GRUNDFOS

Submittal Data

PROJECT:		UNIT TAG:		QUANTITY:	
		TYPE OF SERVICE:			
REPRESENTATIVE:		SUBMITTED BY:		DATE:	
ENGINEER:		APPROVED BY:		DATE:	
CONTRACTOR:		ORDER NO.:		DATE:	

SLV.30.A30.30.4.60J.C

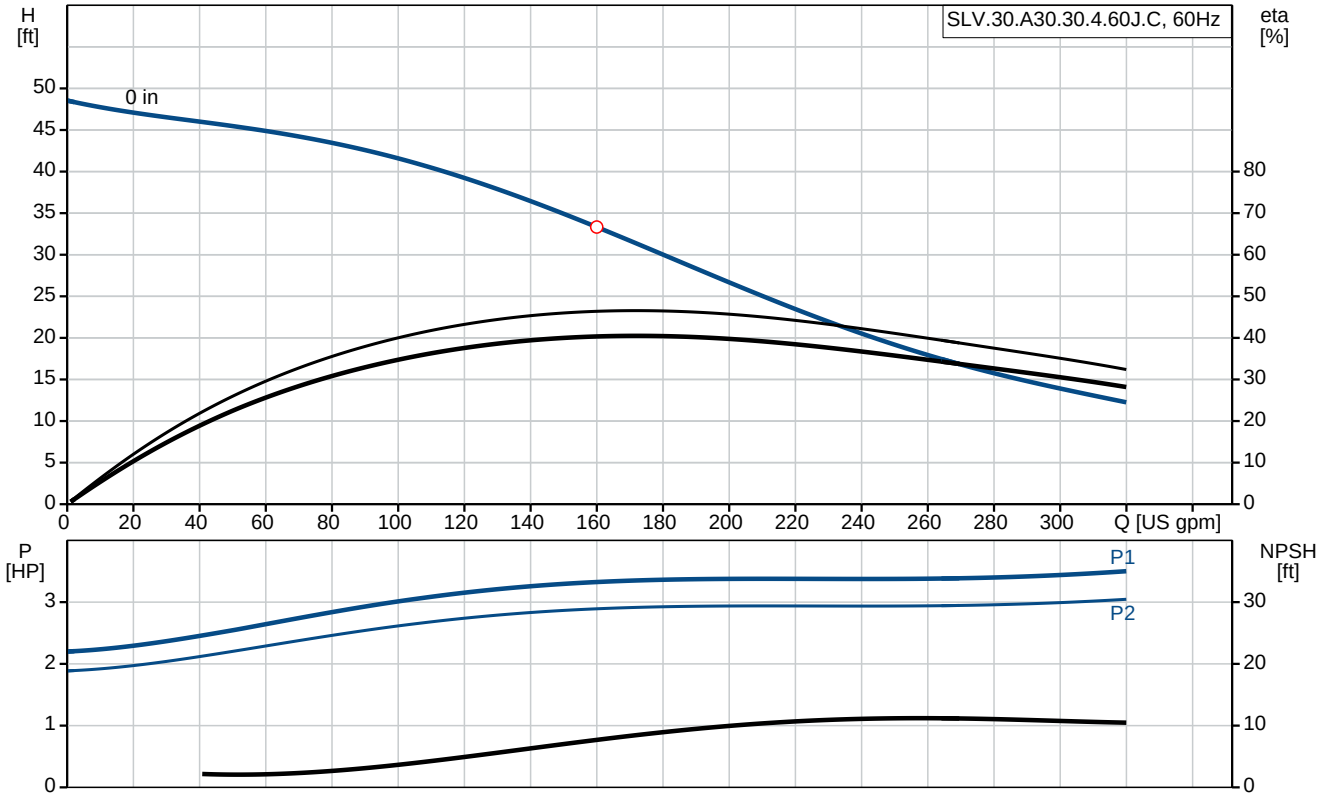
Sewage pumps

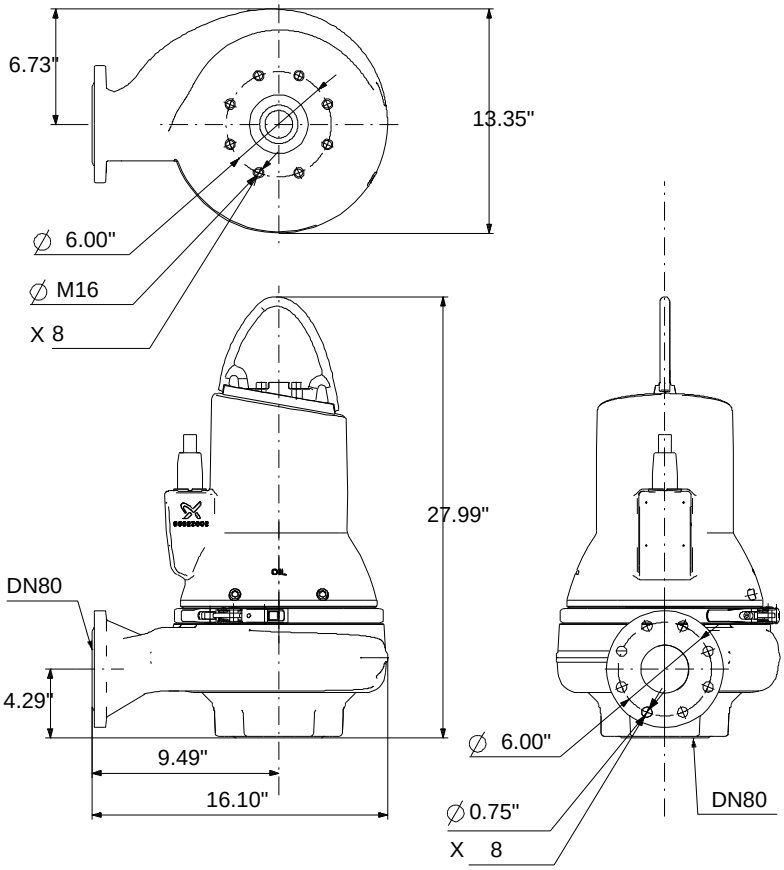
Product photo could vary from the actual product

Conditions of Service	
Flow:	
Head:	
Efficiency:	
Liquid:	any viscous fluid
Temperature:	
NPSH required:	ft
Viscosity:	
Specific Gravity:	1.000

Pump Data	
Maximum ambient temperature:	104 °F
Approvals:	CSA
Flange standard:	ANSI
Product number:	99034501

Motor Data	
Rated voltage:	208-230 V
Main frequency:	60 Hz
Number of poles:	4
Enclosure class:	IP68
Insulation class:	H
Motor protection:	THERMAL SWITCH
Motor_efficiency:	87.0 %





160x160

Materials:

Pump housing:	EN-GJL-250
Impeller:	EN-GJL-250
Motor:	EN-GJL-250

Company name:
Created by:
Phone:

Date: 2/22/2018

Tender Text

Product photo could vary from the actual product

Product No.: 99034501
SLV.30.A30.30.4.60J.C

Controls:

Moisture sensor:	with moisture sensors
Water-in-oil sensor:	without water-in-oil sensor

Liquid:

Pumped liquid:	any viscous fluid
Maximum liquid temperature:	104 °F
Density:	62.29 lb/ft³

Technical:

Type of impeller:	Super Vortex
Maximum particle size:	3 1/8 in
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	CSA
Curve tolerance:	ANSI/HI11.6:2012 3B2

Materials:

Pump housing:	EN-GJL-250
Impeller:	EN-GJL-250
Motor:	EN-GJL-250

Installation:

Maximum ambient temperature:	104 °F
Flange standard:	ANSI
Pump inlet:	80
Pump outlet:	80
Pressure stage:	PN 10
Maximum installation depth:	65.62 ft
Frame range:	B

Electrical data:

Power input - P1:	2.7 kW
Rated power - P2:	3 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230 V
Voltage tolerance:	+10/-10 %
Max starts per. hour:	20
Rated current:	9.8-10.6 A

Starting current:	70.3 A
Cos phi - power factor:	0.76
Cos phi - p.f. at 3/4 load:	0.70
Cos phi - p.f. at 1/2 load:	0.59
Rated speed:	1761 rpm
Motor efficiency at full load:	87.0 %
Motor efficiency at 3/4 load:	86.6 %
Motor efficiency at 1/2 load:	84.7 %
Number of poles:	4
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	H
Explosion proof:	no
Length of cable:	49 ft
Cable type:	SEOOW 600V

Others:

Net weight:	224 lb

Company name:
Created by:
Phone:

Date: 2/22/2018

Position	Count	Description
	1	**SLV.30.A30.30.4.60J.C**

Product photo could vary from the actual product

Product No.: 99034501

Non-self-priming, single-stage, centrifugal pump designed for handling wastewater, process water and unscreened raw sewage.

The pump is designed for intermittent and continous operations in submerged installation. The efficient SuperVortex impeller provides passage of long fibres and solids up to 3 1/8 in and is suitable for wastewater with a dry matter content of up to 5 %.

A unique stainless-steel clamp assembling system enables quick and easy disassembly of the pump from the motor unit for service and inspection. No special tools are required. Pipework connection is via a ANSI flange.

Further product details

Typical application is transfer of liquid, such as:

- large quantities of drainage and surface water
- domestic wastewater with discharge from toilets
- wastewater from commercial buildings without discharge from toilets
- sludge-containing industrial wastewater.

The pump is ideal for pumping of the above liquids from for instance:

- municipal network pumping stations
- public buildings
- blocks of flats
- factories/industry.

The pump is suitable for both temporary and permanent installation either as free-standing on ring stand or on an auto-coupling system.

Pump

The pump housing, motor top and impeller are made of cast iron (EN-GJL-250).

The SuperVortex impeller is a symmetrical multivane winglet impeller. The design ensures a flow entirely outside the impeller providing limited contact between the impeller and the pumped liquid. This ensures that long fibres, rags and more passes freely through the pump without getting caught and without causing clogging or jamming.

The shaft seal consists of two mechanical seals that ensure a reliable sealing between the pumped liquid and motor. The shaft seals are incorporated in a single-unit cartridge shaft seal system that is easy to replace in the field without use of special tools.

Position	Count	Description

The combination of the primary and secondary seals in a cartridge shaft seal system results in a shorter assembly length compared to conventional shaft seals.

- Primary seal: Silicon carbide/silicon carbide (SiC/SiC)
- Secondary seal: Carbon/Ceramics

The shaft seal is bidirectional, meaning it operates correctly in case of backflow through the pump.

The pump is approved according to CSA.

Motor

The motor is a watertight, totally encapsulated motor supplied with a 49 ft power cable. The stainless steel plug is fastened with a union nut. This nut and the O-rings provide sealing against ingress of the liquid.

The plug is polyurethane-embedded, ensuring a watertight and durable seal around the leads of the cable. This prevents the ingress of water into the motor through the cable in case of cable breakage or adverse handling in connection with installation or service.

A compact motor construction with a short shaft reduces vibrations, resulting in an increased efficiency and lifetime of the shaft seal and ball bearings.

The motor features built-in thermal protection to protect the motor against overheating and ensure the reliability.

The pump is equipped with the following sensor(s):

- A digital moisture switch that is fitted in the motor chamber monitors whether water enters the motor chamber. If moisture is detected in the motor chamber, the switch will trip and send a warning to the sensor module.

The pump is designed for speed-controlled operation to keep the energy consumption at a minimum. To avoid the risk of sedimentation in the pipes, we recommend that you operate the speed-controlled pump within a speed range of 30 % to 100 % and at a flow rate above 1 m/s.

Controls:

Moisture sensor:	with moisture sensors
Water-in-oil sensor:	without water-in-oil sensor

Liquid:

Pumped liquid:	any viscous fluid
Maximum liquid temperature:	104 °F
Density:	62.29 lb/ft³

Technical:

Type of impeller:	Super Vortex
Maximum particle size:	3 1/8 in
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	CSA
Curve tolerance:	ANSI/HI11.6:2012 3B2

Materials:

Pump housing:	EN-GJL-250
Impeller:	EN-GJL-250
Motor:	EN-GJL-250

Installation:

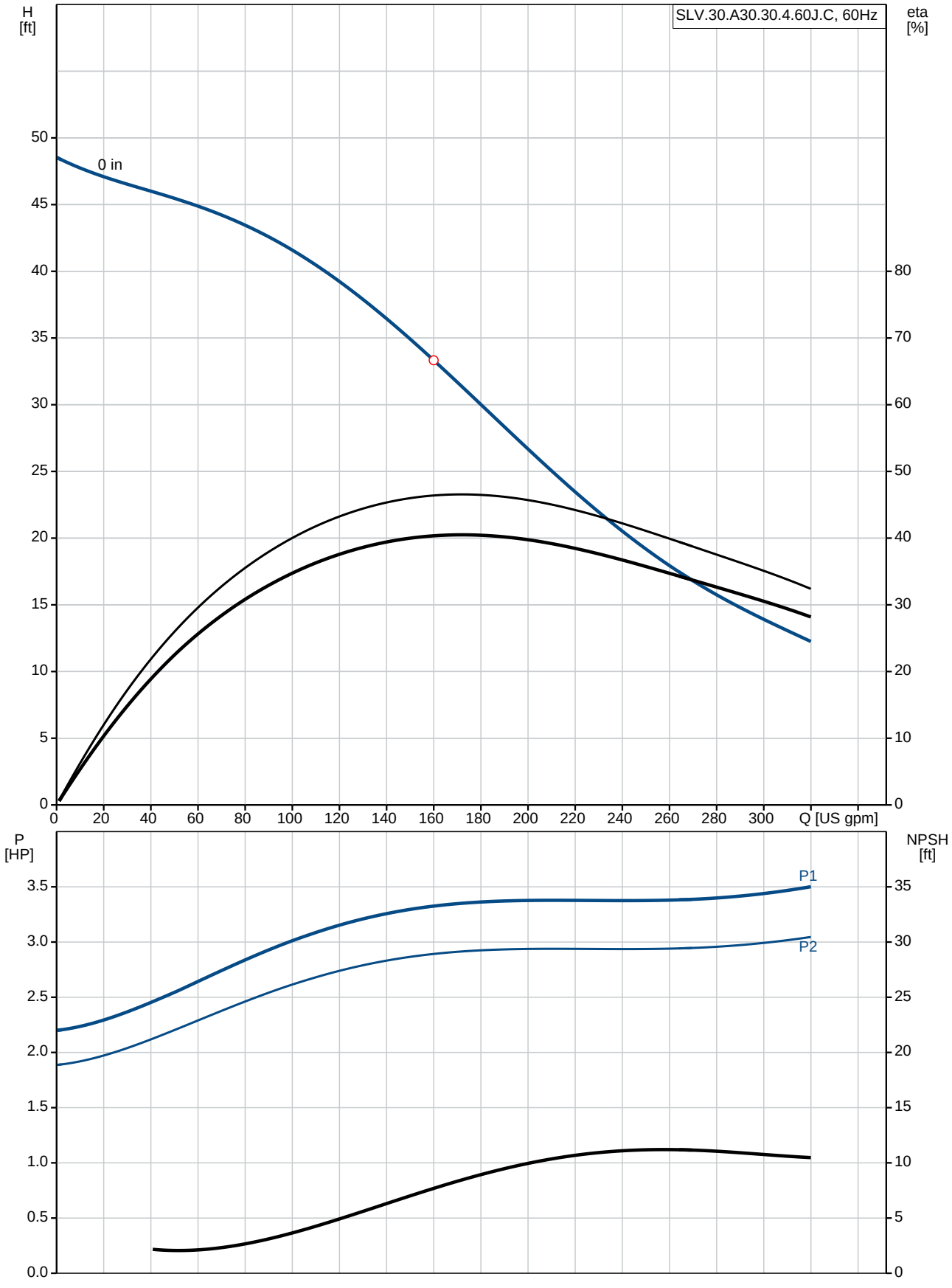
Maximum ambient temperature:	104 °F
Flange standard:	ANSI
Pump inlet:	80
Pump outlet:	80

Position	Count	Description	
		Pressure stage:	PN 10
		Maximum installation depth:	65.62 ft
		Frame range:	B
		Electrical data:	
		Power input - P1:	2.7 kW
		Rated power - P2:	3 HP
		Main frequency:	60 Hz
		Rated voltage:	3 x 208-230 V
		Voltage tolerance:	+10/-10 %
		Max starts per. hour:	20
		Rated current:	9.8-10.6 A
		Starting current:	70.3 A
		Cos phi - power factor:	0.76
		Cos phi - p.f. at 3/4 load:	0.70
		Cos phi - p.f. at 1/2 load:	0.59
		Rated speed:	1761 rpm
		Motor efficiency at full load:	87.0 %
		Motor efficiency at 3/4 load:	86.6 %
		Motor efficiency at 1/2 load:	84.7 %
		Number of poles:	4
		Start. method:	direct-on-line
		Enclosure class (IEC 34-5):	IP68
		Insulation class (IEC 85):	H
		Explosion proof:	no
		Length of cable:	49 ft
		Cable type:	SEOOW 600V
		Others:	
		Net weight:	224 lb

Company name:
Created by:
Phone:

Date: 2/22/2018

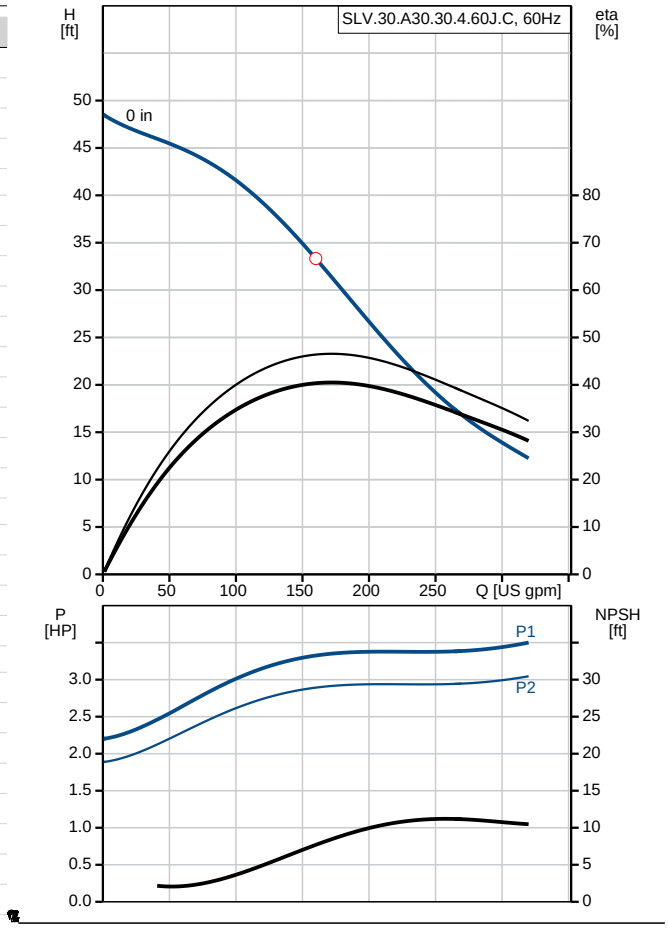
99034501 SLV.30.A30.30.4.60J.C 60 Hz

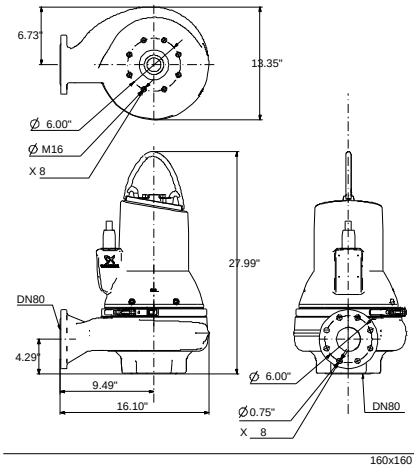


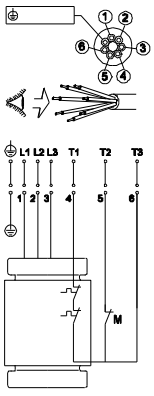
Company name:
Created by:
Phone:

Date: 2/22/2018

Description	Value
General information:	
Product name:	SLV.30.A30.30.4.60J.C
Product No.:	99034501
EAN:	5712605499466
Technical:	
Max flow:	317 US gpm
Head max:	47.25 ft
Type of impeller:	Super Vortex
Maximum particle size:	3 1/8 in
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	CSA
Curve tolerance:	ANSI/HI11.6:2012 3B2
Cooling jacket:	without cooling jacket
Materials:	
Pump housing:	EN-GJL-250
Impeller:	EN-GJL-250
Motor:	EN-GJL-250
Installation:	
Maximum ambient temperature:	104 °F
Flange standard:	ANSI
Pump inlet:	80
Pump outlet:	80
Pressure stage:	PN 10
Maximum installation depth:	65.62 ft
Inst dry/wet:	SUBMERGED
Installation:	Vertical
Frame range:	B
Liquid:	
Pumped liquid:	any viscous fluid
Maximum liquid temperature:	104 °F
Density:	62.29 lb/ft³
Electrical data:	
Power input - P1:	2.7 kW
Rated power - P2:	3 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230 V
Voltage tolerance:	+10/-10 %
Max starts per. hour:	20
Rated current:	9.8-10.6 A
Starting current:	70.3 A
Cos phi - power factor:	0.76
Cos phi - p.f. at 3/4 load:	0.70
Cos phi - p.f. at 1/2 load:	0.59
Rated speed:	1761 rpm
Motor efficiency at full load:	87.0 %
Motor efficiency at 3/4 load:	86.6 %
Motor efficiency at 1/2 load:	84.7 %
Number of poles:	4
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	H
Explosion proof:	no
Motor protection:	THERMAL SWITCH







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Company name:
Created by:
Phone:

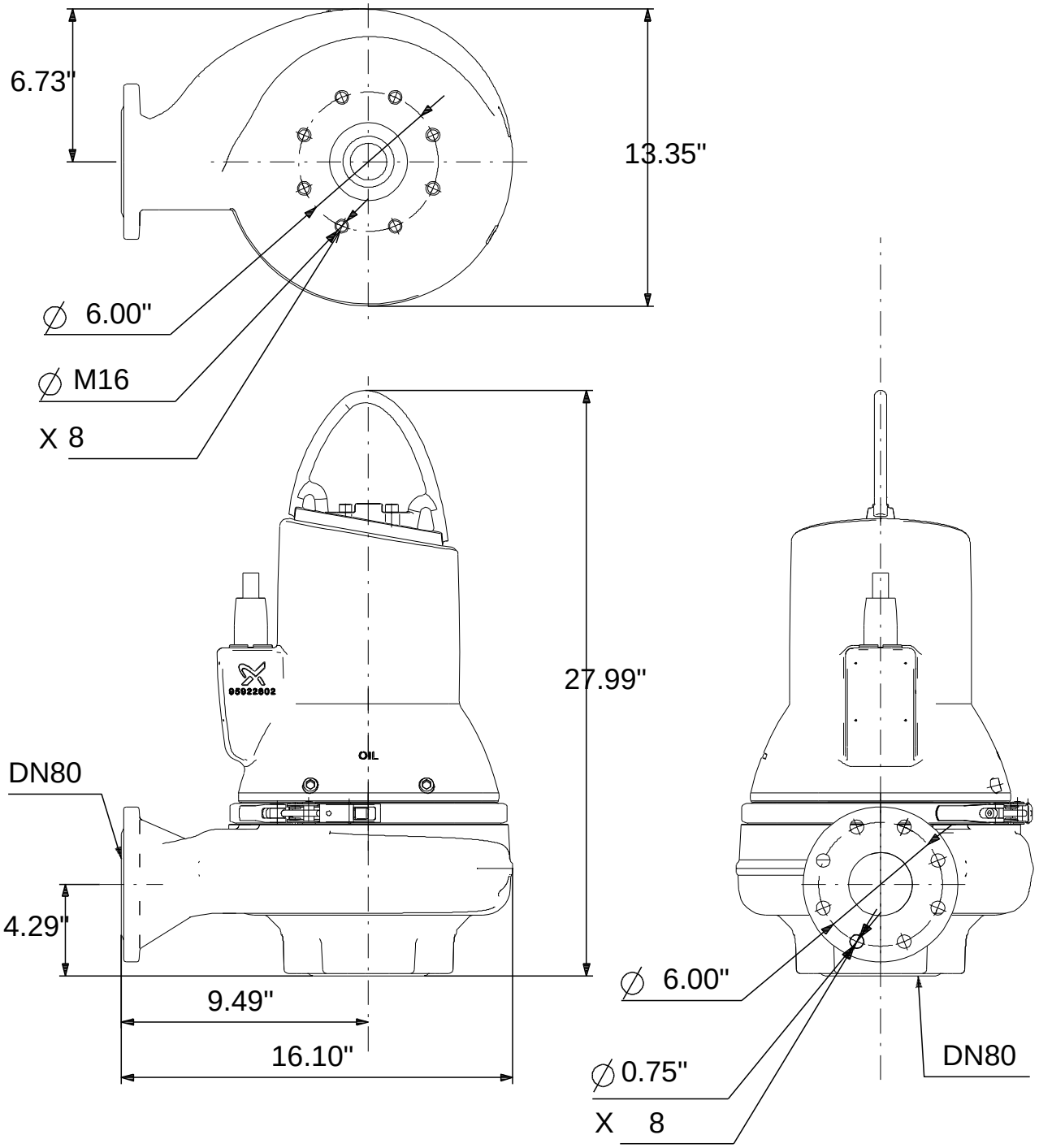
Date: 2/22/2018

Description	Value
Length of cable:	49 ft
Cable type:	SEOOW 600V
Controls:	
Additional I/O:	N
Moisture sensor:	with moisture sensors
Water-in-oil sensor:	without water-in-oil sensor
Others:	
Net weight:	224 lb

Company name:
Created by:
Phone:

Date: 2/22/2018

99034501 SLV.30.A30.30.4.60J.C 60 Hz



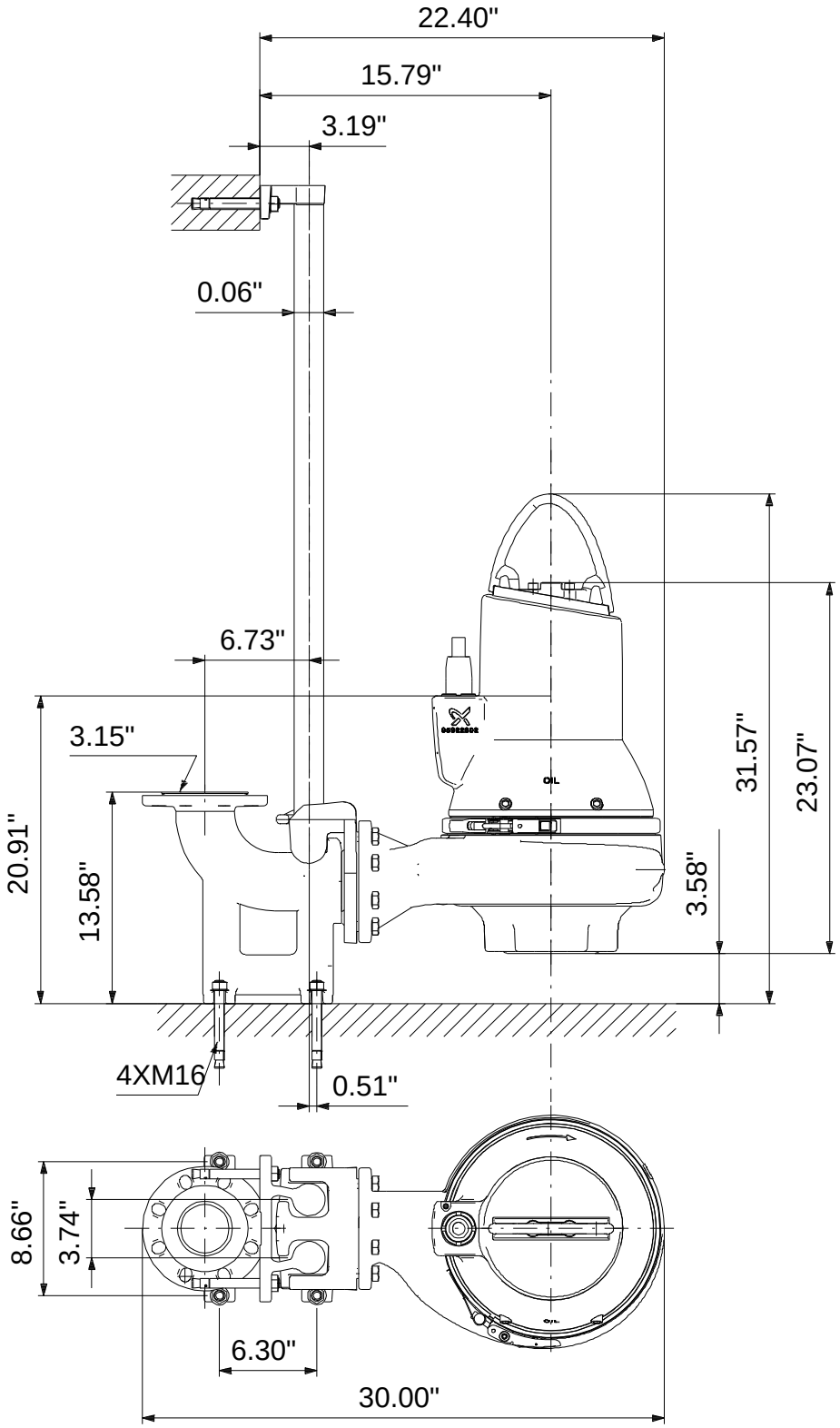
160x160

Note! All units are in [mm] unless otherwise stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Company name:
Created by:
Phone:

Date: 2/22/2018

99034501 SLV.30.A30.30.4.60J.C 60 Hz



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Company name:
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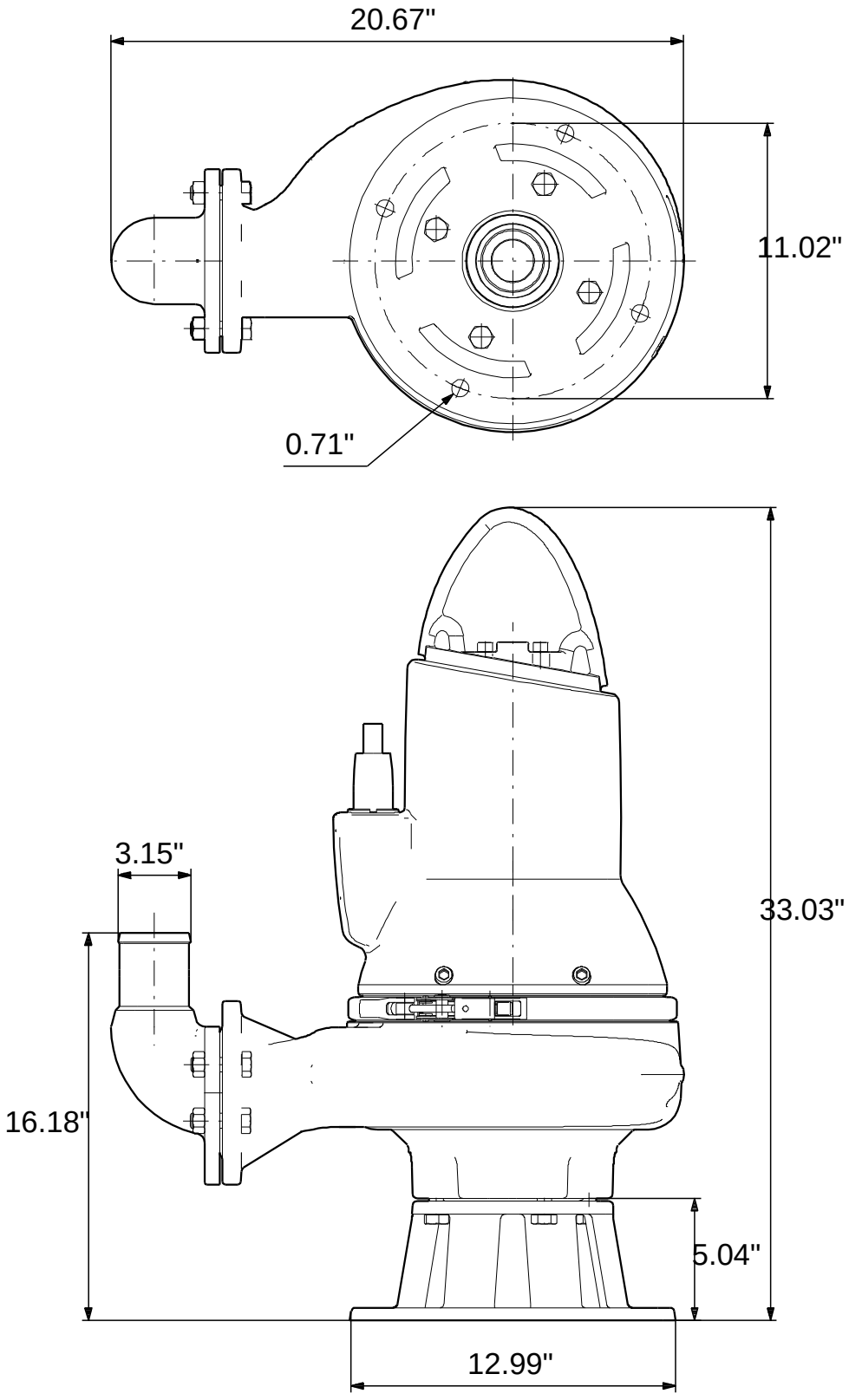
Phone:

Date: 2/22/2018

99034501 SLV.30.A30.30.4.60J.C 60 Hz



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Disclaimer: This simplified dimensional drawing does not show all details.

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Company name:
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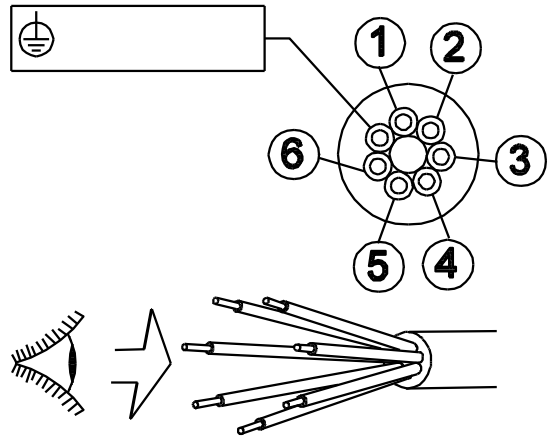
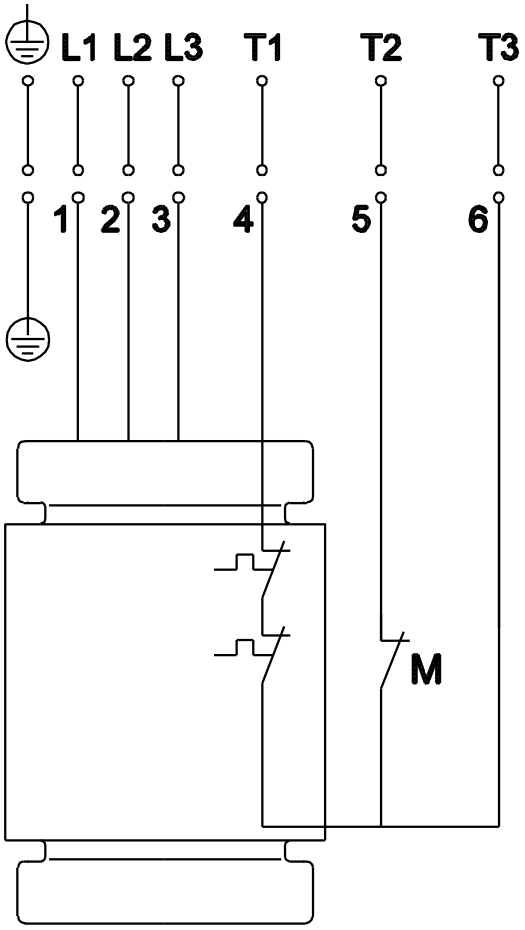
Phone:

Date: 2/22/2018

99034501 SLV.30.A30.30.4.60J.C 60 Hz





All units are [mm] unless otherwise presented.

Company name:
Created by:
Phone:

Date: 2/22/2018

Order Data:

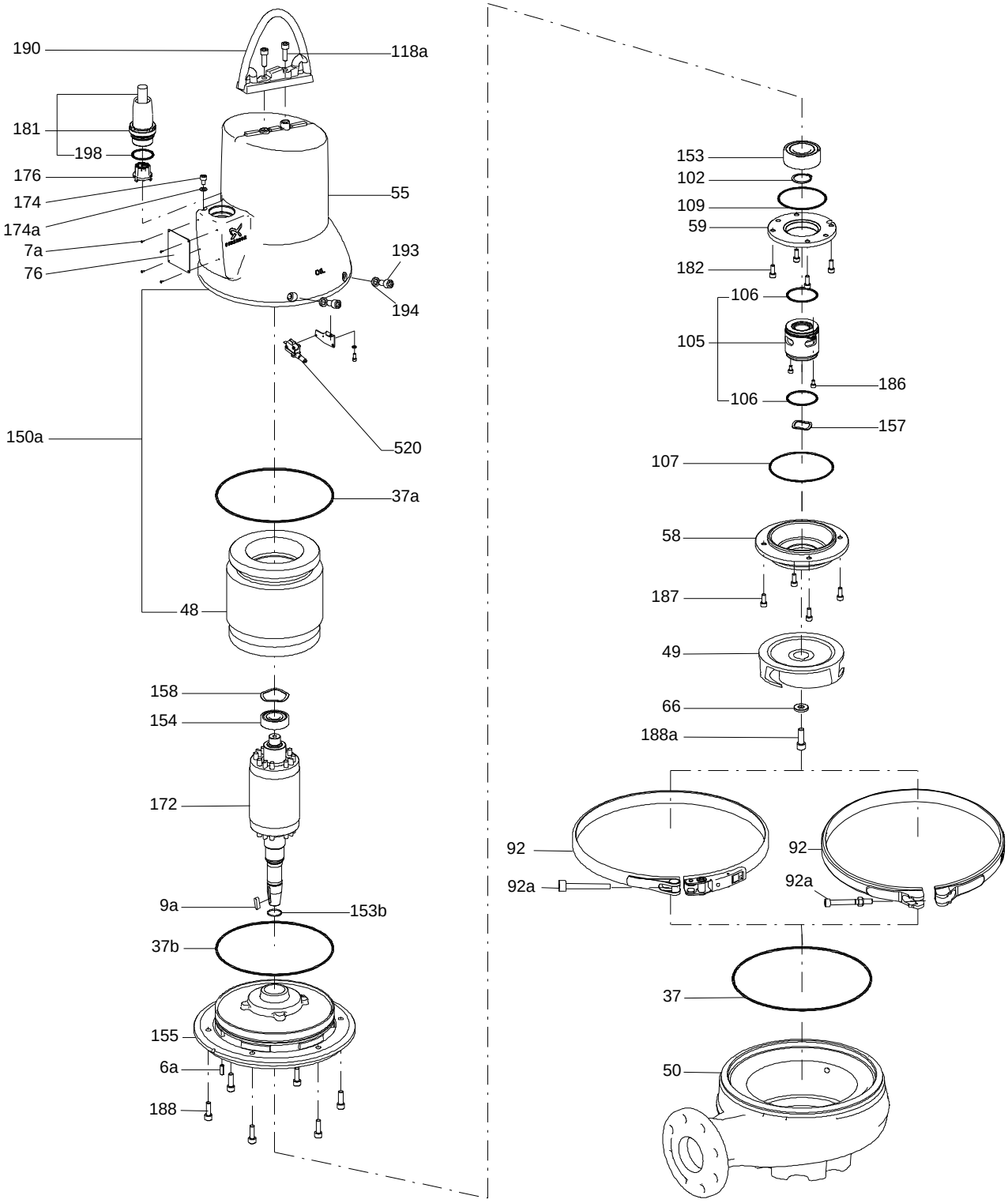
Product name: SLV.30.A30.30.4.60J.C
Amount: 1
Product No.: 99034501

Total: Price on request

Company name:
Created by:
Phone:

Date: 2/22/2018

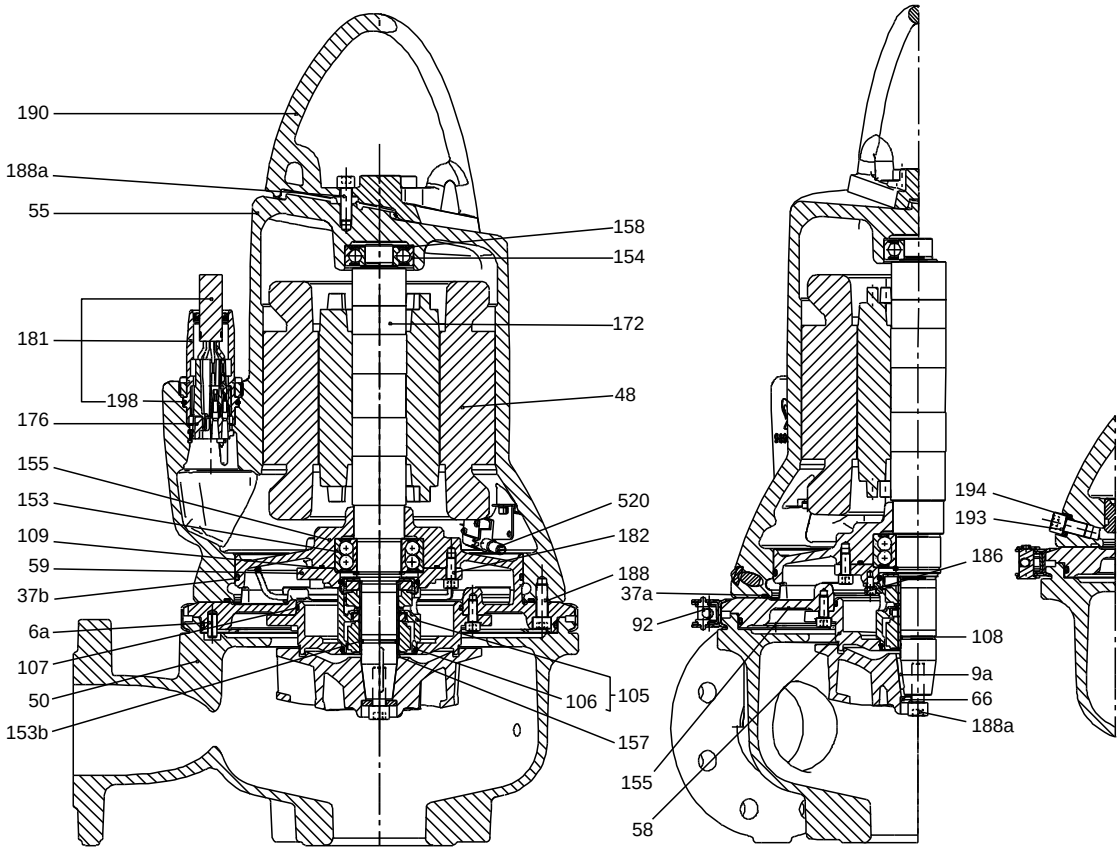
Exploded view (TM065983 SLV 1,1-11kW w/o sensor)



Company name:
Created by:
Phone:

Date: 2/22/2018

Sectional drawing (TM061072 SLV 1,1-11kW w/o sensor)



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Company name:
Created by:
Phone:

Date: 2/22/2018

Parts list SLV.30.A30.30.4.60J.C, Prod number 99034501
Valid from 2.6.2014 (1423)

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
		Hex head screw				2	pcs
		Hex head screw				1	pcs
		Earth connector				1	pcs
	6a	Pin				1	pcs
	9a	Parallel key		Dimension: 5X5X16		1	pcs
	37	O-ring		Diameter: 250		1	pcs
				Material type: NBR70			
				Thickness: 4			
	37a	O-ring		Diameter: 210		1	pcs
				Material type: NBR			
				Thickness: 4			
	37b	O-ring		Diameter: 185		1	pcs
				Material type: NBR			
				Thickness: 4			
	48	Stator				1	pcs
	49	Impeller				1	pcs
	50	Pump housing				1	pcs
	55	Stator housing				1	pcs
	58	Cover for oil chamber				1	pcs
	58a	Hex socket head cap screw		Designation: DIN 912		1	pcs
				Length: 25			
				Thread: M10			
	59	Bearing cover				1	pcs
	66	Washer		Inner diameter: 10.5		1	pcs
				Outer diameter: 25			
				Thickness: 3			
-	92	Strap cpl.				1	pcs
		Strap				1	
	1	Lock nut		Thread: M8		1	
	92a	Hex socket head cap screw				1	
	102	Retaining ring				1	pcs
-	105	Shaft seal				1	pcs
		Shaft seal				1	
		Shaft seal				1	
		Shaft seal				1	
		Retaining ring				1	
		Shaft seal, rotating part				1	
		Shaft seal, rotating part				1	
		Shaft seal, stationary part				1	
		Shaft seal, stationary part				1	
	106	O-ring		Diameter: 50		2	
				Material type: NBR			
				Thickness: 3			
	107	O-ring		Diameter: 110		1	pcs
				Material type: NBR70			
				Thickness: 3			
	108	O-ring		Diameter: 80		1	pcs
				Material type: NBR70			
				Thickness: 3			
	118a	Hex socket head cap screw				6	pcs
	122	Lock washer				2	pcs
-	150a	Stator w/housing cpl.				1	pcs
	48	Stator				1	

GRUNDFOS

Company name:
Created by:
Phone:

Date: 2/22/2018

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
	55	Stator housing				1	
	1031	Connector pin				9	
	153	Ball bearing				1	pcs
	153b	O-ring				1	pcs
	154	Ball bearing		Designation: 6304.2Z.C3.SYN		1	pcs
	155	Oil chamber				1	pcs
	157	Waved washer				1	pcs
	158	Waved washer				1	pcs
	172	Shaft w/rotor				1	pcs
	173a	Lock washer				1	pcs
	176	Plug				1	pcs
-	181	Cable				1	pcs
	198	O-ring				1	
	186	Hex socket head cap screw				2	pcs
	187	Hex socket head cap screw				4	pcs
	187	Hex socket head cap screw				4	pcs
	188.a	Hex socket head cap screw		Length: 25		2	pcs
				Thread: M8			
	190	Lifting bracket				1	pcs
	193	Hex socket head cap screw		Designation: A2-70		2	pcs
				Length: 20			
				Thread: M12			
	194	Washer		Inner diameter: 19		2	pcs
				Outer diameter: 12.2			
				Thickness: 4.4			
	520	Moisture sensor				1	pcs
	1031	Connector pin				6	pcs