

Submittal Data

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



Product photo could vary from the actual product

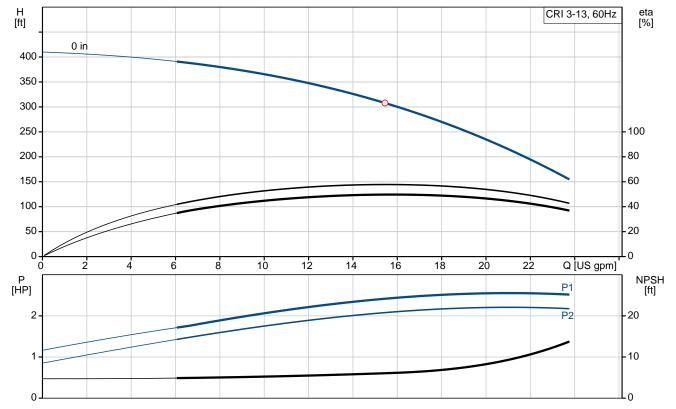
CRI 3-13

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron. All wetted parts are in stainless steel (EN 1.4301) (AISI 304)

Conditions of Service		Pu
Flow: Head: Efficiency:		Max pressure at stated to Maximum ambient tempe Approvals:
Liquid:	Water	Shaft seal:
Temperature: NPSH required: Viscosity:	68 °F ft	Product number:
Specific Gravity:	1.000	

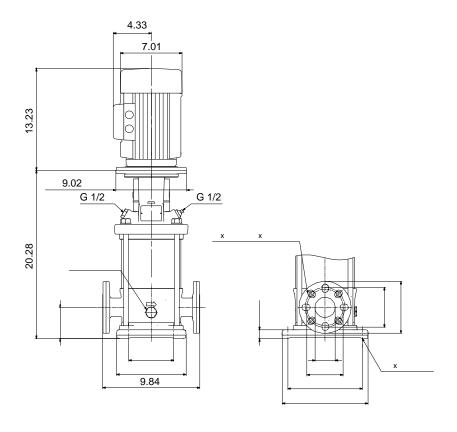
Pump Data	
Max pressure at stated temperature:	363 psi / 194 °F
Maximum ambient temperature:	140 °F
Approvals:	CURUS
Shaft seal:	HQQV
Product number:	96083672

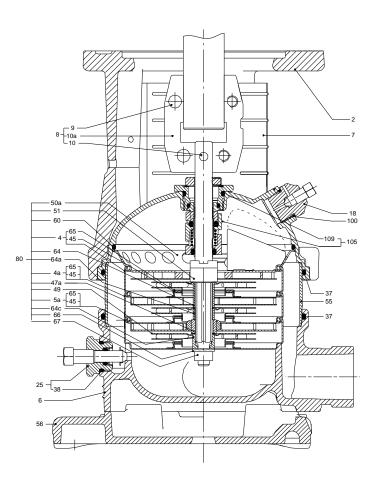
_					
	Motor Data				
	Rated power - P2:	3 HP			
	Rated voltage:	208-230YY/460Y V			
	Main frequency:	60 Hz			
	Enclosure class:	55 Dust/Jetting			
	Insulation class:	F			
	Motor protection:	NONE			
	Motor type:	90FA			
	Motor_efficiency:	86.5 %			





GRUNDFOS X





Materials:

Base: Stainless steel

EN 1.4408

AISI 316

Impeller: Stainless steel

AISI 304

EN 1.4301

Material code: I Code for rubber: V



Date: 2/20/2018

Tender Text



Product No.: 96083672 CRI 3-13 A-FGJ-I-V-HQQV

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- Impellers, intermediate chambers and outer sleeve are made of
 - Pump head cover and base are made of
- The shaft seal has assembly length according to EN 12756.
- Power transmission is via cast iron split coupling.

flanges/couplings.

The motor is a 3-phase AC motor.

Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³

Technical:

Speed for pump data: 3461 rpm
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQV
Approvals on nameplate: CURUS

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing material: SIC

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 194 °F

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS



Date: 2/20/2018

Size of inlet connection:

Size of suction port:

Size of outlet connection:

DN 25/32

Size of outlet connection:

DN 25/32

Size of outlet port:

1 1/4 inch

Pressure rating:

PN 25

Flange size for motor:

Flange rating inlet:

300 lb

Electrical data:

Motor standard: NEMA Motor type: 90FA

IE Efficiency class: NEMA Premium / IE3 60Hz

Rated power - P2: 3 HP Power (P2) required by pump: 3 HP Main frequency: 60 Hz

Rated voltage: 3 x 208-230YY/460Y V

Service factor: 1,15

Rated current: 8,35-7,80/3,9 A Starting current: 940-1040 % Cos phi - power factor: 0,89-0,86 Rated speed: 3510-3530 rpm IE efficiency: IE3 86,5% Motor efficiency at full load: 86.5 % Motor efficiency at 3/4 load: 86.5 % Motor efficiency at 1/2 load: 84.0 % Number of poles: 2

Enclosure class (IEC 34-5): 55 Dust/Jetting

Insulation class (IEC 85): F

Others:

Net weight: 95.6 lb Gross weight: 110 lb Shipping volume: 8.26 ft³



Date: 2/20/2018

Position | Count | Description

1 CRI 3-13 A-FGJ-I-V-HQQV



Product No.: 96083672

Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.

The pump has the following characteristics:

- Impellers, intermediate chambers and outer sleeve are made of
 - Pump head cover and base are made of
 - The shaft seal has assembly length

according to EN 12756.

- Power transmission is via cast iron split coupling.

flanges/couplings.

The motor is a 3-phase AC motor.

Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³

Technical:

Speed for pump data: 3461 rpm
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQV
Approvals on nameplate: CURUS

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing material: SIC

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 194 °F

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS
Size of inlet connection: DN 25/32



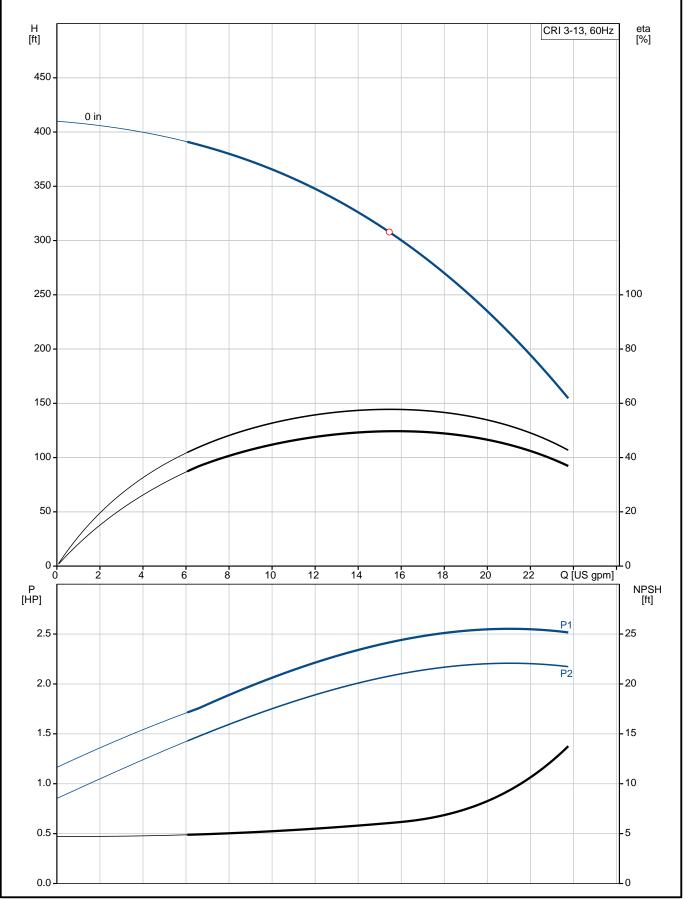
Date: 2/20/2018

			Date.	2/20/2010
Position	Count	Description		
		Size of suction port:	1 1/4 inch	
		Size of outlet connection:	DN 25/32	
		Size of outlet port:	1 1/4 inch	
		Pressure rating:	PN 25	
		Flange size for motor:	182TC	
		Flange rating inlet:	300 lb	
		Electrical data:		
		Motor standard:	NEMA	
		Motor type:	90FA	
		IE Efficiency class:	NEMA Premium / IE3 60Hz	
		Rated power - P2:	3 HP	
		Power (P2) required by pump:	3 HP	
		Main frequency:	60 Hz	
		Rated voltage:	3 x 208-230YY/460Y V	
		Service factor:	1,15	
		Rated current:	8,35-7,80/3,9 A	
		Starting current:	940-1040 %	
		Cos phi - power factor:	0,89-0,86	
		Rated speed:	3510-3530 rpm	
		IE efficiency:	IE3 86,5%	
		Motor efficiency at full load:	86.5 %	
		Motor efficiency at 3/4 load:	86.5 %	
		Motor efficiency at 1/2 load:	84.0 %	
		Number of poles:	2	
		Enclosure class (IEC 34-5):	55 Dust/Jetting	
		Insulation class (IEC 85):	F	
		041		
		Others:	05 C lb	
		Net weight:	95.6 lb 110 lb	
		Gross weight: Shipping volume:	8.26 ft ³	
		Shipping volume.	8.20 II	



Date: 2/20/2018

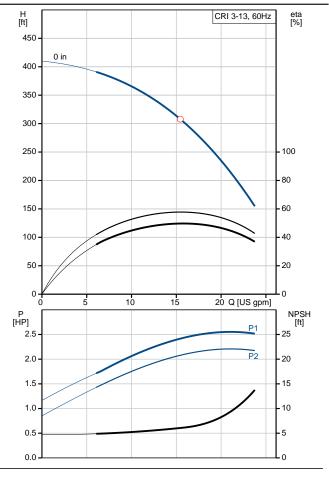
96083672 CRI 3-13 60 Hz

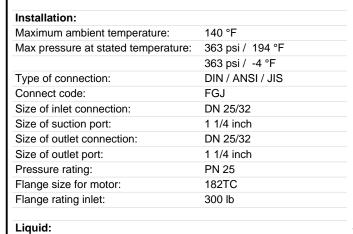


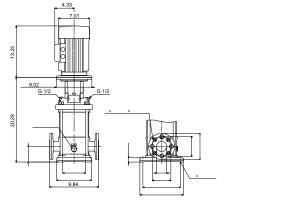


Date: 2/20/2018

Description	Value
General information:	
Product name:	CRI 3-13 A-FGJ-I-V-HQQV
Product No.:	96083672
EAN:	5700395188707
Technical:	
Speed for pump data:	3461 rpm
Stages:	13
Impellers:	13
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Approvals on nameplate:	CURUS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	TEFC
Materials:	
Base:	Stainless steel
	FN 1.4408
	AISI 316
Impeller:	Stainless steel
_ ·	EN 1.4301
	AISI 304
Material code:	
Code for rubber:	V
Bearing material:	SIC

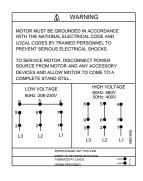






Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft ³
Electrical data:	
Motor standard:	NEMA
Motor type:	90FA
IE Efficiency class:	NEMA Premium / IE3 60Hz
Rated power - P2:	3 HP
Power (P2) required by pump:	3 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230YY/460Y V
Service factor:	1,15
Rated current:	8,35-7,80/3,9 A

Water



Pumped liquid:



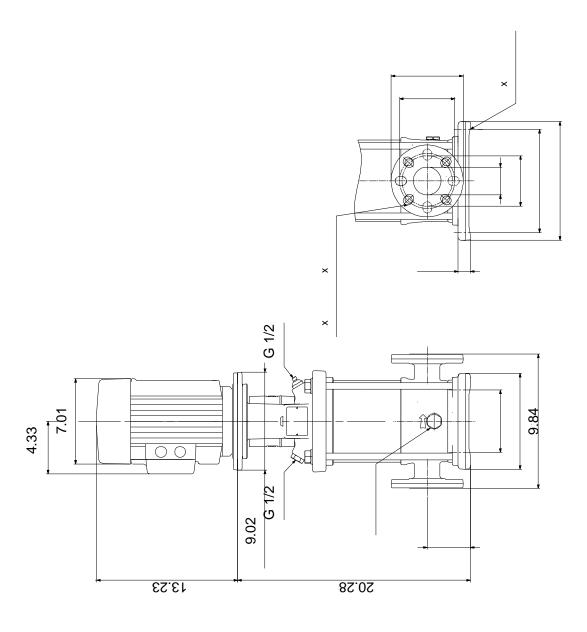
Date: 2/20/2018

Description	Value
Starting current:	940-1040 %
Load current:	9,5-8,95/4,5 A
Cos phi - power factor:	0,89-0,86
Rated speed:	3510-3530 rpm
IE efficiency:	IE3 86,5%
Motor efficiency at full load:	86.5 %
Motor efficiency at 3/4 load:	86.5 %
Motor efficiency at 1/2 load:	84.0 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	85903977
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	95.6 lb
Gross weight:	110 lb
Shipping volume:	8.26 ft ³



Date: 2/20/2018

96083672 CRI 3-13 60 Hz



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



Date: 2/20/2018

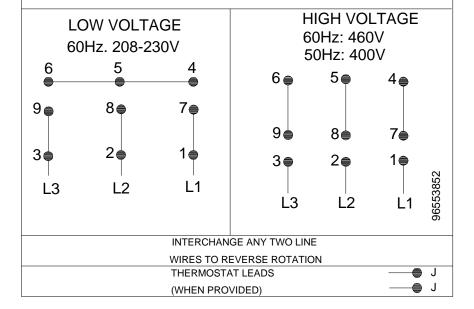
96083672 CRI 3-13 60 Hz



WARNING

MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

TO SERVICE MOTOR, DISCONNECT POWER SOURCE FROM MOTOR AND ANY ACCESSORY DEVICES AND ALLOW MOTOR TO COME TO A COMPLETE STAND STILL.



All units are [mm] unless otherwise presented.



Date: 2/20/2018

Order Data:

Product name: CRI 3-13 A-FGJ-I-V-HQQV

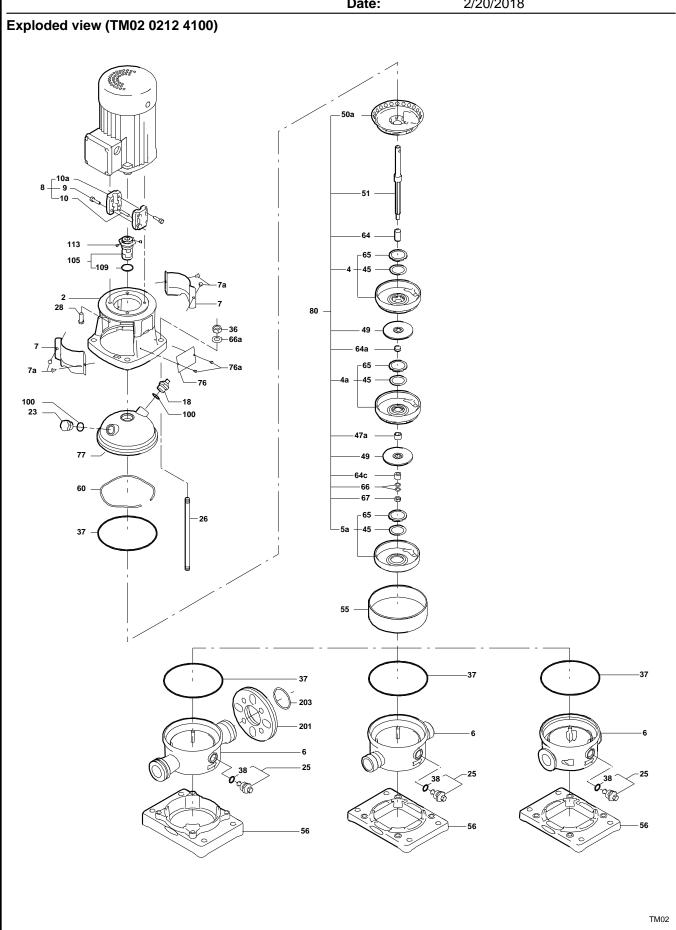
Amount: 1

Product No.: 96083672

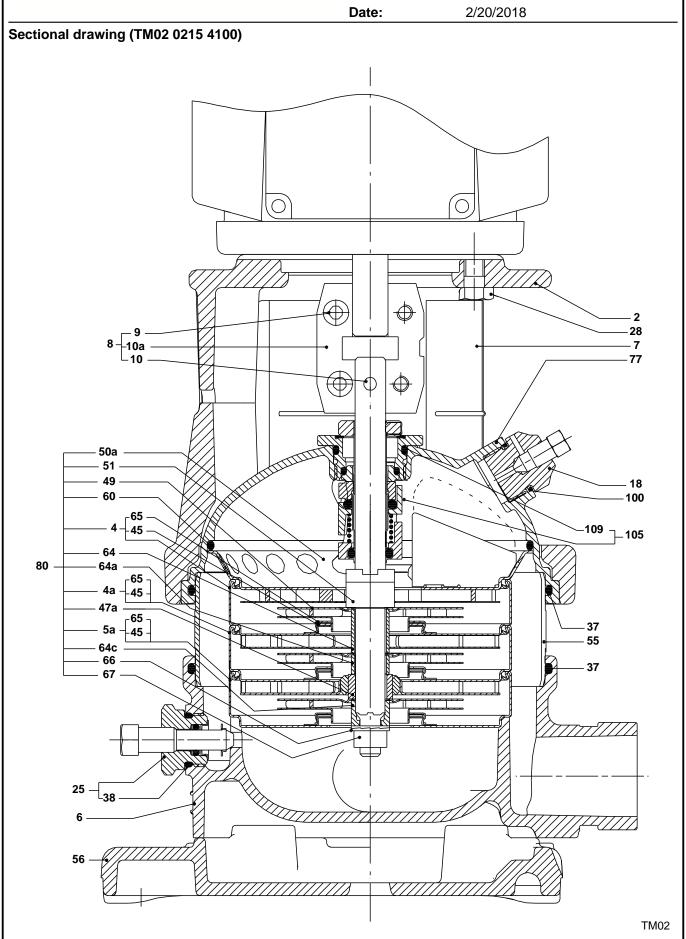
Total: Price on request



Date: 2/20/2018



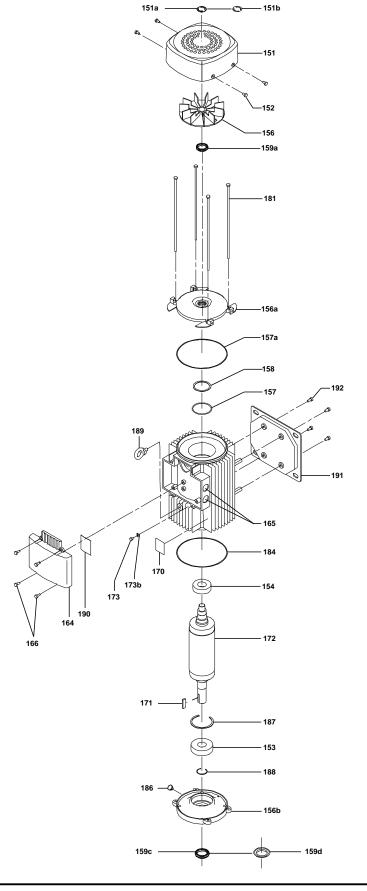






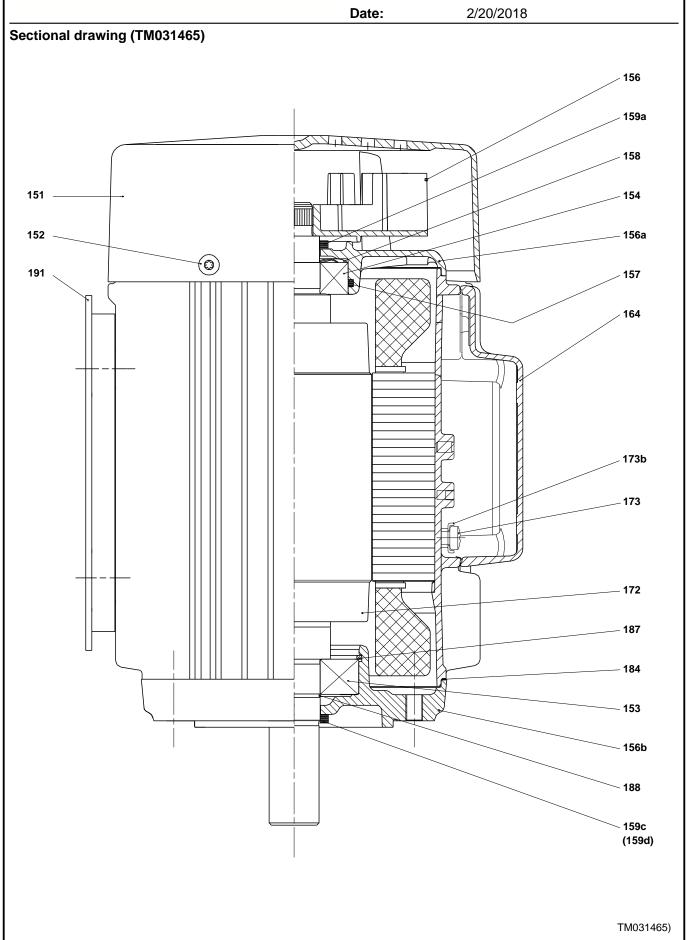
Date: 2/20/2018

Exploded view (tm030553)



TM030553)







Date: 2/20/2018

Parts list CRI 3-13, Prod number 96083672 Valid from 1.7.2011 (1127)

	Position	•	Annotation	Classification data	Part No.		unt	Unit
+		Motor				1		pcs
		Motor				1		pcs
-		Base cpl.				1		pcs
	6	Base					1	
	56	Base plate					1	
	201.a	Flange					2	
	203	Lock ring					2	
-		Sealing parts				1		pcs
-	25	Drain plug w/bypass valve					1	
	38	O-ring		Diameter: 16,3				
		<u> </u>		Material type: FKM				
				Thickness: 2,4				
	37	O-ring		Diameter: 137,5			2	
		5		Material type: FKM				
				Thickness: 3,3				
	100	O-ring		Diameter: 16,3			2	
		- 3		Material type: FKM				
				Thickness: 2,4				
_	2	Pump head cpl.				1		pcs
	2	Motor stool				•	1	Poo
	7	Coupling guard					2	
	7a	Thread cutting screw					4	
_	18	Air vent screw					1	
	10	Plug					•	
		Spindle						
	25	Drain plug					1	
_	23	Pipe plug					'	
	25							
		Drain plug		Longth, OF			4	
	28	Hex head cap screw		Length: 25 Thread: UNC 1/2"			4	
	60	Formed wire spring					1	
	77	Pump cover					1	
-	8	Coupling cpl.				1		pcs
	9	Hex socket head cap screw		Designation: DIN 912	2		4	
				Length: 25				
				Thread: M8				
	10	Shaft pin		Diameter: 5			1	
				Length: 26				
	10a	Coupling half					2	
	26	Staybolt		Length: 328		4		pcs
		•		Thread: M12				•
	36a	Washer		Designation: DIN 125 A		4		pcs
				Inner diameter: 13		•		Poo
				Outer diameter: 24				
				Thickness: 2,5				
	55	Outer sleeve				1		pcs
	66a	Nut		Thread: M12		4		pcs
_	80	Chamber stack				1		pcs
_	00	Guide vane cpl.				1	1	pcs
-		Guide varie cpi. Guide vane					1	
	E0h	Plate						
	50b	Top plate					10	
-	4	Chamber cpl.					10	



Date: 2/20/2018

	Position	Description	Annotation	Classification data	Part No.	Count	Unit
		Guide vane					
		Plate					
		Retainer					
		Intermediate chamber					
		Vane					
	45	Neck ring					
	65	Retainer					
-	4a	Chamber w. bearing cpl.				2	
		Guide vane					
		Retainer for bearing					
		Bearing bush					
		Retainer					
		Intermediate chamber					
		Vane					
	45	Neck ring					
	65	Retainer					
-	5a	Chamber cpl.				1	
		Retainer					
		Intermediate chamber					
		Vane					
	45	Neck ring					
	65	Retainer					
	36	Lock nut		Thread: M8		1	
	47a	Bearing ring, rotating				2	
	49	Impeller cpl.				13	
	51	Shaft, spline, cpl.				1	
	64a	Spacing pipe				10	
	64a	Spacing pipe		Inner diameter: 12,85	5	2	
				Outer diameter: 15,85			
				Length: 4,50			
	64c	Clamp, splined		Inner diameter: 8,5		1	
				Outer diameter: 15			
	66	Wedge lock washer				1	
-	105	Shaft seal		Material type: HQQV		1	pcs
		O-ring				1	
		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				3	
	103	Seal ring, stationary				1	
	105	Seal ring, rotating				1	
	109	O-ring				1	
	113	Driver				1	