

Date: 16/02/2019

Qty. | Description

1 CRN 10-2 A-FGJ-A-E-HQQE



Product No.: 96501057

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 combined DIN-ANSI-JIS flanges.

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

Further product details

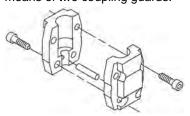
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An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

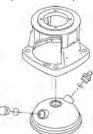
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



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)



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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.

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. This 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 flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS.

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

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

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:

Pump speed on which pump data are based: 2864 rpm

Rated flow: 10 m³/h
Rated head: 15.3 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



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Impeller: Stainless steel

EN 1.4401 AISI 316

Bearing: SIC

Installation:

Maximum ambient temperature: 60 °C Maximum operating pressure: 25 bar

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

25 bar / -20 °C

Type of connection: DIN / ANSI / JIS

Size of inlet connection: DN 40

1 1/2 inch

Size of outlet connection: DN 40

1 1/2 inch

Pressure rating for pipe connection: PN 25 Flange rating inlet: 300 lb Flange size for motor: FT100

Electrical data:

Motor standard: IEC
Motor type: 80A
IE Efficiency class: IE3
Rated power - P2: 0.75 kW
Power (P2) required by pump: 0.75 kW
Mains frequency: 50 Hz

Rated voltage: 3 x 220-240D/380-415Y V

Rated current: 3.30/1.90 A Starting current: 580-620 % Cos phi - power factor: 0.81-0.71 Rated speed: 2840-2870 rpm Efficiency: IE3 80,7% Motor efficiency at full load: 80.7 % Motor efficiency at 3/4 load: 82.7 % Motor efficiency at 1/2 load: 81.7 %

Number of poles: 2

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

Insulation class (IEC 85): F

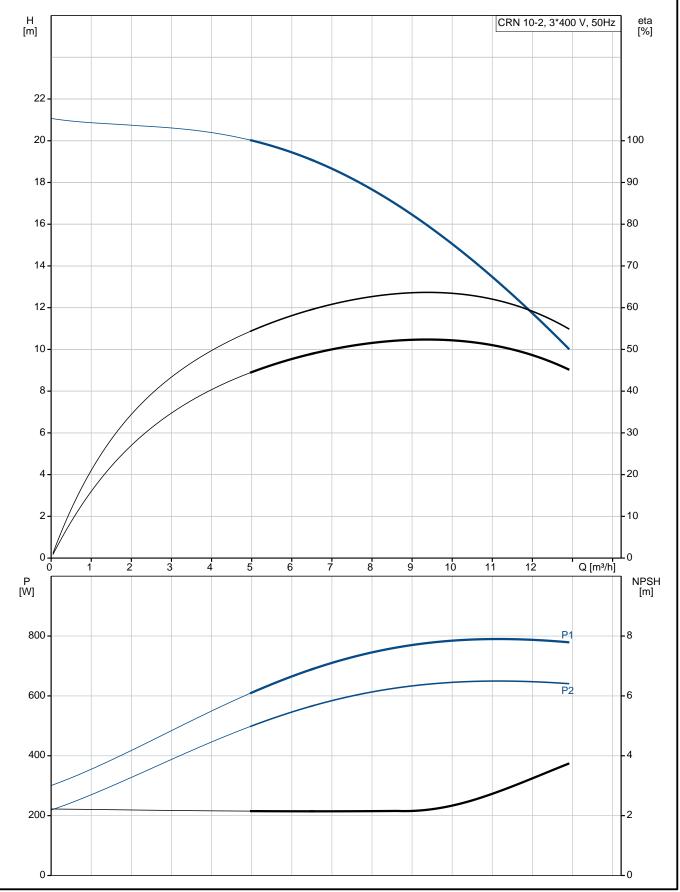
Others:

Minimum efficiency index, MEI â%¥: 0.70
Net weight: 35 kg
Gross weight: 38 kg
Shipping volume: 0.08 m³



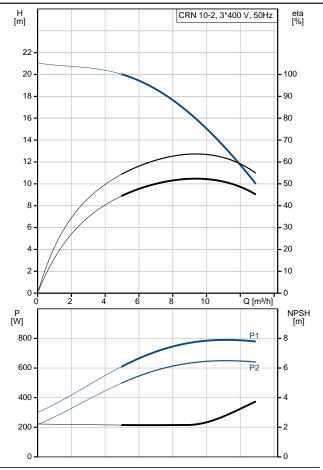
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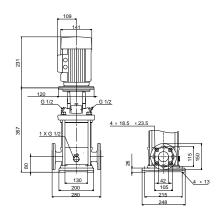
96501057 CRN 10-2 A-FGJ-A-E-HQQE 50 Hz

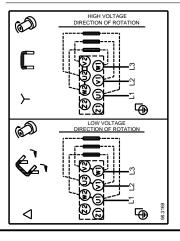




Description	Value
General information:	ODN 40 0
Product name:	CRN 10-2 A-FGJ-A-E-HQQE
Product No:	96501057
EAN number:	5700396214498
Technical:	
Pump speed on which pump data are	2064 rpm
based:	2864 rpm
Rated flow:	10 m³/h
Rated head:	15.3 m
Head max:	20.2 m
Stages:	2
Impellers:	2
Number of reduced-diameter impellers:	0
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:	A
Materials:	
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
Installation:	00.90
Maximum ambient temperature:	60 °C
Maximum operating pressure:	25 bar
Max pressure at stated temp:	25 bar / 120 °C
Time of companion.	25 bar / -20 °C
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 40
Cine of quality as an action.	1 1/2 inch
Size of outlet connection:	DN 40
Decree and the form in a constitution	1 1/2 inch
Pressure rating for pipe connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	FT100
Connect code:	FGJ
Liquid:	Mater
Pumped liquid:	Water
Liquid temperature during energtion	-20 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	IFC
Motor standard:	IEC
Motor type:	80A
IE Efficiency class:	IE3
Rated power - P2:	0.75 kW
Power (P2) required by pump:	0.75 kW
Mains frequency:	50 Hz







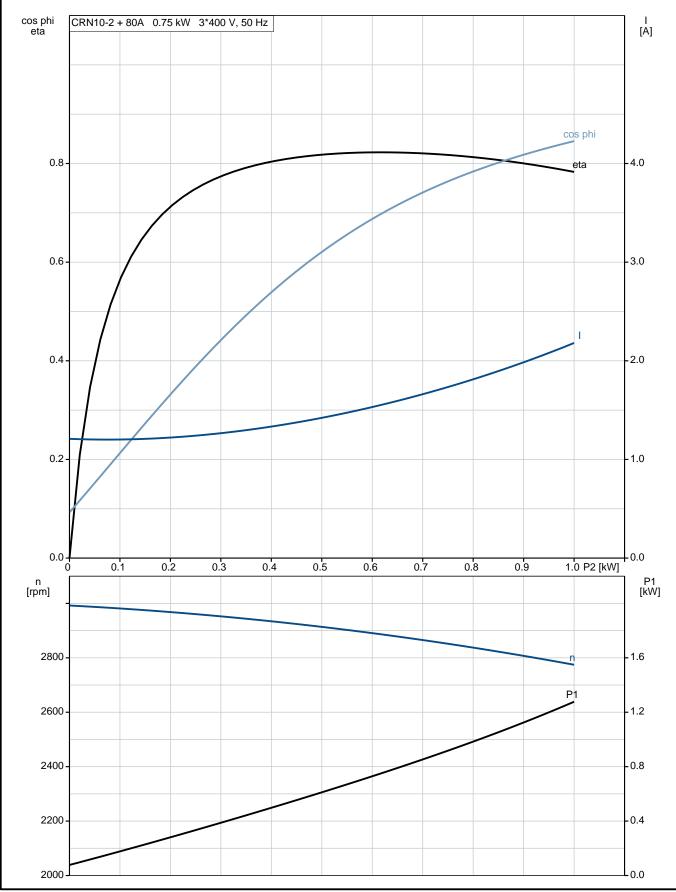


Description	Value
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	3.30/1.90 A
Starting current:	580-620 %
Cos phi - power factor:	0.81-0.71
Rated speed:	2840-2870 rpm
Efficiency:	IE3 80,7%
Motor efficiency at full load:	80.7 %
Motor efficiency at 3/4 load:	82.7 %
Motor efficiency at 1/2 load:	81.7 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U05104
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	35 kg
Gross weight:	38 kg
Shipping volume:	0.08 m ³



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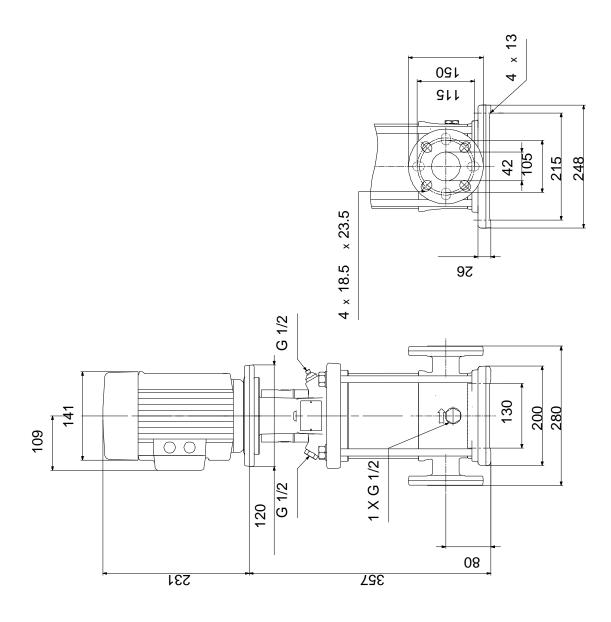
96501057 CRN 10-2 A-FGJ-A-E-HQQE 50 Hz





Date: 16/02/2019

96501057 CRN 10-2 A-FGJ-A-E-HQQE 50 Hz



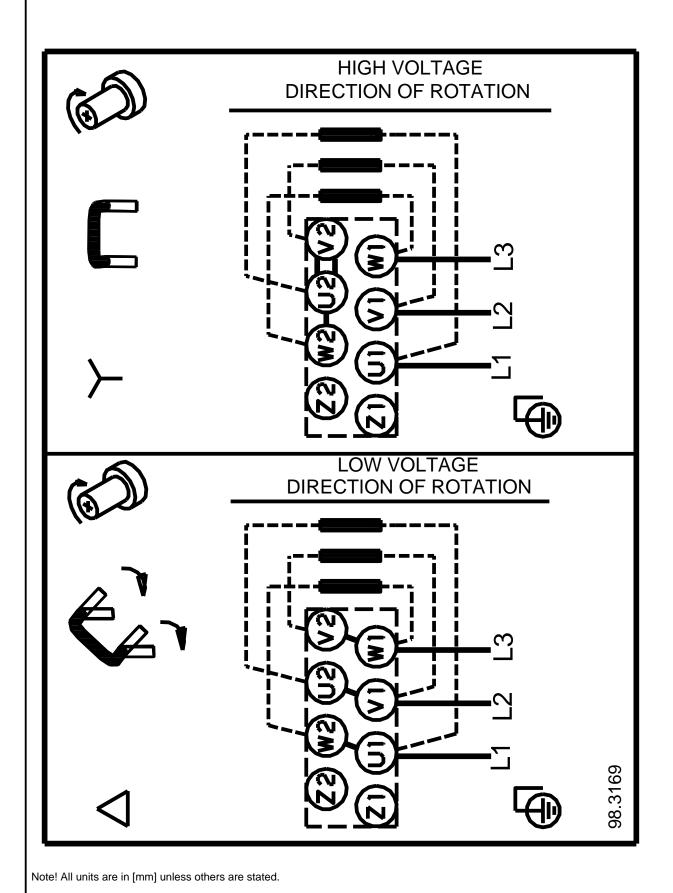
Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Date:

16/02/2019

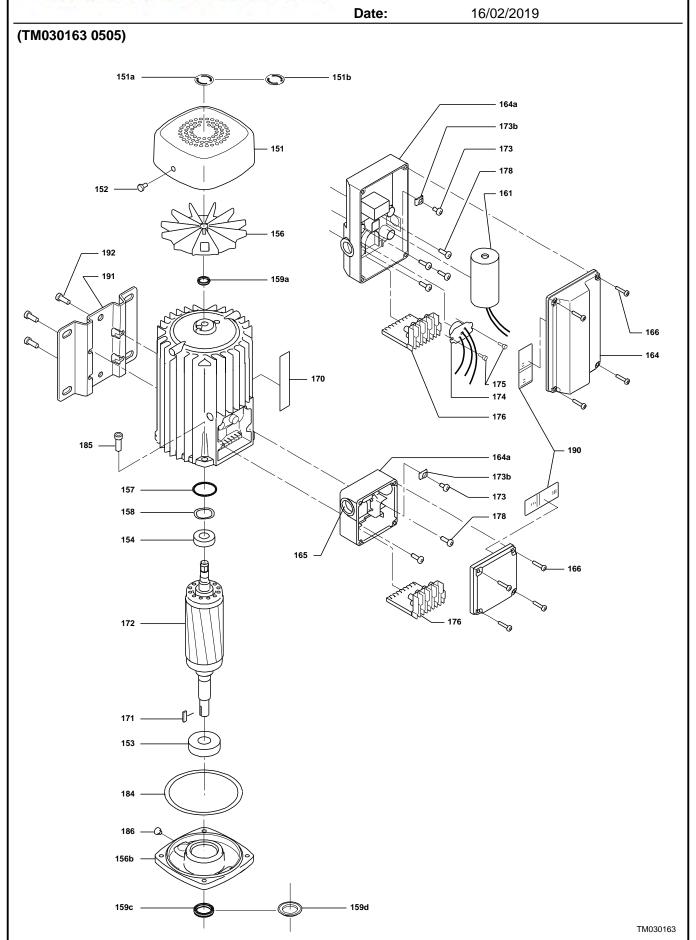
96501057 CRN 10-2 A-FGJ-A-E-HQQE 50 Hz





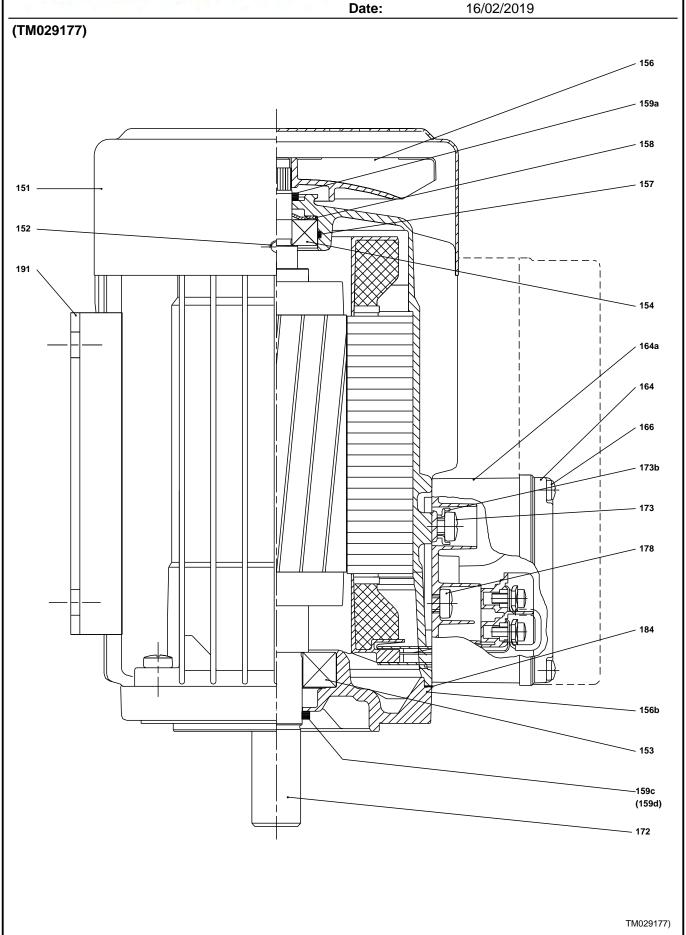
Date: 16/02/2019 (tm069460 for MECR 10 standard) 62 -28a --65 45 26c 26b



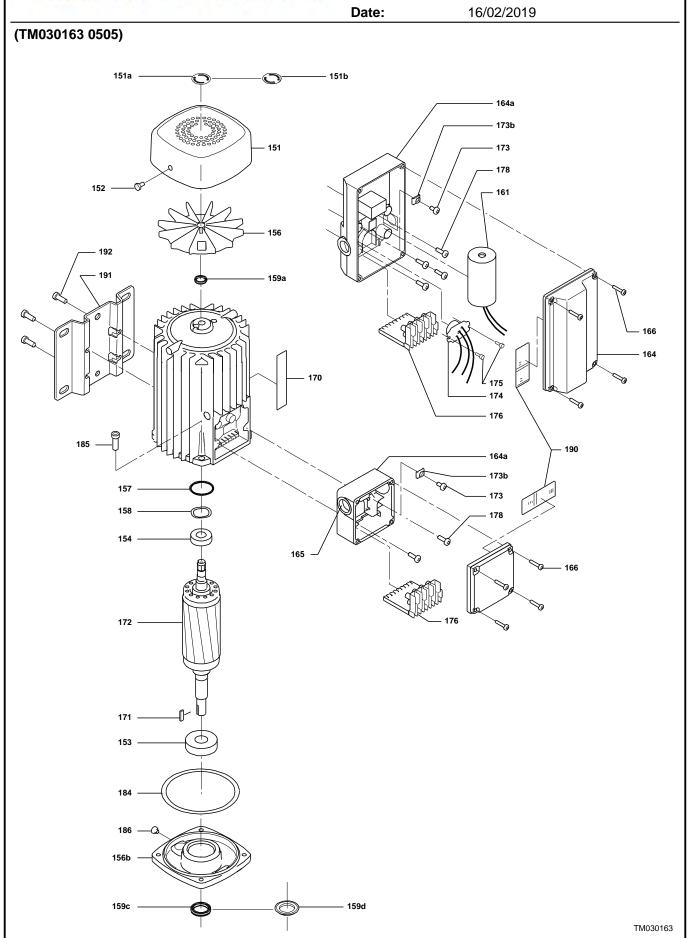




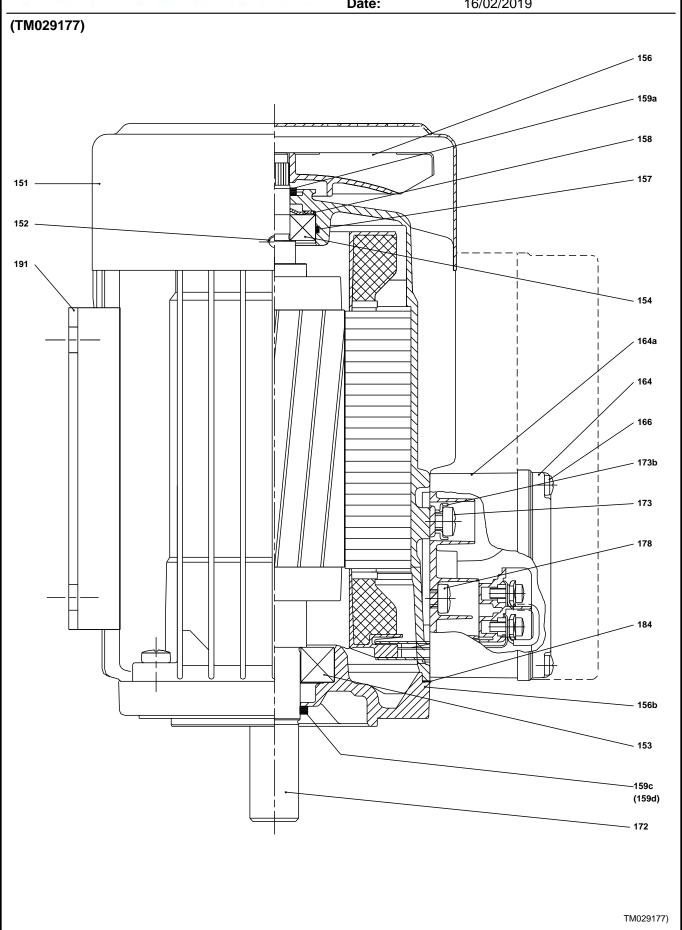
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Date: 16/02/2019

Spare parts CRN 10-2, Product No. 96501057 Valid from 1.1.2011 (1152)

Pos	Description Kit, chamber stack	Annotation	Classification Data	Part no. 96491721	Qty.	
- 00				96491721	1	pcs
- 80	Chamber stack					1
- 3	Top intermediate chamber					
	Guide vane					
•	Cover plate					
3	Top intermediate chamber					
- 4a	Intermediate chamber cpl.					
	Sand Lifter					
	Guide cup					
	Bearing plate					
	Guide vane					
3	Intermediate chamber					
45	Neck ring cpl.					
47	Bearing bush					
65	Retainer					
26a	Strap cpl.					
26.c	Washer		Designation: DIN 125A			
			Thickness: 1,6			
26.b	Hex head screw					
44b	Inlet part					
- 44a	Inlet part cpl.					
	Inlet part					
45	Neck ring cpl.					
65	Retainer					
47	Bearing ring					
49	Impeller cpl.					
- 51	Shaft, spline, cpl.					
62	Retaining ring					
64a	Spacer					
64a	Spacing bush		Length (mm): 9.00			
64.d	Spacing pipe		Length (mm): 12.7			
66	Wedge lock washer					
67	Lock nut		Thread: M8			
69	Spacing bush		Length (mm): 18.00			
-	Kit, coupling			96511317	1	pcs
	Adjusting fork					1
9	Hex socket head cap screw		Designation: DIN 912			4
			Length (mm): 20			
			Thread: M6			
10a	Coupling half					2
10	Shaft pin		Diameter: 5			1
			Length (mm): 26			
-	Kit, coupling guard			96509611	1	pcs
7.a	Combi Slot Torx screw					4
7	Coupling guard					2
-	Kit, gaskets			96509609	1	pcs
	Gasket					2
24	O-ring					2
37	O-ring					2
38a	O-ring		Diameter: 5,3			1
204	- ·····g		Material type: EPDM			
			Thickness: 2,4			
	O-ring		Diameter: 16,3			1



Pos	Description	Annotation Classification Data	Part no.	Qty	. Ur
		Material type: EPDM			
		Thickness: 2,4			
38	O-ring	Diameter: 16,3			2
		Material type: EPDM			
		Thickness: 2,4			
60	Spring				4
415	Gasket				2
		lutamal d'amatam 10			
441b	Gasket	Internal diameter: 49			2
		Outer diameter: 92			
		Thickness: 2			
	Kit, plug		96511312	1	рс
18	Air vent screw				1
	Spindle				
	Plug				
25a	Drain plug				1
25	Plug				1
38a	O-ring	Diameter: 5,3			1
30a	O-IIIIg				1
		Material type: FKM			
		Thickness: 2,4			
38a	O-ring	Diameter: 5,3			1
		Material type: EPDM			
		Thickness: 2,4			
38	O-ring	Diameter: 16,3			1
	<u> </u>	Material type: FKM			
		Thickness: 2,4			
38	Oring	Diameter: 16,3			2
JU	O-ring				_
		Material type: FKM			
		Thickness: 2,4			
38	O-ring	Diameter: 16,3			1
		Material type: EPDM			
		Thickness: 2,4			
38	O-ring	Diameter: 16,3			2
		Material type: EPDM			
		Thickness: 2,4			
	Kit, shaft seal HQQE	111101(11000. 2,T	96511844	1	no
			30311044	1	pc 1
	Emery cloth				1
	Grinding device				1
105	Shaft seal	Material type: HQQE			1
	Kit, wear parts		96511889	1	pc
4a	Intermediate chamber cpl.				1
	Sand Lifter				
	Guide cup				
	Bearing plate				
	Guide vane				
2	Intermediate chamber				
3					
45	Neck ring cpl.				
47	Bearing bush				
65	Retainer				
26.c	Washer	Designation: DIN 125A			2
		Thickness: 1,6			
26.b	Hex head screw				2
45	Neck ring cpl.				7
47					1
	Bearing ring				
62	Retaining ring				1
64c	Spacing pipe	Length (mm): 12.7			1
64a	Spacing bush	Length (mm): 9.00			1
64.d	Spacer				1
65	Retainer				7
					1



	Description	Annotation Classification Data Part no.	Qty.	
67	Lock nut	Thread: M8	1	
	Motor	85903982		pcs
	Kit, Ball bearing	96279	730 1	1
111	Ball bearing	Designation: 6204.2Z.C3.SYN		
111	Ball bearing			
157	O-ring	Diameter: 32		
		Material type: NBR		
		Thickness: 2		
158	Waved washer			
	Kit, fan	96279	721 1	1
156	Fan	00210		•
159a	Seal ring			
133a		00070	700 (
4-4	Kit, fan cover	90279	720 1	ı
151	Fan cover			
152	Pan head thread forming screw			
	Kit, flange	96279	854 1	1
156b	Flange			
159c	Seal ring			
184	Gasket	Internal diameter: 114,80		
		Outer diameter: 121,20		
		Thickness: 0,25		
185	Pan head screw	, -		
186	Drain plug			
100	Kit, shaft seal	06270	722 1	1
450-		90278	122 1	ı
159c	Seal ring			
159a	Seal ring			
	Kit, terminal box	96279	724 1	1
152	Pan head thread forming screw			
164a	Terminal box w/gasket			
164	Terminal box cover w/gasket			
173a	Washer	Designation: SQUARE		
		Internal diameter: 5,5		
		Outer diameter: 10X10		
		Thickness: 1,5		
173a	Base	111000000. 130		
173	Pan head thread forming screw	Designation: COMPLTORY T25		
173	Pan head screw	Designation: DIN 7985		
175	Pan head screw	Designation: DIN 7985		
176	Terminal cpl.			
	Motor	85900490		рс
	Kit, Ball bearing		730 1	1
111	Ball bearing	Designation: 6204.2Z.C3.SYN		
111	Ball bearing			
157	O-ring	Diameter: 32		
	_	Material type: NBR		
		Thickness: 2		
158	Waved washer	- 		
	Kit, fan	06270	721 1	1
156	Fan	30213		•
159a	Seal ring	20070	700	•
	Kit, fan cover	96279	720 1	I
	Fan cover			
151				
151 152	Pan head thread forming screw			
	Pan head thread forming screw Kit, flange	96279	854 1	1
		96279	854 1	1
152	Kit, flange Flange	96279	854 1	1
152 156b	Kit, flange	96279 Internal diameter: 114,80	854 1	1



Pos	Description	Annotation	Classification Data	Part no.	Qty.	Un
185	Pan head screw		Thickness: 0,25			
186	Drain plug					
100	Kit, shaft seal			96279	722 -	1
159c				90279	122	1
159c	Seal ring					
159a	Seal ring			00070	704	4
450	Kit, terminal box			96279	/24	1
152	Pan head thread forming screw					
164a	Terminal box w/gasket					
164	Terminal box cover w/gasket					
173a	Washer		Designation: SQUARE			
			Internal diameter: 5,5			
			Outer diameter: 10X10			
			Thickness: 1,5			
173a	Base					
173	Pan head thread forming screw		Designation: COMBI TO	RX T25		
173	Pan head screw		Designation: DIN 7985			
175	Pan head screw		Designation: DIN 7985			
176	Terminal cpl.					
1a	Pump head			98824713	1	pc
2	Pump cover			98481138	1	pcs
. 3	Top intermediate chamber			98371084	1	рс
4a	Intermediate chamber cpl.			98371088	1	рс
3	Intermediate chamber			983710	064	1
6	Base			98892305	1	pcs
7.a	Bulk, Combi Slot Torx screw (1000 pcs)			96886324	4	pcs
10	Bulk, Shaft pin (10 pcs)		Diameter: 5	96536473	1	pc
			Length (mm): 26			•
18	Bulk, Air vent screw (5 pcs)		5 , ,	96547461	1	рс
18	Air vent screw			95061351	1	pcs
25	Bulk, Plug (10 pcs)			96536013	1	pcs
26a	Strap cpl.			98984427		pcs
26.c	Bulk, Washer (4 pcs)		Designation: DIN 125A	99262704		pcs
	Dami, Traerie: (1 pee)		Thickness: 1,6	00202.0.		Pot
26.c	Washer		Designation: DIN 125A	96586880	2	pcs
20.0	Traditor		Thickness: 1,6	0000000	_	Po
26	Staybolt		111101111000. 1,0	98925107	4	pcs
	Bulk, O-ring (20 pcs)			96538857		pcs
38a	Bulk, O-ring (10 pcs)		Diameter: 5,3	99198791		pc
30a	Buik, O-Illig (10 pcs)		Material type: EPDM	99190791	'	pc.
			Thickness: 2,4			
38	Bulk, O-ring (10 pcs)		Diameter: 16,3	99198815	2	pcs
Jo Buik, O-Illig (1	Buik, O Ting (10 pcs)		Material type: EPDM	33130013		po.
			Thickness: 2,4			
38	Bulk, O-ring (50 pcs)		Diameter: 16,3	99412727	2	nce
30	Buik, O-IIIIg (30 pcs)		Material type: EPDM	33412727		pcs
			Thickness: 2,4			
44b	Inlet part		1111UNI1033. Z,4	98814593	1	no
44b	Inlet part cpl.			98890953		pcs
						pcs
47	Bulk, Bearing ring (10 pcs)			96538795		pc
49	Impeller cpl.			98459841		pcs
51	Shaft, spline, cpl.			98368625		pc
62	Retaining ring			965880		
55	Outer sleeve			98812631		pc
56	Base plate			98824711		pc
60	Bulk, Spring (20 pcs)			96538963	4	pcs
64a	Bulk, Spacer (20 pcs)			97516851	1	pcs
64a	Built, Opador (20 poo)			01010001		



Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
64.d	Bulk, Spacing pipe (5 pcs)		Length (mm): 12.7	97980241	1	pcs
66	Bulk, Wedge lock washer (10 pcs)			96536157	1	pcs
67	Bulk, Lock nut (10 pcs)		Thread: M8	98277008	1	pcs
69	Bulk, Spacing bush (20 pcs)		Length (mm): 18.00	96538948	1	pcs
76a	Bulk, Rivet (100 pcs)			96620489	1	pcs
105	Bulk, Shaft seal (11 pcs)		Material type: HQQE	96538914	1	pcs
203	Helical compression spring			96547671	2	pcs