

# SE and SL Range 56, ANSI

24-84 Hp, 60 Hz



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## 1. Introduction

This data booklet describes Grundfos SE/SL Range 56 heavy-duty wastewater pumps, 24-84 hp.



TM081561

SL and SE 24-84 hp, Range 56 pumps

The 24-84 hp, Range 56 SE/SL pumps are a range of open S-tube<sup>®</sup> impeller pumps specifically designed for transporting sewage and wastewater in a wide range of municipal, commercial and industrial applications.

SE pumps are equipped with an internal closed-loop cooling system, which enables dry installation. SL pumps do not have a cooling system as they are used for submersible installations only.

The main features of these pumps are:

- SE/SL pumps are designed for submersible installation on an auto coupling. SL pumps must be fully submerged to ensure sufficient cooling of the motor (S1 continuous operation).
- SE is also designed for horizontal dry or vertical dry installation.
- Made of resistant materials, such as cast iron and stainless steel. These materials ensure proper operation.
- Fitted with NEMA Premium and Super Premium (IE3 and IE4) efficiency motor components. The motors are either 4- or 6-pole motors, depending on the motor size.

### Applications

- drainage and surface water
- commercial wastewater
- municipal wastewater
- industrial wastewater
- process and cooling water.

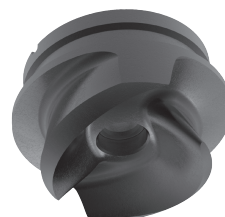
SE/SL pumps are ideal for pumping the above liquids from places such as:

- public buildings
- commercial buildings

- factories and industry.
- municipal network pumping stations
- stormwater pumping stations
- inlet pumping stations in wastewater treatment plants
- primary and secondary clarification tanks in wastewater treatment plants.

### Hydraulics

Grundfos SE/SL Range 56, 24-84 hp pumps are offered with open S-tube<sup>®</sup> (semi-open impeller) hydraulics.



TM078632



TM078633

Grundfos pumps with open S-tube<sup>®</sup> hydraulics are the ideal choice when there is a need for a wastewater pump with high wire-to-water efficiency and must operate over a wide Allowable Operating Range (AOR). Open S-tube<sup>®</sup> impellers can be trimmed to meet a specific duty-point SE/SL Range 56, 24-84 hp pumps are available in high, medium and low head variants.

### Main product features

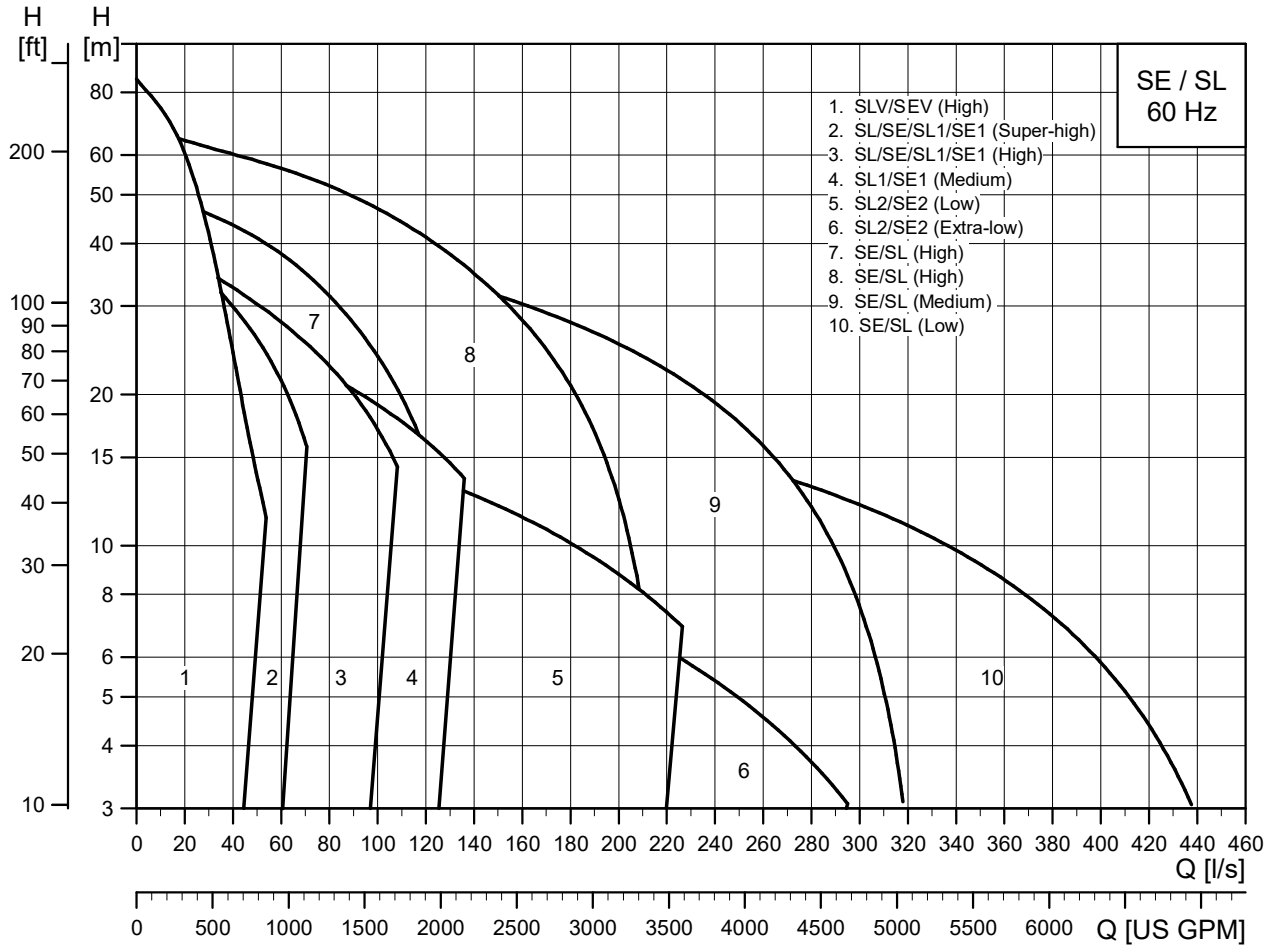
Grundfos SE/SL Range 56, 24-84 hp pumps offer the following benefits:

- optimized high-efficiency and self-cleaning hydraulics to minimize the risk of clogging
- watertight sealed cable entry at the motor top compartment made of corrosion-resistant stainless steel (for Ex-approved pumps only)
- double mechanical cartridge shaft seals, fully assembled and tested at the factory, for reliable sealing between the liquid in the pump housing and the motor
- integrated sensors for continuous monitoring and protection of the pump during operation
- SmartTrim system allowing easy adjustment of the impeller clearance without disassembly of the pump, maintaining maximum performance throughout the life of the pump

- high-efficiency electrical motors built on NEMA Premium / Super Premium (IE3 / IE4) motor components and fulfilling the latest standards
  - insulation class H (356 °F [180 °C])
  - enclosure class NEMA 6P (IP68)
  - temperature rise class B (266°F [130 °C])
  - Three thermal switches in stator windings.

## 2. Performance range

### SE/SL and SEV/SLV pump performance comparison (60Hz)



TM083422

### 3. Pump options

SE/SL pumps can be customised to meet individual requirements. The following pump features and options are available:

- Pressure range
  - high head (H)
  - medium head (M)
  - low head (L)
- Sensor variant
  - Standard
  - Sensor version 1
  - Sensor version 1 Ex
  - Sensor version 2
  - Sensor version 2 Ex
- Supply voltage
  - 60G: DOL start, 3 × 380-480 V (D) EMC cable, insulated bearings (NDE)
  - 61G: star/delta start, 3 × 380-480 V (D), 660-690 V (Y)
  - 60F: 220-277V D
  - 61F: 3 x 220-277 / 380-480 EMC cable, insulated bearings (NDE)
  - 60L: 575-600V D EMC cable, insulated bearings (NDE)
  - 61M: 575-600V D
- EMC cable
- Insulated bearings (NDE)
- Motor efficiency
  - NEMA Premium (IE3): 4-pole 73-84 hp motors with SE/SL H-, and M-hydraulics, 6-pole 50-57 Hp motors with SE/SL L-hydraulics
  - NEMA Super Premium: (IE4): 4-pole 28-64 hp motors with SE/SL H-, and M-hydraulics, 6-pole 24.8-43.5 Hp motors with SE/SL L-hydraulics
- Tests and certificates
  - Test at specified duty point on standard impeller / performance curve
  - Trimmed impeller for specified duty point test
  - Additional test of the entire QH curve (including report)
  - Different test standards (default test standard is ANSI HI11.6:2017 grade 3B):
    - ANSI HI11.6:2017 grade 1E
    - ANSI HI11.6:2017 grade 1B/2B
    - ANSI HI11.6:2017 grade 1U/2U
  - Performance test
  - Witness test
  - NPSHr test
- Different cable lengths

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

# 4. Identification

## Nameplate

1	Ex db IIB T4/T3* Gb		14
2	CL1, DIV1, GP C, D T4/T3		15
	CL1, ZONE1, AEx db IIB T4/T3 Gb		16
	FM24US0026X FM24CA0014X		
	Type: SL.56H.560.4.EX.61G.6		
26	6.2.Q.Z		
3	Serial No. 9xxxxxxx00000001		
4	P.c. 2404	IP68	▽ 99 ft
5	Amb. Range: Ta= -4°F to +104°F		
6	Hmax: 192 ft	CosΦ: 0.84	
7	Qmax: 2761 gpm	Motor: 3~	
8	P1/P2: 61/56 HP	n: 1785 rpm	
9	380-480V	△	F.L.Amp: 82-79.5A
10	660-690V	Y	F.L.Amp: 47.5-46.5A
11	Cont.	60 Hz	Insul.class: H
13	S.F.: 1.15	Weight: 1788 lb	
12	Made in Székesfehérvár, Hungary		

Thermally Protected

92738670

For converter operation see manual

TM085795

GRUNDFOS  
DK-8850 Bjerringbro Denmark

CAUTION: FOR CORD REPLACEMENT SEE INSTRUCTION MANUAL

WARNING: TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, DO NOT OPEN WHILE CIRCUITS ARE LIVE

Attention: pour le remplacement du câble d'alimentation, voir le manuel d'instructions.  
Pour réduire le risque d'inflammation/d'explosion en atmosphère dangereuse, ne pas ouvrir quand le réseau/circuit est en fonctionnement.

99108403

GRUNDFOS  
DK-8850 Bjerringbro Denmark

TM068301

FM warning plate

Pos.	Description
1	Explosion-protection classification
2	Explosion-protection classification
3	Serial number
4	Production code, year and week
5	Maximum ambient temperature
6	Maximum head
7	Maximum flow rate
8	Rated power input/output (P1/P2)
9	Rated voltage, delta connection
10	Rated voltage, star connection
11	Continuously operated motor
12	Service factor
13	Frequency
14	Approval marking
15	Explosion protection certification number
16	Type designation (part 1)
17	Maximum installation depth
18	Power factor
19	Number of phases
20	Rated speed
21	Rated current, delta connection
22	Rated current, star connection
23	Insulation class
24	Weight without cable
25	Country of production
26	Type designation (part 2)

## Type key

Example: **SL.56M.380.4.EX.61G.6.1.Z**

Code	Explanation	Designation
SL	Sewage pump without cooling jacket	Pump type
SE	Sewage pump with cooling jacket	
56	Frame 56	Frame size
M	Medium pressure	Pressure range
L	Low pressure	
H	High pressure	
380	Power P2 x 10 [38 hp]	Power [hp]
4	4-pole motor	Number of poles
6	6-pole motor	
EX	Pumps with Ex approval	Pump version
- (blank)	Pumps without Ex approval	
60G	3 x 380-480D (DOL, EMC) 60 Hz	Voltage code for 60 Hz
60F	220-277V D / 380-480V Y	
60L	575-600V D	
61G	3 x 380-480D, 660-690Y (Standard) 60 Hz	
61E	220-240V D / 380-415V Y	
61M	575-600V D	
4		
6		
8	Pump outlet nominal diameter	Pump outlet [in]
10		
12		
- (blank)	Standard sensor version	Sensor versions
1	Sensor version V1	
2	Sensor version V2	
Z	Custom-built products	Customization

## Approvals (cFMus)

The standard pumps are approved by FM Approvals. The explosion-proof versions have the following Certificates of Conformity:

- FM24US0026X
- FM24CA0014X

The letter X in the certificate number indicates that the equipment is subject to specific condition of use. The conditions are described in the certificate and the installation and operating instructions.

### Approval standards

The pumps are approved by FM Approvals according to CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-1, CSA C22.2 No. 0.4, CSA C22.2 No. 100, CSA C22.2 No. 145, and CSA C22.2 No. 60529, and FM 3600, FM 3615, FM 3650, and ANSI/IEC 60529, ANSI/UL 60079-0, ANSI/UL 60079-1.

## Explanation of FM approval

The pumps have the following explosion-protection classification with an ambient temperature rating of -4 to 104 °F (-20 to +40 °C):

- FM24CA0014X: Class I, Division 1, Groups C and D, T4, T3, IP68,  
Ex db IIB T4/T3 Gb
- FM24US0026X: Class I, Division 1, Groups C and D, T4, T3, IP68,  
Class I, Zone 1, AEx db IIB T4/T3 Gb

Standards	Code	Description
FM 3600	Class I	Explosive atmosphere caused by gas or vapors
FM 3615	Division 1	Area classification
FM 3650	Groups C and D	Classification of gases
ANSI/IEC 60529	T4/T3	Maximum surface temperature is 275 °F (135 °C) and 392 °F (200 °C)
CSA C22.2 No. 0.4	IP68	Enclosure class according to IEC 60529
CSA C22.2 No. 100	Zone 1	Typical zone of application: gas atmospheres, "high" level of protection
CSA C22.2 No. 145	AEx / Ex	Marking of explosion protection
CSA C22.2 No. 60079-0	db	Flame-proof enclosure
CSA C22.2 No. 60079-1	IIB	Classification of gases, gas group B includes gas group A.
ANSI/UL 60079-0	Gb	Equipment for explosive gas with "high" level of protection.
ANSI/UL 60079-1		

## Potentially explosive environments

Use explosion-proof pumps for applications in potentially explosive environments.



The pump must not be used to pump explosive, flammable or combustible liquids.



The classification of the installation site must comply with the local regulations.

**Specific conditions for safe use of explosion-proof pumps:**

1. Make sure the moisture- and thermal switches are connected in two separate circuits and have separate alarm outputs (motor stop) in case of high humidity or high temperature in the motor.
2. Bolts used for replacement must be class A4-80 or A2-80 according to ISO 3506-1.
3. Contact the manufacturer if dimensional information on the flameproof joints is necessary.
4. During operation, the cooling jacket, if fitted, must be filled with cooling liquid.
5. The level of the pumped liquid must be controlled by level switches connected to the motor control circuit. Install an additional level switch to ensure that the pump is stopped in case the stop level switch is not working.
6. Dry running is not allowed.
7. Make sure the cable is mechanically protected, attached to the switchboard and the cable bonding cannot slip out.
8. The sewage pumps have an ambient temperature range of -4 °F to 104 °F (-20 to +40 °C) and a maximum operating temperature of 104 °F (+40 °C).
9. Avoid exposing the ethylene-propylene rubber insulated cables to direct sunlight.
10. Dry-installed pumps often have a higher temperature in the cable entries than submerged pumps. This may reduce the lifetime of the Ex-protection. It is a user responsibility to regularly inspect the condition of the permanently attached cables and cable entries for any visual damage, cracks or embrittlement caused by rubber aging.
11. The thermal protector in the stator windings must have a rated switch temperature of 304 °F (150 °C) and it ensures the disconnection of the power supply. Resetting must be carried out manually.
12. To avoid electrostatic discharge, clean the cables and the painted parts of the pump with a wet fabric.
13. When the pump is operated by a frequency converter, the installation must be rated up to T3 temperature class. When the pump is operated without a frequency converter, the installation must be rated up to T4 temperature class.



## 5. Product selection

Consider the following:

- Liquid type
- Inflow requirement
- Total head requirement
  - After a few months, the typical surface roughness in pipes is 0.0004 to 0.2 inches (0.5 to 1 mm).
- Size of the pipe on the discharge side
  - For a self-cleaning effect in the pipes, the flow velocity must exceed 2.3 ft/s (0.7 m/s) for horizontal and 3.3 ft/s (1 m/s) for vertical piping. Not exceeding 10 ft/s (3 m/s) flow velocity is recommended.
- Standby pump requirements
  - To avoid sedimentation, the pumps must be started at least twice a day.
- Inlet conditions to avoid cavitation
- Installation type
- Customisation needs
- Accessory needs

If sizing and selection is done via Grundfos online selection tool in [www.grundfos.com](http://www.grundfos.com), the selection recommendations may list one or more standard pumps.

- To identify the pump, use the Type key.

## Hydraulics selection

Use the following tables to identify the most suitable pump hydraulics type.

Liquid description	Recommended material grade	Open S-tube® hydraulics without guide vane (standard)	Recommendations
<b>Surface water</b>			
Drainage water	Gray cast iron	x	<ul style="list-style-type: none"> <li>Observe operating conditions when selecting optimal hydraulic variant.</li> <li>Observe content of abrasives in the pumped liquid.</li> <li>Observe free passage through pump or consider pre-screening of water.</li> </ul>
River water	Gray cast iron	x	
Storm water	Gray cast iron	x	
<b>Wastewater</b>			
Wastewater from commercial buildings	Gray cast iron	x	Observe and consider: <ul style="list-style-type: none"> <li>Local legislation and free passage through pump e.g. EN 16932:2018</li> <li>Operational time and hydraulic efficiency</li> <li>Content of abrasives in the pumped liquid</li> </ul>
Untreated municipal wastewater	Gray cast iron	x	
High head/low flow wastewater handling	Gray cast iron	x	
Wastewater with long fibrous material	Gray cast iron	x	
Wastewater with abrasive/unsuspended solids (dry matter content up to 3 %)	Gray cast iron / High alloy hard cast iron	x	
Wastewater with abrasive/unsuspended solids (dry matter content up to 5 %)	Gray cast iron / High alloy hard cast iron	x	
<b>Sludge</b>			
Raw sludge with dry matter content up to 4 % (un-screened)	Gray cast iron / High alloy hard cast iron	x	Observe and consider: <ul style="list-style-type: none"> <li>Local legislation and free passage through pump e.g. EN 16932:2018</li> <li>Operating conditions when selecting optimal hydraulic variant</li> <li>Operational time and hydraulic efficiency</li> <li>Content of abrasives in the pumped liquid</li> </ul>
Digested sludge with dry matter content up to 4-5 % depending on screening	Gray cast iron	x	
Activated sludge with dry matter content up to 4-5 % depending on screening	Gray cast iron	x	
<b>Industrial wastewater containing:</b>			
Industrial wastewater containing suspensions like paint, lacquer and varnish	Gray cast iron	x	Observe and consider: <ul style="list-style-type: none"> <li>Local legislation and free passage through pump e.g. EN 16932:2018</li> <li>Operating conditions when selecting optimal hydraulic variant</li> <li>Operational time and hydraulic efficiency</li> <li>Content of abrasives in the pumped liquid</li> </ul>
Acidic wastewater (down to pH 6.5)	Gray cast iron	x	
Basic wastewater (up to pH 14)	Gray cast iron	x	
<b>Highly abrasive industrial effluent causing wear</b>			
Lime water	Gray cast iron / High alloy hard cast iron	(x)	Observe and consider: <ul style="list-style-type: none"> <li>Operating conditions when selecting optimal hydraulic variant</li> <li>Operational time and hydraulic efficiency</li> <li>Content of abrasives in the pumped liquid</li> </ul>
Lime milk containing quartz and pigment suspensions	Gray cast iron / High alloy hard cast iron	(x)	
Effluent industrial wastewater containing solids	Gray cast iron	(x)	
Effluent industrial wastewater containing high content of dust and ashes	Gray cast iron	(x)	
<b>Additional water types</b>			
Brackish water	Gray cast iron	(x)	Material variants depend on both temperature and chloride content of brackish water, please see brochure titled "GRUNDFOS SL, SE, S PUMP VARIANTS, 1.1 - 520 kW (Product brochure)" (publication no. 97745765) available in Grundfos online selection tool. Observe the need for cathodic protection and coating of the pump
Sea water	Gray cast iron	(x)	

### Legend

x	Recommended choice
(x)	Optional, contact Grundfos.

## Basic pump configuration

See Type key to identify the pump specification.

<b>Example: Product name</b>	
<b>Pump type:</b> Sewage pump without cooling jacket	SL
<b>Impeller type:</b> Open S-tube®	-
<b>Pump outlet:</b> 8"	8"
<b>Power:</b> 28 Hp	280
<b>Sensor version:</b> Sensor version 1, or Sensor version 1 Ex	1
<b>Number of poles:</b> 4-pole motor	4

Standard pump features:

- 49 ft cable
- surface treatment: epoxy paint, protection according to grade Im3, by ISO 12944-1 standard
- three thermal switches, one in each phase, or three thermal sensors (PTC)
- one moisture switch below the motor top cover
- one leakage switch in the leakage chamber (standard pump).
- tested according to ANSI HI11.6:2017, grade 3B.

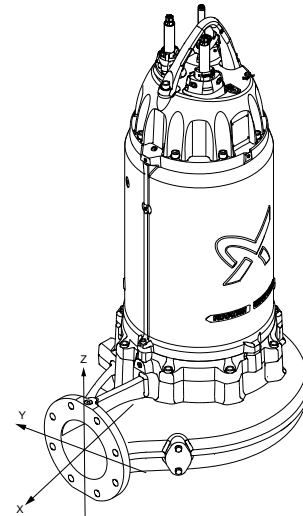
**Note:** For further information on technical data, visit the Grundfos online selection tool at [www.grundfos.com](http://www.grundfos.com).

## Flange forces

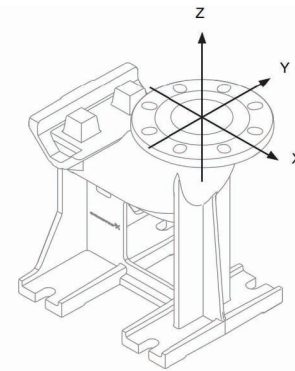
The flange forces and moments comply with EN ISO 5199. See forces for both horizontal and vertical installations in Table B.3 in EN ISO 5199 by selecting the correct flange dimension. Forces cannot be used directly for end-suction wastewater pumps without using a coefficient. See it in Table B.5 in EN ISO 5199 by selecting the correct pump family.

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

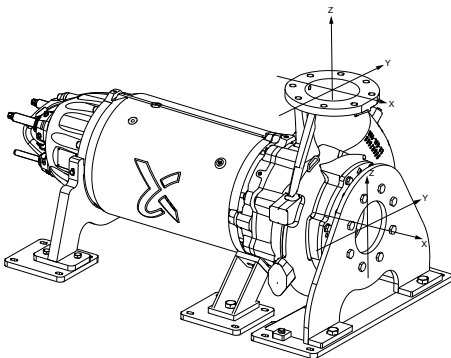
Horizontally installed pumps	
Pump family A4	coefficient 0.35
Vertically installed pumps	
Pump family 10A	coefficient 0.30



TM085340



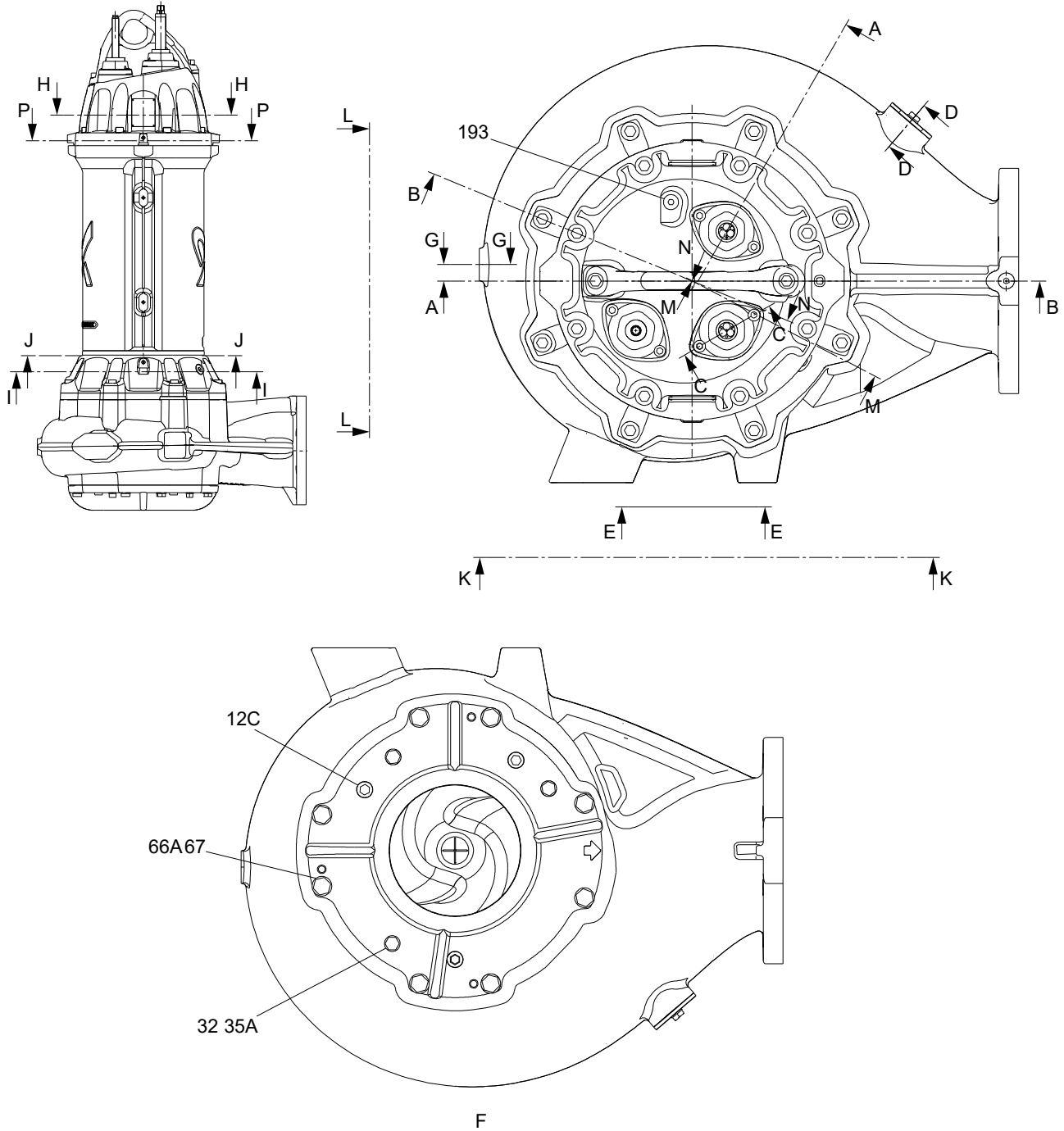
TM079281



TM085339

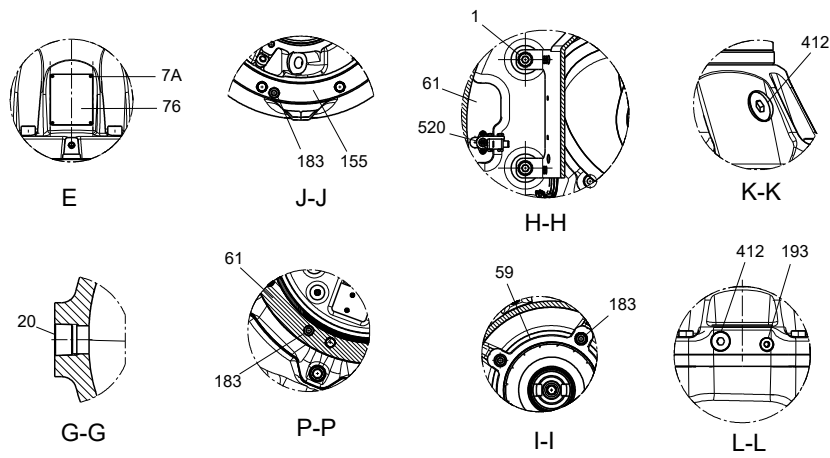
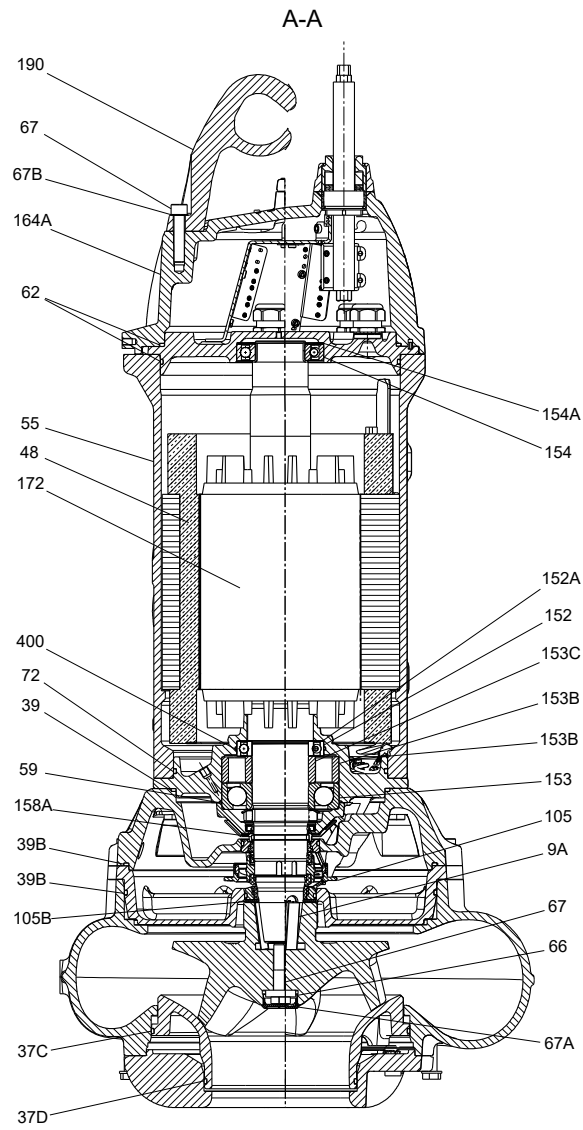
# 6. Design

## Sectional views



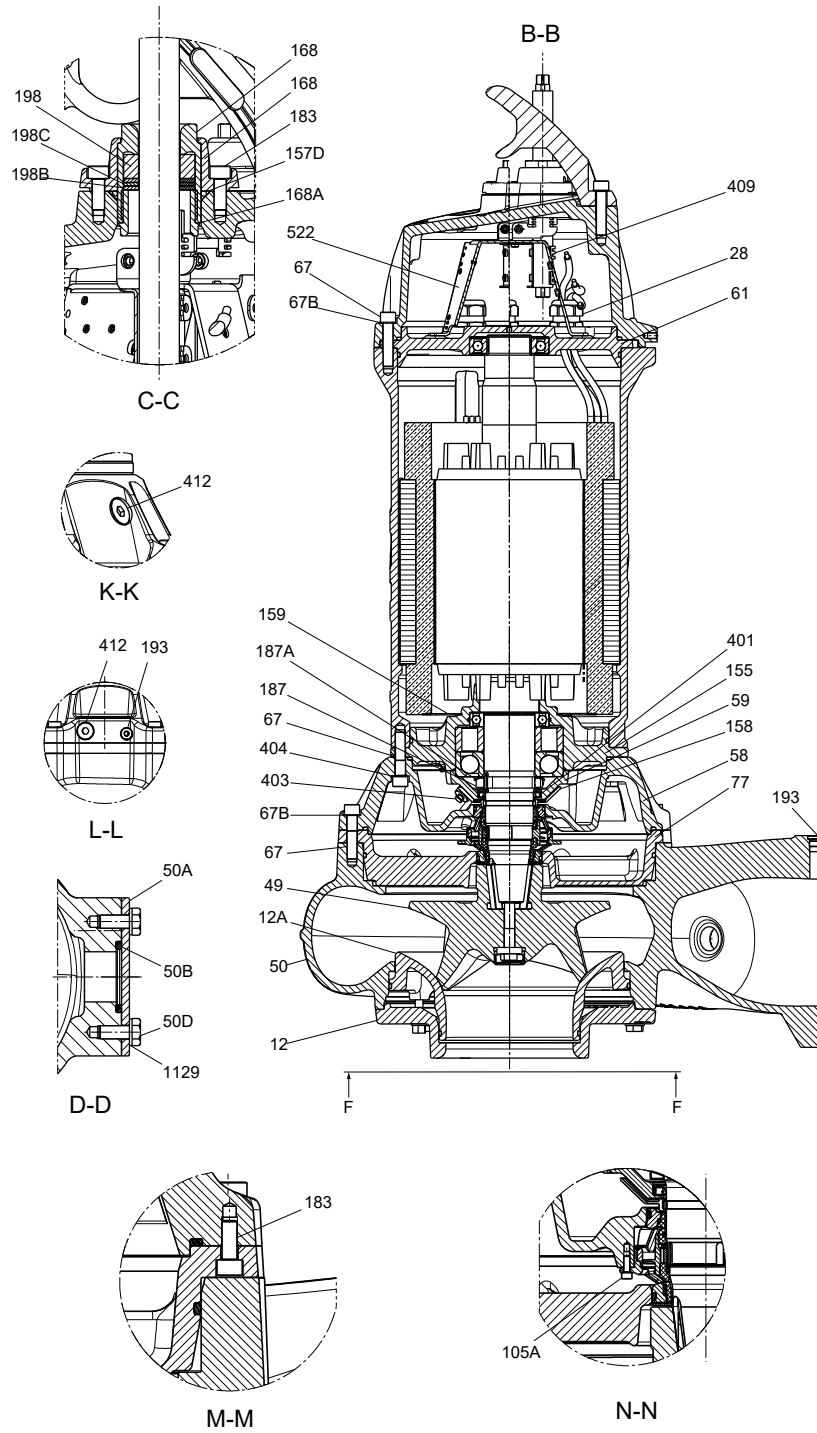
SL pump

TM083060



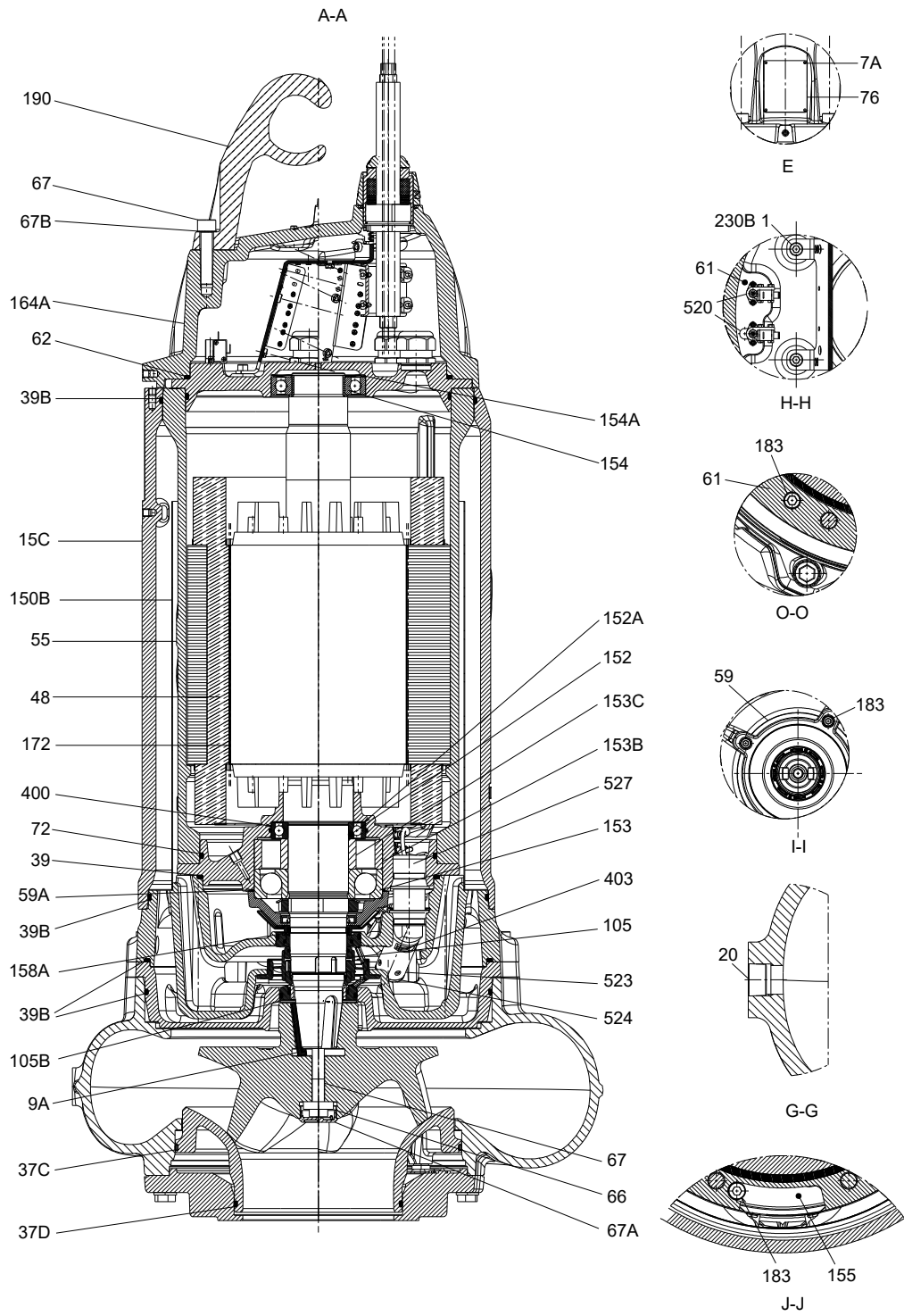
SL pump

TM083058



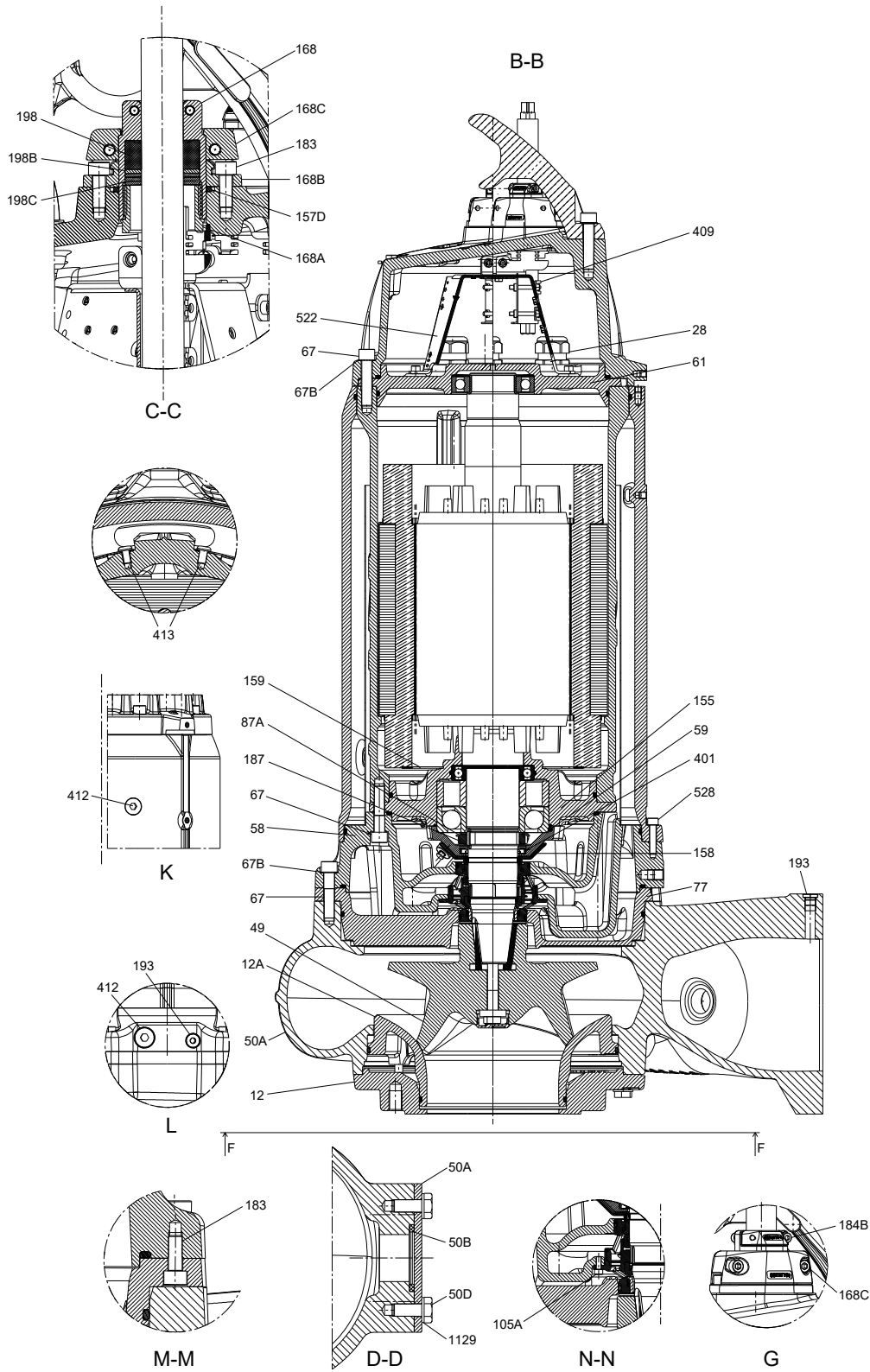
SL pump

TM083059



SE pump

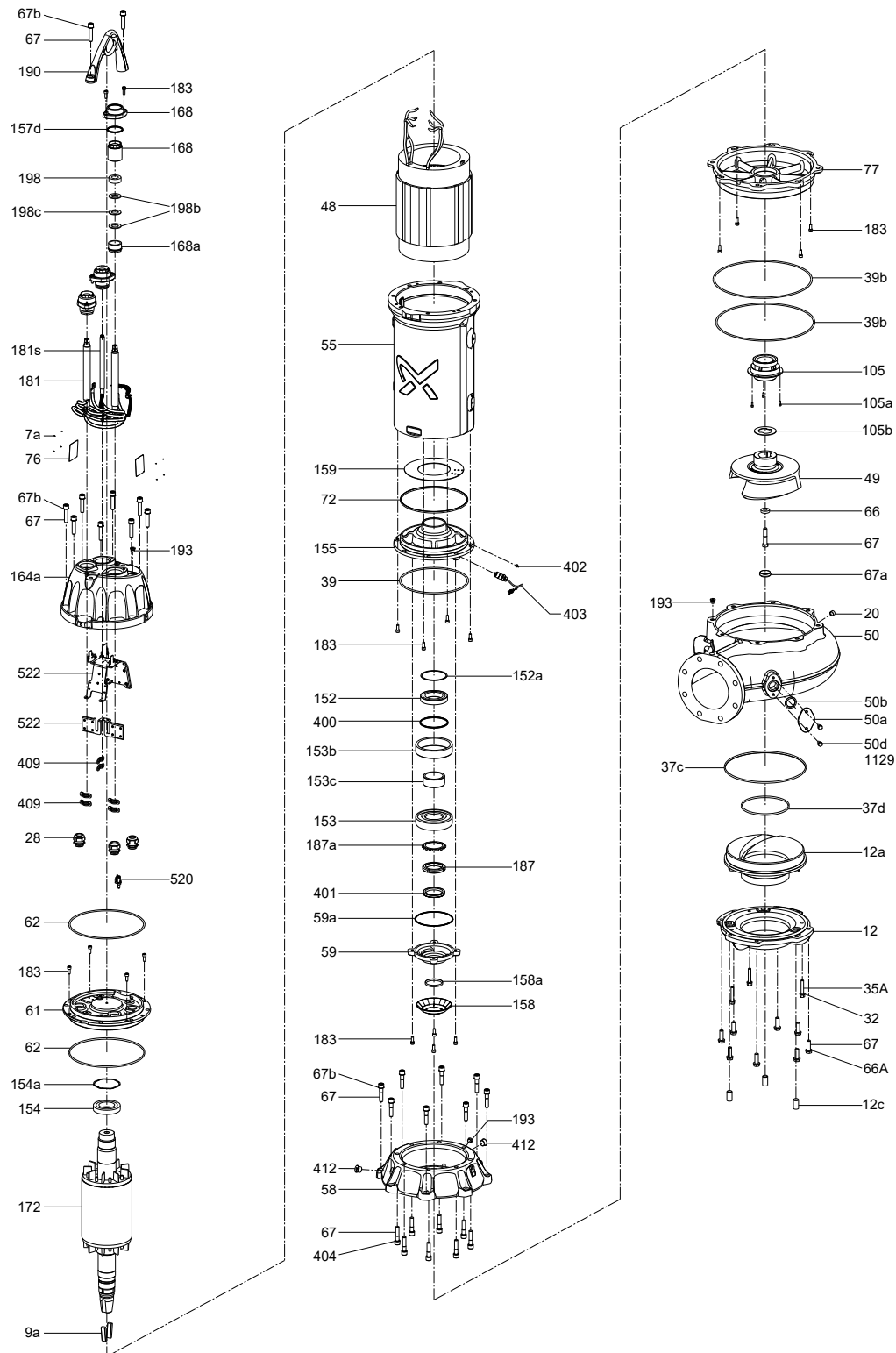
TM085226



TM085225

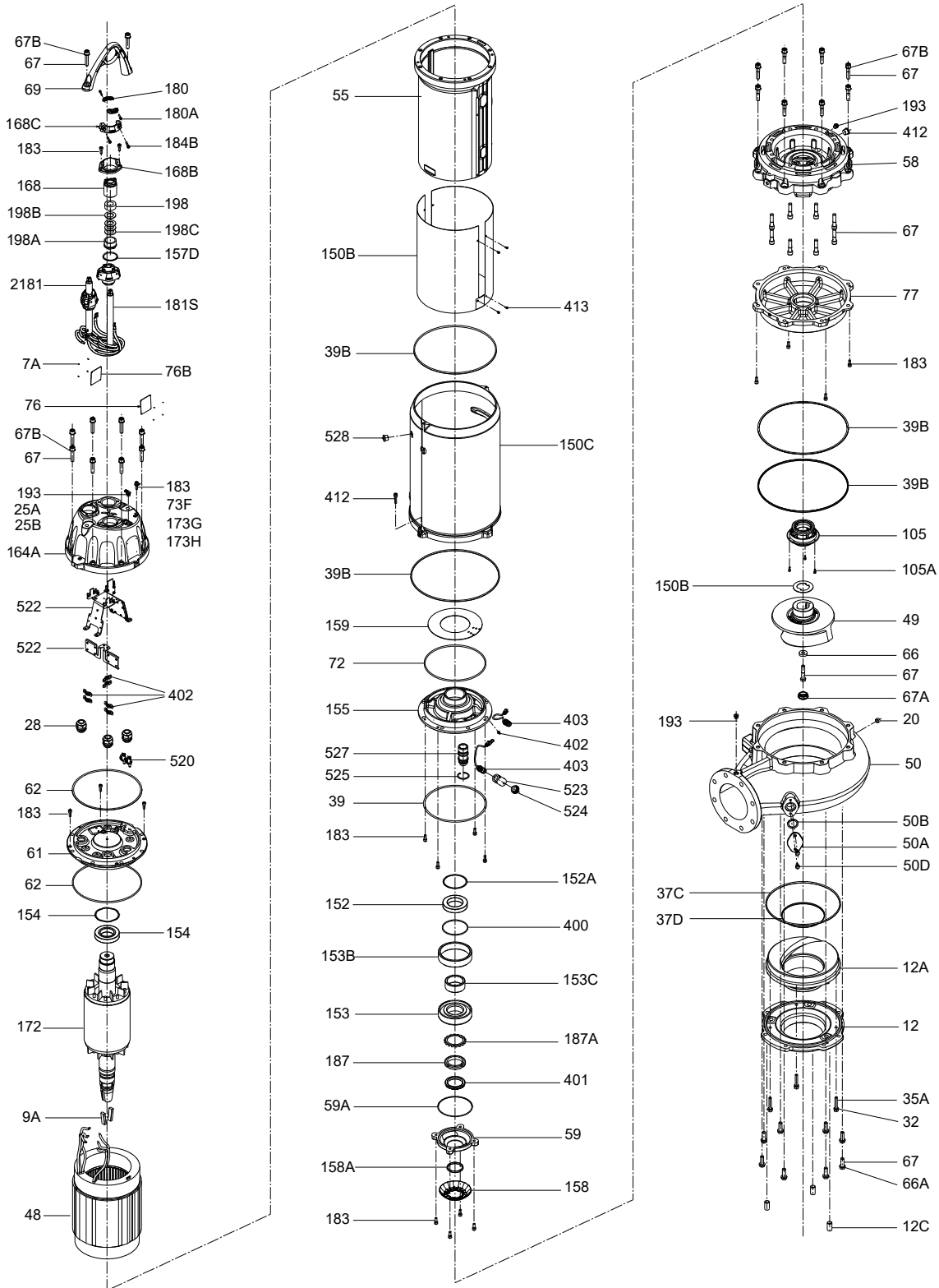
SE pump

## Exploded view



SL pumps

TM083025



SE pumps

TM085227

## Components and material specification

Pos.	Component	Material	Standard
1	M8 x 16 Hexagon socket head cap screw	A4-70	ISO 4762
2	Ferrule 1.5/10	-	-
7A	2.5 x 5 Round Head Rivets	A2	ISO 1051B
9A	Impeller key	ASTM 316Ti	DIN 6885 B
12C	M24 x 45 Set Screw	A4-80	ISO 4026
20	1/2" Plug	DeltaTone/Silico	-
27	Lock washer	D11 x D6.4 x 0.7	-
28	M40 x 1.5 Cable gland	Polyamide/CR	-
32	13 x 24 x 2.5 Flat washer	A4-70	ISO 7089/7090
35A	M12 x 70 Hexagon head screw	A4-80	ISO 4017
37b	*O-ring	NBR 70	ISO 3601-1 Class B
39	*O-ring	NBR 70	ISO 3601-1 Class B
39 A	O-ring	NBR 70	ISO 3601-1 Class B
39b	O-ring	NBR 70	ISO 3601-1 Class B
48	Stator	-	-
49	Impeller	NBR	ISO 3601-1 Class B
50	Pump Housing	ASTM A48	ISO 185
50A	Cover plate for inspection hole	ASTM 316	-
50B	42.2 x 5 O-ring	NBR 70	ISO 3601-1 Class B
50D	M10 x 25 Hexagon head screw	A4-70	ISO 4017
55	Stator housing	ASTM A48	ISO 185
58	Upper seal housing	ASTM A48	ISO 185
59	Bearing cover	ASTM A48	ISO 185
59A	167 x 3 O-ring	NBR 70	ISO 3601-1 Class B
61	Upper bearing bracket	ASTM A48	ISO 185
62	339.3 x 5.7 O-ring	NBR 70	ISO 3601-1 Class B
66	17 x 40 x 5 Washer for impeller	ASTM 316L	-
66a	M16 x 50 Hexagon head screw	A4-80	ISO 4017
67A	Impeller plug	Makrolon 9415 PC-GF 10 FR	-
67B	17 x 26 x 1.2 Serrated Lock washer	A4	DIN 6798 A
67	M16 x 70 Hexagon socket head cap screw	A4-80	ISO 4762
72	299 x 5.7 O-ring	NBR 70	ISO 3601-1 Class B
77	Lower seal housing	ASTM A48	ISO 185
89	M8 x 12 Hexagon socket head cap screw	A2-70	ISO 4762
89 A	Spring lock washer	1.4401	-

Pos.	Component	Material	Standard
93	M6 x 30 Hexagon socket head cap screw	A4-70	ISO 4762
105	Shaft seal cartridge	SiC-SiC	
105A	M6 x 16 Hexagon socket head cap screw	A4-80	ISO 4762
105B	Disc for shaft seal protection	PTFE	-
150 B	*Inner cooling jacket	ASTM A48	-
150 C	*Outer cooling jacket	ASTM A48	-
152	Ball Bearing 6016 2RS1/C3 WT		
152 A	Wave spring 124 x 114 x 0.6 H4.8		
153	Angular contact ball bearing 7316 BECBP		
153 B	*Outer dummy bearing	ASTM A36	-
153 C	*Inner dummy bearing	ASTM A36	-
154	Ball bearing 6214 2RS1/HC5C3 WT		
155	Lower bearing bracket	ASTM A48	ISO 185
157D	65 x 5 O-ring	NBR 70	ISO 3601-1 Class B
158	Centrifugal cup	PA6.6	-
158A	72.39 x 5.33 O-ring	NBR 70	ISO 3601-1 Class B
159	Wire Cover	PTFE	-
164 A	Motor top cover	ASTM A48	ISO 185
168	Upper cable entry	ASTM A48	ISO 185
168 A	Lower cable entry	ASTM A48	ISO 185
168 B	Cable entry clamp	ASTM A48	ISO 185
172	Shaft with rotor	-	-
183	M10 x 25 Hexagon socket head cap screw	A4-80	ISO 4762
187	M80 Lock Nut	-	-
190	Lifting Handle	ASTM 316	-
193	ISO 228-G 3/8" Plug	ASTM 316	-
198	Seal ring*	KTT CR601	-
198	Rubber seal*	KTT CR601	-
198b	*x56x2 Washer	A4	-
198c	*x56x* Disc spring	A4	ISO 16983
230B	lock washer	A4-70	DIN 6798 A
400	126 x 3.53 O-ring	NBR 70	ISO 3601-1 Class B
401	Seal ring	KTT CR601	-
402	M10 x 1 Grease nipple	Carbon steel Zinc plated	DIN 71412 A
403	Float switch	-	-
405	8.4 x 16 x 1.6 Washer	Brass	DIN 125 A
406	M8 Nut	Brass	ISO 4032
407	Cable terminal 16-8	-	
410	M10 x 16 Set screw (plug)	PTFE	ISO 4026
411	M16 x 16 Set screw	PTFE	ISO 4026
412	ISO 228-G 3/4" Plug	AISI 316	-
413	M6 x 10 Hex Socket Button Head Cap Screw	A4-80	ISO 4762
520	Moisture switch	-	-

Pos.	Component	Material	Standard
520a	M3 x 10 Slotted cheese head screw	4.8 (zinc plated)	ISO 1207
522*	Bracket for wire termination	ASTM A36	-
522*	Bracket screen sermination	ASTM A36	-
528	M10 x 40 Hexagon Socket Head Cap Screw	-	-
1084	M3 x 12 Hexagon Socket Head Cap Screw	A2	ISO 4762
1129	10.5 x 20 x 2 Washer	A4	ISO 7089/7090
1173	17 x 23 Seal washer	Cu	-
* depends on pump version			

## 7. Features

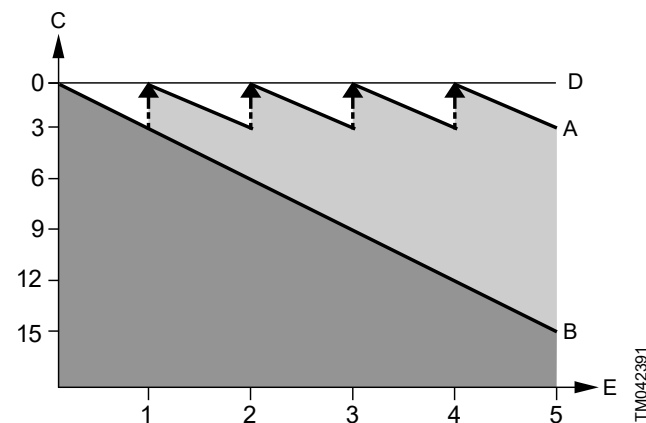
### SmartTrim

#### SmartTrim

All Grundfos heavy-duty S-tube® and Open S-tube® impeller pumps are equipped with the SmartTrim impeller clearance adjustment system. This enables easy restoration of the factory-set impeller clearance and ensures peak pumping efficiency.

Only the adjustment screws on the exterior of the impeller housing need to be tightened, which can be done quickly and easily on-site, without dismantling the pump or using special tools.

For a video presenting the SmartTrim assembly, click here. (<https://youtu.be/QZ6AodFNPBM>)



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

### SmartSeal

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

### Ball bearings

The bearings are greased for lifetime.

**Main bearing:** Sealed double-row angular contact ball bearing.

**Support bearing:** Sealed single-row deep-groove ball bearing.

If frequency converter is used, Grundfos recommends to use insulated bearings from the following motor ranges:

- 40 Hp / 4-pole
- 30 Hp / 6-pole

Isolated bearings are standard in DOL version pumps (50D and 60G voltage code).

### Shaft seal



TM081579

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

The shaft seal is a cartridge seal for easy service. The combination of the primary and secondary seals in a cartridge results in a shorter assembly length compared to conventional shaft seals. Furthermore, this design minimises the risk of incorrect fitting.

The seal faces of the primary shaft seal are SiC/SiC and the seal faces of the secondary shaft seal are SiC-Carbon.

### Motor features

The motor components are compatible with the IEC IE3 / IE4, and NEMA Premium / Super Premium efficiency standards.

The motor is a watertight and enclosed.

Insulation class	H (356 °F [180 °C])
Temperature rise class	B (266 °F [130 °C])
Enclosure class	IP68

### Motor range

Shaft power [hp]	Number of poles
24	4
28	4
29	6
32	4
33	6
38	4, 6
43	4
44	6
50	4, 6
56	4
58	6
66	4
75	4
84	4

## Power cable data

	Cable type	Outer cable diameter	Minimum bending radius
	[AWG]	[inch]	[inch]
Screened EMC power cable	3 × 6 + 3 × 12	1.10 ± 0.020	5
	3 × 4 + 3 × 6	1.35 ± 0.020	6
	3 × 2 + 3 × 6	1.45 ± 0.020	6
	3 × 1/0 + 3 × 6	1.70 ± 0.020	7
Screened EMC sensor cable	10 × 16	0.70 ± 0.010	3
	18 × 16	0.81 ± 0.010	4



The minimum size of the ground conductor must be equal to or bigger than the phase conductor.



The top cover of the explosion-proof pumps is provided with an external ground terminal to ensure the connection to the ground. The electrical installation must include an external connection from this terminal to the ground. The ground conductor must comply with all electrical safety regulations in force.



Before installation and the first startup of the pump, check the condition of the cable to avoid short circuits.

## Surface treatment

Grundfos SE/SL Range 56 pumps have high quality surface treatment as standard:

- Primer: cathaphoresis treatment of all cast iron parts
- Top coat: epoxy paint

Corrosion protection according to grade Im3, by ISO 12944-1 standard.

## Motor cooling liquid

The motor is factory-filled with Grundfos motor liquid SML-3, which is frostproof up to -4 °F.

Cooling liquid features:

- **Corrosion protection:** Grundfos motor liquid protects metals and alloys in the equipment against all forms of corrosion. The combination of low toxicity and FDA-approved ingredients with a high level of corrosion protection makes Grundfos motor liquid unique in the market. The anti-corrosion performance is demonstrated according to ASTM D 1384.
- **Compatibility and miscibility:** Grundfos motor liquid is compatible with most other heat transfer fluids based on mono-propylene glycol. Grundfos motor liquid must only be mixed with clean water. The product can be delivered as a dilution mixed with the proper amount of purified water.
- **Toxicity and safety:** Grundfos motor liquid consists of FDA-approved components for heat transfer fluids with incidental food contact. Neither the Grundfos motor liquid concentrate nor any dilution is classified according to the European Dangerous Preparations Directive.

## Cable entry

The watertight cable entry has soft shape and sealing rings to prevent cable damage or leaks. The cable entry has a user-friendly design, which allows installation and removal of the cable with cable entry.

## Sensors

SE/SL Range 56 pumps are available with built-in sensors. Built-in sensors greatly reduce the risk of downtime and severe damage to the pump.

Sensors can be used for different purposes, depending on pump type and connection. For instance, moisture switches must cut out power in case of water entering through the cable entry, cable or shaft seal, while bearing temperature sensors are used for monitoring the temperatures in the bearings.

Ex sensor versions come with 2 moisture switches for SL pumps, 2 moisture switches and 1 dry running switch for SE pumps.

	non-Ex			Ex		
	Standard	Version 1	Version 2	Standard	Version 1	Version 2
Klixon* or PTC	•	•	•	•	•	•
Moisture switch in motor top	•	•	•	•	•	•
Moisture switch in stator compartment				•	•	•
Float switch in leakage chamber	•	•	•	•	•	•
Dry-running switch (only SE)				•	•	•
Pt100 in motor windings		•	•		•	•
Pt100 in upper bearing		•	•		•	•
Pt100 in lower bearing		•	•		•	•
PVS3 vibration sensor		•	•		•	•
SM113 installed in motor top			•			•

\*Klixon is standard

## IO 113



TM077033

### IO 113 module

IO 113 is a protection module for Grundfos storm- and wastewater pumps. IO 113 has inputs for digital and analog pump sensors, and can stop the pump, if a sensor indicates a fault. IO 113 can be connected to the Grundfos DC system and allows advanced monitoring functions:

- motor temperature
- moisture in motor
- shaft seal leakage
- insulation resistance.

## Float switches

### Description

The point level measurement is carried out according to the Archimedes' principle for liquids. The float moves along the guide tube as the level rises or falls. The magnet in the float actuates the reed contact(s) installed in the guide tube with its magnetic field.

### Float switch in Leakage chamber

Detects water in chamber. Gives a warning but no pump-stop.

### Dry run detection (SE pumps only)

Installed in cooling liquid chamber, it detects missing liquid in chamber. Provides alarm signal to the control unit, and stops the pump.



TM084172

## 8. Operating conditions

### Operating modes

- Continuous operation:
  - SL pumps must be completely submerged to ensure sufficient cooling
  - SE pumps must have water level above the volute.
 See Pump installation dimensions for minimum water levels.
- Intermittent operation: The pump is submerged to the top of the motor and with short periods of operation down to the top of the pump housing (maximum 30 starts per hour to prevent overheating). See also Pump installation dimensions.

### Installation types

Grundfos SE/SL pumps can be installed vertically and submerged, either permanently on a submerged auto-coupling system or SE pumps can be installed on a dry horizontal stand or dry vertical stand.

### Frequency converter, CUE



TM084173

Grundfos SE/SL pumps 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 50 % to 100 % but never below 2.3 ft/s (0.7 m/s) for horizontal and 3.3 ft/s (1 m/s) for vertical piping.

A frequency converter that is connected to a wastewater pump must be able to deliver a high and constant start torque.

Grundfos offers a range of dedicated Grundfos CUE frequency converters up to 335 Hp designed to run wastewater pumps.

For more information, see the installation and operating instructions of the selected frequency converter at [www.grundfos.com](http://www.grundfos.com) (Grundfos online selection tool).

### General conditions for frequency converter operation

All motors used with frequency converter must be protected against voltage peaks and dU/dT according to IEC60034-25 Figure 40 – Curve A.

Grundfos recommends using insulated bearing systems in installations where common mode currents can be a problem. It is generally recommended to use insulated bearings from the following performance ranges:

- 60 Hp / 2-pole
- 40 Hp / 4-pole
- 30 Hp / 6-pole.

Use screened cables for frequency converter operation.

- Screened **power cables** to comply with EMC regulations.
- Screened **sensor cables** to protect the signals against electromagnetic interference.

### Mains-dependent conditions for frequency converter operation

#### 200-240 V

No output filters are required for frequency converter operated pumps with up to 240 V mains voltages.

#### 380-500 V

For frequency converter operated pumps with less than 25 m (82 ft) power cable length and mains supply up to 460 V, no additional motor protection is required against voltage peaks.

If the power cable length is longer than 25 m (82 ft), or the mains supply is higher than 460 V, sine-wave filters are required.

#### 500 V and above

Always use sine-wave filters for pumps marked for 500 V or higher voltages.

### Pumped liquids

- pH value: 6.5 to 14
- For fluctuating pH values, the range is pH 4 to 14.
- Liquid temperature: 32 to 104 °F (0 to 40 °C).

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

For short periods (maximum 3 minutes), a temperature of up to 140 °F (60 °C) is permissible.

### Sound pressure

The sound pressure level of the pump is lower than 70 dB.

## 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



*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 optimization
- 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](http://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 optimization
- specific-energy test
- output frequency
- monitoring of:
  - voltage<sup>1)</sup>
  - current
  - phase sequence<sup>1)</sup>
  - power<sup>1)</sup>
  - energy<sup>1)</sup>
  - torque<sup>1)</sup>
- reverse start<sup>2)</sup>
- run flushing
- stop flushing
- PID control.

<sup>1)</sup> These functions are only available with a Grundfos CUE.

<sup>2)</sup> 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.

TM084174

## 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.

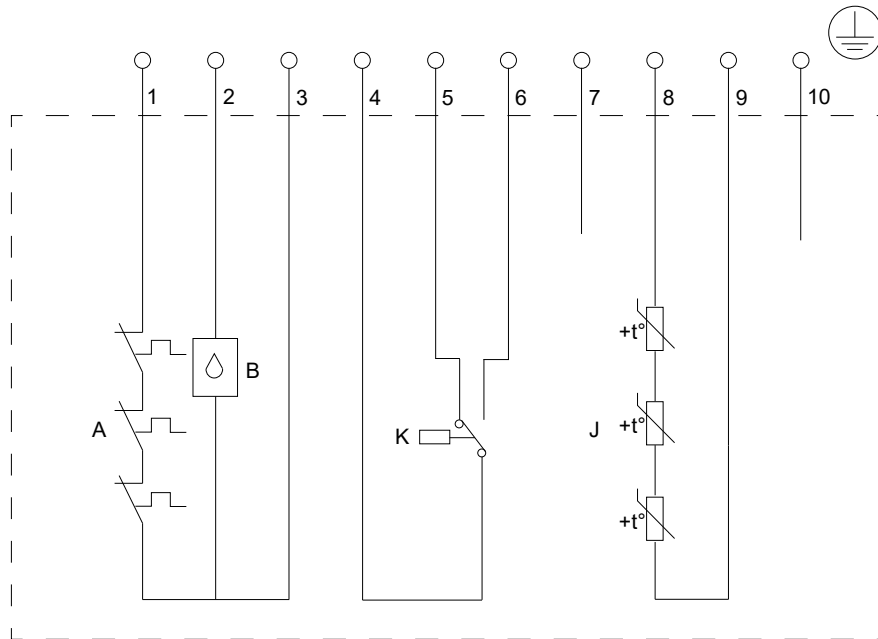


TM074000

*LC 231 and LC 241 controller units*

## 9. Wiring diagrams

### Sensor wiring diagrams



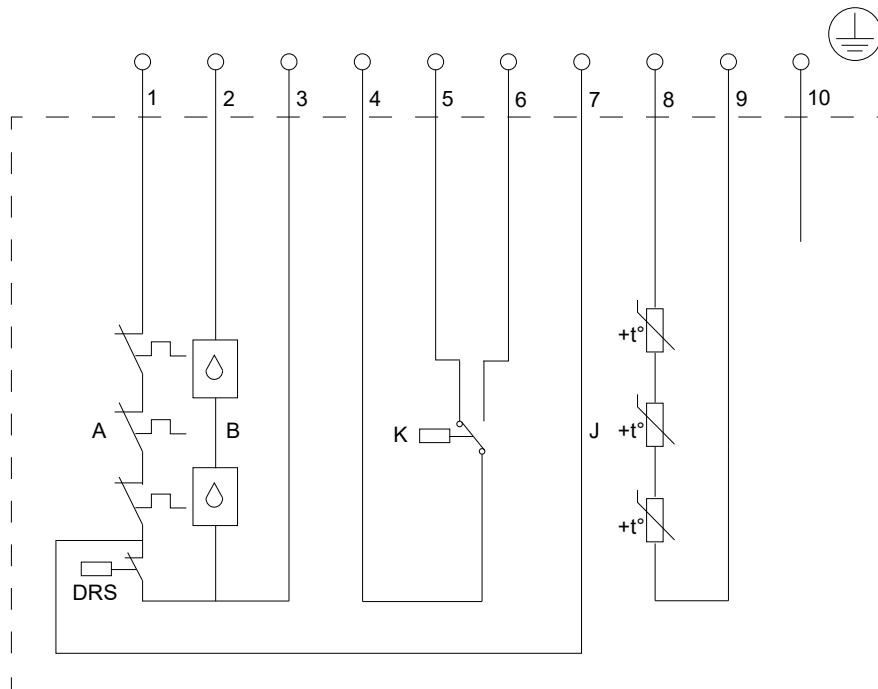
TM082723

Sensor connection, standard version

Pos.	Description
A	3 x PTO
B	Moisture switch (motor top)
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



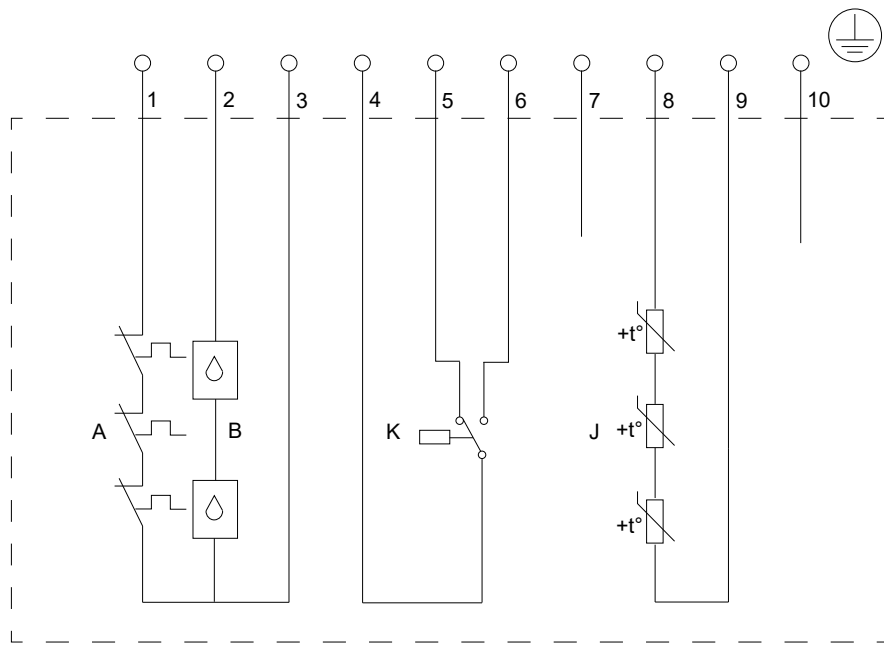
TM085734

Sensor connection, standard Ex version

Pos.	Description
A	3 x PTO
B	2 x Moisture switch (motor top)
K	Leakage switch
J	3 x PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



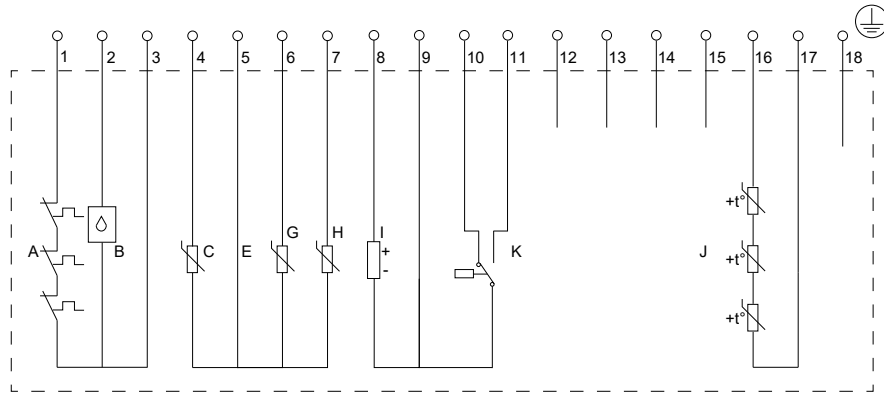
TM085736

Sensor connection, standard Ex version without Dry Running Switch

Pos.	Description
A	3 x PTO
B	2 x Moisture switch (motor top)
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 4, 5 and 6) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "4" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "5" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "6" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



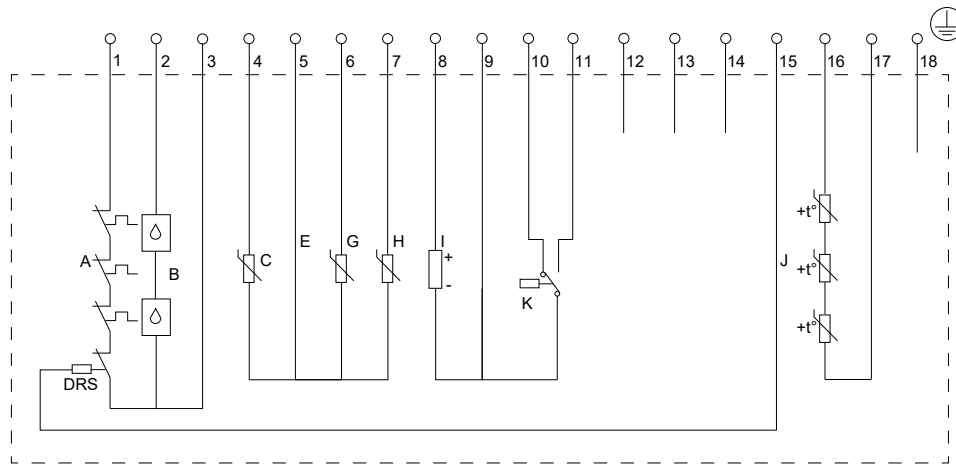
TM084630

Sensor connection, version V1

A	3 x PTO
B	Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common grounding for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



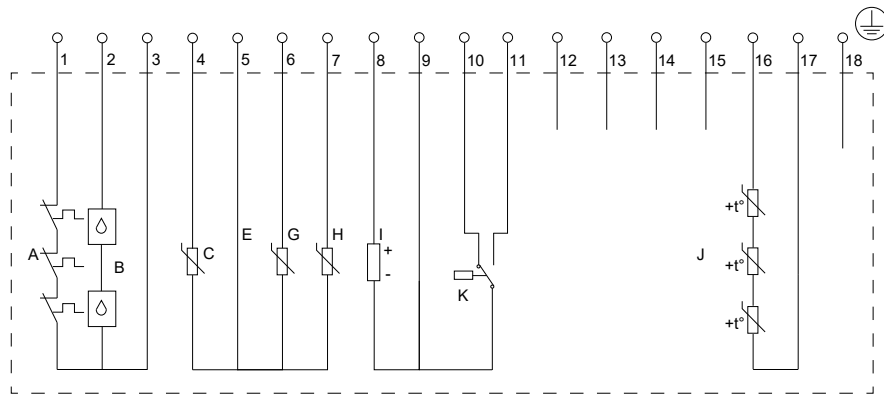
TM085739

Sensor connection, version V1 Ex

A	3 x PTO
B	2 x Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common grounding for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 15 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.



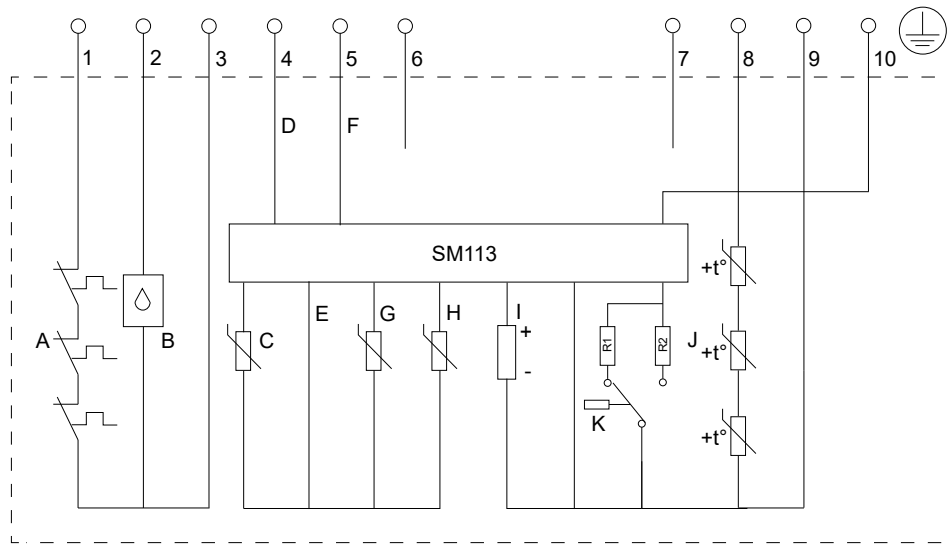
TM085737

*Sensor connection, version V1 Ex without Dry Running Switch*

A	3 x PTO
B	2 x Moisture switch (motor top)
C	Pt100 (lower bearing)
E	Common grounding for sensors
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground. Sensor wire 15 is the control wire for service. If not used, then the wire end must be insulated. To connect the leakage switch to SM113 module, use resistor kit 92726268. The resistor converts the digital signal from the leakage switch (Terminal 9, 10 and 11) must be converted to analog 4-20 mA signal. The resistor kit must be connected as follows:

1. Connect Sensor wire "9" (common point of leakage switch) to SM113 Terminal "3".
2. Connect Sensor wire "10" (leakage switch lower position: 4-6 mA = "OK" signal) to "R1" of the resistor kit.
3. Connect Sensor wire "11" (leakage switch upper position: 16-18 mA = "Alarm" signal) to "R2" of the resistor kit.
4. Connect the common end of the resistor kit to Terminal "4" of the SM113 module.

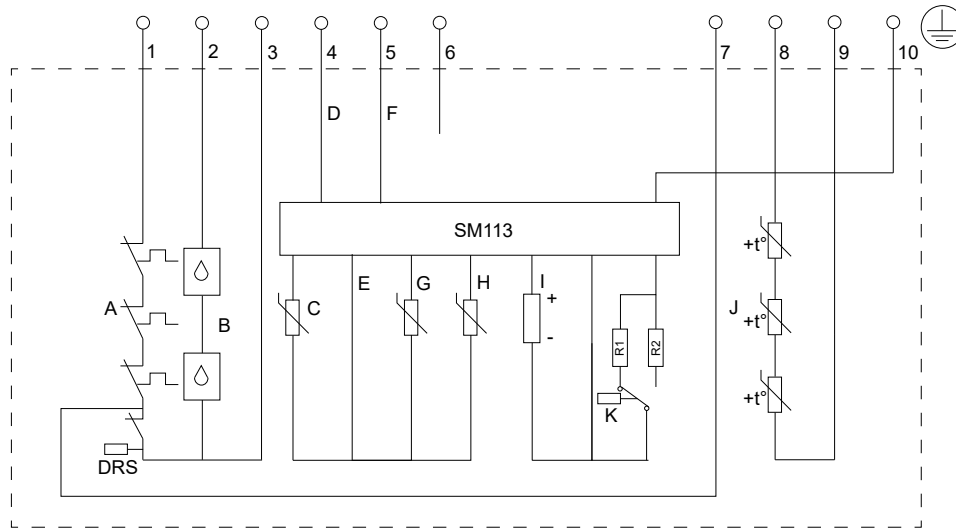


TM1084631

Sensor connection, version V2

A	3 x PTO
B	Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common grounding for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground.

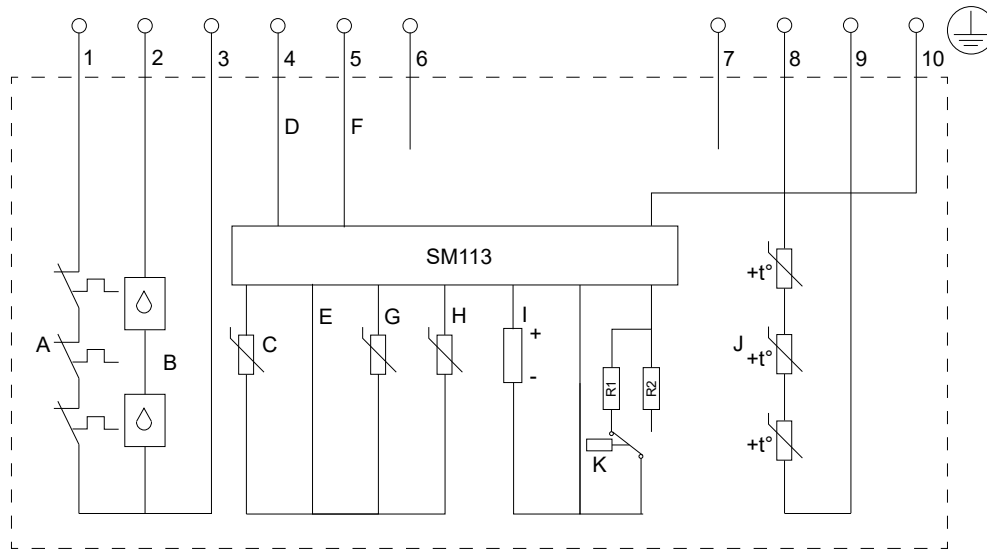


TM085738

Sensor connection, version V2 Ex

A	3 x PTO
B	2 x Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common grounding for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC
DRS	Dry running switch

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated.



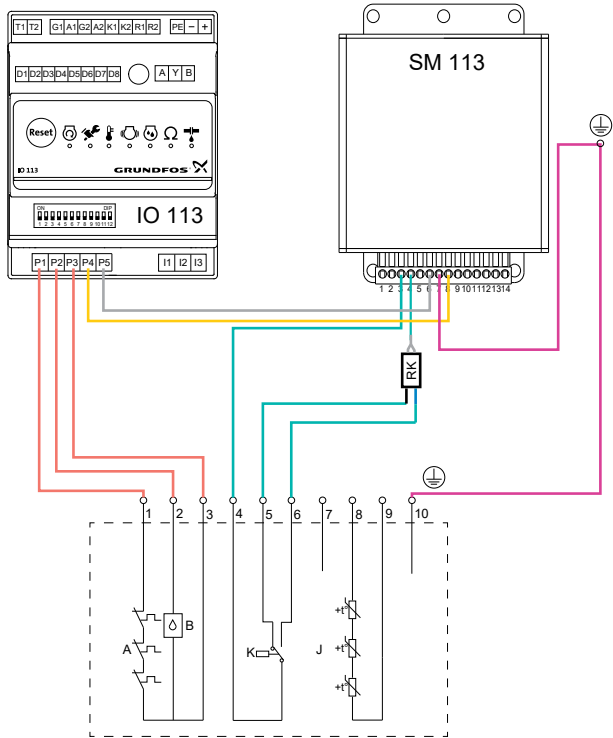
TM085740

Sensor connection, version V2 Ex without Dry Running Switch

A	3 x PTO
B	2 x Moisture switch (motor top)
C	Pt100 (lower bearing)
D	Supply input for sensor board from IO113
E	Common grounding for sensors
F	Communication signal for IO113
G	Pt100 (upper bearing)
H	Pt100 (stator winding)
I	Vibration sensor
K	Leakage switch
J	3 x PTC

Cable screening must be connected to the ground. Sensor wire 7 is the control wire for service. If not used, then the wire end must be insulated.

## IO 113, SM 113 wiring



TM090589

Example for IO 113, SM 113 wiring

Pos.	Description
A	3 × PTO
B	Moisture switch (motor top)
K	Float switch in leakage chamber
J	3 × PTC
RK	Resistor kit



For more information, please check the IO 1113 Installation and Operating Instructions (IO). For connection with Modbus, please check the Modbus IO as well.



If IO 113 indicates sensor error or configuration error, repeat the sensor detection. Set DIP switch 6 on IO 113 to OFF, then a few seconds later to ON. SM 113 resets after 5 seconds and sensor detection starts again. Repeat if necessary.

### Wire color explanation

Color	Description
Red	Motor protection
Green	Pump sensors
Purple	Earth conductors
Gray and yellow	IO/SM 113 connection

### Resistor kit wire color explanation

Color	Description
Gray	Common, connected to SM 113 terminal 4

Color	Description
Black	2.3k Ω, connected to sensor cable wire 5
Blue	750 Ω, connected to sensor cable wire 6

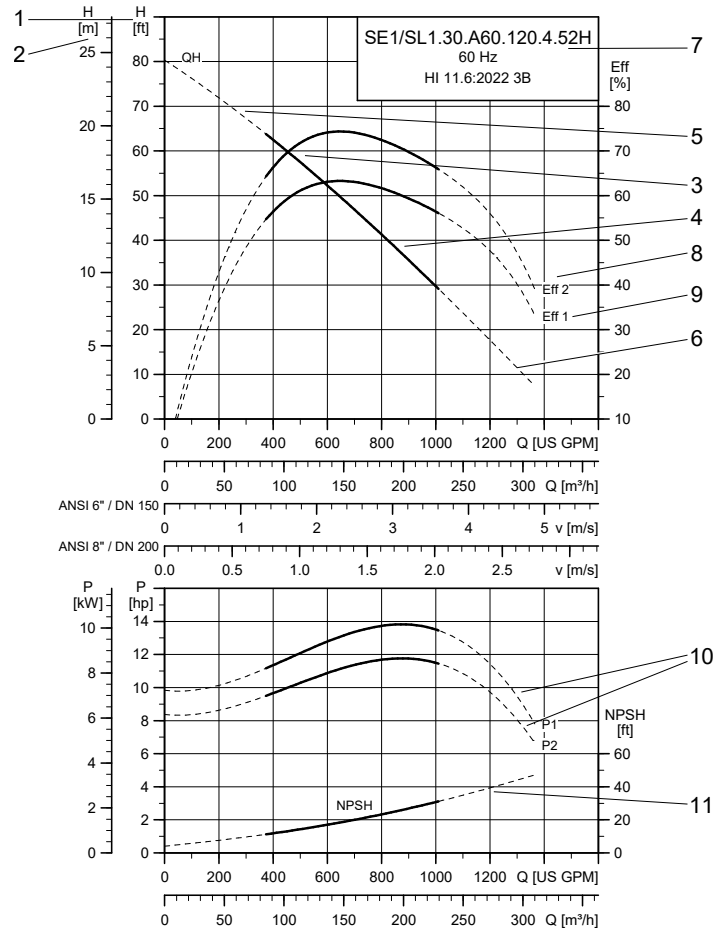


Resistor kit product number: 92726268.

DIP switch setting	Description
	TM090601 IO 113 with SM 113. Sensors are connected to SM 113. Position 1 OFF, Position 2 ON.
	TM090602 Unique address for IO 113 set in the control system via bus. Default address: 223.
	TM090603 The slave SM 113 detects sensor status and communicates with master IO 113 to set the address.
	TM090604 Motor temperature: 32-356 °F, 4-20 mA 0 mA = no sensor
	TM090605 Leakage switch: 4-20 mA 0 mA = not connected or faulty 4-6 mA = OK signal 16-18 mA = alarm signal
	TM090606 Grundfos standard protocol for communication between Grundfos products.
	TM090607 Activation of FM Ex protection enables additional alarms: <ul style="list-style-type: none"> <li>Main bearing temperature too high. Default alarm temperature: 284 °F (installation with SM 113)</li> <li>Support bearing temperature too high. Default alarm temperature: 284 °F (installation with SM 113)</li> <li>Missing signal from bearing sensor (installation with SM 113)</li> <li>Missing signal from WIO/WIA sensor</li> <li>Communication alarm (installation with SM 113).</li> </ul>
	TM090608 Pump with leakage switch

## 10. Performance curves and technical data

### How to read performance curves



TM079083

Pos.	Description
1	Total pump head
2	$H = H_{\text{total}}$
3	QH curve
4	The solid line represents the allowed operating range.
5	The dotted line represents the range within which the pump is not designed to operate.
6	The pump should not operate outside the solid line or against a closed valve (shut-off valve).
7	Pump type
8	Eff2: the hydraulic efficiency (pump)
9	Eff1: the total efficiency (pump + motor)
10	Power curve indicates input power [P <sub>1</sub> ] and output power [P <sub>2</sub> ] of the pump.
11	The shown NPSH curve for all variants is defined as maximum NPSH curves according to ANSI/HI 11.6:2017 3B.

**Note:** Pumps are tested according to ANSI HI11.6:2017 grade 3B tolerances. Testing equipment and measuring instruments are designed and calibrated according to the standards mentioned. The pumps are approved according to tolerances for the entire curve, specified in grade 3B.

## Explanation for SE/SL Range 56 performance curves

The curves for Range 56 pumps are full curves which start at 0 Flow and ends at 0 Head. For other of Grundfos wastewater pumps the curves are cut in both high head and high flow.

The Hydraulic Institute (HI) standard ANSI/HI 9.6.3-2012 define values based on which region on the curve the pump should operate within.

There are three definitions that is important in this context:

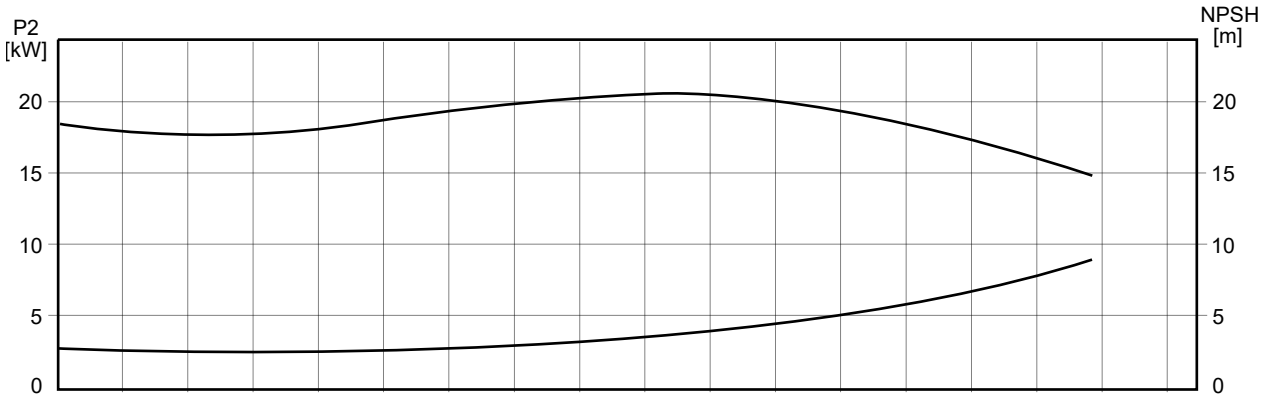
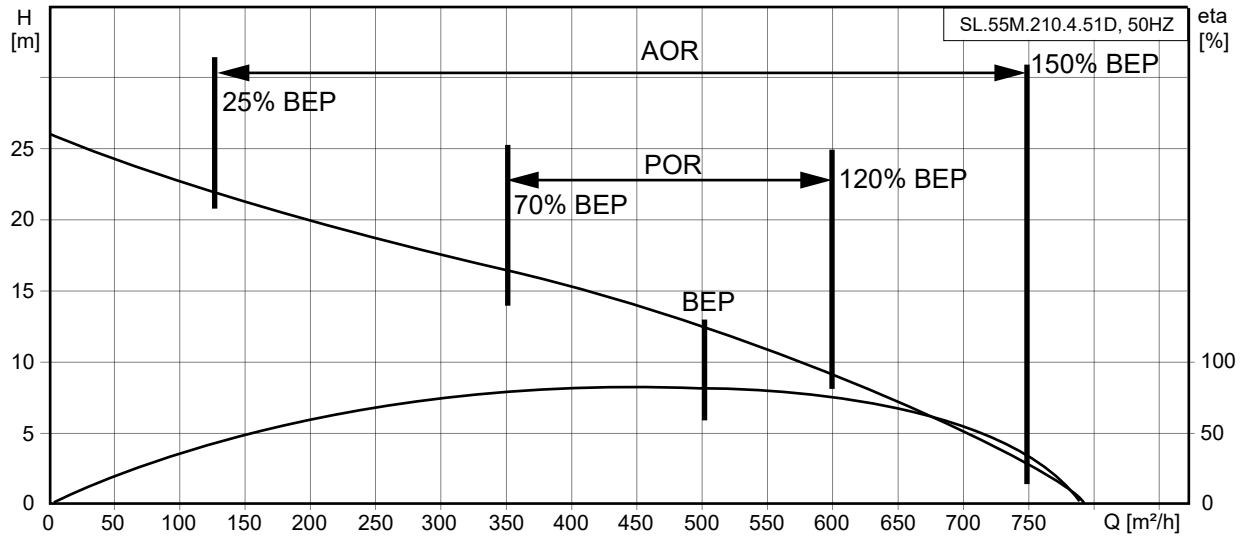
**BEP** = **B**est **E**fficiency **P**oint, which is the point on the QH curve where the pump will operate with the highest efficiency

**POR** = **P**referred **O**perating **R**ange, which is the range where the pump will have the highest efficiency and lowest vibrations. **POR** range is typically between **70** to **120%** of the flow in **BEP**. When operating within the **POR**, the pump requires a smaller NPSH margin.

**AOR** = **A**llowable **O**perating **R**ange, which is the range where the pump is allowed to operate with shorter time between service intervals, without compromising the lifetime of the pump. **AOR** for SE/SL Range 56 is from **25%** of **BEP** till **150%** of **BEP**.

Operating outside **POR** will:

- reduce the lifetime of the bearings
- increase the vibration level on the pump and system
- increase the stress on the shaft seals, cable inlets
- increase the stress on the cable and cable inlet
- increase stress in other components of the pump, as well as on the installation accessories and connected piping compared to operating inside the **POR** range.



Pumped liquid	Water
Liquid temperature during operation	20 °C
Density	998.2 kg/m <sup>3</sup>

## Curve conditions

The guidelines below apply to the curves indicated in the performance charts in Performance curves and technical data.

- Tolerances according to: ANSI HI11.6:2017, grade 3B.
- The curves show pump performance with different impeller diameters at rated speed.
- The curves apply to the pumping of airless water at a temperature of 68 °F (+20 °C) and a kinematic viscosity of 1 cSt/s (1 mm<sup>2</sup>/s).
- **ETA:** The lines show the hydraulic efficiency values of the pump for the different impeller diameters.
- **NPSH:** The curves show maximum NPSH values according to ANSI HI11.6:2017.
- In case of densities other than 62.5 lb/ft<sup>3</sup> (1000 kg/m<sup>3</sup>), the outlet pressure is proportional to the density.
- When pumping liquids with a density higher than 62.5 lb/ft<sup>3</sup> (1000 kg/m<sup>3</sup>), 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 and the dynamic head.

$H_{\text{total}} = H_{\text{geo}} + H_{\text{stat}} + H_{\text{dyn}}$	
$H_{\text{geo}}$ :	height difference between measuring points.
$H_{\text{stat}}$ :	differential head between the inlet and the outlet side of the pump.
$H_{\text{dyn}}$ :	calculated values based on the velocity of the pumped liquid on the inlet and the outlet side of the pump.

## Performance tests

The requested duty point for each pump is tested according to ANSI HI11.6:2017, grade 3B, and without certification.

In case of pumps ordered on the basis of the impeller diameter only (no requested duty point), the pumps are tested at a duty point which is 2/3 of the maximum flow rate of the published performance curves which is related to the ordered impeller diameter (according to ANSI HI11.6:2017, grade 3B).

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

## Certificates

Certificates are available on request and have to be confirmed for each order.

## Witness test

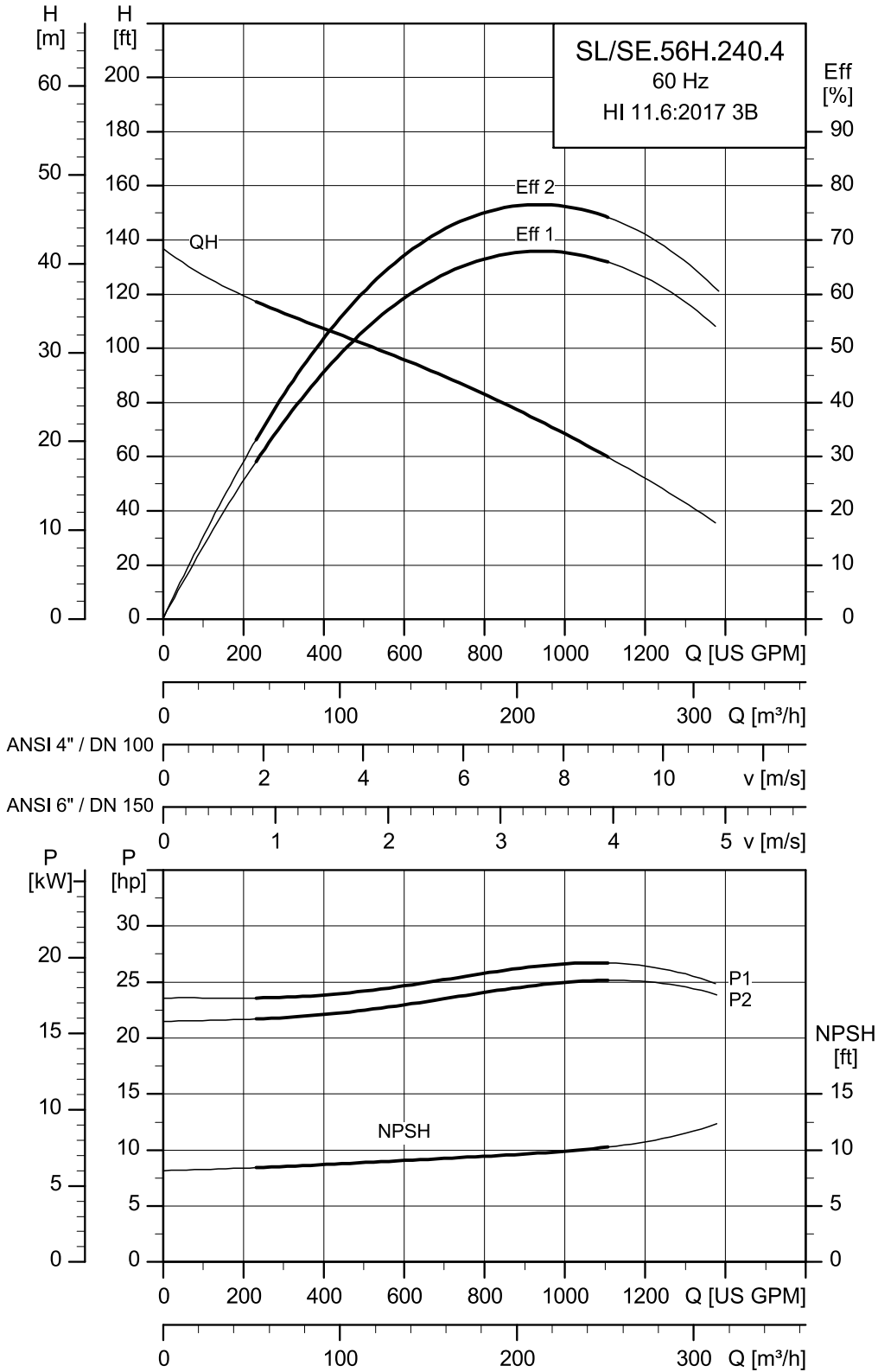
According to ANSI HI11.6:2017, the customer can witness the testing procedure.

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

### ANSI 60 Hz performance curves

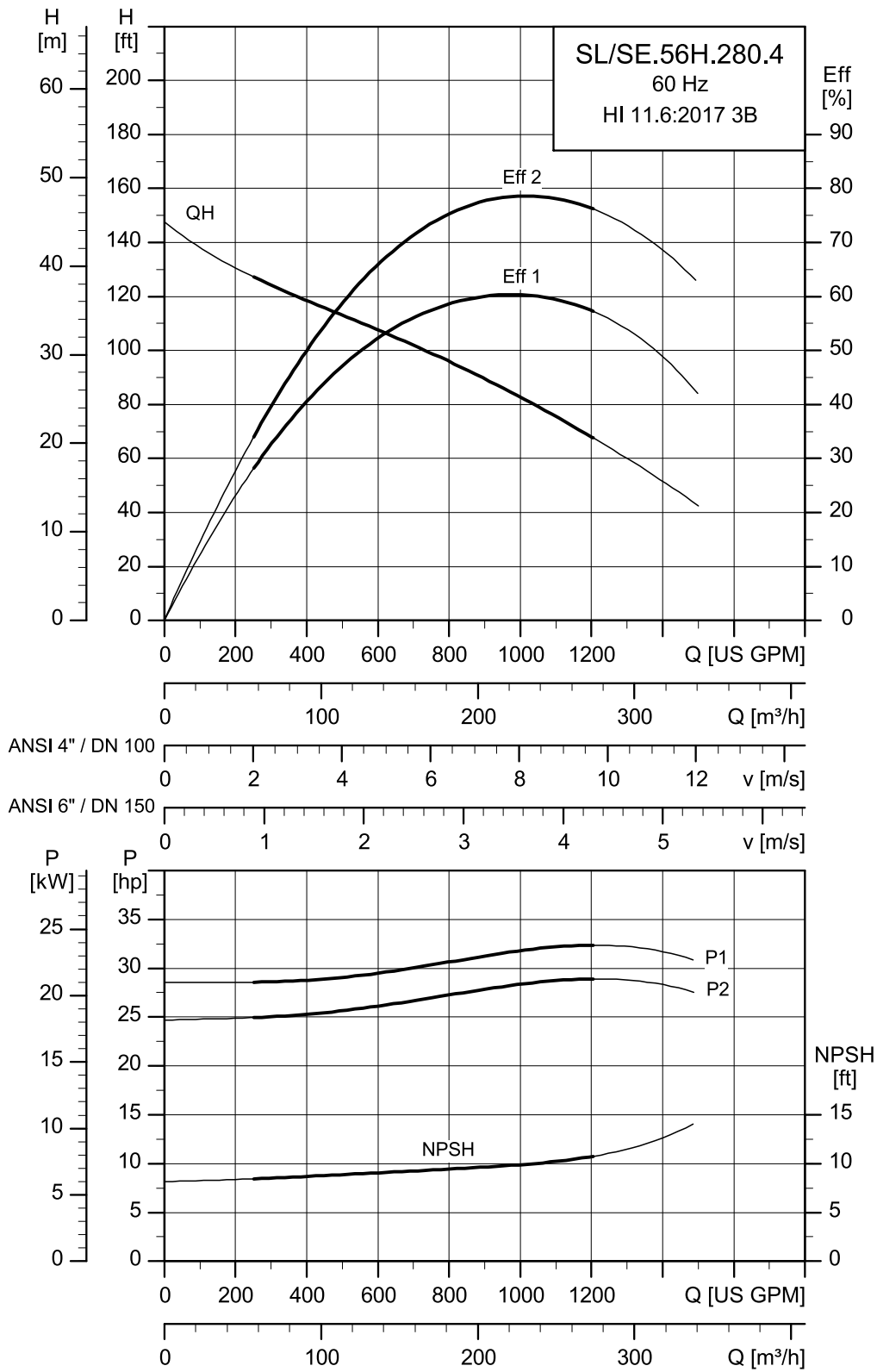
#### SE/SL.56H.240.4 (ANSI)



Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.240.4.EX.60G	380-480 -	26.8	24.1	4	1795	Direct-on-line (DOL)	41-44.5 -	580	83.8	88.3	90.1	0.54	0.66	0.74
SE/SL.56H.240.4.EX.60L	575-600 -	27.1	24.1	4	1795	Direct-on-line (DOL)	34.5-36 -	570	82.1	87.1	89.3	0.38	0.49	0.58
SE/SL.56H.240.4.EX.61F	220-277 380-480	26.8	24.1	4	1795	Star-delta (YD)	71-77.5 41-44.5	1000	83.8	88.3	90.1	0.54	0.66	0.74

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.240.4.EX.60G	11.6	0.03	CLASS125	65	0.17	774.3
SE/SL.56H.240.4.EX.60L	11.6	0.03	CLASS125	65	0.17	593.7
SE/SL.56H.240.4.EX.61F	11.6	0.03	CLASS125	65	0.17	542.0

SE/SL.56H.280.4 (ANSI)

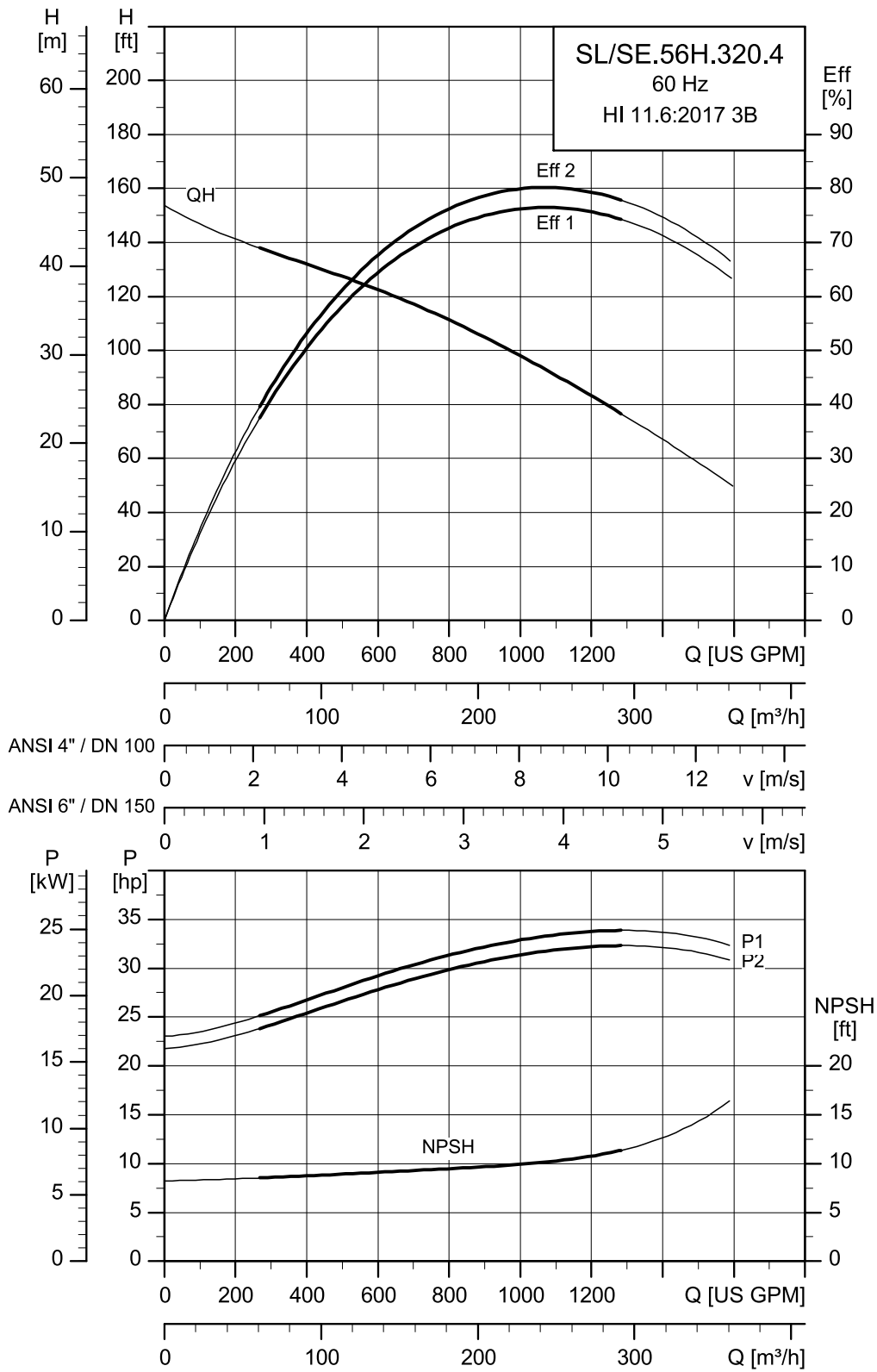


TM084417

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.280.4.EX.60G	380-480 -	31.1	28.2	4	1790	Direct-on-line (DOL)	49.5-47.5 -	580	85.8	89.4	90.6	0.58	0.71	0.78
SE/SL.56H.280.4.EX.60L	575-600 -	31.1	28.2	4	1790	Direct-on-line (DOL)	37-38 -	570	84.3	88.4	90.2	0.42	0.54	0.63
SE/SL.56H.280.4.EX.61F	220-277 380-480	31.1	28.2	4	1790	Star-delta (YD)	78.5-82 45.5-47.5	1000	85.8	89.4	90.6	0.58	0.71	0.78

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.280.4.EX.60G	12.0	0.03	CLASS125	65	0.17	774.3
SE/SL.56H.280.4.EX.60L	12.0	0.03	CLASS125	65	0.17	593.7
SE/SL.56H.280.4.EX.61F	12.0	0.03	CLASS125	65	0.17	542.0

SE/SL.56H.320.4 (ANSI)

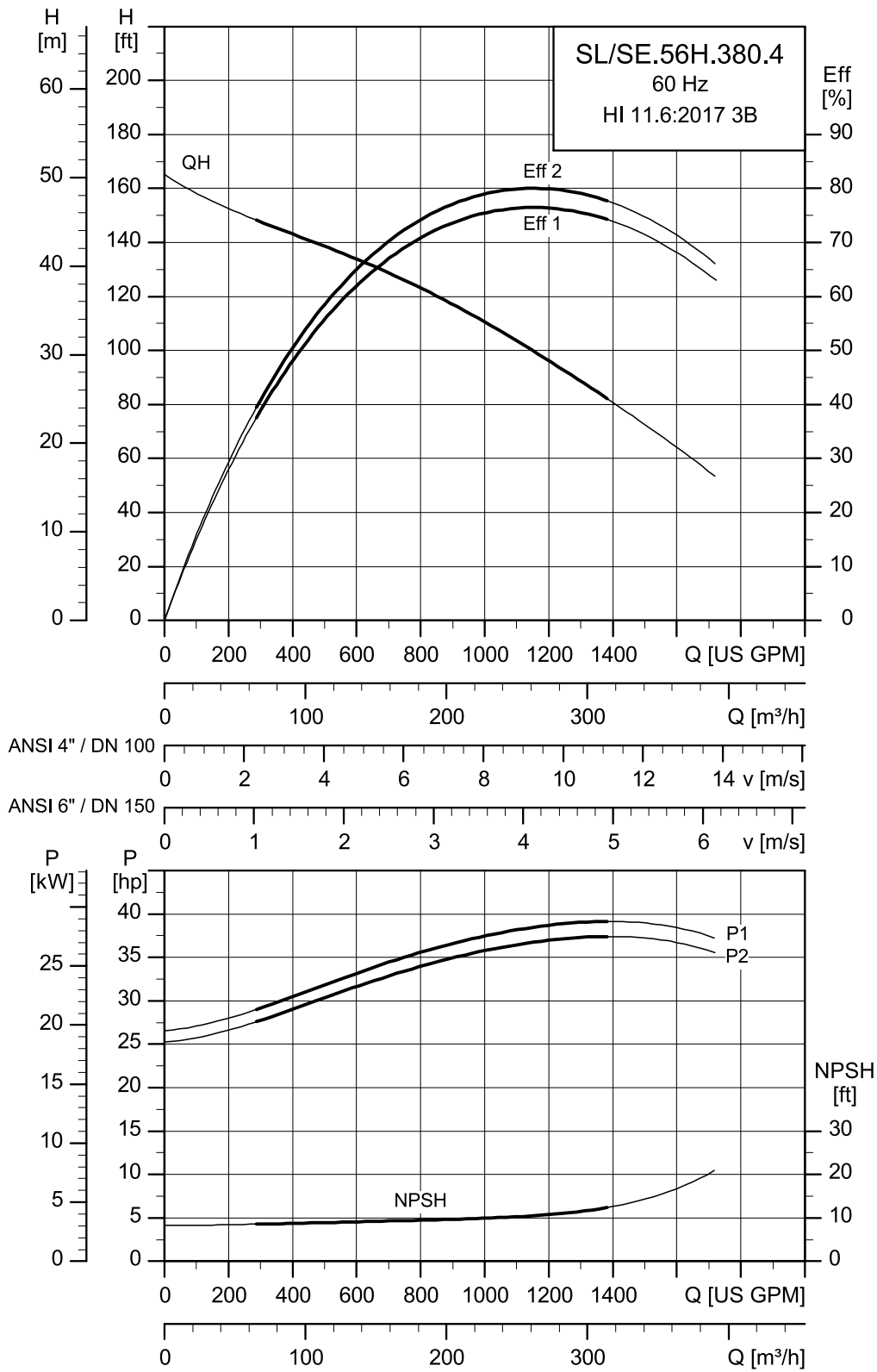


TM084416

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.320.4.EX.60G	380-480 -	35.5	32.2	4	1790	Direct-on-line (DOL)	50-50 -	580	87.2	90.1	91.1	0.63	0.74	0.8
SE/SL.56H.320.4.EX.60L	575-600 -	35.5	32.2	4	1790	Direct-on-line (DOL)	39.5-40 -	570	85.9	89.3	90.8	0.46	0.58	0.67
SE/SL.56H.320.4.EX.61F	220-277 380-480	35.5	32.2	4	1790	Star-delta (YD)	86.5-86.5 50-50	1000	87.2	90.1	91.1	0.63	0.74	0.8

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.320.4.EX.60G	12.4	0.04	CLASS125	65	0.17	774.3
SE/SL.56H.320.4.EX.60L	12.4	0.04	CLASS125	65	0.17	593.7
SE/SL.56H.320.4.EX.61F	12.4	0.04	CLASS125	65	0.17	542.0

SE/SL.56H.380.4 (ANSI)

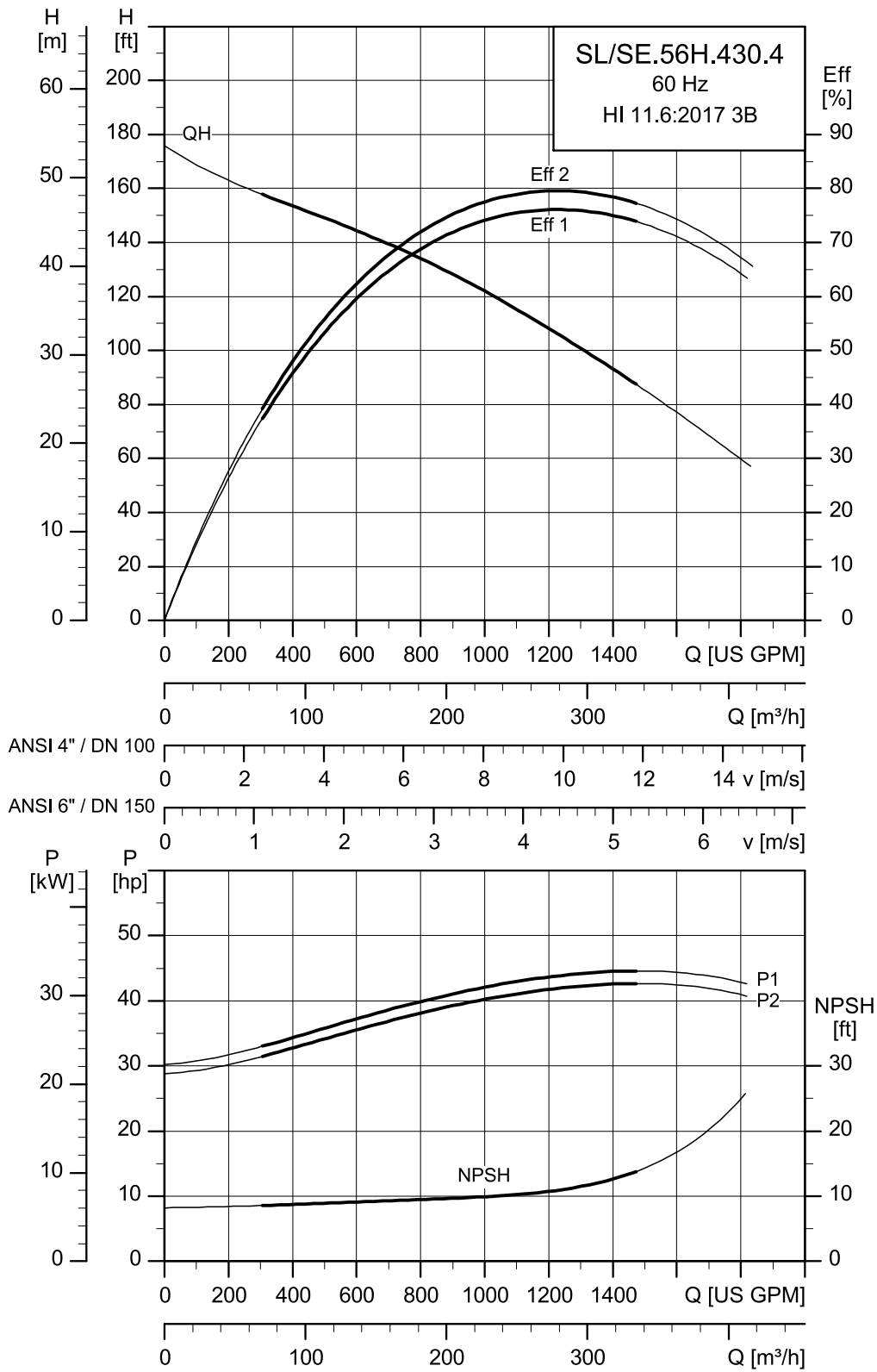


TM084415

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.380.4.EX.60G	380-480 -	40.9	37.5	4	1790	Direct-on-line (DOL)	56.5-54 -	580	88.5	90.6	91.5	0.67	0.78	0.83
SE/SL.56H.380.4.EX.60L	575-600 -	40.9	37.5	4	1790	Direct-on-line (DOL)	43-43 -	570	87.5	90.2	91.6	0.5	0.63	0.72
SE/SL.56H.380.4.EX.61F	220-277 380-480	40.9	37.5	4	1790	Star-delta (YD)	97.5-93.5 56.5-54	1000	88.5	90.6	91.5	0.67	0.78	0.83

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.380.4.EX.60G	12.8	0.04	CLASS125	65	0.17	774.3
SE/SL.56H.380.4.EX.60L	12.8	0.04	CLASS125	65	0.17	593.7
SE/SL.56H.380.4.EX.61F	12.8	0.04	CLASS125	65	0.17	542.0

SE/SL.56H.430.4 (ANSI)



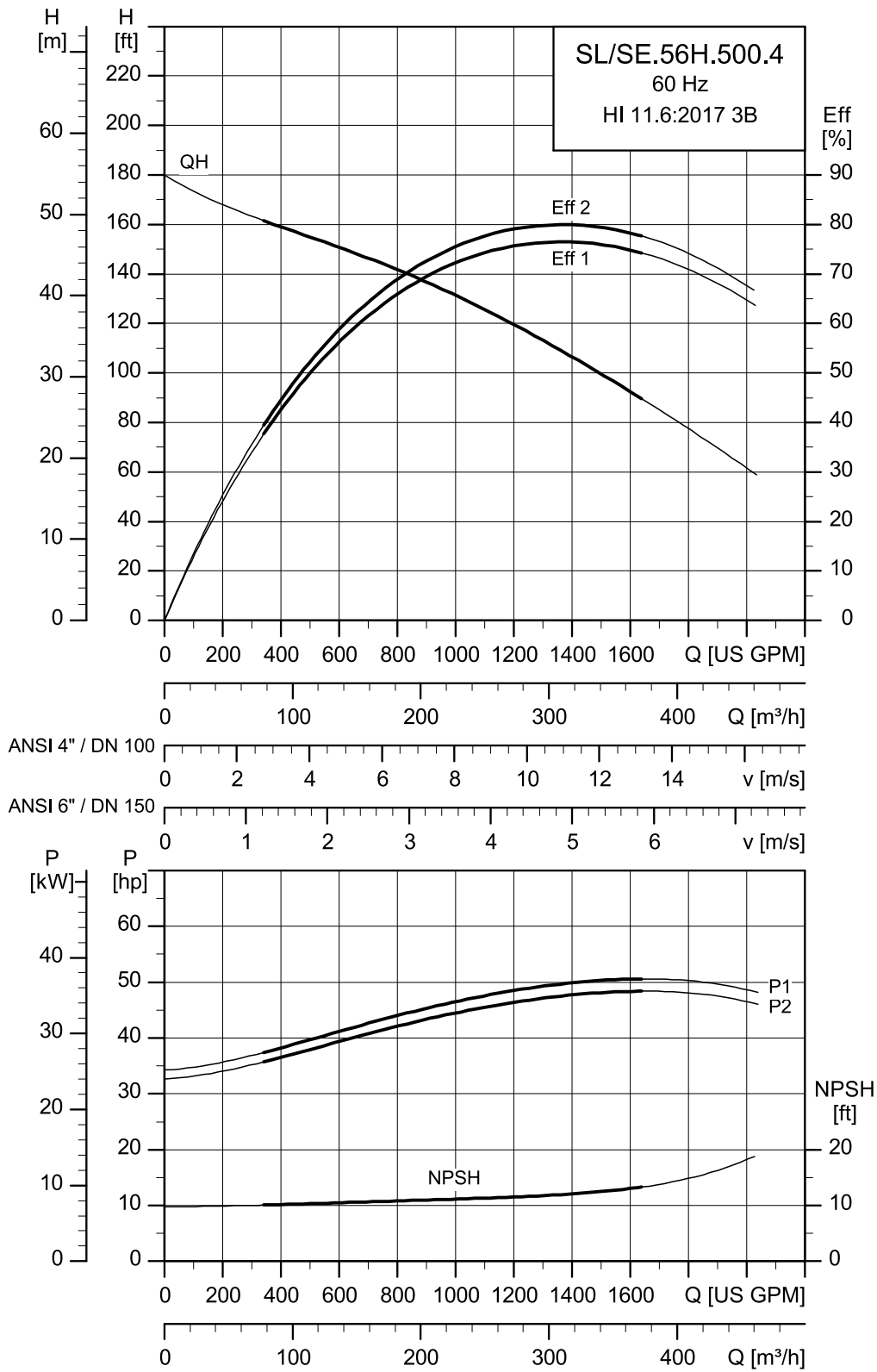
TM084414

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.430.4.EX.60G	380-480 -	46.3	42.9	4	1790	Direct-on-line (DOL)	63-58.5 -	580	89.4	91.1	91.8	0.71	0.8	0.84
SE/SL.56H.430.4.EX.60L	575-600 -	46.3	42.9	4	1790	Direct-on-line (DOL)	46.5-46.5 -	570	88.6	90.8	92.2	0.55	0.67	0.75
SE/SL.56H.430.4.EX.61F	220-277 380-480	46.3	42.9	4	1790	Star-delta (YD)	110-102 63-58.5	1000	89.4	91.1	91.8	0.71	0.8	0.84

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.430.4.EX.60G	13.2	0.04	CLASS125	65	0.17	774.3
SE/SL.56H.430.4.EX.60L	13.2	0.04	CLASS125	65	0.17	593.7
SE/SL.56H.430.4.EX.61F	13.2	0.04	CLASS125	65	0.17	542.0

SE/SL.56H.500.4 (ANSI)



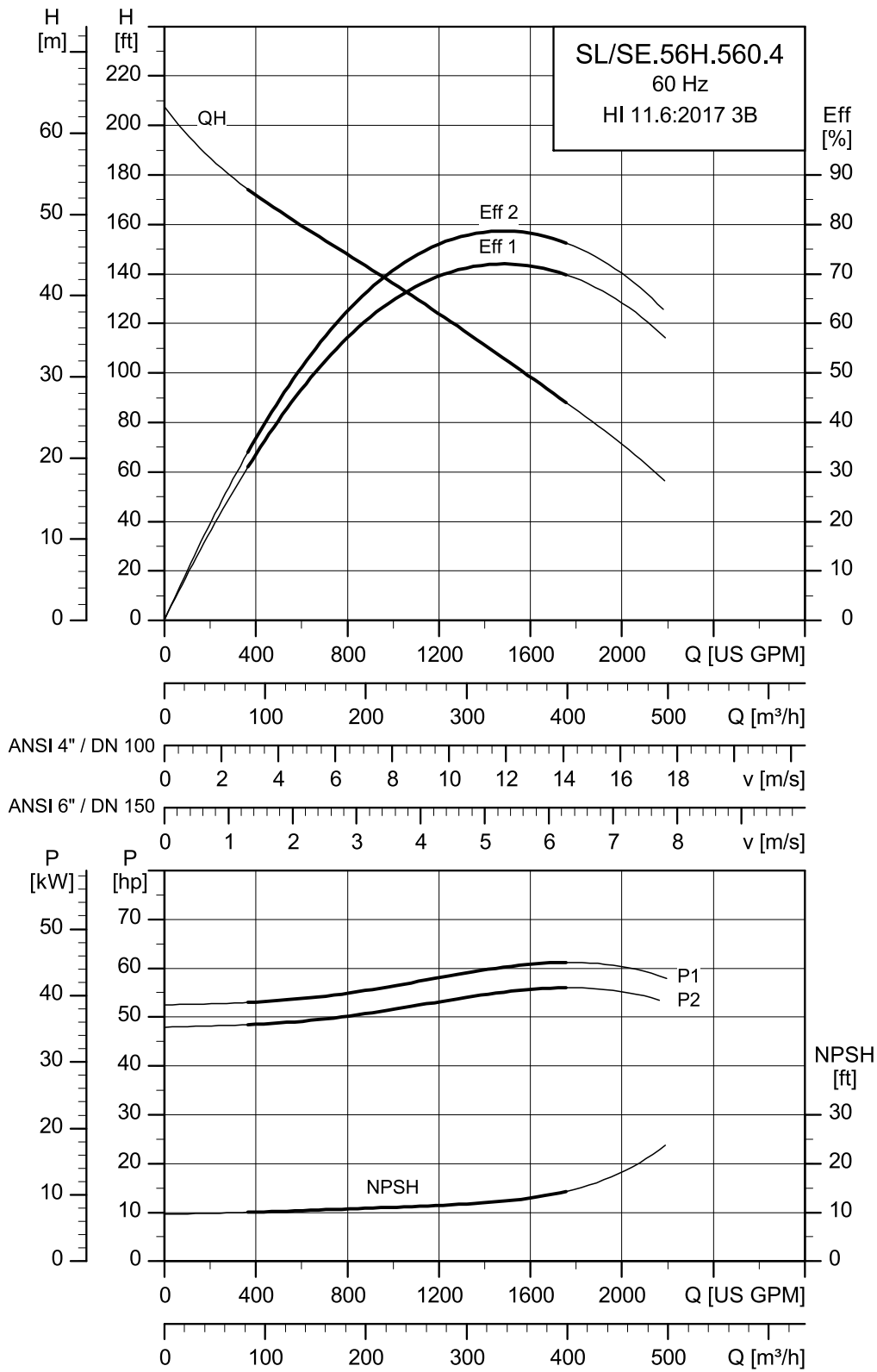
TM084413

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.500.4.EX.60G	380-480 -	53.6	49.6	4	1785	Direct-on-line (DOL)	71.5-64 -	580	90.2	91.5	92	0.75	0.83	0.85
SE/SL.56H.500.4.EX.60L	575-600 -	53.6	49.6	4	1785	Direct-on-line (DOL)	51.5-51 -	570	89.5	91.5	92.6	0.59	0.71	0.78
SE/SL.56H.500.4.EX.61F	220-277 380-480	53.6	49.6	4	1785	Star-delta (YD)	124-110 71.5-64	1000	90.2	91.5	92	0.75	0.83	0.85

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.500.4.EX.60G	13.4	0.05	CLASS125	65	0.17	774.3
SE/SL.56H.500.4.EX.60L	13.4	0.05	CLASS125	65	0.17	593.7
SE/SL.56H.500.4.EX.61F	13.4	0.05	CLASS125	65	0.17	542.0

SE/SL.56H.560.4 (ANSI)

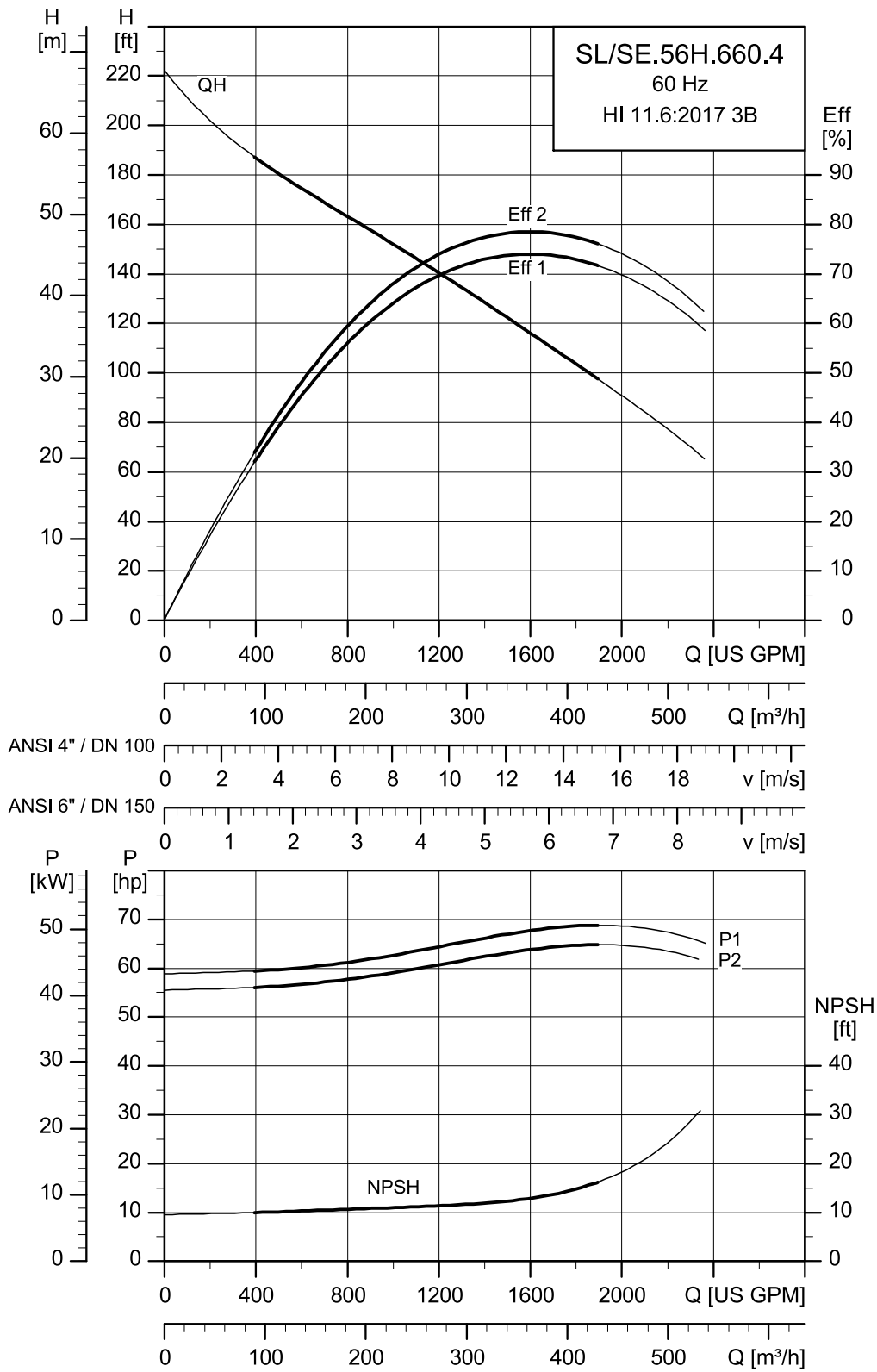


TM084412

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.560.4.EX.60G	380-480 -	61	56.3	4	1785	Direct-on-line (DOL)	80.5-70 -	580	90.6	91.8	91.9	0.78	0.84	0.86
SE/SL.56H.560.4.EX.60L	575-600 -	61	56.3	4	1785	Direct-on-line (DOL)	57-56 -	570	90.2	92.1	92.7	0.63	0.75	0.8
SE/SL.56H.560.4.EX.61F	220-277 380-480	61	56.3	4	1785	Star-delta (YD)	140-122 80.5-70	1000	90.6	91.8	91.9	0.78	0.84	0.86

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.560.4.EX.60G	13.8	0.06	CLASS125	65	0.17	774.3
SE/SL.56H.560.4.EX.60L	13.8	0.06	CLASS125	65	0.17	593.7
SE/SL.56H.560.4.EX.61F	13.8	0.06	CLASS125	65	0.17	542.0

SE/SL.56H.660.4 (ANSI)

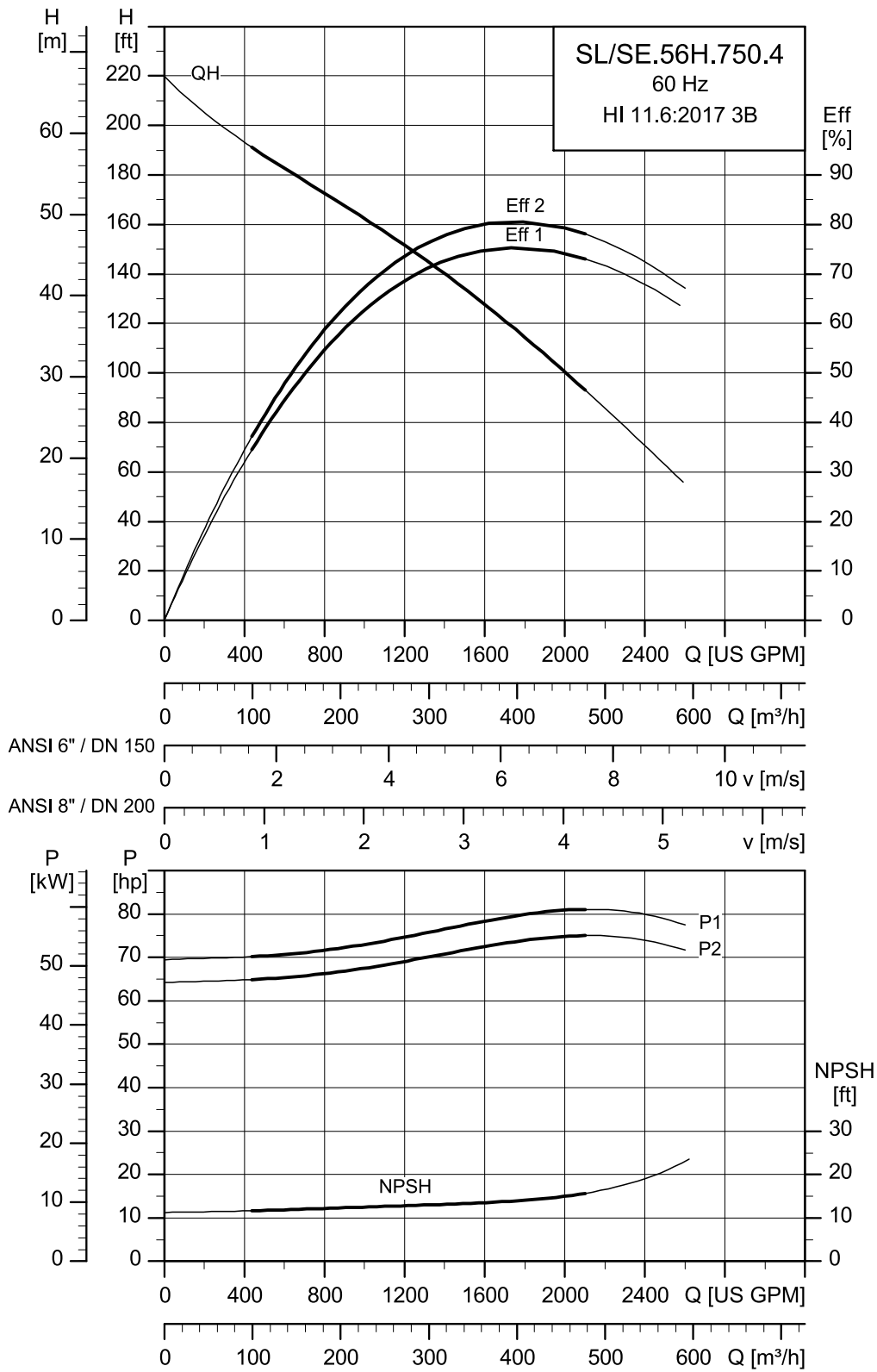


TM084411

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.660.4.EX.60G	380-480	70	65.7	4	1785	Direct-on-line (DOL)	93.5-82.5	705	91.1	92.4	92.4	0.76	0.83	0.86
	660-690						-							
SE/SL.56H.660.4.EX.60L	575-600	70	65.7	4	1785	Direct-on-line (DOL)	67-66	640	90.3	92.4	93	0.61	0.73	0.79
	-						-							

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.660.4.EX.60G	14.3	0.05	CLASS125	65	0.14	671.1
SE/SL.56H.660.4.EX.60L	14.3	0.05	CLASS125	65	0.14	671.1

SE/SL.56H.750.4 (ANSI)

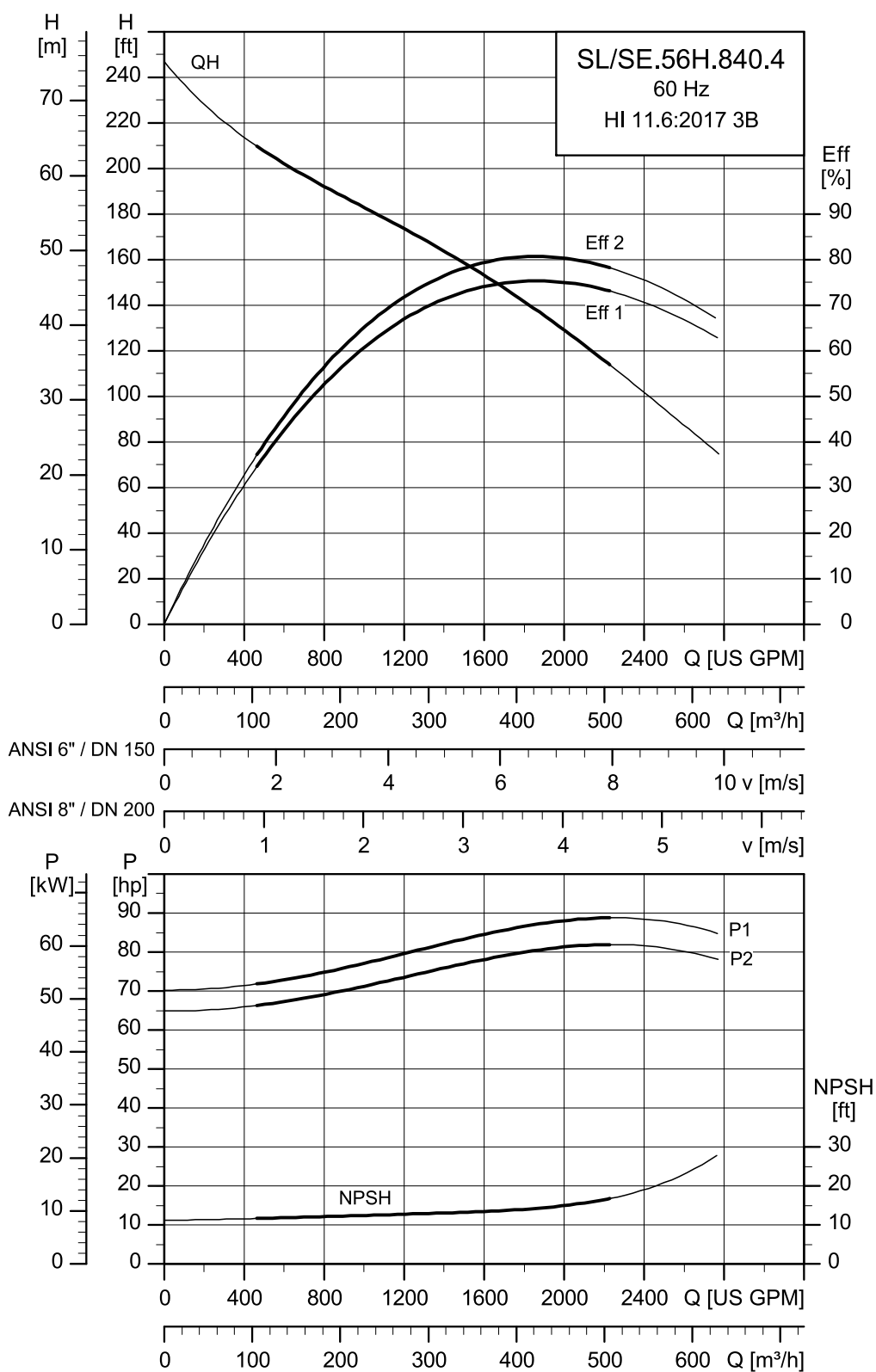


TM084410

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.840.4.EX.60G.6	380-480 -	91	84.5	4	1780	Direct-on-line (DOL)	118-106 -	915	92.4	92.6	91.7	0.83	0.87	0.87
SE/SL.56H.840.4.EX.60L.6	575-600 -	91	84.5	4	1780	Direct-on-line (DOL)	84-85.5 -	755	92	89.9	93	0.56	0.74	0.82

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.840.4.EX.60G.6	15.0	0.07	CLASS125	65	0.14	811.2
SE/SL.56H.840.4.EX.60L.6	15.0	0.07	CLASS125	65	0.14	811.2

SE/SL.56H.840.4 (ANSI)

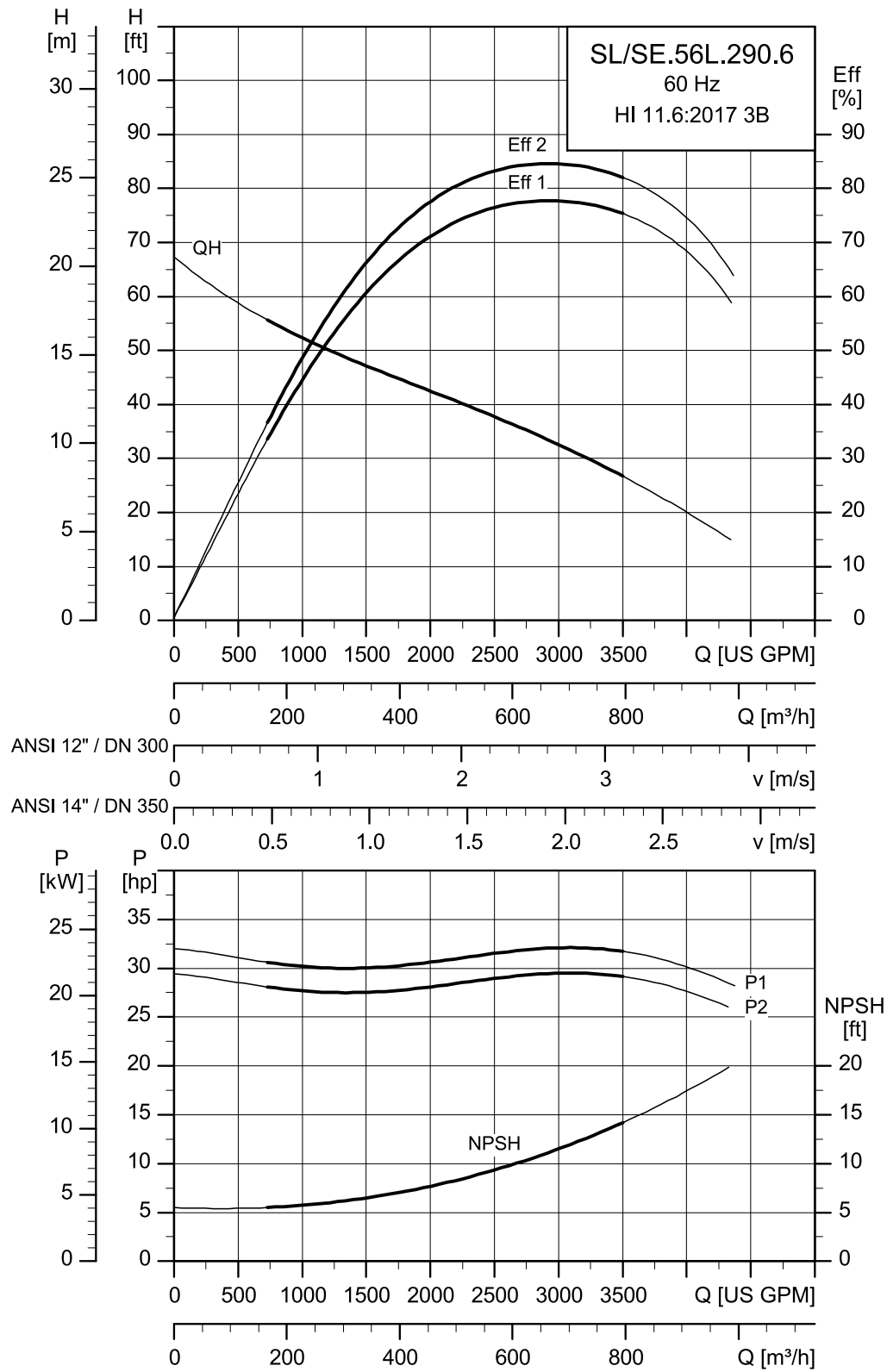


TM084397

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56H.840.4.EX.60G.6	380-480 -	91	84.5	4	1780	Direct-on-line (DOL)	118-106 -	915	92.4	92.6	91.7	0.83	0.87	0.87
SE/SL.56H.840.4.EX.60L.6	575-600 -	91	84.5	4	1780	Direct-on-line (DOL)	84-85.5 -	755	92	89.9	93	0.56	0.74	0.82

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56H.840.4.EX.60G.6	15.0	0.07	CLASS125	65	0.14	811.2
SE/SL.56H.840.4.EX.60L.6	15.0	0.07	CLASS125	65	0.14	811.2

SE/SL.56L.290.6 (ANSI)



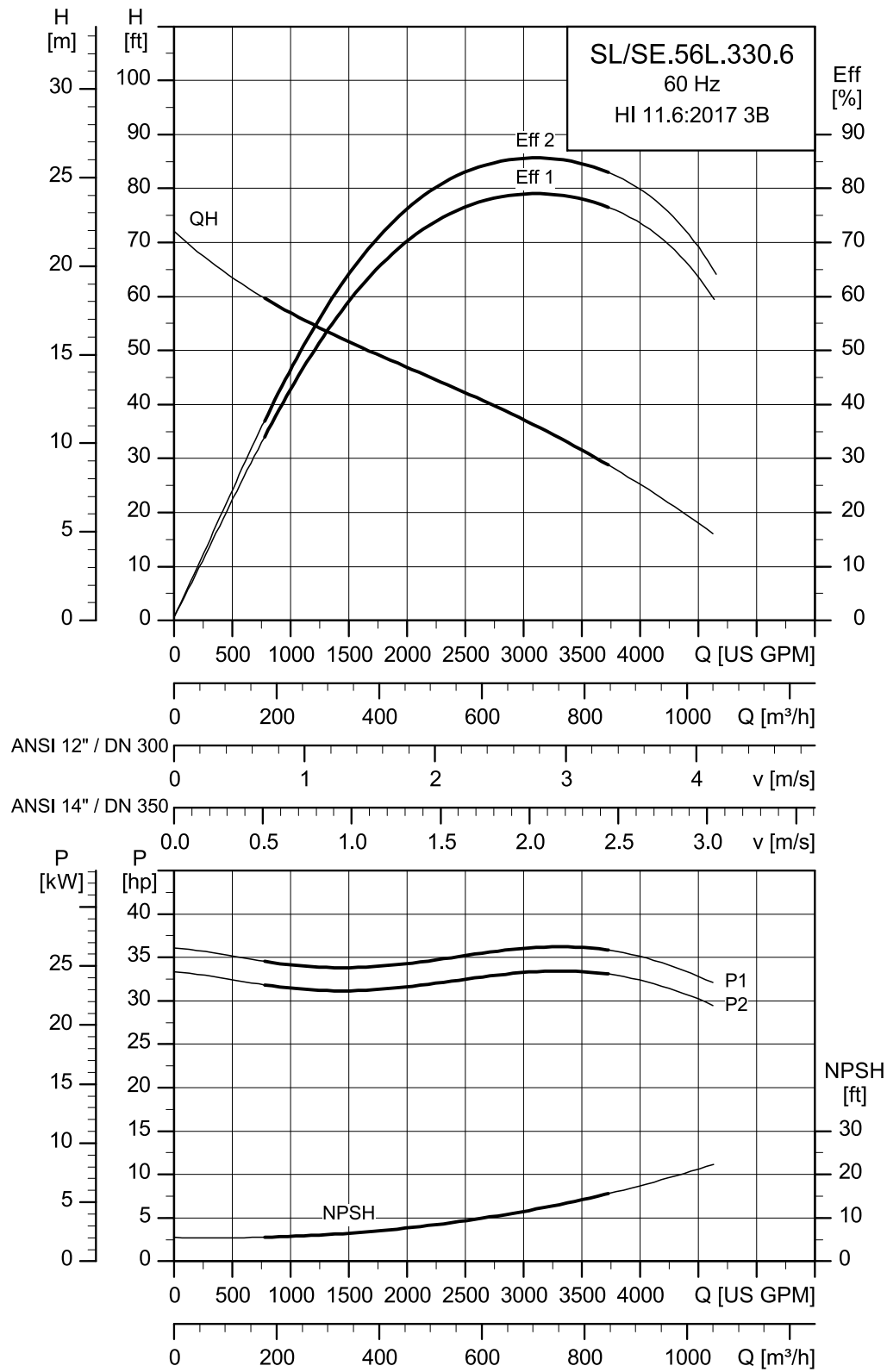
TM084433

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.290.6.EX.60F	220-277 -	31.4	28.8	6	1190	Direct-on-line (DOL)	81-81 -	1120	88.1	90.5	91.6	0.57	0.69	0.76
SE/SL.56L.290.6.EX.60G	380-480 -	31.4	28.8	6	1190	Direct-on-line (DOL)	46-46 -	490	89.5	91.5	92.3	0.59	0.71	0.77
SE/SL.56L.290.6.EX.60L	575-600 -	31.4	28.8	6	1190	Direct-on-line (DOL)	31-30.5 -	465	88.4	90.7	91.5	0.6	0.7	0.76

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.290.6.EX.60F	13.8	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.290.6.EX.60G	13.8	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.290.6.EX.60L	13.8	0.06	CLASS125	65	0.17	597.3

SE/SL.56L.330.6 (ANSI)



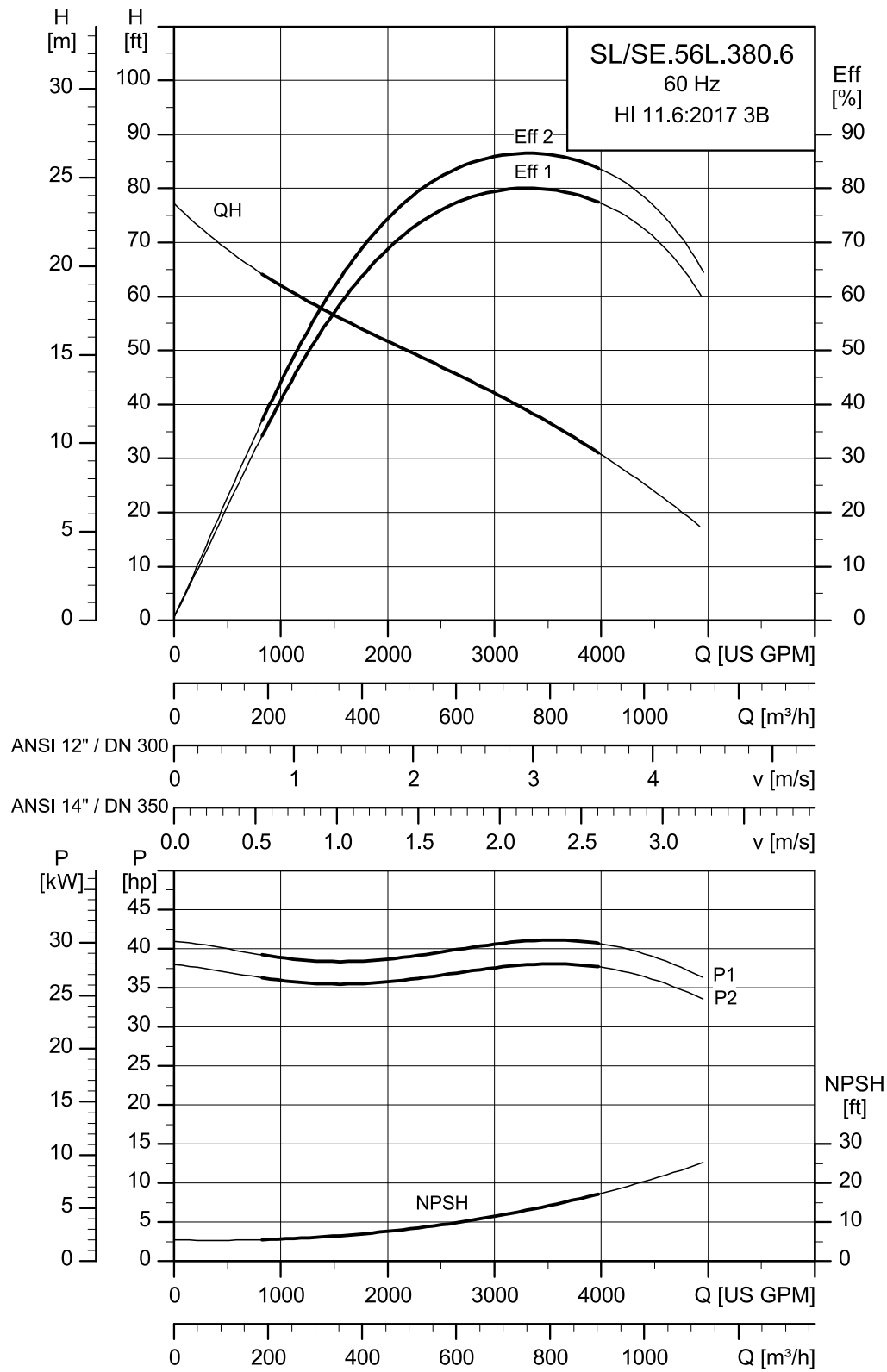
TM084432

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.330.6.EX.60F	220-277 -	35.5	32.9	6	1190	Direct-on-line (DOL)	89.5-86 -	1120	89.1	91	92.1	0.61	0.72	0.79
SE/SL.56L.330.6.EX.60G	380-480 -	35.5	32.9	6	1190	Direct-on-line (DOL)	50.5-49 -	490	90.4	91.9	92.6	0.63	0.74	0.8
SE/SL.56L.330.6.EX.60L	575-600 -	35.5	32.9	6	1185	Direct-on-line (DOL)	34.5-33.5 -	465	89.4	91.1	91.8	0.63	0.73	0.78

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.330.6.EX.60F	14.2	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.330.6.EX.60G	14.2	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.330.6.EX.60L	14.2	0.06	CLASS125	65	0.17	597.3

SE/SL.56L.380.6 (ANSI)



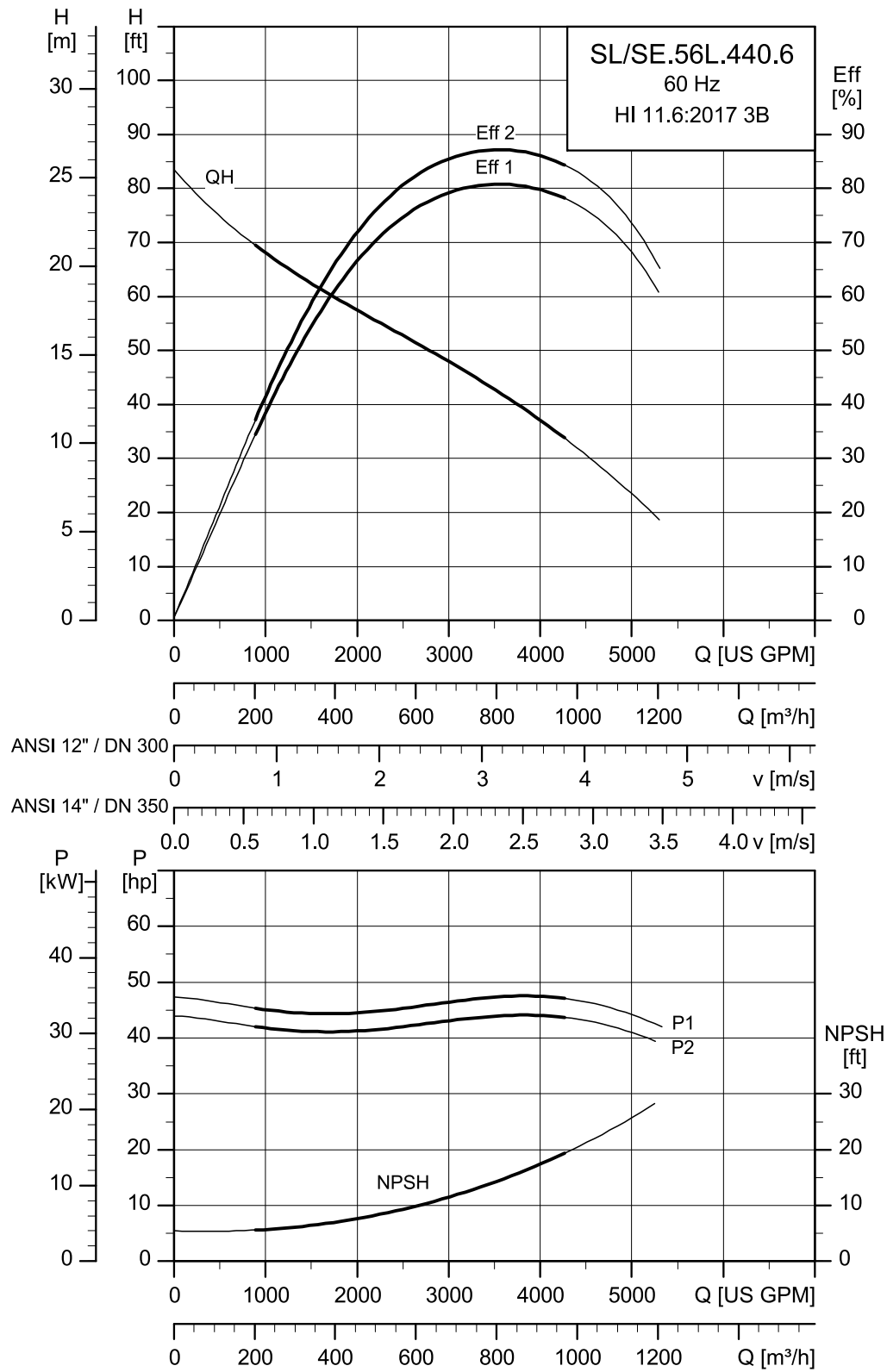
TM084431

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.380.6.EX.60F	220-277 -	40.9	37.5	6	1190	Direct-on-line (DOL)	99.5-92 -	1120	89.8	91.5	92.3	0.65	0.76	0.81
SE/SL.56L.380.6.EX.60G	380-480 -	40.2	37.5	6	1190	Direct-on-line (DOL)	56.5-53 -	490	91	92.2	92.7	0.67	0.77	0.81
SE/SL.56L.380.6.EX.60L	575-600 -	40.9	37.5	6	1185	Direct-on-line (DOL)	38.5-37.5 -	465	90.1	91.4	91.9	0.67	0.76	0.8

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.380.6.EX.60F	14.5	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.380.6.EX.60G	14.5	0.06	CLASS125	65	0.17	597.3
SE/SL.56L.380.6.EX.60L	14.5	0.06	CLASS125	65	0.17	597.3

SE/SL.56L.440.6 (ANSI)



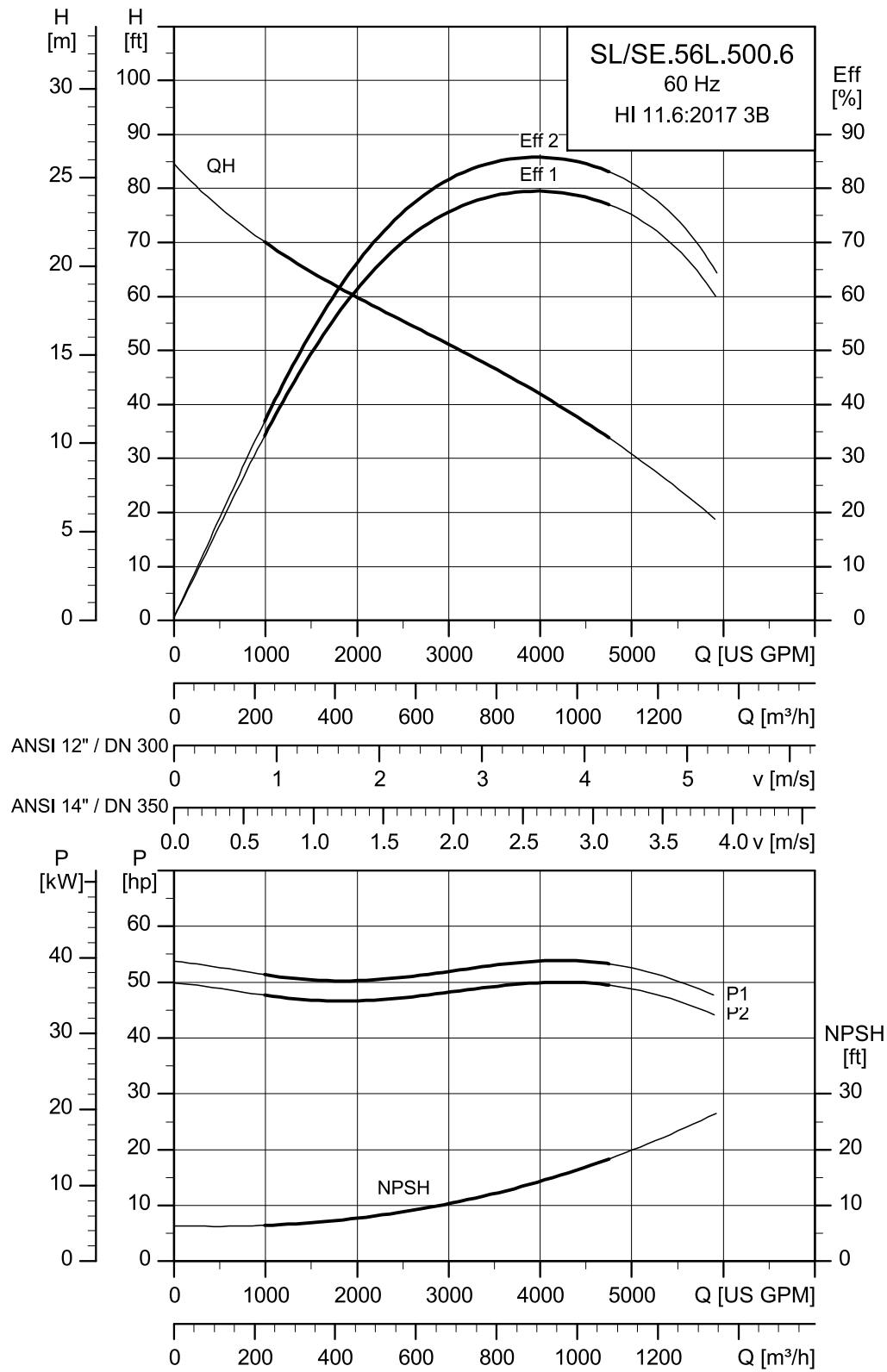
TM084430

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.440.6.EX.60F	220-277 -	46.9	43.6	6	1190	Direct-on-line (DOL)	114-100 -	1120	905	92	92.1	0.69	0.79	0.82
SE/SL.56L.440.6.EX.60G	380-480 -	46.9	43.6	6	1185	Direct-on-line (DOL)	64.5-58 -	490	91.5	92.5	92.4	0.71	0.79	0.83
SE/SL.56L.440.6.EX.60L	575-600 -	47.6	43.6	6	1180	Direct-on-line (DOL)	43.5-42.5 -	465	90.7	91.8	91.6	0.7	0.78	0.82

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.440.6.EX.60F	14.9	0.07	CLASS125	65	0.17	597.3
SE/SL.56L.440.6.EX.60G	14.9	0.07	CLASS125	65	0.17	597.3
SE/SL.56L.440.6.EX.60L	14.9	0.07	CLASS125	65	0.17	597.3

SE/SL.56L.500.6 (ANSI)



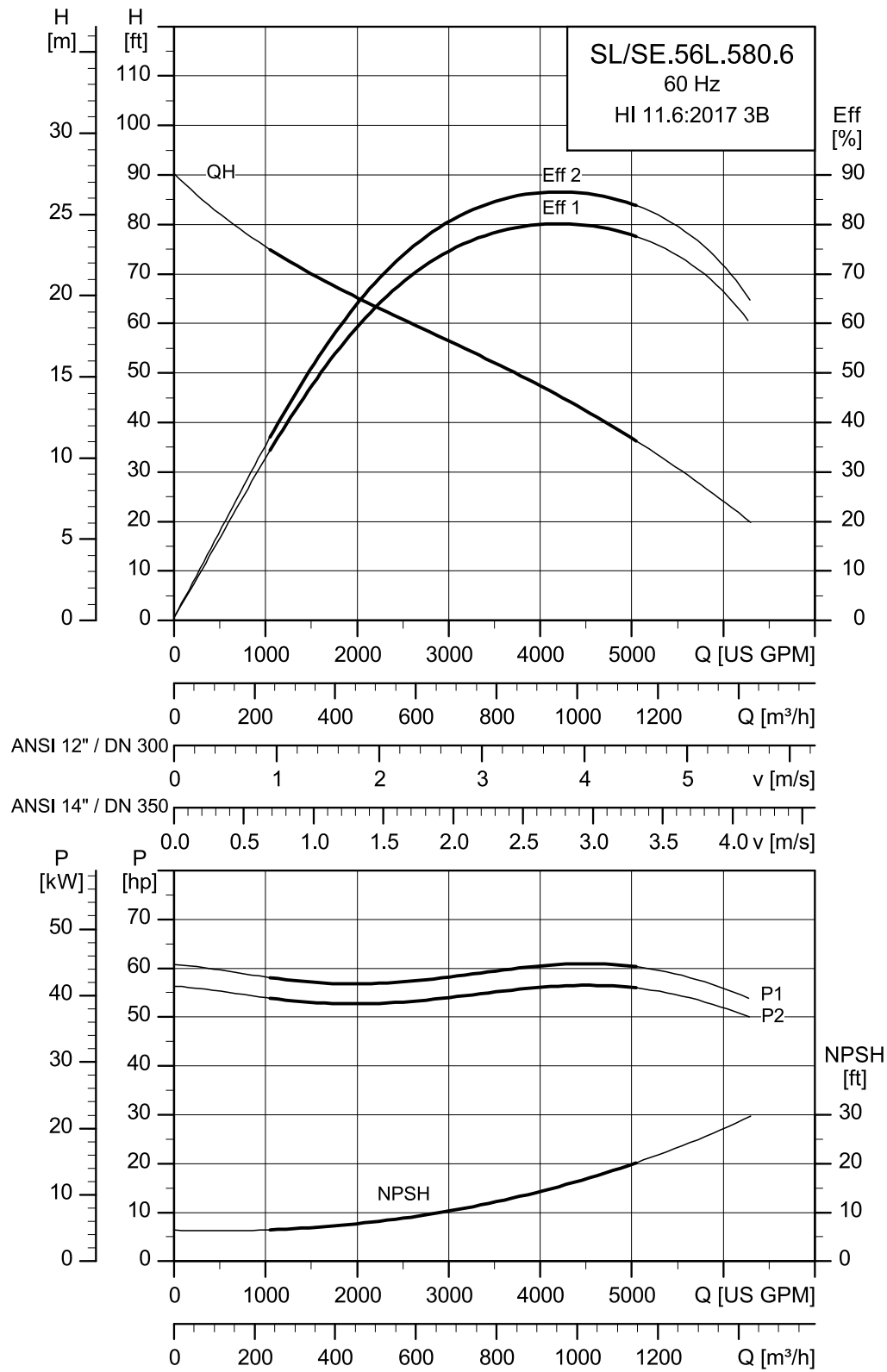
TM084429

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.500.6.EX.60G	380-480 -	54.3	50.3	6	1180	Direct-on-line (DOL)	74-66 -	560	92.1	92.2	92.1	0.74	0.82	0.84
SE/SL.56L.500.6.EX.60L	575-600 -	55	50.3	6	1180	Direct-on-line (DOL)	81.5-98.5 -	575	89.6	90.9	90.7	0.73	0.8	0.83
SE/SL.56L.500.6.EX.61F	220-277 380-480	55	50.3	6	1185	Star-delta (YD)	162-230 94-132	965	90.1	91.1	90.4	0.76	0.82	0.83

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.500.6.EX.60G	15.4	0.09	CLASS125	65	0.17	752.2
SE/SL.56L.500.6.EX.60L	15.4	0.09	CLASS125	65	0.17	826.0
SE/SL.56L.500.6.EX.61F	15.4	0.09	CLASS125	65	0.17	752.2

SE/SL.56L.580.6 (ANSI)



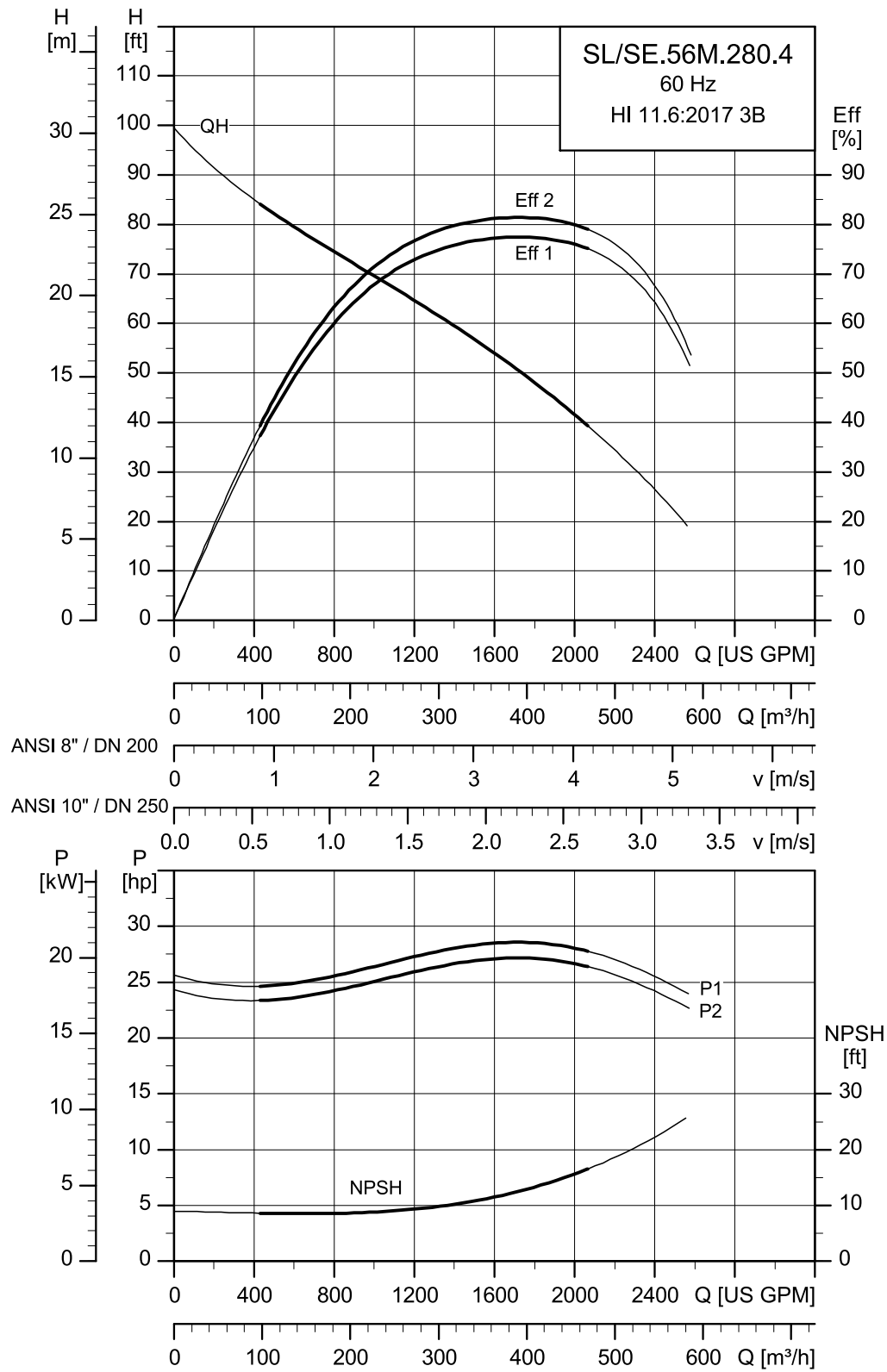
TM084428

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56L.580.6.EX.60G	380-480 -	62.4	57.7	6	1180	Direct-on-line (DOL)	85.5-72.5 -	560	92.3	92.1	91.2	0.77	0.83	0.84
SE/SL.56L.580.6.EX.60L	575-600 -	63	57.7	6	1175	Direct-on-line (DOL)	98.5-122 -	575	90.1	90.9	90.4	0.76	0.82	0.84
SE/SL.56L.580.6.EX.61F	220-277 380-480	63	57.7	6	1185	Star-delta (YD)	188-275 108-160	965	90.5	90.9	90	0.79	0.83	0.83

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56L.580.6.EX.60G	15.8	0.10	CLASS125	65	0.17	752.2
SE/SL.56L.580.6.EX.60L	15.8	0.10	CLASS125	65	0.17	826.0
SE/SL.56L.580.6.EX.61F	15.8	0.10	CLASS125	65	0.17	752.2

SE/SL.56M.280.4 (ANSI)



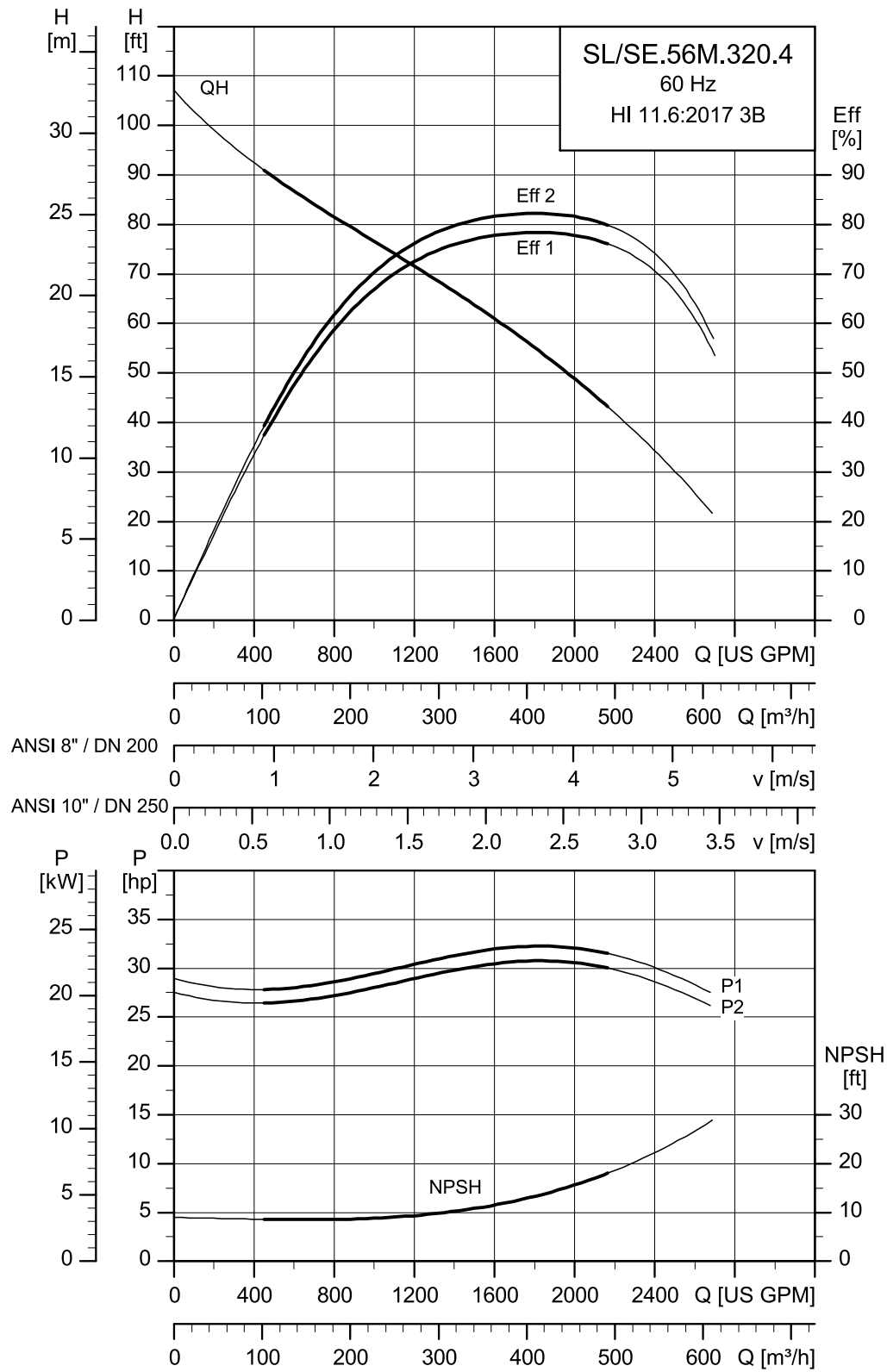
TM084427

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.280.4.EX.60G	380-480 -	31.1	28.2	4	1790	Direct-on-line (DOL)	49.5-47.5 -	580	85.8	89.4	90.6	0.58	0.71	0.78
SE/SL.56M.280.4.EX.60L	575-600 -	31.1	28.2	4	1790	Direct-on-line (DOL)	37-38 -	570	84.3	88.4	90.2	0.42	0.54	0.63
SE/SL.56M.280.4.EX.61F	220-277 380-480	31.1	28.2	4	1790	Star-delta (YD)	78.5-82 45.5-47.5	1000	85.8	89.4	90.6	0.58	0.71	0.78

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.280.4.EX.60G	8.9	0.03	CLASS125	65	0.17	774.3
SE/SL.56M.280.4.EX.60L	8.9	0.03	CLASS125	65	0.17	593.7
SE/SL.56M.280.4.EX.61F	8.9	0.03	CLASS125	65	0.17	542.0

SE/SL.56M.320.4 (ANSI)

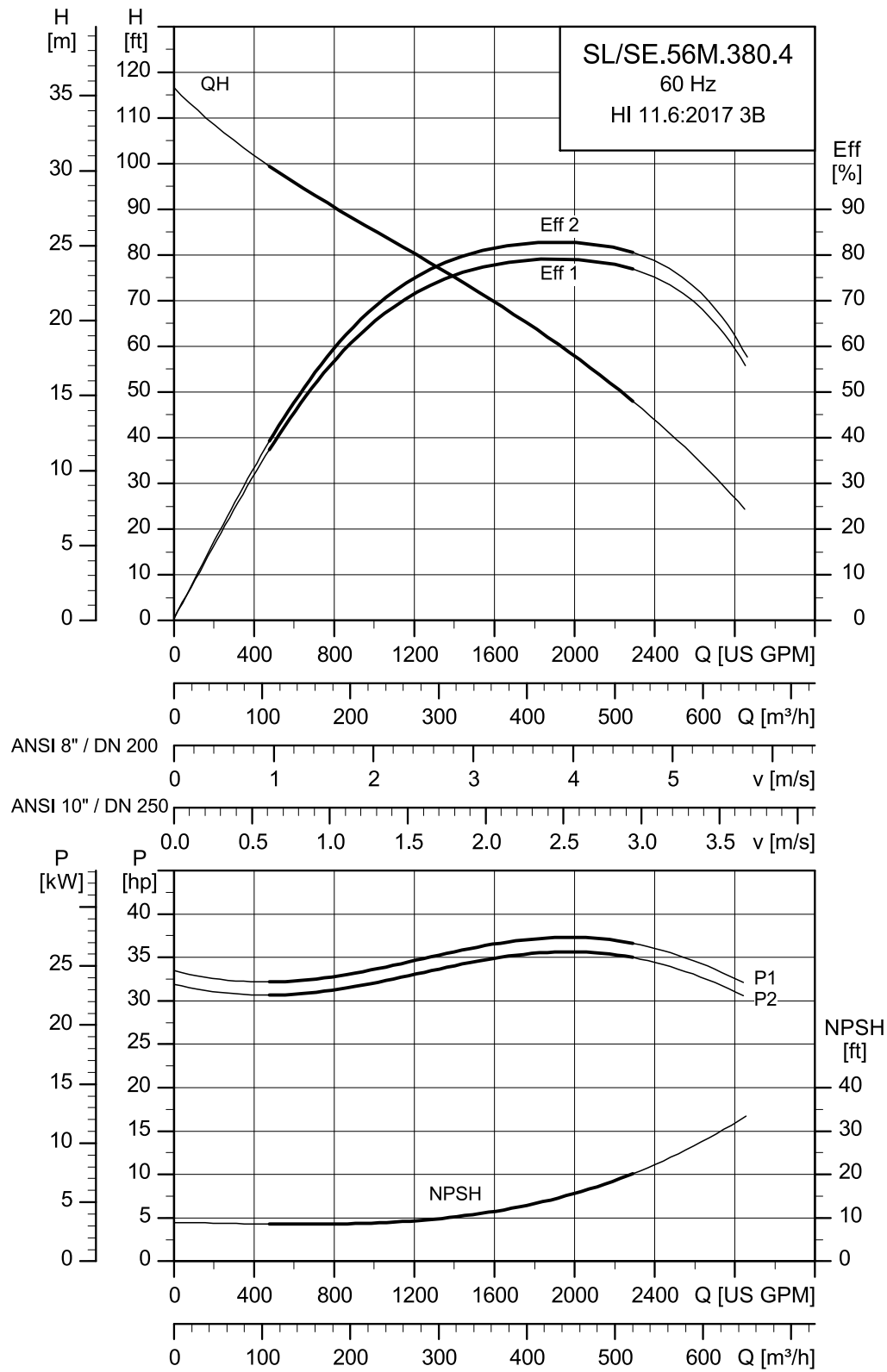


TM084426

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.320.4.EX.60G	380-480 -	35.5	32.2	4	1790	Direct-on-line (DOL)	50-50 -	580	87.2	90.1	91.1	0.63	0.74	0.8
SE/SL.56M.320.4.EX.60L	575-600 -	35.5	32.2	4	1790	Direct-on-line (DOL)	39.5-40 -	570	85.9	89.3	90.8	0.46	0.58	0.67
SE/SL.56M.320.4.EX.61F	220-277 380-480	35.5	32.2	4	1790	Star-delta (YD)	86.5-86.5 50-50	1000	87.2	90.1	91.1	0.63	0.74	0.8

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.320.4.EX.60G	9.2	0.03	CLASS125	65	0.17	774.3
SE/SL.56M.320.4.EX.60L	9.2	0.03	CLASS125	65	0.17	593.7
SE/SL.56M.320.4.EX.61F	9.2	0.03	CLASS125	65	0.17	542.0

SE/SL.56M.380.4 (ANSI)

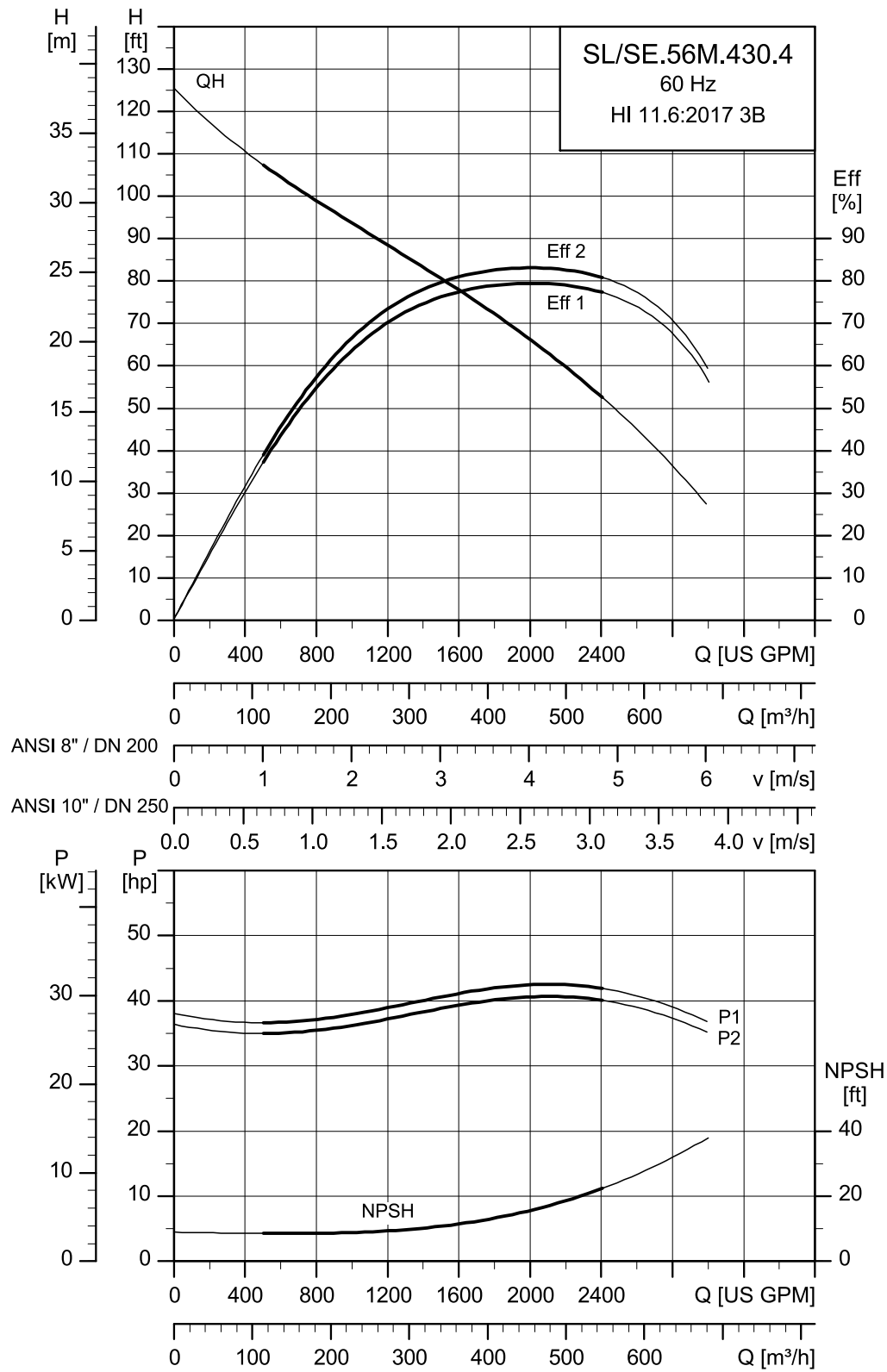


TM084425

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.380.4.EX.60G	380-480 -	40.9	37.5	4	1790	Direct-on-line (DOL)	56.5-54 -	580	88.5	90.6	91.5	0.67	0.78	0.83
SE/SL.56M.380.4.EX.60L	575-600 -	40.9	37.5	4	1790	Direct-on-line (DOL)	43-43 -	570	87.5	90.2	91.6	0.5	0.63	0.72
SE/SL.56M.380.4.EX.61F	220-277 380-480	40.9	37.5	4	1790	Star-delta (YD)	97.5-93.5 56.5-54	1000	88.5	90.6	91.5	0.67	0.78	0.83

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.380.4.EX.60G	9.5	0.03	CLASS125	65	0.17	774.3
SE/SL.56M.380.4.EX.60L	9.5	0.03	CLASS125	65	0.17	593.7
SE/SL.56M.380.4.EX.61F	9.5	0.03	CLASS125	65	0.17	542.0

SE/SL.56M.430.4 (ANSI)



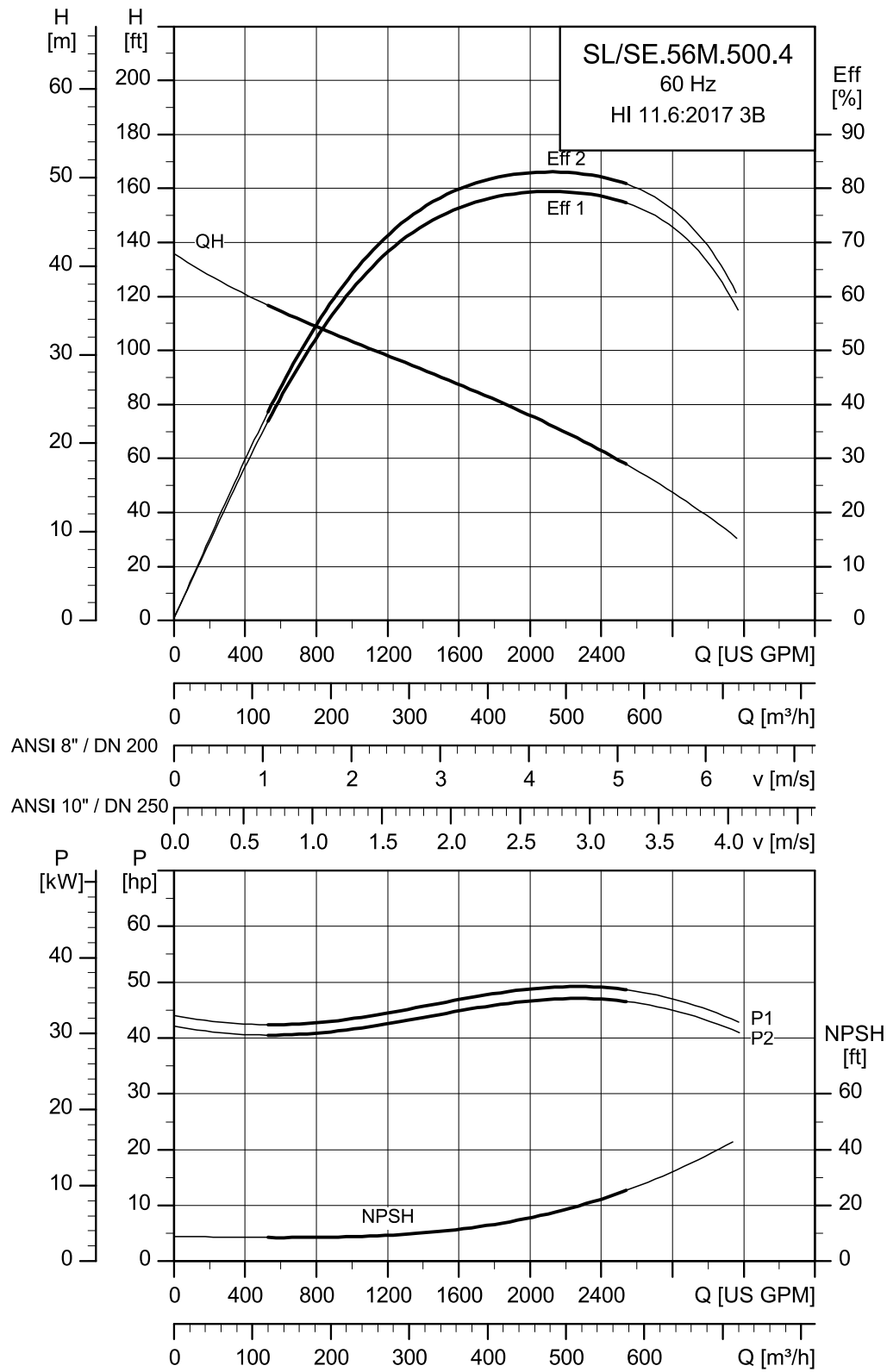
TM084424

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.430.4.EX.60L	575-600 -	46.3	42.9	4	1790	Direct-on-line (DOL)	46.5-46.5 -	570	88.6	90.8	92.2	0.55	0.67	0.75
SE/SL.56M.430.4.EX.61F	220-277 380-480	46.3	42.9	4	1790	Star-delta (YD)	110-102 63-58.5	1000	89.4	91.1	91.8	0.71	0.8	0.84

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.430.4.EX.60L	9.8	0.03	CLASS125	65	0.17	593.7
SE/SL.56M.430.4.EX.61F	9.8	0.03	CLASS125	65	0.17	542.0

### SE/SL.56M.500.4 (ANSI)

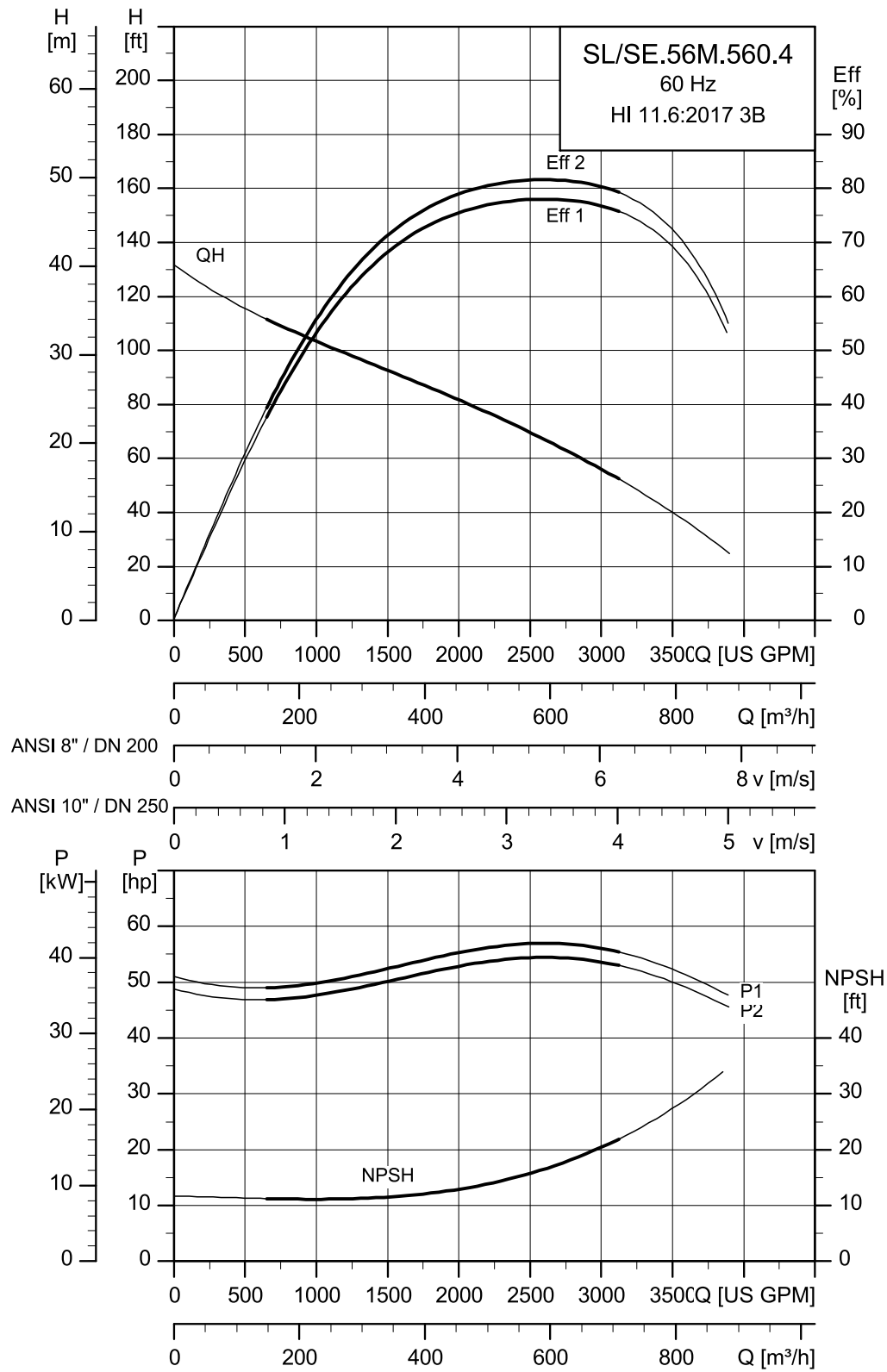


TM084423

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.560.4.EX.60G	380-480 -	61	56.3	4	1785	Direct-on-line (DOL)	80.5-70 -	580	90.6	91.8	91.9	0.78	0.84	0.86
SE/SL.56M.560.4.EX.60L	575-600 -	61	56.3	4	1785	Direct-on-line (DOL)	57-56 -	570	90.2	92.1	92.7	0.63	0.75	0.8
SE/SL.56M.560.4.EX.61F	220-277 380-480	61	56.3	4	1785	Star-delta (YD)	140-122 80.5-70	1000	90.6	91.8	91.9	0.78	0.84	0.86

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.560.4.EX.60G	12.5	0.05	CLASS125	65	0.17	774.3
SE/SL.56M.560.4.EX.60L	12.5	0.05	CLASS125	65	0.17	593.7
SE/SL.56M.560.4.EX.61F	12.5	0.05	CLASS125	65	0.17	542.0

SE/SL.56M.560.4 (ANSI)

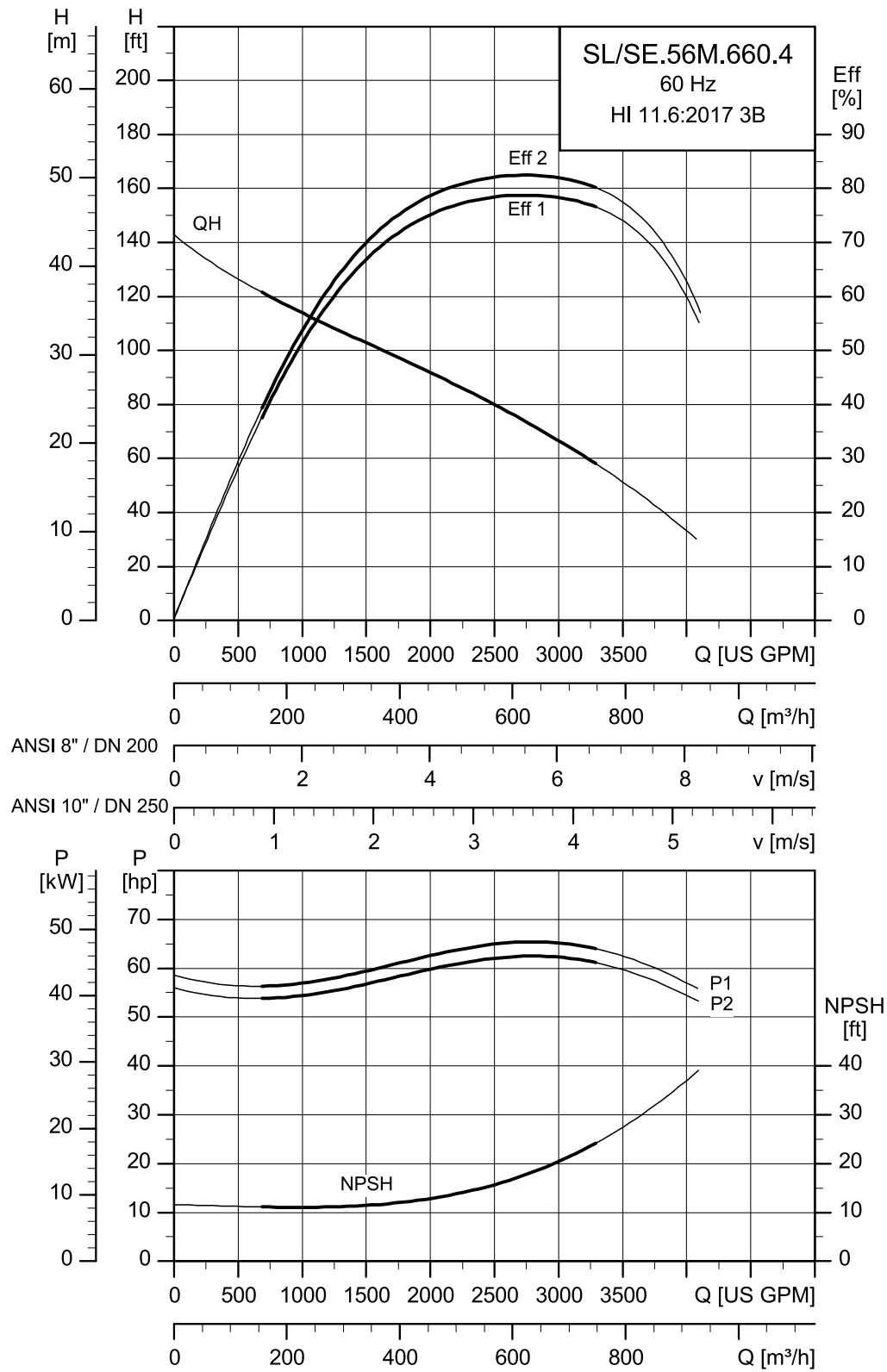


TM084422

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.560.4.EX.60G	380-480 -	61	56.3	4	1785	Direct-on-line (DOL)	80.5-70 -	580	90.6	91.8	91.9	0.78	0.84	0.86
SE/SL.56M.560.4.EX.60L	575-600 -	61	56.3	4	1785	Direct-on-line (DOL)	57-56 -	570	90.2	92.1	92.7	0.63	0.75	0.8
SE/SL.56M.560.4.EX.61F	220-277 380-480	61	56.3	4	1785	Star-delta (YD)	140-122 80.5-70	1000	90.6	91.8	91.9	0.78	0.84	0.86

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.560.4.EX.60G	12.5	0.05	CLASS125	65	0.17	774.3
SE/SL.56M.560.4.EX.60L	12.5	0.05	CLASS125	65	0.17	593.7
SE/SL.56M.560.4.EX.61F	12.5	0.05	CLASS125	65	0.17	542.0

SE/SL.56M.660.4 (ANSI)

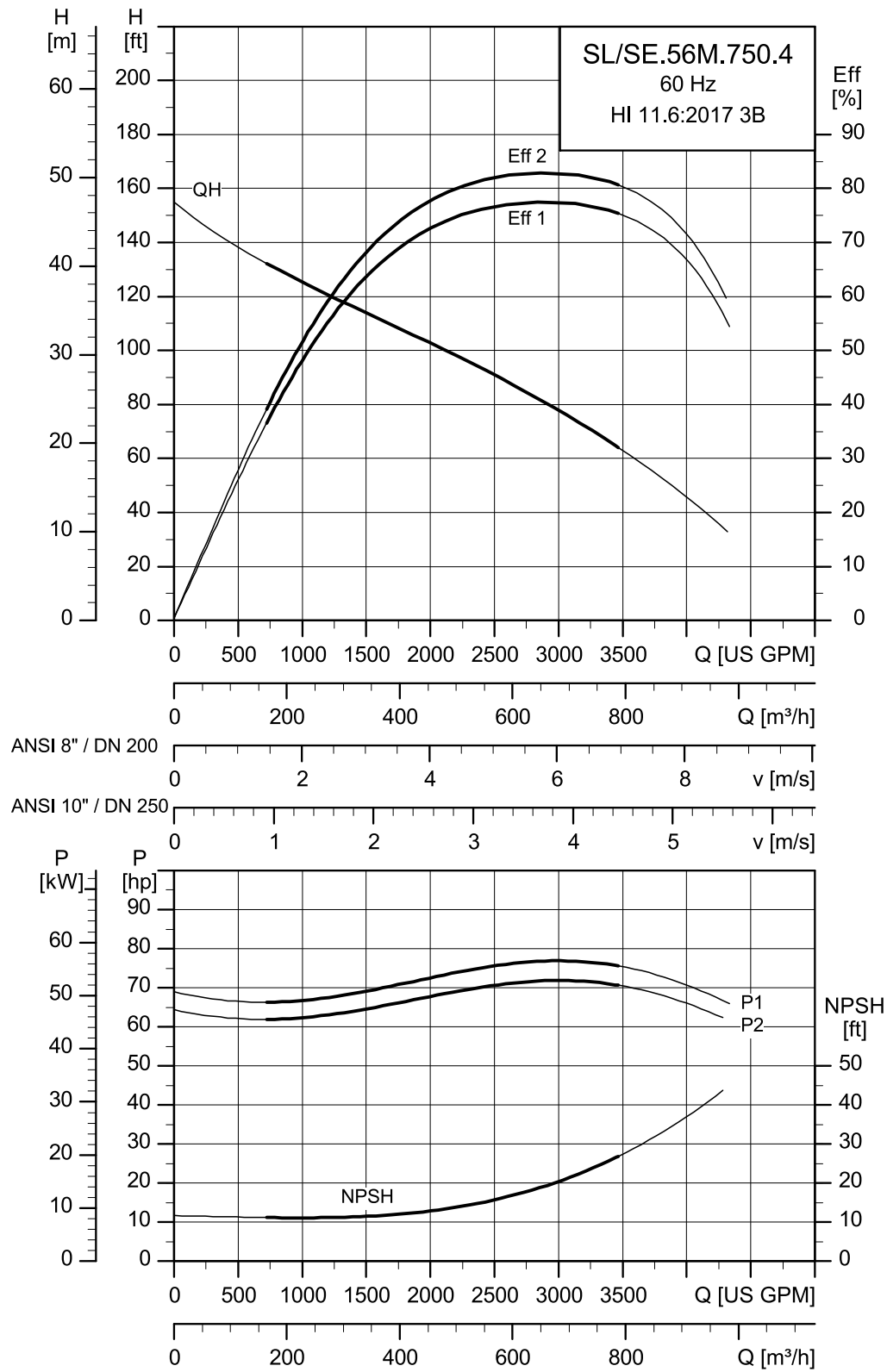


TM084421

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.660.4.EX.60G	380-480	70	65.7	4	1785	Direct-on-line (DOL)	93.5-82.5	705	91.1	92.4	92.4	0.76	0.83	0.86
	660-690						-							
SE/SL.56M.660.4.EX.60L	575-600	70	65.7	4	1785	Direct-on-line (DOL)	67-66	640	90.3	92.4	93	0.61	0.73	0.79
	-						-							
SE/SL.56M.660.4.EX.61G	380-480	70	65.7	4	1785	Star-delta (YD)	93.5-82.5	705	91.1	92.4	92.4	0.76	0.83	0.86
	660-690						54-52							

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.660.4.EX.60G	12.8	0.05	CLASS125	65	0.14	671.1
SE/SL.56M.660.4.EX.60L	12.8	0.05	CLASS125	65	0.14	671.1
SE/SL.56M.660.4.EX.61G	12.8	0.05	CLASS125	65	0.14	671.1

SE/SL.56M.750.4 (ANSI)

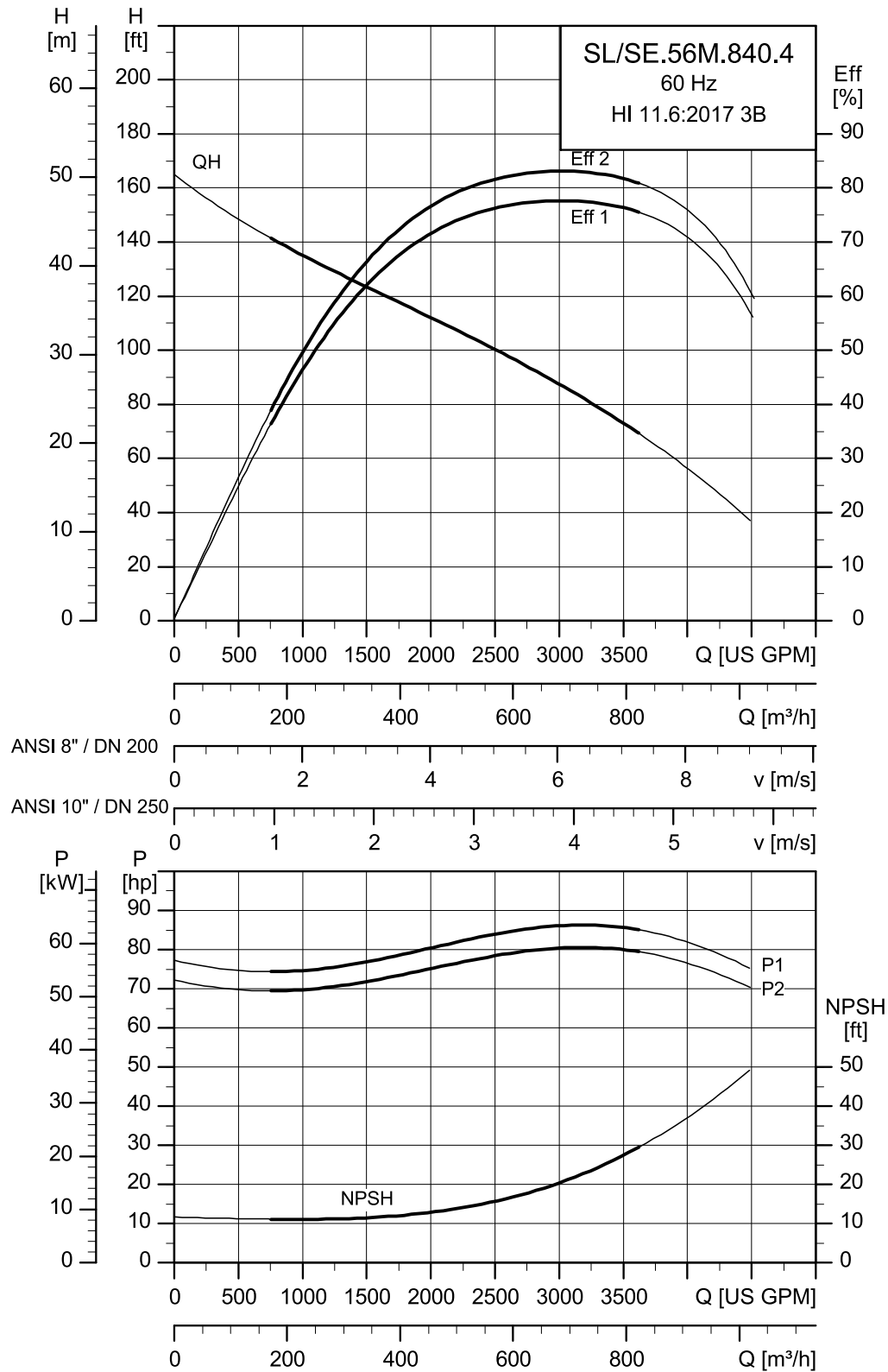


TM084420

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.750.4.EX.60G	380-480 -	90	75.1	4	1780	Direct-on-line (DOL)	106-98.5 -	915	92.2	92.6	92.3	0.8	0.86	0.87
SE/SL.56M.750.4.EX.60L	575-600 -	91	75.1	4	1780	Direct-on-line (DOL)	76-106 -	755	91.4	89.3	92.7	0.5	0.7	0.79

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.750.4.EX.60G	13.2	0.05	CLASS125	65	0.14	811.2
SE/SL.56M.750.4.EX.60L	13.2	0.05	CLASS125	65	0.14	811.2

SE/SL.56M.840.4 (ANSI)



TM084419

Pump type	Voltage [V]	P1 [hp]	P2 [hp]	Poles	RPM	Starting	I <sub>N</sub> [A]	I <sub>start</sub> [A]	η <sub>motor</sub> [%]			Cos φ		
									1/2	3/4	1/1	1/2	3/4	1/1
SE/SL.56M.840.4.EX.60G	380-480 -	91	84.5	4	1780	Direct-on-line (DOL)	118-106 -	915	92.4	92.6	91.7	0.83	0.87	0.87
SE/SL.56M.840.4.EX.60L	575-600 -	91	84.5	4	1780	Direct-on-line (DOL)	84-85.5 -	755	92	89.9	93	0.56	0.74	0.82

Pump type	Impeller diameter [in]	Moment of inertia (impeller) [psf]	Outlet flange pressure (according to EN 1092-2)	Max. installation depth (ft)	Moment of inertia (motor) [psf]	Breakdown torque M <sub>max</sub> [ft-lbs]
SE/SL.56M.840.4.EX.60G	13.5	0.06	CLASS125	65	0.14	811.2
SE/SL.56M.840.4.EX.60L	13.5	0.06	CLASS125	65	0.14	811.2

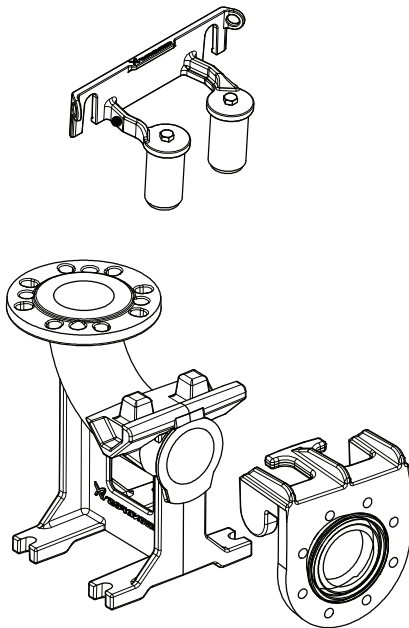
## 11. Accessories

### Auto-coupling installation accessories

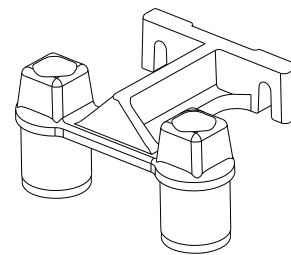
#### Auto-coupling system (complete set)

- auto-coupling system including bolts, nuts and gaskets:
  - cast iron base unit
  - stainless steel Upper Guide Rail Holder (UGRH)
  - cast iron guide shoe

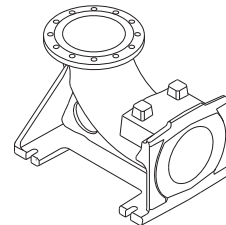
**Note:** If the guide rails exceed 13 ft, consider using intermediate guide-rail holders (IGRH) to support your system.



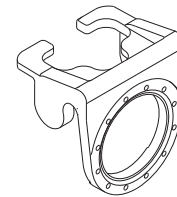
ANSI 4 1/6" Auto-coupling guide rail holder, base unit and guide shoe



TM062841



TM066849



TM066850

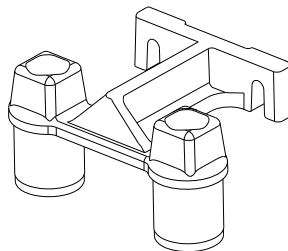
ANSI 8 1/2" Auto-coupling guide rail holder, base unit and guide shoe

#### Complete auto-coupling system

Pump type	Pressure range	Pump outlet	Auto-coupling inlet and outlet	Product number
				Cast iron
SE/SL.56H.XXX.4	H	4"	4"	97626238
SE/SL.56H.XXX.6	H	6"	6"	97703094
SE/SL.56M.XXX.8	M	8"	8"	97506541
SE/SL.56M.XXX.10	M	10"	10"	97510048
SE/SL.56L.XXX.12	L	12"	12"	97510049

**Guide shoe (included in auto-coupling system)**

Pump type	Pressure range	Pump outlet	Product number
SE/SL.56H.XXX.4	H	4"	98564312
SE/SL.56H.XXX.6	H	6"	98564315
SE/SL.56M.XXX.8	M	8"	99103417
SE/SL.56M.XXX.10	M	10"	97842430
SE/SL.56L.XXX.12	L	12"	99695554

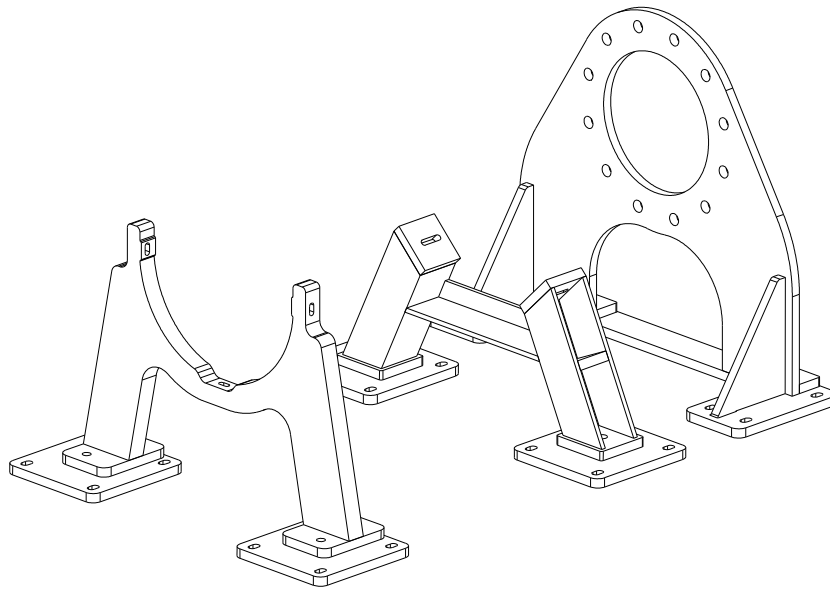
**Intermediate guide-rail holders (IGRH)**

TM062841

Pump type	Pressure range	Pump outlet	Product number
SE/SL.56H.XXX.4	H	4"	96825161
SE/SL.56H.XXX.6	H	6"	96829331
SE/SL.56M.XXX.8	M	8"	
SE/SL.56M.XXX.10	M	10"	97937961
SE/SL.56L.XXX.12	L	12"	

## Horizontal stand kit for SE Range 56 pumps

- Horizontal base stand with bolts and nuts.
- Steel, epoxy-coated.



TM085338

Pump type	Pressure range	Pressure class	Inlet	Outlet	Part number
SE.56H.XXX	H	Class 125	ANSI 8"	ANSI 4" / ANSI 6"	93039500
SE.56M.XXX	M	Class 125	ANSI 8"	ANSI 8" / ANSI 10"	93039523
SE.56M.XXX	M	Class 125	ANSI 10"	ANSI 8" / ANSI 10"	93039531
SE.56L.XXX	L	Class 125	ANSI 12"	ANSI 12"	93039538
SE.56L.XXX	L	Class 125	ANSI 14"	ANSI 12"	93039541

## Service sledge for SE Range 56 pumps



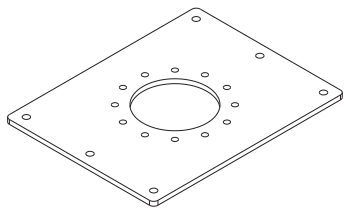
TM088294

Pump type	Pressure range	Pressure class	Inlet	Outlet	Part number
SE.56H.XXX	H	Class 125	ANSI 8"	ANSI 4" / ANSI 6"	93122441
SE.56M.XXX	M	Class 125	ANSI 8"	ANSI 8" / ANSI 10"	93122442
SE.56M.XXX	M	Class 125	ANSI 10"	ANSI 8" / ANSI 10"	93122443
SE.56L.XXX	L	Class 125	ANSI 12"	ANSI 12"	93122444
SE.56L.XXX	L	Class 125	ANSI 14"	ANSI 12"	93122445

## Base plate for SE Range 56 pumps

### Base plate installation kit

- base plate with bolts and flange seal.
- steel, epoxy-coated.



TM078361

Pump type	Pressure range	Pressure class	Pump Inlet	Pump Outlet	Product number
SE.56H.XXX	H	Class 125	ANSI 8"	ANSI 4" / ANSI 6"	93124559
SE.56M.XXX	M	Class 125	ANSI 8"	ANSI 8" / ANSI 10"	93124559
SE.56M.XXX	M	Class 125	ANSI 10"	ANSI 8" / ANSI 10"	93124564
SE.56L.XXX	L	Class 125	ANSI 12"	ANSI 12"	93124569
SE.56L.XXX	L	Class 125	ANSI 14"	ANSI 12"	93124572

## Lifting chains

- complete, certified lifting chain for all pump types
- maximum load: 2.000 kg
- material variants:
  - galvanised steel
  - stainless steel.



TM026126

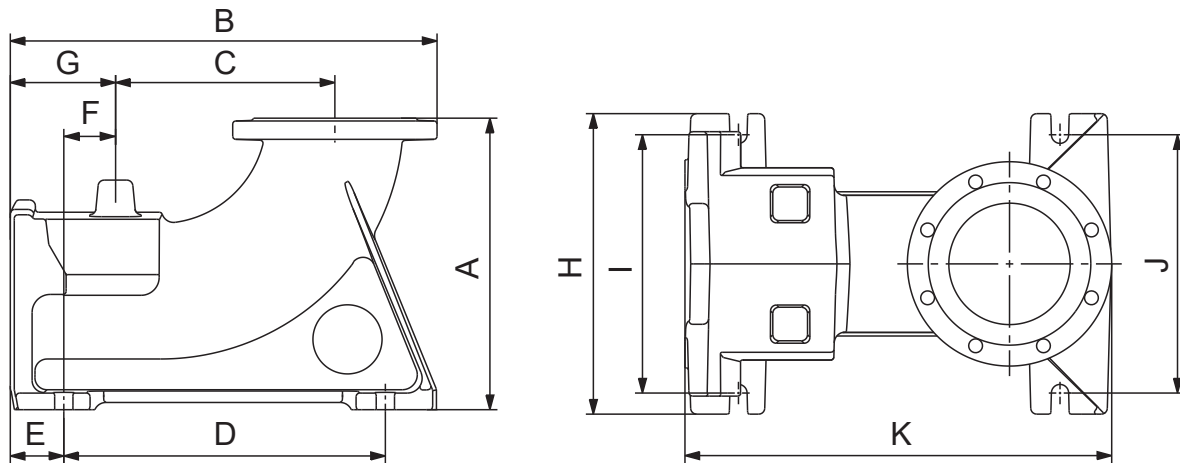
Material	Length [m]	Product number
Galvanised steel	4	98425784
	6	98425785
	8	98425786
	10	98425787
Stainless steel	4	98425801
	6	98425802
	8	98425803
	10	98425804

## Adaptors for SE/SL Range 56 pumps

Type	Pressure class	PN
Discharge adaptor ANSI 4" / 6"	Class 125	93210731
Discharge adaptor ANSI 6" / 8"	Class 125	93210734
Discharge adaptor ANSI 8" / 10"	Class 125	93210737
Discharge adaptor ANSI 10" / 12"	Class 125	93210743
Suction adaptor ANSI 10" / 12"	Class 125	93210740
Discharge adaptor ANSI 12" / 14"	Class 125	93210749
Suction adaptor ANSI 12" / 14"	Class 125	93210746

## 12. Installation

### Auto-coupling dimensions



TM070592

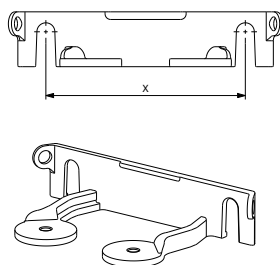
#### Cast iron

Size	Dimensions [in]										
	A	B	C	D	E	F	G	H	I	J	K
4"	16.3	15.9	8.7	8.7	2.7	0	2.7	11.8	9.1	9.1	13.4
6"	17.7	19.7	11	11	3.1	0	3.1	13.4	11.8	11.8	15.9
8"	19.1	28	14.4	21.1	3.5	3.4	6.9	19.7	16.9	16.9	27.9
10"	21.5	29.6	14.8	22.3	3.5	3.4	6.9	21.3	18.5	18.5	29.3
12"	25.6	1.4	17.7	26.4	3.1	3.7	6.9	24.4	21.7	21.7	33.3

#### Stainless steel

Size	Dimensions [in]										
	A	B	C	D	E	F	G	H	I	J	K
4"	16.3	15.9	8.7	8.7	2.7	0	2.7	11.8	9.1	10.2	13.4
6"	17.7	19.7	11	11	3.1	0	3.1	13.4	11.8	11.8	15.9

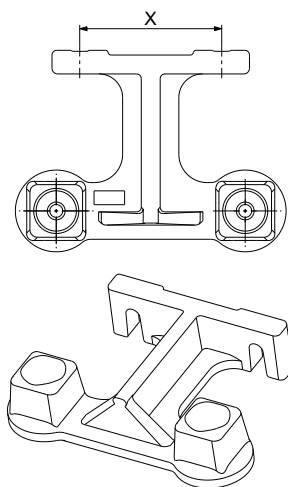
## Guide-rail bracket dimensions



TM069913

### Model A

Cast iron		X
Size	Model	[in]
4"	A	7.9
6"		
8"		
10"	B	5.9
12"		



TM069915

### Model B

Cast iron		X
Size	Model	[mm]
DN 200	B	150
DN 250		
DN 300		

## Pull-out strengths for bolts and anchor bolts

Submerged installation on autocoupling:

Auto-coupling base unit	Bolts	Pull-out resistance
8"	4 × M24	3596.9 lbf (16 kN)
10"		6744.3 lbf (30 kN)
12"		8992.4 lbf (40 kN)

## Recommendations for pump foundations

**Note:** This applies for pumps above 20 Hp (15 kW).

According to the ANSI/HI 1.4 standard, the following pump foundations are recommended.

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

The rotating mass of the entire pump together with the forces from the motor and hydraulics generate disturbances related to the speed of the motor. Unbalance and impeller vane pass in hydraulics are the two most important frequencies affecting vibration. When these frequencies coincide with the natural frequency of the entire mechanical system, the vibration level increases substantially.

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

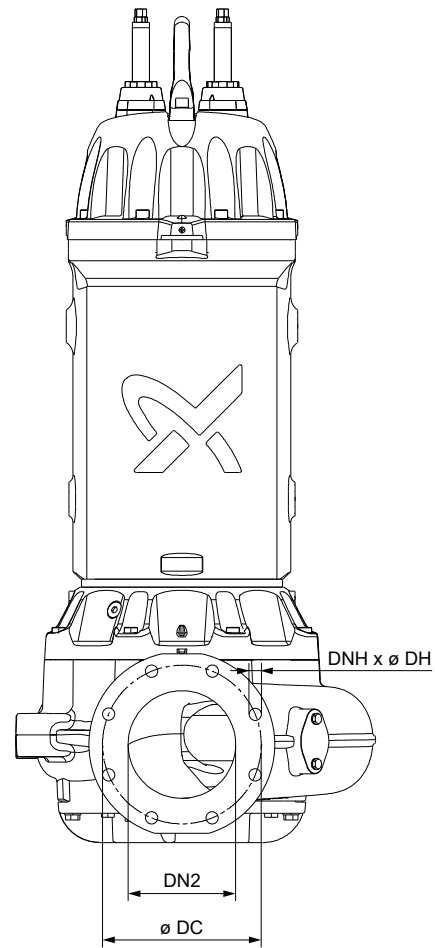
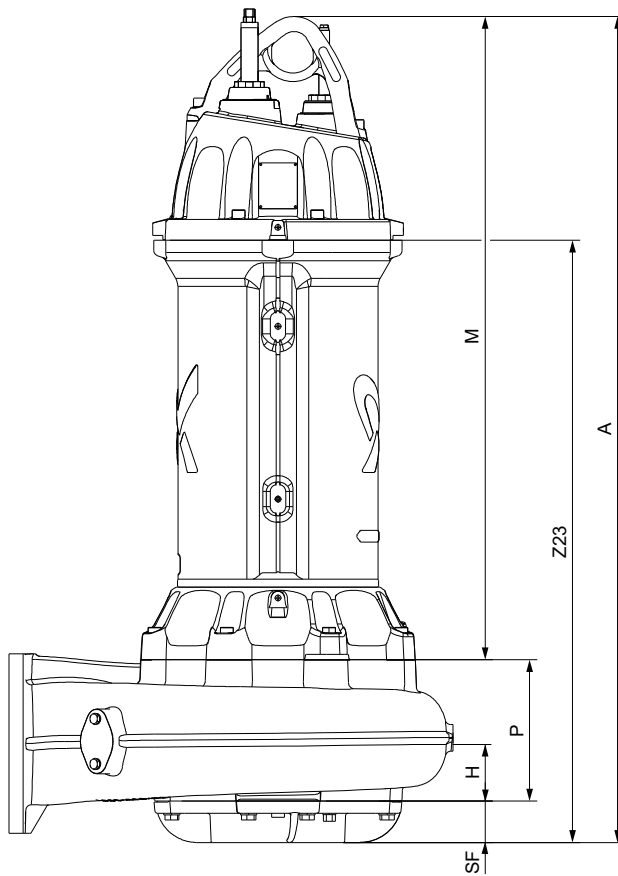
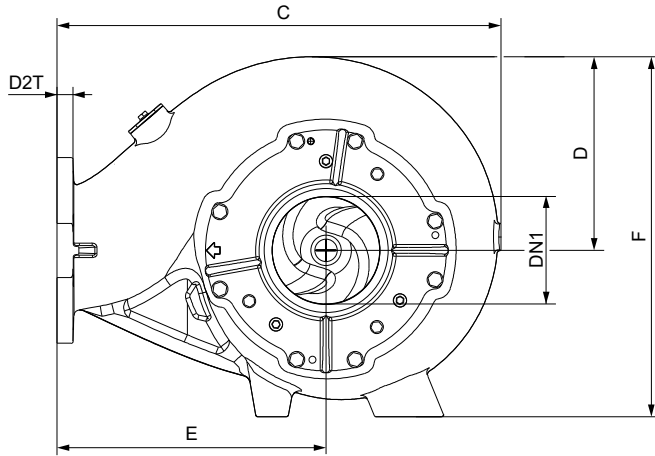
The occurrence of high vibration levels is increased in variable speed applications, where the pump is operated over a range of speeds rather than at a single constant speed. Most variable speed drives provide the possibility to exclude certain frequencies.

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

- The foundation and concrete must have adequate strength to support the weight of the pump including accessories, the weight of the liquid in the pump and discharge pipe and the forces generated by the pump.
- The mass of the concrete foundation must be at least three to five times the mass of the supported equipment and must have sufficient rigidity to withstand the axial, transverse, and torsional loads generated by these machines.
- The foundation must be 6 in wider than the base plate.
- The concrete used in the foundation must have a minimum tensile strength of 363 psi (250 N/cm<sup>2</sup>).
- Use epoxy grout and screws to fix the pump base plate to the foundation.

### Installation dimensions

#### SL Pump dimensions without accessories [in] (60 Hz)



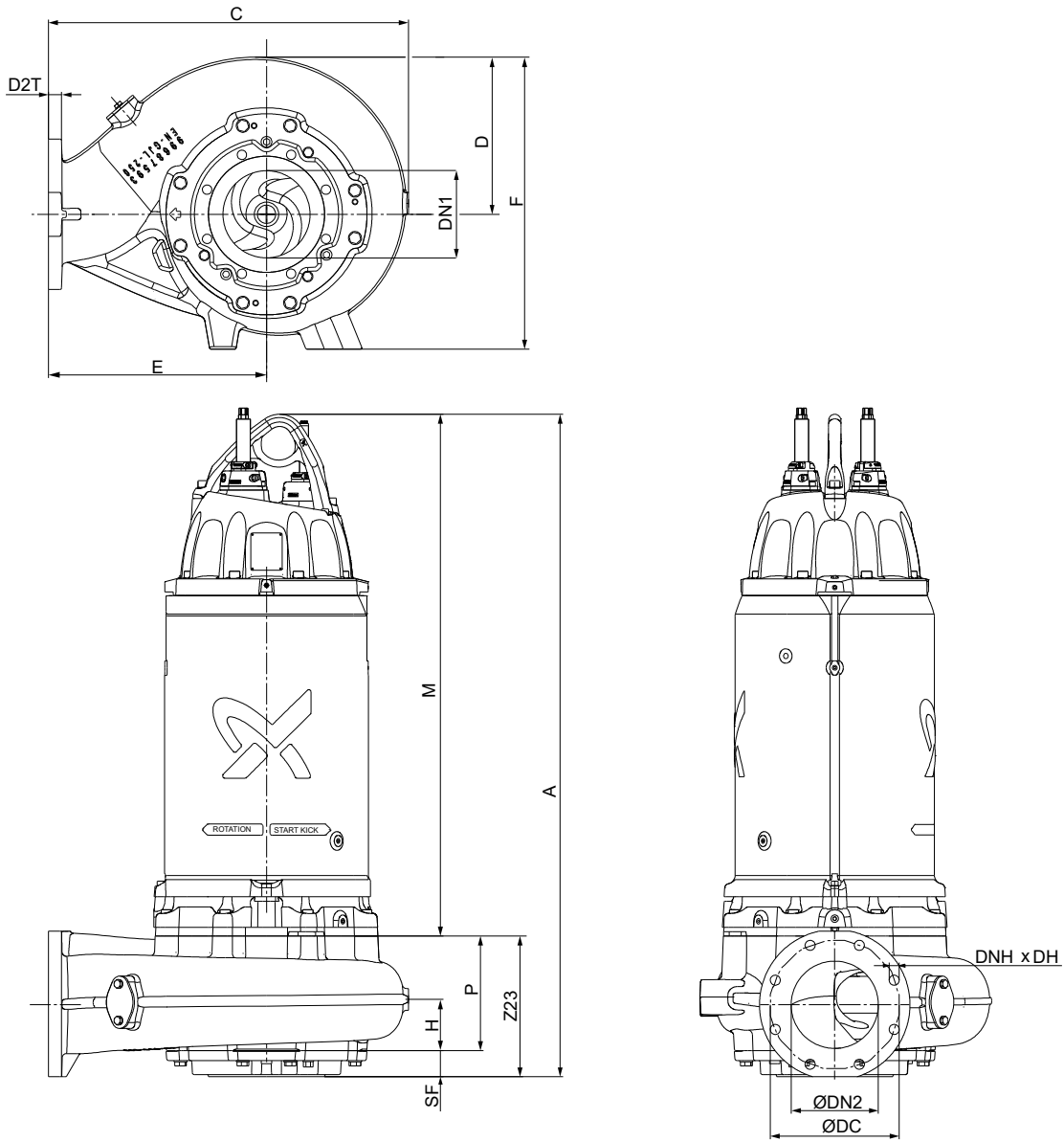
TM083892

## Definitions

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
DNH	Nr. of holes, outlet flange
Z23	Distance between the bottom of the suction inlet and minimum water level of the pump, measured in inches

Pump type	DN1	DN2	Z23 (in)	DNH (pcs)	A (in)	C (in)	D (in)	D2T (in)	DC (in)	DH (in)	E (in)	F (in)	H (in)	M (in)	M3
SL.56H.240.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.240.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.280.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.280.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.320.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.320.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.380.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.380.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.430.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.430.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.500.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.500.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.560.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.560.4.EX.XXX.6	8"	6"	42,4	8	58,7	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.660.4.EX.XXX.4	8"	4"	42,4	8	58,7	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SL.56H.660.4.EX.XXX.6	8"	6"	42,4	8	58,8	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SL.56H.750.4.EX.XXX.6	8"	6"	42,4	8	58,8	29,7	13,5	1,0	9,4	0,9	17,7	25,3	2,8	47,1	M18
SL.56H.840.4.EX.XXX.6	8"	6"	42,4	8	58,8	29,7	13,5	1,0	9,4	0,9	17,7	25,3	2,8	47,1	M18
SL.56L.290.6.EX.XXX.12	12"	12"	47,7	12	64,1	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SL.56L.330.6.EX.XXX.12	12"	12"	47,7	12	64,1	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SL.56L.380.6.EX.XXX.12	12"	12"	47,7	12	64,1	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SL.56L.440.6.EX.XXX.12	12"	12"	47,7	12	64,1	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SL.56L.500.6.EX.XXX.12	12"	12"	48,1	12	64,4	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SL.56L.580.6.EX.XXX.12	12"	12"	48,1	12	64,4	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SL.56M.280.4.EX.XXX.8	8"	8"	43,9	8	60,2	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SL.56M.320.4.EX.XXX.8	8"	8"	43,9	8	60,2	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SL.56M.380.4.EX.XXX.8	8"	8"	43,9	8	60,2	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SL.56M.430.4.EX.XXX.8	8"	8"	43,9	8	60,2	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SL.56M.500.4.EX.XXX.8	8"	8"	43,9	8	60,2	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SL.56M.560.4.EX.XXX.8	8"	8"	44,1	8	60,4	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SL.56M.660.4.EX.XXX.8	8"	8"	44,1	8	60,4	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SL.56M.750.4.EX.XXX.8	8"	8"	44,1	8	60,4	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SL.56M.840.4.EX.XXX.8	8"	8"	44,1	8	60,4	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24

## SE Pump dimensions without accessories [in] (60 Hz)



TM085118

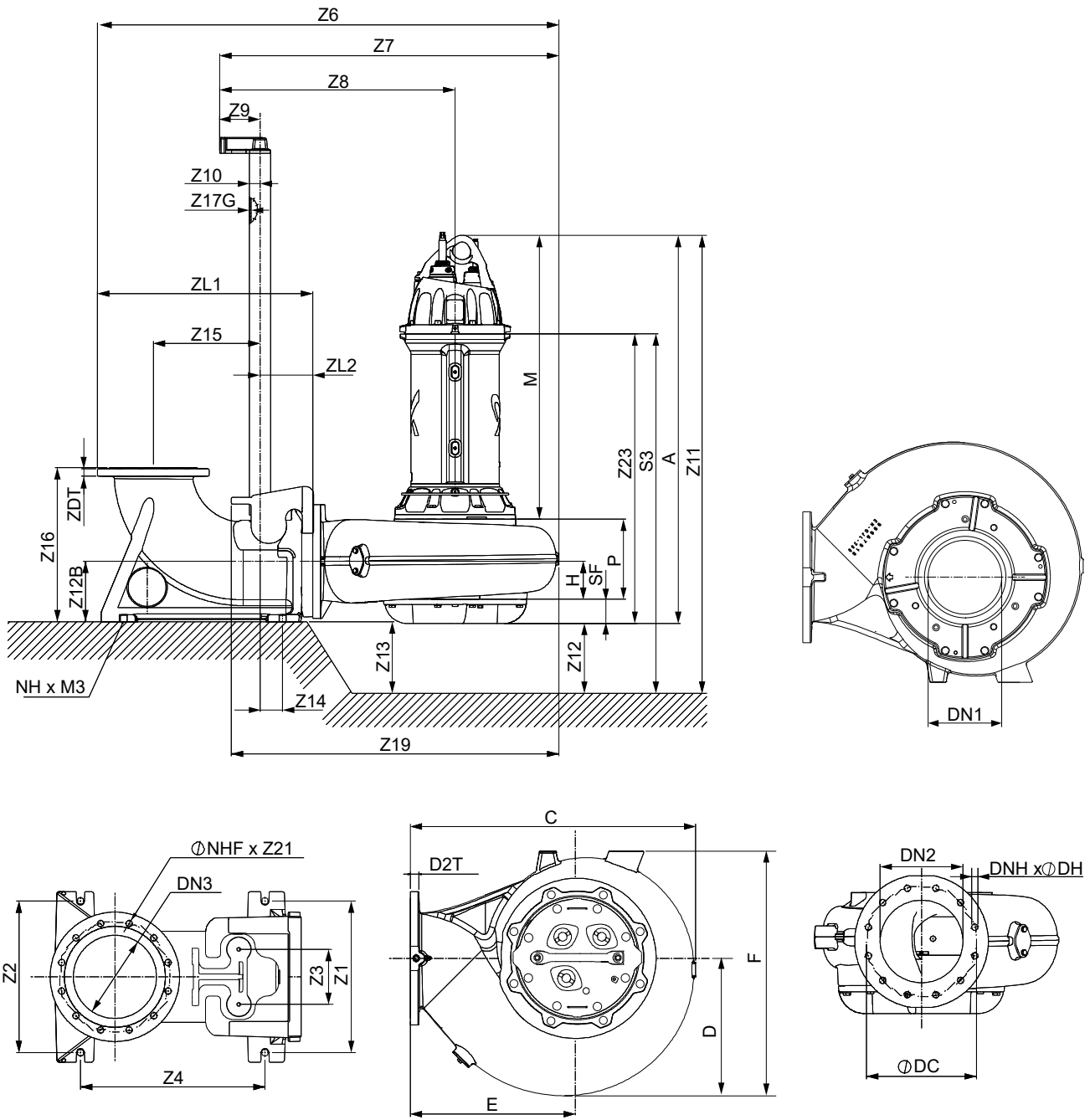
## Definitions

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
DNH	Nr. of holes, outlet flange
Z23	Distance between the bottom of the suction inlet and minimum water level of the pump, measured in inches.

Pump type	DN1	DN2	Z23 (in)	DNH (pcs)	A (in)	C (in)	D (in)	D2T (in)	DC (in)	DH (in)	E (in)	F (in)	H (in)	M (in)	M3
SE.56H.240.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.240.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.280.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.280.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.320.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.320.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.380.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.380.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18

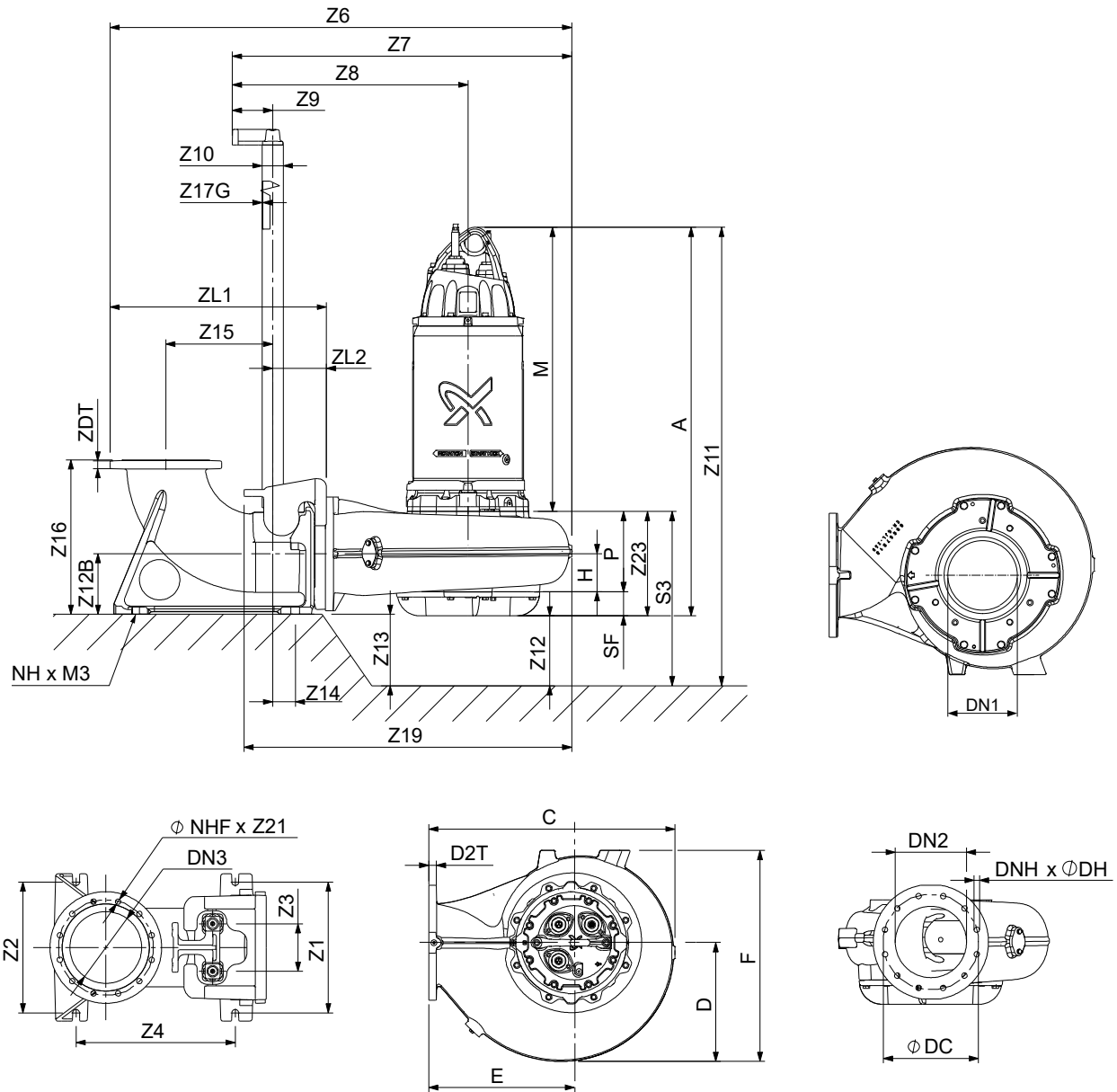
Pump type	DN1	DN2	Z23 (in)	DNH (pcs)	A (in)	C (in)	D (in)	D2T (in)	DC (in)	DH (in)	E (in)	F (in)	H (in)	M (in)	M3
SE.56H.430.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.430.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.500.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.500.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.560.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.560.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.660.4.EX.XXX.4	8"	4"	11,0	8	58,1	29,0	12,6	0,9	7,1	0,7	17,7	24,2	2,8	47,1	M16
SE.56H.660.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,0	12,6	0,9	9,4	0,9	17,7	24,2	2,8	47,1	M18
SE.56H.750.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,7	13,5	1,0	9,4	0,9	17,7	25,3	2,8	47,1	M18
SE.56H.840.4.EX.XXX.6	8"	6"	11,0	8	58,1	29,7	13,5	1,0	9,4	0,9	17,7	25,3	2,8	47,1	M18
SE.56L.290.6.EX.XXX.12	12"	12"	16,1	12	63,2	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SE.56L.330.6.EX.XXX.12	12"	12"	16,1	12	63,2	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SE.56L.380.6.EX.XXX.12	12"	12"	16,1	12	63,2	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SE.56L.440.6.EX.XXX.12	12"	12"	16,1	12	63,2	40,3	18,5	1,3	17,0	0,5	23,6	33,6	6,3	47,1	M24
SE.56L.500.6.EX.XXX.12	12"	12"	16,5	12	63,5	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SE.56L.500.6.EX.XXX.12	14"	12"	16,5	16	63,5	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SE.56L.580.6.EX.XXX.12	12"	12"	16,5	12	63,5	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SE.56L.580.6.EX.XXX.12	14"	12"	16,5	16	63,5	40,8	19,6	1,3	17,0	0,9	23,6	35,0	6,3	47,1	M24
SE.56M.280.4.EX.XXX.8	8"	8"	12,5	8	59,6	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SE.56M.320.4.EX.XXX.8	8"	8"	12,5	8	59,6	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SE.56M.380.4.EX.XXX.8	8"	8"	12,5	8	59,6	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SE.56M.430.4.EX.XXX.8	8"	8"	12,5	8	59,6	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SE.56M.500.4.EX.XXX.8	8"	8"	12,5	8	59,6	32,4	14,4	1,2	11,6	0,9	19,7	25,8	4,1	47,1	M24
SE.56M.560.4.EX.XXX.8	8"	8"	12,7	8	59,8	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SE.56M.660.4.EX.XXX.8	8"	8"	12,7	8	59,8	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SE.56M.750.4.EX.XXX.8	8"	8"	12,7	8	59,8	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24
SE.56M.840.4.EX.XXX.8	8"	8"	12,7	8	59,8	32,5	14,2	1,2	11,6	0,9	19,7	26,3	4,1	47,1	M24

Installation on auto-coupling [in] (60 Hz)



SL installation on auto-coupling

TM082164



TM085415

### SE installation on auto-coupling

#### Definitions

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
DN3	Base unit inlet diameter
NH	Nr. of holes, on base unit
NHF	Nr. of holes, flange
DNH	Nr. of holes, outlet flange
Z23	Distance between the bottom of the suction inlet and minimum water level of the pump, measured in inches



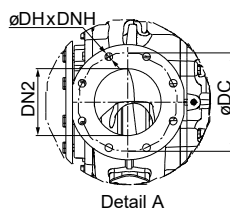
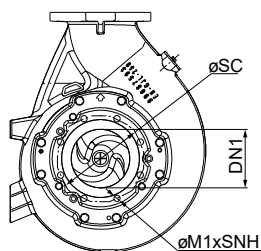
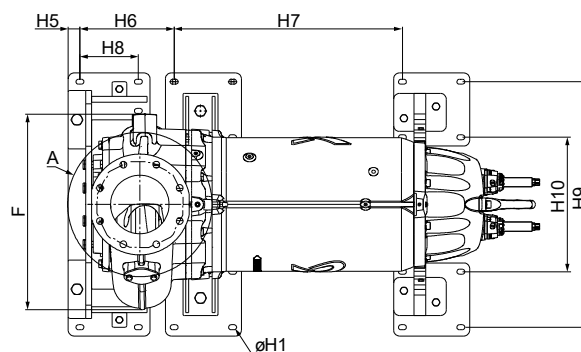
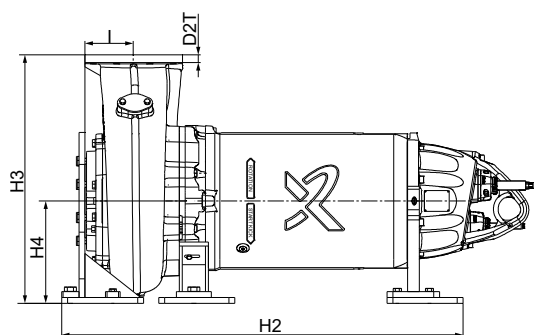
Pump type	DN1	DN2	DN3	A (in)	C (in)	D (in)	D2T (in)	DC (in)	DH (in)	DNH (pcs)	E (in)	F (in)	H (in)	M (in)	M3	NH (pcs)	NHF (pcs)	P (in)	S3 (in)	SF (in)	Z1 (in)	Z2 (in)	Z3 (in)
SL.56H.660.4.EX.XXX.4	8"	4"	4"	58,7	29,0	12,6	0,9	7,1	0,7	8	17,7	24,2	2,8	47,1	M16 4	8	8,7	46,3	3,0	10,2	9,1	4,3	
SL.56H.660.4.EX.XXX.6	8"	6"	6"	58,8	29,0	12,6	0,9	9,4	0,9	8	17,7	24,2	2,8	47,1	M18 4	8	8,7	46,4	3,0	11,8	11,8	4,8	
SL.56H.750.4.EX.XXX.6	8"	6"	6"	58,8	29,7	13,5	1,0	9,4	0,9	8	17,7	25,3	2,8	47,1	M18 4	8	8,7	46,4	3,0	11,8	11,8	4,8	
SL.56H.840.4.EX.XXX.6	8"	6"	6"	58,8	29,7	13,5	1,0	9,4	0,9	8	17,7	25,3	2,8	47,1	M18 4	8	8,7	46,4	3,0	11,8	11,8	4,8	
SL.56L.290.6.EX.XXX.12	12"	12"	12"	64,1	40,3	18,5	1,3	17,0	0,5	12	23,6	33,6	6,3	47,1	M24 4	12	12,9	53,6	4,0	21,7	21,7	7,9	
SL.56L.330.6.EX.XXX.12	12"	12"	12"	64,1	40,3	18,5	1,3	17,0	0,5	12	23,6	33,6	6,3	47,1	M24 4	12	12,9	53,6	4,0	21,7	21,7	7,9	
SL.56L.380.6.EX.XXX.12	12"	12"	12"	64,1	40,3	18,5	1,3	17,0	0,5	12	23,6	33,6	6,3	47,1	M24 4	12	12,9	53,6	4,0	21,7	21,7	7,9	
SL.56L.440.6.EX.XXX.12	12"	12"	12"	64,1	40,3	18,5	1,3	17,0	0,5	12	23,6	33,6	6,3	47,1	M24 4	12	12,9	53,6	4,0	21,7	21,7	7,9	
SL.56L.500.6.EX.XXX.12	12"	12"	12"	64,4	40,8	19,6	1,3	17,0	0,9	12	23,6	35,0	6,3	47,1	M24 4	12	13,3	54,0	4,0	21,7	21,7	7,9	
SL.56L.580.6.EX.XXX.12	12"	12"	12"	64,4	40,8	19,6	1,3	17,0	0,9	12	23,6	35,0	6,3	47,1	M24 4	12	13,3	54,0	4,0	21,7	21,7	7,9	
SL.56M.280.4.EX.XXX.8	8"	8"	8"	60,2	32,4	14,4	1,2	11,6	0,9	8	19,7	25,8	4,1	47,1	M24 4	8	10,1	47,8	3,0	16,9	16,9	7,9	
SL.56M.320.4.EX.XXX.8	8"	8"	8"	60,2	32,4	14,4	1,2	11,6	0,9	8	19,7	25,8	4,1	47,1	M24 4	8	10,1	47,8	3,0	16,9	16,9	7,9	
SL.56M.380.4.EX.XXX.8	8"	8"	8"	60,2	32,4	14,4	1,2	11,6	0,9	8	19,7	25,8	4,1	47,1	M24 4	8	10,1	47,8	3,0	16,9	16,9	7,9	
SL.56M.430.4.EX.XXX.8	8"	8"	8"	60,2	32,4	14,4	1,2	11,6	0,9	8	19,7	25,8	4,1	47,1	M24 4	8	10,1	47,8	3,0	16,9	16,9	7,9	
SL.56M.500.4.EX.XXX.8	8"	8"	8"	60,2	32,4	14,4	1,2	11,6	0,9	8	19,7	25,8	4,1	47,1	M24 4	8	10,1	47,8	3,0	16,9	16,9	7,9	
SL.56M.560.4.EX.XXX.8	8"	8"	8"	60,4	32,5	14,2	1,2	11,6	0,9	8	19,7	26,3	4,1	47,1	M24 4	8	10,3	48,0	3,0	16,9	16,9	7,9	
SL.56M.660.4.EX.XXX.8	8"	8"	8"	60,4	32,5	14,2	1,2	11,6	0,9	8	19,7	26,3	4,1	47,1	M24 4	8	10,3	48,0	3,0	16,9	16,9	7,9	
SL.56M.750.4.EX.XXX.8	8"	8"	8"	60,4	32,5	14,2	1,2	11,6	0,9	8	19,7	26,3	4,1	47,1	M24 4	8	10,3	48,0	3,0	16,9	16,9	7,9	
SL.56M.840.4.EX.XXX.8	8"	8"	8"	60,4	32,5	14,2	1,2	11,6	0,9	8	19,7	26,3	4,1	47,1	M24 4	8	10,3	48,0	3,0	16,9	16,9	7,9	

## Installation dimensions, part 2

Pump type	DN1	DN2	DN3	Z4 (in)	Z6 (in)	Z7 (in)	Z8 (in)	Z9 (in)	Z10 (in)	Z11 (in)	Z12 (in)	Z12B (in)	Z13 (in)	Z14 (in)	Z15 (in)	Z16 (in)	Z17G (in)	Z19 (in)	Z21 (in)	Z23 (in)	ZDT (in)	ZL1 (in)	ZL2 (in)
SE.56H.240.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.240.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.280.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.280.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.320.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.320.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.380.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.380.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.430.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.430.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.500.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.500.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.560.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.560.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.660.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	3,6	63,0	4	9,6	0,0	0,0	8,8	16,5	0,1	36,7	0,8	11,2	0,7	17,7	4,2
SE.56H.660.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	11,2	0,9	22,1	5,1
SE.56H.750.4.EX.XXX.6	8"	6"	6"	11,2	52,2	39,6	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	38,5	1,0	11,2	0,9	22,1	5,1
SE.56H.840.4.EX.XXX.6	8"	6"	6"	11,2	52,2	39,6	27,4	4,4	3,6	63,0	4	11,0	0,0	0,0	11,2	18,0	0,1	38,5	1,0	11,2	0,9	22,1	5,1
SE.56L.290.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,2	6	10,2	5,4	3,8	18,0	26,0	0,1	54,6	0,9	16,4	1,3	36,3	8,9
SE.56L.330.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,2	6	10,2	5,4	3,8	18,0	26,0	0,1	54,6	0,9	16,4	1,3	36,3	8,9
SE.56L.380.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,2	6	10,2	5,4	3,8	18,0	26,0	0,1	54,6	0,9	16,4	1,3	36,3	8,9
SE.56L.440.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,2	6	10,2	5,4	3,8	18,0	26,0	0,1	54,6	0,9	16,4	1,3	36,3	8,9
SE.56L.500.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,6	6	10,2	5,4	3,8	18,0	26,0	0,1	55,2	0,9	16,7	1,3	36,3	8,9
SE.56L.500.6.EX.XXX.12	14"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	71,6	7	10,2	6,4	3,8	18,0	26,0	0,1	55,2	0,9	16,7	1,3	36,3	8,9
SE.56L.580.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	70,6	6	10,2	5,4	3,8	18,0	26,0	0,1	55,2	0,9	16,7	1,3	36,3	8,9
SE.56L.580.6.EX.XXX.12	14"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	71,6	7	10,2	6,4	3,8	18,0	26,0	0,1	55,2	0,9	16,7	1,3	36,3	8,9
SE.56M.280.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,6	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,7	1,2	30,3	8,9
SE.56M.320.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,6	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,7	1,2	30,3	8,9

Pump type	DN1	DN2	DN3	Z4 (in)	Z6 (in)	Z7 (in)	Z8 (in)	Z9 (in)	Z10 (in)	Z11 (in)	Z12 (in)	Z12B (in)	Z13 (in)	Z14 (in)	Z15 (in)	Z16 (in)	Z17G (in)	Z19 (in)	Z21 (in)	Z23 (in)	ZDT (in)	ZL1 (in)	ZL2 (in)
SE.56M.380.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,6	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,7	1,2	30,3	8,9
SE.56M.430.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,6	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,7	1,2	30,3	8,9
SE.56M.500.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,6	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,7	1,2	30,3	8,9
SE.56M.560.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,8	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,9	1,2	30,3	8,9
SE.56M.660.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,8	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,9	1,2	30,3	8,9
SE.56M.750.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,8	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,9	1,2	30,3	8,9
SE.56M.840.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	64,8	4	7,8	2,8	3,4	14,7	19,4	0,1	46,8	0,9	12,9	1,2	30,3	8,9
SL.56H.240.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.240.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.280.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.280.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.320.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.320.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.380.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.380.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.430.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.430.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.500.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.500.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.560.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.560.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.660.4.EX.XXX.4	8"	4"	4"	8,8	47,2	40,5	29,0	4,4	2,4	63,7	4	9,6	0,2	0,0	8,8	16,5	0,1	36,7	0,8	43,1	0,7	17,7	4,2
SL.56H.660.4.EX.XXX.6	8"	6"	6"	11,2	51,6	38,9	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	37,8	1,0	43,1	0,9	22,1	5,1
SL.56H.750.4.EX.XXX.6	8"	6"	6"	11,2	52,2	39,6	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	38,5	1,0	43,1	0,9	22,1	5,1
SL.56H.840.4.EX.XXX.6	8"	6"	6"	11,2	52,2	39,6	27,4	4,4	3,6	63,7	4	11,0	0,0	0,0	11,2	18,0	0,1	38,5	1,0	43,1	0,9	22,1	5,1
SL.56L.290.6.EX.XXX.12	12"	12"	12"	26,8	77,2	56,6	39,7	6,8	3,6	71,1	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,5	1,3	36,3	8,9
SL.56L.330.6.EX.XXX.12	12"	12"	12"	26,8	77,2	56,6	39,7	6,8	3,6	71,1	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,5	1,3	36,3	8,9
SL.56L.380.6.EX.XXX.12	12"	12"	12"	26,8	77,2	56,6	39,7	6,8	3,6	71,1	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,5	1,3	36,3	8,9
SL.56L.440.6.EX.XXX.12	12"	12"	12"	26,8	77,2	56,6	39,7	6,8	3,6	71,1	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,5	1,3	36,3	8,9
SL.56L.500.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	71,4	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,8	1,3	36,3	8,9
SL.56L.580.6.EX.XXX.12	12"	12"	12"	26,8	77,8	57,2	39,7	6,8	3,6	71,4	6	10,2	6,3	3,8	18,0	26,0	0,1	55,2	0,9	48,8	1,3	36,3	8,9
SL.56M.280.4.EX.XXX.8	8"	8"	8"	21,4	63,3	48,6	35,7	6,8	3,6	65,2	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,6	1,2	30,3	8,9
SL.56M.320.4.EX.XXX.8	8"	8"	8"	21,4	63,3	48,6	35,7	6,8	3,6	65,2	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,6	1,2	30,3	8,9
SL.56M.380.4.EX.XXX.8	8"	8"	8"	21,4	63,3	48,6	35,7	6,8	3,6	65,2	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,6	1,2	30,3	8,9
SL.56M.430.4.EX.XXX.8	8"	8"	8"	21,4	63,3	48,6	35,7	6,8	3,6	65,2	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,6	1,2	30,3	8,9
SL.56M.500.4.EX.XXX.8	8"	8"	8"	21,4	63,3	48,6	35,7	6,8	3,6	65,2	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,6	1,2	30,3	8,9
SL.56M.560.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	65,4	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,8	1,2	30,3	8,9
SL.56M.660.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	65,4	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,8	1,2	30,3	8,9
SL.56M.750.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	65,4	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,8	1,2	30,3	8,9
SL.56M.840.4.EX.XXX.8	8"	8"	8"	21,4	63,4	48,7	35,7	6,8	3,6	65,4	4	7,8	3,4	3,4	14,7	19,4	0,1	46,8	0,9	44,8	1,2	30,3	8,9

## Horizontal installation on stand [in] (60 Hz)



TM085119

## Definitions

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
DNH	Nr. of holes, outlet flange
SNH	Nr. of holes, inlet flange

## Installation dimensions, part 1

Pump type	DN1	DN2	D (in)	D2T (in)	DC (in)	DH (in)	DNH (in)	F (in)	H1 (in)	H2 (in)	H3 (in)	H4 (in)
SE.56H.240.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.240.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.280.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.280.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.320.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.320.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.380.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.380.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.430.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.430.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.500.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.500.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.560.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.560.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.660.4.EX.XXX.4	8"	4"	12,6	0,9	7,1	0,7	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.660.4.EX.XXX.6	8"	6"	12,6	0,9	9,4	0,9	0,3	24,2	0,7	52,4	31,5	13,8
SE.56H.750.4.EX.XXX.6	8"	6"	13,5	1,0	9,4	0,9	0,3	25,3	0,7	52,4	31,5	13,8
SE.56H.840.4.EX.XXX.6	8"	6"	13,5	1,0	9,4	0,9	0,3	25,3	0,7	52,4	31,5	13,8
SE.56L.290.6.EX.XXX.12	12"	12"	18,5	1,3	17,0	0,5	0,5	33,6	0,7	57,5	43,3	19,7
SE.56L.330.6.EX.XXX.12	12"	12"	18,5	1,3	17,0	0,5	0,5	33,6	0,7	57,5	43,3	19,7
SE.56L.380.6.EX.XXX.12	12"	12"	18,5	1,3	17,0	0,5	0,5	33,6	0,7	57,5	43,3	19,7

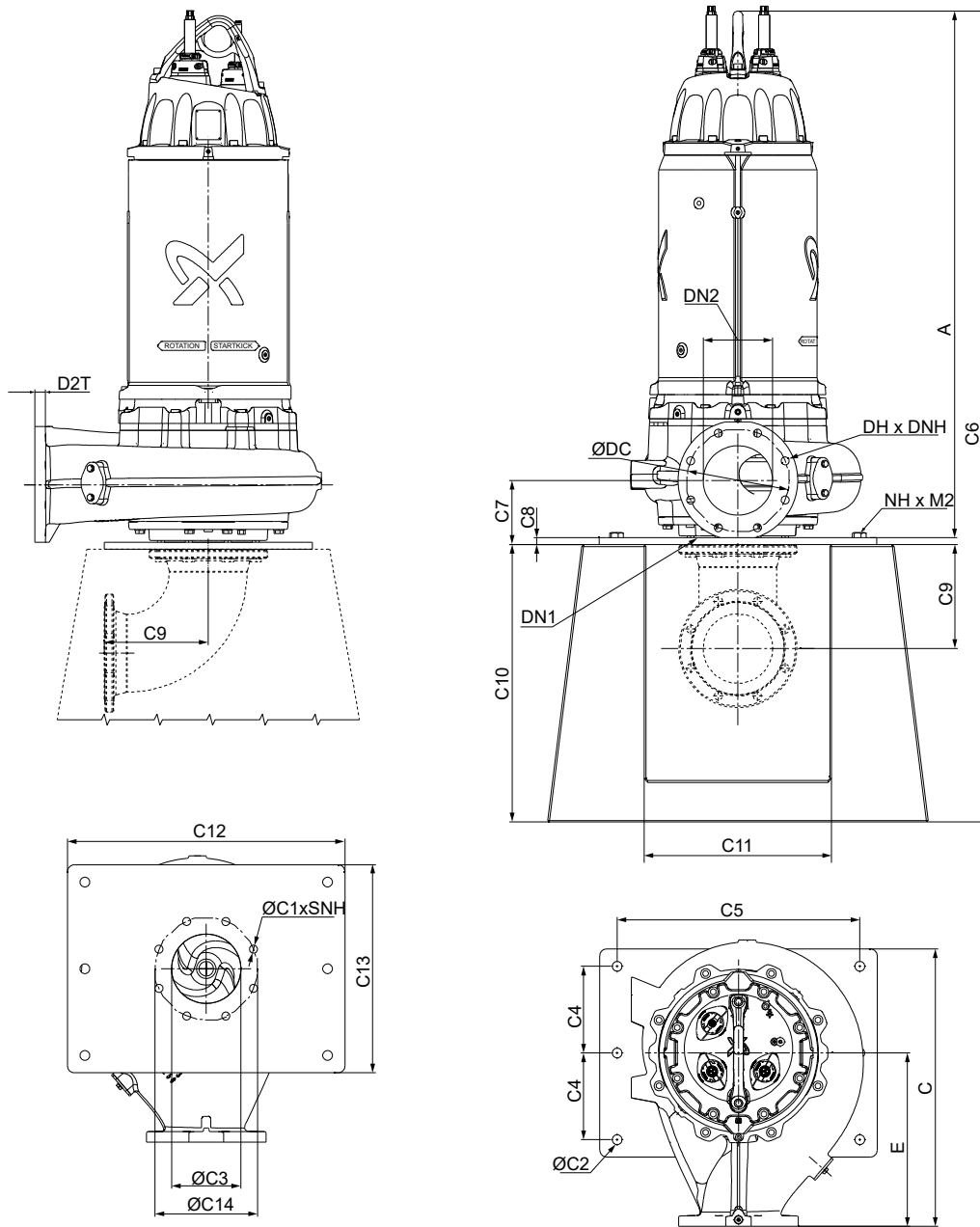
Pump type	DN1	DN2	D (in)	D2T (in)	DC (in)	DH (in)	DNH (in)	F (in)	H1 (in)	H2 (in)	H3 (in)	H4 (in)
SE.56L.440.6.EX.XXX.12	12"	12"	18,5	1,3	17,0	0,5	0,5	33,6	0,7	57,5	43,3	19,7
SE.56L.500.6.EX.XXX.12	12"	12"	19,6	1,3	17,0	0,9	0,5	35,0	0,7	57,8	43,3	19,7
SE.56L.500.6.EX.XXX.12	14"	12"	19,6	1,3	17,0	0,9	0,6	35,0	0,7	57,8	43,9	19,7
SE.56L.580.6.EX.XXX.12	12"	12"	19,6	1,3	17,0	0,9	0,5	35,0	0,7	57,8	43,3	19,7
SE.56L.580.6.EX.XXX.12	14"	12"	19,6	1,3	17,0	0,9	0,6	35,0	0,7	57,8	43,9	19,7
SE.56M.280.4.EX.XXX.8	8"	8"	14,4	1,2	11,6	0,9	0,3	25,8	0,7	53,9	33,5	16,1
SE.56M.320.4.EX.XXX.8	8"	8"	14,4	1,2	11,6	0,9	0,3	25,8	0,7	53,9	33,5	16,1
SE.56M.380.4.EX.XXX.8	8"	8"	14,4	1,2	11,6	0,9	0,3	25,8	0,7	53,9	33,5	16,1
SE.56M.430.4.EX.XXX.8	8"	8"	14,4	1,2	11,6	0,9	0,3	25,8	0,7	53,9	33,5	16,1
SE.56M.500.4.EX.XXX.8	8"	8"	14,4	1,2	11,6	0,9	0,3	25,8	0,7	53,9	33,5	16,1
SE.56M.560.4.EX.XXX.8	8"	8"	14,2	1,2	11,6	0,9	0,3	26,3	0,7	54,1	33,5	16,1
SE.56M.660.4.EX.XXX.8	8"	8"	14,2	1,2	11,6	0,9	0,3	26,3	0,7	54,1	33,5	16,1
SE.56M.750.4.EX.XXX.8	8"	8"	14,2	1,2	11,6	0,9	0,3	26,3	0,7	54,1	33,5	16,1
SE.56M.840.4.EX.XXX.8	8"	8"	14,2	1,2	11,6	0,9	0,3	26,3	0,7	54,1	33,5	16,1

## Installation dimensions, part 2

Pump type	DN1	DN2	H5 (in)	H6 (in)	H7 (in)	H8 (in)	H9 (in)	H10 (in)	I (in)	M1	SC (in)	SNH (pcs)
SE.56H.240.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.240.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.280.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.280.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.320.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.320.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.380.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.380.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.430.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.430.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.500.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.500.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.560.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.560.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.660.4.EX.XXX.4	8"	4"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.660.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.750.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56H.840.4.EX.XXX.6	8"	6"	1,6	11,0	30,7	8,3	33,1	18,1	5,1	M20	11,6	8
SE.56L.290.6.EX.XXX.12	12"	12"	1,6	16,1	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.330.6.EX.XXX.12	12"	12"	1,6	16,1	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.380.6.EX.XXX.12	12"	12"	1,6	16,1	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.440.6.EX.XXX.12	12"	12"	1,6	16,1	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.500.6.EX.XXX.12	12"	12"	1,6	16,4	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.500.6.EX.XXX.12	14"	12"	1,6	16,4	30,7	7,9	33,1	18,1	9,4	M20	18,1	16
SE.56L.580.6.EX.XXX.12	12"	12"	1,6	16,4	30,7	7,9	33,1	18,1	9,4	M20	15,7	12
SE.56L.580.6.EX.XXX.12	14"	12"	1,6	16,4	30,7	7,9	33,1	18,1	9,4	M20	18,1	16
SE.56M.280.4.EX.XXX.8	8"	8"	1,6	12,5	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.320.4.EX.XXX.8	8"	8"	1,6	12,5	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.380.4.EX.XXX.8	8"	8"	1,6	12,5	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.430.4.EX.XXX.8	8"	8"	1,6	12,5	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.500.4.EX.XXX.8	8"	8"	1,6	12,5	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.560.4.EX.XXX.8	8"	8"	1,6	12,7	30,7	7,9	33,1	18,1	6,5	M20	11,6	8

Pump type	DN1	DN2	H5 (in)	H6 (in)	H7 (in)	H8 (in)	H9 (in)	H10 (in)	I (in)	M1	SC (in)	SNH (pcs)
SE.56M.660.4.EX.XXX.8	8"	8"	1,6	12,7	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.750.4.EX.XXX.8	8"	8"	1,6	12,7	30,7	7,9	33,1	18,1	6,5	M20	11,6	8
SE.56M.840.4.EX.XXX.8	8"	8"	1,6	12,7	30,7	7,9	33,1	18,1	6,5	M20	11,6	8

## Vertical installation on concrete block [in] (60 Hz)



TM085120

**Definitions**

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
NH	Nr. of holes, on base plate
NHF	Nr. of holes, flange
DNH	Nr. of holes, outlet flange
SNH	Nr. of holes, inlet flange

## Installation dimensions, part 1

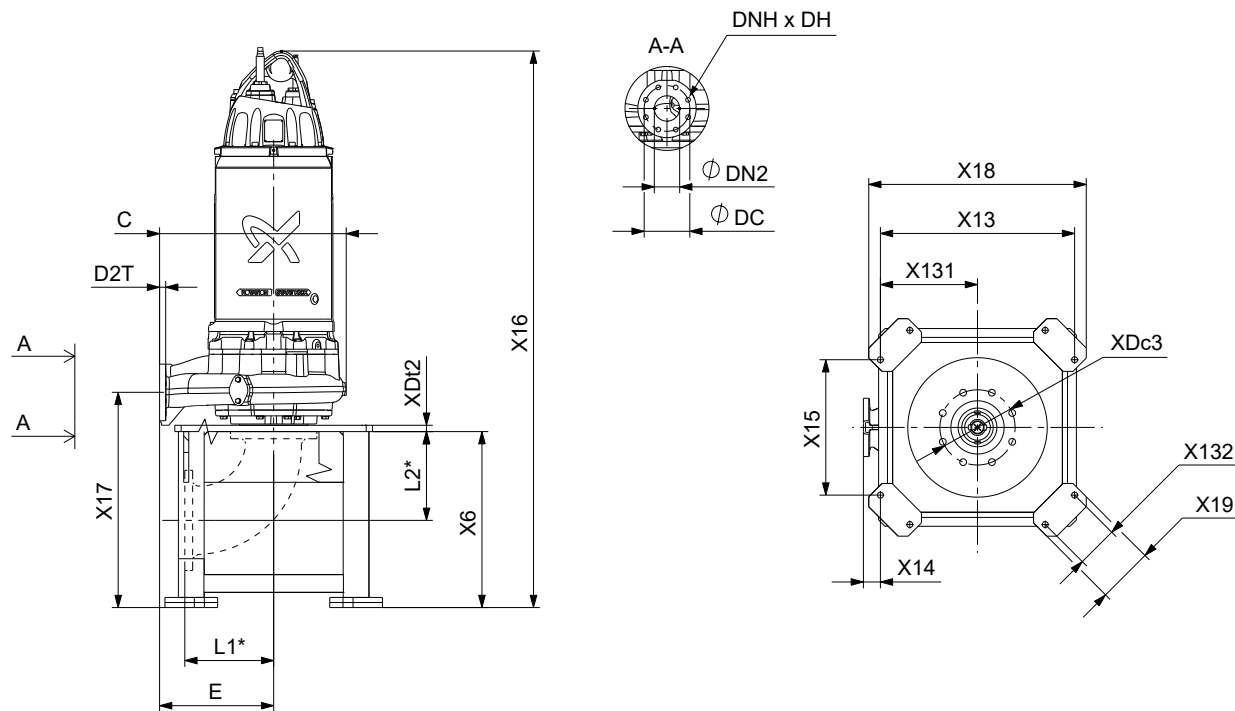
Pump type	DN1	DN2	A (in)	C (in)	C1 (in)	C2 (in)	C3 (in)	C4 (in)	C5 (in)	C6 (in)	C7 (in)	C8 (in)	C9 (in)	C10 (in)
SE.56H.240.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.240.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.280.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.280.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.320.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.320.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.380.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.380.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.430.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.430.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.500.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.500.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.560.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.560.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.660.4.EX.XXX.4	8"	4"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.660.4.EX.XXX.6	8"	6"	58,1	29,0	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.750.4.EX.XXX.6	8"	6"	58,1	29,7	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56H.840.4.EX.XXX.6	8"	6"	58,1	29,7	0,9	1,1	7,9	9,8	27,6	90,4	5,9	0,8	10,2	31,5
SE.56L.290.6.EX.XXX.12	12"	12"	63,2	40,3	0,9	1,1	11,8	9,8	27,6	95,5	10,2	0,8	15,7	31,5
SE.56L.330.6.EX.XXX.12	12"	12"	63,2	40,3	0,9	1,1	11,8	9,8	27,6	95,5	10,2	0,8	15,7	31,5
SE.56L.380.6.EX.XXX.12	12"	12"	63,2	40,3	0,9	1,1	11,8	9,8	27,6	95,5	10,2	0,8	15,7	31,5
SE.56L.440.6.EX.XXX.12	12"	12"	63,2	40,3	0,9	1,1	11,8	9,8	27,6	95,5	10,2	0,8	15,7	31,5
SE.56L.500.6.EX.XXX.12	12"	12"	63,5	40,8	0,9	1,1	11,8	9,8	27,6	95,8	10,2	0,8	15,7	31,5
SE.56L.500.6.EX.XXX.12	14"	12"	63,5	40,8	0,9	1,1	13,8	9,8	27,6	95,8	10,2	0,8	17,7	31,5
SE.56L.580.6.EX.XXX.12	12"	12"	63,5	40,8	0,9	1,1	11,8	9,8	27,6	95,8	10,2	0,8	15,7	31,5
SE.56L.580.6.EX.XXX.12	14"	12"	63,5	40,8	0,9	1,1	13,8	9,8	27,6	95,8	10,2	0,8	17,7	31,5
SE.56M.280.4.EX.XXX.8	8"	8"	59,6	32,4	0,9	1,1	7,9	9,8	27,6	91,9	7,3	0,8	10,2	31,5
SE.56M.320.4.EX.XXX.8	8"	8"	59,6	32,4	0,9	1,1	7,9	9,8	27,6	91,9	7,3	0,8	10,2	31,5
SE.56M.380.4.EX.XXX.8	8"	8"	59,6	32,4	0,9	1,1	7,9	9,8	27,6	91,9	7,3	0,8	10,2	31,5
SE.56M.430.4.EX.XXX.8	8"	8"	59,6	32,4	0,9	1,1	7,9	9,8	27,6	91,9	7,3	0,8	10,2	31,5
SE.56M.500.4.EX.XXX.8	8"	8"	59,6	32,4	0,9	1,1	7,9	9,8	27,6	91,9	7,3	0,8	10,2	31,5
SE.56M.560.4.EX.XXX.8	8"	8"	59,8	32,5	0,9	1,1	7,9	9,8	27,6	92,1	7,3	0,8	10,2	31,5
SE.56M.660.4.EX.XXX.8	8"	8"	59,8	32,5	0,9	1,1	7,9	9,8	27,6	92,1	7,3	0,8	10,2	31,5
SE.56M.750.4.EX.XXX.8	8"	8"	59,8	32,5	0,9	1,1	7,9	9,8	27,6	92,1	7,3	0,8	10,2	31,5
SE.56M.840.4.EX.XXX.8	8"	8"	59,8	32,5	0,9	1,1	7,9	9,8	27,6	92,1	7,3	0,8	10,2	31,5

## Installation dimensions, part 2

Pump type	DN1	DN2	C11 (in)	C12 (in)	C13 (in)	C14 (in)	D2T (in)	DC (in)	DH (in)	DNH (pcs)	E	I	NH (pcs)	SNH (pcs)
SE.56H.240.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.240.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.280.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.280.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.320.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.320.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.380.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.380.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.430.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.430.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.500.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.500.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8

Pump type	DN1	DN2	C11 (in)	C12 (in)	C13 (in)	C14 (in)	D2T (in)	DC (in)	DH (in)	DNH (pcs)	E	I	NH (pcs)	SNH (pcs)
SE.56H.560.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.560.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.660.4.EX.XXX.4	8"	4"	20,9	31,5	23,6	11,6	0,9	7,1	19	8	17,7	5,1	6	8
SE.56H.660.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	0,9	9,4	23	8	17,7	5,1	6	8
SE.56H.750.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	1,0	9,4	22	8	17,7	5,1	6	8
SE.56H.840.4.EX.XXX.6	8"	6"	20,9	31,5	23,6	11,6	1,0	9,4	22	8	17,7	5,1	6	8
SE.56L.290.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	12	12	23,6	9,4	6	12
SE.56L.330.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	12	12	23,6	9,4	6	12
SE.56L.380.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	12	12	23,6	9,4	6	12
SE.56L.440.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	12	12	23,6	9,4	6	12
SE.56L.500.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	23	12	23,6	9,4	6	12
SE.56L.500.6.EX.XXX.12	14"	12"	20,9	43,3	31,5	18,1	1,3	17,0	23	16	23,6	9,4	6	16
SE.56L.580.6.EX.XXX.12	12"	12"	20,9	35,4	27,6	15,7	1,3	17,0	23	12	23,6	9,4	6	12
SE.56L.580.6.EX.XXX.12	14"	12"	20,9	43,3	31,5	18,1	1,3	17,0	23	16	23,6	9,4	6	16
SE.56M.280.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.320.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.380.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.430.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.500.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.560.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.660.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.750.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8
SE.56M.840.4.EX.XXX.8	8"	8"	20,9	31,5	23,6	11,6	1,2	11,6	23	8	19,7	6,5	6	8

## Vertical installation on stand [in]



TM088931

SE pump on vertical stand

## Definitions

DN1	Pump inlet nominal diameter
DN2	Pump outlet nominal diameter
NH	Nr. of holes, on base plate
NHF	Nr. of holes, flange
DNH	Nr. of holes, outlet flange
SNH	Nr. of holes, inlet flange

Pump type	DN1	DN2	D2T	C	E	X6	X13	X14	X15	X16	X17	L1	L2	DC
SE.56H.420.4.60G.100	8"	4"	0.9	29	17.7	27.3	30.2	2.6	21	86.4	33.5	14.0	13.9	7.1
SE.56M.630.4.61G.200	8"	8"	1.2	32.4	19.7	27.3	30.2	4.6	21	87.9	34.8	14.0	13.9	11.6
SE.56L.430.6.61M.300	12"	12"	1.3	40.3	23.6	33.5	35.7	5.8	23.4	97.9	44.1	20.0	13.9	15.7
SE.56L.430.6.61M.300	14"	12"	1.3	40.3	23.6	33.5	35.7	5.8	23.4	97.9	44.1	21.5	21.5	15.7

Pump type	DN1	DN2	DNH (pcs)	DH	X18	X19	X131	X132	XDt2	XDc3	Elbow Kit PN	Elbow PN	Base PN
SE.56H.420.4.60G.100	8"	4"	8	0.7	33.8	8.7	15.1	6.5	1	11.7	93135885	93124672	92593742
SE.56M.630.4.61G.200	8"	8"	8	0.9	33.8	8.7	15.1	6.5	1	11.7	93135885	93124672	92593742
SE.56L.430.6.61M.300	12"	12"	12	0.9	39.6	10.7	17.8	8.7	1.2	17	92663187	97882712	92593745
SE.56L.430.6.61M.300	14"	12"	12	0.9	39.5	10.6	17.8	8.7	1.2	18.1	99155775	99155760	93227910

## Pump weights

Description	Net weight (lbs)
SE.56H.240.4.EX.60G.4	1956
SE.56H.240.4.EX.60G.4.1	1970
SE.56H.240.4.EX.60G.4.2	1965
SE.56H.240.4.EX.60G.6	1960
SE.56H.240.4.EX.60G.6.1	1974
SE.56H.240.4.EX.60G.6.2	1969
SE.56H.240.4.EX.60L.4	1910
SE.56H.240.4.EX.60L.4.1	1923
SE.56H.240.4.EX.60L.4.2	1918
SE.56H.240.4.EX.60L.6	1914
SE.56H.240.4.EX.60L.6.1	1927
SE.56H.240.4.EX.60L.6.2	1922
SE.56H.240.4.EX.61F.4	2053
SE.56H.240.4.EX.61F.4.1	2066
SE.56H.240.4.EX.61F.4.2	2061
SE.56H.240.4.EX.61F.6	2057
SE.56H.240.4.EX.61F.6.1	2070
SE.56H.240.4.EX.61F.6.2	2065
SE.56H.280.4.EX.60G.4	1958
SE.56H.280.4.EX.60G.4.1	1972
SE.56H.280.4.EX.60G.4.2	1967
SE.56H.280.4.EX.60G.6	1962
SE.56H.280.4.EX.60G.6.1	1976
SE.56H.280.4.EX.60G.6.2	1971
SE.56H.280.4.EX.60L.4	1912
SE.56H.280.4.EX.60L.4.1	1925
SE.56H.280.4.EX.60L.4.2	1920
SE.56H.280.4.EX.60L.6	1916
SE.56H.280.4.EX.60L.6.1	1929
SE.56H.280.4.EX.60L.6.2	1924
SE.56H.280.4.EX.61F.4	2055
SE.56H.280.4.EX.61F.4.1	2068
SE.56H.280.4.EX.61F.4.2	2063
SE.56H.280.4.EX.61F.6	2059
SE.56H.280.4.EX.61F.6.1	2072
SE.56H.280.4.EX.61F.6.2	2067
SE.56H.320.4.EX.60G.4	1960
SE.56H.320.4.EX.60G.4.1	1973
SE.56H.320.4.EX.60G.4.2	1968
SE.56H.320.4.EX.60G.6	1964
SE.56H.320.4.EX.60G.6.1	1977
SE.56H.320.4.EX.60G.6.2	1972
SE.56H.320.4.EX.60L.4	1913
SE.56H.320.4.EX.60L.4.1	1927
SE.56H.320.4.EX.60L.4.2	1922
SE.56H.320.4.EX.60L.6	1917
SE.56H.320.4.EX.60L.6.1	1931
SE.56H.320.4.EX.60L.6.2	1926
SE.56H.320.4.EX.61F.4	2056

Description	Net weight (lbs)
SE.56H.320.4.EX.61F.4.1	2070
SE.56H.320.4.EX.61F.4.2	2065
SE.56H.320.4.EX.61F.6	2060
SE.56H.320.4.EX.61F.6.1	2074
SE.56H.320.4.EX.61F.6.2	2069
SE.56H.380.4.EX.60G.4	1962
SE.56H.380.4.EX.60G.4.1	1975
SE.56H.380.4.EX.60G.4.2	1970
SE.56H.380.4.EX.60G.6	1966
SE.56H.380.4.EX.60G.6.1	1979
SE.56H.380.4.EX.60G.6.2	1974
SE.56H.380.4.EX.60L.4	1915
SE.56H.380.4.EX.60L.4.1	1929
SE.56H.380.4.EX.60L.4.2	1924
SE.56H.380.4.EX.60L.6	1919
SE.56H.380.4.EX.60L.6.1	1933
SE.56H.380.4.EX.60L.6.2	1928
SE.56H.380.4.EX.61F.4	2058
SE.56H.380.4.EX.61F.4.1	2071
SE.56H.380.4.EX.61F.4.2	2067
SE.56H.380.4.EX.61F.6	2062
SE.56H.380.4.EX.61F.6.1	2075
SE.56H.380.4.EX.61F.6.2	2071
SE.56H.430.4.EX.60G.4	1963
SE.56H.430.4.EX.60G.4.1	1977
SE.56H.430.4.EX.60G.4.2	1972
SE.56H.430.4.EX.60G.6	1967
SE.56H.430.4.EX.60G.6.1	1980
SE.56H.430.4.EX.60G.6.2	1976
SE.56H.430.4.EX.60L.4	1917
SE.56H.430.4.EX.60L.4.1	1930
SE.56H.430.4.EX.60L.4.2	1925
SE.56H.430.4.EX.60L.6	1921
SE.56H.430.4.EX.60L.6.1	1934
SE.56H.430.4.EX.60L.6.2	1929
SE.56H.430.4.EX.61F.4	2060
SE.56H.430.4.EX.61F.4.1	2073
SE.56H.430.4.EX.61F.4.2	2068
SE.56H.430.4.EX.61F.6	2064
SE.56H.430.4.EX.61F.6.1	2077
SE.56H.430.4.EX.61F.6.2	2072
SE.56H.500.4.EX.60G.4	1974
SE.56H.500.4.EX.60G.4.1	1988
SE.56H.500.4.EX.60G.4.2	1983
SE.56H.500.4.EX.60G.6	1978
SE.56H.500.4.EX.60G.6.1	1992
SE.56H.500.4.EX.60G.6.2	1987
SE.56H.500.4.EX.60L.4	1928
SE.56H.500.4.EX.60L.4.1	1941
SE.56H.500.4.EX.60L.4.2	1936
SE.56H.500.4.EX.60L.6	1932

Description	Net weight (lbs)
SE.56H.500.4.EX.60L.6.1	1945
SE.56H.500.4.EX.60L.6.2	1940
SE.56H.500.4.EX.61F.4	2071
SE.56H.500.4.EX.61F.4.1	2084
SE.56H.500.4.EX.61F.4.2	2079
SE.56H.500.4.EX.61F.6	2075
SE.56H.500.4.EX.61F.6.1	2088
SE.56H.500.4.EX.61F.6.2	2083
SE.56H.560.4.EX.60G.4	1976
SE.56H.560.4.EX.60G.4.1	1990
SE.56H.560.4.EX.60G.4.2	1985
SE.56H.560.4.EX.60G.6	1980
SE.56H.560.4.EX.60G.6.1	1993
SE.56H.560.4.EX.60G.6.2	1989
SE.56H.560.4.EX.60L.4	1930
SE.56H.560.4.EX.60L.4.1	1943
SE.56H.560.4.EX.60L.4.2	1938
SE.56H.560.4.EX.60L.6	1934
SE.56H.560.4.EX.60L.6.1	1947
SE.56H.560.4.EX.60L.6.2	1942
SE.56H.560.4.EX.61F.4	2073
SE.56H.560.4.EX.61F.4.1	2086
SE.56H.560.4.EX.61F.4.2	2081
SE.56H.560.4.EX.61F.6	2077
SE.56H.560.4.EX.61F.6.1	2090
SE.56H.560.4.EX.61F.6.2	2085
SE.56H.660.4.EX.60G.4	2105
SE.56H.660.4.EX.60G.4.1	2118
SE.56H.660.4.EX.60G.4.2	2113
SE.56H.660.4.EX.60G.6	2109
SE.56H.660.4.EX.60G.6.1	2122
SE.56H.660.4.EX.60G.6.2	2117
SE.56H.660.4.EX.60L.4	2088
SE.56H.660.4.EX.60L.4.1	2101
SE.56H.660.4.EX.60L.4.2	2096
SE.56H.660.4.EX.60L.6	2092
SE.56H.660.4.EX.60L.6.1	2105
SE.56H.660.4.EX.60L.6.2	2100
SE.56H.750.4.EX.60G.6	2185
SE.56H.750.4.EX.60G.6.1	2198
SE.56H.750.4.EX.60G.6.2	2194
SE.56H.750.4.EX.60L.6	2151
SE.56H.750.4.EX.60L.6.1	2164
SE.56H.750.4.EX.60L.6.2	2159
SE.56H.840.4.EX.60G.6	2187
SE.56H.840.4.EX.60G.6.1	2200
SE.56H.840.4.EX.60G.6.2	2195
SE.56H.840.4.EX.60L.6	2153
SE.56H.840.4.EX.60L.6.1	2166
SE.56H.840.4.EX.60L.6.2	2161
SE.56L.290.6.EX.60F.12	2459

Description	Net weight (lbs)
SE.56L.290.6.EX.60F.12.1	2472
SE.56L.290.6.EX.60F.12.2	2467
SE.56L.290.6.EX.60G.12	2407
SE.56L.290.6.EX.60G.12.1	2420
SE.56L.290.6.EX.60G.12.2	2415
SE.56L.290.6.EX.60L.12	2378
SE.56L.290.6.EX.60L.12.1	2391
SE.56L.290.6.EX.60L.12.2	2386
SE.56L.330.6.EX.60F.12	2460
SE.56L.330.6.EX.60F.12.1	2474
SE.56L.330.6.EX.60F.12.2	2469
SE.56L.330.6.EX.60G.12	2409
SE.56L.330.6.EX.60G.12.1	2422
SE.56L.330.6.EX.60G.12.2	2417
SE.56L.330.6.EX.60L.12	2380
SE.56L.330.6.EX.60L.12.1	2393
SE.56L.330.6.EX.60L.12.2	2388
SE.56L.380.6.EX.60F.12	2462
SE.56L.380.6.EX.60F.12.1	2475
SE.56L.380.6.EX.60F.12.2	2470
SE.56L.380.6.EX.60G.12	2410
SE.56L.380.6.EX.60G.12.1	2423
SE.56L.380.6.EX.60G.12.2	2418
SE.56L.380.6.EX.60L.12	2381
SE.56L.380.6.EX.60L.12.1	2394
SE.56L.380.6.EX.60L.12.2	2389
SE.56L.440.6.EX.60F.12	2463
SE.56L.440.6.EX.60F.12.1	2477
SE.56L.440.6.EX.60F.12.2	2472
SE.56L.440.6.EX.60G.12	2412
SE.56L.440.6.EX.60G.12.1	2425
SE.56L.440.6.EX.60G.12.2	2420
SE.56L.440.6.EX.60L.12	2383
SE.56L.440.6.EX.60L.12.1	2396
SE.56L.440.6.EX.60L.12.2	2391
SE.56L.500.6.EX.60G.12	2499
SE.56L.500.6.EX.60G.12	2492
SE.56L.500.6.EX.60G.12.1	2512
SE.56L.500.6.EX.60G.12.1	2505
SE.56L.500.6.EX.60G.12.2	2507
SE.56L.500.6.EX.60G.12.2	2501
SE.56L.500.6.EX.60L.12	2481
SE.56L.500.6.EX.60L.12	2475
SE.56L.500.6.EX.60L.12.1	2495
SE.56L.500.6.EX.60L.12.1	2488
SE.56L.500.6.EX.60L.12.2	2490
SE.56L.500.6.EX.60L.12.2	2483
SE.56L.500.6.EX.61F.12	2595
SE.56L.500.6.EX.61F.12	2589
SE.56L.500.6.EX.61F.12.1	2608
SE.56L.500.6.EX.61F.12.1	2602

Description	Net weight (lbs)
SE.56L.500.6.EX.61F.12.2	2604
SE.56L.500.6.EX.61F.12.2	2597
SE.56L.580.6.EX.60G.12	2500
SE.56L.580.6.EX.60G.12	2494
SE.56L.580.6.EX.60G.12.1	2513
SE.56L.580.6.EX.60G.12.1	2507
SE.56L.580.6.EX.60G.12.2	2509
SE.56L.580.6.EX.60G.12.2	2502
SE.56L.580.6.EX.60G.12.2	2509
SE.56L.580.6.EX.60L.12	2483
SE.56L.580.6.EX.60L.12	2476
SE.56L.580.6.EX.60L.12.1	2496
SE.56L.580.6.EX.60L.12.1	2490
SE.56L.580.6.EX.60L.12.2	2491
SE.56L.580.6.EX.60L.12.2	2485
SE.56L.580.6.EX.61F.12	2597
SE.56L.580.6.EX.61F.12	2590
SE.56L.580.6.EX.61F.12.1	2610
SE.56L.580.6.EX.61F.12.1	2603
SE.56L.580.6.EX.61F.12.2	2605
SE.56L.580.6.EX.61F.12.2	2599
SE.56M.280.4.EX.60G.8	2061
SE.56M.280.4.EX.60G.8.1	2074
SE.56M.280.4.EX.60G.8.2	2069
SE.56M.280.4.EX.60L.8	2015
SE.56M.280.4.EX.60L.8.1	2028
SE.56M.280.4.EX.60L.8.2	2023
SE.56M.280.4.EX.61F.8	2158
SE.56M.280.4.EX.61F.8.1	2171
SE.56M.280.4.EX.61F.8.2	2166
SE.56M.320.4.EX.60G.8	2062
SE.56M.320.4.EX.60G.8.1	2075
SE.56M.320.4.EX.60G.8.2	2070
SE.56M.320.4.EX.60L.8	2016
SE.56M.320.4.EX.60L.8.1	2029
SE.56M.320.4.EX.60L.8.2	2024
SE.56M.320.4.EX.61F.8	2159
SE.56M.320.4.EX.61F.8.1	2172
SE.56M.320.4.EX.61F.8.2	2167
SE.56M.380.4.EX.60G.8	2063
SE.56M.380.4.EX.60G.8.1	2077
SE.56M.380.4.EX.60G.8.2	2072
SE.56M.380.4.EX.60L.8	2017
SE.56M.380.4.EX.60L.8.1	2030
SE.56M.380.4.EX.60L.8.2	2025
SE.56M.380.4.EX.61F.8	2160
SE.56M.380.4.EX.61F.8.1	2173
SE.56M.380.4.EX.61F.8.2	2168
SE.56M.430.4.EX.60G.8	2064
SE.56M.430.4.EX.60G.8.1	2077
SE.56M.430.4.EX.60G.8.2	2073

Description	Net weight (lbs)
SE.56M.430.4.EX.60L.8	2018
SE.56M.430.4.EX.60L.8.1	2031
SE.56M.430.4.EX.60L.8.2	2026
SE.56M.430.4.EX.61F.8	2161
SE.56M.430.4.EX.61F.8.1	2174
SE.56M.430.4.EX.61F.8.2	2169
SE.56M.500.4.EX.60G.8	2065
SE.56M.500.4.EX.60G.8.1	2079
SE.56M.500.4.EX.60G.8.2	2074
SE.56M.500.4.EX.60L.8	2019
SE.56M.500.4.EX.60L.8.1	2032
SE.56M.500.4.EX.60L.8.2	2027
SE.56M.500.4.EX.61F.8	2162
SE.56M.500.4.EX.61F.8.1	2175
SE.56M.500.4.EX.61F.8.2	2170
SE.56M.560.4.EX.60G.8	2041
SE.56M.560.4.EX.60G.8.1	2054
SE.56M.560.4.EX.60G.8.2	2049
SE.56M.560.4.EX.60L.8	1995
SE.56M.560.4.EX.60L.8.1	2008
SE.56M.560.4.EX.60L.8.2	2003
SE.56M.560.4.EX.61F.8	2138
SE.56M.560.4.EX.61F.8.1	2151
SE.56M.560.4.EX.61F.8.2	2146
SE.56M.660.4.EX.60G.8	2169
SE.56M.660.4.EX.60G.8.1	2183
SE.56M.660.4.EX.60G.8.2	2178
SE.56M.660.4.EX.60L.8	2152
SE.56M.660.4.EX.60L.8.1	2165
SE.56M.660.4.EX.60L.8.2	2160
SE.56M.660.4.EX.61G.8	2065
SE.56M.750.4.EX.60G.8	2205
SE.56M.750.4.EX.60G.8.1	2219
SE.56M.750.4.EX.60G.8.2	2214
SE.56M.750.4.EX.60L.8	2171
SE.56M.750.4.EX.60L.8.1	2184
SE.56M.750.4.EX.60L.8.2	2179
SE.56M.840.4.EX.60G.8	2207
SE.56M.840.4.EX.60G.8.1	2220
SE.56M.840.4.EX.60G.8.2	2215
SE.56M.840.4.EX.60L.8	2172
SE.56M.840.4.EX.60L.8.1	2185
SE.56M.840.4.EX.60L.8.2	2180
SL.56H.240.4.EX.60G.4	1635
SL.56H.240.4.EX.60G.4.1	1648
SL.56H.240.4.EX.60G.4.2	1643
SL.56H.240.4.EX.60G.6	1639
SL.56H.240.4.EX.60G.6.1	1652
SL.56H.240.4.EX.60G.6.2	1647
SL.56H.240.4.EX.60L.4	1588
SL.56H.240.4.EX.60L.4.1	1602

Description	Net weight (lbs)
SL.56H.240.4.EX.60L.4.2	1597
SL.56H.240.4.EX.60L.6	1592
SL.56H.240.4.EX.60L.6.1	1606
SL.56H.240.4.EX.60L.6.2	1601
SL.56H.240.4.EX.61F.4	1731
SL.56H.240.4.EX.61F.4.1	1745
SL.56H.240.4.EX.61F.4.2	1740
SL.56H.240.4.EX.61F.6	1735
SL.56H.240.4.EX.61F.6.1	1749
SL.56H.240.4.EX.61F.6.2	1744
SL.56H.280.4.EX.60G.4	1637
SL.56H.280.4.EX.60G.4.1	1650
SL.56H.280.4.EX.60G.4.2	1645
SL.56H.280.4.EX.60G.6	1641
SL.56H.280.4.EX.60G.6.1	1654
SL.56H.280.4.EX.60G.6.2	1649
SL.56H.280.4.EX.60L.4	1590
SL.56H.280.4.EX.60L.4.1	1604
SL.56H.280.4.EX.60L.4.2	1599
SL.56H.280.4.EX.60L.6	1594
SL.56H.280.4.EX.60L.6.1	1608
SL.56H.280.4.EX.60L.6.2	1603
SL.56H.280.4.EX.61F.4	1733
SL.56H.280.4.EX.61F.4.1	1747
SL.56H.280.4.EX.61F.4.2	1742
SL.56H.280.4.EX.61F.6	1737
SL.56H.280.4.EX.61F.6.1	1751
SL.56H.280.4.EX.61F.6.2	1746
SL.56H.320.4.EX.60G.4	1638
SL.56H.320.4.EX.60G.4.1	1651
SL.56H.320.4.EX.60G.4.2	1646
SL.56H.320.4.EX.60G.6	1642
SL.56H.320.4.EX.60G.6.1	1655
SL.56H.320.4.EX.60G.6.2	1650
SL.56H.320.4.EX.60L.4	1592
SL.56H.320.4.EX.60L.4.1	1605
SL.56H.320.4.EX.60L.4.2	1600
SL.56H.320.4.EX.60L.6	1596
SL.56H.320.4.EX.60L.6.1	1609
SL.56H.320.4.EX.60L.6.2	1604
SL.56H.320.4.EX.61F.4	1735
SL.56H.320.4.EX.61F.4.1	1748
SL.56H.320.4.EX.61F.4.2	1743
SL.56H.320.4.EX.61F.6	1739
SL.56H.320.4.EX.61F.6.1	1752
SL.56H.320.4.EX.61F.6.2	1747
SL.56H.380.4.EX.60G.4	1640
SL.56H.380.4.EX.60G.4.1	1653
SL.56H.380.4.EX.60G.4.2	1648
SL.56H.380.4.EX.60G.6	1644
SL.56H.380.4.EX.60G.6.1	1657

Description	Net weight (lbs)
SL.56H.380.4.EX.60G.6.2	1652
SL.56H.380.4.EX.60L.4	1594
SL.56H.380.4.EX.60L.4.1	1607
SL.56H.380.4.EX.60L.4.2	1602
SL.56H.380.4.EX.60L.6	1598
SL.56H.380.4.EX.60L.6.1	1611
SL.56H.380.4.EX.60L.6.2	1606
SL.56H.380.4.EX.61F.4	1737
SL.56H.380.4.EX.61F.4.1	1750
SL.56H.380.4.EX.61F.4.2	1745
SL.56H.380.4.EX.61F.6	1741
SL.56H.380.4.EX.61F.6.1	1754
SL.56H.380.4.EX.61F.6.2	1749
SL.56H.430.4.EX.60G.4	1642
SL.56H.430.4.EX.60G.4.1	1655
SL.56H.430.4.EX.60G.4.2	1650
SL.56H.430.4.EX.60G.6	1645
SL.56H.430.4.EX.60G.6.1	1659
SL.56H.430.4.EX.60G.6.2	1654
SL.56H.430.4.EX.60L.4	1595
SL.56H.430.4.EX.60L.4.1	1608
SL.56H.430.4.EX.60L.4.2	1603
SL.56H.430.4.EX.60L.6	1599
SL.56H.430.4.EX.60L.6.1	1612
SL.56H.430.4.EX.60L.6.2	1607
SL.56H.430.4.EX.61F.4	1738
SL.56H.430.4.EX.61F.4.1	1752
SL.56H.430.4.EX.61F.4.2	1747
SL.56H.430.4.EX.61F.6	1742
SL.56H.430.4.EX.61F.6.1	1755
SL.56H.430.4.EX.61F.6.2	1751
SL.56H.500.4.EX.60G.4	1653
SL.56H.500.4.EX.60G.4.1	1666
SL.56H.500.4.EX.60G.4.2	1661
SL.56H.500.4.EX.60G.6	1657
SL.56H.500.4.EX.60G.6.1	1670
SL.56H.500.4.EX.60G.6.2	1665
SL.56H.500.4.EX.60L.4	1606
SL.56H.500.4.EX.60L.4.1	1620
SL.56H.500.4.EX.60L.4.2	1615
SL.56H.500.4.EX.60L.6	1610
SL.56H.500.4.EX.60L.6.1	1624
SL.56H.500.4.EX.60L.6.2	1619
SL.56H.500.4.EX.61F.4	1749
SL.56H.500.4.EX.61F.4.1	1763
SL.56H.500.4.EX.61F.4.2	1758
SL.56H.500.4.EX.61F.6	1753
SL.56H.500.4.EX.61F.6.1	1767
SL.56H.500.4.EX.61F.6.2	1762
SL.56H.560.4.EX.60G.4	1655
SL.56H.560.4.EX.60G.4.1	1668

Description	Net weight (lbs)
SL.56H.560.4.EX.60G.4.2	1663
SL.56H.560.4.EX.60G.6	1658
SL.56H.560.4.EX.60G.6.1	1672
SL.56H.560.4.EX.60G.6.2	1667
SL.56H.560.4.EX.60L.4	1608
SL.56H.560.4.EX.60L.4.1	1621
SL.56H.560.4.EX.60L.4.2	1616
SL.56H.560.4.EX.60L.6	1612
SL.56H.560.4.EX.60L.6.1	1625
SL.56H.560.4.EX.60L.6.2	1620
SL.56H.560.4.EX.61F.4	1751
SL.56H.560.4.EX.61F.4.1	1765
SL.56H.560.4.EX.61F.4.2	1760
SL.56H.560.4.EX.61F.6	1755
SL.56H.560.4.EX.61F.6.1	1768
SL.56H.560.4.EX.61F.6.2	1764
SL.56H.660.4.EX.60G.4	1783
SL.56H.660.4.EX.60G.4.1	1797
SL.56H.660.4.EX.60G.4.2	1792
SL.56H.660.4.EX.60G.6	1787
SL.56H.660.4.EX.60G.6.1	1801
SL.56H.660.4.EX.60G.6.2	1796
SL.56H.660.4.EX.60L.4	1766
SL.56H.660.4.EX.60L.4.1	1779
SL.56H.660.4.EX.60L.4.2	1774
SL.56H.660.4.EX.60L.6	1770
SL.56H.660.4.EX.60L.6.1	1783
SL.56H.660.4.EX.60L.6.2	1778
SL.56H.750.4.EX.60G.6	1866
SL.56H.750.4.EX.60G.6.1	1879
SL.56H.750.4.EX.60G.6.2	1874
SL.56H.750.4.EX.60L.6	1831
SL.56H.750.4.EX.60L.6.1	1844
SL.56H.750.4.EX.60L.6.2	1840
SL.56H.840.4.EX.60G.6	1867
SL.56H.840.4.EX.60G.6.1	1881
SL.56H.840.4.EX.60G.6.2	1876
SL.56H.840.4.EX.60L.6	1833
SL.56H.840.4.EX.60L.6.1	1846
SL.56H.840.4.EX.60L.6.2	1841
SL.56L.290.6.EX.60F.12	2110
SL.56L.290.6.EX.60F.12.1	2123
SL.56L.290.6.EX.60F.12.2	2118
SL.56L.290.6.EX.60G.12	2058
SL.56L.290.6.EX.60G.12.1	2071
SL.56L.290.6.EX.60G.12.2	2067
SL.56L.290.6.EX.60L.12	2029
SL.56L.290.6.EX.60L.12.1	2042
SL.56L.290.6.EX.60L.12.2	2038
SL.56L.330.6.EX.60F.12	2111
SL.56L.330.6.EX.60F.12.1	2125

Description	Net weight (lbs)
SL.56L.330.6.EX.60F.12.2	2120
SL.56L.330.6.EX.60G.12	2060
SL.56L.330.6.EX.60G.12.1	2073
SL.56L.330.6.EX.60G.12.2	2068
SL.56L.330.6.EX.60L.12	2031
SL.56L.330.6.EX.60L.12.1	2044
SL.56L.330.6.EX.60L.12.2	2039
SL.56L.380.6.EX.60F.12	2113
SL.56L.380.6.EX.60F.12.1	2126
SL.56L.380.6.EX.60F.12.2	2121
SL.56L.380.6.EX.60G.12	2061
SL.56L.380.6.EX.60G.12.1	2074
SL.56L.380.6.EX.60G.12.2	2069
SL.56L.380.6.EX.60L.12	2032
SL.56L.380.6.EX.60L.12.1	2045
SL.56L.380.6.EX.60L.12.2	2040
SL.56L.440.6.EX.60F.12	2114
SL.56L.440.6.EX.60F.12.1	2128
SL.56L.440.6.EX.60F.12.2	2123
SL.56L.440.6.EX.60G.12	2063
SL.56L.440.6.EX.60G.12.1	2076
SL.56L.440.6.EX.60G.12.2	2071
SL.56L.440.6.EX.60L.12	2034
SL.56L.440.6.EX.60L.12.1	2047
SL.56L.440.6.EX.60L.12.2	2042
SL.56L.500.6.EX.60G.12	2150
SL.56L.500.6.EX.60G.12.1	2163
SL.56L.500.6.EX.60G.12.2	2158
SL.56L.500.6.EX.60L.12	2132
SL.56L.500.6.EX.60L.12.1	2146
SL.56L.500.6.EX.60L.12.2	2141
SL.56L.500.6.EX.61F.12	2247
SL.56L.500.6.EX.61F.12.1	2260
SL.56L.500.6.EX.61F.12.2	2255
SL.56L.580.6.EX.60G.12	2151
SL.56L.580.6.EX.60G.12.1	2165
SL.56L.580.6.EX.60G.12.2	2160
SL.56L.580.6.EX.60L.12	2134
SL.56L.580.6.EX.60L.12.1	2147
SL.56L.580.6.EX.60L.12.2	2142
SL.56L.580.6.EX.61F.12	2248
SL.56L.580.6.EX.61F.12.1	2261
SL.56L.580.6.EX.61F.12.2	2256
SL.56M.280.4.EX.60G.8	1739
SL.56M.280.4.EX.60G.8.1	1753
SL.56M.280.4.EX.60G.8.2	1748
SL.56M.280.4.EX.60L.8	1693
SL.56M.280.4.EX.60L.8.1	1706
SL.56M.280.4.EX.60L.8.2	1701
SL.56M.280.4.EX.61F.8	1836
SL.56M.280.4.EX.61F.8.1	1849

Description	Net weight (lbs)
SL.56M.280.4.EX.61F.8.2	1844
SL.56M.320.4.EX.60G.8	1740
SL.56M.320.4.EX.60G.8.1	1753
SL.56M.320.4.EX.60G.8.2	1749
SL.56M.320.4.EX.60L.8	1694
SL.56M.320.4.EX.60L.8.1	1707
SL.56M.320.4.EX.60L.8.2	1702
SL.56M.320.4.EX.61F.8	1837
SL.56M.320.4.EX.61F.8.1	1850
SL.56M.320.4.EX.61F.8.2	1845
SL.56M.380.4.EX.60G.8	1742
SL.56M.380.4.EX.60G.8.1	1755
SL.56M.380.4.EX.60G.8.2	1750
SL.56M.380.4.EX.60L.8	1695
SL.56M.380.4.EX.60L.8.1	1708
SL.56M.380.4.EX.60L.8.2	1704
SL.56M.380.4.EX.61F.8	1838
SL.56M.380.4.EX.61F.8.1	1852
SL.56M.380.4.EX.61F.8.2	1847
SL.56M.430.4.EX.60G.8	1742
SL.56M.430.4.EX.60G.8.1	1756
SL.56M.430.4.EX.60G.8.2	1751
SL.56M.430.4.EX.60L.8	1696
SL.56M.430.4.EX.60L.8.1	1709
SL.56M.430.4.EX.60L.8.2	1704
SL.56M.430.4.EX.61F.8	1839
SL.56M.430.4.EX.61F.8.1	1852
SL.56M.430.4.EX.61F.8.2	1848
SL.56M.500.4.EX.60G.8	1744
SL.56M.500.4.EX.60G.8.1	1757
SL.56M.500.4.EX.60G.8.2	1752
SL.56M.500.4.EX.60L.8	1697
SL.56M.500.4.EX.60L.8.1	1710
SL.56M.500.4.EX.60L.8.2	1706
SL.56M.500.4.EX.61F.8	1840
SL.56M.500.4.EX.61F.8.1	1854
SL.56M.500.4.EX.61F.8.2	1849
SL.56M.560.4.EX.60G.8	1719
SL.56M.560.4.EX.60G.8.1	1733
SL.56M.560.4.EX.60G.8.2	1728
SL.56M.560.4.EX.60L.8	1673
SL.56M.560.4.EX.60L.8.1	1686
SL.56M.560.4.EX.60L.8.2	1681
SL.56M.560.4.EX.61F.8	1816
SL.56M.560.4.EX.61F.8.1	1829
SL.56M.560.4.EX.61F.8.2	1824
SL.56M.660.4.EX.60G.8	1848
SL.56M.660.4.EX.60G.8.1	1861
SL.56M.660.4.EX.60G.8.2	1856
SL.56M.660.4.EX.60L.8	1830
SL.56M.660.4.EX.60L.8.1	1844

Description	Net weight (lbs)
SL.56M.660.4.EX.60L.8.2	1839
SL.56M.660.4.EX.61G.8	1743
SL.56M.750.4.EX.60G.8	1884
SL.56M.750.4.EX.60G.8.1	1897
SL.56M.750.4.EX.60G.8.2	1892
SL.56M.750.4.EX.60L.8	1849
SL.56M.750.4.EX.60L.8.1	1862
SL.56M.750.4.EX.60L.8.2	1857
SL.56M.840.4.EX.60G.8	1885
SL.56M.840.4.EX.60G.8.1	1898
SL.56M.840.4.EX.60G.8.2	1893
SL.56M.840.4.EX.60L.8	1850
SL.56M.840.4.EX.60L.8.1	1864
SL.56M.840.4.EX.60L.8.2	1859

## 13. Grundfos Product Center

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

From the international view, you can select your specific country to view the product range available to you.

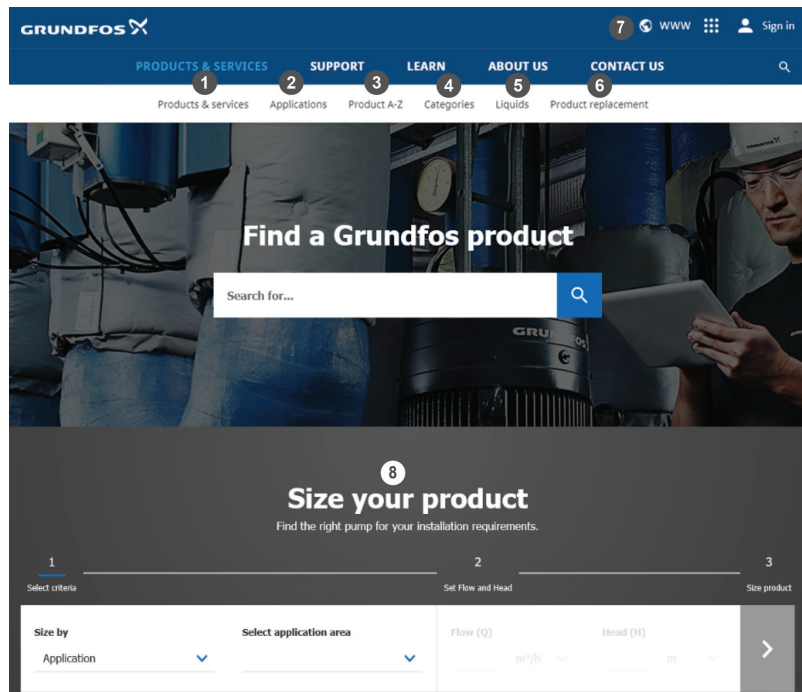
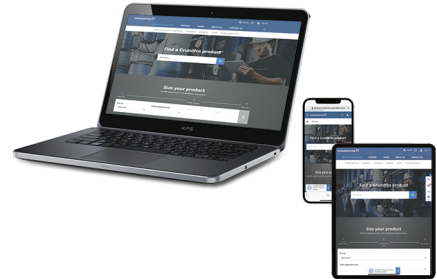
International view: <http://product-selection.grundfos.com>

### All the information you need in one place

Performance curves, technical specifications, pictures, dimensional drawings, motor curves, wiring diagrams, spare parts, service kits, 3D drawings, documents, system parts. The Product Center displays any recent and saved items - including complete projects - right on the main page.

### Downloads

On the product pages, you can download installation and operating instructions, data booklets, service instructions, etc., in PDF format.



When you select your country, you will see the menus below. Note that some menus may not be available depending on the country.

Example: <https://product-selection.grundfos.com/uk>

Pos.	Description
1	<b>Products &amp; services</b> enables you to find products and documents by typing a product number or name into the search field.
2	<b>Applications</b> enables you to choose an application to see how Grundfos can help you design and optimize your system.
3	<b>Products A-Z</b> enables you to look through a list of all the Grundfos products.
4	<b>Categories</b> enables you to look for a product category.
5	<b>Liquids</b> enables you to find pumps designed for aggressive, flammable or other special liquids.
6	<b>Product replacement</b> enables you to find a suitable replacement.
7	<b>WWW</b> enables you to select the country, which changes the language, the available product range and the structure of the website.
8	<b>Sizing</b> enables you to size a product based on your application and operating conditions.

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**GRUNDFOS Holding A/S**  
Poul Due Jensens Vej 7  
DK-8850 Bjerringbro  
Tel: +45 87 50 14 00  
[www.grundfos.com](http://www.grundfos.com)

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