

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

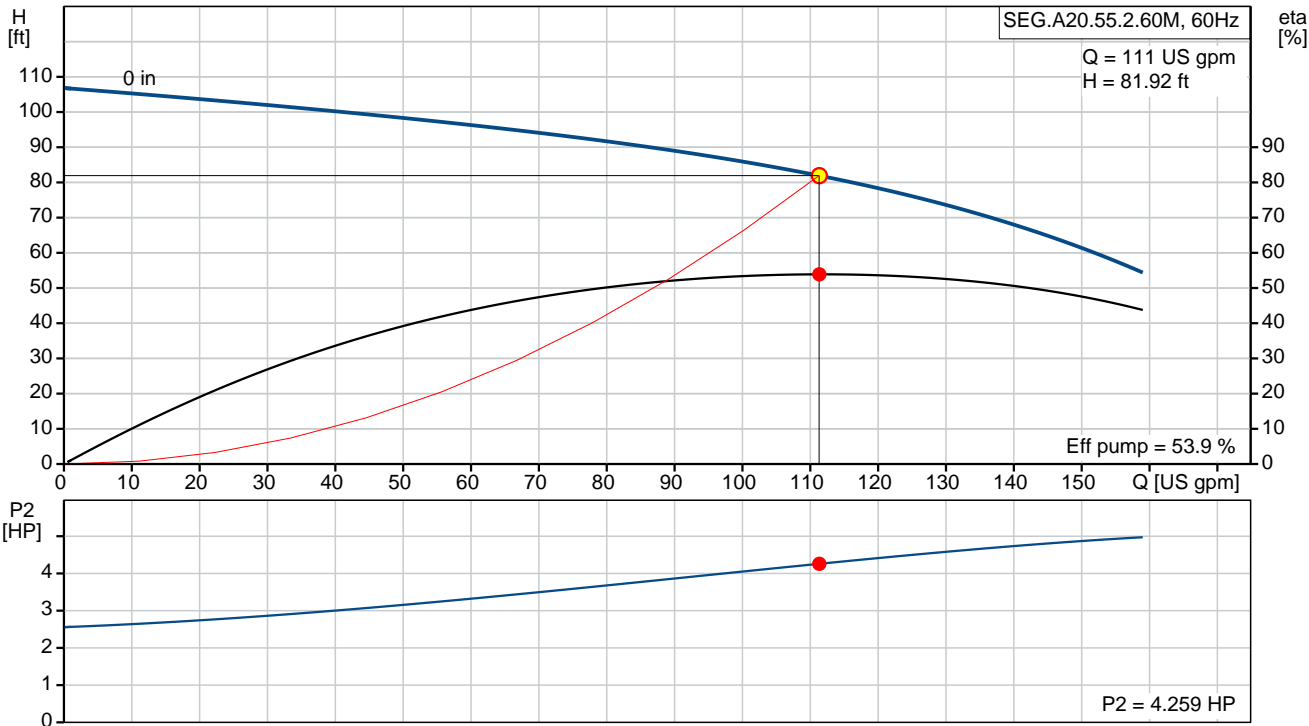


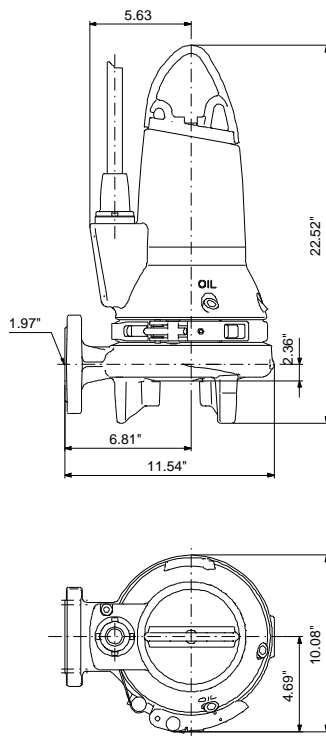
SEG.A20.55.2.60M

Grinder pumps

Product photo could vary from the actual product

Conditions of Service		Pump Data		Motor Data	
Flow:	111 US gpm	Maximum operating pressure:	87 psi	Rated voltage:	200-230 V
Head:	81.92 ft	Liquid temperature range:	32 .. 104 °F	Main frequency:	60 Hz
Efficiency:	_____	Maximum ambient temperature:	104 °F	Number of poles:	2
Liquid:	any viscous fluid	Approvals:	PA-I	Enclosure class:	IP68
Temperature:	_____	Flange standard:	ANSI	Insulation class:	F
NPSH required:	ft	Product number:	98280865	Motor protection:	THERMAL SWITCH
Viscosity:	_____			Thermal protection:	external
Specific Gravity:	1.000				





**Materials:**

Pump housing: Cast iron  
 EN1561 EN-GJL-200  
 ASTM A48 30B

Impeller: Cast iron  
 EN1561 EN-GJL-200  
 ASTM A48 30B

## Tender Text



Product photo could vary from the actual product

Product No.: [98280865](#)

**SEG.A20.55.2.60M**

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/ft<sup>3</sup>

### Technical:

Actual calculated flow: 111 US gpm

Resulting head of the pump: 81.92 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  
EN1561 EN-GJL-200  
ASTM A48 30B

**Installation:**

Maximum ambient temperature: 104 °F  
Maximum operating pressure: 87 psi  
Flange standard: ANSI  
Pipework connection: 2"  
Size of outlet port: 2 inch  
Pressure stage: PN 10  
Maximum installation depth: 32.81 ft  
Auto-coupling: 98245790

**Electrical data:**

Power input - P1: 5 kW  
Rated power - P2: 5.5 HP  
Main frequency: 60 Hz  
Rated voltage: 3 x 200-230 V  
Voltage tolerance: +6/-10 %  
Max starts per. hour: 30  
Rated current: 16-14 A  
Starting current: 89.5 A  
Rated current at no load: 4.5 A  
Cos phi - power factor: 0,91  
Cos phi - p.f. at 3/4 load: 0,79  
Cos phi - p.f. at 1/2 load: 0,66  
Rated speed: 3463 rpm  
Moment of inertia: 0.57 lb ft<sup>2</sup>  
Motor efficiency at full load: 0.8 %  
Motor efficiency at 3/4 load: 0.8 %  
Motor efficiency at 1/2 load: 0.76 %  
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

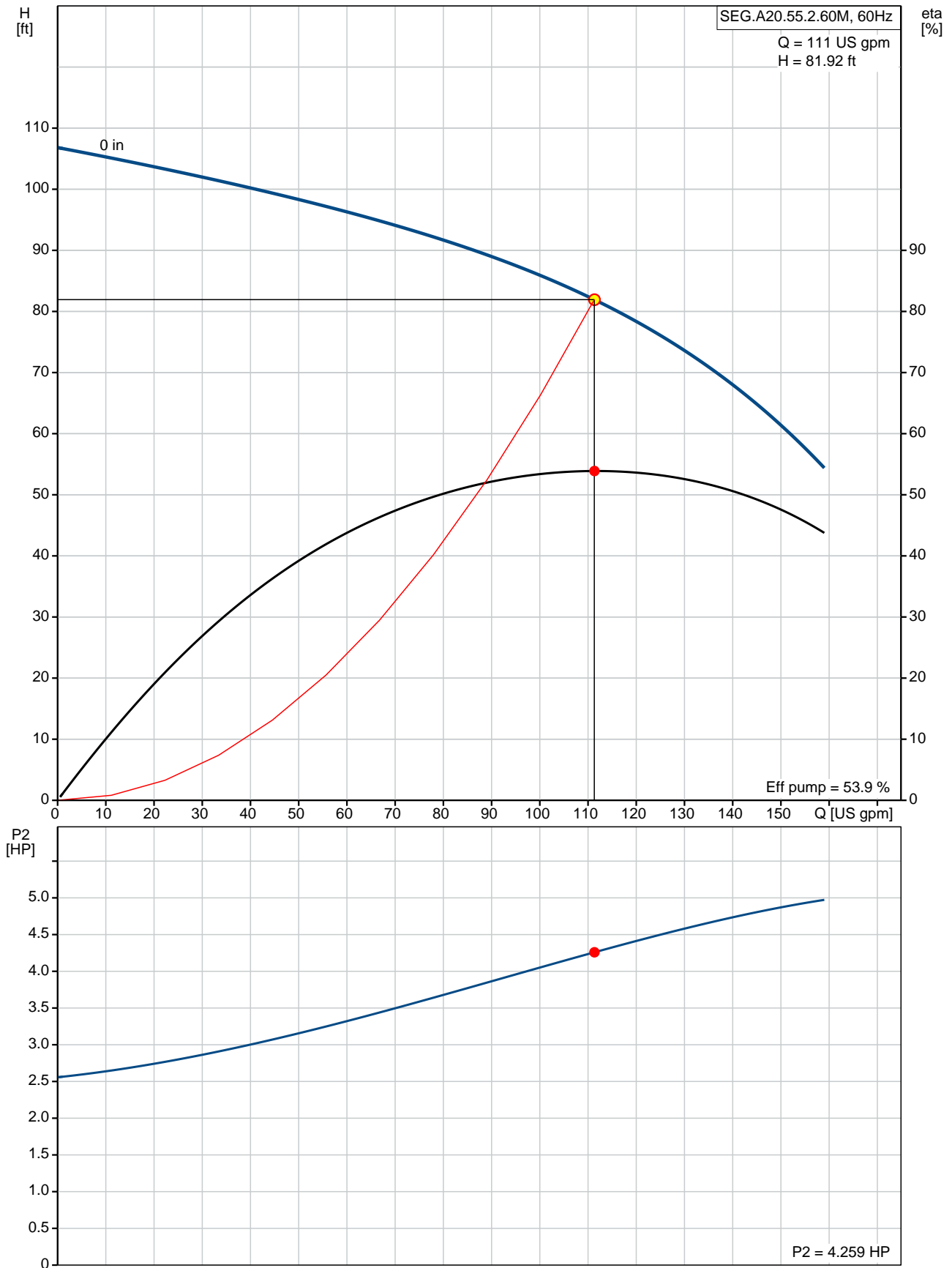
**Others:**

Net weight: 179 lb

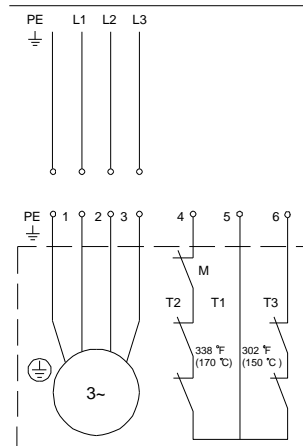
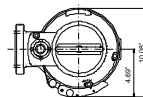
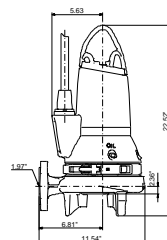
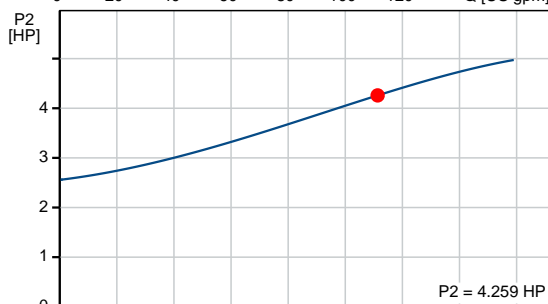
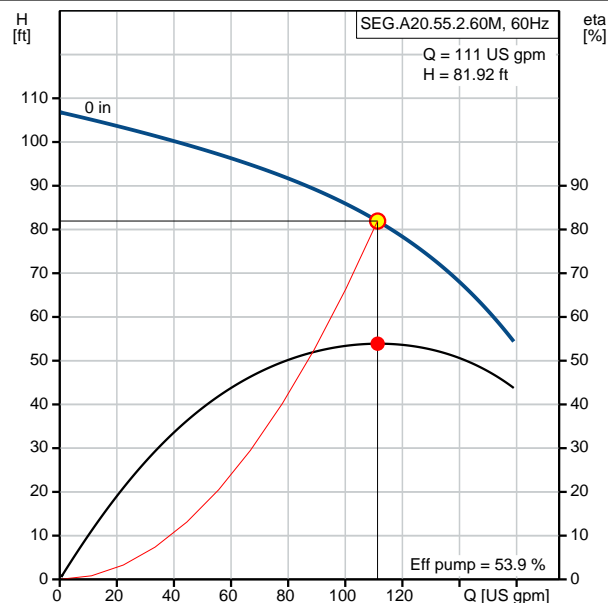
Position	Count	Description																												
	1	<div><div></div><div>Product photo could vary from the actual product</div></div> <p>Product No.: <a href="#">98280865</a></p> <p>Grundfos SEG pumps are submersible pumps with horizontal discharge port, specifically designed for pressurized pumping of wastewater with discharge from toilets.</p> <p>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.</p> <p>The surface of the pump is smooth to prevent dirt and impurities from sticking to the pump.</p> <p>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.</p> <p>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.</p> <p>The pump must be connected to a control box or a controller.</p> <p>The pump has been tested by CSA.</p> <p><b>Controls:</b></p> <table><tr><td>Moisture sensor:</td><td>with moisture sensors</td></tr><tr><td>AUTOADAPT:</td><td>NO</td></tr></table> <p><b>Liquid:</b></p> <table><tr><td>Pumped liquid:</td><td>any viscous fluid</td></tr><tr><td>Liquid temperature range:</td><td>32 .. 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>111 US gpm</td></tr><tr><td>Resulting head of the pump:</td><td>81.92 ft</td></tr><tr><td>Type of impeller:</td><td>Grinder System</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>PA-I</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>Cast iron EN1561 EN-GJL-200 ASTM A48 30B</td></tr><tr><td>Impeller:</td><td>Cast iron</td></tr></table>	Moisture sensor:	with moisture sensors	AUTOADAPT:	NO	Pumped liquid:	any viscous fluid	Liquid temperature range:	32 .. 104 °F	Density:	62.29 lb/ft³	Actual calculated flow:	111 US gpm	Resulting head of the pump:	81.92 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	Pump housing:	Cast iron EN1561 EN-GJL-200 ASTM A48 30B	Impeller:	Cast iron
Moisture sensor:	with moisture sensors																													
AUTOADAPT:	NO																													
Pumped liquid:	any viscous fluid																													
Liquid temperature range:	32 .. 104 °F																													
Density:	62.29 lb/ft³																													
Actual calculated flow:	111 US gpm																													
Resulting head of the pump:	81.92 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																													
Pump housing:	Cast iron EN1561 EN-GJL-200 ASTM A48 30B																													
Impeller:	Cast iron																													

Position	Count	Description
		<p>EN1561 EN-GJL-200 ASTM A48 30B</p> <p><b>Installation:</b>  Maximum ambient temperature: 104 °F  Maximum operating pressure: 87 psi  Flange standard: ANSI  Pipework connection: 2"  Size of outlet port: 2 inch  Pressure stage: PN 10  Maximum installation depth: 32.81 ft  Auto-coupling: 98245790</p> <p><b>Electrical data:</b>  Power input - P1: 5 kW  Rated power - P2: 5.5 HP  Main frequency: 60 Hz  Rated voltage: 3 x 200-230 V  Voltage tolerance: +6/-10 %  Max starts per. hour: 30  Rated current: 16-14 A  Starting current: 89.5 A  Rated current at no load: 4.5 A  Cos phi - power factor: 0,91  Cos phi - p.f. at 3/4 load: 0,79  Cos phi - p.f. at 1/2 load: 0,66  Rated speed: 3463 rpm  Moment of inertia: 0.57 lb ft<sup>2</sup>  Motor efficiency at full load: 0.8 %  Motor efficiency at 3/4 load: 0.8 %  Motor efficiency at 1/2 load: 0.76 %  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</p> <p><b>Others:</b>  Net weight: 179 lb</p>

## 98280865 SEG.A20.55.2.60M 60 Hz



Description	Value
<b>General information:</b>	
Product name:	SEG.A20.55.2.60M
Product No.:	98280865
EAN:	5711492381397
<b>Technical:</b>	
Actual calculated flow:	111 US gpm
Max flow:	159 US gpm
Resulting head of the pump:	81.92 ft
Head max:	107 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
<b>Materials:</b>	
Pump housing:	Cast iron
	EN1561 EN-GJL-200
	ASTM A48 30B
Impeller:	Cast iron
	EN1561 EN-GJL-200
	ASTM A48 30B
<b>Installation:</b>	
Maximum ambient temperature:	104 °F
Maximum operating pressure:	87 psi
Flange standard:	ANSI
Pipework connection:	2"
Size of outlet port:	2 inch
Pressure stage:	PN 10
Maximum installation depth:	32.81 ft
Inst dry/wet:	SUBMERGED
Auto-coupling:	98245790
<b>Liquid:</b>	
Pumped liquid:	any viscous fluid
Liquid temperature range:	32 .. 104 °F
Density:	62.29 lb/ft <sup>3</sup>
<b>Electrical data:</b>	
Power input - P1:	5 kW
Rated power - P2:	5.5 HP
Main frequency:	60 Hz
Rated voltage:	3 x 200-230 V
Voltage tolerance:	+6/-10 %
Max starts per. hour:	30
Rated current:	16-14 A
Starting current:	89.5 A
Rated current at no load:	4.5 A
Cos phi - power factor:	0,91
Cos phi - p.f. at 3/4 load:	0,79
Cos phi - p.f. at 1/2 load:	0,66
Rated speed:	3463 rpm
Moment of inertia:	0.57 lb ft <sup>2</sup>
Motor efficiency at full load:	0.8 %
Motor efficiency at 3/4 load:	0.8 %
Motor efficiency at 1/2 load:	0.76 %
Number of poles:	2







Company name:

Created by:

Phone:

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

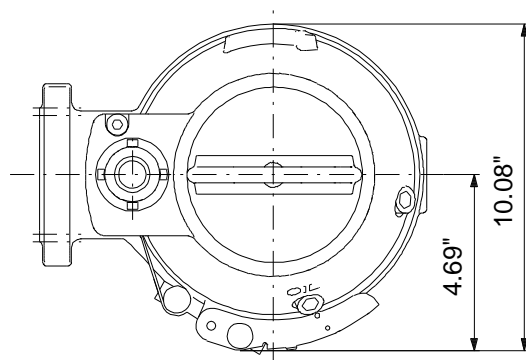
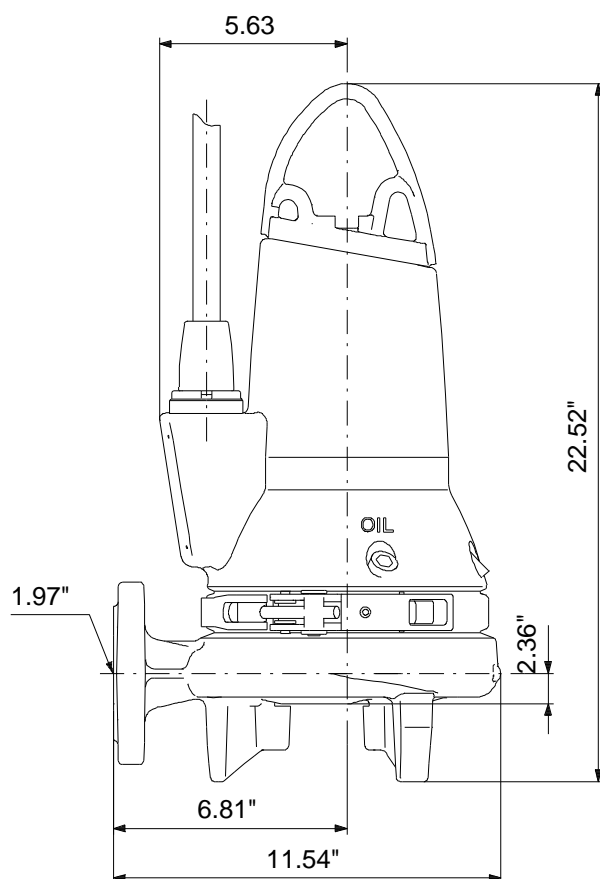
**Controls:**

Control box:	not included
Additional I/O:	External
Moisture sensor:	with moisture sensors
AUTOADAPT:	NO

**Others:**

Net weight:	179 lb
Sales region:	Namreg

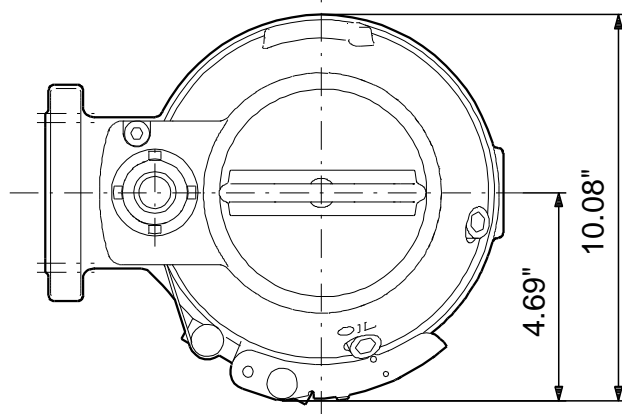
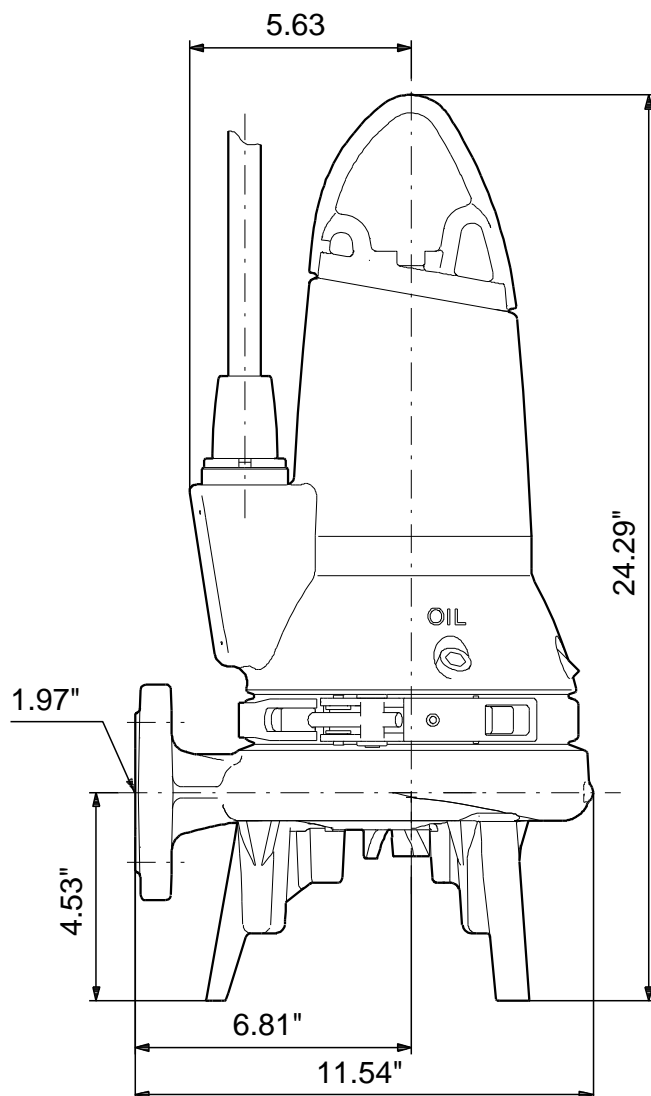
## 98280865 SEG.A20.55.2.60M 60 Hz



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



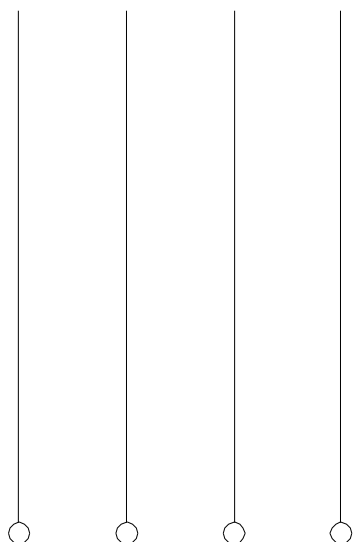
## 98280865 SEG.A20.55.2.60M 60 Hz



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

**98280865 SEG.A20.55.2.60M 60 Hz**

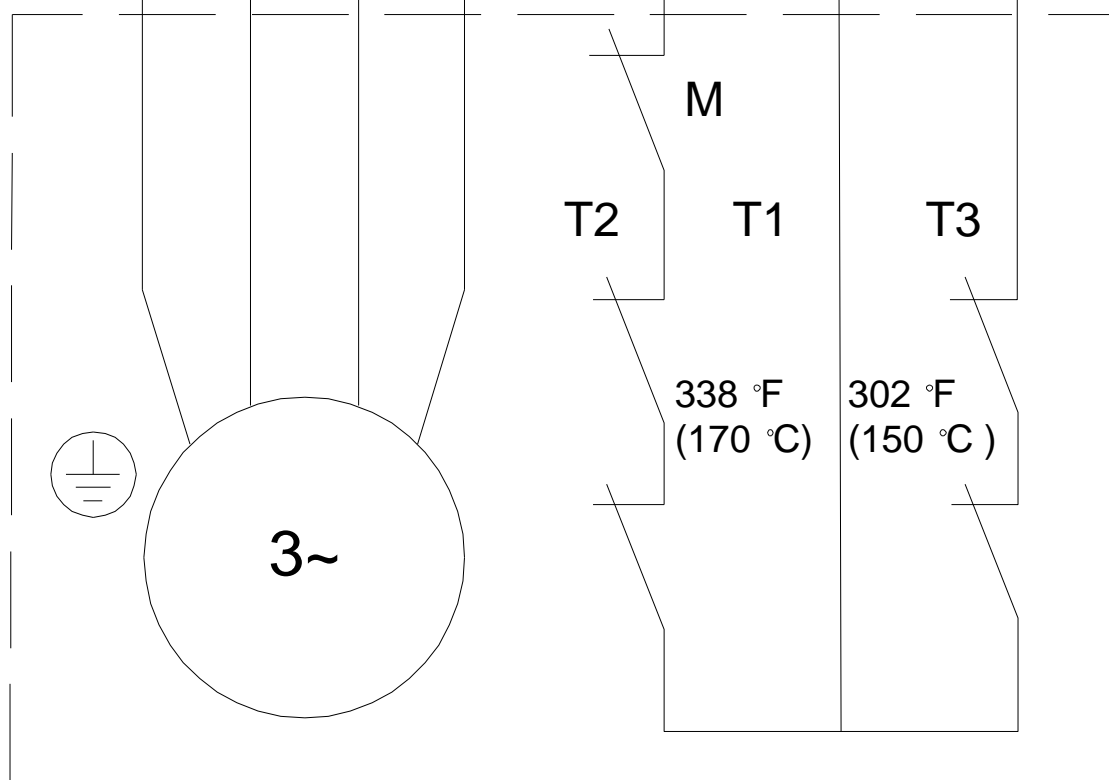
PE L1 L2 L3



PE



1 2 3 4 5 6



All units are [mm] unless otherwise presented.



Company name:

Created by:

Phone:

Date:

2/22/2018

---

**Order Data:**

Product name: SEG.A20.55.2.60M

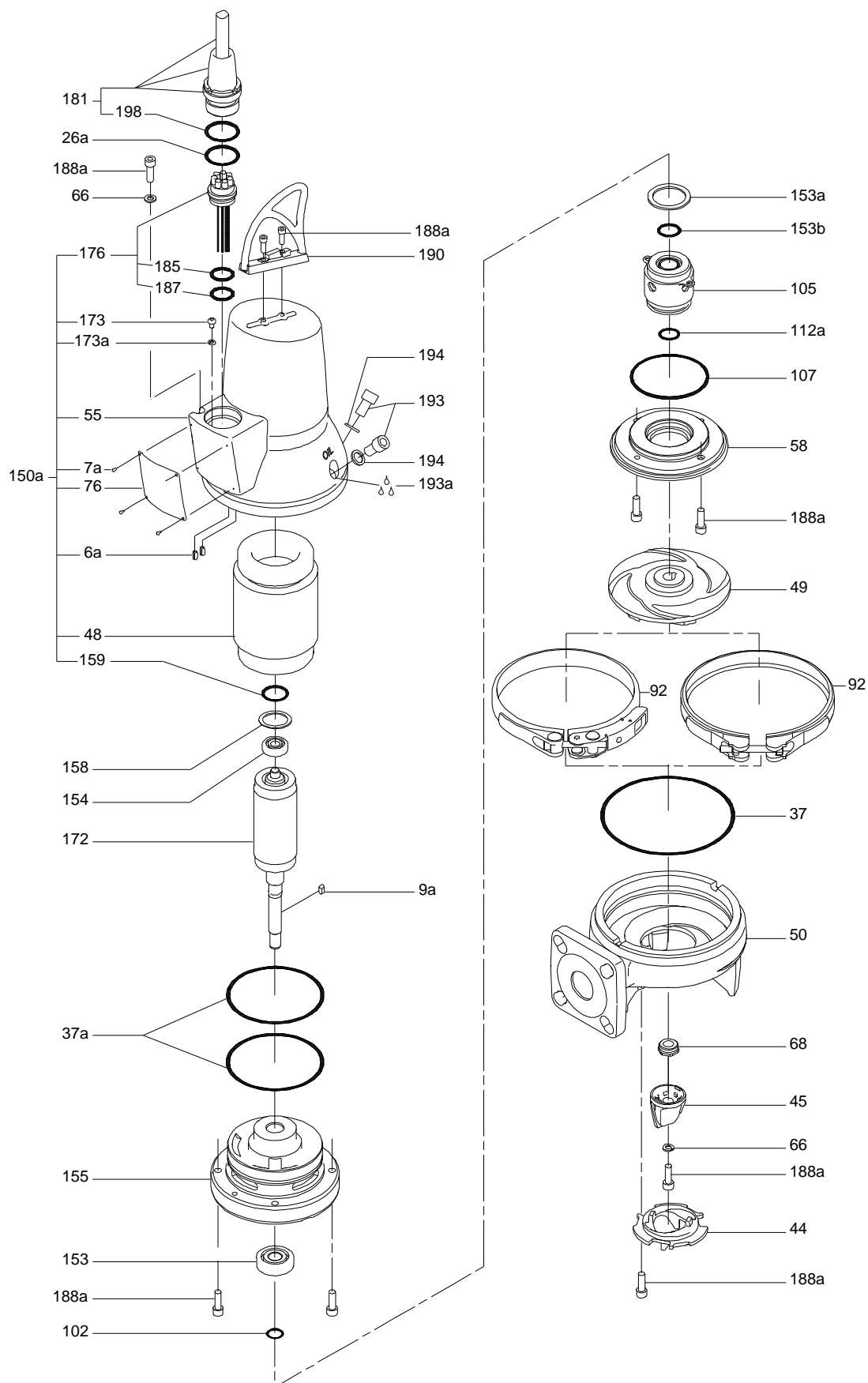
Amount: 1

Product No.: 98280865

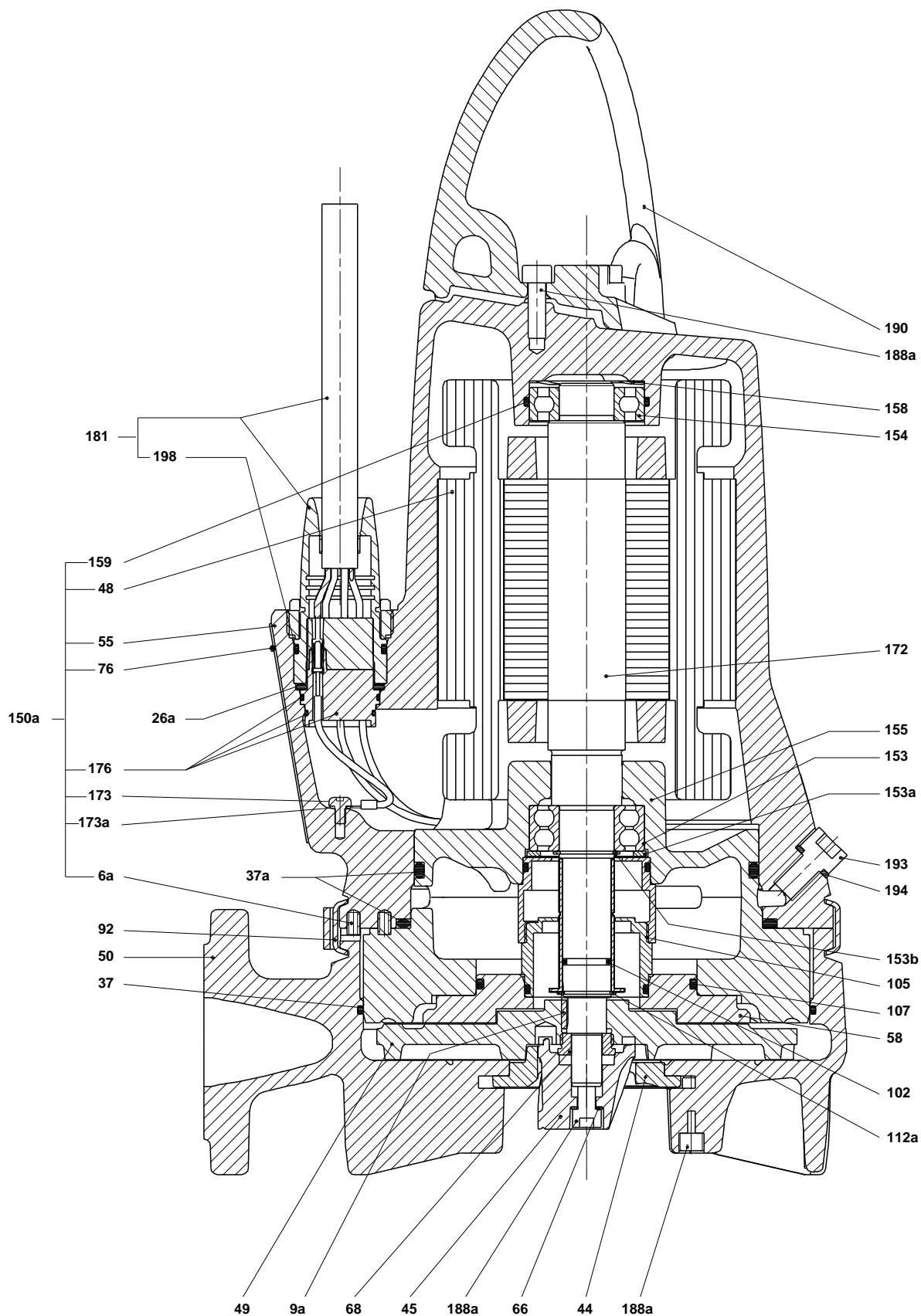
Total: Price on request

---

## Exploded view ( TM065759 SEG 2.6-4.0KW)



## Sectional drawing





**Parts list SEG.A20.55.2.60M, Prod number 98280865**
**Valid from 3.5.2013 (1318)**

Position	Description	Annotation	Classification data	Part No.	Count	Unit
6a	Pin				1	pcs
7a	Rivet				4	pcs
9a	Key				1	pcs
26.a	O-ring		Diameter: 32 Material type: NBR Thickness: 4		1	pcs
37	O-ring		Diameter: 204 Material type: NBR Thickness: 3		1	pcs
37a	O-ring		Diameter: 144.3 Material type: NBR Thickness: 5.7		2	pcs
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 Material type: NBR Thickness: 2.4		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 Material type: NBR Thickness: 3		2	
107	O-ring		Diameter: 90 Material type: NBR Thickness: 4		1	pcs
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: Å 52 Material type: NBR Thickness: 3		1	
173	Cross recess Pan head screw		Designation: CROSS-HEAD SCREW		1	
173a	Lock washer				1	
- 176	Plug				1	
	Pin connector					
1031	Connector pin				6	

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: Å 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			