

## CRI1S-15 A-P-I-E-HQQE 1x220/240 50HZ

Grundfos pump 96562690



Thank you for your interest in our products. Please contact us for more information, or visit our website

https://www.lenntech.com/grundfos/CRI1S/96562690/CRI-1S-15-A-P-I-E-HQQE.html

info@lenntech.com

tel. +31 152 610 900 fax. +31 152 616 289

## Position | Qty. | Description

1 CRI 1S-15 A-P-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 stainless steel. Power transmission is via a rigid split coupling. Pipe connection is via PJE (Victaulic®) couplings.

The pump is fitted with a 1-phase, fan-cooled asynchronous motor.

## Further product details

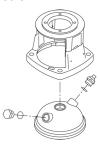
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An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

The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). 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)

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



The shaft seal is screwed into the pump head.

## Position | Qty. | Description

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. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The base is prepared for connection by means of PJE (Victualic®) couplings.



#### Motor

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

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II). Electrical tolerances comply with IEC 60034.

The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

#### **Technical data**

### Controls:

Frequency converter: NONE

Liquid:

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

Technical:

Rated flow: 0.9 m³/h
Rated head: 64.1 m
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CE, EAC,ACS
Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing: SIC

Installation:

Maximum ambient temperature: 40 °C Maximum operating pressure: 25 bar

Max pressure at stated temp: 25 bar / 120 °C

25 bar / -20 °C

Type of connection: PJE

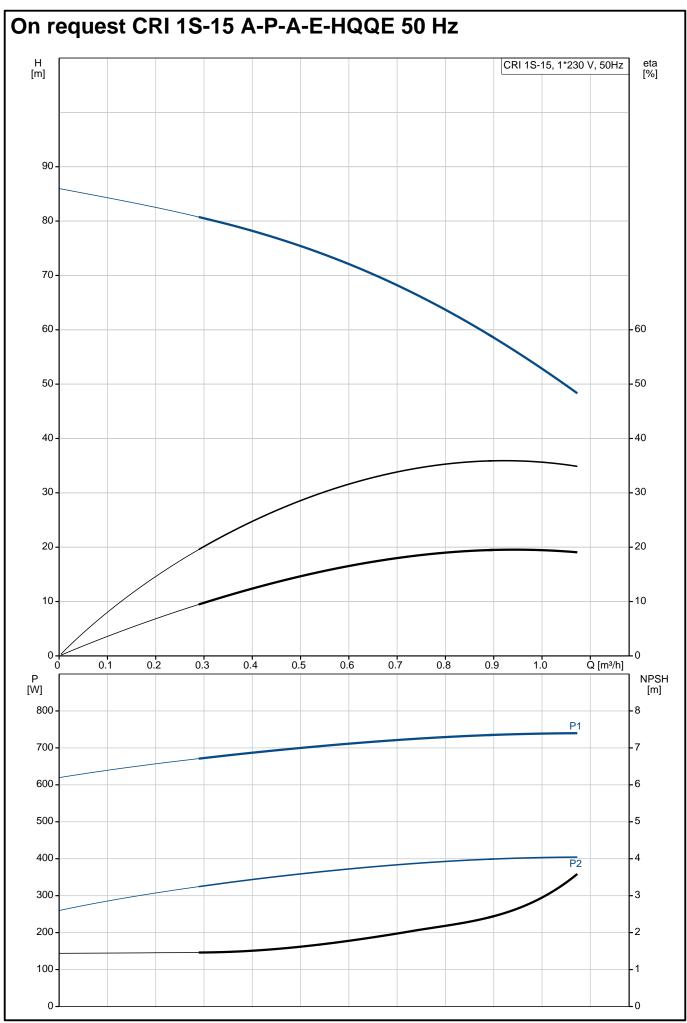
Size of inlet connection: DN 32

1 1/4 inch

Size of outlet connection: DN 32

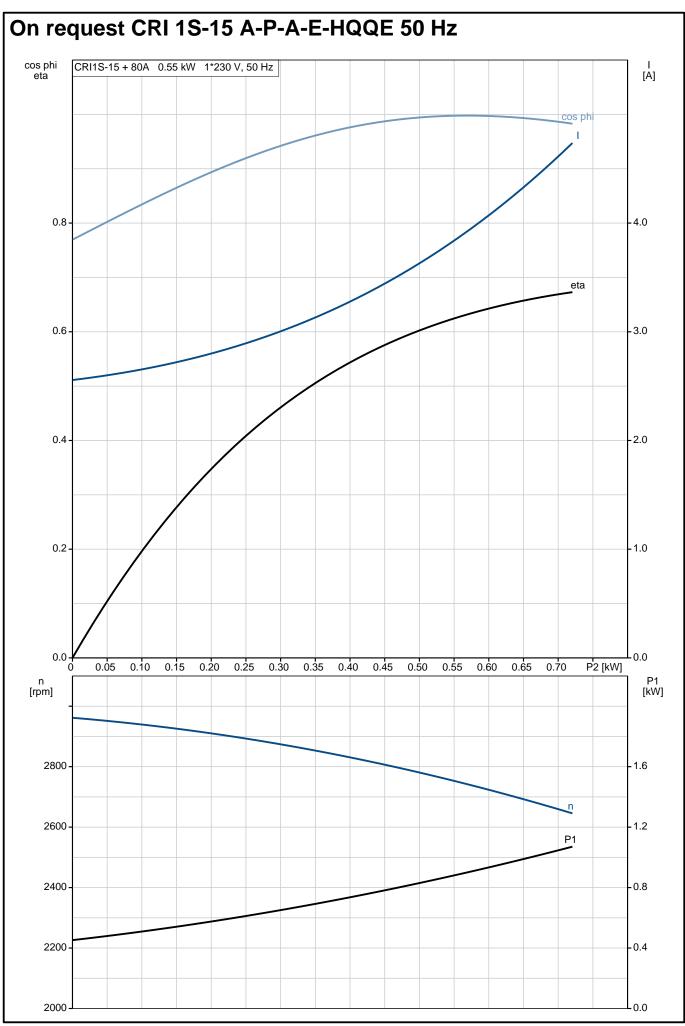
1 1/4 inch

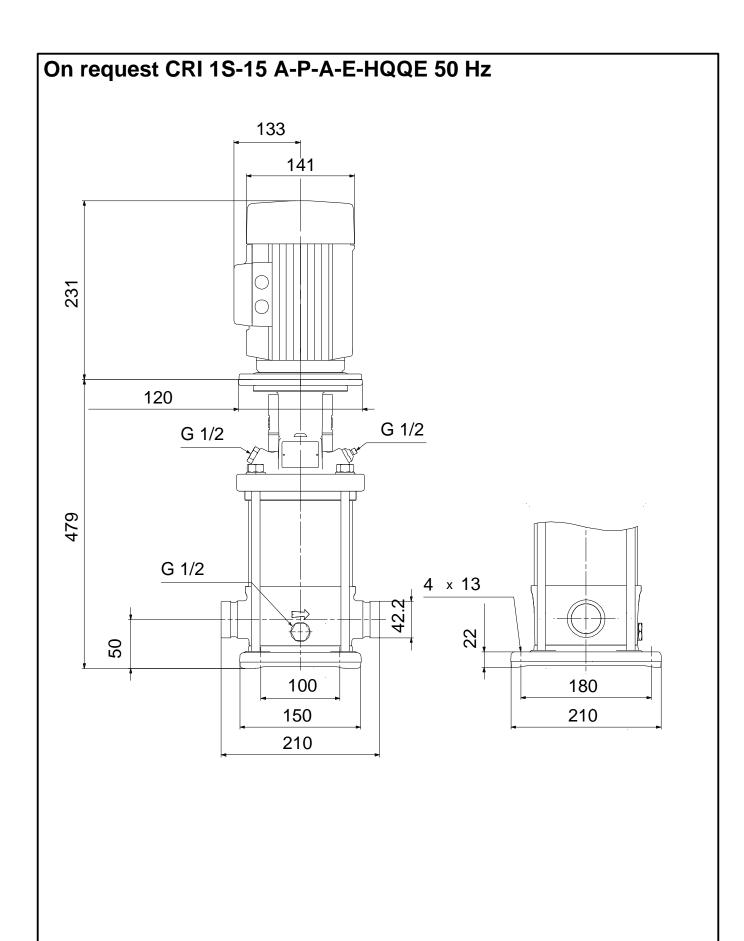
Position	Qty.	Description					
		Pressure rating for pipe connection: PN 50					
		Flange size for motor: FT100					
		Electrical data:					
		Motor standard:	IEC				
		Motor type:	80A				
		Rated power - P2:	0.55 kW				
		Power (P2) required by pump: Mains frequency:	50 Hz				
		Rated voltage:	1 x 220-230/240 V				
		Rated current:	4.00/3.65 A				
		Starting current: Cos phi - power factor:	280 % 0.99				
		Rated speed:	2750 rpm				
		Motor efficiency at full load:	66-64 %				
		Number of poles:	2				
		Enclosure class (IEC 34-5): Insulation class (IEC 85):	55 Dust/Jetting F				
		Others:					
		Minimum efficiency index, MEI Net weight:	: 0.54 24.3 kg				
		Gross weight:	27.2 kg				
		Shipping volume:	0.074 m <sup>3</sup>				



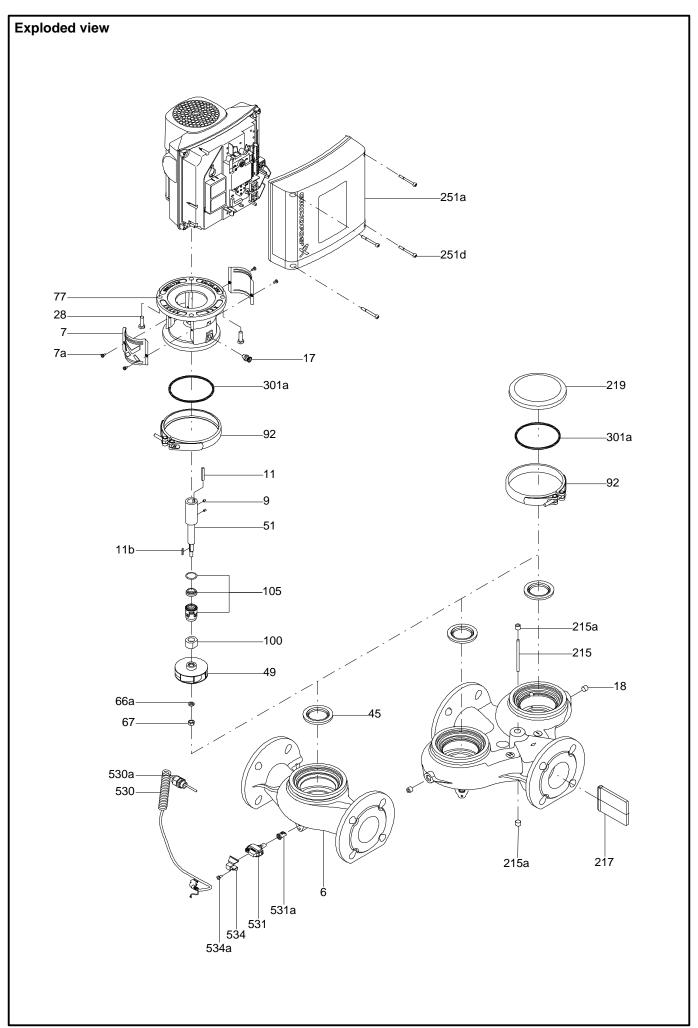
Description	Value	H [m]	CRI 1S-15, 1*230 V, 50Hz eta [%]
General information:			
Product name:	CRI 1S-15 A-P-A-E-HQQE		
Product No:	On request	90 -	
EAN number:	On request	80 -	
Technical:		6U <b>-</b>	
Rated flow:	0.9 m³/h	70 -	
Rated head:	64.1 m		
Stages:	15	60 -	-60
Impellers:	15		
Number of reduced-diameter	0	50 -	-50
impellers:			
Low NPSH:	N	40 -	40
Pump orientation:	Vertical		
Shaft seal arrangement:	Single	30 -	30
Code for shaft seal:	HQQE		
Approvals on nameplate:	CE, EAC,ACS	20 -	20
Curve tolerance:	ISO9906:2012 3B		
Pump version:	A	10 -	10
Model:	A	0 -	
Materials:			0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 Q [m³/h]
Base:	Stainless steel	P [W]	NPSH
	EN 1.4408	[vv] -	[m]
	AISI 316	700 -	7
Impeller:	Stainless steel	600 -	6
impener.	EN 1.4301	500 -	
	AISI 304		
Matadalaada		400 -	P <sub>2</sub> 4
Material code:	A	300 -	3
Code for rubber:	E	200 -	2
Bearing:	SIC	100 -	1
Installation:			
Maximum ambient temperature:	40 °C	0 -	
Maximum operating pressure:		4	_ 133 _
Max pressure at stated temp:	25 bar / 120 °C		141
	25 bar / -20 °C		
Type of connection:	PJE		<del> </del>
Size of inlet connection:	DN 32	231	
	1 1/4 inch	7	
Size of outlet connection:	DN 32		
	1 1/4 inch	1	120
Pressure rating for pipe connection:	PN 50		G 1/2 G 1/2
Flange size for motor:	FT100		
Connect code:	Р	479	
Liquid:		4	G 1/2
Pumped liquid:	Water		4 × 13
Liquid temperature range:	-20 120 °C	20	
Liquid temperature during operation:	20 °C	2	100
Density:	998.2 kg/m³		150 210
Electrical data:	550.2 Ng/III		210
Motor standard:	IEC		
	80A	60	LOW VOLTAGE
Motor type:	0.55 kW		DIRECTION OF ROTATION
Rated power - P2:			
Power (P2) required by pump:	0.55 kW		
Mains frequency:	50 Hz	Z1	
Rated voltage:	1 x 220-230/240 V		
Rated current:	4.00/3.65 A	_	
Starting current:	280 %	<del> </del>	
Cos phi - power factor:	0.99		<u>.</u>
Rated speed:	2750 rpm	(C)	DIRECTION OF ROTATION
Motor efficiency at full load:	66-64 %		
Number of poles:	2		Ø®ØØ <b> </b> ≥ <b> </b> ≥
Enclosure class (IEC 34-5):	55 Dust/Jetting	(E) (Zi	
Insulation class (IEC 85):	F	\	┌─ <b>────────────────────────</b>
	PTO		
Motor protec:	FIO		
Motor protec: Motor No:	85215103		'

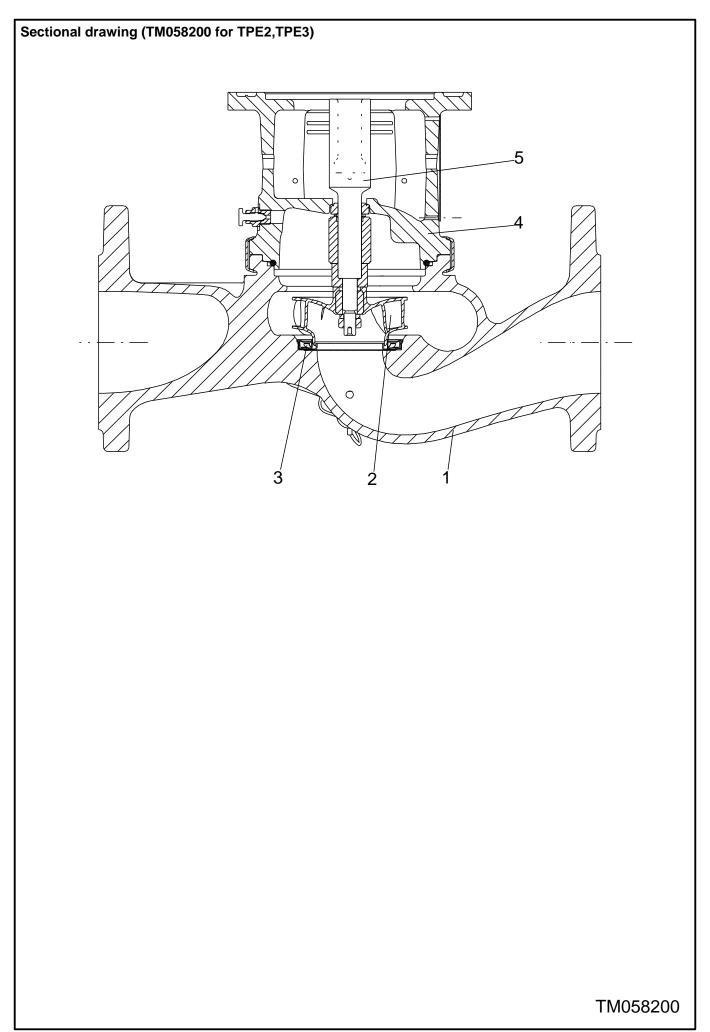
Description	Value
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI :	0.54
Net weight:	24.3 kg
Gross weight:	27.2 kg
Shipping volume:	0.074 m <sup>3</sup>
Shipping volume.	0.074 111-

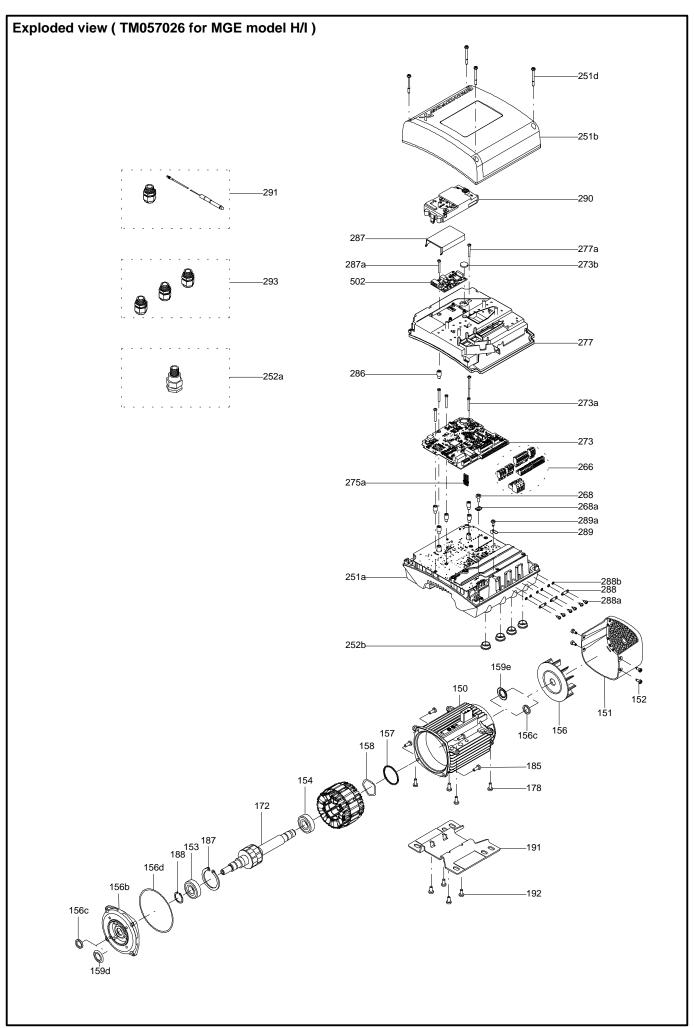




Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.







# Parts list CRI 1S-15, Product No. On request Valid from 1.1.2004 (0401)

Pos	Description Motor	Aimotation	Données de classification	- ACIGI CITUE	1	antité	D po
	Base cpl.				1		pı
6	Base					1	P
25	Plug					2	
56	Base plate					1	
	Sealing parts				1		р
25	Drain plug w/bypass valve					1	
38	O-ring		Diameter: 16,3			1	
			Material type: EPDM				
			Thickness: 2,4				
37	O-ring					2	
100	O-ring		Diameter: 16,3			2	
			Material type: EPDM				
			Thickness: 2,4				
2	Pump head cpl.		,		1		р
2	Pump head					1	-
7	Coupling guard					2	
7.a	Combi Slot Torx screw					4	
7.a 18	Air vent screw					<del>4</del> 1	
10							
	Plug					1	
00	Spindle					1	
23a	Plug					1	
28	Hex head screw		Length (mm): 25 MM			4	
			Thread: M6				
60	Formed wire spring					1	
77	Pump cover					1	
8	Coupling cpl.				1		р
9	Hex socket head cap screw		Designation: DIN 912			4	
	•		Length (mm): 20				
			Thread: M6				
10	Shaft pin		Diameter: 5			1	
	Chair pin		Length (mm): 26			•	
10a	Coupling half		2011911 (11111). 20			2	
26	Staybolt		Length (mm): 367		4		n
20	Staybolt		Thread: M12		4		р
260	Washer				4		n
36a	vvasner		Designation: DIN 125 A		4		р
			Internal diameter: 13				
			Outer diameter: 24				
			Thickness: 2,5				
55	Outer sleeve				1		р
66a			Thread: M12		4		р
80	Chamber stack				1		р
4	Chamber cpl.					12	
	Guide vane					6	
	Plate					1	
	Retainer					1	
	Intermediate chamber					1	
	Vane					1	
45	Neck ring					1	
65	Retainer					1	
4a						2	
4d	Chamber w. bearing cpl.						
	Guide vane					6	
	Retainer for bearing					1	
	Bearing bush					1	
	Retainer					1	
	Intermediate chamber					1	
	Vane					1	
	NI I '					1	
45	Neck ring						

Pos	Description	Annotation	Données de classification	Référence	Quantit	é Unité
- 5a	Chamber cpl.				1	
	Retainer					1
	Intermediate chamber					1
	Vane					1
45	Neck ring					1
65	Retainer					1
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				2	
- 49	Impeller cpl.				15	
49	Impeller					1
- 50a	Guide vane cpl.				1	
	Plate					1
50a	Guide vane					6
50b	Top plate					1
- 51	Shaft, spline, cpl.				1	
51	Shaft					1
62	Stop ring					1
64a	Spacing pipe				12	
64a	Spacing pipe		Internal diameter: 12,85		2	
			Outer diameter: 15,85			
			Length (mm): 4,50			
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
66	Wedge lock washer				1	
- 105	Shaft seal		Material type: HQQE		1	pcs
	O-ring				1	
	O-ring				1	
	Seal driver, upper				1	
	Seal driver, lower				1	
	Spacer ring				1	
	Pipe				1	
	Plug				1	
	Plug				1	
	Compression spring				1	
	Socket set screw				1	
102	O-ring		Diameter: 22,00		1	
			Material type: EPDM			
			Thickness: 2,75			
103	Seal ring, stationary		•		1	
105	Seal ring, rotating				1	
107	O-ring				1	
113	Driver				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.

All information is copyright Grundfos.



info@lenntech.com https://www.lenntech.com tel. +31 152 610 900 fax. +31 152 616 289