

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

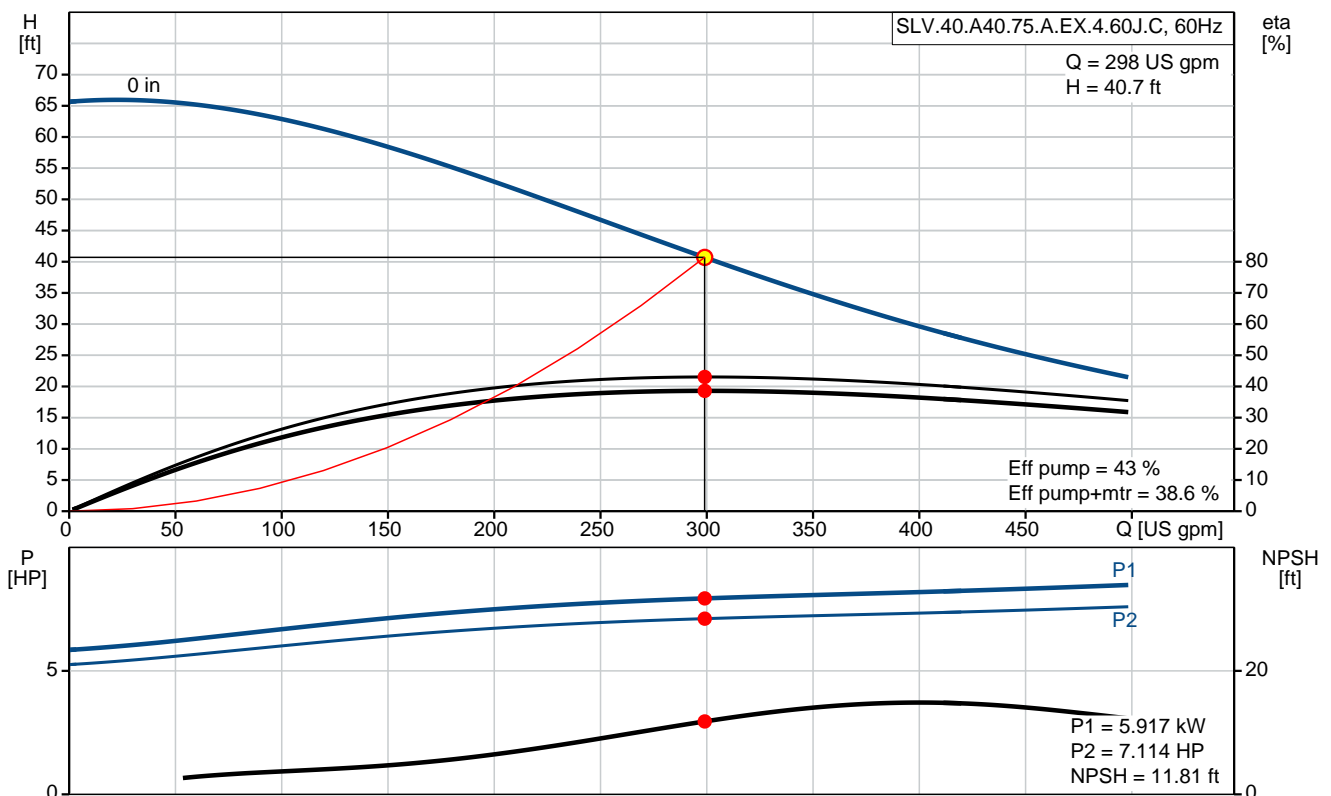
### SLV.40.A40.75.A.EX.4.60J.C

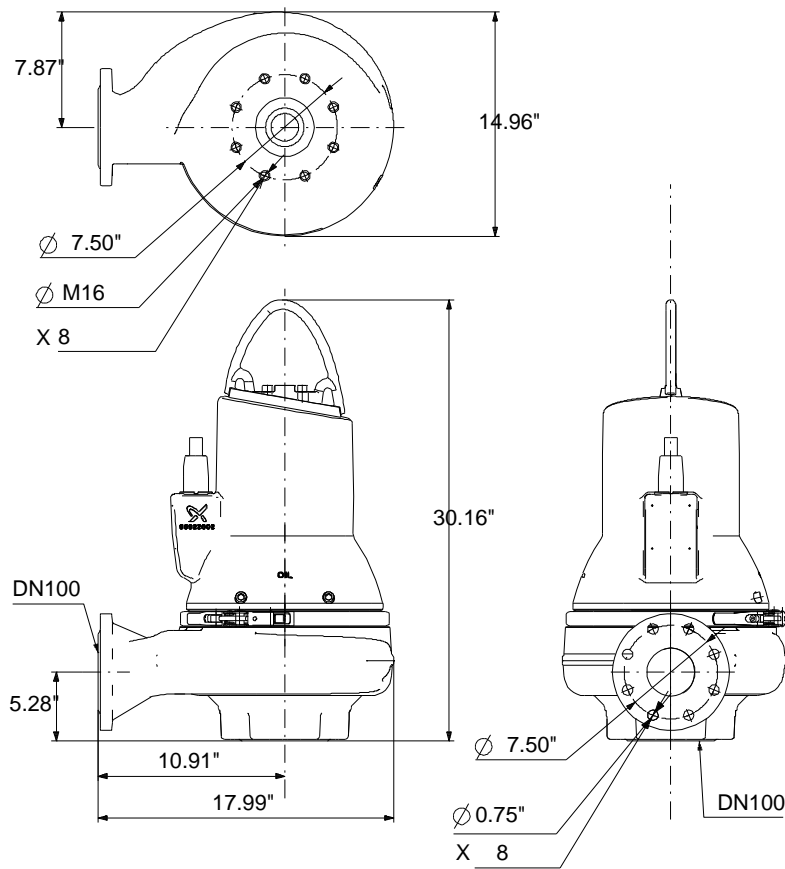
#### Sewage pumps



Product photo could vary from the actual product

Conditions of Service	Pump Data	Motor Data
Flow: 298 US gpm	Maximum ambient temperature: 104 °F	Rated voltage: 208-230 V
Head: 40.7 ft	Approvals: CSA, FM	Main frequency: 60 Hz
Efficiency: 38.6 %	Flange standard: ANSI	Number of poles: 4
Liquid: any viscous fluid	Product number: 99034565	Enclosure class: IP68
Temperature: _____		Insulation class: H
NPSH required: 11.81 ft		Motor protection: Pt1000
Viscosity: _____		Motor_efficiency: 89.6 %
Specific Gravity: 1.000		





160x160

**Materials:**

Pump housing: EN-GJL-250

Impeller: EN-GJL-250

Motor: EN-GJL-250

## Tender Text



Product photo could vary from the actual product

Product No.: [99034565](#)  
**SLV.40.A40.75.A.EX.4.60J.C**

### Controls:

Moisture sensor: with moisture sensors  
Water-in-oil sensor: with water-in-oil sensor

### Liquid:

Pumped liquid: any viscous fluid  
Maximum liquid temperature: 104 °F  
Density: 62.29 lb/ft<sup>3</sup>

### Technical:

Actual calculated flow: 298 US gpm  
Resulting head of the pump: 40.7 ft  
Type of impeller: Super Vortex  
Maximum particle size: 3 15/16 in  
Primary shaft seal: SIC/SIC  
Secondary shaft seal: CARBON/CERAMICS  
Approvals on nameplate: CSA, FM  
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: 100  
Pump outlet: 100  
Pressure stage: PN 10  
Maximum installation depth: 65.62 ft  
Frame range: C

### Electrical data:

Power input - P1: 6.3 kW  
Rated power - P2: 7.5 HP  
Main frequency: 60 Hz  
Rated voltage: 3 x 208-230 V  
Voltage tolerance: +10/-10 %



**Company name:**

**Created by:**

**Phone:**



**Date:**


2/22/2018

Max starts per. hour: 20  
Rated current: 20.2-19.7 A  
Starting current: 149 A  
Cos phi - power factor: 0.86  
Cos phi - p.f. at 3/4 load: 0.81  
Cos phi - p.f. at 1/2 load: 0.73  
Rated speed: 1763 rpm  
Motor efficiency at full load: 89.6 %  
Motor efficiency at 3/4 load: 90.0 %  
Motor efficiency at 1/2 load: 88.9 %  
Number of poles: 4  
Start. method: direct-on-line  
Enclosure class (IEC 34-5): IP68  
Insulation class (IEC 85): H  
Explosion proof: yes  
Length of cable: 49 ft  
Cable type: SEOOW 600V

**Others:**

Net weight: 303 lb

Position	Count	Description
	1	<p><b>SLV.40.A40.75.A.EX.4.60J.C</b></p>  <p>Product photo could vary from the actual product</p> <p>Product No.: <a href="#">99034565</a></p> <p>Non-self-priming, single-stage, centrifugal pump designed for handling wastewater, process water and unscreened raw sewage.</p> <p>The pump is designed for intermittent and continuous operations in submerged installation. The efficient SuperVortex impeller provides passage of long fibres and solids up to 3 15/16 in and is suitable for wastewater with a dry matter content of up to 5 %.</p> <p>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.</p> <p>The pump is explosion-proof.</p> <p><b>Further product details</b></p> <p>Typical application is transfer of liquid, such as:</p> <ul style="list-style-type: none"> <li>- large quantities of drainage and surface water</li> <li>- domestic wastewater with discharge from toilets</li> <li>- wastewater from commercial buildings without discharge from toilets</li> <li>- sludge-containing industrial wastewater.</li> </ul> <p>The pump is ideal for pumping of the above liquids from for instance:</p> <ul style="list-style-type: none"> <li>- municipal network pumping stations</li> <li>- public buildings</li> <li>- blocks of flats</li> <li>- factories/industry.</li> </ul> <p>The pump is suitable for both temporary and permanent installation either as free-standing on ring stand or on an auto-coupling system.</p> <p><b>Pump</b></p> <p>The pump housing, motor top and impeller are made of cast iron (EN-GJL-250).</p> <p>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.</p>  <p>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.</p>

Position	Count	Description																														
		<p>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.</p> <ul style="list-style-type: none"><li>- Primary seal: Silicon carbide/silicon carbide (SiC/SiC)</li><li>- Secondary seal: Carbon/Ceramics</li></ul> <p>The shaft seal is bidirectional, meaning it operates correctly in case of backflow through the pump.</p> <div></div> <p>The pump is approved according to CSA, FM.</p> <p><b>Motor</b></p> <p>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.</p> <p>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.</p> <p>A compact motor construction with a short shaft reduces vibrations, resulting in an increased efficiency and lifetime of the shaft seal and ball bearings.</p> <p>The motor features built-in thermal protection to protect the motor against overheating and ensure the reliability.</p> <p>The pump is equipped with the following sensor(s):</p> <ul style="list-style-type: none"><li>- 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.</li><li>- An analog sensor that is fitted in the oil chamber monitors whether water enters the pump from the liquid side. It sends a signal if the water content is outside the normal range (warning), or if there is air in the oil chamber (alarm).</li></ul> <p>All sensor signals are incorporated in the power cable and connected to the Grundfos IO 113 sensor module which is delivered together with the pump.</p> <p>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.</p> <p><b>Controls:</b></p> <table><tr><td>Moisture sensor:</td><td>with moisture sensors</td></tr><tr><td>Water-in-oil sensor:</td><td>with water-in-oil sensor</td></tr></table> <p><b>Liquid:</b></p> <table><tr><td>Pumped liquid:</td><td>any viscous fluid</td></tr><tr><td>Maximum liquid temperature:</td><td>104 °F</td></tr><tr><td>Density:</td><td>62.29 lb/ft³</td></tr></table> <p><b>Technical:</b></p> <table><tr><td>Actual calculated flow:</td><td>298 US gpm</td></tr><tr><td>Resulting head of the pump:</td><td>40.7 ft</td></tr><tr><td>Type of impeller:</td><td>Super Vortex</td></tr><tr><td>Maximum particle size:</td><td>3 15/16 in</td></tr><tr><td>Primary shaft seal:</td><td>SIC/SIC</td></tr><tr><td>Secondary shaft seal:</td><td>CARBON/CERAMICS</td></tr><tr><td>Approvals on nameplate:</td><td>CSA, FM</td></tr><tr><td>Curve tolerance:</td><td>ANSI/HI11.6:2012 3B2</td></tr></table> <p><b>Materials:</b></p> <table><tr><td>Pump housing:</td><td>EN-GJL-250</td></tr><tr><td>Impeller:</td><td>EN-GJL-250</td></tr></table>	Moisture sensor:	with moisture sensors	Water-in-oil sensor:	with water-in-oil sensor	Pumped liquid:	any viscous fluid	Maximum liquid temperature:	104 °F	Density:	62.29 lb/ft³	Actual calculated flow:	298 US gpm	Resulting head of the pump:	40.7 ft	Type of impeller:	Super Vortex	Maximum particle size:	3 15/16 in	Primary shaft seal:	SIC/SIC	Secondary shaft seal:	CARBON/CERAMICS	Approvals on nameplate:	CSA, FM	Curve tolerance:	ANSI/HI11.6:2012 3B2	Pump housing:	EN-GJL-250	Impeller:	EN-GJL-250
Moisture sensor:	with moisture sensors																															
Water-in-oil sensor:	with water-in-oil sensor																															
Pumped liquid:	any viscous fluid																															
Maximum liquid temperature:	104 °F																															
Density:	62.29 lb/ft³																															
Actual calculated flow:	298 US gpm																															
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Maximum particle size:	3 15/16 in																															
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Curve tolerance:	ANSI/HI11.6:2012 3B2																															
Pump housing:	EN-GJL-250																															
Impeller:	EN-GJL-250																															



Company name:

Created by:

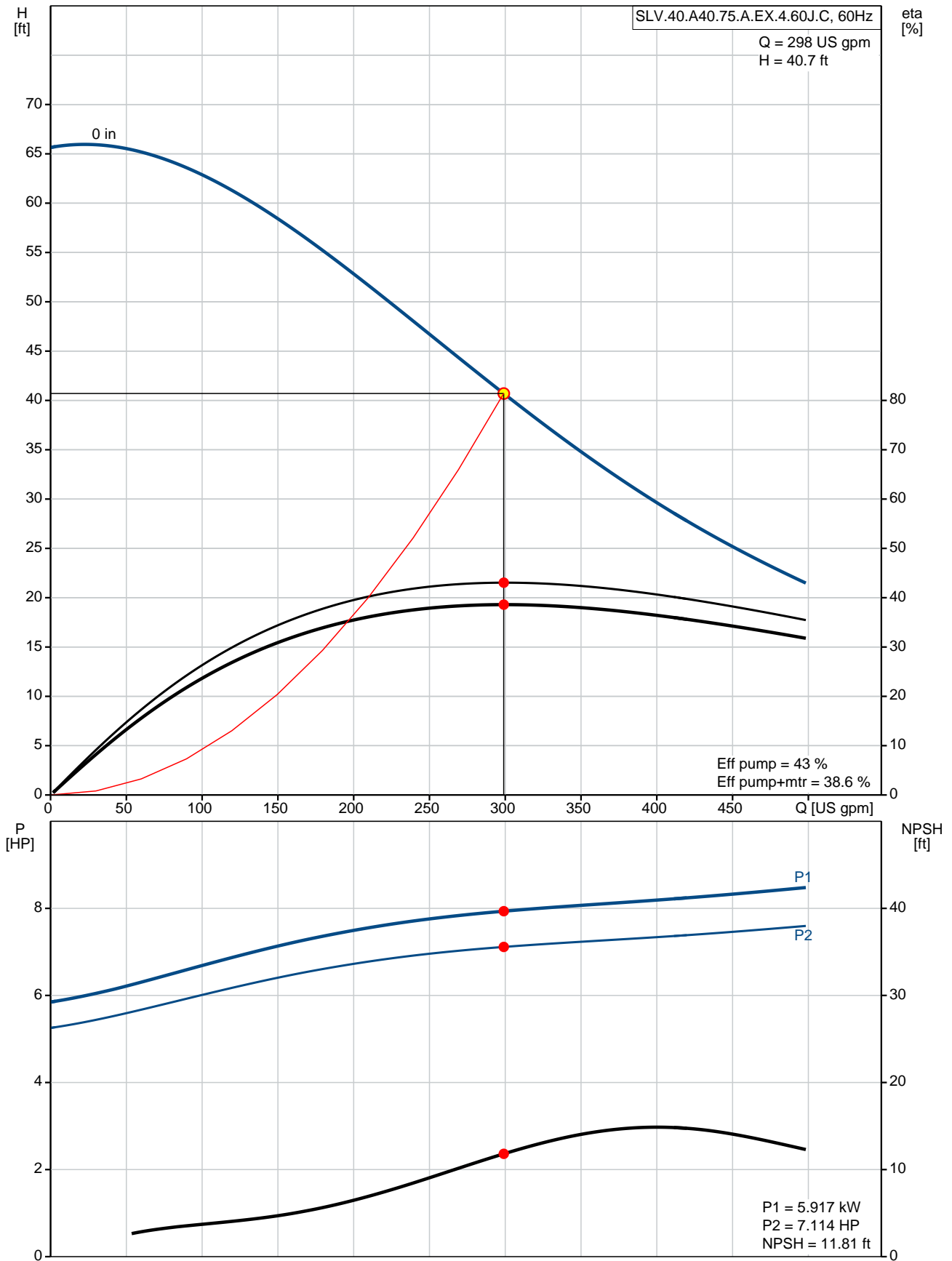
Phone:

Date:

2/22/2018

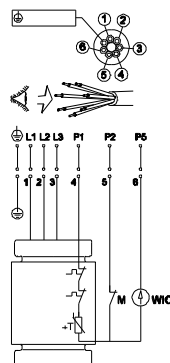
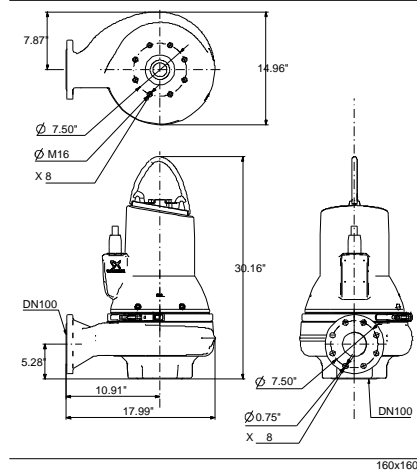
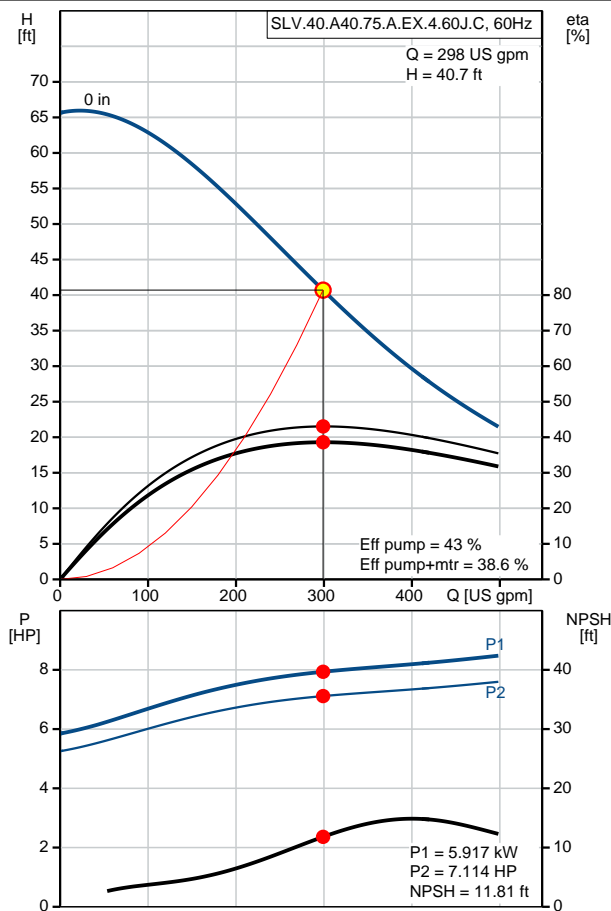
Position	Count	Description
		Motor: EN-GJL-250
		<b>Installation:</b>
		Maximum ambient temperature: 104 °F
		Flange standard: ANSI
		Pump inlet: 100
		Pump outlet: 100
		Pressure stage: PN 10
		Maximum installation depth: 65.62 ft
		Frame range: C
		<b>Electrical data:</b>
		Power input - P1: 6.3 kW
		Rated power - P2: 7.5 HP
		Main frequency: 60 Hz
		Rated voltage: 3 x 208-230 V
		Voltage tolerance: +10/-10 %
		Max starts per. hour: 20
		Rated current: 20.2-19.7 A
		Starting current: 149 A
		Cos phi - power factor: 0.86
		Cos phi - p.f. at 3/4 load: 0.81
		Cos phi - p.f. at 1/2 load: 0.73
		Rated speed: 1763 rpm
		Motor efficiency at full load: 89.6 %
		Motor efficiency at 3/4 load: 90.0 %
		Motor efficiency at 1/2 load: 88.9 %
		Number of poles: 4
		Start. method: direct-on-line
		Enclosure class (IEC 34-5): IP68
		Insulation class (IEC 85): H
		Explosion proof: yes
		Length of cable: 49 ft
		Cable type: SEOOW 600V
		<b>Others:</b>
		Net weight: 303 lb

## 99034565 SLV.40.A40.75.A.EX.4.60J.C 60 Hz





Description	Value
<b>General information:</b>	
Product name:	SLV.40.A40.75.A.EX.4.60J.C
Product No.:	99034565
EAN:	5712605500650
<b>Technical:</b>	
Actual calculated flow:	298 US gpm
Max flow:	493 US gpm
Resulting head of the pump:	40.7 ft
Head max:	63.98 ft
Type of impeller:	Super Vortex
Maximum particle size:	3 15/16 in
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	CSA, FM
Curve tolerance:	ANSI/HI11.6:2012 3B2
Cooling jacket:	without cooling jacket
<b>Materials:</b>	
Pump housing:	EN-GJL-250
Impeller:	EN-GJL-250
Motor:	EN-GJL-250
<b>Installation:</b>	
Maximum ambient temperature:	104 °F
Flange standard:	ANSI
Pump inlet:	100
Pump outlet:	100
Pressure stage:	PN 10
Maximum installation depth:	65.62 ft
Inst dry/wet:	SUBMERGED
Installation:	Vertical
Frame range:	C </td
<b>Liquid:</b>	
Pumped liquid:	any viscous fluid
Maximum liquid temperature:	104 °F
Density:	62.29 lb/ft³
<b>Electrical data:</b>	
Power input - P1:	6.3 kW
Rated power - P2:	7.5 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230 V
Voltage tolerance:	+10/-10 %
Max starts per. hour:	20
Rated current:	20.2-19.7 A
Starting current:	149 A
Cos phi - power factor:	0.86
Cos phi - p.f. at 3/4 load:	0.81
Cos phi - p.f. at 1/2 load:	0.73
Rated speed:	1763 rpm
Motor efficiency at full load:	89.6 %
Motor efficiency at 3/4 load:	90.0 %
Motor efficiency at 1/2 load:	88.9 %
Number of poles:	4
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	H





Company name:

Created by:

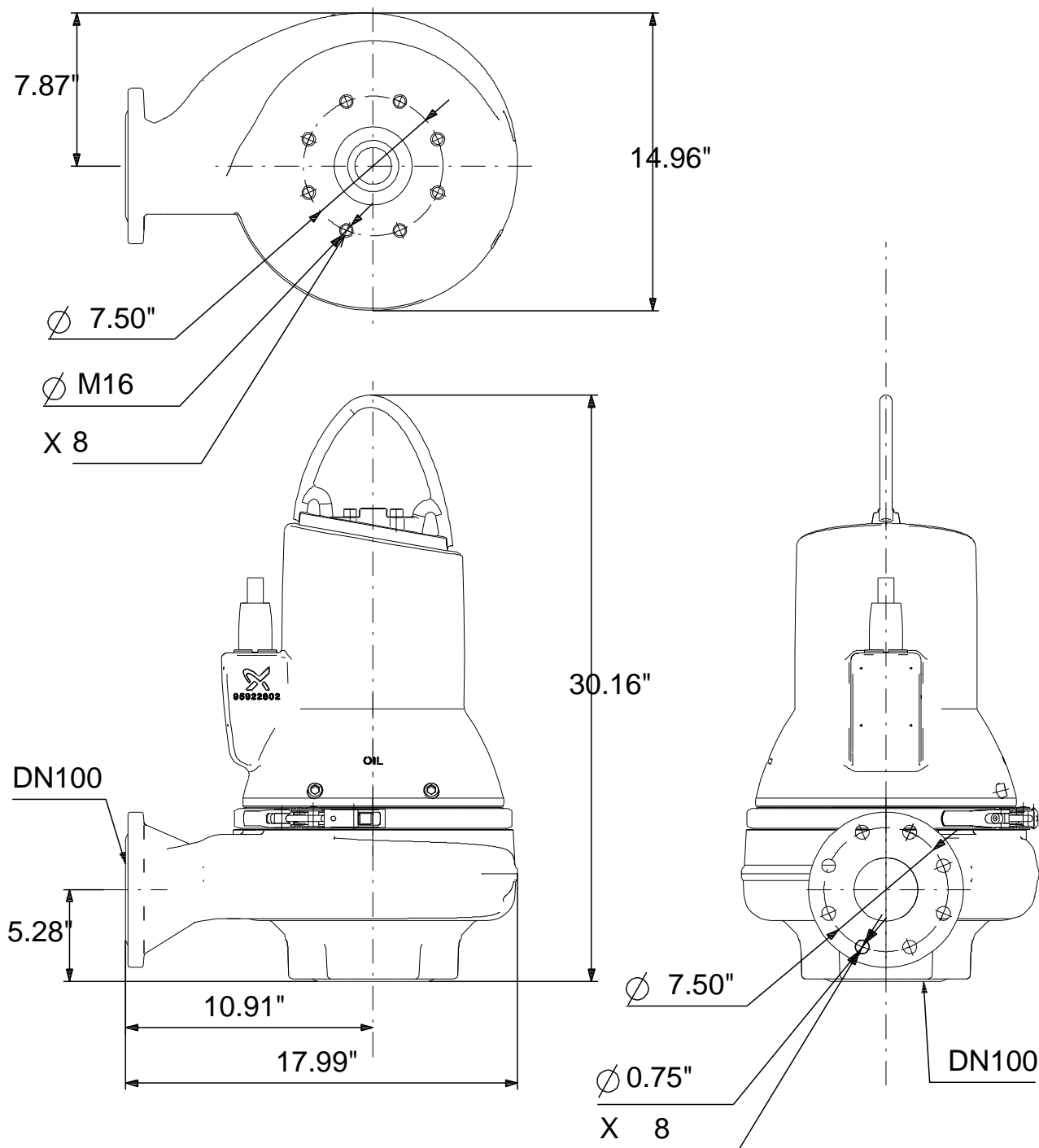
Phone:

Date:

2/22/2018

Description	Value
Explosion proof:	yes
Motor protection:	Pt1000
Length of cable:	49 ft
Cable type:	SEOOW 600V
<b>Controls:</b>	
Additional I/O:	N
Moisture sensor:	with moisture sensors
Water-in-oil sensor:	with water-in-oil sensor
<b>Others:</b>	
Net weight:	303 lb

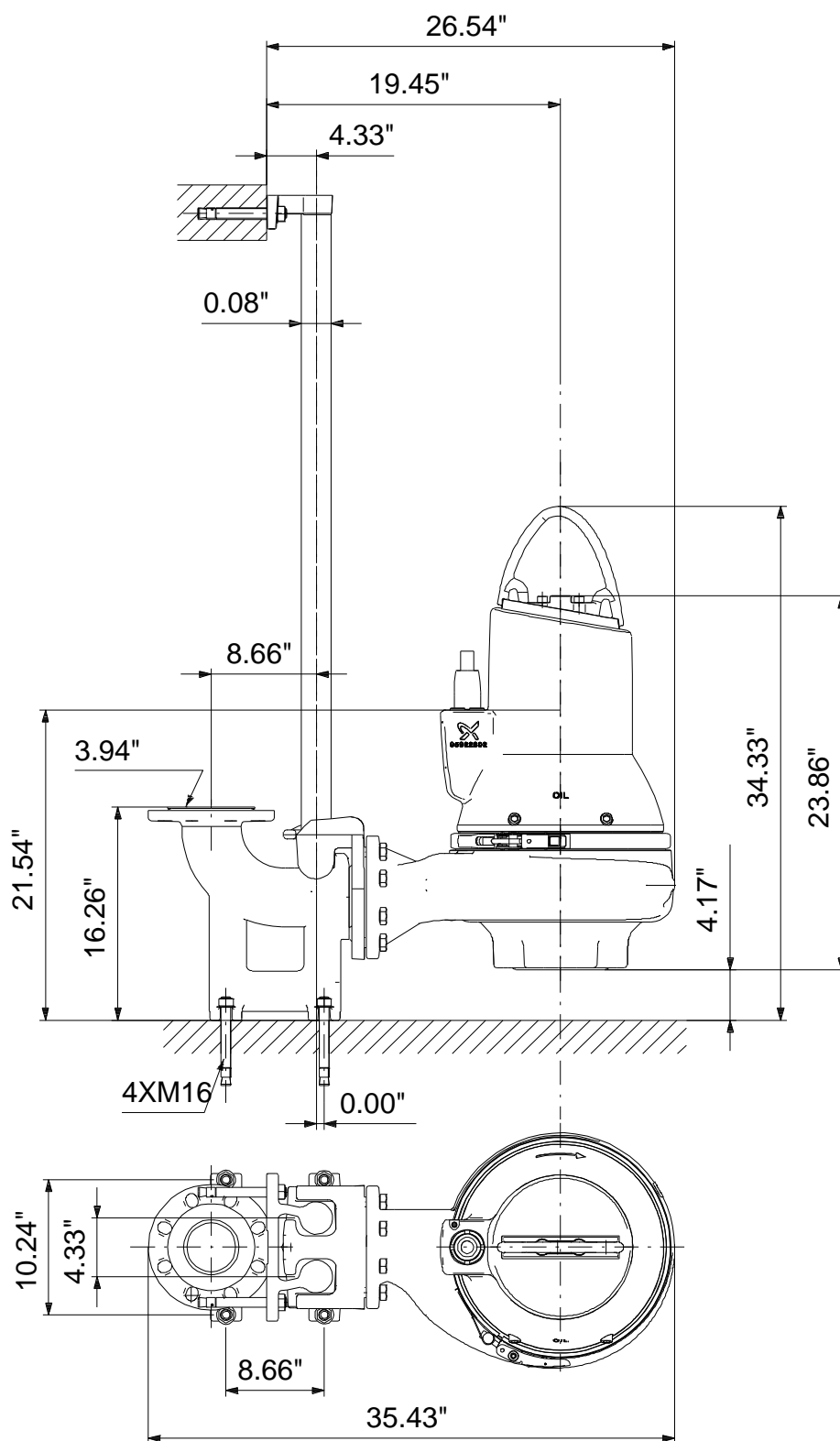
## 99034565 SLV.40.A40.75.A.EX.4.60J.C 60 Hz



160x160

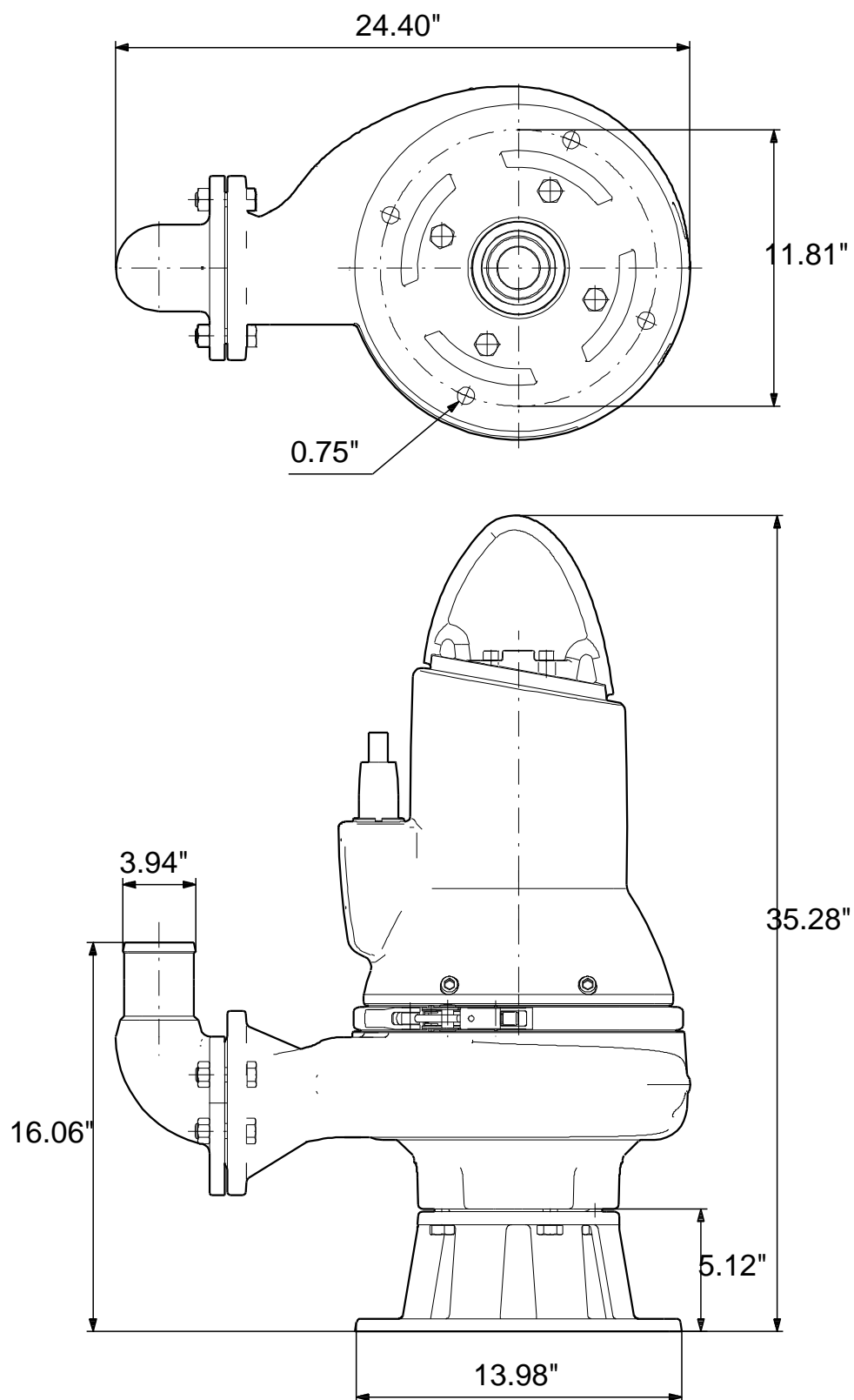
Note! All units are in [mm] unless otherwise stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

## 99034565 SLV.40.A40.75.A.EX.4.60J.C 60 Hz



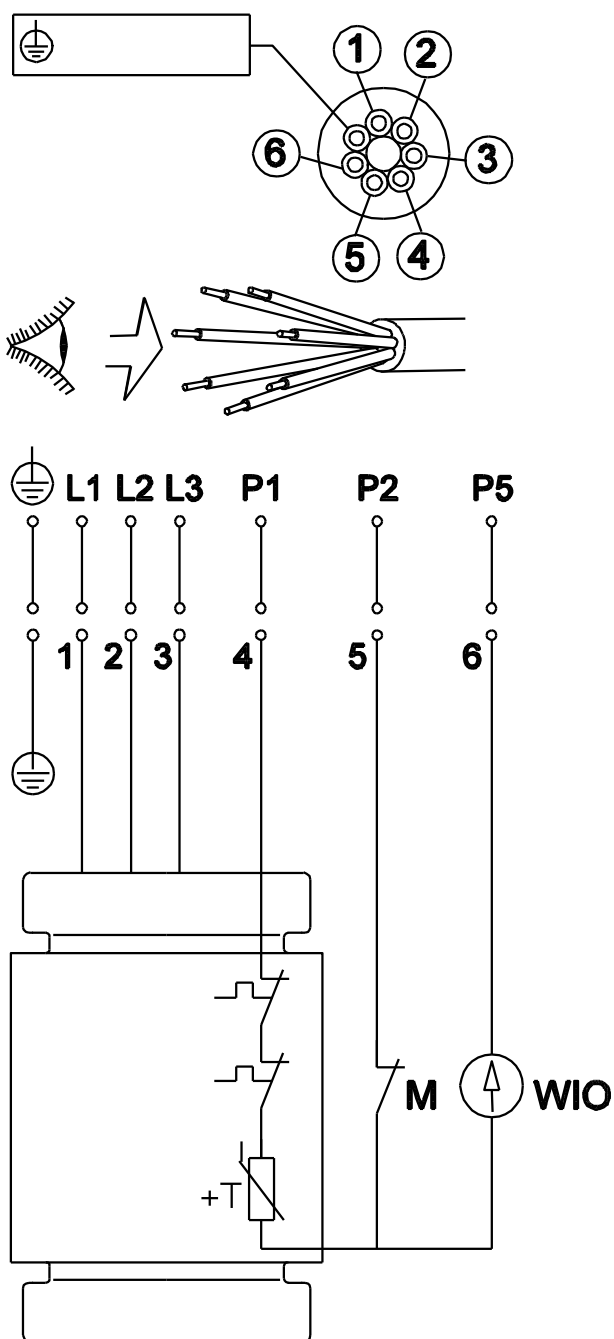
Note! All units are in [mm] unless otherwise stated.  
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## 99034565 SLV.40.A40.75.A.EX.4.60J.C 60 Hz



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

## 99034565 SLV.40.A40.75.A.EX.4.60J.C 60 Hz





Company name:

Created by:

Phone:

Date:

2/22/2018

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**Order Data:**

Product name: SLV.40.A40.75.A.EX.4.60J.C

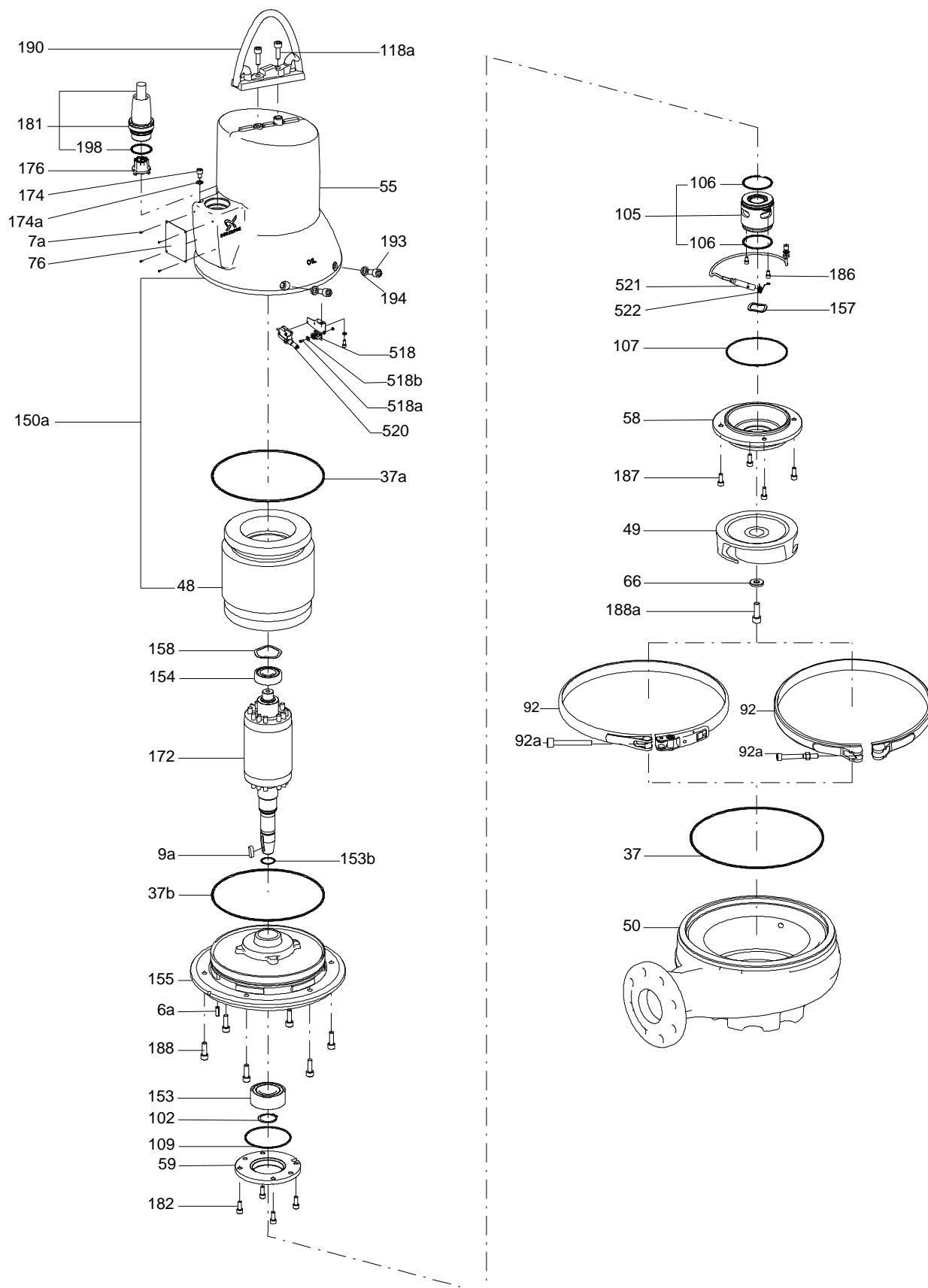
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Product No.: 99034565

Total: Price on request

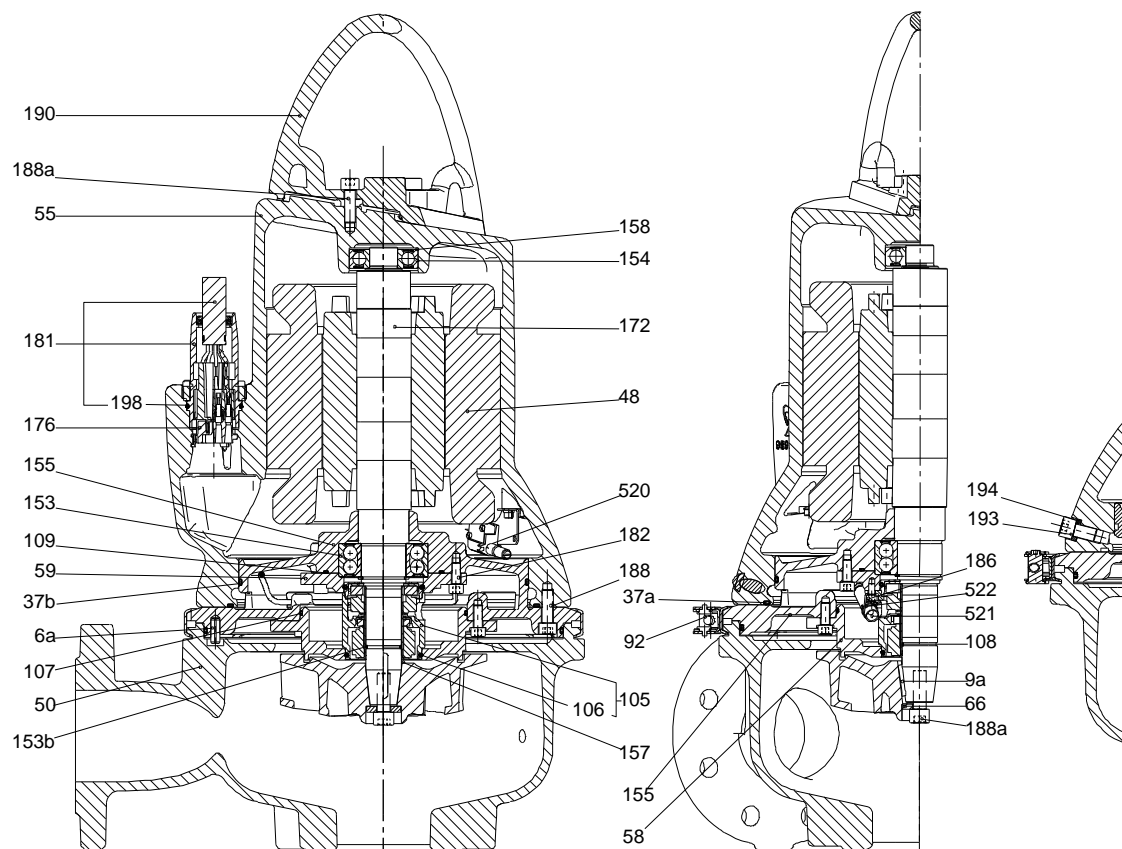
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## Exploded view ( TM065984 SLV 1,1-11kW with sensor)





Sectional drawing ( TM42786 SLV 1,1-11kW with sensor  $\pm 1/4\%$ )



**Parts list SLV.40.A40.75.A.EX.4.60J.C, Prod number 99034565**

**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
	Nut				1	pcs
	Washer				1	pcs
	Disc spring				4	pcs
	Rubber bushing				1	pcs
	Rubber bushing				1	pcs
	Earth connector				1	pcs
	Splice				1	pcs
	Connector				2	pcs
	Cross recess Pan head screw				1	pcs
6a	Pin				1	pcs
9a	Parallel key		Dimension: 8X7X28		1	pcs
37	O-ring		Diameter: 297		1	pcs
			Material type: NBR70			
			Thickness: 4			
37	O-ring		Diameter: 250		1	pcs
			Material type: NBR70			
			Thickness: 4			
37b	O-ring		Diameter: 270		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				1	pcs
59	Bearing cover				1	pcs
66	Washer		Inner diameter: 12.5		1	pcs
			Outer diameter: 31			
			Thickness: 5			
- 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: 62		2	
			Material type: NBR			
			Thickness: 3			
107	O-ring		Diameter: 134.5		1	pcs
			Material type: NBR			
			Thickness: 3			
109	O-ring		Diameter: 100		1	pcs
			Material type: NBR			

Position	Description	Annotation	Classification data	Part No.	Count	Unit
			Thickness: 3			
122	Lock washer				2	pcs
- 150a	Stator w/housing cpl.				1	pcs
48	Stator				1	
55	Stator housing				1	
1031	Connector pin				9	
153	Ball bearing		Designation: 6305.2Z.C4.SYN	1	1	pcs
153b	O-ring		Diameter: 28	1	1	pcs
			Material type: NBR			
			Thickness: 2			
154	Angular-contact bearing			1	1	pcs
155	Oil chamber			1	1	pcs
157	Waved washer			1	1	pcs
158	Waved washer			1	1	pcs
172	Shaft w/rotor			1	1	pcs
173a	Lock washer			1	1	pcs
176	Plug			1	1	pcs
- 181	Cable Ex			1	1	pcs
198	O-ring				1	
186	Hex socket head cap screw			2	2	pcs
187	Hex socket head cap screw			4	4	pcs
187	Hex socket head cap screw			4	4	pcs
188a	Hex socket head cap screw		Length: 35	1	1	pcs
			Thread: M12			
188a	Hex socket head cap screw			6	6	pcs
188a	Hex socket head cap screw			2	2	pcs
190	Lifting bracket			1	1	pcs
193	Hex socket head cap screw		Designation: A2-70	2	2	pcs
			Length: 20			
			Thread: M12			
194	Washer		Inner diameter: 19	2	2	pcs
			Outer diameter: 12.2			
			Thickness: 4.4			
230b	Washer		Designation: RUSTLESS	1	1	pcs
			Inner diameter: 5.3			
			Outer diameter: 10			
			Thickness: 1			
518	Transient barrier			1	1	pcs
520	Moisture sensor			1	1	pcs
521	Sensor unit cpl.			1	1	pcs
522	Holder			1	1	pcs
1031	Connector pin			6	6	pcs