

#### **Submittal Data**

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



SEG.A15.55.2.60H

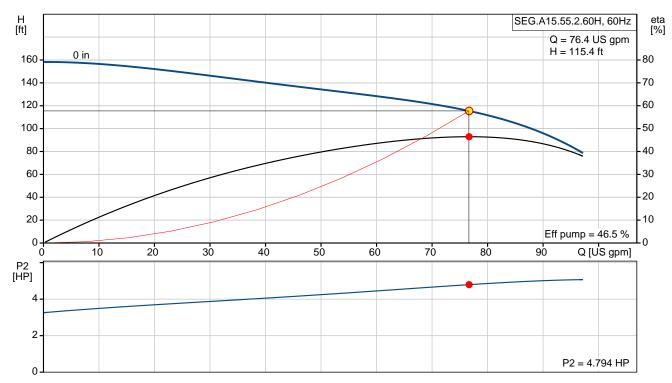
Grinder pumps

Product photo could vary from the actual product

Conditions of Service				
Flow:	76.4 US gpm			
Head:	115.4 ft			
Efficiency:				
Liquid:	any viscous fluid			
Temperature:				
NPSH required:	ft			
Viscosity:				
Specific Gravity:	1.000			

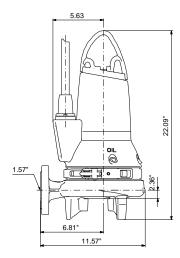
Pump Data	
Maximum operating pressure:	87 psi
Liquid temperature range:	32 104 °F
Maximum ambient temperature:	104 °F
Approvals:	PA-I
Flange standard:	ANSI
Product number:	98280875

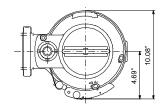
Motor Data					
Rated voltage:	460 V				
Main frequency:	60 Hz				
Number of poles:	2				
Enclosure class:	IP68				
Insulation class:	F				
Motor protection:	THERMAL SWITCH				
Thermal protection:	external				





## Submittal Data





#### Materials:

Pump housing: Cast iron

EN1561 EN-GJL-200

**ASTM A48 30B** 

Impeller: Cast iron

EN1561 EN-GJL-200

**ASTM A48 30B** 



Date: 2/22/2018

#### **Tender Text**



Product photo could vary from the actual product

Product No.: 98280875 SEG.A15.55.2.60H

Grundfos SEG pumps are submersible pumps with horizontal discharge port, specifically designed for pressurized pumping of wastewater with discharge from toilets.

The SEG pumps are equipped with a grinder system, grinding destructible solids into small pieces so that they can be led away through pipes of a relatively small diameter.

The surface of the pump is smooth to prevent dirt and impurities from sticking to the pump.

The pump is primarily made of cast iron. The clamp securing the motor to the pump housing is made of stainless steel to prevent corrosion and allow for ease of service of the pump.

The power cable of the pump also incorporates wires for the thermal sensors in the motor winding.

The cable connection is a plug solution. The totally sealed plug connection prevents moisture from entering the pump through the cable in case of cable breakage or adverse and/or careless handling of the pump cable.

The pump must be connected to a control box or a controller.

The pump has been tested by CSA.

Controls:

Moisture sensor: with moisture sensors

**AUTOADAPT**: NO

Liquid:

Pumped liquid: any viscous fluid Liquid temperature range: 32 .. 104 °F Density: 62.29 lb/ft3

Technical:

Actual calculated flow: 76.4 US gpm Resulting head of the pump: 115.4 ft Grinder System Type of impeller: Primary shaft seal: SIC/SIC

Secondary shaft seal:

CARBON/CERAMICS

Approvals on nameplate:

Curve tolerance: ANSI/HI11.6:2012 3B2

Materials:

Pump housing: Cast iron

EN1561 EN-GJL-200 **ASTM A48 30B** 



**Date:** 2/22/2018

Impeller: Cast iron

EN1561 EN-GJL-200 ASTM A48 30B

Installation:

Maximum ambient temperature: 104 °F
Maximum operating pressure: 87 psi
Flange standard: ANSI
Pipework connection: 1 1/2" /2"
Size of outlet port: 1 1/2 inch
Pressure stage: PN 10
Maximum installation depth: 32.81 ft
Auto-coupling: 98245788

Electrical data:

Power input - P1: 5.1 kW Rated power - P2: 5.5 HP Main frequency: 60 Hz Rated voltage: 3 x 460 V +6/-10 % Voltage tolerance: Max starts per. hour: 30 Rated current: 8 A Starting current: 43 A Rated current at no load: 2.1 A Cos phi - power factor: 0,9 Cos phi - p.f. at 3/4 load: 0,88 Cos phi - p.f. at 1/2 load: 0,8 Rated speed: 3452 rpm Moment of inertia: 0.622 lb ft<sup>2</sup> Motor efficiency at full load: 0.79 % Motor efficiency at 3/4 load: 0.8 % Motor efficiency at 1/2 load: 0.77 % Number of poles:

Start, method: direct-on-line

Enclosure class (IEC 34-5): IP68
Insulation class (IEC 85): F
Explosion proof: no
Length of cable: 33 ft

Cable type: SEOOW 600V Type of cable plug: NO PLUG

Others:

Net weight: 106 lb



**Date:** 2/22/2018

Position | Count | Description

1 SEG.A15.55.2.60H



Product photo could vary from the actual product

Product No.: 98280875

Grundfos SEG pumps are submersible pumps with horizontal discharge port, specifically designed for pressurized pumping of wastewater with discharge from toilets.

The SEG pumps are equipped with a grinder system, grinding destructible solids into small pieces so that they can be led away through pipes of a relatively small diameter.

The surface of the pump is smooth to prevent dirt and impurities from sticking to the pump.

The pump is primarily made of cast iron. The clamp securing the motor to the pump housing is made of stainless steel to prevent corrosion and allow for ease of service of the pump.

The power cable of the pump also incorporates wires for the thermal sensors in the motor winding. The cable connection is a plug solution. The totally sealed plug connection prevents moisture from entering the pump through the cable in case of cable breakage or adverse and/or careless handling of the pump cable.

The pump must be connected to a control box or a controller.

The pump has been tested by CSA.

**Controls:** 

Moisture sensor: with moisture sensors

AUTOADAPT: NO

Liquid:

Pumped liquid: any viscous fluid Liquid temperature range: 32 .. 104 °F Density: 62.29 lb/ft³

Technical:

Actual calculated flow: 76.4 US gpm
Resulting head of the pump: 115.4 ft
Type of impeller: Grinder System

Primary shaft seal: SIC/SIC

Secondary shaft seal: CARBON/CERAMICS

Approvals on nameplate: PA-I

Curve tolerance: ANSI/HI11.6:2012 3B2

Materials:

Pump housing: Cast iron

EN1561 EN-GJL-200

ASTM A48 30B

Impeller: Cast iron



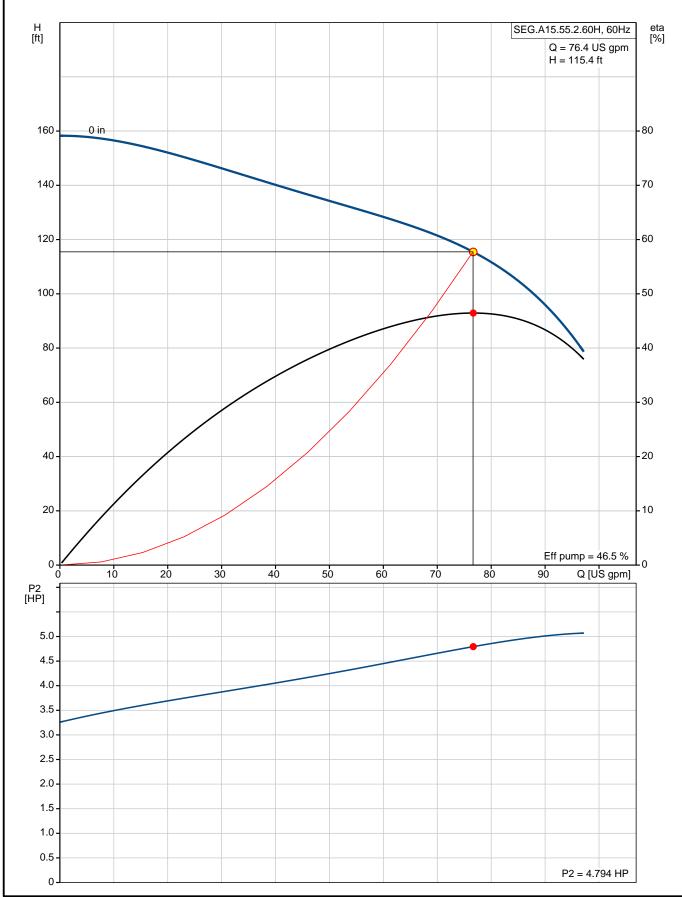
**Date:** 2/22/2018

			Date:	2/22/2018
Position	Count	Description		
	- Count		ENIAGOA EN OU DOO	
			EN1561 EN-GJL-200	
			ASTM A48 30B	
		Installation:	101.05	
		Maximum ambient temperature:		
		Maximum operating pressure:	87 psi	
		Flange standard:	ANSI	
		Pipework connection:	1 1/2" /2"	
		Size of outlet port:	1 1/2 inch	
		Pressure stage:	PN 10	
		Maximum installation depth:	32.81 ft	
		Auto-coupling:	98245788	
		Electrical data:		
		Power input - P1:	5.1 kW	
		Rated power - P2:	5.5 HP	
		Main frequency:	60 Hz	
		Rated voltage:	3 x 460 V	
		Voltage tolerance:	+6/-10 %	
		Max starts per. hour:	30	
		Rated current:	8 A	
		Starting current:	43 A	
		Rated current at no load:	2.1 A	
		Cos phi - power factor:	0,9	
		Cos phi - p.f. at 3/4 load:	0,88	
		Cos phi - p.f. at 1/2 load:	0,8	
		Rated speed:	3452 rpm	
		Moment of inertia:	0.622 lb ft <sup>2</sup>	
		Motor efficiency at full load:	0.79 %	
		Motor efficiency at 3/4 load:	0.8 %	
		Motor efficiency at 1/2 load:	0.77 %	
		Number of poles:	2	
		Start. method:	direct-on-line	
		Enclosure class (IEC 34-5):	IP68	
		Insulation class (IEC 85):	F	
		Explosion proof:	no	
		Length of cable:	33 ft	
		Cable type:	SEOOW 600V	
		Type of cable plug:	NO PLUG	
		Others:		
		Net weight:	106 lb	



**Date:** 2/22/2018

#### 98280875 SEG.A15.55.2.60H 60 Hz

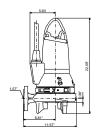




**Date:** 2/22/2018

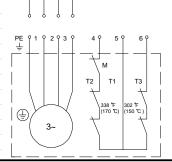
Description	Value
General information:	
Product name:	SEG.A15.55.2.60H
Product No.:	98280875
EAN:	5711492381489
Technical:	
Actual calculated flow:	76.4 US gpm
Max flow:	96.9 US gpm
Resulting head of the pump:	115.4 ft
Head max:	158.1 ft
Type of impeller:	Grinder System
Primary shaft seal:	SIC/SIC
Secondary shaft seal:	CARBON/CERAMICS
Approvals on nameplate:	PA-I
Curve tolerance:	ANSI/HI11.6:2012 3B2
<u> </u>	,
Materials:	
Pump housing:	Cast iron
· ·· · · · · · · · · · · · · · · · · ·	EN1561 EN-GJL-200
	ASTM A48 30B
Impeller:	Cast iron
impelier.	EN1561 EN-GJL-200
	ASTM A48 30B
	ASTW A46 30B
Installation:	
	104 °F
Maximum ambient temperature:	-
Maximum operating pressure:	87 psi
Flange standard:	ANSI
Pipework connection:	1 1/2" /2"
Size of outlet port:	1 1/2 inch
Pressure stage:	PN 10
Maximum installation depth:	32.81 ft
Inst dry/wet:	SUBMERGED
Auto-coupling:	98245788
Liquid:	
Pumped liquid:	any viscous fluid
Liquid temperature range:	32 104 °F
Density:	62.29 lb/ft <sup>3</sup>
Electrical data:	
Power input - P1:	5.1 kW
Rated power - P2:	5.5 HP
Main frequency:	60 Hz
Rated voltage:	3 x 460 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	8 A
Starting current:	43 A
Rated current at no load:	2.1 A
Cos phi - power factor:	0,9
Cos phi - p.f. at 3/4 load:	0,88
Cos phi - p.f. at 1/2 load:	
	0,8
Rated speed:	3452 rpm
Moment of inertia:	0.622 lb ft <sup>2</sup>
Motor efficiency at full load:	0.79 %
Motor efficiency at 3/4 load:	0.8 %
Motor efficiency at 1/2 load:	0.77 %
Number of poles:	2

– H [ft]	SEG.A15.5	5.2.60H, 60Hz	eta [%]
[ft]	Q=	76.4 US gpm	[%]
	H	115.4 ft	
160 -	0 in		- 80
			70
140 -			<b>-</b> 70
120 -			- 60
_			
100 -			- 50
80 -			- 40
60 -	1 / / /		- 30
40 -			- 20
20 -			- 10
0 -		oump = 46.5 %	-0
-	0 20 40 60 80	Q [US gpm]	
P2 - [HP] 5 -			
4 -			
3 -			
2 -			
_ 1-			
0-	]	P2 = 4.794 HP	
-			





L1 L2 L3





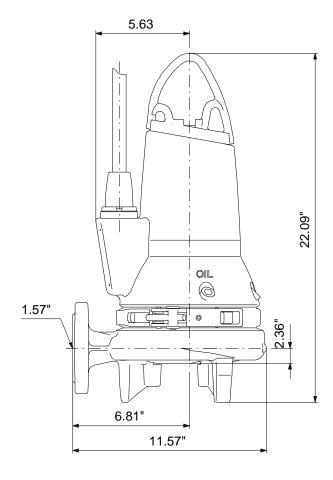
**Date:** 2/22/2018

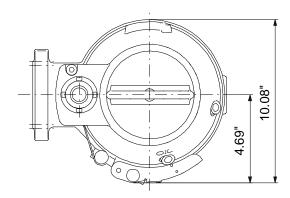
Description	Value
Start. method:	direct-on-line
Enclosure class (IEC 34-5):	IP68
Insulation class (IEC 85):	F
Explosion proof:	no
Motor protection:	THERMAL SWITCH
Thermal protec:	external
Length of cable:	33 ft
Cable type:	SEOOW 600V
Type of cable plug:	NO PLUG
Controls:	
Control box:	not included
Additional I/O:	External
Moisture sensor:	with moisture sensors
AUTOADAPT:	NO
Others:	
Net weight:	106 lb
Sales region:	Namreg



**Date:** 2/22/2018

## 98280875 SEG.A15.55.2.60H 60 Hz



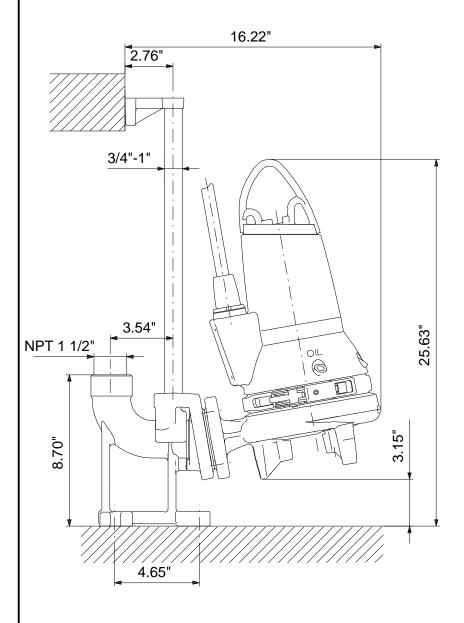


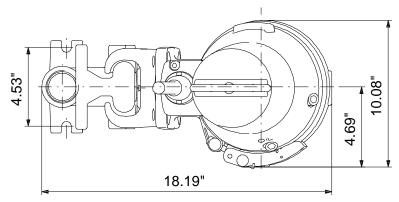
Note! All units are in [mm] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 2/22/2018

## 98280875 SEG.A15.55.2.60H 60 Hz



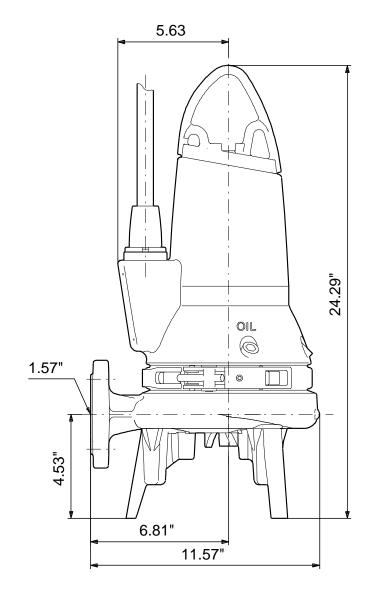


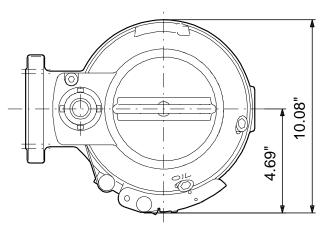
Note! All units are in [mm] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



**Date:** 2/22/2018

## 98280875 SEG.A15.55.2.60H 60 Hz





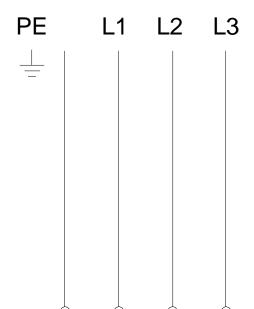
Note! All units are in [mm] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.

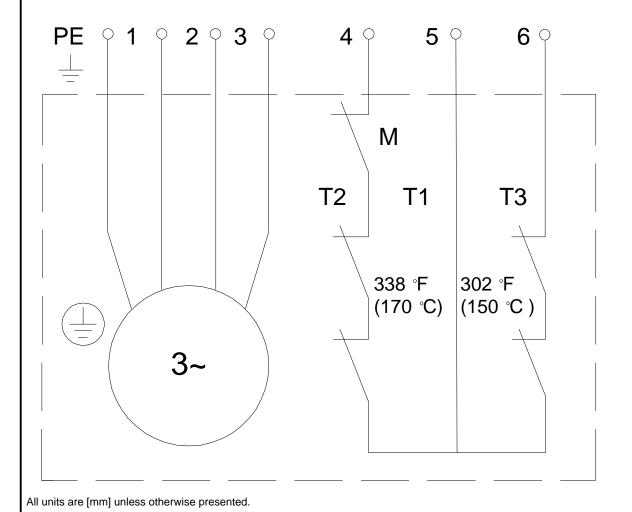


Date:

2/22/2018

#### 98280875 SEG.A15.55.2.60H 60 Hz







**Date:** 2/22/2018

**Order Data:** 

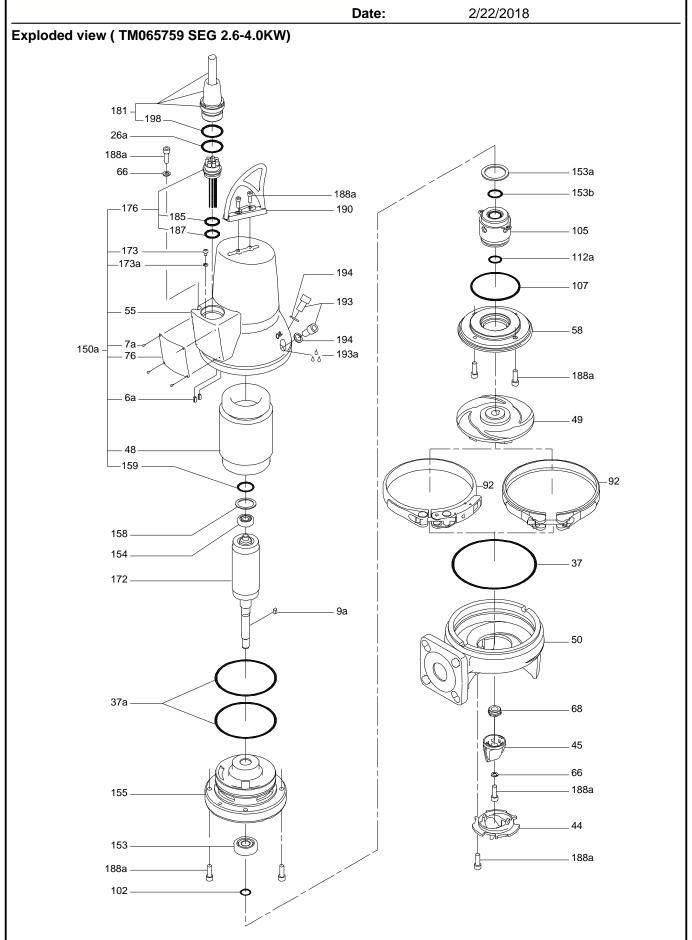
Product name: SEG.A15.55.2.60H

Amount: 1

Product No.: 98280875

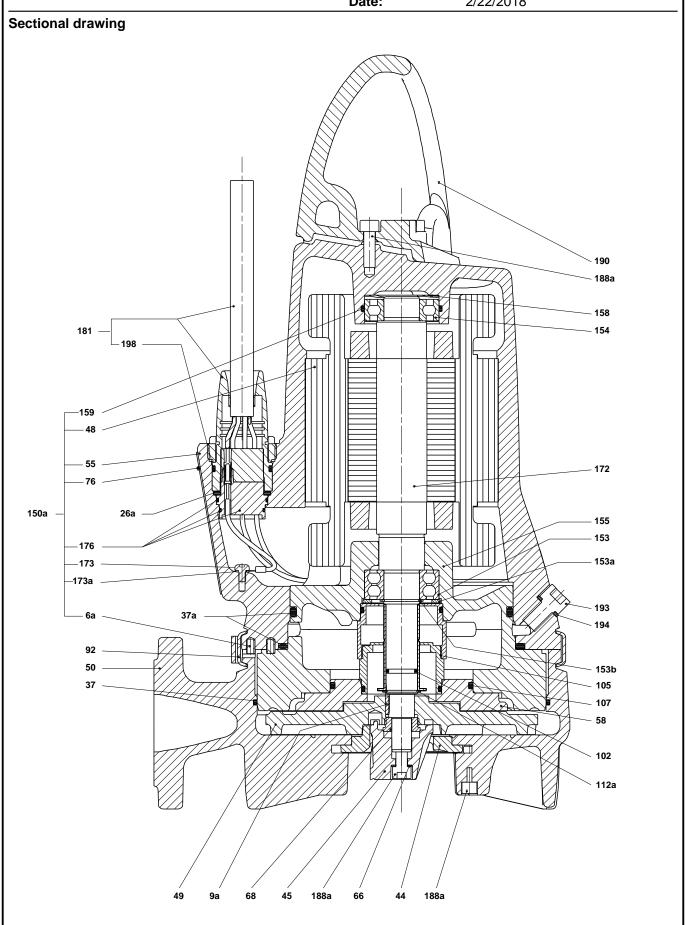
Total: Price on request







Date: 2/22/2018





**Date:** 2/22/2018

# Parts list SEG.A15.55.2.60H, Prod number 98280875 Valid from 3.5.2013 (1318)

Position		Annotation	Classification data Pa		Count	
6a	Pin			1		pcs
7a	Rivet			4		pcs
9a	Key			1		pcs
26.a	O-ring		Diameter: 32	1		pcs
			Material type: NBR			
			Thickness: 4			
37	O-ring		Diameter: 204	1		pcs
			Material type: NBR			
			Thickness: 3			
37a	O-ring		Diameter: 144.3	2	2	pcs
			Material type: NBR			
			Thickness: 5.7			
44	Grinder ring			1		pcs
45	Grinder head			1		pcs
49	Impeller			1		pcs
50	Pump housing			1		pcs
58	Shaft seal retainer			1		pcs
66	Wedge lock washer		Designation: M8 A4	1		pcs
68	Adjustment nut			1		pcs
76	Nameplate			1		pcs
92	Strap cpl.			1		pcs
102	O-ring		Diameter: 17.3	1		pcs
			Material type: NBR			
			Thickness: 2.4			
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: 90	1		pcs
			Material type: NBR			
			Thickness: 4			
112a	Retaining ring			1		pcs
150a	Stator w/housing cpl.			1		pcs
	Cover				1	
	Flex insulation				0	
48	Stator				1	
55	Stator housing				1	
159	O-ring		Diameter: Â 52		1	
			Material type: NBR			
			Thickness: 3			
173	Cross recess Pan head screw		Designation: CROSS-HEAD SCREW		1	
173a	Lock washer				1	
176	Plug				1	
	Pin connector					
1031	Connector pin				6	



**Date:** 2/22/2018

Position	Description	Annotation	Classification data	Part No.	Count	Unit
153	Ball bearing		Designation: 3205.2ZR		1	pcs
153a	Lock washer				1	pcs
153b	Retaining ring				1	pcs
154	Ball bearing		Designation: 6205.2Z.C4.SYN		1	pcs
155	Oil chamber				1	pcs
158	Waved washer				1	pcs
159	O-ring		Diameter: Â 52		1	pcs
			Material type: NBR			
			Thickness: 3			
172	Shaft w/rotor				1	pcs
- 181	Cable				1	pcs
198	O-ring		Diameter: 34.2		1	
			Material type: NBR			
			Thickness: 3			
188.a	Hex socket head cap screw		Length: 25		12	pcs
			Thread: M8			
190	Lifting bracket				1	pcs
193	Hex socket head cap screw		Designation: A2-70		2	pcs
			Length: 20			
			Thread: M12			
193a	Oil				0	L
194	Washer		Inner diameter: 19		2	pcs
			Outer diameter: 12.2			
			Thickness: 4.4			