

#### Submittal Data

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



#### **CRN 1-27**

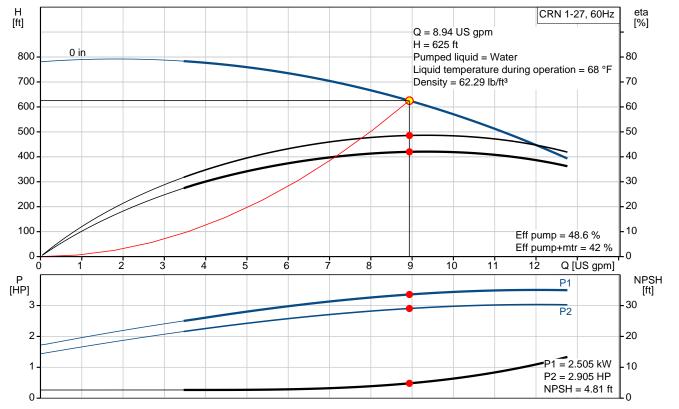
Vertical, multistage centrifugal pump with suction and discharge ports on same the level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401) (AISI 316)

Product photo could vary from the actual product

Conditions of Service					
Flow:	8.94 US gpm				
Head:	625 ft				
Efficiency:	42 %				
Liquid:	Water				
Temperature:	68 °F				
NPSH required:	4.81 ft				
Viscosity:					
Specific Gravity:	1.000				

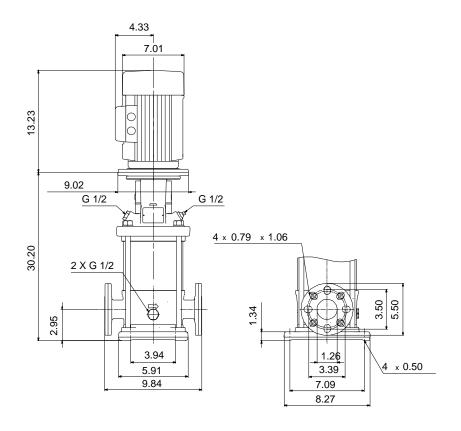
Pump Data	
Max pressure at stated temperature:	363 psi / 250 °F
Maximum ambient temperature:	140 °F
Approvals:	CURUS,NSF61
Shaft seal:	HQQE
Product number:	96082907

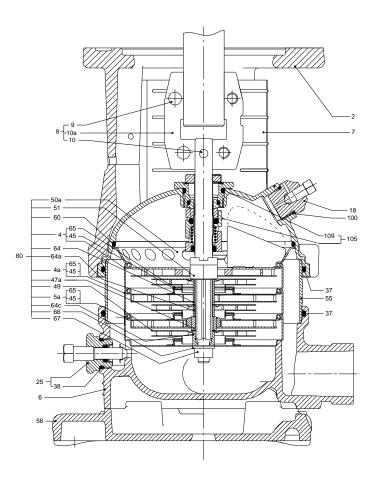
Motor Data					
Rated power - P2:	3 HP				
Rated voltage:	208-230YY/460Y V				
Main frequency:	60 Hz				
Enclosure class:	55 Dust/Jetting				
Insulation class:	F				
Motor protection:	NONE				
Motor type:	90FA				
Motor_efficiency:	86.5 %				





## GRUNDFOS X





#### Materials:

Base: Stainless steel

EN 1.4408

**AISI 316** 

Impeller: Stainless steel

**AISI 316** 

EN 1.4401

Material code: G Code for rubber: E



**Date:** 2/20/2018

#### **Tender Text**



Product No.: 96082907
CRN 1-27 A-FGJ-G-E-HQQE

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
Actual calculated flow: 8.94 US gpm
Resulting head of the pump: 625 ft
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,NSF61 Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316 Stainless steel

Impeller: Stainless stee

EN 1.4401 AISI 316

Bearing material: SIC

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 250 °F



**Date:** 2/20/2018

363 psi / -4 °F

Type of connection: DIN / ANSI / JIS

Size of inlet connection:

Size of suction port:

Size of outlet connection:

DN 25/32

1 1/4 inch

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: 108 lb Gross weight: 126 lb Shipping volume: 10.1 ft³



**Date:** 2/20/2018

Position | Count | Description

1 CRN 1-27 A-FGJ-G-E-HQQE



Product No.: 96082907

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
Actual calculated flow: 8.94 US gpm
Resulting head of the pump: 625 ft
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,NSF61 Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel

EN 1.4408 AISI 316

Impeller: Stainless steel

EN 1.4401 AISI 316 SIC

Bearing material:

Installation:

Maximum ambient temperature: 140 °F

Max pressure at stated temperature: 363 psi / 250 °F

363 psi / -4 °F



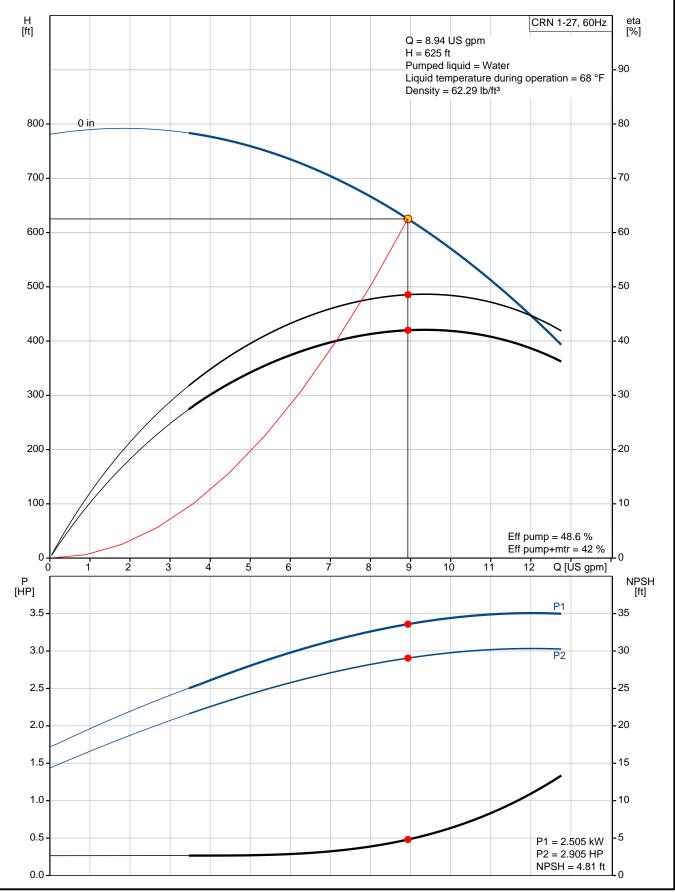
**Date:** 2/20/2018

			Date.	2/20/2010
Position	Count	Description		
		Type of connection:	DIN / ANSI / JIS	
		Size of inlet connection:	DN 25/32	
		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	
			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:		
		Enclosure class (IEC 34-5):	2 55 Dust/Jetting	
		Insulation class (IEC 85):	F	
		litisulation class (IEC 65).	Г	
		Others:		
		Net weight:	108 lb	
		Gross weight:	126 lb	
		Shipping volume:	10.1 ft <sup>3</sup>	
			10.110	



**Date:** 2/20/2018

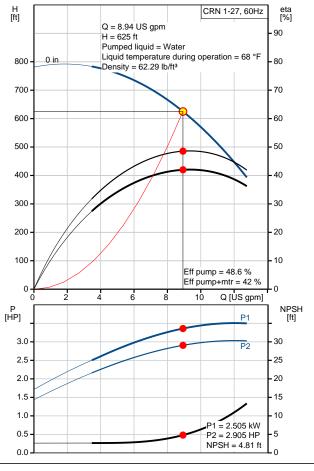
### 96082907 CRN 1-27 60 Hz

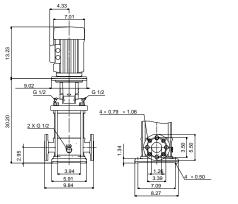


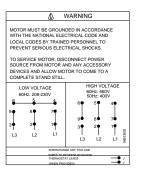


Date: 2/20/2018

Description	Value
General information:	
Product name:	CRN 1-27 A-FGJ-G-E-HQQE
Product No.:	96082907
EAN:	5700395176452
Technical:	
Speed for pump data:	3461 rpm
Actual calculated flow:	8.94 US gpm
Resulting head of the pump:	625 ft
Stages:	27
Impellers:	27
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS,NSF61
· · · · · · · · · · · · · · · · · · ·	ISO9906:2012 3B
Curve tolerance:	A A
Pump version: Model:	A
	TEFC
Cooling:	ILFU
Materials:	
Base:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Material code:	G
Code for rubber:	E
Bearing material:	SIC
Installation:	
Maximum ambient temperature:	140 °F
Max pressure at stated temperature:	363 psi / 250 °F 363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Connect code:	FGJ
Size of inlet connection:	DN 25/32
Size of suction port: Size of outlet connection:	1 1/4 inch DN 25/32
	1 1/4 inch
Size of outlet port:	
Pressure rating:	PN 25
Flange size for motor:	182TC
Flange rating inlet:	300 lb
Liquid:	\A/-4
Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³
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









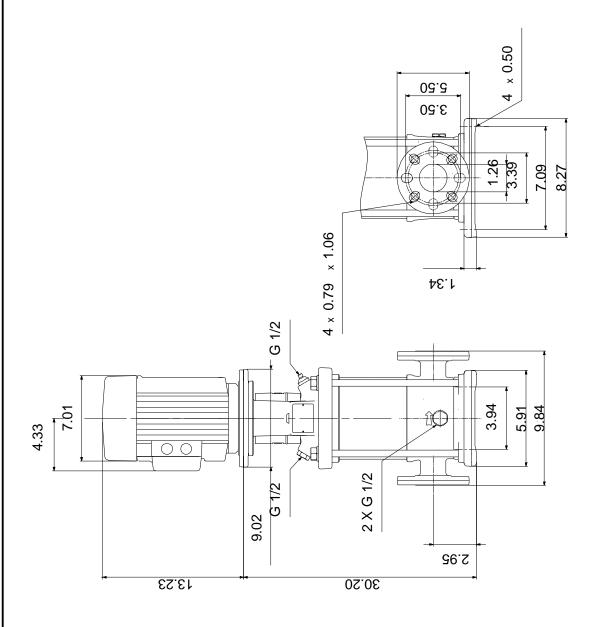
**Date:** 2/20/2018

Description	Value
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 %
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:	108 lb
Gross weight:	126 lb
Shipping volume:	10.1 ft <sup>3</sup>



**Date:** 2/20/2018

### 96082907 CRN 1-27 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

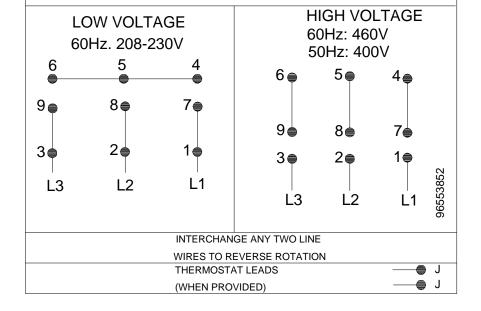
#### 96082907 CRN 1-27 60 Hz



#### **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: CRN 1-27 A-FGJ-G-E-HQQE

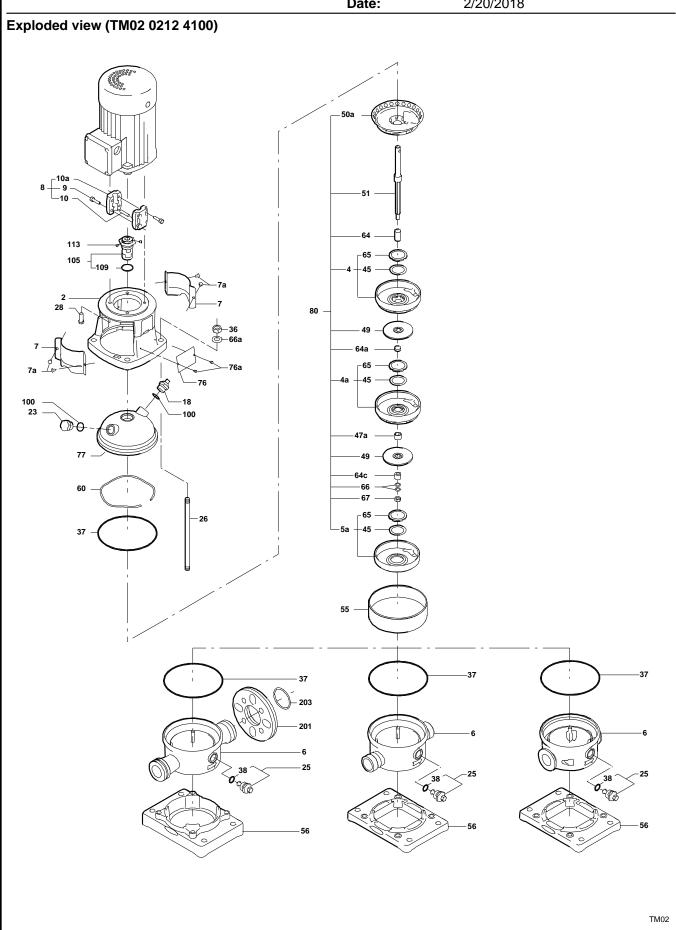
Amount: 1

Product No.: 96082907

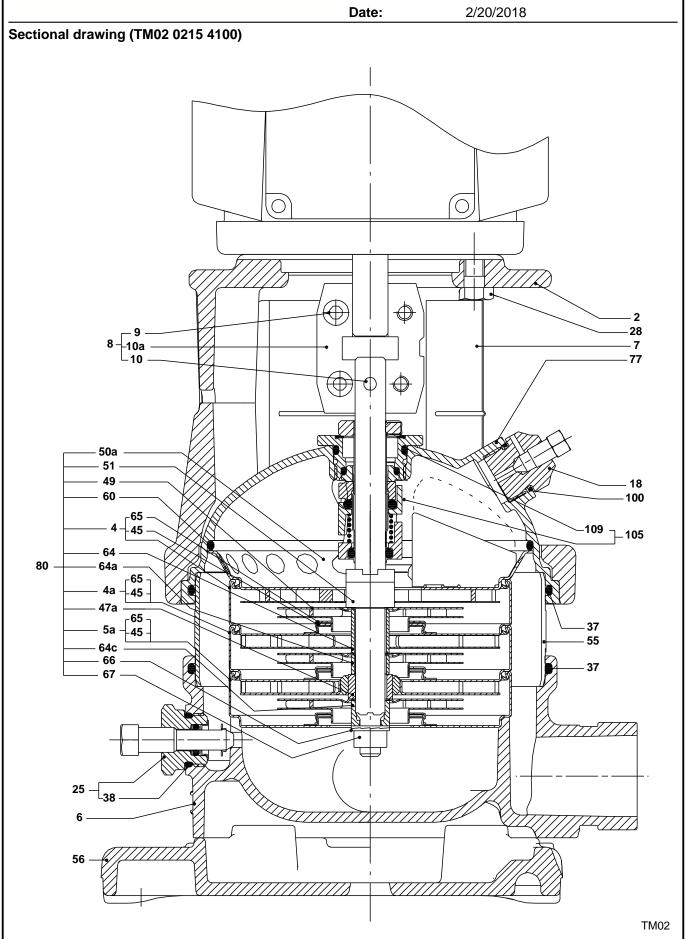
Total: Price on request



Date: 2/20/2018



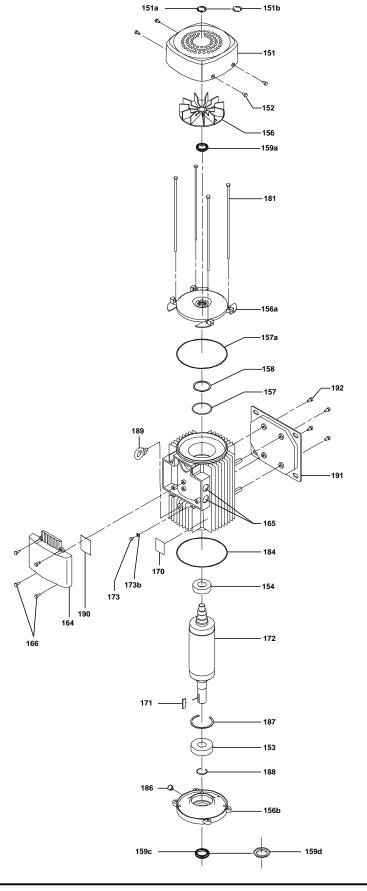






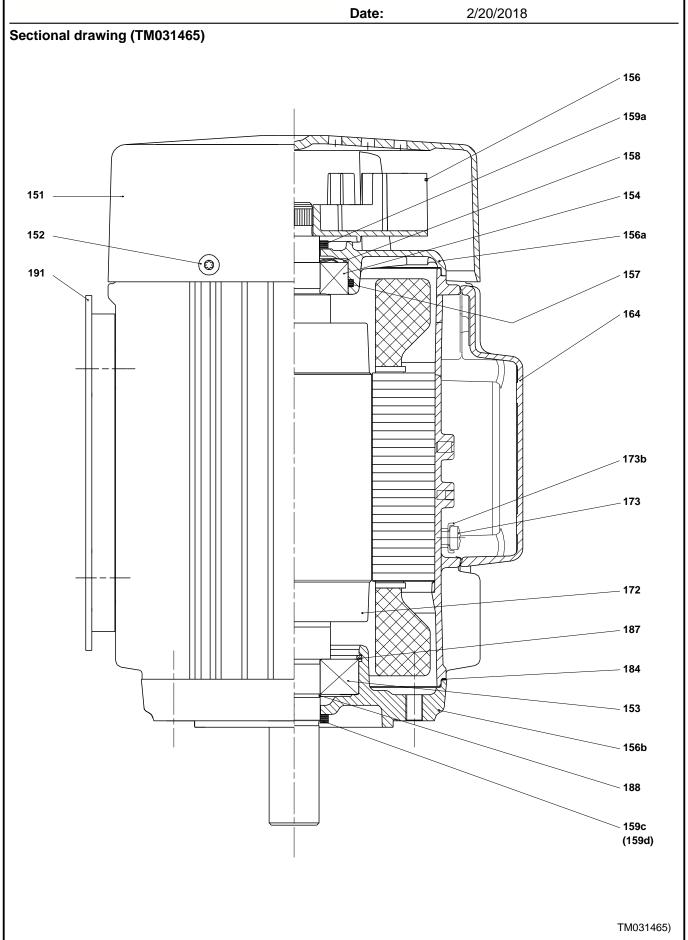
**Date:** 2/20/2018

Exploded view (tm030553)



TM030553)







**Date:** 2/20/2018

# Parts list CRN 1-27, Prod number 96082907 Valid from 1.7.2011 (1127)

	sition	Description	Annotation	Classification data	Part No.		nt Ur
+		Motor				1	рс
		Motor				1	рс
-		Base cpl.				1	рс
6		Base				•	1
56		Base plate					1
201	1.a	Flange					2
203	3	Lock ring				2	2
-		Sealing parts				1	рс
- 25		Drain plug w/bypass valve				•	1
38		O-ring		Diameter: 16,3			
				Material type: EPDM			
				Thickness: 2,4			
37		O-ring				2	2
100	0	O-ring		Diameter: 16,3		2	2
				Material type: EPDM			
				Thickness: 2,4			
- 2		Pump head cpl.				1	рс
2		Motor stool				•	1
7		Coupling guard				2	2
7a		Thread cutting screw				4	1
- 18		Air vent screw					1
		Plug					
		Spindle					
- 25		Drain plug					1
23		Pipe plug					
25		Drain plug					
28		Hex head cap screw		Length: 25			1
		Tien Tiena dap deleti		Thread: UNC 1/2"			•
60		Formed wire spring					1
77		Pump cover					1
- 8		Coupling cpl.				1	pc
9		Hex socket head cap screw		Designation: DIN 912			1
		Tiex decide fload dap deferi		Length: 25			•
				Thread: M8			
10		Shaft pin		Diameter: 5			1
10		Chair pin		Length: 26			
10a	2	Coupling half		Longin. 20			)
26	u	Staybolt		Length: 587		4	- pc
20		Staybolt		Thread: M12		7	рс
36		Nut		Thread: M12		4	nc
55		Outer sleeve		TITICAU. IVITZ		1	pc
55 66a		Washer		Designation: DIM 125 A2		4	pc
008	a	vvaSIICI		Designation: DIN 125 A2 Inner diameter: 13		4	рс
				Outer diameter: 24			
00		Chambar atc-l		Thickness: 2,5		1	
- 80		Chamber stack				1	pc
-		Chamber cpl.				2	23
4a		Intermediate chamber					
45		Neck ring					
65		Neck ring retainer					
		Impeller cpl.					27
-		Chamber w. bearing cpl.				3	3
4a		Intermediate chamber					



**Date:** 2/20/2018

Position	Description	Annotation	Classification data	Part No.	Count	Unit
45	Neck ring					
65	Neck ring retainer					
5a	Chamber cpl.				1	
4a	Intermediate chamber					
45	Neck ring					
65	Neck ring retainer					
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				3	
50a	Guide vane				1	
	Plate					
50b	Top plate					
51	Shaft, spline, cpl.				1	
64a	Spacing pipe				23	
64a	Spacing pipe		Inner diameter: 12,85		3	
			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: 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	