GRUNDFOS **DATA BOOKLET**

S pumps, range 58

Up to 29 kW
50 Hz

Contents

Introduction

This data booklet deals with Grundfos heavy-duty sewage pumps called S pumps, range 58.

GrA7835

Fig. 1 S pump, range 58

The S pumps, range 58, are a range of free-flow (SuperVortex) and channel impeller pumps specifically designed for pumping sewage and wastewater in a wide range of municipal, private and industrial applications.

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

The pumps are fitted with motors from 16 kW up to 29.0 kW. The motors are either 2, 4- or 6-pole motors, depending on the motor size.

The free passage in the pumps is 80 to 100 mm.

The pumps are available for:

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

Applications

The S pumps, range 58, are designed for applications, such as:

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

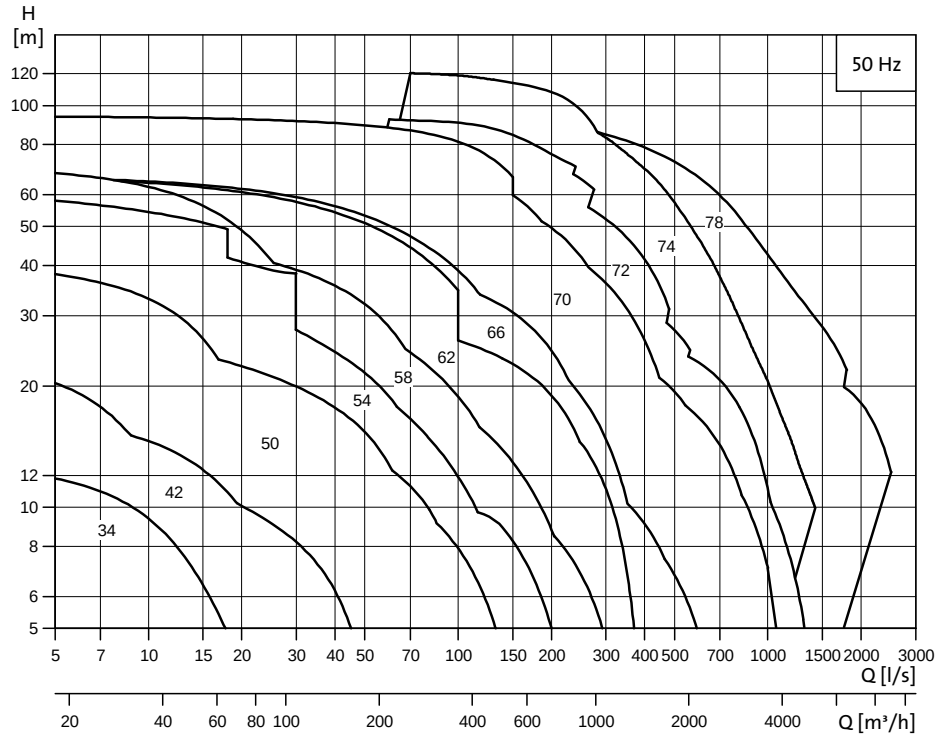
The pumps are suitable for both temporary and permanent installation. The lifting bracket fitted on the pumps facilitates easy transportation to as well as installation at the installation site.

Main constructional features

- leak-proof connections via the Grundfos SmartSeal gasket system
- double mechanical shaft seal system for reliable sealing between pumped liquid and motor
- watertight cable entry of corrosion-resistant polyamide
- moisture switch for continuous monitoring of motor housing and automatic cut-off of power in case liquid penetrates
- self-cleaning channel impeller with long vanes reducing the risk of jamming or clogging, or SuperVortex impeller with high pumping efficency and less downtime
- SmartTrim system allowing easy adjustment of impeller clearance and maintaining maximum pump efficiency over pump lifetime
- motor in insulation class F (155 °C), enclosure class IP68 with three thermal sensors in stator windings
- seal condition monitoring via water-in-oil sensor (optional)
- explosion-proof motors for applications involving high risk of explosion
- three stainless steel versions for use in corrosive or aggressive liquids:
  - stainless steel impeller, cast iron pump and motor housing
  - stainless steel pump housing, flange and impeller, cast iron motor housing
  - made entirely of corrosion-resistant stainless steel.

Performance range

Performance range, S pumps



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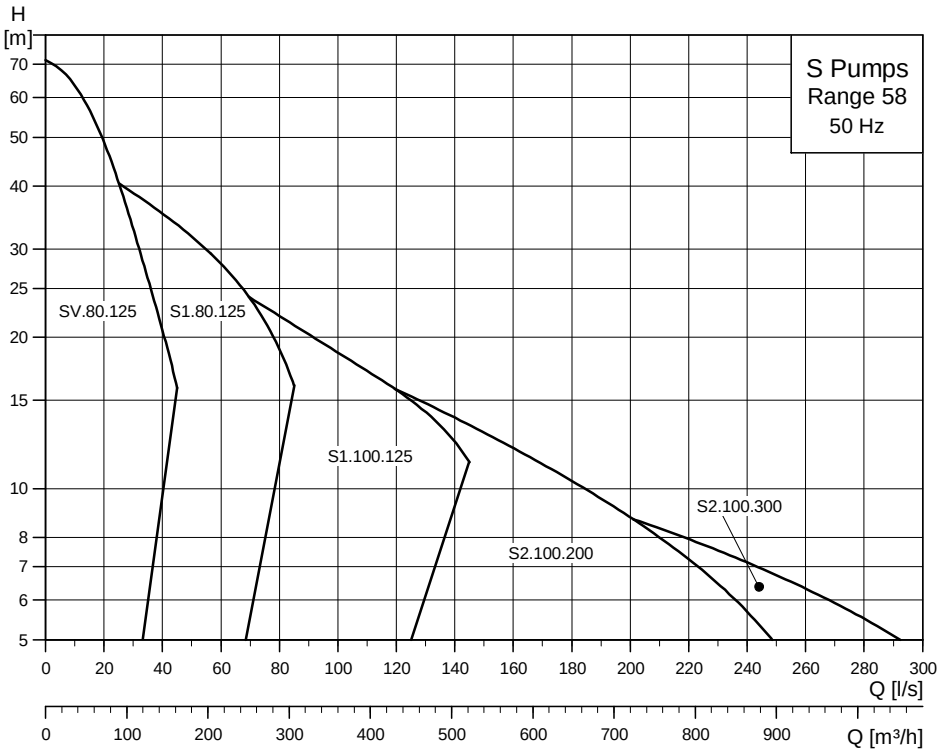
Performance range, S pumps, range 58



TM04 1875 1308

Identification

Type key

Code	Example	S	1	.180	.125	.220	4	.58H	.C	.326	.G	.N	.D	

Pump type:

S	Grundfos sewage and wastewater pump
ST	Multi-channel impeller pump installed in a column pipe

Impeller type:

1	Single-channel impeller
V	SuperVortex (free-flow) impeller

Pump passage:
Maximum solids size [mm]

Pump discharge:
Nominal diameter of pump discharge port [mm]

Output power, P2:
P2 = Code number from type designation/10 [kW]

Number of poles:

2	2-pole motor
4	4-pole motor
6	6-pole motor

Pump range / Pressure version:

58H	High pressure
58M	Medium pressure
58L	Low pressure
58E	Extra-low pressure

Installation:

S	Submersible installation without cooling jacket
C	Submersible installation with cooling jacket
D	Dry installation, vertical
H	Dry installation, horizontal.

Actual impeller diameter:
[mm]

Material code for impeller, pump and motor housing:

G	Impeller, pump housing and motor housing: Cast iron
Q	Impeller: Stainless steel DIN W.-Nr. 1.4408

Pump version:

N	Non-explosion-proof pump
Ex	Explosion-proof pump

Sensor version:

B	B = S pump with built-in SM 111 module. PTC sensors are connected directly to IO 111 or other PTC relay.
C	C = Not in use
D	D = S pump without built-in SM 111 module.

Z	Custom-built products

Identification

Nameplates

Pump nameplate

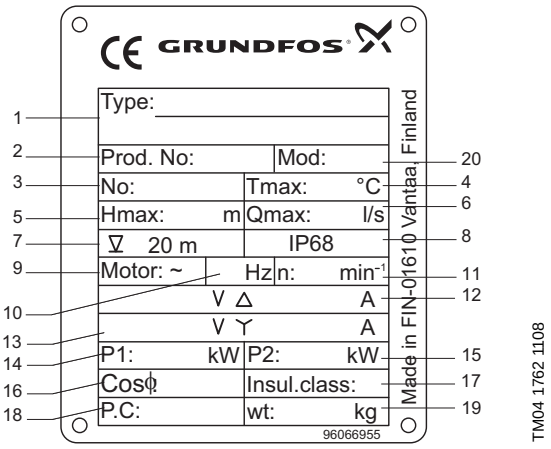


Fig. 2 Pump nameplate

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

Ex approval plates

Fig. 3 Ex approval plates

The approval plate gives the following details:

Pos.	Description
Ex	EU ex-symbol
II	Equipment group (II = non-mining)
2	Equipment category (high protection)
G	Type of explosive atmosphere
CE	CE mark
1180	Number of quality assurance notified body
Ex	Motor explosion-proof according to European standard
b	Control of ignition sources
c	Constructional safety
d	Motor withstands explosion pressure
IIB	Gas group (Ethylene)
T3	Maximum surface temperature of the motor is 200 °C
T4	Maximum surface temperature of the motor is 135 °C
Gb	Equipment protection level, zone 1
Baseefa	Certificate number
IECEx	Certificate number

Ordering a pump

When ordering an S pump, range 58, you need to take the following four aspects into consideration.

1. Pump
2. Custom-built variation (option)
3. Accessories
4. Controller.

Pump

Use the *Product range* on page 8 and the *Type key* on page 5 to identify the pump that best fulfils your needs. The list below is a detailed description of the product you get if you order the following pump:

Pump	Product no
S1.100.200.170.4.54L.S.285.G.N.D	95113515

- Pump as specified in the type key
- 10 m cable
- Paint: Graphic grey, NCS S8005-R80B, thickness 150 µ
- Three thermal switches (Klixon), one in each phase, or three thermal sensors (PTC)
- One moisture switch below the motor top cover (two moisture switches below the motor top cover on explosion-proof versions)
- Test according to DIN 9906, Annex A.

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

Note: Product specific data for the pump can also be seen in WebCAPS using the product number 95113515.

Custom-built variants

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

Variants can be seen in *List of variants* on page 15. For requirements or designs not included in the list, contact Grundfos.

Accessories

Depending on the installation type, you may need to order accessories. See *Accessories* page 54 for selection of the correct accessories.

Note: Ordered accessories are not fitted from factory.

Controller

The following controllers are available:

- LC/LCD 107 with level pickups
- LC/LCD 108 with float switches
- LC/LCD 110 with level electrodes.

Standard pumps

Cast iron, 3 x 400/690 V

Pump type	Cable length [m]	Pump	Accessories			
			*** Horizontal base stand	To be ordered separately		
				Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.G.N.D	10	95113395	-	-	96782145	96790703
S1.80.125.220.4.58H.S.326.G.N.D	10	95113371	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.G.N.D	10	95113372	-	-	96782145	96790703
S1.80.125.220.4.58H.H.326.G.N.D	10	95113373	96782930			
S1.80.125.220.4.58H.D.326.G.N.D	10	95113859	-	96308238	-	-
S1.80.125.260.4.58H.S.341.G.N.D	10	95113377	-	-	96782145	96790703
S1.80.125.260.4.58H.C.341.G.N.D	10	95113378	-	-	96782145	96790703
S1.80.125.260.4.58H.H.341.G.N.D	10	95113379	96782930			
S1.80.125.260.4.58H.D.341.G.N.D	10	95113871	-	96308238	-	-
S1.100.125.220.4.58M.S.297.G.N.D	10	95113374	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.G.N.D	10	95113375	-	-	96782145	96790703
S1.100.125.220.4.58M.H.297.G.N.D	10	95113376	96784437			
S1.100.125.220.4.58M.D.297.G.N.D	10	95113865	-	96094523	-	-
S1.100.125.260.4.58M.S.316.G.N.D	10	95113380	-	-	96782145	96790703
S1.100.125.260.4.58M.C.316.G.N.D	10	95113381	-	-	96782145	96790703
S1.100.125.260.4.58M.H.316.G.N.D	10	95113382	96784437			
S1.100.125.260.4.58M.D.316.G.N.D	10	95113877	-	96094523	-	-
S2.100.200.220.4.58L.S.248.G.N.D	10	95113383	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.G.N.D	10	95113384	-	-	96641489	96790704
S2.100.200.220.4.58L.H.248.G.N.D	10	95113385	96784955			
S2.100.200.220.4.58L.D.248.G.N.D	10	95113883	-	96094525	-	-
S2.100.200.260.4.58L.S.266.G.N.D	10	95113386	-	-	96641489	96790704
S2.100.200.260.4.58L.C.266.G.N.D	10	95113387	-	-	96641489	96790704
S2.100.200.260.4.58L.H.266.G.N.D	10	95113388	96784955			
S2.100.200.260.4.58L.D.266.G.N.D	10	95113889	-	96094525	-	-
S2.100.300.160.6.58E.S.304.G.N.D	10	95113389	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.G.N.D	10	95113390	-	-	96782484	
S2.100.300.160.6.58E.D.304.G.N.D	10	95113391	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.G.N.D	10	96781574	96784708			
S2.100.300.220.6.58E.S.338.G.N.D	10	95113392	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.G.N.D	10	95113393	-	-	96782484	
S2.100.300.220.6.58E.D.338.G.N.D	10	95113394	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.G.N.D	10	96781579	96784708			
ST2.100.700.220.6.58E.S.338.G.N.D	10	96840423	-	-	-	-

* Without hose connection.

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

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

Cast iron, 3 x 415 V

Pump type	Cable length [m]	Pump	Accessories			
			*** Horizontal base stand	To be ordered separately		
				Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.G.N.D	10	96781581	-	-	96782145	96790703
SV.80.125.290.2.58H.S.278.G.N.D	15	96810419	-	-	96782145	96790703
S1.80.125.220.4.58H.D.326.G.N.D	10	95113860	-	96308238	-	-
S1.80.125.220.4.58H.S.326.G.N.D	10	96781523	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.G.N.D	10	96781524	-	-	96782145	96790703
S1.80.125.220.4.58H.H.326.G.N.D	10	96781525	96782930			
S1.80.125.220.4.58H.S.326.G.N.D	15	96810377	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.G.N.D	15	96810378	-	-	96782145	96790703
S1.80.125.220.4.58H.D.326.G.N.D	15	96810379	-	96308238	-	-
S1.80.125.220.4.58H.H.326.G.N.D	15	96810380	96782930			
S1.80.125.260.4.58H.S.341.G.N.D	10	96781529	-	-	96782145	96790703
S1.80.125.260.4.58H.S.341.G.N.D	15	96810395	-	-	96782145	96790703
S1.80.125.260.4.58H.D.341.G.N.D	10	95113872	-	96308238	-	-
S1.80.125.260.4.58H.C.341.G.N.D	10	96781530	-	-	96782145	96790703
S1.80.125.260.4.58H.H.341.G.N.D	10	96781531	96782930			
S1.80.125.260.4.58H.C.341.G.N.D	15	96810396	-	-	96782145	96790703
S1.80.125.260.4.58H.D.341.G.N.D	15	96810397	-	96308238	-	-
S1.80.125.260.4.58H.H.341.G.N.D	15	96810398	96782930			
S1.100.125.220.4.58M.D.297.G.N.D	10	95113866	-	96094523	-	-
S1.100.125.220.4.58M.S.297.G.N.D	10	96781526	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.G.N.D	10	96781527	-	-	96782145	96790703
S1.100.125.220.4.58M.H.297.G.N.D	10	96781528	96784437			
S1.100.125.220.4.58M.S.297.G.N.D	15	96810381	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.G.N.D	15	96810392	-	-	96782145	96790703
S1.100.125.220.4.58M.D.297.G.N.D	15	96810393	-	96094523	-	-
S1.100.125.220.4.58M.H.297.G.N.D	15	96810394	96784437			
S1.100.125.260.4.58M.S.316.G.N.D	10	96781562	-	-	96782145	96790703
S1.100.125.260.4.58M.S.316.G.N.D	15	96810399	-	-	96782145	96790703
S1.100.125.260.4.58M.D.316.G.N.D	10	95113878	-	96094523	-	-
S1.100.125.260.4.58M.C.316.G.N.D	10	96781563	-	-	96782145	96790703
S1.100.125.260.4.58M.H.316.G.N.D	10	96781564	96784437			
S1.100.125.260.4.58M.C.316.G.N.D	15	96810400	-	-	96782145	96790703
S1.100.125.260.4.58M.D.316.G.N.D	15	96810401	-	96094523	-	-
S1.100.125.260.4.58M.H.316.G.N.D	15	96810402	96784437			
S2.100.200.220.4.58L.D.248.G.N.D	10	95113884	-	96094525	-	-
S2.100.200.220.4.58L.S.248.G.N.D	10	96781565	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.G.N.D	10	96781566	-	-	96641489	96790704
S2.100.200.220.4.58L.H.248.G.N.D	10	96781567	96784955			
S2.100.200.220.4.58L.S.248.G.N.D	15	96810403	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.G.N.D	15	96810404	-	-	96641489	96790704
S2.100.200.220.4.58L.D.248.G.N.D	15	96810405	-	96094525	-	-
S2.100.200.220.4.58L.H.248.G.N.D	15	96810406	96784955			
S2.100.200.260.4.58L.S.266.G.N.D	10	96781568	-	-	96641489	96790704
S2.100.200.260.4.58L.S.266.G.N.D	15	96810407	-	-	96641489	96790704
S2.100.200.260.4.58L.D.266.G.N.D	10	95113890	-	96094525	-	-
S2.100.200.260.4.58L.C.266.G.N.D	10	96781569	-	-	96641489	96790704
S2.100.200.260.4.58L.H.266.G.N.D	10	96781570	96784955			
S2.100.200.260.4.58L.C.266.G.N.D	15	96810408	-	-	96641489	96790704
S2.100.200.260.4.58L.D.266.G.N.D	15	96810409	-	96094525	-	-
S2.100.200.260.4.58L.H.266.G.N.D	15	96810410	96784955			
S2.100.300.160.6.58E.S.304.G.N.D	10	96781571	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.G.N.D	10	96781572	-	-	96782484	
S2.100.300.160.6.58E.D.304.G.N.D	10	96781573	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.G.N.D	10	96781575	96784708			
S2.100.300.160.6.58E.S.304.G.N.D	15	96810411	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.G.N.D	15	96810412	-	-	96782484	

Pump type	Cable length [m]	Pump	Accessories			
			*** Horizontal base stand	To be ordered separately		
				Vertical base stand	** Auto-coupling system	* Ring stand for portable use
S2.100.300.160.6.58E.D.304.G.N.D	15	96810413	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.G.N.D	15	96810414	96784708			
S2.100.300.220.6.58E.S.338.G.N.D	10	96781576	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.G.N.D	10	96781577	-	-	96782484	
S2.100.300.220.6.58E.D.338.G.N.D	10	96781578	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.G.N.D	10	96781580	96784708			
S2.100.300.220.6.58E.S.338.G.N.D	15	96810415	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.G.N.D	15	96810416	-	-	96782484	
S2.100.300.220.6.58E.D.338.G.N.D	15	96810417	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.G.N.D	15	96810418	96784708			

* Without hose connection.

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

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

Pumps with 15 m cable are installed with PTC thermal protection.

Stainless steel impeller, 3 x 400/690 V

Pump type	Pump	Accessories			
			To be ordered separately		
		*** Horizontal base stand	Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.Q.N.D	96811544	-	-	96782145	96790703
S1.80.125.220.4.58H.S.326.Q.N.D	96811512	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.Q.N.D	96811513	-	-	96782145	96790703
S1.80.125.220.4.58H.D.326.Q.N.D	96811514	-	96308238	-	-
S1.80.125.220.4.58H.H.326.Q.N.D	96811515	96782930			
S1.80.125.260.4.58H.S.341.Q.N.D	96811520	-	-	96782145	96790703
S1.80.125.260.4.58H.C.341.Q.N.D	96811521	-	-	96782145	96790703
S1.80.125.260.4.58H.D.341.Q.N.D	96811522	-	96308238	-	-
S1.80.125.260.4.58H.H.341.Q.N.D	96811523	96782930			
S1.100.125.220.4.58M.S.297.Q.N.D	96811516	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.Q.N.D	96811517	-	-	96782145	96790703
S1.100.125.220.4.58M.D.297.Q.N.D	96811518	-	96094523	-	-
S1.100.125.220.4.58M.H.297.Q.N.D	96811519	96784437			
S1.100.125.260.4.58M.S.316.Q.N.D	96811524	-	-	96782145	96790703
S1.100.125.260.4.58M.C.316.Q.N.D	96811525	-	-	96782145	96790703
S1.100.125.260.4.58M.D.316.Q.N.D	96811526	-	96094523	-	-
S1.100.125.260.4.58M.H.316.Q.N.D	96811527	96784437			
S2.100.200.220.4.58L.S.248.Q.N.D	96811528	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.Q.N.D	96811529	-	-	96641489	96790704
S2.100.200.220.4.58L.D.248.Q.N.D	96811530	-	96094525	-	-
S2.100.200.220.4.58L.H.248.Q.N.D	96811531	96784955			
S2.100.200.260.4.58L.S.266.Q.N.D	96811532	-	-	96641489	96790704
S2.100.200.260.4.58L.C.266.Q.N.D	96811533	-	-	96641489	96790704
S2.100.200.260.4.58L.D.266.Q.N.D	96811534	-	96094525	-	-
S2.100.200.260.4.58L.H.266.Q.N.D	96811535	96784955			
S2.100.300.160.6.58E.S.304.Q.N.D	96811536	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.Q.N.D	96811537	-	-	96782484	
S2.100.300.160.6.58E.D.304.Q.N.D	96811538	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.Q.N.D	96811539	96784708			
S2.100.300.220.6.58E.S.338.Q.N.D	96811540	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.Q.N.D	96811541	-	-	96782484	
S2.100.300.220.6.58E.D.338.Q.N.D	96811542	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.Q.N.D	96811543	96784708			

* Without hose connection.

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

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

Explosion-proof pumps

Cast iron, 3 x 400/690 V

Pump type	Cable length [m]	Pump	Accessories			
			*** Horizontal base stand	To be ordered separately		
				Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.G.EX.D	10	96784388	-	-	96782145	96790703
S1.80.125.220.4.58H.S.326.G.EX.D	10	95113400	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.G.EX.D	10	95113401	-	-	96782145	96790703
S1.80.125.220.4.58H.H.326.G.EX.D	10	95113402	96782930			
S1.80.125.220.4.58H.D.326.G.EX.D	10	95113975	-	96308238	-	-
S1.80.125.260.4.58H.S.341.G.EX.D	10	95113406	-	-	96782145	96790703
S1.80.125.260.4.58H.C.341.G.EX.D	10	95113407	-	-	96782145	96790703
S1.80.125.260.4.58H.H.341.G.EX.D	10	95113408	96782930			
S1.80.125.260.4.58H.D.341.G.EX.D	10	95113981	-	96308238	-	-
S1.100.125.220.4.58M.S.297.G.EX.D	10	95113403	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.G.EX.D	10	95113404	-	-	96782145	96790703
S1.100.125.220.4.58M.H.297.G.EX.D	10	95113405	96784437			
S1.100.125.220.4.58M.D.297.G.EX.D	10	95113976	-	96094523	-	-
S1.100.125.260.4.58M.S.316.G.EX.D	10	95113409	-	-	96782145	96790703
S1.100.125.260.4.58M.C.316.G.EX.D	10	95113410	-	-	96782145	96790703
S1.100.125.260.4.58M.H.316.G.EX.D	10	95113411	96784437			
S1.100.125.260.4.58M.D.316.G.EX.D	10	95113982	-	96094523	-	-
S2.100.200.220.4.58L.S.248.G.EX.D	10	95113415	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.G.EX.D	10	95113416	-	-	96641489	96790704
S2.100.200.220.4.58L.H.248.G.EX.D	10	95113417	96784955			
S2.100.200.220.4.58L.D.248.G.EX.D	10	95113987	-	96094525	-	-
S2.100.200.260.4.58L.S.266.G.EX.D	10	95113418	-	-	96641489	96790704
S2.100.200.260.4.58L.C.266.G.EX.D	10	95113419	-	-	96641489	96790704
S2.100.200.260.4.58L.H.266.G.EX.D	10	95113420	96784955			
S2.100.200.260.4.58L.D.266.G.EX.D	10	95113988	-	96094525	-	-
S2.100.300.160.6.58E.S.304.G.EX.D	10	95113412	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.G.EX.D	10	95113413	-	-	96782484	
S2.100.300.160.6.58E.D.304.G.EX.D	10	95113414	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.G.EX.D	10	96784372	96784708			
S2.100.300.220.6.58E.S.338.G.EX.D	10	96784380	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.G.EX.D	10	96784382	-	-	96782484	
S2.100.300.220.6.58E.D.338.G.EX.D	10	96784384	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.G.EX.D	10	96784386	96784708			

* Without hose connection.

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

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

Cast iron, 3 x 415 V

Pump type	Cable length [m]	Pump	Accessories			
			*** Horizontal base stand	To be ordered separately		
				Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.G.EX.D	10	96784389	-	-	96782145	96790703
S1.80.125.220.4.58H.D.326.G.EX.D	10	95113993	-	96308238	-	-
S1.80.125.220.4.58H.S.326.G.EX.D	10	96784357	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.G.EX.D	10	96784358	-	-	96782145	96790703
S1.80.125.220.4.58H.H.326.G.EX.D	10	96784359	96782930			
S1.80.125.260.4.58H.S.341.G.EX.D	10	96784363	-	-	96782145	96790703
S1.80.125.260.4.58H.D.341.G.EX.D	10	95113999	-	96308238	-	-
S1.80.125.260.4.58H.C.341.G.EX.D	10	96784364	-	-	96782145	96790703
S1.80.125.260.4.58H.H.341.G.EX.D	10	96784365	96782930			
S1.100.125.220.4.58M.D.297.G.EX.D	10	95113994	-	96094523	-	-
S1.100.125.220.4.58M.S.297.G.EX.D	10	96784360	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.G.EX.D	10	96784361	-	-	96782145	96790703
S1.100.125.220.4.58M.H.297.G.EX.D	10	96784362	96784437			
S1.100.125.260.4.58M.S.316.G.EX.D	10	96784366	-	-	96782145	96790703
S1.100.125.260.4.58M.D.316.G.EX.D	10	95114000	-	96094523	-	-
S1.100.125.260.4.58M.C.316.G.EX.D	10	96784367	-	-	96782145	96790703
S1.100.125.260.4.58M.H.316.G.EX.D	10	96784368	96784437			
S2.100.200.220.4.58L.D.248.G.EX.D	10	95113601	-	96094525	-	-
S2.100.200.220.4.58L.S.248.G.EX.D	10	96784374	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.G.EX.D	10	96784375	-	-	96641489	96790704
S2.100.200.220.4.58L.H.248.G.EX.D	10	96784376	96784955			
S2.100.200.260.4.58L.S.266.G.EX.D	10	96784377	-	-	96641489	96790704
S2.100.200.260.4.58L.D.266.G.EX.D	10	96781606	-	96094525	-	-
S2.100.200.260.4.58L.C.266.G.EX.D	10	96784378	-	-	96641489	96790704
S2.100.200.260.4.58L.H.266.G.EX.D	10	96784379	96784955			
S2.100.300.160.6.58E.S.304.G.EX.D	10	96784369	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.G.EX.D	10	96784370	-	-	96782484	
S2.100.300.160.6.58E.D.304.G.EX.D	10	96784371	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.G.EX.D	10	96784373	96784708			
S2.100.300.220.6.58E.S.338.G.EX.D	10	96784381	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.G.EX.D	10	96784383	-	-	96782484	
S2.100.300.220.6.58E.D.338.G.EX.D	10	96784385	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.G.EX.D	10	96784387	96784708			

* Without hose connection.

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

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

Stainless steel impeller, 3 x 400/690 V

Pump type	Pump	Accessories			
			To be ordered separately		
		*** Horizontal base stand	Vertical base stand	** Auto-coupling system	* Ring stand for portable use
SV.80.125.290.2.58H.S.278.Q.EX.D	96811577	-	-	96782145	96790703
S1.80.125.220.4.58H.S.326.Q.EX.D	96811545	-	-	96782145	96790703
S1.80.125.220.4.58H.C.326.Q.EX.D	96811546	-	-	96782145	96790703
S1.80.125.220.4.58H.D.326.Q.EX.D	96811547	-	96308238	-	-
S1.80.125.220.4.58H.H.326.Q.EX.D	96811548	96782930			
S1.80.125.260.4.58H.S.341.Q.EX.D	96811553	-	-	96782145	96790703
S1.80.125.260.4.58H.C.341.Q.EX.D	96811554	-	-	96782145	96790703
S1.80.125.260.4.58H.D.341.Q.EX.D	96811555	-	96308238	-	-
S1.80.125.260.4.58H.H.341.Q.EX.D	96811556	96782930			
S1.100.125.220.4.58M.S.297.Q.EX.D	96811549	-	-	96782145	96790703
S1.100.125.220.4.58M.C.297.Q.EX.D	96811550	-	-	96782145	96790703
S1.100.125.220.4.58M.D.297.Q.EX.D	96811551	-	96094523	-	-
S1.100.125.220.4.58M.H.297.Q.EX.D	96811552	96784437			
S1.100.125.260.4.58M.S.316.Q.EX.D	96811557	-	-	96782145	96790703
S1.100.125.260.4.58M.C.316.Q.EX.D	96811558	-	-	96782145	96790703
S1.100.125.260.4.58M.D.316.Q.EX.D	96811559	-	96094523	-	-
S1.100.125.260.4.58M.H.316.Q.EX.D	96811560	96784437			
S2.100.200.220.4.58L.S.248.Q.EX.D	96811564	-	-	96641489	96790704
S2.100.200.220.4.58L.C.248.Q.EX.D	96811565	-	-	96641489	96790704
S2.100.200.220.4.58L.D.248.Q.EX.D	96811566	-	96094525	-	-
S2.100.200.220.4.58L.H.248.Q.EX.D	96811567	96784955			
S2.100.200.260.4.58L.S.266.Q.EX.D	96811568	-	-	96641489	96790704
S2.100.200.260.4.58L.C.266.Q.EX.D	96811569	-	-	96641489	96790704
S2.100.200.260.4.58L.D.266.Q.EX.D	96811570	-	96094525	-	-
S2.100.200.260.4.58L.H.266.Q.EX.D	96811571	96784955			
S2.100.300.160.6.58E.S.304.Q.EX.D	96811561	-	-	96782484	96790705
S2.100.300.160.6.58E.C.304.Q.EX.D	96811562	-	-	96782484	
S2.100.300.160.6.58E.D.304.Q.EX.D	96811563	-	96094525	-	96790705
S2.100.300.160.6.58E.H.304.Q.EX.D	96811572	96784708			
S2.100.300.220.6.58E.S.338.Q.EX.D	96811573	-	-	96782484	96790705
S2.100.300.220.6.58E.C.338.Q.EX.D	96811574	-	-	96782484	
S2.100.300.220.6.58E.D.338.Q.EX.D	96811575	-	96094525	-	96790705
S2.100.300.220.6.58E.H.338.Q.EX.D	96811576	96784708			

* Without hose connection.

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

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

List of variants

Motor		
Various cable lengths		15 m
		25 m
		50 m
EMC power cables	Screened power cables for variable speed drives	10 m
		15 m
		25 m
		50 m
Special motor		Insulation class H
		Special voltage
PTC thermistors in windings		
Special oil	Non-toxic Shell Ondina 917	
Motor protection		
PTC + moisture switch		FPV1
Klixon + moisture switch + WIO		FPV2a
PTC + moisture switch + WIO		FPV2b
Klixon + moisture switch + WIO + PT100 at lower and upper bearing		FPV4a
PTC + moisture switch + WIO + PT100 at lower and upper bearing		FPV4b
Materials		
Stainless steel lifting bracket	AISI 316	
Stainless steel shaft		
Tests		
Test at specified duty on standard impeller curve		
Trimmed impeller for specified duty test		
Additional test of entire QH curve (incl. report)	5-10 flows from pump performance curve	
Different test standard	Efficiency guaranteed by Grundfos	ISO 9906 grade 1 tolerances
		ISO 9906 grade 2 tolerances
Vibration test (incl. report)	According to Grundfos factory quality standard	
Performance test on dry test stand	Not yet available	
NPSHr test	Not yet available	
String test	Contact Grundfos	
Witness test	Contact Grundfos	
Miscellaneous		
Special packaging	Contact Grundfos	
Special nameplate	Contact Grundfos	
Other variants	Contact Grundfos	

Sectional drawings, motors

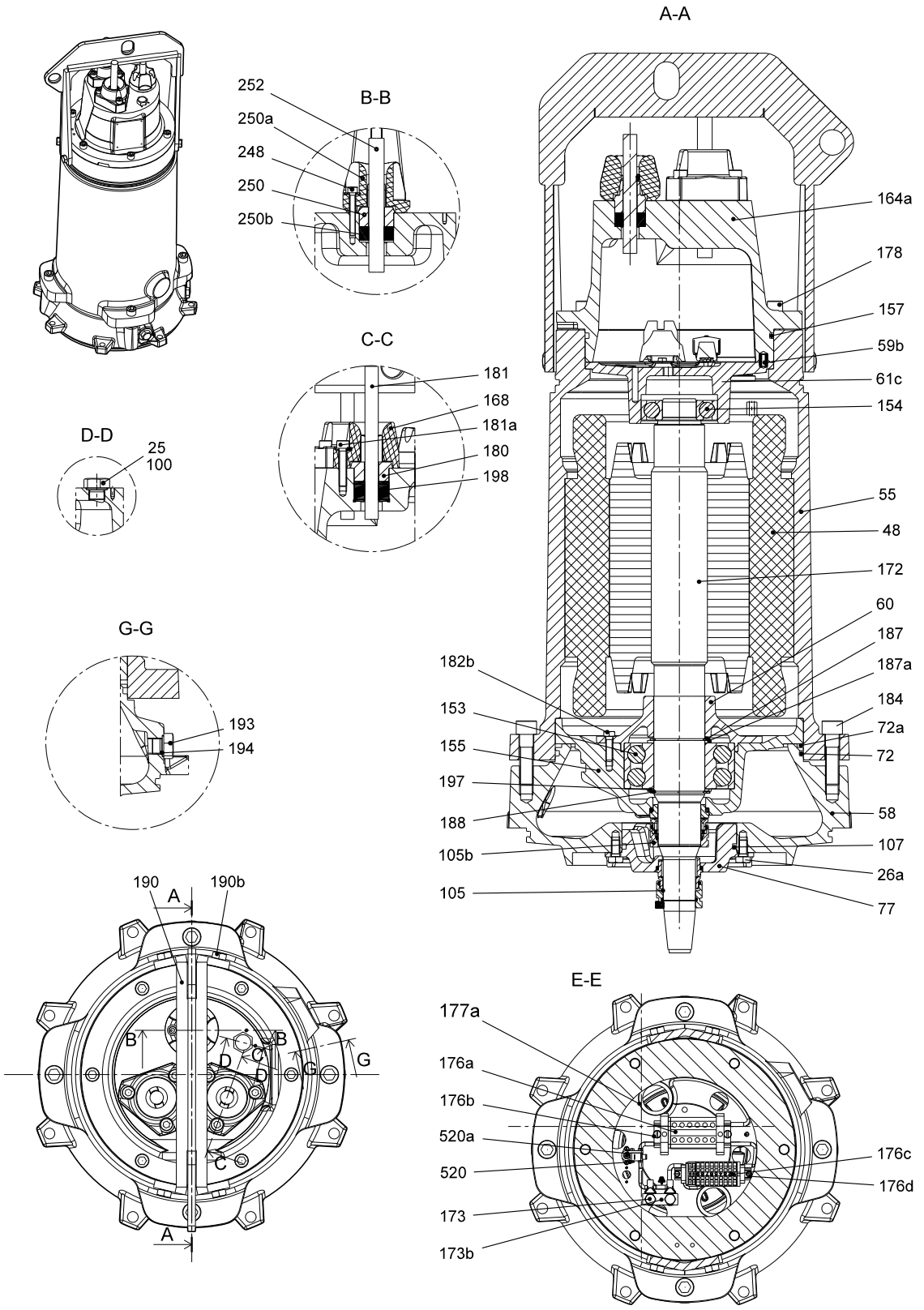


Fig. 4 Non-explosion-proof motor without cooling jacket

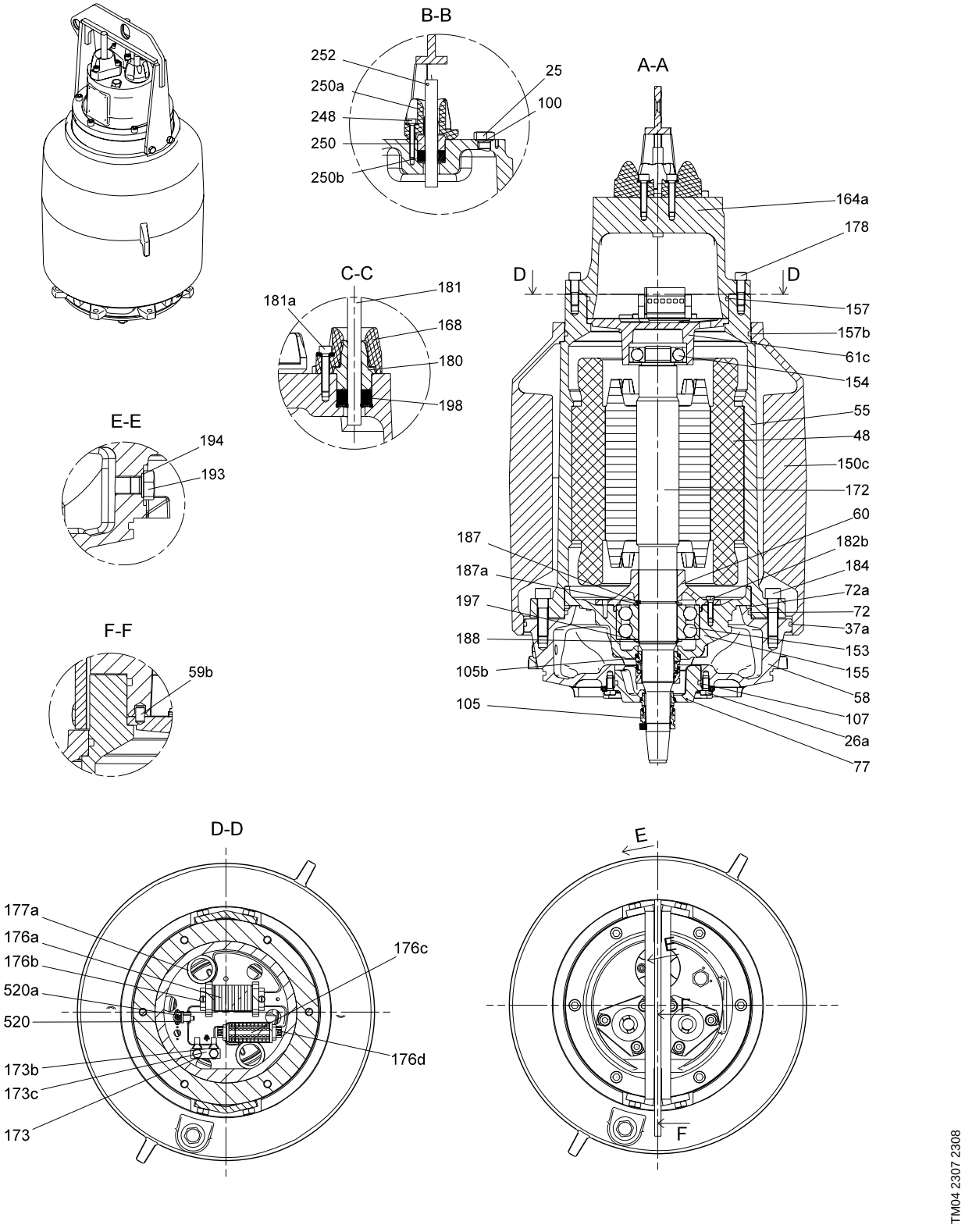


Fig. 5 Non-explosion-proof motor with cooling jacket

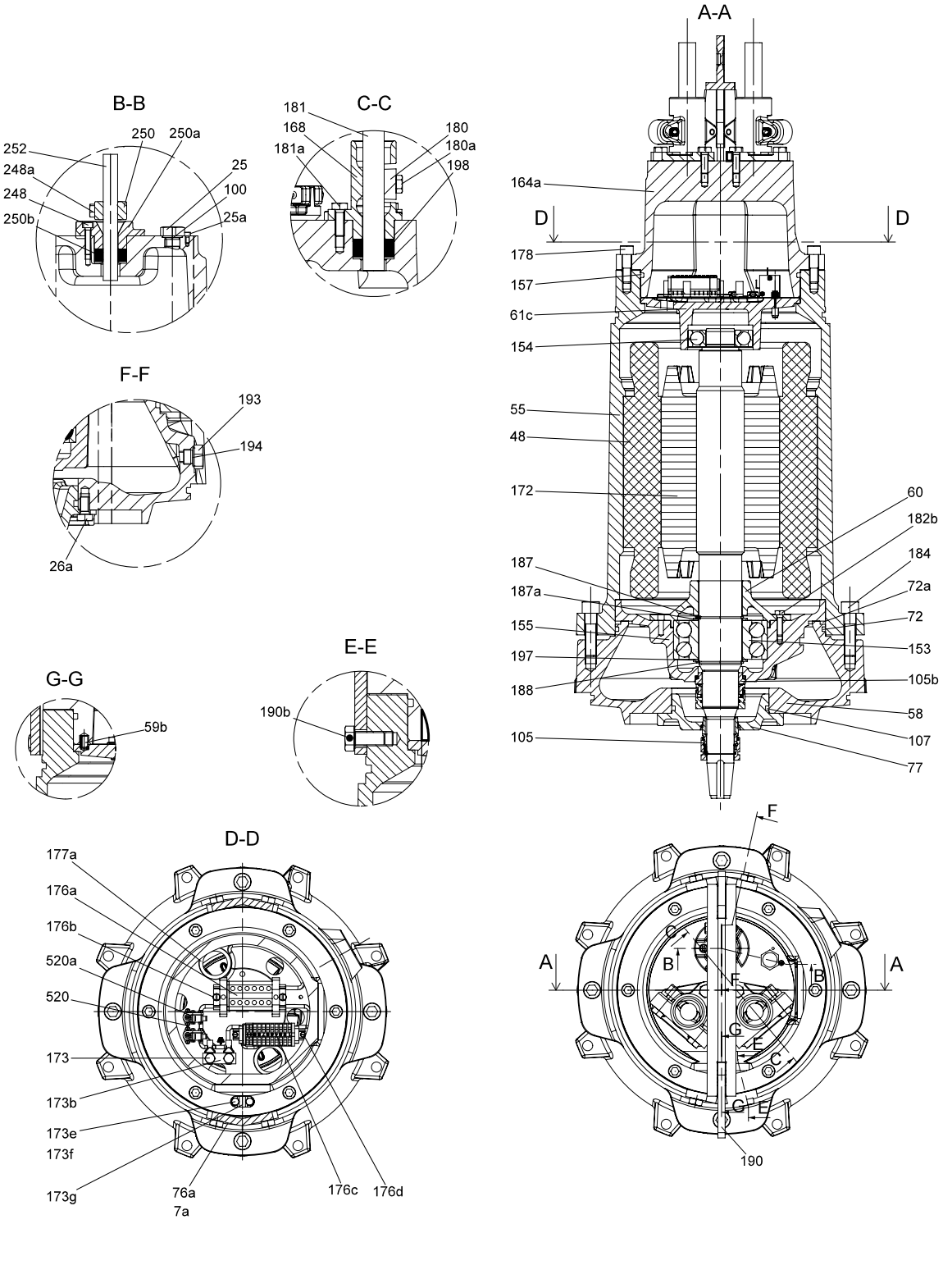


Fig. 6 Explosion-proof motor without cooling jacket

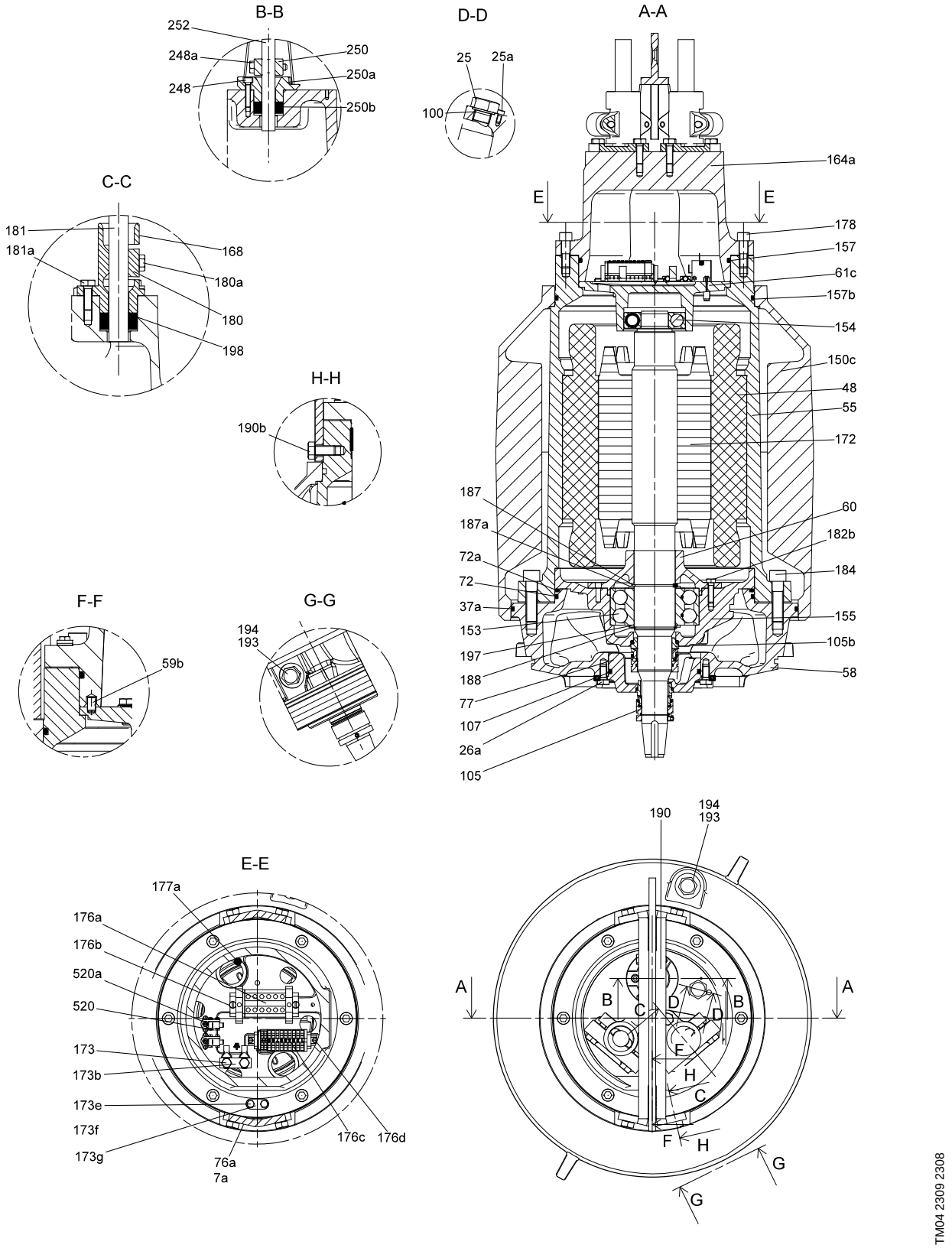


Fig. 7 Explosion-proof motor with cooling jacket

Sectional drawings, pumps

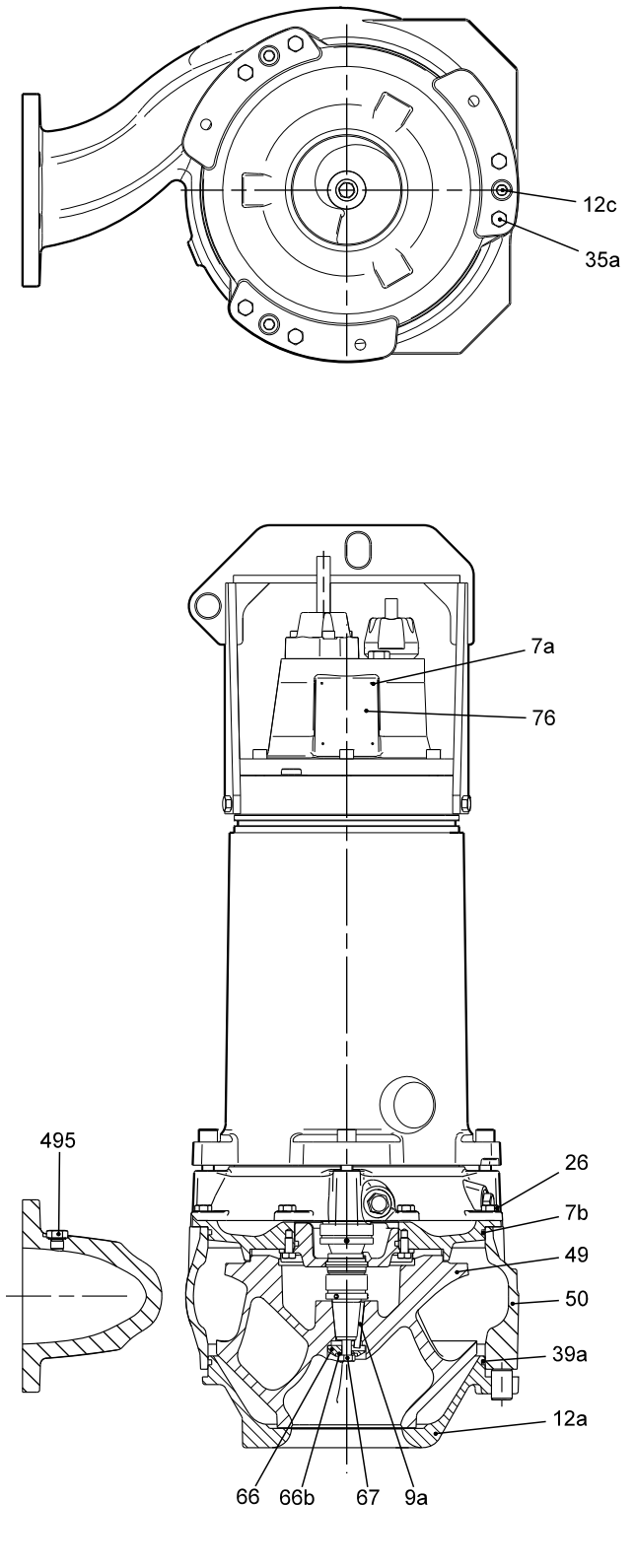


Fig. 8 S1 pump

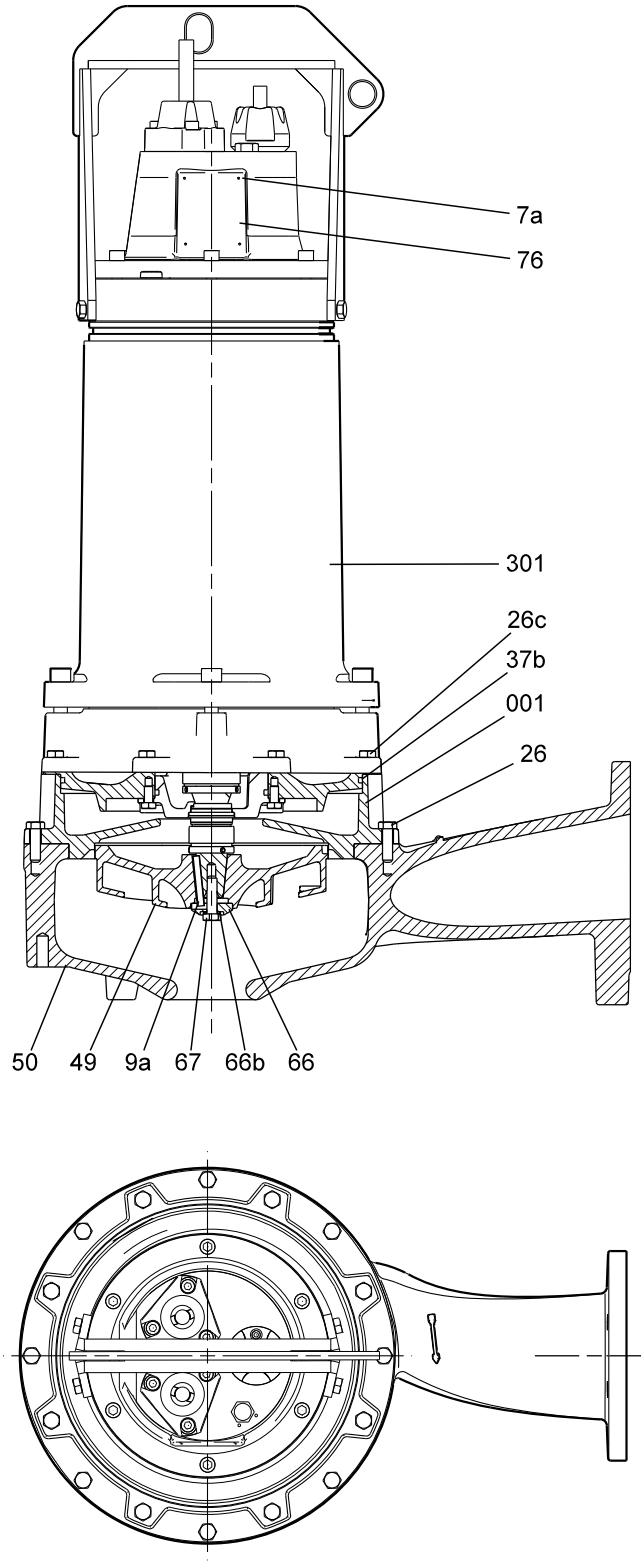


Fig. 9 SV pump

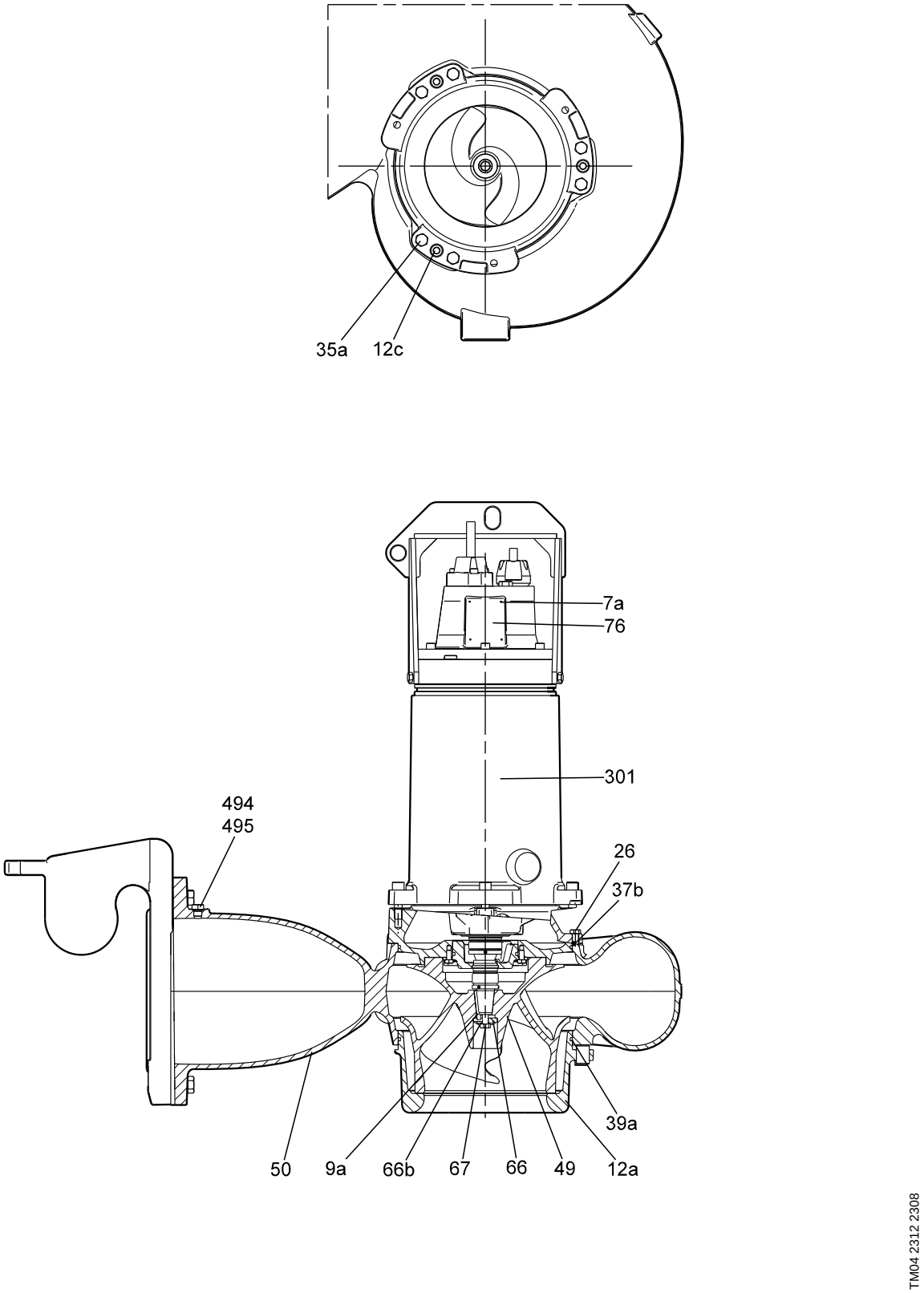


Fig. 10 S1 pump with DN 2 > DN 400

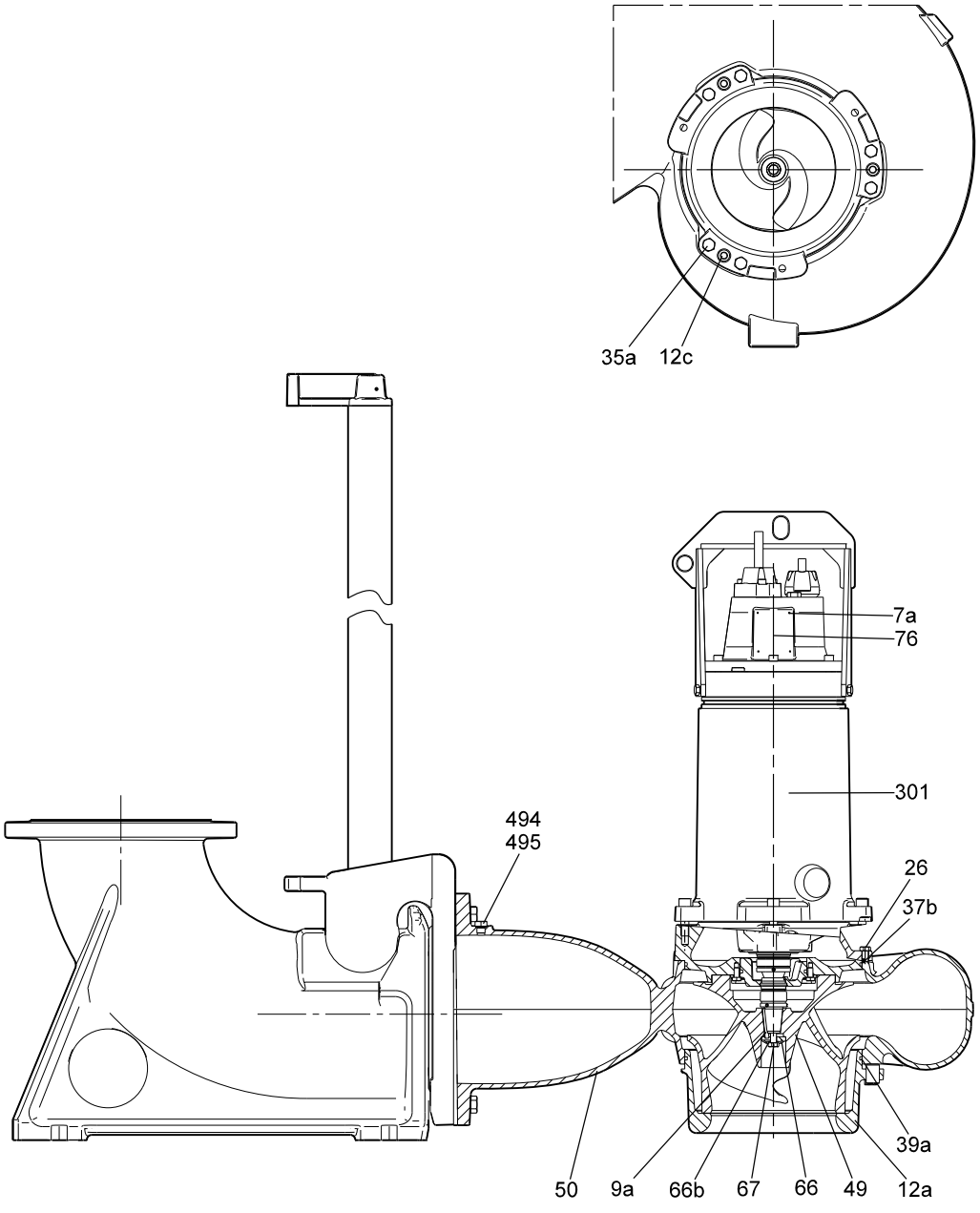


Fig. 11 Installation types S and C pump on auto coupling

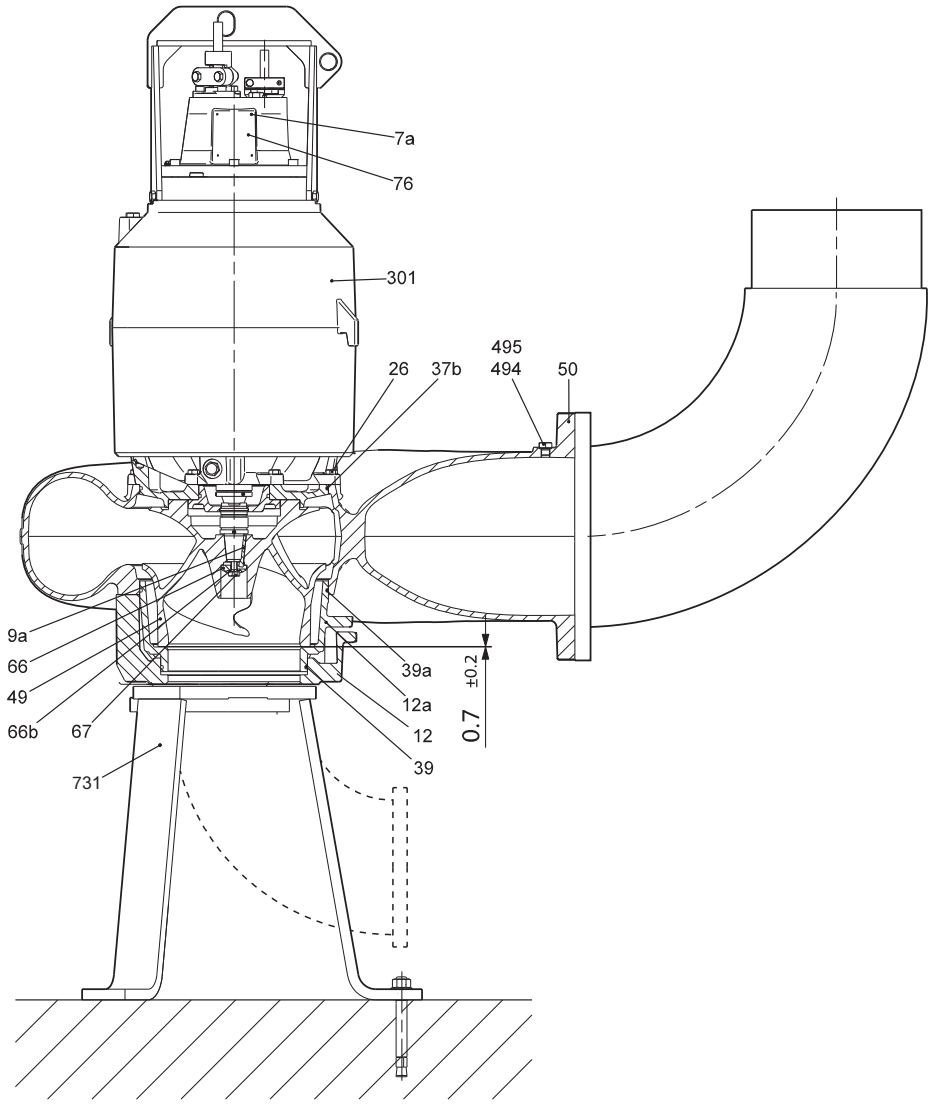


Fig. 12 Installation type D pump

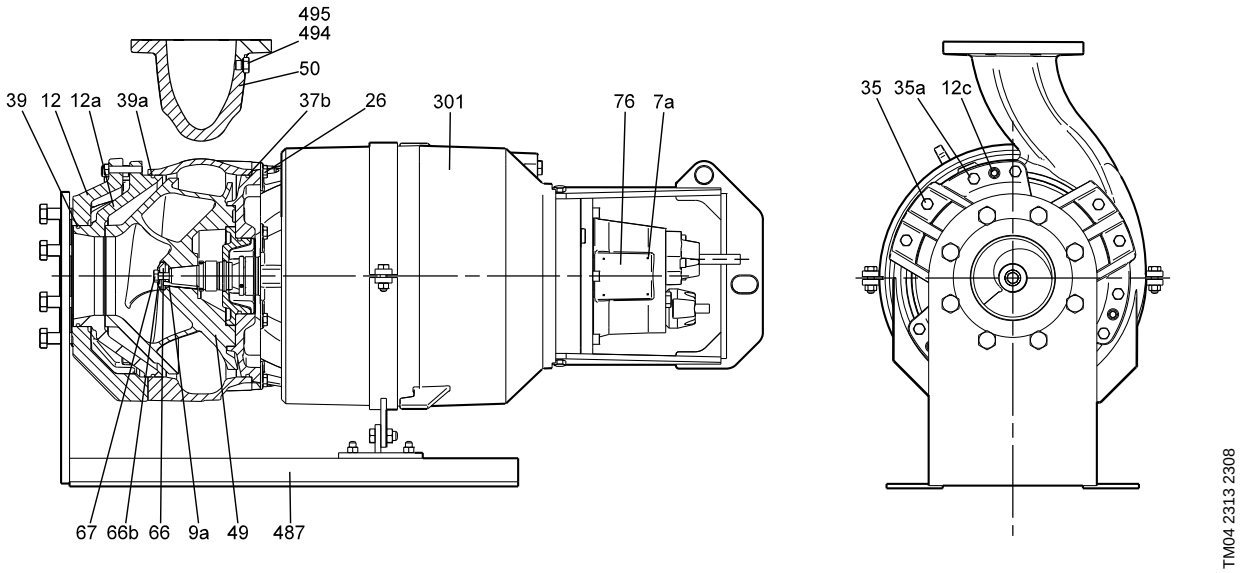


Fig. 13 S1 pump, installation type H

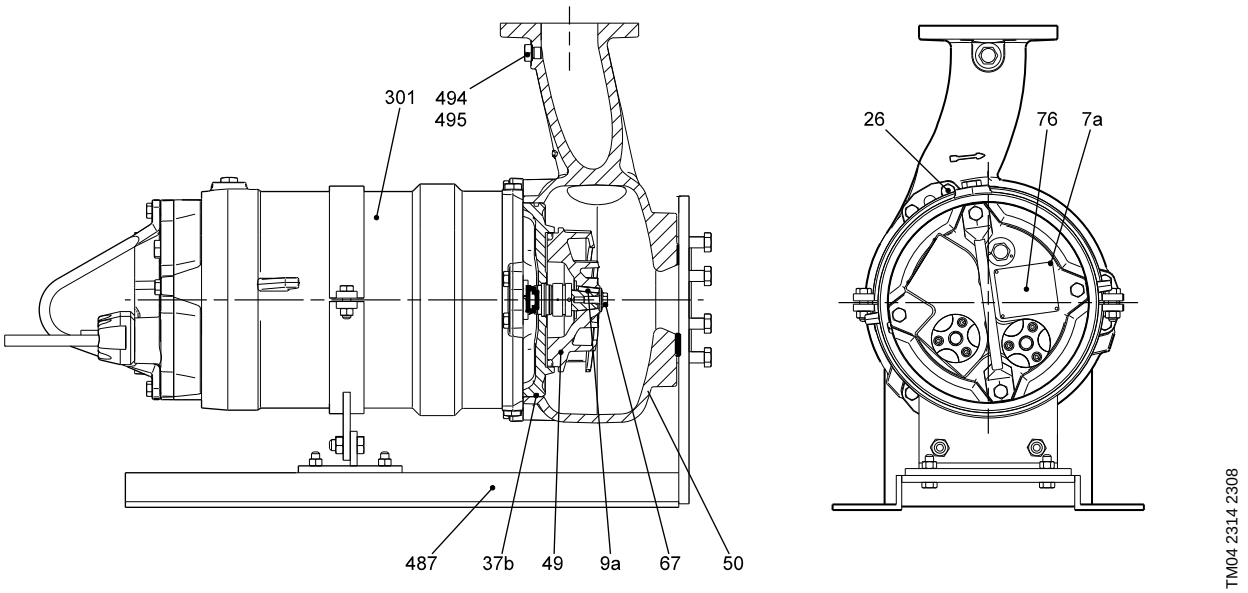


Fig. 14 SV pump, installation type H

Components and material specification

Motor

Pos.	Component	Material
7a	Rivet	Stainless steel (1.4436/316)
25a	Screw	Stainless steel (1.4436/316)
25	Pressure test plug	Stainless steel (1.4436/316)
48	Stator lamination	
**55	Stator housing	Cast iron (EN-JL 1040/A48 30)
58	Seal housing	Cast iron
60	Bearing bracket cover	Cast iron
61c	Upper bearing bracket	Cast iron
72a	O-ring	NBR rubber
72	O-ring	NBR rubber
76a	Approval plate	
100	O-ring	NBR rubber
105b	Mechanical seal	SiC/SiC or SiC/carbon
105	Mechanical seal	SiC/SiC or SiC/carbon
150c	Cooling jacket	Galvanized steel
153	Ball bearing	Stainless steel
154	Ball bearing	Stainless steel
**155	Lower bearing bracket	Cast iron
157b	O-ring	NBR rubber
157	O-ring	NBR rubber
**164a	Motor top cover	Cast iron
*168	Cable entry	PA or cast iron
172	Shaft with rotor	Stainless steel (1.4462/329)
173b	Earth terminal	
173c	Washer	Stainless steel (1.4436/316)
173e	Screw	Stainless steel (1.4436/316)
173f	Spring washer	Stainless steel (1.4436/316)
173g	Earth connector	
173	Screw	Stainless steel (1.4436/316)
176a	Terminal block	
176b	Screw	Stainless steel (1.4436/316)
176c	Terminal block	
176d	Terminal block	
178	Screw	Stainless steel (1.4436/316)
180	Cable clamp	PA or cast iron
181a	Screw	Stainless steel (1.4436/316)
181	Cable	ATON
182b	Hexagon socket head cap screw	Stainless steel (1.4436/316)
184b	Screw	Stainless steel (1.4436/316)
184	Screw	Stainless steel (1.4436/316)
187a	Washer	Stainless steel (1.4436/316)
187	Circlip	
188	Circlip	
190	Lifting bracket	Stainless steel (1.4408/316)
193	Plug	Stainless steel (1.4408/316)
194	O-ring	NBR rubber
197	Washer	Stainless steel (1.4436/316)
198	Rubber seal	
248	Screw	Stainless steel (1.4436/316)
250a	Cable entry	PA or cast iron
250b	Rubber seal	
250	Cable clamp	PA or cast iron
252	Cable	ATON
520a	Screw	Stainless steel (1.4436/316)
520b	Nut	Stainless steel (1.4436/316)
*520	Moisture switch	
522	Holder	

Pump

Pos.	Component	Material
7a	Rivet	
9a	Key (for keyway)	Stainless steel (1.4436/316)
12c	Adjusting screw	Stainless steel (1.4436/316)
26	Screw	Stainless steel (1.4436/316)
37	O-ring	NBR rubber
37b	O-ring	NBR rubber
**49	Impeller	Cast iron EN-JL 1050
**50	Volute casing	Cast iron EN-JS 1050
67	Impeller screw	Stainless steel (1.4436/316)
76	Nameplate	
301	Motor housing	
494	Plug	Stainless steel (1.4436/316)
495	O-ring	NBR rubber

Accessories

Pos.	Component	Material
**701	Auto-coupling base unit	Cast iron
**702	Guide rail bracket	Cast iron
**703	Guide claw	Cast iron
731	Base stand, vertical	Galvanized steel
749	Bend	Cast iron
751	Ring stand	Galvanized steel
**761	Hose connector	Cast iron or stainless steel
487	Base stand, horizontal	Galvanized steel
799	Anchor bolt	

* Ex versions have cast iron cable entry and two moisture switches.

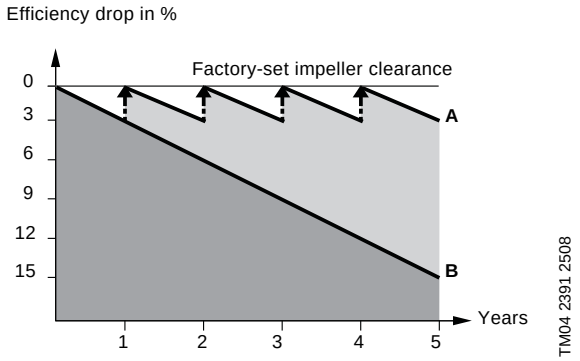
** Available of stainless steel (custom-built option).

Features

SmartTrim

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

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



A: With Grundfos SmartTrim impeller clearance adjustment system

B: Without impeller clearance adjustment system

SmartSeal

The Grundfos SmartSeal auto-coupling gasket mounted on the pump discharge flange provides a completely leak-proof connection between the pump and the base unit of the auto-coupling system. This optimises the efficiency of the entire pumping system and keeps operating costs at a minimum.

Ball bearings

The bearings are greased for life.

Main bearings: Double-row angular contact ball bearing

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

Shaft seal

The pumps have a shaft seal consisting of a primary and a secondary shaft seal.

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

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

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

Motor

The motor is a watertight, totally encapsulated motor with:

- insulation class F (155 °C)
- temperature rise class F (105 °C)
- enclosure class IP68.

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

Power cables

Standard cable

Cable type [mm^2]	Outer cable diameter [mm]		Bending radius
	min.	max.	[cm]
4 x 6	15.7	17.2	11
4 x 10	20.9	23.4	14

EMC cable

Cable type [mm^2]	Outer cable diameter [mm]		Bending radius
	min.	max.	[cm]
3 x 6	13.6	15.2	7.6
3 x 10	17.8	19.8	9.9

Control cable

Cable type [mm^2]	Outer cable diameter [mm]		Bending radius
	min.	max.	[cm]
7 x 1.5	14.4	16.0 - 16.4	10

The cables are 10 m long as standard. Other cable lengths are available on request. See *List of variants* on page 15.

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

Cable entry

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

Sensors

As standard the pump is equipped with:

- Three thermal switches (Klixon), one in each phase.
- One moisture switch in terminal block.

Customised sensor options

1. WIO (water-in-oil) sensor
   The WIO sensor measures the water content in the oil and converts the value into an analogue current signal. The two sensor conductors are for power supply as well as for carrying the signal to the measuring device or controller. The sensor measures the water content from 0 to 20 %. It also sends a signal if the water content is outside the normal range (warning), or if there is air in the oil chamber (alarm). The sensor is fitted in a stainless steel tube for mechanical protection.
   The WIO sensor is connected to the Grundfos IO 111 module.
2. PVS 3 (pump vibration sensor)
   The vibration sensor monitors the vibration level of the pump. A change in the vibration level indicates an abnormal situation. The cause of this can be a clogged impeller, worn bearings, closed discharge valve, etc., indicating that service inspection should be carried out now in order to protect the pump or the pipe system from being damaged.
3. Bearing temperature sensor.

Testing

All pumps are tested before leaving the factory. The factory test report is based on ISO 9906, Annex A. Test reports can be ordered directly with the pump or can be ordered separately based on the pump serial number.

Other tests or third party inspection certificates are available on request. See *List of variants* on page 15.

Operating conditions

Pumps without cooling jacket in submerged installation:

- Continuous operation when pump is fully submerged to top of motor.
- Intermittent operation with max. 20 starts per hour when pump is submerged to middle of motor and with short periods of operation down to the top of the pump housing
  Note: Explosion proof pumps must always be fully submerged

Pumps with cooling jacket in submerged and dry installation:

- Continuous and intermittent operation with max. 20 starts per hour with water level down to the top of the pump housing.

Pumped liquids

pH value: 4-10

Liquid temperature: 0 °C - +40 °C

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

Sound pressure

The sound pressure level of the pump is lower than the limiting values stated in the EC Council directive 98/37/EC relating to machinery (the EC Machinery Directive).

Motor range

Shaft power[kW]	No. of poles
13.5	4
15	2
17	4
21	2

Explosion-proof pumps

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

Pump controllers

S pumps, range 58, can be controlled by the following LC and LCD pump controllers:

- LC 107, LCD 107 with level pickups
- LC 108, LCD 108 with float switches
- LC 110, LCD 110 with level electrodes.

LC controllers are for single-pump installations; LCD controllers are for two-pump installations.

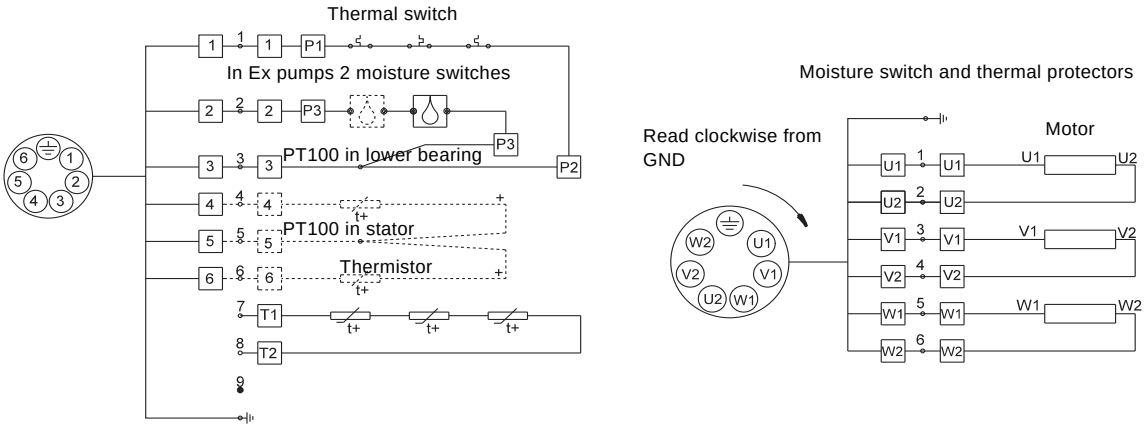
In the following description, "level switch" means level pickup, float switch or level electrode, depending on the pump controller selected.

The LC controller is fitted with two or three level switches: One for start and one for stop of pump. The third - optional - level switch, is for high-level alarm.

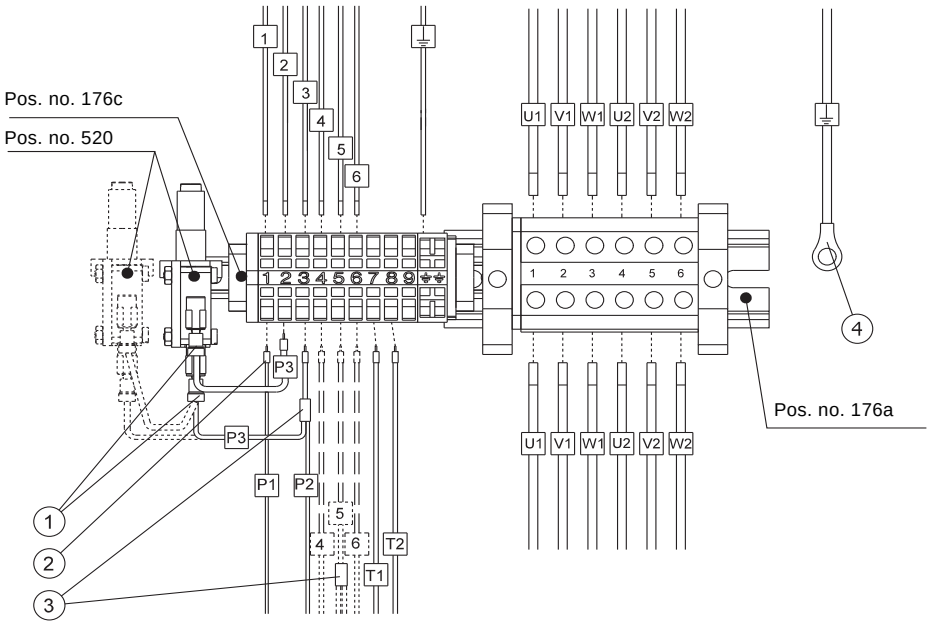
The LCD controller is fitted with three or four level switches: Two for start of the pumps and one for common stop. The fourth - optional - level switch, is for high-level alarm.

For further settings, see the installation and operating instructions for the pump controller selected.

Wiring diagrams



Supply cable conductors



Stator conductors

Item	Description
1	Female push-on connector
2	Wire pin
3	Butt splice
4	Ring connector

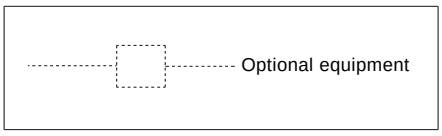


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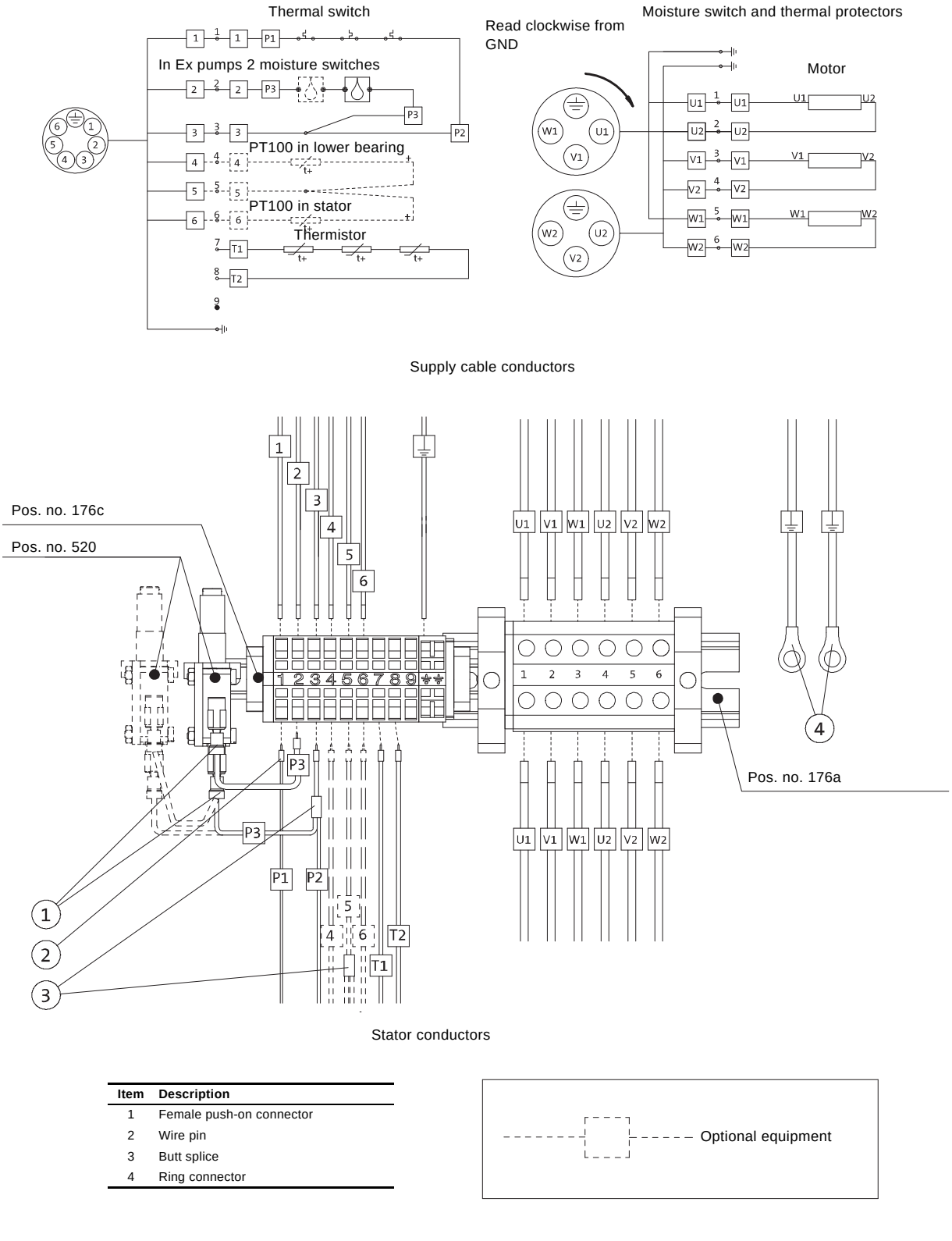
Fig. 15 Wiring diagrams, pumps with one power cable



Item	Description
1	Female push-on connector
2	Wire pin
3	Butt splice
4	Ring connector

Fig. 16 Wiring diagrams, pumps with two power cables

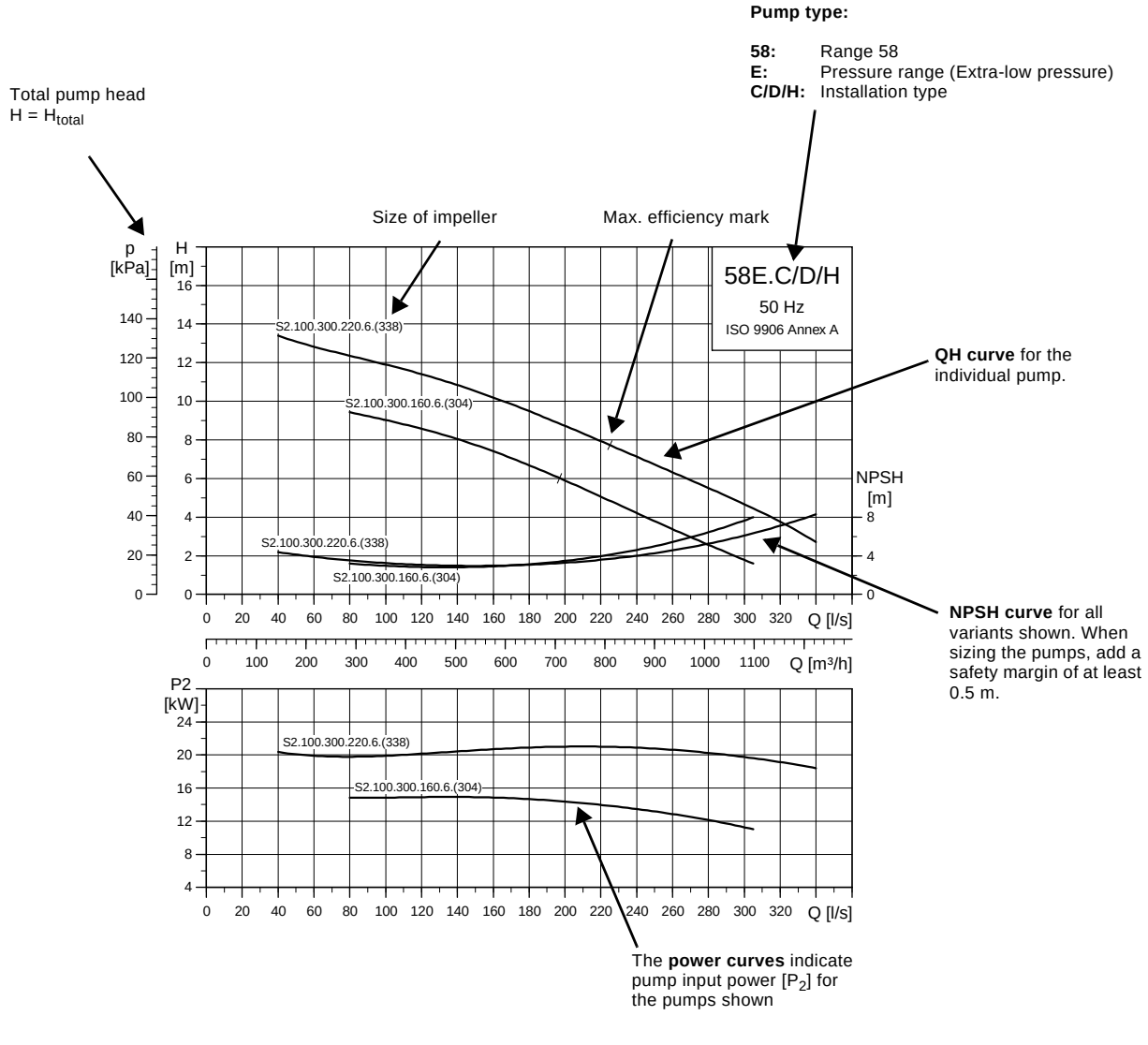
Curve charts/ Technical data

The following many pages are divided into sections:

Pages 32 and 33	A brief explanation of how to read the curve charts, the curve conditions, etc.

Performance curves and technical data:

How to read the curve charts



Curve charts/ Technical data

Curve conditions

The guidelines below apply to the curves shown in the performance charts on page 34 to page 46.

- Tolerances according to: ISO 9906, Annex A.
- The curves show pump performance with different impeller diameters at rated speed.
- The **bold** part of the curves show the **recommended** operating range.
- The curves apply to the pumping of airless water at a temperature of +20 °C and a kinematic viscosity of 1 mm^2/s (1 cSt).
- **ETA:** The lines show values of the hydraulic efficiency of the pump for the different impeller diameters.
- **NPSH:** The curves show average values measured under the same conditions as the performance curves.
  When dimensioning the pump, add a safety margin of at least 0.5 m.
- In case of other densities than 1000 kg/m^3, the discharge pressure is proportional to the density.
- When pumping liquids with a density higher than 1000 kg/m^3, motors with correspondingly higher outputs must be used.

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 between suction and the discharge side of the pump.

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

Performance tests

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

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

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

Certificates

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

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

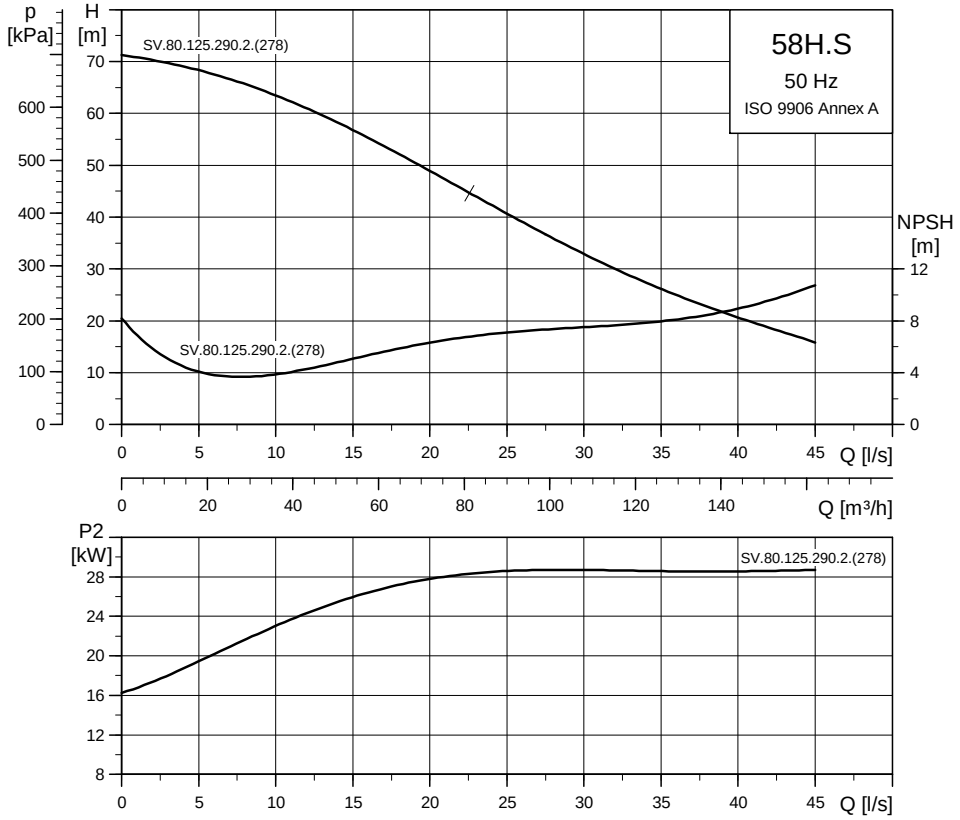
Witness test

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

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

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

SuperVortex - 3 x 400/690 V



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Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
SV.80.125.290.2.58H.S.278.G.N.D	S	1098	725	225	500	450	159	-	125	410	95113395

With 10 m cable

Electrical data

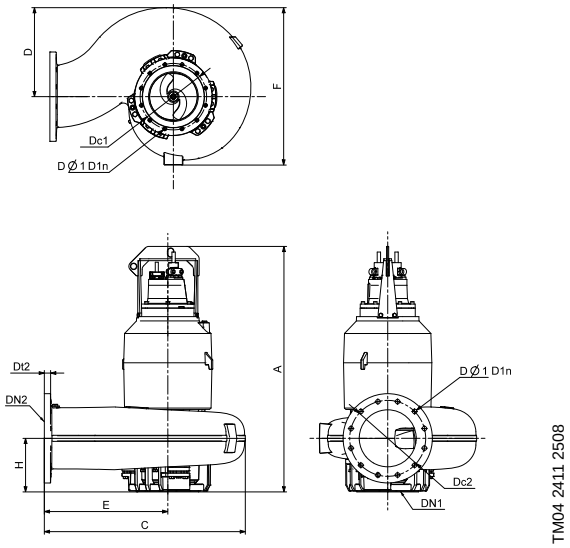
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque [Nm] M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
SV.80.125.290.2.58H.S.278.G.N.D	34	29	2	2916	Y/D	57	430	86	87	85	0.74	0.84	0.87	0.184	306

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
SV.80.125.290.2.58H.S.278.G.N.D	278	80	10	20

Dimensional sketches



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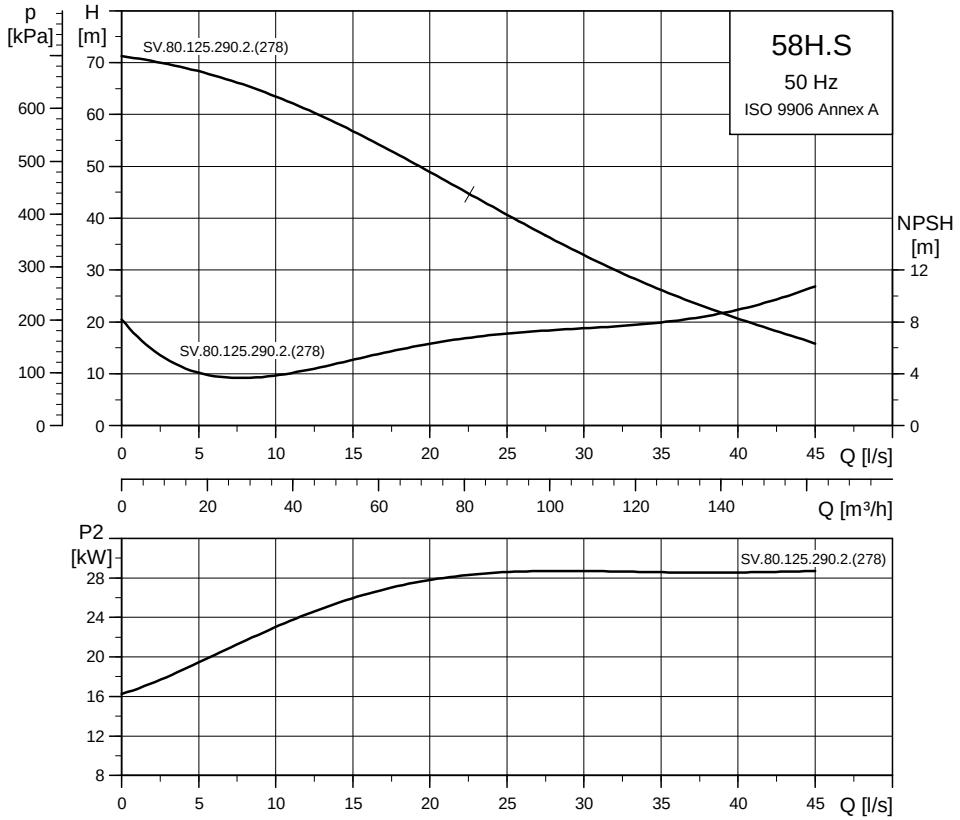
Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

SuperVortex - 3 x 415 V



TM04 1873 1308

Technical data

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
SV.80.125.290.2.58H.S.278.G.N.D	S	1098	725	225	500	450	159	-	125	410	96781581

With 10 m cable

Electrical data

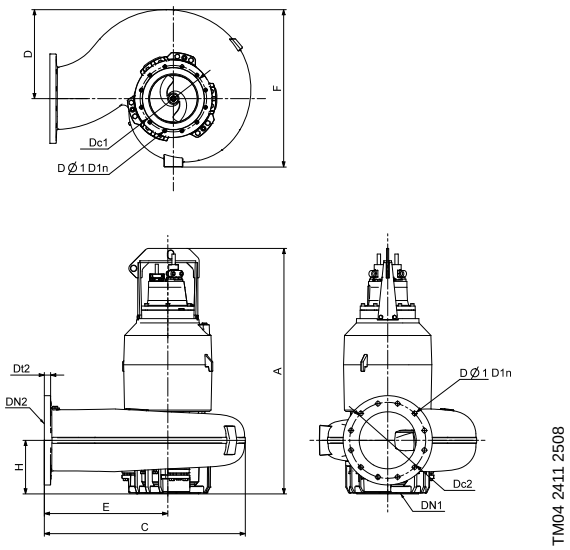
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque [Nm] M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
SV.80.125.290.2.58H.S.278.G.N.D	34	29	2	2916	Y/D	55	415	86	87	85	0.74	0.84	0.87	0.184	306

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
SV.80.125.290.2.58H.S.278.G.N.D	278	80	10	20

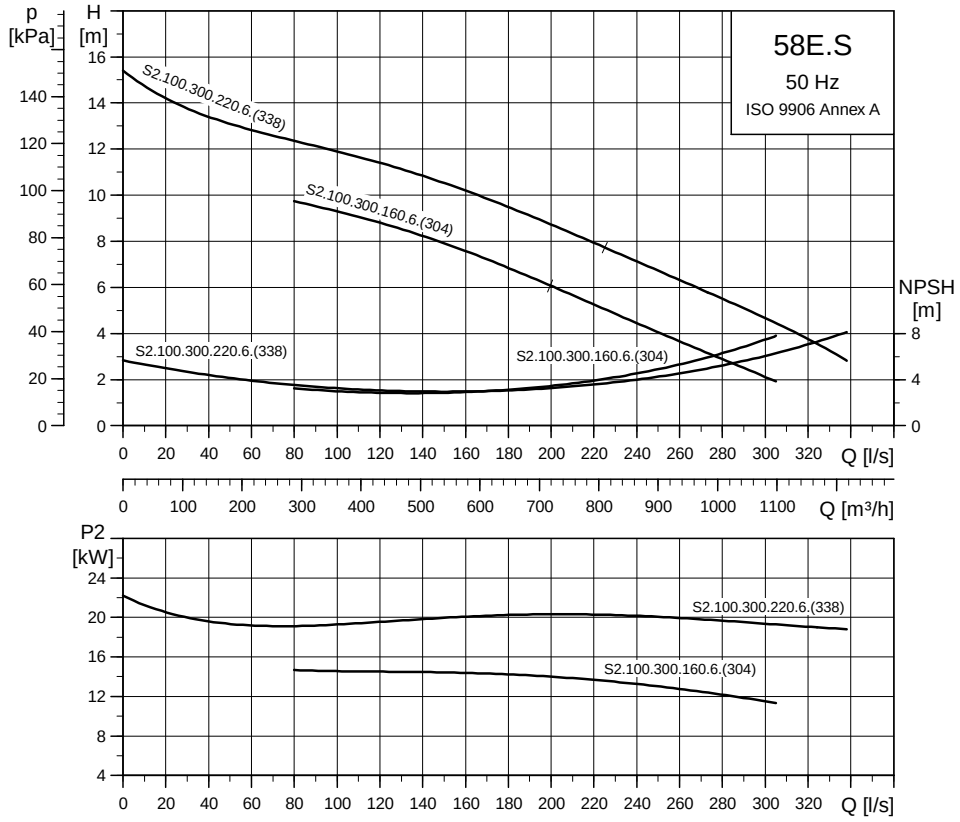
Dimensional sketches



TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Extra-low pressure - 3 x 400/690 V



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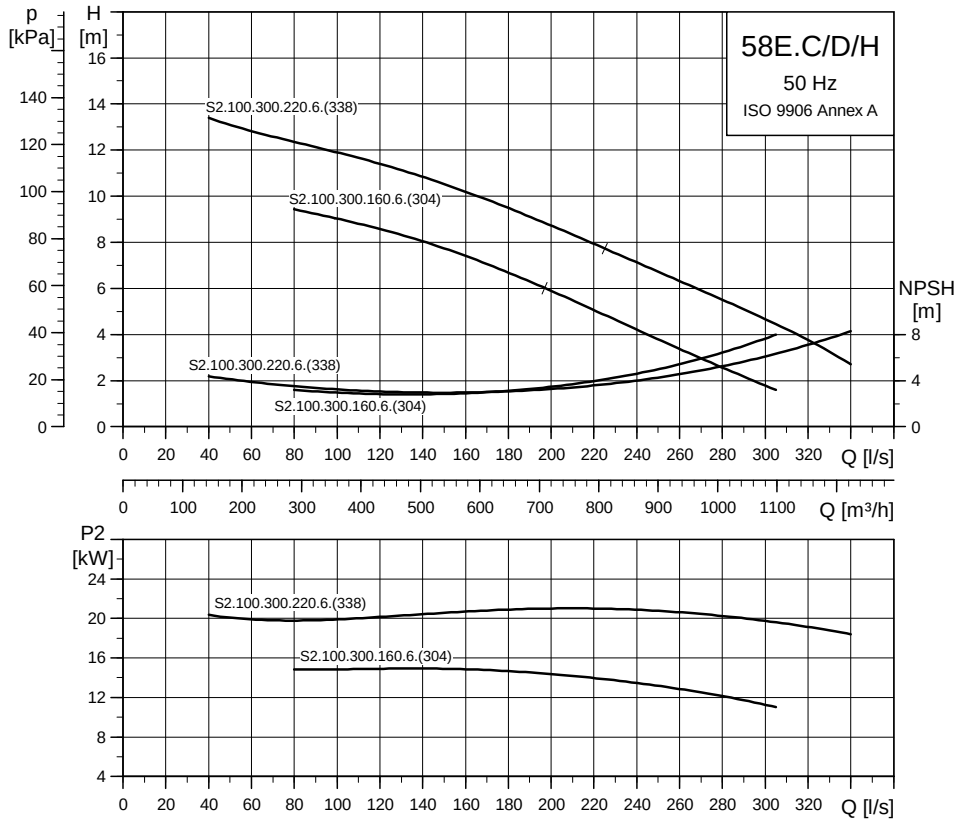


TM04 0654 0908

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S2.100.300.160.6.58E.S.304.G.N.D	S	1262	1058	468	650	828	250	-	300	560	95113389
S2.100.300.160.6.58E.C.304.G.N.D	C	1262	1058	468	650	828	250	-	300	620	95113390
S2.100.300.160.6.58E.D.304.G.N.D	D	1293	1058	468	650	828	282	DN 250	300	600	95113391
S2.100.300.160.6.58E.H.304.G.N.D	H	1293	1058	468	650	828	282	DN 250	300	660	96781574
S2.100.300.220.6.58E.S.338.G.N.D	S	1262	1058	468	650	828	250	-	300	560	95113392
S2.100.300.220.6.58E.C.338.G.N.D	C	1262	1058	468	650	828	250	-	300	620	95113393
S2.100.300.220.6.58E.D.338.G.N.D	D	1293	1058	468	650	828	282	DN 250	300	600	95113394
S2.100.300.220.6.58E.H.338.G.N.D	H	1293	1058	468	650	828	282	DN 250	300	660	96781579

With 10 m cable

Electrical data

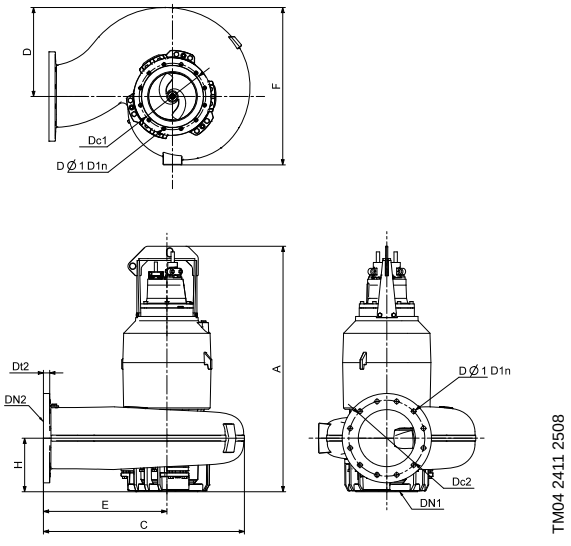
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia [kgm^2]	Breakdown torque [Nm] M_{max} [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1		
S2.100.300.160.6.58E.S.304.G.N.D	19	16	6	974	Y/D	40	210	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.C.304.G.N.D	19	16	6	974	Y/D	40	210	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.D.304.G.N.D	19	16	6	974	Y/D	40	210	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.H.304.G.N.D	19	16	6	974	Y/D	40	210	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.220.6.58E.S.338.G.N.D	27	22.5	6	957	Y/D	50	210	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.C.338.G.N.D	27	22.5	6	957	Y/D	50	210	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.D.338.G.N.D	27	22.5	6	957	Y/D	50	210	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.H.338.G.N.D	27	22.5	6	957	Y/D	50	210	83	84	82	0.59	0.71	0.81	0.4	309

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S2.100.300.160.6.58E.S.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.C.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.D.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.H.304.G.N.D	304	100	10	20
S2.100.300.220.6.58E.S.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.C.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.D.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.H.338.G.N.D	338	100	10	20

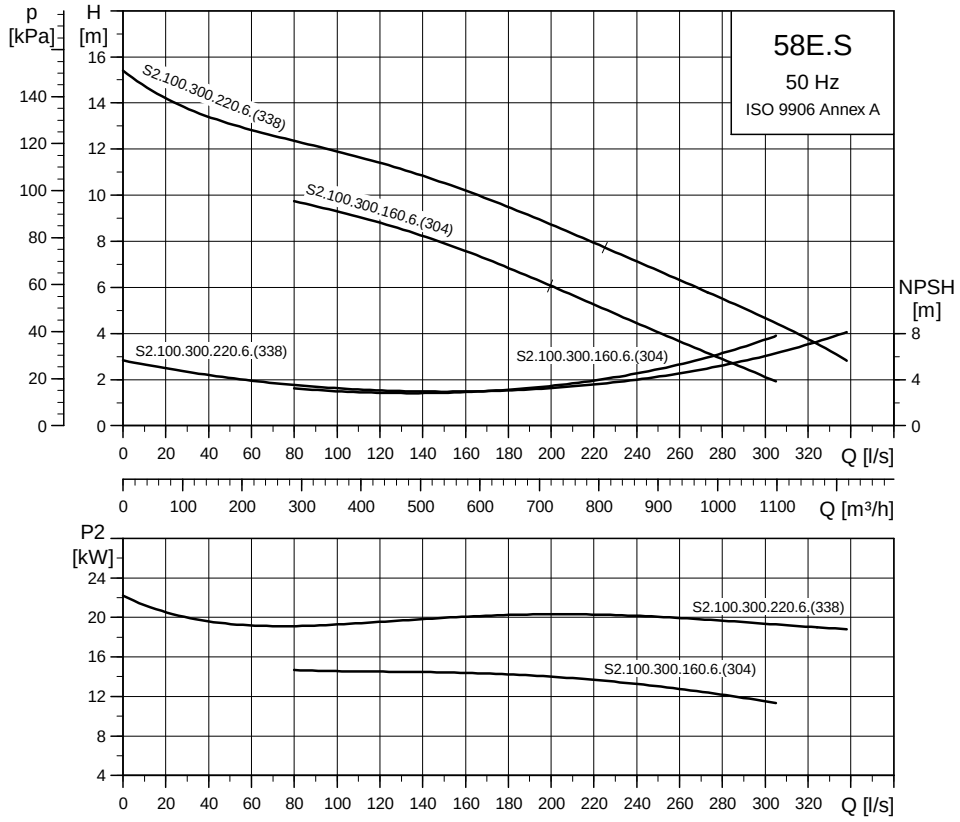
Dimensional sketches



TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Extra-low pressure - 3 x 415 V



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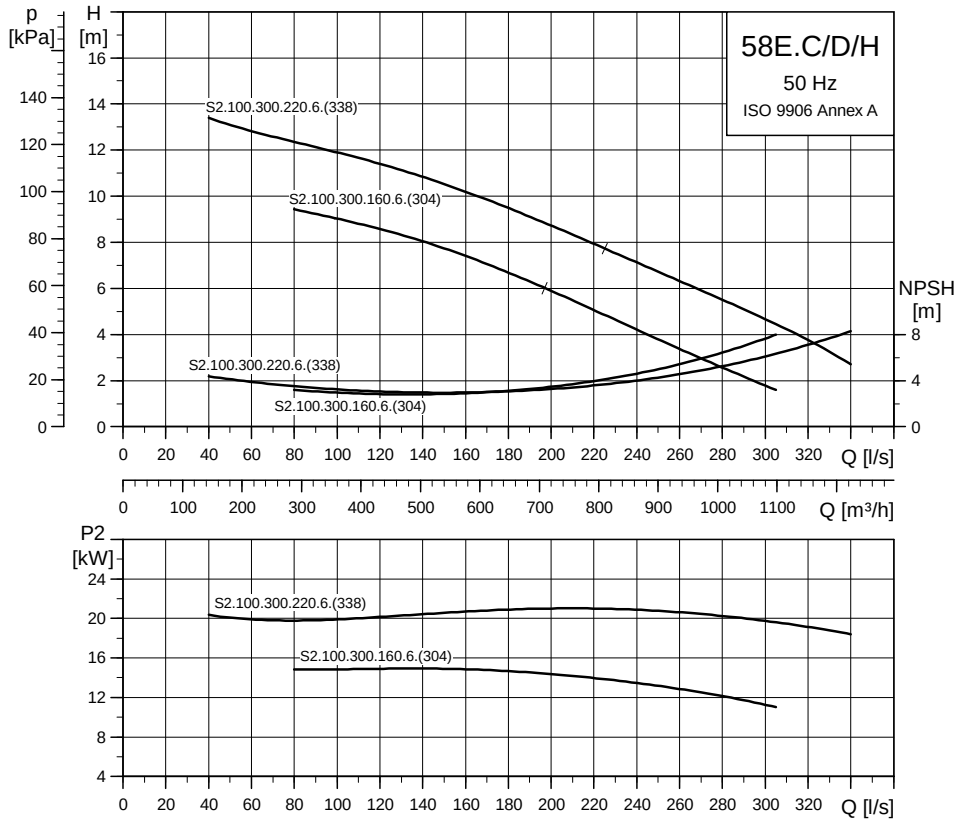


TM04 0654 0908

Technical data

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S2.100.300.160.6.58E.S.304.G.N.D	S	1262	1058	468	650	828	250	-	300	560	96781571
S2.100.300.160.6.58E.C.304.G.N.D	C	1262	1058	468	650	828	250	-	300	620	96781572
S2.100.300.160.6.58E.D.304.G.N.D	D	1293	1058	468	650	828	282	DN 250	300	600	96781573
S2.100.300.160.6.58E.H.304.G.N.D	H	1293	1058	468	650	828	282	DN 250	300	660	96781575
S2.100.300.220.6.58E.S.338.G.N.D	S	1262	1058	468	650	828	250	-	300	560	96781576
S2.100.300.220.6.58E.C.338.G.N.D	C	1262	1058	468	650	828	250	-	300	620	96781577
S2.100.300.220.6.58E.D.338.G.N.D	D	1293	1058	468	650	828	282	DN 250	300	600	96781578
S2.100.300.220.6.58E.H.338.G.N.D	H	1293	1058	468	650	828	282	DN 250	300	660	96781580

With 10 m cable

Electrical data

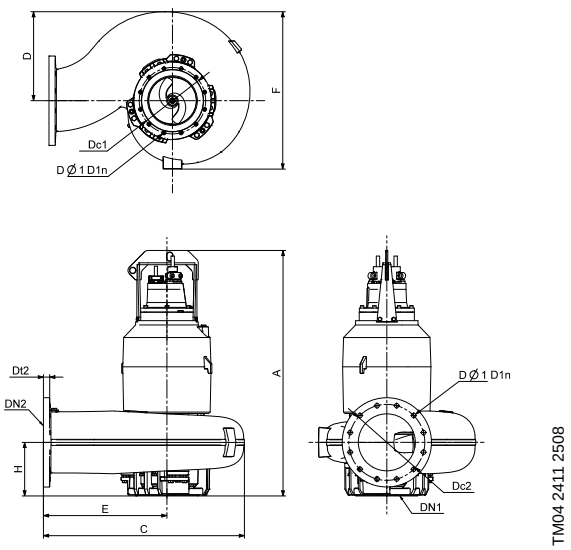
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%] 1/2	3/4	1/1	Cos φ 1/2	3/4	1/1	Moment of inertia [kgm^2]	Breakdown torque [Nm] M_{max} [Nm]
S2.100.300.160.6.58E.S.304.G.N.D	19	16	6	974	Y/D	39	202	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.C.304.G.N.D	19	16	6	974	Y/D	39	202	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.D.304.G.N.D	19	16	6	974	Y/D	39	202	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.160.6.58E.H.304.G.N.D	19	16	6	974	Y/D	39	202	81	83	84	0.50	0.61	0.70	0.7013	309
S2.100.300.220.6.58E.S.338.G.N.D	27	22.5	6	957	Y/D	48	202	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.C.338.G.N.D	27	22.5	6	957	Y/D	48	202	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.D.338.G.N.D	27	22.5	6	957	Y/D	48	202	83	84	82	0.59	0.71	0.81	0.4	309
S2.100.300.220.6.58E.H.338.G.N.D	27	22.5	6	957	Y/D	48	202	83	84	82	0.59	0.71	0.81	0.4	309

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S2.100.300.160.6.58E.S.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.C.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.D.304.G.N.D	304	100	10	20
S2.100.300.160.6.58E.H.304.G.N.D	304	100	10	20
S2.100.300.220.6.58E.S.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.C.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.D.338.G.N.D	338	100	10	20
S2.100.300.220.6.58E.H.338.G.N.D	338	100	10	20

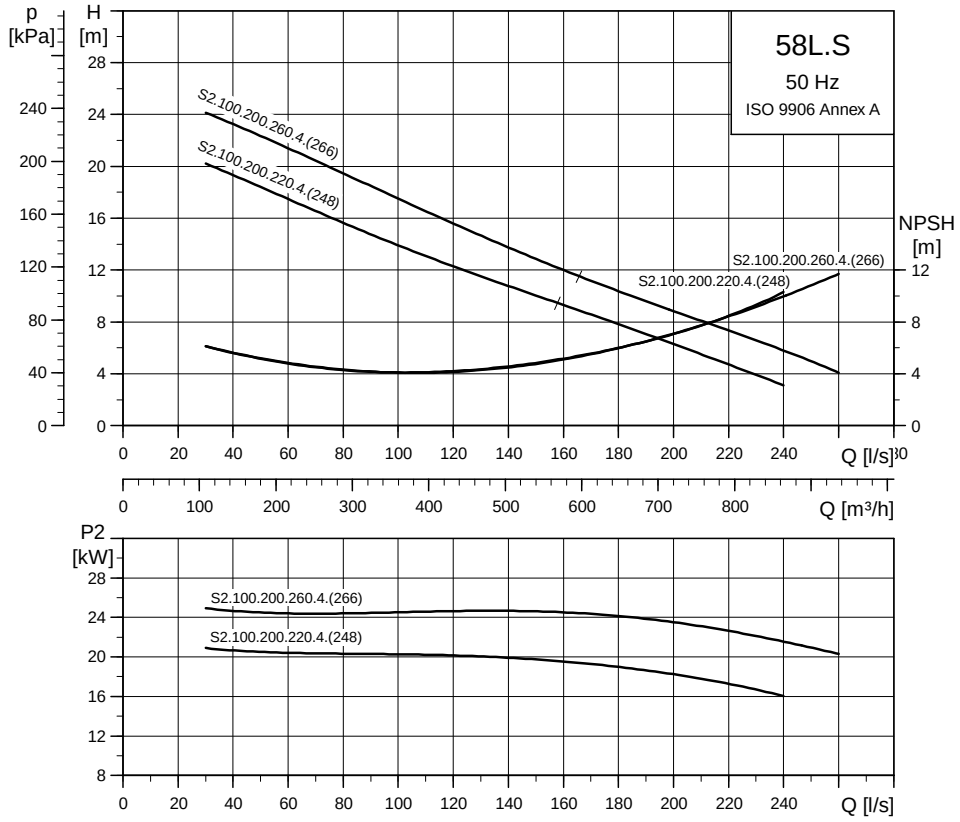
Dimensional sketches



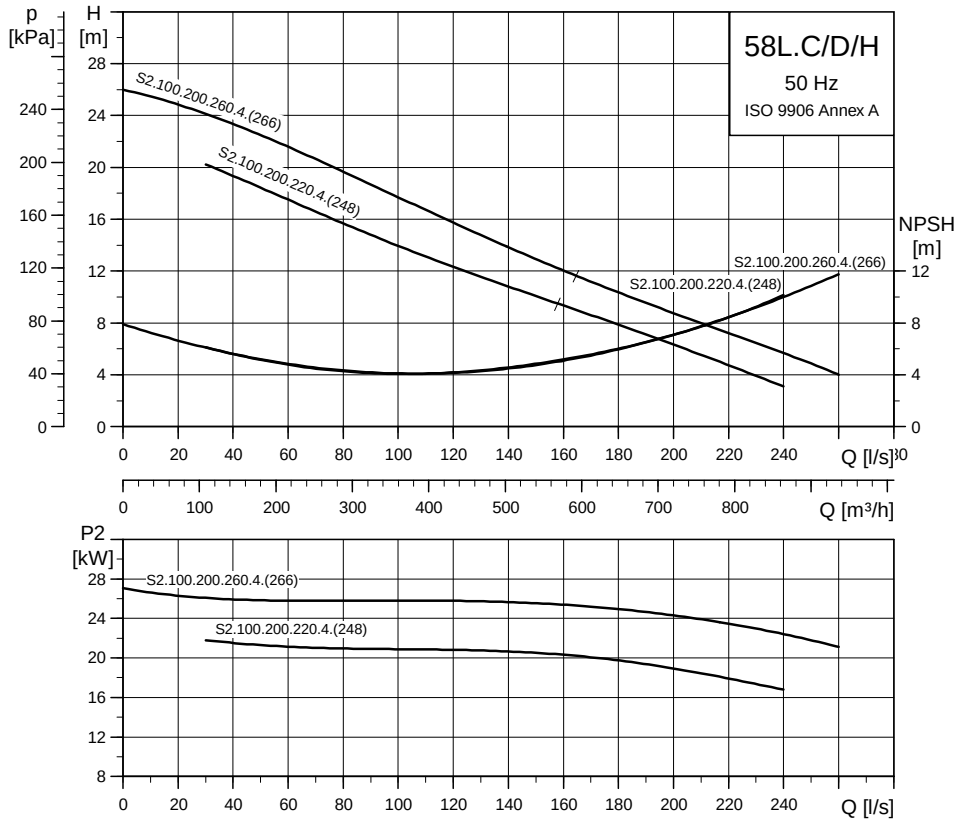
TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Low pressure - 3 x 400/690 V



TM04 0657 0908



TM04 0658 0908

Technical data

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S2.100.200.220.4.58L.S.248.G.N.D	S	1250	835	380	550	680	215	-	200	490	95113383
S2.100.200.220.4.58L.C.248.G.N.D	C	1250	835	380	550	680	215	-	200	540	95113384
S2.100.200.220.4.58L.H.248.G.N.D	H	1284	835	380	550	680	249	DN 250	200	590	95113385
S2.100.200.220.4.58L.D.248.G.N.D	D	1284	835	380	550	680	249	DN 250	200	540	95113883
S2.100.200.260.4.58L.S.266.G.N.D	S	1250	835	380	550	680	215	-	200	490	95113386
S2.100.200.260.4.58L.C.266.G.N.D	C	1250	835	380	550	680	215	-	200	540	95113387
S2.100.200.260.4.58L.H.266.G.N.D	H	1284	835	380	550	680	249	DN 250	200	590	95113388
S2.100.200.260.4.58L.D.266.G.N.D	D	1284	835	380	550	680	249	DN 250	200	540	95113889

With 10 m cable

Electrical data

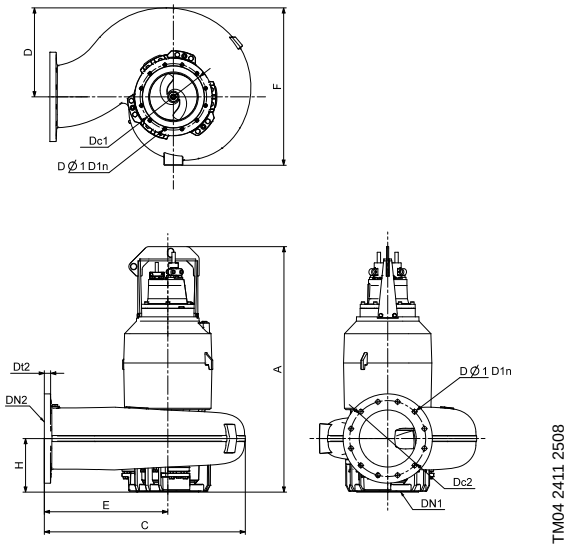
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	M_{max} [Nm]
S2.100.200.220.4.58L.S.248.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.C.248.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.H.248.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.D.248.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.260.4.58L.S.266.G.N.D	30	26	4	1446	Y/D	51	261	87	88	87	0.72	0.79	0.85	0.528	389
S2.100.200.260.4.58L.C.266.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.528	389
S2.100.200.260.4.58L.H.266.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.528	389
S2.100.200.260.4.58L.D.266.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.528	389

Note: Enclosure class: IP68

Pump data

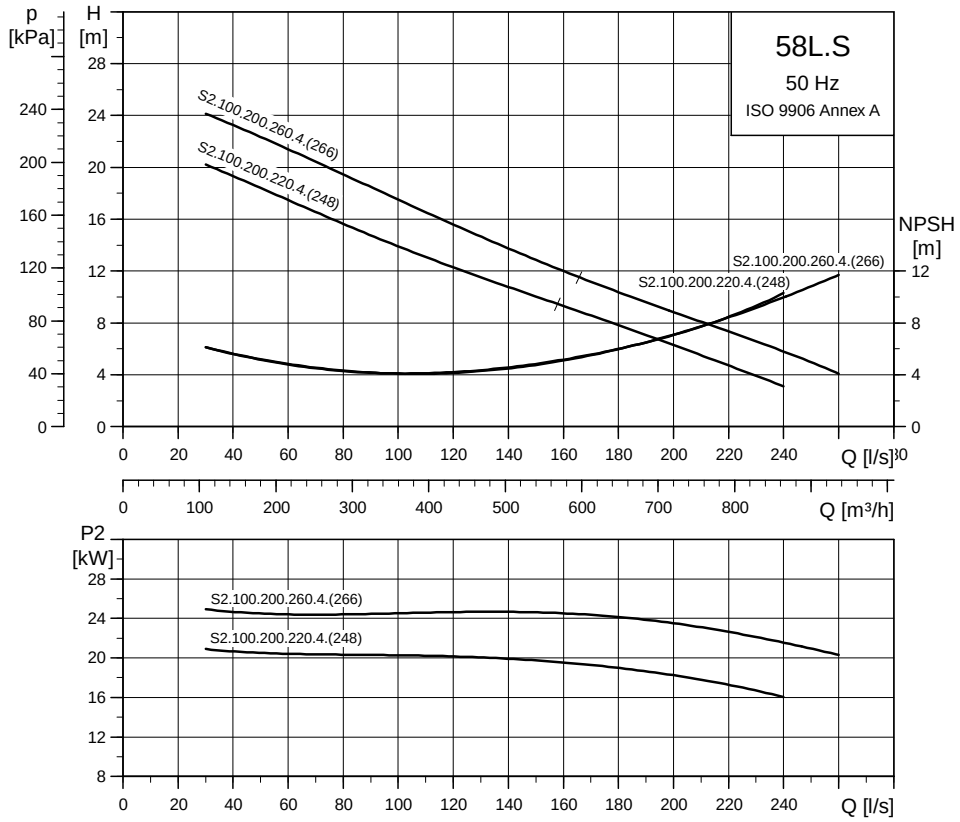
Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S2.100.200.220.4.58L.S.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.C.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.H.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.D.248.G.N.D	248	100	10	20
S2.100.200.260.4.58L.S.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.C.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.H.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.D.266.G.N.D	266	100	10	20

Dimensional sketches



Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Low pressure - 3 x 415 V



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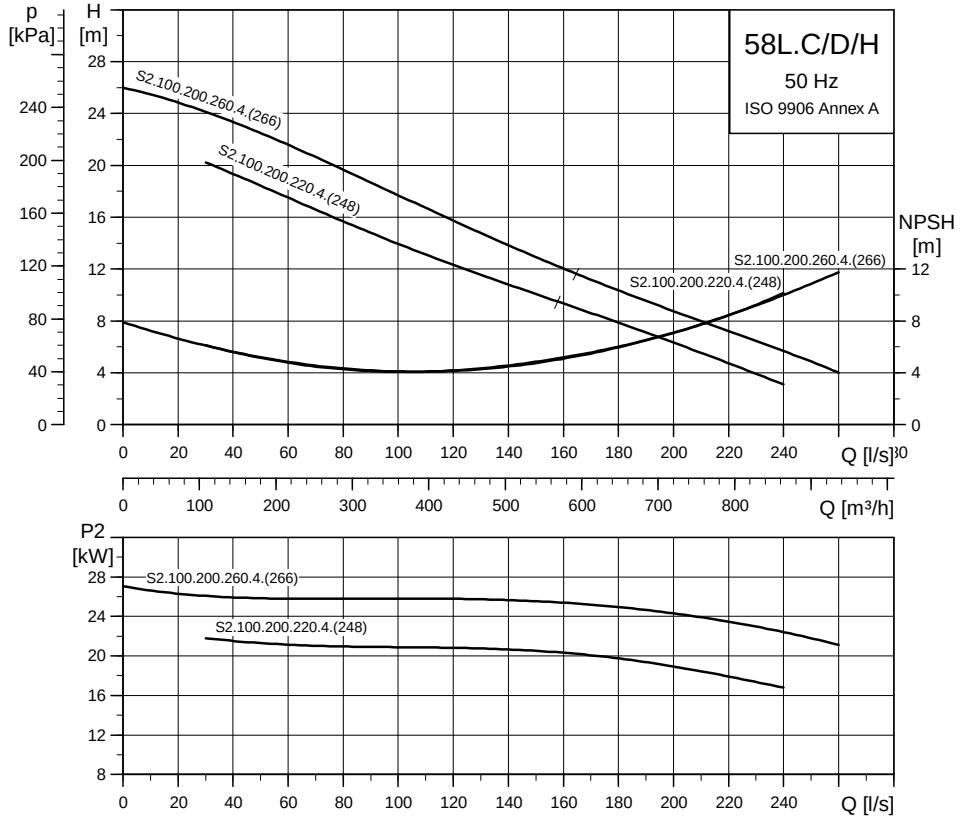


TM04 0658 0908

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S2.100.200.220.4.58L.D.248.G.N.D	D	1284	835	380	550	680	249	DN 250	200	540	95113884
S2.100.200.220.4.58L.S.248.G.N.D	S	1250	835	380	550	680	215	-	200	490	96781565
S2.100.200.220.4.58L.C.248.G.N.D	C	1250	835	380	550	680	215	-	200	540	96781566
S2.100.200.220.4.58L.H.248.G.N.D	H	1284	835	380	550	680	249	DN 250	200	590	96781567
S2.100.200.260.4.58L.S.266.G.N.D	S	1250	835	380	550	680	215	-	200	490	96781568
S2.100.200.260.4.58L.D.266.G.N.D	D	1284	835	380	550	680	249	DN 250	200	540	95113890
S2.100.200.260.4.58L.C.266.G.N.D	C	1250	835	380	550	680	215	-	200	540	96781569
S2.100.200.260.4.58L.H.266.G.N.D	H	1284	835	380	550	680	249	DN 250	200	590	96781570

With 10 m cable

Electrical data

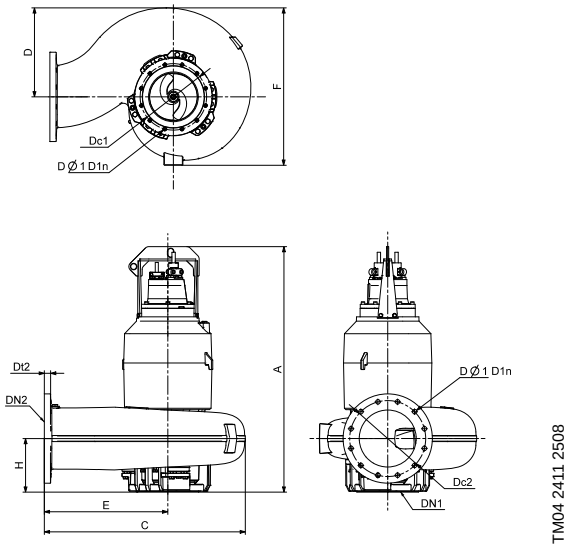
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm²]	M_{max} [Nm]
S2.100.200.220.4.58L.D.248.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.S.248.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.C.248.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.220.4.58L.H.248.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.4877	389
S2.100.200.260.4.58L.S.266.G.N.D	30	26	4	1446	Y/D	49	250	87	88	87	0.72	0.79	0.85	0.528	389
S2.100.200.260.4.58L.D.266.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.528	389
S2.100.200.260.4.58L.C.266.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.528	389
S2.100.200.260.4.58L.H.266.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.528	389

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S2.100.200.220.4.58L.D.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.S.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.C.248.G.N.D	248	100	10	20
S2.100.200.220.4.58L.H.248.G.N.D	248	100	10	20
S2.100.200.260.4.58L.S.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.D.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.C.266.G.N.D	266	100	10	20
S2.100.200.260.4.58L.H.266.G.N.D	266	100	10	20

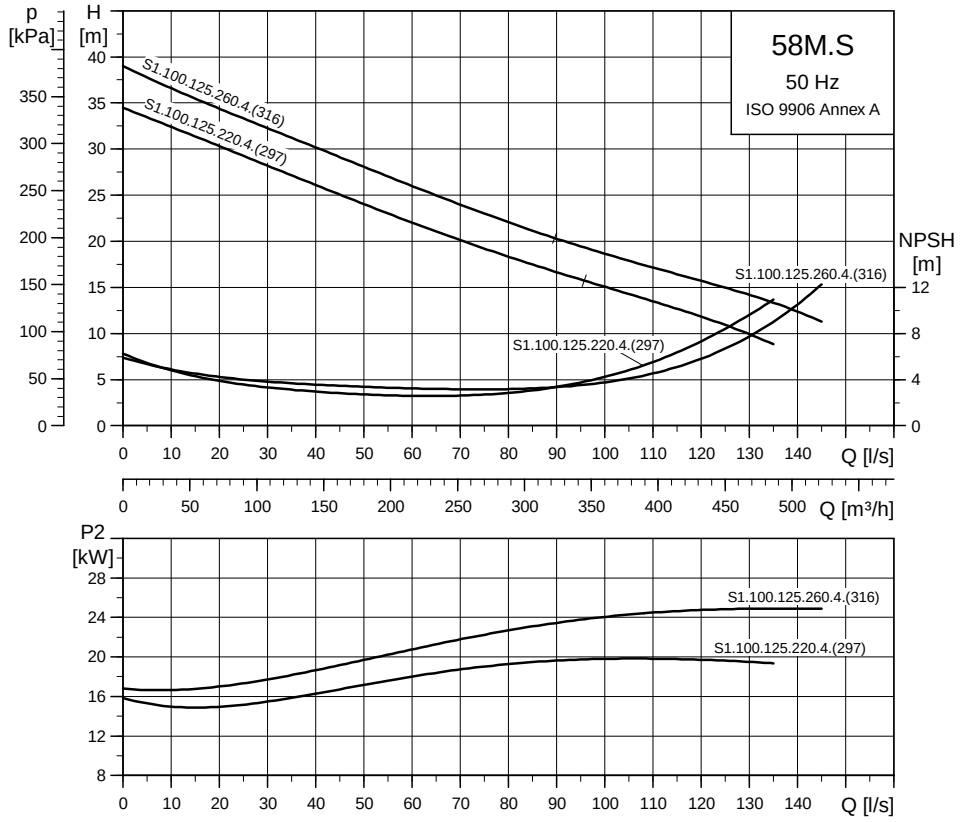
Dimensional sketches



TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Medium pressure - 3 x 400/690 V



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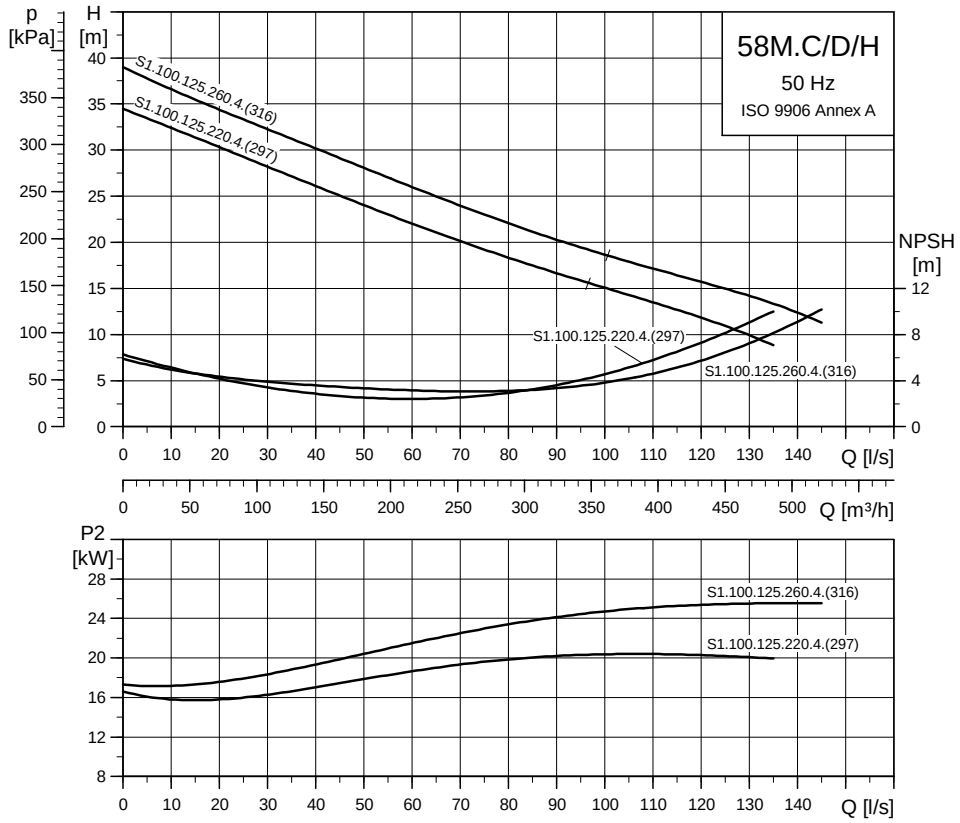


TM04 0660 0908

Technical data

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S1.100.125.220.4.58M.S.297.G.N.D	S	1236	625	237	400	462	225	-	125	450	95113374
S1.100.125.220.4.58M.C.297.G.N.D	C	1236	625	237	400	462	225	-	125	500	95113375
S1.100.125.220.4.58M.H.297.G.N.D	H	1273	625	237	400	462	262	DN 200	125	540	95113376
S1.100.125.220.4.58M.D.297.G.N.D	D	1273	625	237	400	462	262	DN 200	125	500	95113865
S1.100.125.260.4.58M.S.316.G.N.D	S	1236	625	237	400	462	225	-	125	450	95113380
S1.100.125.260.4.58M.C.316.G.N.D	C	1236	625	237	400	462	225	-	125	500	95113381
S1.100.125.260.4.58M.H.316.G.N.D	H	1273	625	237	400	462	262	DN 200	125	540	95113382
S1.100.125.260.4.58M.D.316.G.N.D	D	1273	625	237	400	462	262	DN 200	125	500	95113877

With 10 m cable

Electrical data

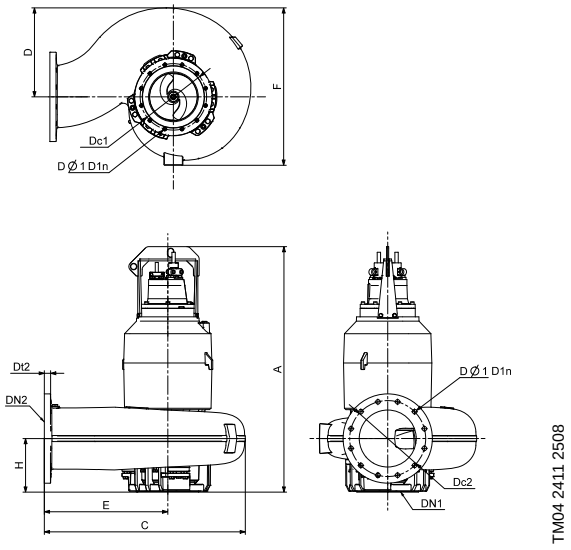
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N [A]	I_{start} [A]	η_{motor} [%] 1/2	3/4	1/1	Cos φ 1/2	3/4	1/1	Moment of inertia [kgm^2]	Breakdown torque [Nm] M_{max} [Nm]
S1.100.125.220.4.58M.S.297.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.C.297.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.H.297.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.D.297.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.260.4.58M.S.316.G.N.D	30	26	4	1446	Y/D	51	261	87	88	87	0.72	0.79	0.85	0.5543	389
S1.100.125.260.4.58M.C.316.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.5543	389
S1.100.125.260.4.58M.H.316.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.5543	389
S1.100.125.260.4.58M.D.316.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.5543	389

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S1.100.125.220.4.58M.S.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.C.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.H.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.D.297.G.N.D	297	100	10	20
S1.100.125.260.4.58M.S.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.C.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.H.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.D.316.G.N.D	316	100	10	20

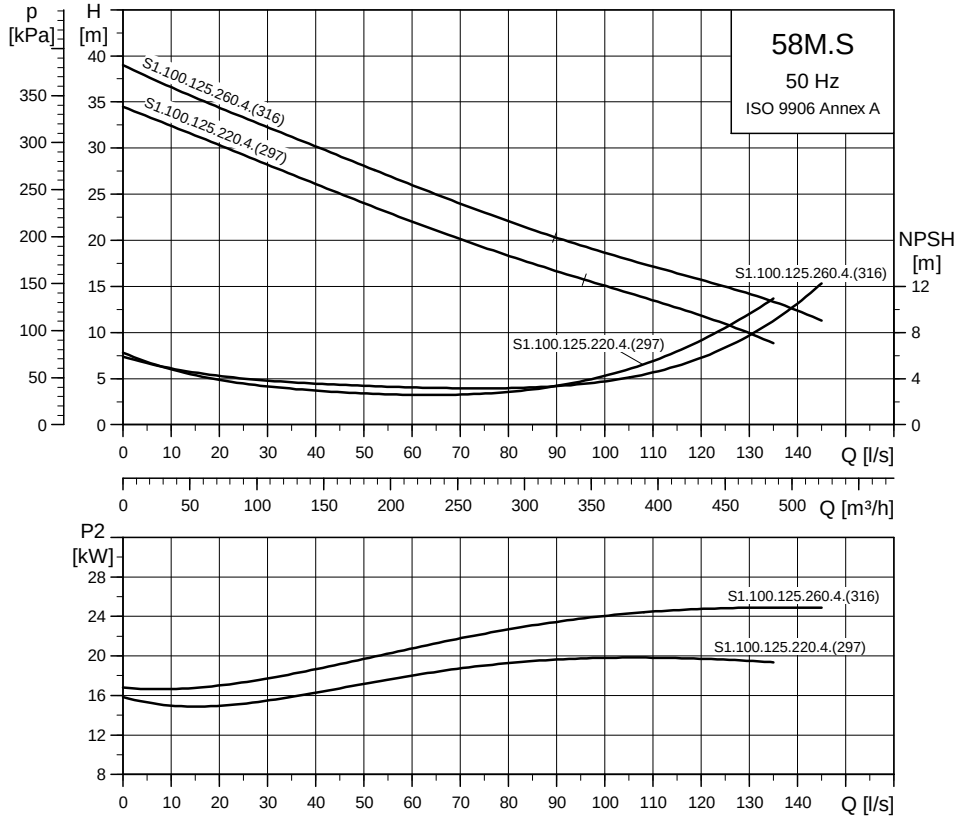
Dimensional sketches



Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Performance curves

Medium pressure - 3 x 415 V



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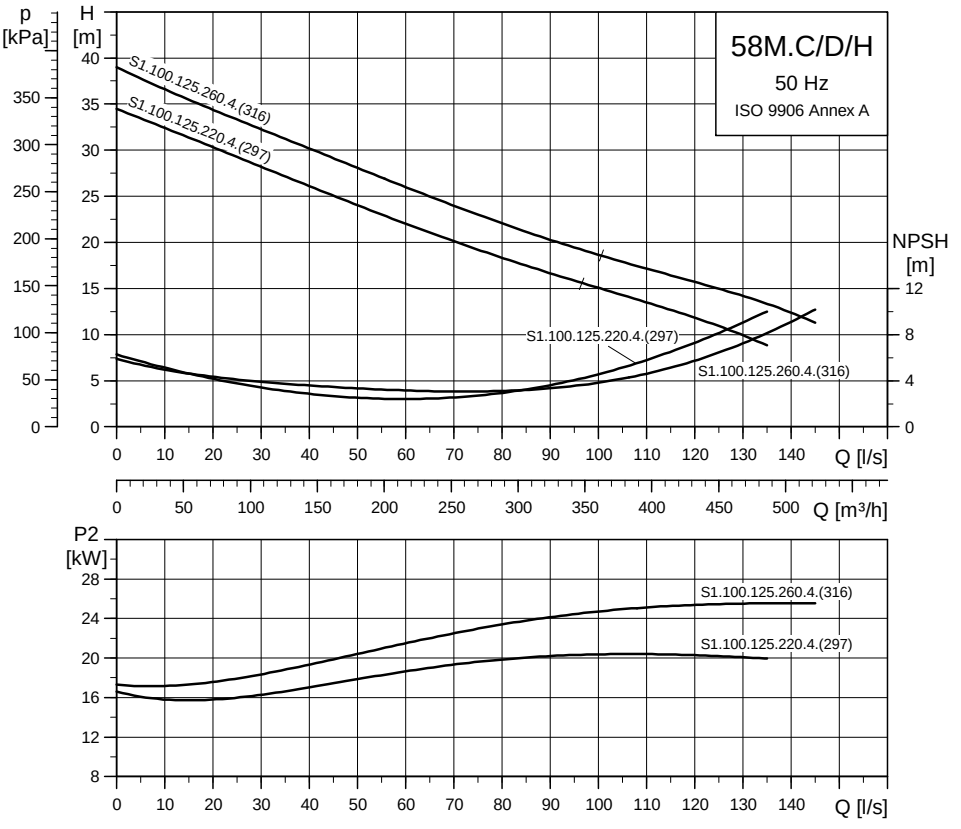


TM04 0660 0908

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S1.100.125.220.4.58M.D.297.G.N.D	D	1273	625	237	400	462	262	DN 200	125	500	95113866
S1.100.125.220.4.58M.S.297.G.N.D	S	1236	625	237	400	462	225	-	125	450	96781526
S1.100.125.220.4.58M.C.297.G.N.D	C	1236	625	237	400	462	225	-	125	500	96781527
S1.100.125.220.4.58M.H.297.G.N.D	H	1273	625	237	400	462	262	DN 200	125	540	96781528
S1.100.125.260.4.58M.S.316.G.N.D	S	1236	625	237	400	462	225	-	125	450	96781562
S1.100.125.260.4.58M.D.316.G.N.D	D	1273	625	237	400	462	262	DN 200	125	500	95113878
S1.100.125.260.4.58M.C.316.G.N.D	C	1236	625	237	400	462	225	-	125	500	96781563
S1.100.125.260.4.58M.H.316.G.N.D	H	1273	625	237	400	462	262	DN 200	125	540	96781564

With 10 m cable

Electrical data

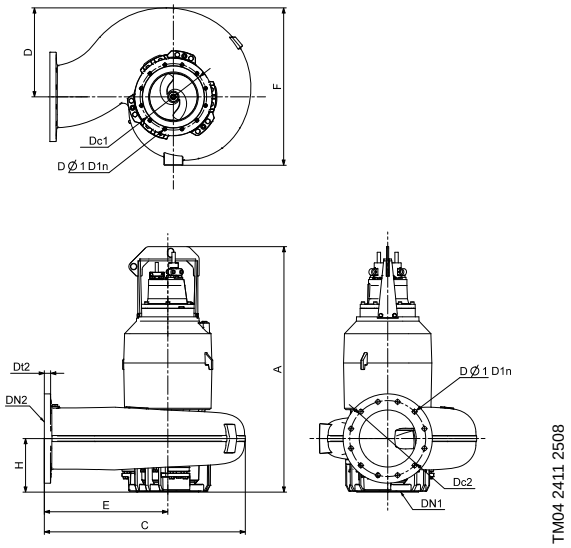
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	M_{max} [Nm]
S1.100.125.220.4.58M.D.297.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.S.297.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.C.297.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.220.4.58M.H.297.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.505	389
S1.100.125.260.4.58M.S.316.G.N.D	30	26	4	1446	Y/D	49	250	87	88	87	0.72	0.79	0.85	0.5543	389
S1.100.125.260.4.58M.D.316.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.5543	389
S1.100.125.260.4.58M.C.316.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.5543	389
S1.100.125.260.4.58M.H.316.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.5543	389

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S1.100.125.220.4.58M.D.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.S.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.C.297.G.N.D	297	100	10	20
S1.100.125.220.4.58M.H.297.G.N.D	297	100	10	20
S1.100.125.260.4.58M.S.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.D.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.C.316.G.N.D	316	100	10	20
S1.100.125.260.4.58M.H.316.G.N.D	316	100	10	20

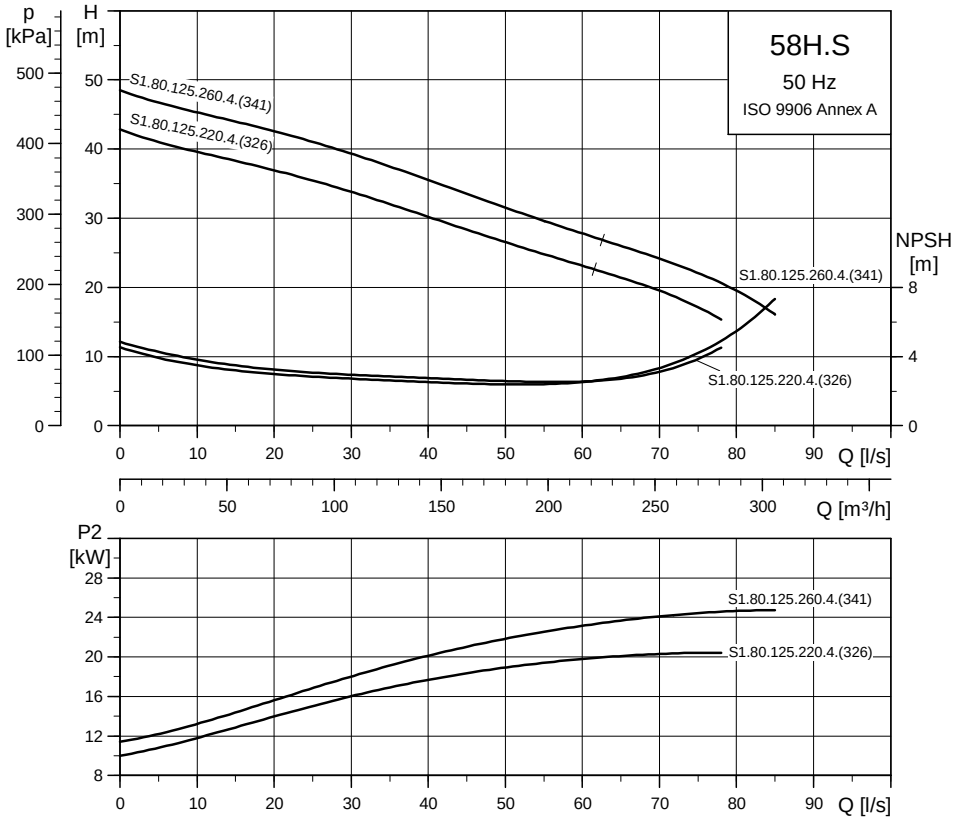
Dimensional sketches



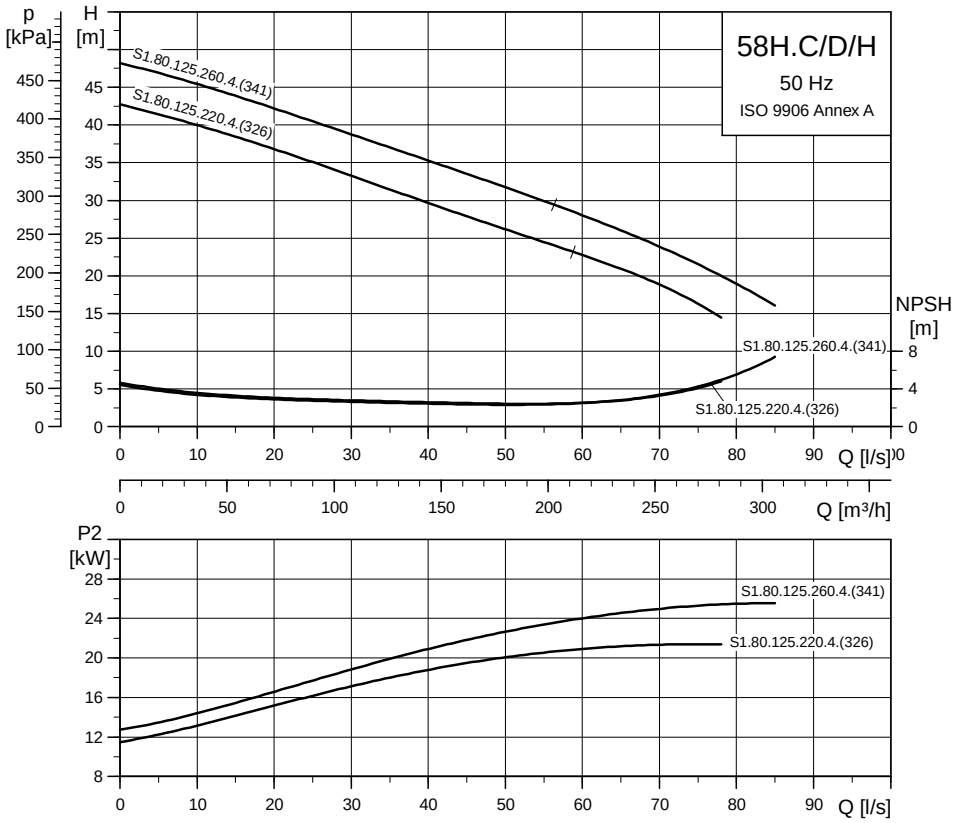
TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

High pressure - 3 x 400/690 V



TM04 0655 0908



TM04 0656 0908

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S1.80.125.220.4.58H.S.326.G.N.D	S	1202	645	237	421	450	200	-	125	440	95113371
S1.80.125.220.4.58H.C.326.G.N.D	C	1202	645	237	421	450	200	-	125	480	95113372
S1.80.125.220.4.58H.H.326.G.N.D	H	1234	645	237	421	450	232	DN 150	125	520	95113373
S1.80.125.220.4.58H.D.326.G.N.D	D	1234	645	237	421	450	232	DN 150	125	480	95113859
S1.80.125.260.4.58H.S.341.G.N.D	S	1202	645	237	421	450	200	-	125	440	95113377
S1.80.125.260.4.58H.C.341.G.N.D	C	1202	645	237	421	450	200	-	125	480	95113378
S1.80.125.260.4.58H.H.341.G.N.D	H	1234	645	237	421	450	232	DN 150	125	520	95113379
S1.80.125.260.4.58H.D.341.G.N.D	D	1234	645	237	421	450	232	DN 150	125	480	95113871

With 10 m cable

Electrical data

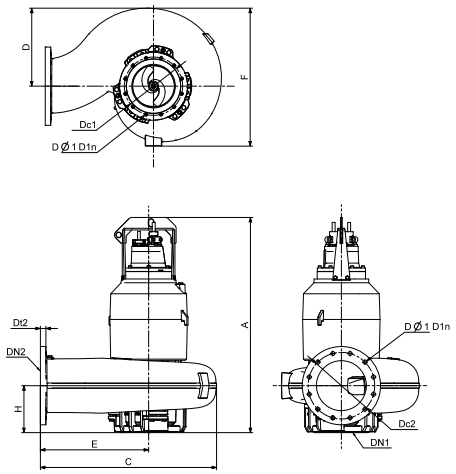
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	M_{max} [Nm]
S1.80.125.220.4.58H.S.326.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.C.326.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.H.326.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.D.326.G.N.D	25	22	4	1458	Y/D	45	261	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.260.4.58H.S.341.G.N.D	30	26	4	1446	Y/D	51	261	87	88	87	0.72	0.79	0.85	0.7577	389
S1.80.125.260.4.58H.C.341.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.7577	389
S1.80.125.260.4.58H.H.341.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.7577	389
S1.80.125.260.4.58H.D.341.G.N.D	32	28	4	1434	Y/D	55	261	87	88	86	0.73	0.80	0.87	0.7577	389

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S1.80.125.220.4.58H.S.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.C.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.H.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.D.326.G.N.D	326	80	10	20
S1.80.125.260.4.58H.S.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.C.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.H.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.D.341.G.N.D	341	80	10	20

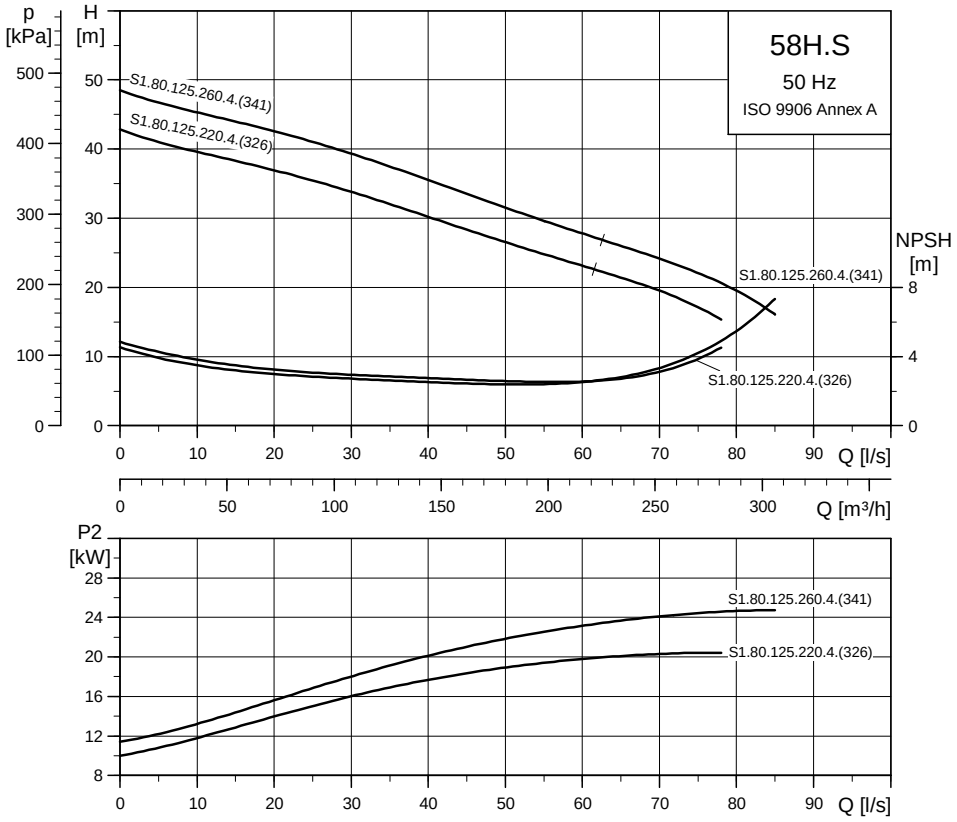
Dimensional sketches



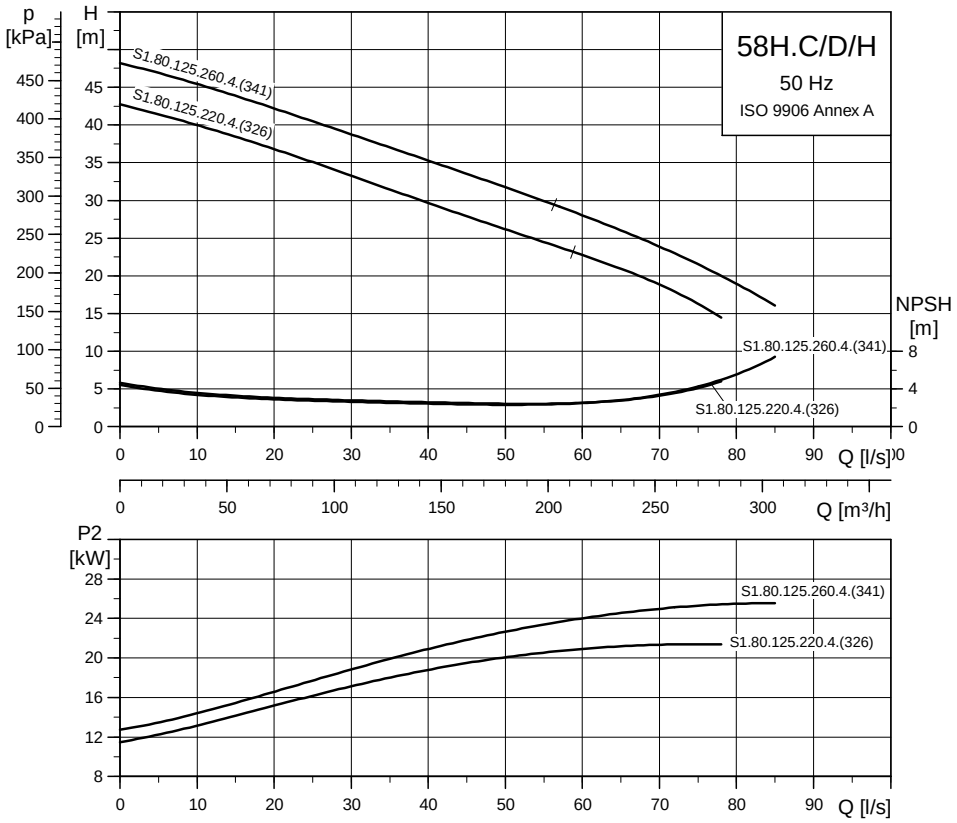
TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

High pressure - 3 x 415 V



TM04 0655 0908



TM04 0656 0908

Product range and dimensions

Pump type	Installation type	A	C	D	E	F	H	DN1	DN2	Weight [kg]	Product number
S1.80.125.220.4.58H.D.326.G.N.D	D	1234	645	237	421	450	232	DN 150	125	480	95113860
S1.80.125.220.4.58H.S.326.G.N.D	S	1202	645	237	421	450	200	-	125	440	96781523
S1.80.125.220.4.58H.C.326.G.N.D	C	1202	645	237	421	450	200	-	125	480	96781524
S1.80.125.220.4.58H.H.326.G.N.D	H	1234	645	237	421	450	232	DN 150	125	520	96781525
S1.80.125.260.4.58H.S.341.G.N.D	S	1202	645	237	421	450	200	-	125	440	96781529
S1.80.125.260.4.58H.D.341.G.N.D	D	1234	645	237	421	450	232	DN 150	125	480	95113872
S1.80.125.260.4.58H.C.341.G.N.D	C	1202	645	237	421	450	200	-	125	480	96781530
S1.80.125.260.4.58H.H.341.G.N.D	H	1234	645	237	421	450	232	DN 150	125	520	96781531

With 10 m cable

Electrical data

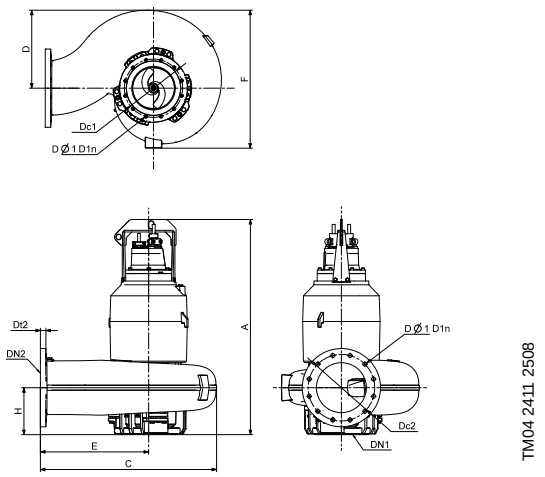
Pump type	P1 [kW]	P2 [kW]	No. of poles	RPM	Starting method	I_N	I_{start}	η_{motor} [%]			Cos φ			Moment of inertia	Breakdown torque [Nm]
						[A]	[A]	1/2	3/4	1/1	1/2	3/4	1/1	[kgm^2]	M_{max} [Nm]
S1.80.125.220.4.58H.D.326.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.S.326.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.C.326.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.220.4.58H.H.326.G.N.D	25	22	4	1458	Y/D	43	250	86	88	88	0.70	0.76	0.81	0.6683	389
S1.80.125.260.4.58H.S.341.G.N.D	30	26	4	1446	Y/D	49	250	87	88	87	0.72	0.79	0.85	0.7577	389
S1.80.125.260.4.58H.D.341.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.7577	389
S1.80.125.260.4.58H.C.341.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.7577	389
S1.80.125.260.4.58H.H.341.G.N.D	32	28	4	1434	Y/D	53	250	87	88	86	0.73	0.80	0.87	0.7577	389

Note: Enclosure class: IP68

Pump data

Pump type	Impeller diameter [mm]	Max. solids size [mm]	Pump housing pressure PN	Max. installation depth [m]
S1.80.125.220.4.58H.D.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.S.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.C.326.G.N.D	326	80	10	20
S1.80.125.220.4.58H.H.326.G.N.D	326	80	10	20
S1.80.125.260.4.58H.S.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.D.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.C.341.G.N.D	341	80	10	20
S1.80.125.260.4.58H.H.341.G.N.D	341	80	10	20

Dimensional sketches

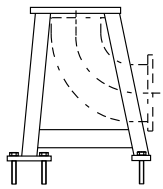
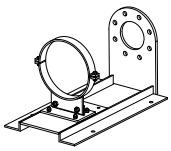
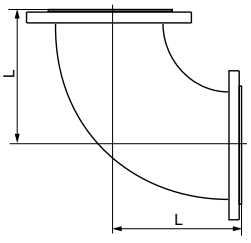
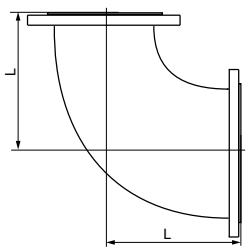


TM04 2411 2508

Size DN	PN	Dc	Dt	DØ
125	10	210	22	8 x 18
150	10	240	22	8 x 22
200	10	295	24	8 x 22
250	10	350	26	12 x 22
300	10	400	26	12 x 22

Accessories (for installation)

Pump type	Installation accessories
S 50-70 S and C	DN 80-200 without guide claw (guide claw included in auto-coupling kit)
S 50-70 S and C	DN 250-600 with guide claw mounted on the pump
S 50-70 D	Pump without installation accessories (accessories as separate kit)
S 50-70 H	Base stand for horizontal, dry installation supplied together with the pump

Pictures	Description		Size	Weight [kg]	PN	Product number
 Gr8126	Cast-iron, epoxy-coated auto-coupling system complete with: • guide claw * • base unit • upper guide rail bracket • gaskets and bolts.	Discharge flange	DN 125/150	95	10	96782145
			DN 200	250	10	96641489
			DN 300	275	10	96782484
Intermediate guide rail bracket	For guide rails longer than 6 m		DN 125/150	3		96829331
			DN 200-600	8		96255842
Guide rails	Standard pipes. Not supplied by Grundfos					
 TM02 8856 - TM02 8857	Cast iron, epoxy-coated ring stand. Supplied with bolts, nuts, gaskets and anchor bolts.		**Stand/pump discharge - hose**			
			DN 125/DN 125-5”		10	96790703
			DN300/DN 200-8”		10	96790704
			DN 300/DN 300-12		10	96790705
 TM04 4035 0509	Vertical base stand (without bend).	Suction flange	DN 150			96308238
			DN 200			96094523
			DN 250			96094525
 TM04 4156 0909	Galvanised steel base stand for horizontal, dry installation. Supplied with bolts, gaskets and anchor bolts.		DN 150			96782930
			DN 200			96784437
			DN 250			96784708
			DN 250			96784955
 TM04 4033 0509	Equal bend L = 250 mm		DN 150		10	96060934
	Equal bend L = 300 mm		DN 200		10	96060938
	Equal bend L = 350 mm		DN 250		10	96060942
 TM04 4034 0509	Reducing bend L = 300	DN 150 / DN 200			10	96060935
	Reducing bend L = 350	DN 200 / DN 250			10	96090776
	Reducing bend L = 400	DN 200 / DN 300			10	96060940
	Reducing bend L = 500	DN 200 / DN 400			10	96605615
	Reducing bend L = 400	DN 250 / DN 300			10	96060943
	Reducing bend L = 450	DN 250 / DN 350			10	96060944
	Reducing bend L = 500	DN 250 / DN 400			10	96060945

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

Other accessories

Pictures		Description	Dimensions		Product number
	TM02 6126 5102	4 m galvanized lifting chain with lifting link and safety hook. With certificates.	800	S 34-58	96735550
		6 m galvanized lifting chain with lifting link and safety hook. With certificates.			96735553
		8 m galvanized lifting chain with lifting link and safety hook. With certificates.			96735554
		10 m galvanized lifting chain with lifting link and safety hook. With certificates.			96735556
		12 m galvanized lifting chain with lifting link and safety hook. With certificates.			96735557
		4 m stainless steel lifting chain with lifting link and safety hook. With certificates.	800	S 34-58	96735559
		6 m stainless steel lifting chain with lifting link and safety hook. With certificates.			96735564
		8 m stainless steel lifting chain with lifting link and safety hook. With certificates.			96735566
		10 m stainless steel lifting chain with lifting link and safety hook. With certificates.			96735567
		12 m stainless steel lifting chain with lifting link and safety hook. With certificates.			96735569
	GR7871	AMD.07.18.1410 mixer, 3 x 400 V, 50 Hz			96113490
		Bracket for wall mounting	2” thread		96115291
		Bracket for floor mounting	2” thread		96115292
		Bracket for suspended mounting	2” thread		96115293
		Tube for suspended mounting, length 3 m	2” thread		96115294
	TM01 6982 3999	Float switch with 10 m cable			96003332
		Float switch with 20 m cable			96003695
		Float switch for use in potentially explosive environments. With 10 m cable			96003421
		Float switch for use in potentially explosive environments. With 20 m cable			96003536
	TM02 8862 0904	Bracket for two float switches			96003338
	TM02 0670 5000	Float switches with bracket, 10 m cable	2 switches, 1 pump without alarm		
			3 switches, 1 pump with alarm		
			3 switches, 2 pumps with alarm		
			4 switches, 2 pumps with alarm		
	TM02 0670 5000	Float switches for use in potentially explosive environments. With bracket and 10 m cable.	2 switches, 1 pump without alarm		62500016
			3 switches, 1 pump with alarm		62500017
			3 switches, 2 pumps with alarm		62500017
			4 switches, 2 pumps with alarm		62500018
	TM02 8860 0904	Bracket for level electrodes	For mounting on a 38 mm pipe		91713196

Installation on auto coupling

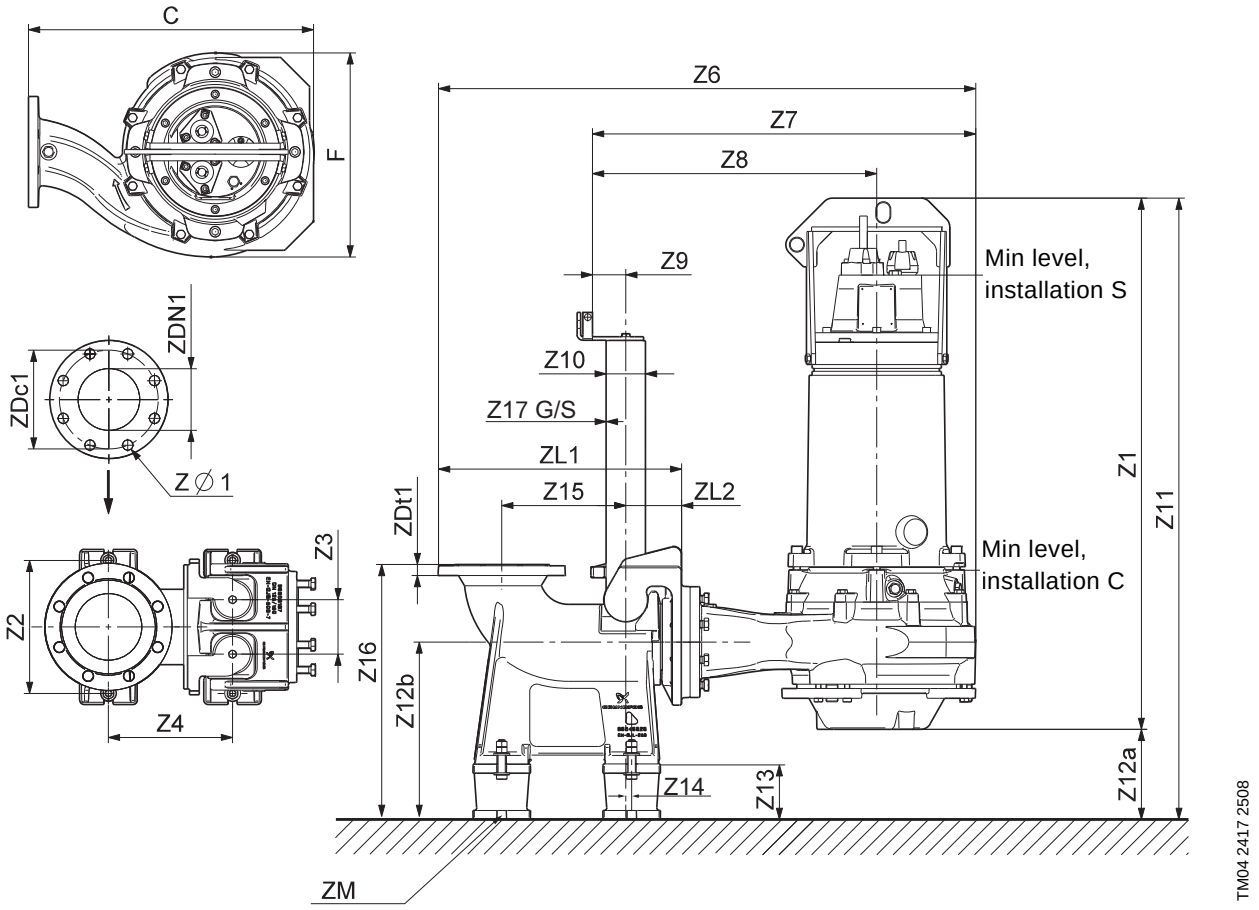


Fig. 17 Dimensional sketches, installation on auto-coupling system

Note: Z12a is minimal recommended distance from pit bottom to bottom of pump suction side.
Z11 is total height of pump installed on Grundfos installation accessory in the pit. NOTE: This figure might not equal Z12a + Z1.

Pump type	C	F	Zø1	Z1	Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z12b
SV.80.125.290.2.58H.S.XXX.G	725	450	8 x 23	1098	300	123	280	1296	982	757	110	88.0	1339	80	400
SV.80.125.290.2.58H.S.XXX.Q	725	450	8 x 23	1098	300	123	280	1296	982	757	110	88.0	1339	80	400
S1.80.125.220.4.58H.S.XXX.G	645	450	8 x 23	1202	300	123	280	1216	902	678	110	88.0	1402	80	400
S1.80.125.220.4.58H.S.XXX.Q	645	450	8 x 23	1202	300	123	280	1216	902	678	110	88.0	1402	80	400
S1.80.125.260.4.58H.S.XXX.G	645	450	8 x 23	1202	300	123	280	1216	902	678	110	88.0	1402	80	400
S1.80.125.260.4.58H.S.XXX.Q	645	450	8 x 23	1202	300	123	280	1216	902	678	110	88.0	1402	80	400
S1.100.125.220.4.58M.S.XXX.G	625	462	8 x 23	1236	300	123	280	1196	882	657	110	88.0	1411	100	400
S1.100.125.220.4.58M.S.XXX.Q	625	462	8 x 23	1236	300	123	280	1196	882	657	110	88.0	1411	100	400
S1.100.125.260.4.58M.S.XXX.G	625	462	8 x 23	1236	300	123	280	1196	882	657	110	88.0	1411	100	400
S1.100.125.260.4.58M.S.XXX.Q	625	462	8 x 23	1236	300	123	280	1196	882	657	110	88.0	1411	100	400

Pump type	Z13	Z14	Z15	Z16	Z17G	Z17S	ZDc1	ZDN1	ZDt1	ZL1	ZL2	ZM
SV.80.125.290.2.58H.S.XXX.G	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
SV.80.125.290.2.58H.S.XXX.Q	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.80.125.220.4.58H.S.XXX.G	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.80.125.220.4.58H.S.XXX.Q	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.80.125.260.4.58H.S.XXX.G	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.80.125.260.4.58H.S.XXX.Q	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.100.125.220.4.58M.S.XXX.G	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.100.125.220.4.58M.S.XXX.Q	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.100.125.260.4.58M.S.XXX.G	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16
S1.100.125.260.4.58M.S.XXX.Q	-	-	280	575	3.0	3.0	240	150	25	571	147	4 x M16

Dimensions

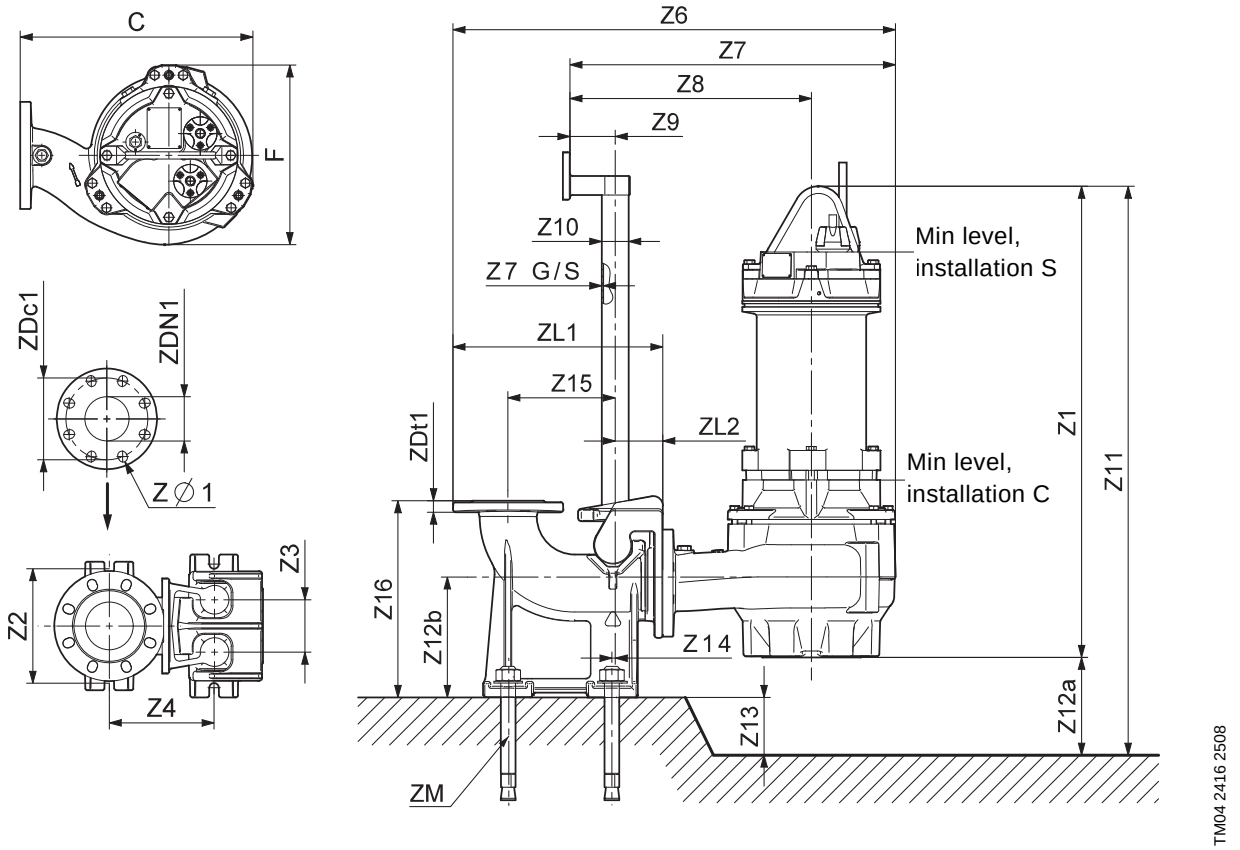


Fig. 18 Dimensional sketches, installation on auto-coupling system

Note: Z12a is minimal recommended distance from pit bottom to bottom of pump suction side.
Z11 is total height of pump installed on Grundfos installation accessory in the pit. NOTE: This figure might not equal Z12a + Z1.

Pump type	C	F	Zø1	Z1	Z2	Z3	Z4	Z6	Z7	Z8	Z9	Z10	Z11	Z12a	Z12b
S2.100.200.220.4.58L.S.XXX.G	835	680	8 x 23	1250	430	200	535	1596	1227	942	170	88.0	1381	131	196
S2.100.200.220.4.58L.S.XXX.Q	835	680	8 x 23	1250	430	200	535	1596	1227	942	170	88.0	1381	131	196
S2.100.200.260.4.58L.S.XXX.G	835	680	8 x 23	1250	430	200	535	1596	1227	942	170	88.0	1381	131	196
S2.100.200.260.4.58L.S.XXX.Q	835	680	8 x 23	1250	430	200	535	1596	1227	942	170	88.0	1381	131	196
S2.100.300.160.6.58E.S.XXX.G	1058	828	12 x 23	1262	551	200	670	1959	1450	1042	170	88.0	1418	156	256
S2.100.300.160.6.58E.S.XXX.Q	1058	828	12 x 23	1262	551	200	670	1959	1450	1042	170	88.0	1418	156	256
S2.100.300.220.6.58E.S.XXX.G	1058	828	12 x 23	1262	551	200	670	1959	1450	1042	170	88.0	1418	156	256
S2.100.300.220.6.58E.S.XXX.Q	1058	828	12 x 23	1262	551	200	670	1959	1450	1042	170	88.0	1418	156	256

Pump type	Z13	Z14	Z15	Z16	Z17G	Z17S	ZDc1	ZDN1	ZDt1	ZL1	ZL2	ZM
S2.100.200.220.4.58L.S.XXX.G	150	86	365	485	3.0	3.0	295	200	31	761	222	4 x M24
S2.100.200.220.4.58L.S.XXX.Q	150	86	365	485	3.0	3.0	295	200	31	761	222	4 x M24
S2.100.200.260.4.58L.S.XXX.G	150	86	365	485	3.0	3.0	295	200	31	761	222	4 x M24
S2.100.200.260.4.58L.S.XXX.Q	150	86	365	485	3.0	3.0	295	200	31	761	222	4 x M24
S2.100.300.160.6.58E.S.XXX.G	150	95	450	650	3.0	3.0	400	300	32	901	222	4 x M24
S2.100.300.160.6.58E.S.XXX.Q	150	95	450	650	3.0	3.0	400	300	32	901	222	4 x M24
S2.100.300.220.6.58E.S.XXX.G	150	95	450	650	3.0	3.0	400	300	32	901	222	4 x M24
S2.100.300.220.6.58E.S.XXX.Q	150	95	450	650	3.0	3.0	400	300	32	901	222	4 x M24

Installation on ring stand

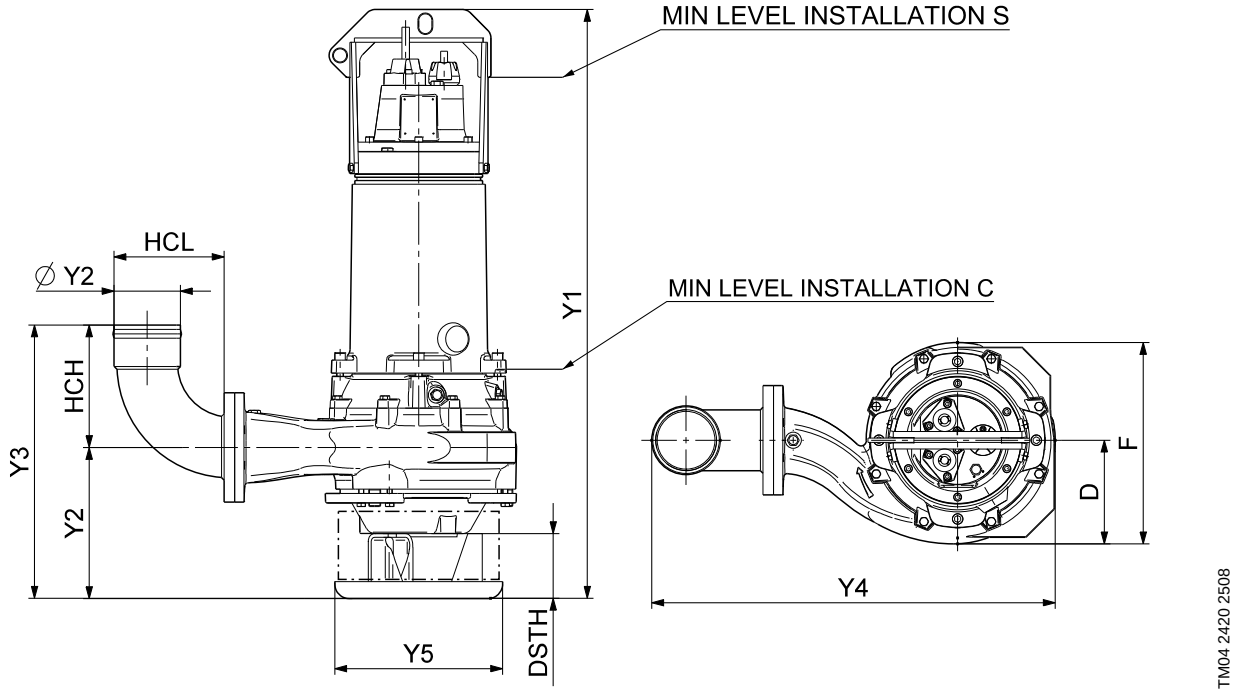


Fig. 19 Dimensional sketches, installation on ring stand

Pump type	Yø2	Y1	Y2	Y3	Y4	Y5	HCH	HCL	DSTH	D	F
SV.80.125.290.2.58H	255	1308	369	649	1064	550	280	289	210	225	450
S1.80.125.220.4.58H	255	1412	410	690	985	550	280	289	210	237	450
S1.80.125.260.4.58H	255	1412	410	690	985	550	280	289	210	237	450
S1.100.125.220.4.58M	255	1446	435	715	964	550	280	289	210	237	462
S1.100.125.260.4.58M	255	1446	435	715	964	550	280	289	210	237	462
S2.100.200.220.4.58L	205	1460	425	860	1243	550	435	418	210	380	680
S2.100.200.260.4.58L	205	1460	425	860	1243	550	435	418	210	380	680
S2.100.300.160.6.58E	303	1488	476	1076	1622	700	600	622	226	468	828
S2.100.300.220.6.58E	303	1488	476	1076	1622	700	600	622	226	468	828

Dry, vertical installation on base stand

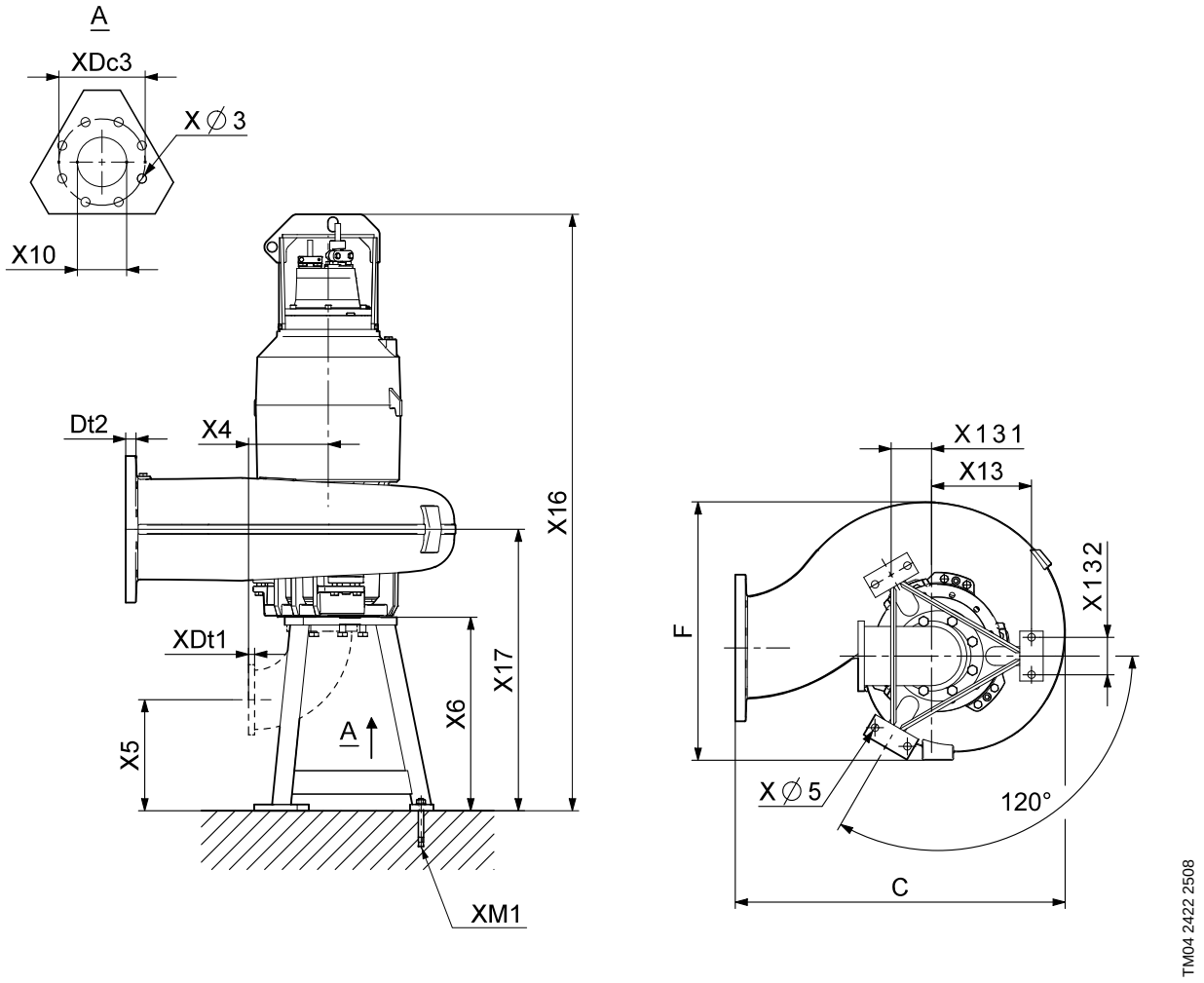


Fig. 20 Dimensional sketches, dry, vertical installation on base stand

Pump type	C	F	Xø3	Xø5	X4	X5	X6	X10	X13	X131	X132	X16	X17	XDc3	XDt1	Dt2	XM1
S1.80.125.220.4.58H	645	450	24	24	200	421	621	150	440	140	120	1855	853	240	24	24	M20x6
S1.80.125.260.4.58H	645	450	24	24	200	421	621	150	440	140	120	1855	853	240	24	24	M20x6
S1.100.125.220.4.58M	625	462	24	24	250	469	719	200	520	170	120	1992	981	295	26	26	M20x6
S1.100.125.260.4.58M	625	462	24	24	250	469	719	200	520	170	120	1992	981	295	26	26	M20x6
S2.100.200.220.4.58L	835	680	24	28	300	554	854	250	600	200	150	2.138	1103	350	28	28	M24x6
S2.100.200.260.4.58L	835	680	24	28	300	554	854	250	600	200	150	2.138	1103	350	28	28	M24x6
S2.100.300.160.6.58E	1058	828	24	28	300	554	854	250	600	200	150	2.147	1136	350	28	28	M24x6
S2.100.300.220.6.58E	1058	828	24	28	300	554	854	250	600	200	150	2.147	1136	350	28	28	M24x6

Dry, horisontal installation on base stand

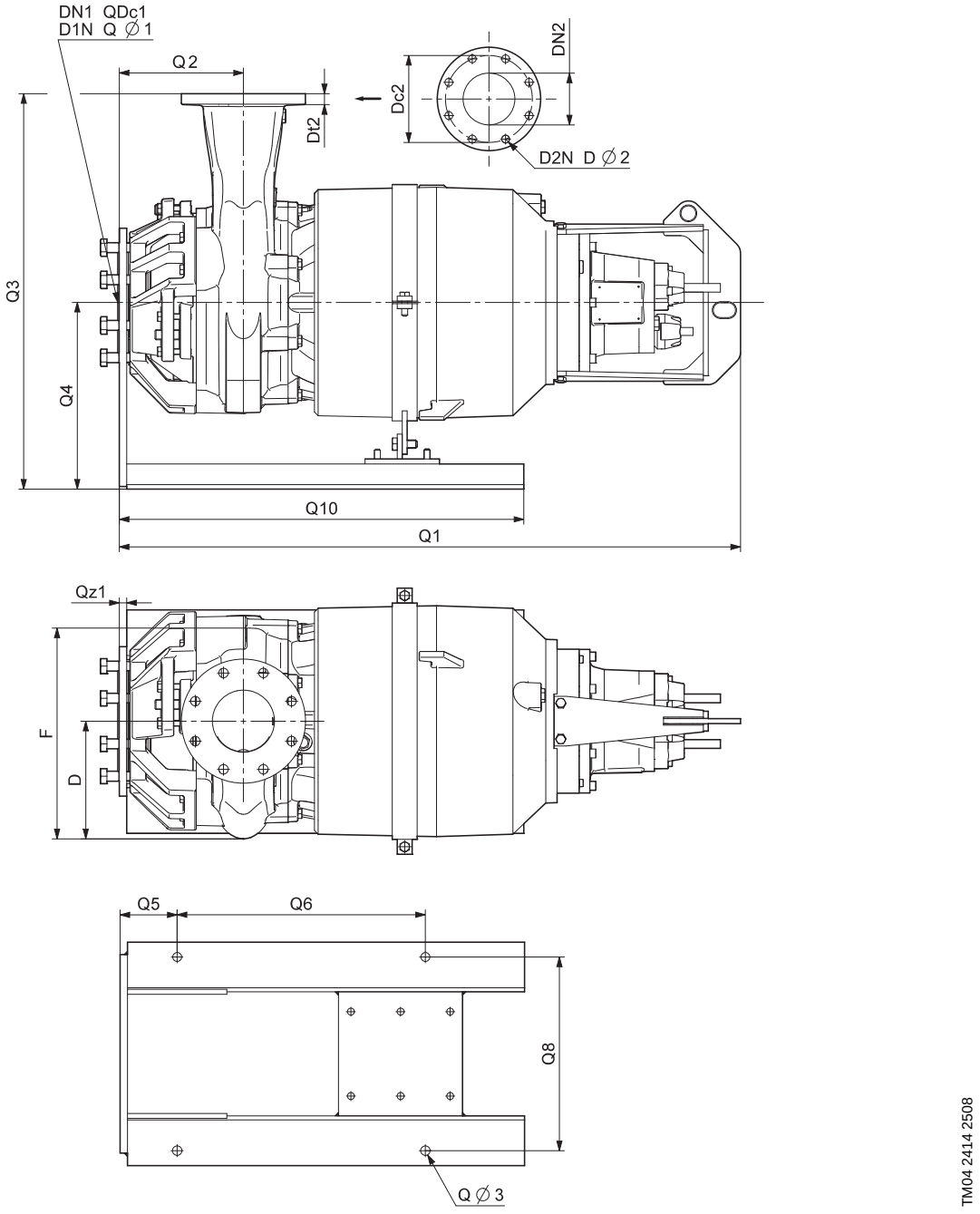
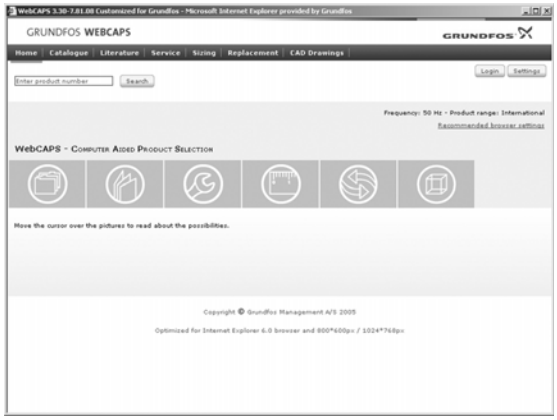


Fig. 21 Dimensional sketches, dry, horisontal installation on base stand

Pump type	D	F	Qø3	Q1	Q2	Q3	Q4	Q5	Q6	Q8	Q10	QDc1	QDN1	Qø1	D1n	QZ1	DN2	D2N	Dø2	Dc2	Dt2
S1.80.125.220.4.58H	237	450	18	1252	250	796	375	115	500	390	815	240	150	M20	8	18	150	8	19	210	22
S1.80.125.260.4.58H	237	450	18	1252	250	796	375	115	500	390	815	240	150	M20	8	18	150	8	19	210	22
S1.100.125.220.4.58M	237	462	18	1291	280	775	375	115	500	390	815	295	200	M20	8	18	200	8	19	210	22
S1.100.125.260.4.58M	237	462	18	1291	280	775	375	115	500	390	815	295	200	M20	8	18	200	8	19	210	22
S2.100.200.220.4.58L	380	680	18	1302	267	925	375	115	500	390	1015	350	250	M20	12	18	250	8	24	295	26
S2.100.200.260.4.58L	380	680	18	1302	267	925	375	115	500	390	1015	350	250	M20	12	18	250	8	24	295	26
S2.100.300.160.6.58E	468	828	18	1311	300	1200	550	115	500	390	815	350	250	M20	12	18	250	12	24	400	33
S2.100.300.220.6.58E	468	828	18	1311	300	1200	550	115	500	390	815	350	250	M20	12	18	250	12	24	400	33

Further product documentation

WebCAPS



WebCAPS is a **Web**-based **C**omputer **A**ided **P**roduct **S**election program available on www.grundfos.com.

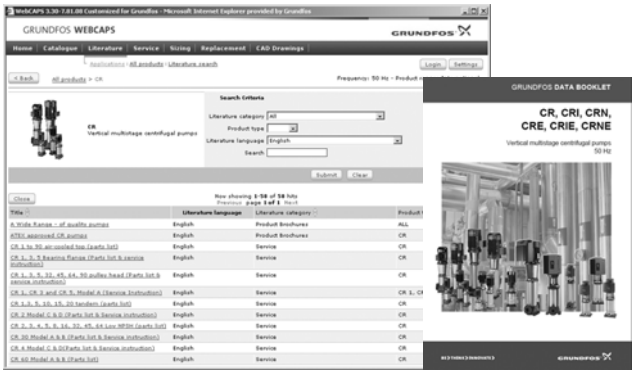
WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into 6 sections:

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

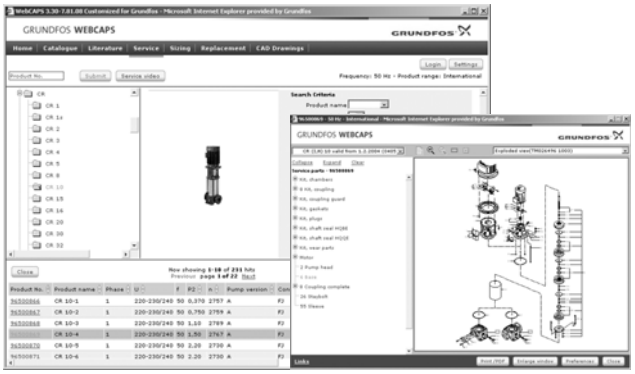
Catalogue

This section is based on fields of application and pump types, and contains
- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



Literature

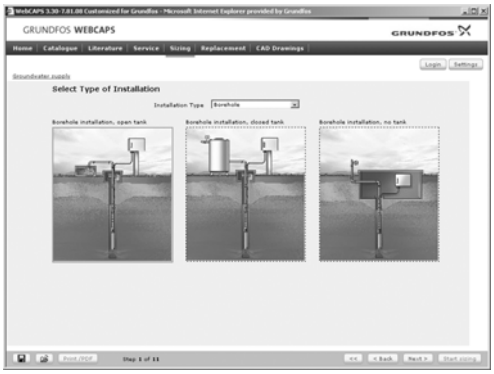
In this section you can access all the latest documents of a given pump, such as
- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.



Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.
Furthermore, this section contains service videos showing you how to replace service parts.

Further product documentation



Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.

Replacement

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

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

CAD drawings

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

These formats are available in WebCAPS:

2-dimensional drawings:
- .dxf, wireframe drawings
- .dwg, wireframe drawings.

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

WinCAPS

Fig. 22 WinCAPS CD-ROM

WinCAPS is a **Win**dows-based **C**omputer **A**ided **P**roduct **S**election program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

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

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

BE > THINK > INNOVATE >

Being responsible is our foundation
Thinking ahead makes it possible
Innovation is the essence

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