

### CRN32-6 A-F-G-E-HQQE 3x400/690 50 HZ Grundfos pump 96122361



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https://www.lenntech.com/grundfos/CRN32/96122361/CRN-32-6-A-F-G-E-HQQE.html

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#### Position | Qty. | Description

1 CRN 32-6 A-F-A-E-HQQE



Product No.: On request

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via DIN flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

#### Further product details

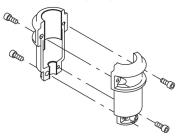
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

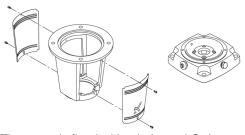
The colour code for the finished product is NCS 9000/RAL 9005.

#### **Pump**

A long split coupling connects the pump and motor shaft. It is enclosed in the motor stool by means of two coupling guards. The long coupling makes it possible to replace the shaft seal without removing the motor from the pump.



The motor stool connects the pump head and motor. The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

#### Primary seal

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

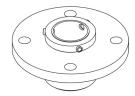
This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

#### Position | Qty. | Description

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.

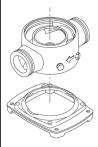




The shaft seal is retained in the pump head by a cover and screws. It can be replaced without removing the motor.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The pump has a stainless-steel base mounted on a separate base plate. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. Both the inlet and the outlet side of the base have two pressure gauge tappings. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.



#### Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II). Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

#### **Technical data**

#### Controls:

Frequency converter: NONE

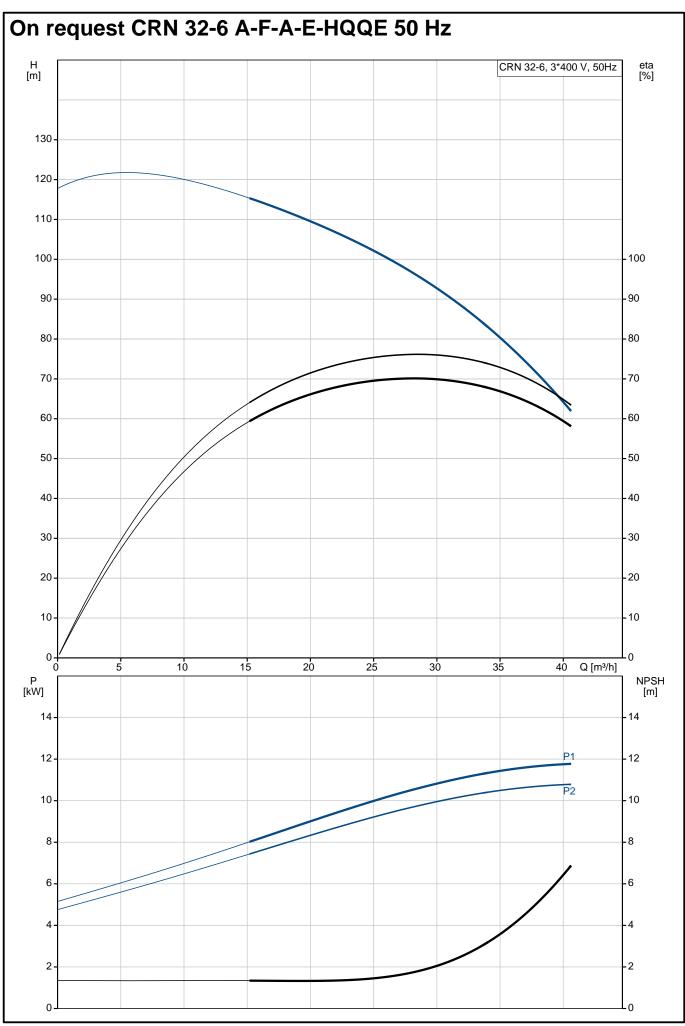
#### Liquid:

Pumped liquid: Water
Liquid temperature range: -40 .. 120 °C
Liquid temperature during operation: 20 °C
Density: 998.2 kg/m³

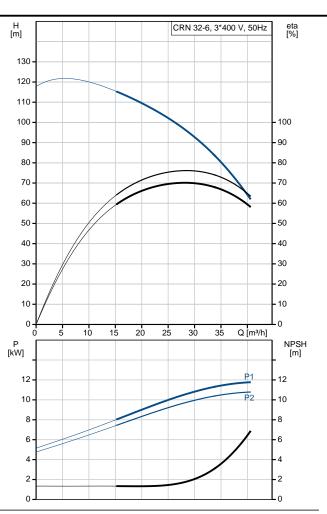
#### Technical:

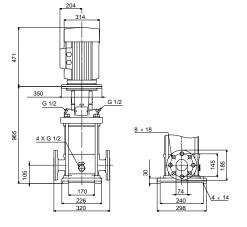
Rated flow: 30 m³/h
Rated head: 90.4 m
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

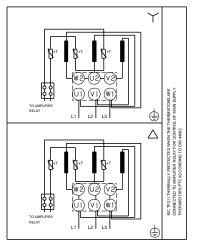
Position	Qty.	Description	
		Approvals on nameplate:	CE, EAC,ACS
		Curve tolerance:	ISO9906:2012 3B
		Materials:	
		Base:	Stainless steel
			EN 1.4408
			AISI 316
		Impeller:	Stainless steel
			EN 1.4401
			AISI 316
		Bearing:	SIC
		Support bearing:	Graflon
		Installation:	
		Maximum ambient temperature:	60 °C
		Maximum operating pressure:	16 bar
		Max pressure at stated temp:	16 bar / 120 °C
		max process o at clases temp.	16 bar / -40 °C
		Type of connection:	DIN
		Size of inlet connection:	DN 65
		Size of outlet connection:	DN 65
		Pressure rating for pipe connecti	
		Flange size for motor:	FF300
		Electrical data:	
		Motor standard:	IEC
		Motor type:	160MB
		IE Efficiency class:	IE3
		Rated power - P2:	11 kW
		Power (P2) required by pump:	11 kW
		Mains frequency:	50 Hz
		Rated voltage:	3 x 380-415D/660-690Y V
		Rated current:	20,8-19,8/12,0-11,8 A
		Starting current:	660-780 %
		Cos phi - power factor:	0.88-0.84
		Rated speed:	2940-2950 rpm
		Efficiency:	IE3 91,2%
		Motor efficiency at full load:	91.2-91.2 %
		Motor efficiency at 3/4 load:	91.8 %
		Motor efficiency at 1/2 load:	91.3 %
		Number of poles:	2
		Enclosure class (IEC 34-5):	55 Dust/Jetting
		Insulation class (IEC 85):	F
		Others:	
		Minimum efficiency index, MEI	. 0.7
		Net weight:	. 0.7 163 kg
		Gross weight:	196 kg
		Shipping volume:	0.495 m <sup>3</sup>
		Danish VVS No.:	385916060
		Danish VVS No	303910000



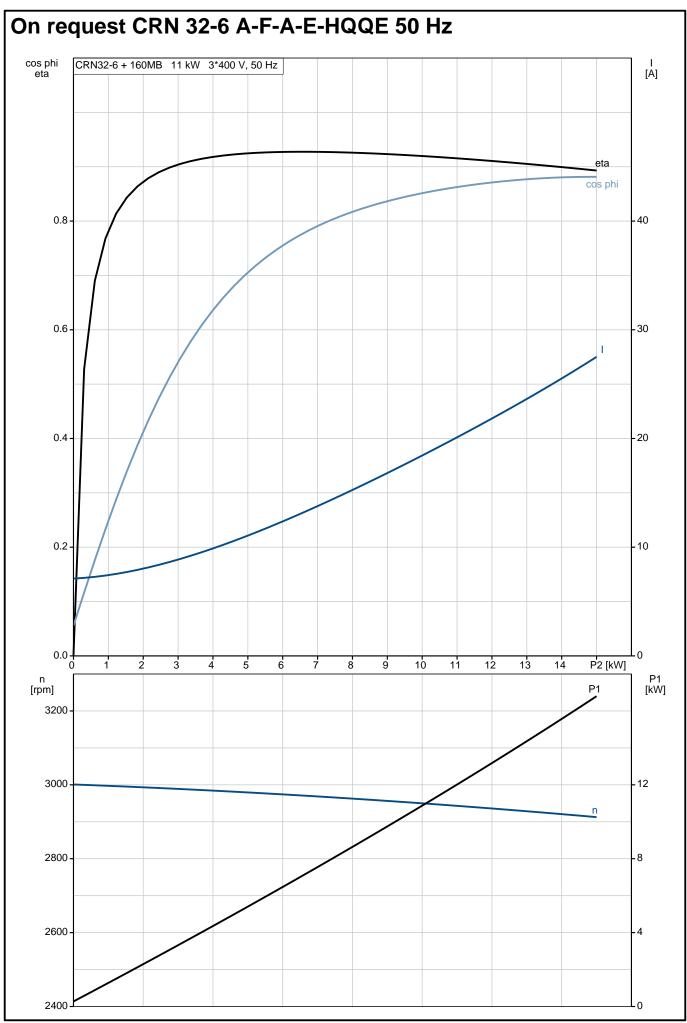
Description	Value
General information:	Value
Product name:	CRN 32-6 A-F-A-E-HQQE
Product No:	
	On request
EAN number:	On request
Technical:	
Rated flow:	30 m³/h
Rated head:	90.4 m
Stages:	6
Impellers:	6
Number of reduced-diameter impellers:	0
Number of reduced-diameter impeliers.	O
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE, EAC,ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
·	
Model:	В
Materials:	0:11
Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Material code:	A
Code for rubber:	E
Bearing:	SIC
Support bearing:	Graflon
Installation:	Granon
	60 %
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
	16 bar / -40 °C
Type of connection:	DIN
Size of inlet connection:	DN 65
Size of outlet connection:	DN 65
Pressure rating for pipe connection:	PN 40
Flange size for motor:	FF300
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-40 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	IEO
Motor standard:	IEC
Motor type:	160MB
IE Efficiency class:	IE3
Rated power - P2:	11 kW
Power (P2) required by pump:	11 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D/660-690Y V
Rated current:	20,8-19,8/12,0-11,8 A
Starting current:	660-780 %
Cos phi - power factor:	0.88-0.84
Rated speed:	2940-2950 rpm
Efficiency:	IE3 91,2%
Motor efficiency at full load:	91.2-91.2 %
Motor efficiency at 3/4 load:	91.8 %
Motor efficiency at 1/2 load:	91.3 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
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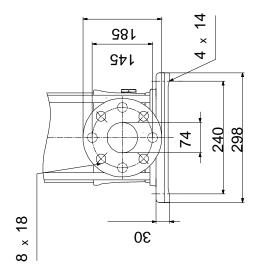


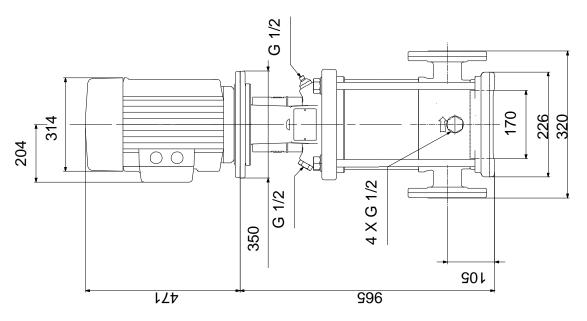


Description	Value
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17524
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI :	0.7
Net weight:	163 kg
Gross weight:	196 kg
Shipping volume:	0.495 m³
Danish VVS No.:	385916060

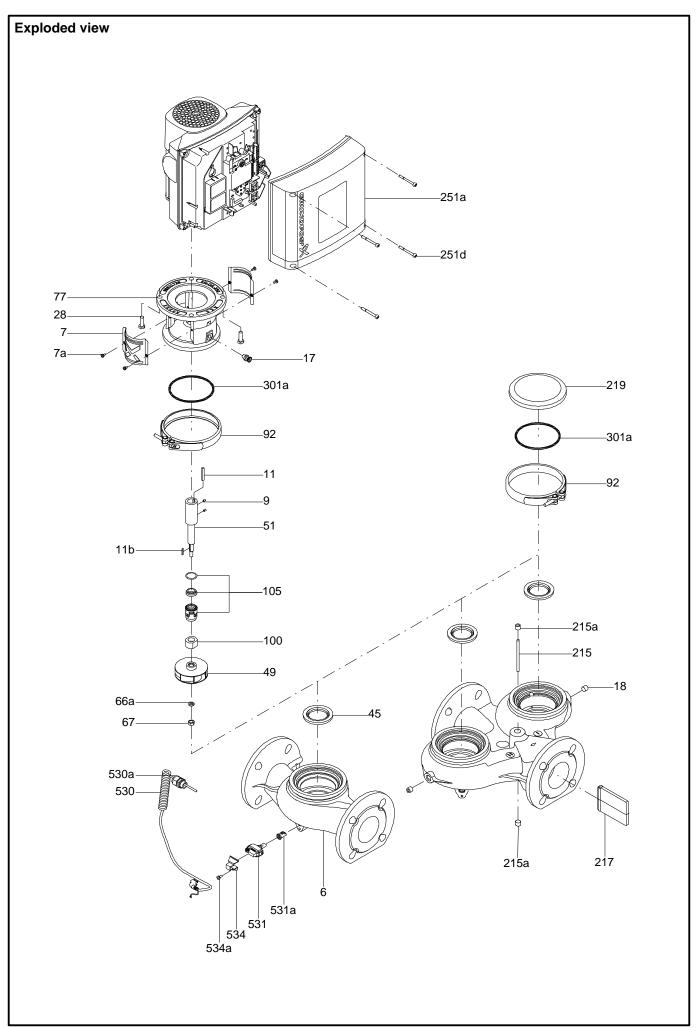


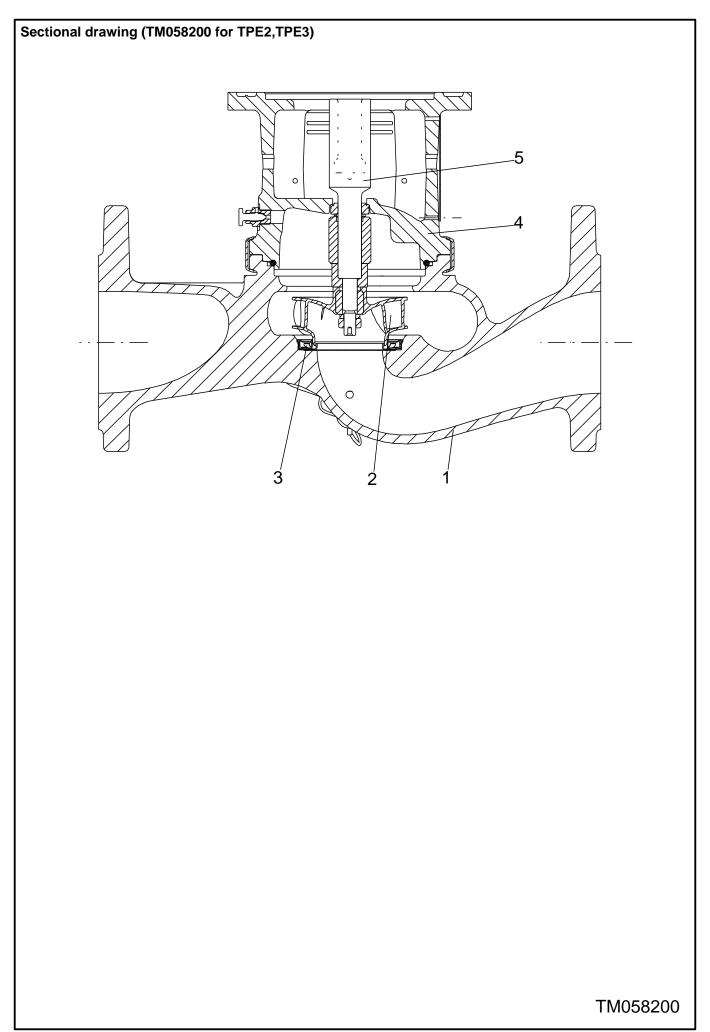
## On request CRN 32-6 A-F-A-E-HQQE 50 Hz

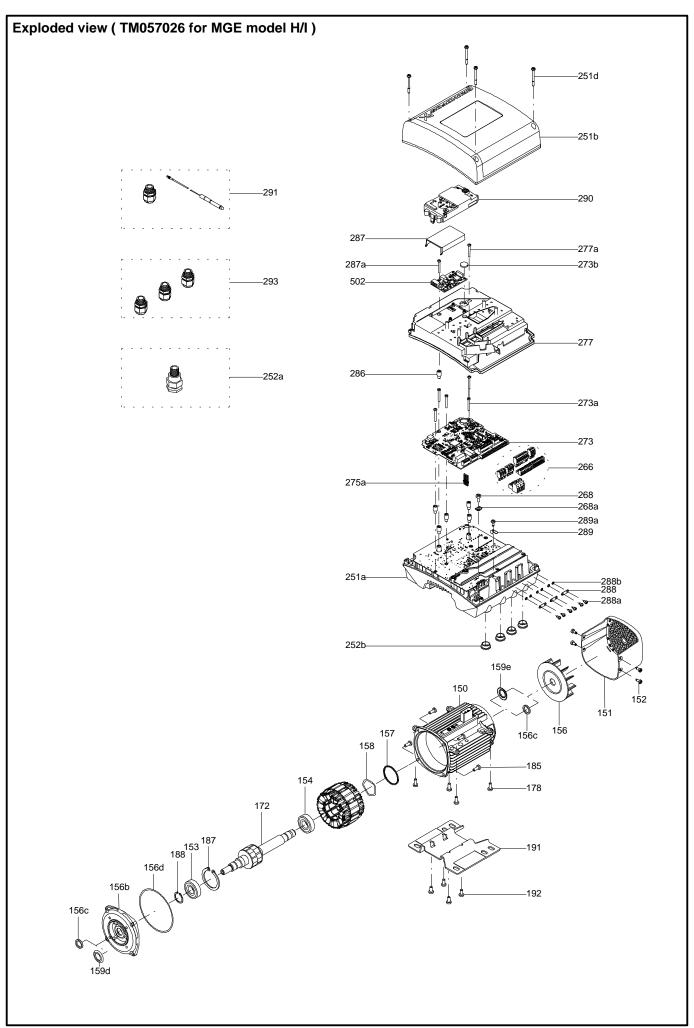




Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.







# Parts list CRN 32-6, Product No. On request Valid from 25.3.2011 (1112)

	Description  Motor	Annotation Données de classification Référence Q	uantit	é Uni pcs
1	Basic unit	1		pcs
		I		pcs
2a	Pump head cpl.		1	
2	Pump head	Designation, DIN 042		1
9	Hex socket head cap screw	Designation: DIN 912		4
		Length (mm): 25		
		Thread: M10		
18	Air vent screw			1
	Plug			
	Spindle			
23	Plug			1
37	O-ring			1
58	Cover			1
60	Spring			4
100	O-ring	Diameter: 16,3		2
	ū	Material type: EPDM		
		Thickness: 2,4		
6b	Base cpl.	Rubber type: EPDM	1	
UD	Bearing ring, stationary	Nabbol typo. Li Divi		1
6	Base			1
6				
25	Plug			4
31	Hex socket head cap screw	B 1 2 BW 1054		1
32	Washer	Designation: DIN 125A		1
		Internal diameter: 6,4		
		Outer diameter: 12,0		
		Thickness: 1,6		
37	O-ring			1
38	O-ring	Diameter: 16,3		4
		Material type: EPDM		
		Thickness: 2,4		
56	Base plate			1
26	Staybolt	Length (mm): 632	4	
	<b>,</b>	Thread: M16		
36	Nut	Thread: M16	4	
55	Outer sleeve	Outer diameter: 197	1	
55	Outer sieeve	Length (mm): 455,5		
00-	Washer	Designation: DIN 125 A2		
66a	vvasner		4	
		Internal diameter: 17		
		Outer diameter: 30		
		Thickness: 3		
1a	Motor stool cpl.	1		pcs
1a	Motor stool		1	
7	Coupling guard		2	
7a	Socket button head screw		4	
8	Coupling cpl.	Dimension: 22/42	1	
9	Hex socket head cap screw	Designation: DIN 912		4
	·	Length (mm): 25		
		Thread: M10		
10a	Coupling half			2
28	Hex socket head cap screw	Designation: DIN 912	4	
-		Length (mm): 50	-	
		Thread: M10		
20 -	Hay had saraw	IIIIGau. IVIIU		
28.a		D. 1 . 2 . DIM 107.4	4	
32.a	Washer	Designation: DIN 125 A	8	
		Internal diameter: 17		
		Outer diameter: 30		
		Thickness: 3		
36	Hex nut	Thread: M16	4	
76	Nameplate set	1		pcs

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
76	Plate				1	
76a	Rivet				2	
- 105	Shaft seal		Material type: HQQE		1	pcs
	Adjusting fork				1	
109	O-ring				1	
110	O-ring		Diameter: 21,5		1	
			Material type: EPDM			
			Thickness: 4,25			
- 200	Flange cpl.				2	pcs
201	Flange		Diameter: DN 65		1	
			Pressure: PN 40			
203	Lock ring				1	

Disclaimer: The information about the Grundfos pump in this document may be outdated. Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

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