Pump type	C	E	X5	X6	X11a [11)]	X13	X14	X14a	X15	X16	X17	XDC3
SE1.80.100.40.4	508	319	136	340	99	255	106	115	311	1218	460	100
SE1.80.100.55.4	508	319	136	340	99	255	106	115	311	1218	460	100
SE1.80.100.75.4	529	328	136	340	99	255	106	124	311	1281	460	100

11) Base plate DN 150 or DN 100, X11a = 177.5 mm.

SE1.100, DN 100 or DN 150 outlet

Pump type	C	E	X5	X6	X11a [12)]	X13	X14	X14a	X15	X16	X17	XDC3
SE1.100.100.40.4	547	320	159	442	141	339	142	37	396	1326	559	150
SE1.100.100.55.4	547	320	159	442	141	339	142	37	396	1326	559	150
SE1.100.100.75.4	539	312	159	442	141	339	142	29	396	1391	559	150
SE1.100.150.40.4	547	320	159	442	141	339	142	37	396	1326	555	150
SE1.100.150.55.4	547	320	159	442	141	339	142	37	396	1326	555	150
SE1.100.150.75.4	533	306	159	442	141	339	142	23	396	1391	555	150

12) Base plate DN 200 or DN 150, X11a = 230.5 mm.

SEV.65, DN 65 or DN 80 outlet

Pump type	C	E	X5	X6	X11	X13	X14	X14a	X15	X16	X17	XDC3
SEV.65.65.22.2	411	247	111	275	156	213	86	83	269	1043	379	80
SEV.65.65.30.2	411	247	111	275	156	213	86	83	269	1043	379	80
SEV.65.65.40.2	456	276	111	275	156	213	86	112	269	1123	383	80
SEV.65.80.22.2	411	247	111	275	156	213	86	83	269	1044	380	80
SEV.65.80.30.2	397	247	111	275	156	213	86	83	269	1044	380	80
SEV.65.80.40.2	457	277	111	275	156	213	86	113	269	1123	383	80

SEV.80, DN 80 outlet

Pump type	C	E	X5	X6	X11	X13	X14	X14a	X15	X16	X17	XDC3
SEV.80.80.11.4	409	241	111	275	156	213	86	77	269	1070	386	80
SEV.80.80.13.4	409	241	111	275	156	213	86	77	269	1070	386	80
SEV.80.80.15.4	409	241	111	275	156	213	86	77	269	1070	386	80
SEV.80.80.22.4	409	241	111	275	156	213	86	77	269	1070	386	80
SEV.80.80.40.2	456	276	111	275	156	213	86	112	269	1149	381	80
SEV.80.80.60.2	456	276	111	275	156	213	86	112	269	1149	381	80
SEV.80.80.75.2	456	276	111	275	156	213	86	112	269	1149	381	80
SEV.80.80.92.2	489	293	111	275	156	213	86	129	269	1214	400	80
SEV.80.80.110.2	489	293	111	275	156	213	86	129	269	1214	400	80

SEV.80, DN 100 outlet

Pump type	C	E	X5	X6	X11	X13	X14	X14a	X15	X16	X17	XDC3
SEV.80.100.11.4	407	241	111	275	156	213	86	77	269	1070	386	100
SEV.80.100.13.4	407	241	111	275	156	213	86	77	269	1070	386	100
SEV.80.100.15.4	407	241	111	275	156	213	86	77	269	1070	386	100
SEV.80.100.22.4	407	241	111	275	156	213	86	77	269	1070	386	100
SEV.80.100.40.2	466	286	111	275	156	213	86	122	269	1149	381	100
SEV.80.100.60.2	466	286	111	275	156	213	86	122	269	1149	381	100
SEV.80.100.75.2	466	286	111	275	156	213	86	122	269	1149	381	100
SEV.80.100.92.2	499	303	111	275	156	213	86	139	269	1214	400	100
SEV.80.100.110.2	499	303	111	275	156	213	86	139	269	1214	400	100

SEV.100, DN 100 outlet

Pump type	C	E	X5	X6	X11	X13	X14	X14a	X15	X16	X17	XDC3
SEV.100.100.30.4	462	277	136	340	198	255	106	73	311	1229	476	100
SEV.100.100.40.4	462	277	136	340	198	255	106	73	311	1229	476	100
SEV.100.100.55.4	462	277	136	340	198	255	106	73	311	1229	476	100
SEV.100.100.75.4	490	294	136	340	198	255	106	89	311	1305	476	100

Weights

Pump type	Outlet	Weight [kg]
SE1.50.65.22.2	DN 65	86
SE1.50.65.30.2		90
SE1.50.65.40.2		122
SE1.50.80.22.2	DN 80	87
SE1.50.80.30.2		91
SE1.50.80.40.2		123
SE1.80.80.15.4		100
SE1.80.80.22.4		102
SE1.80.80.30.4		143
SE1.80.80.40.4		152
SE1.80.80.55.4		157
SE1.80.80.75.4		205
SE1.80.100.15.4	DN 100	101
SE1.80.100.22.4		103
SE1.80.100.30.4		145
SE1.80.100.40.4		153
SE1.80.100.55.4		158
SE1.80.100.75.4		207
SE1.100.100.40.4		157
SE1.100.100.55.4		161
SE1.100.100.75.4		207
SE1.100.150.40.4	DN 150	164
SE1.100.150.55.4		169
SE1.100.150.75.4		213
SEV.65.65.22.2	DN 65	89
SEV.65.65.30.2		92
SEV.65.65.40.2		128
SEV.65.80.22.2	DN 80	90
SEV.65.80.30.2		94
SEV.65.80.40.2		126
SEV.80.80.11.4		95
SEV.80.80.13.4		103
SEV.80.80.15.4		103
SEV.80.80.22.4		106
SEV.80.80.40.2		131
SEV.80.80.60.2		141
SEV.80.80.75.2		142
SEV.80.80.92.2		190
SEV.80.80.110.2		195
SEV.80.100.11.4	DN 100	94
SEV.80.100.13.4		102
SEV.80.100.15.4		102
SEV.80.100.22.4		105
SEV.80.100.40.2		133
SEV.80.100.60.2		143
SEV.80.100.75.2		144
SEV.80.100.92.2		191
SEV.80.100.110.2		196
SEV.100.100.30.4		134
SEV.100.100.40.4		141
SEV.100.100.55.4		146
SEV.100.100.75.4		190

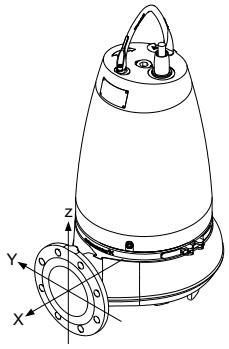
Flange forces

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

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

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

- Horizontally installed pumps
  Pump family A4 = Coefficient 0.35
- Vertically installed pumps
  Pump family 10A = Coefficient 0.30



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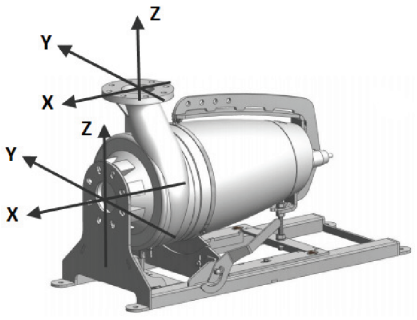

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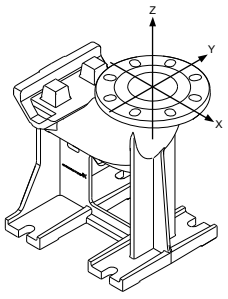

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Online search and sizing tool to help you make the right choice.
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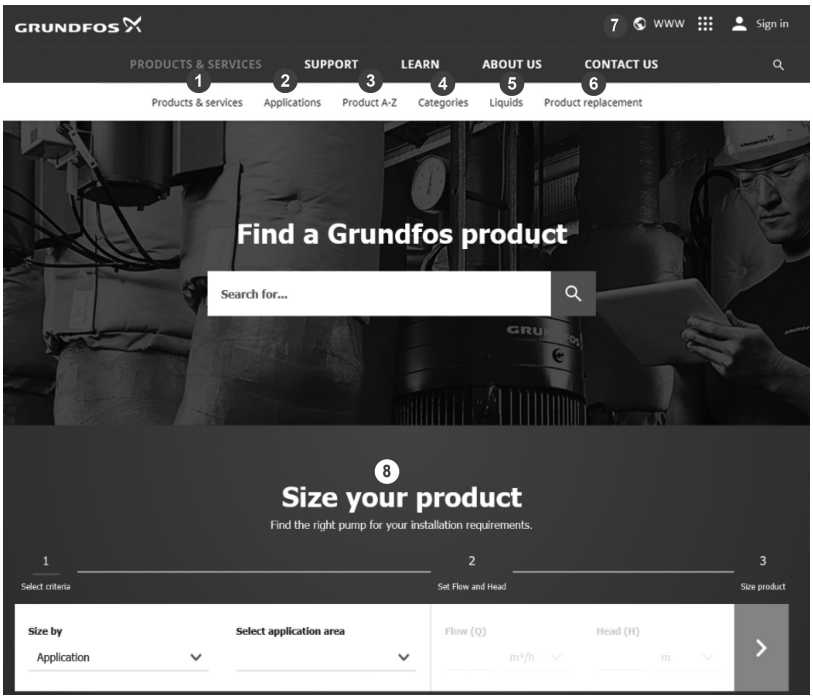

When you select your country, you will see the menus below. Note that some menus may not be available depending on the country.
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Pos.	Description
1	**Products & services** enables you to find products and documents by typing a product number or name into the search field.
2	**Applications** enables you to choose an application to see how Grundfos can help you design and optimise your system.
3	**Products A-Z** enables you to look through a list of all the Grundfos products.
4	**Categories** enables you to look for a product category.
5	**Liquids** enables you to find pumps designed for aggressive, flammable or other special liquids.
6	**Product replacement** enables you to find a suitable replacement.
7	**WWW** enables you to select the country, which changes the language, the available product range and the structure of the website.
8	**Sizing** enables you to size a product based on your application and operating conditions.

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