

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

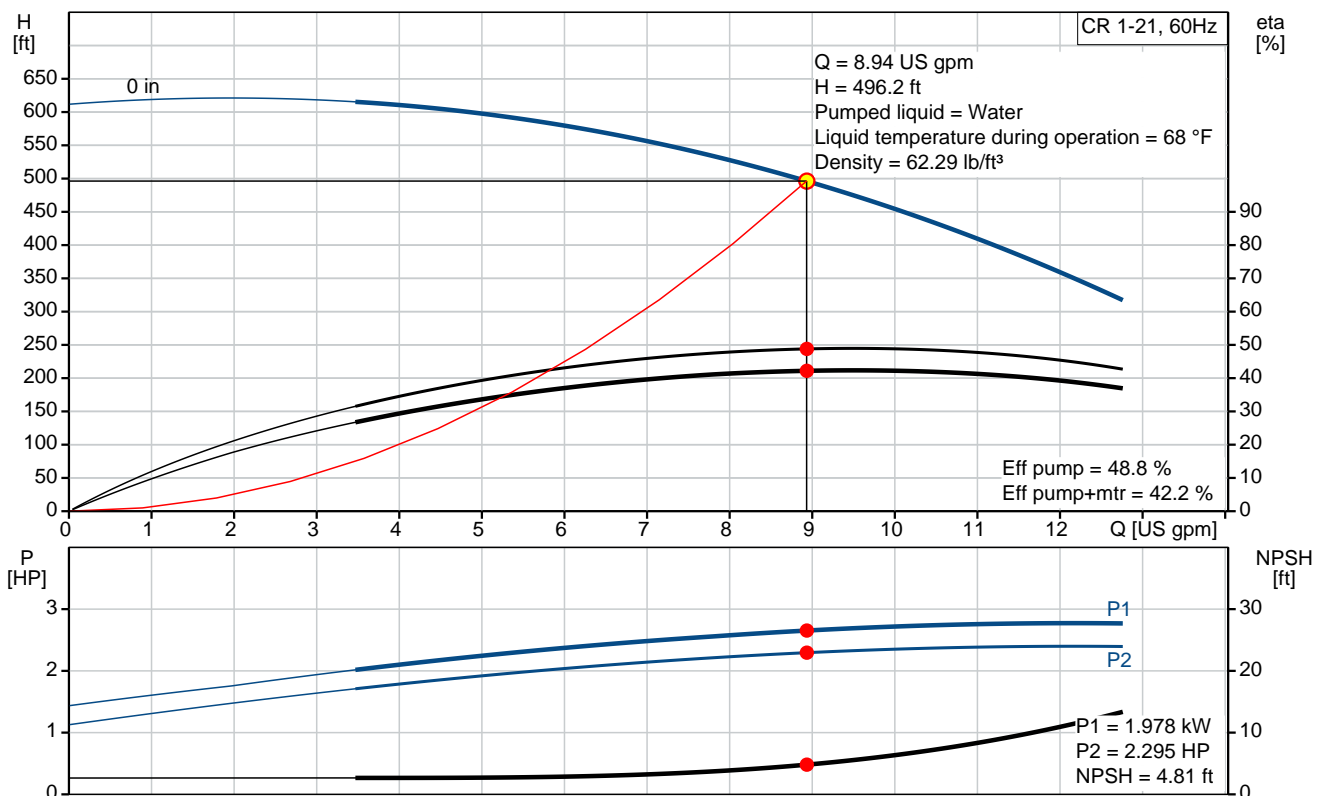


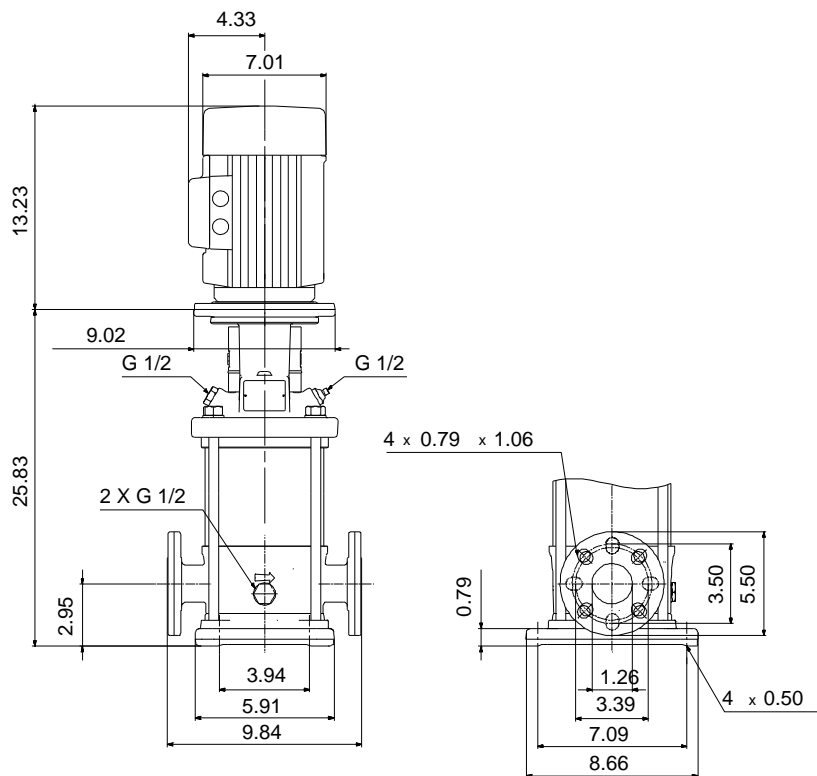
CR 1-21

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

Product photo could vary from the actual product

Conditions of Service	Pump Data	Motor Data
Flow: 8.94 US gpm	Max pressure at stated temperature: 363 psi / 250 °F	Rated power - P2: 3 HP
Head: 496.2 ft	Maximum ambient temperature: 140 °F	Rated voltage: 208-230YY/460Y V
Efficiency: 42.2 %	Approvals: CURUS, NSF61	Main frequency: 60 Hz
Liquid: Water	Shaft seal: HQQE	Enclosure class: 55 Dust/Jetting
Temperature: 68 °F	Product number: 96082141	Insulation class: F
NPSH required: 4.81 ft		Motor protection: NONE
Viscosity: _____		Motor type: 90FA
Specific Gravity: 1.000		Motor_efficiency: 86.5 %





Materials:

Base:	Cast iron EN 1561 EN-GJL-200 ASTM A48-25B
Impeller:	Stainless steel AISI 304 EN 1.4301
Material code:	A
Code for rubber:	E

Tender Text



Product No.: [96082141](#)

CR 1-21 A-FGJ-A-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 and intermediate chambers are made of
- The shaft seal has assembly length

according to EN 12756.

- Power transmission is via cast iron split coupling.

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: 496.2 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: Cast iron
EN 1561 EN-GJL-200
ASTM A48-25B

Impeller: Stainless steel
EN 1.4301

Bearing material: AISI 304
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

Size of inlet connection: DN 25/32



Company name:

Created by:

Phone:

Date:

2/20/2018


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: 250 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: 110 lb
Gross weight: 128 lb
Shipping volume: 10.1 ft³

Position	Count	Description
	1	<p>CR 1-21 A-FGJ-A-E-HQQE</p>  <p>Product No.: 96082141 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation.</p> <p>The pump has the following characteristics:</p> <ul style="list-style-type: none"> - Impellers and intermediate chambers are made of - The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling. <p>The motor is a 3-phase AC motor.</p> <p>Controls: Frequency converter: NONE</p> <p>Liquid: Pumped liquid: Water Liquid temperature during operation: 68 °F Density: 62.29 lb/ft³</p> <p>Technical: Speed for pump data: 3461 rpm Actual calculated flow: 8.94 US gpm Resulting head of the pump: 496.2 ft Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CURUS, NSF61 Curve tolerance: ISO9906:2012 3B</p> <p>Materials: Base: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B Impeller: Stainless steel EN 1.4301 AISI 304 Bearing material: SIC</p> <p>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 Size of inlet connection: DN 25/32 Size of suction port: 1 1/4 inch</p>



Company name:

Created by:

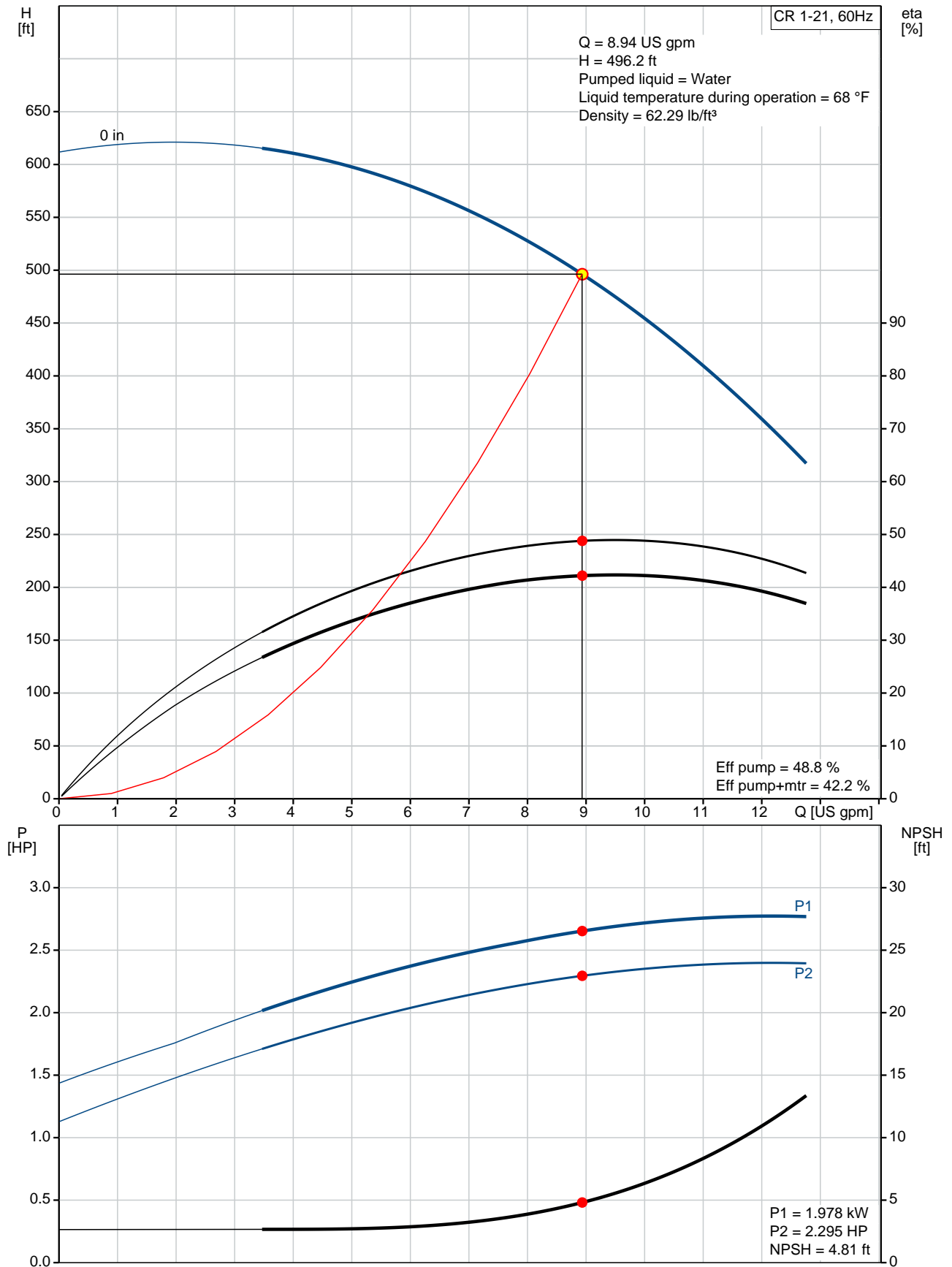
Phone:

Date:

2/20/2018

Position	Count	Description
		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: 250 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: 110 lb Gross weight: 128 lb Shipping volume: 10.1 ft³

96082141 CR 1-21 60 Hz



Description	Value
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General information:

Product name:	CR 1-21 A-FGJ-A-E-HQQE
Product No.:	96082141
EAN:	5700395168792

Technical:

Speed for pump data:	3461 rpm
Actual calculated flow:	8.94 US gpm
Resulting head of the pump:	496.2 ft
Stages:	21
Impellers:	21
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS, NSF61
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	TEFC

Materials:

Base:	Cast iron EN 1561 EN-GJL-200 ASTM A48-25B
Impeller:	Stainless steel EN 1.4301 AISI 304
Material code:	A
Code for rubber:	E
Bearing material:	SIC

Installation:

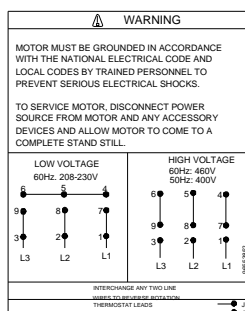
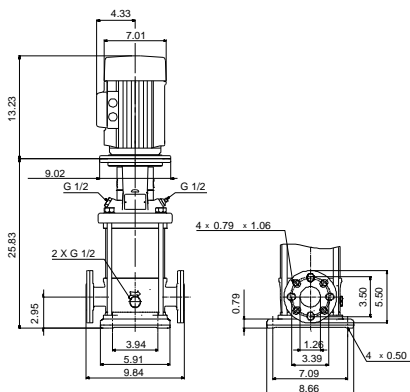
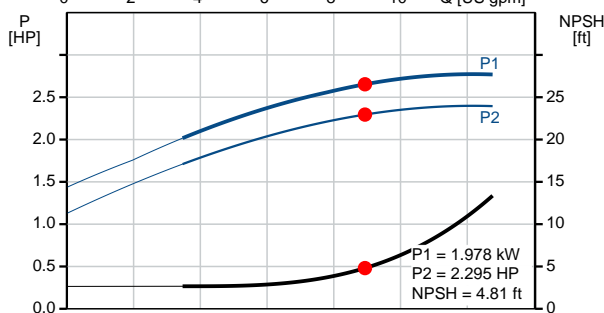
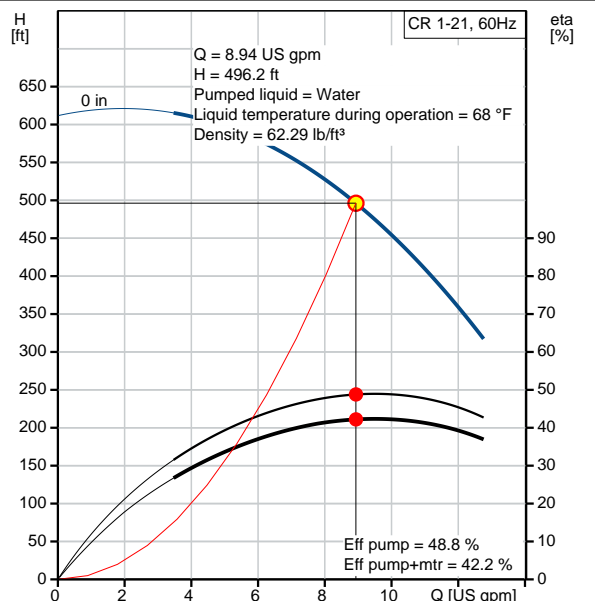
Maximum ambient temperature:	140 °F
Max pressure at stated temperature:	363 psi / 250 °F 363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Connect code:	FGJ
Size of inlet connection:	DN 25/32
Size of suction port:	1 1/4 inch
Size of outlet connection:	DN 25/32
Size of outlet port:	1 1/4 inch
Pressure rating:	PN 25
Flange size for motor:	182TC
Flange rating inlet:	250 lb

Liquid:

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





Company name:

Created by:

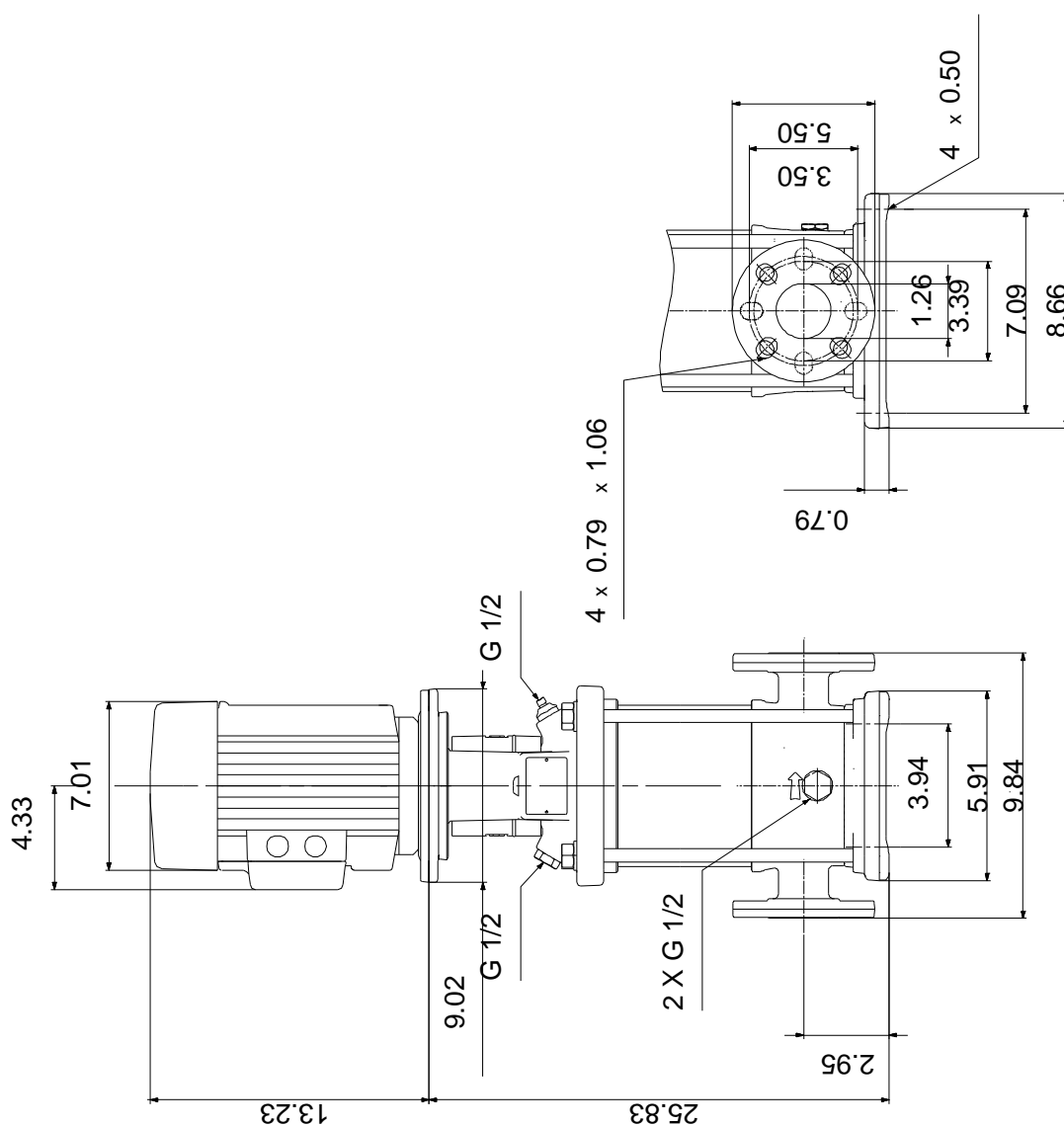
Phone:

Date:

2/20/2018

Description	Value
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:	110 lb
Gross weight:	128 lb
Shipping volume:	10.1 ft ³

96082141 CR 1-21 60 Hz



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

96082141 CR 1-21 60 Hz

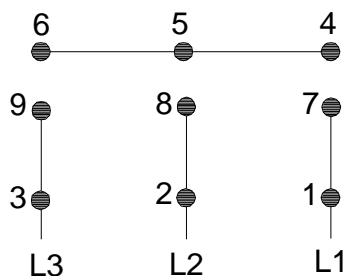


WARNING

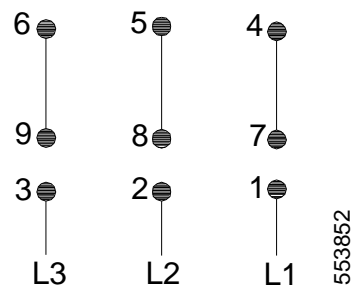
MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

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

LOW VOLTAGE 60Hz. 208-230V

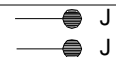


HIGH VOLTAGE 60Hz: 460V 50Hz: 400V



INTERCHANGE ANY TWO LINE
WIRES TO REVERSE ROTATION

THERMOSTAT LEADS
(WHEN PROVIDED)





Company name:

Created by:

Phone:

Date:

2/20/2018

Order Data:

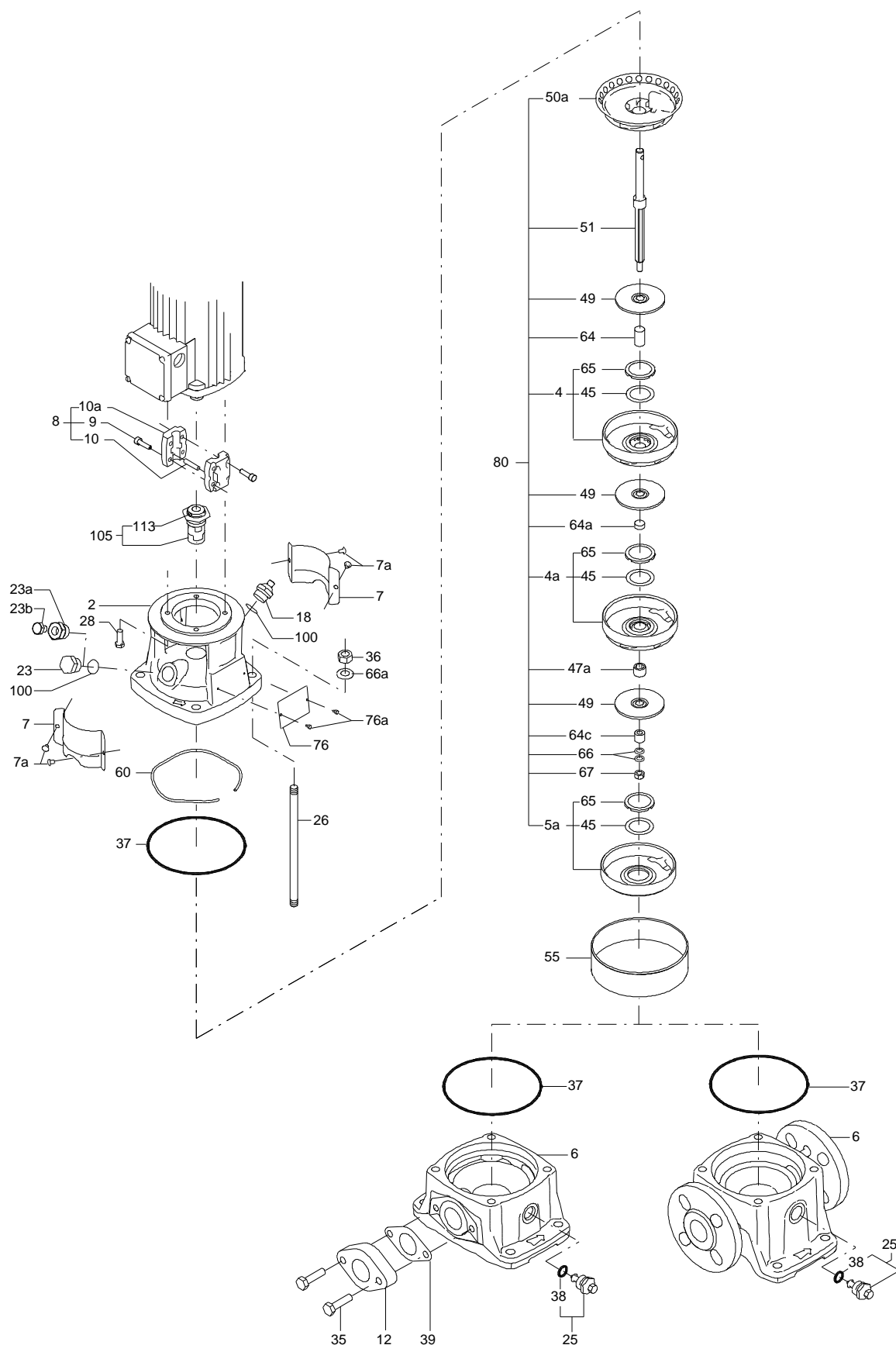
Product name: CR 1-21 A-FGJ-A-E-HQQE

Amount: 1

Product No.: 96082141

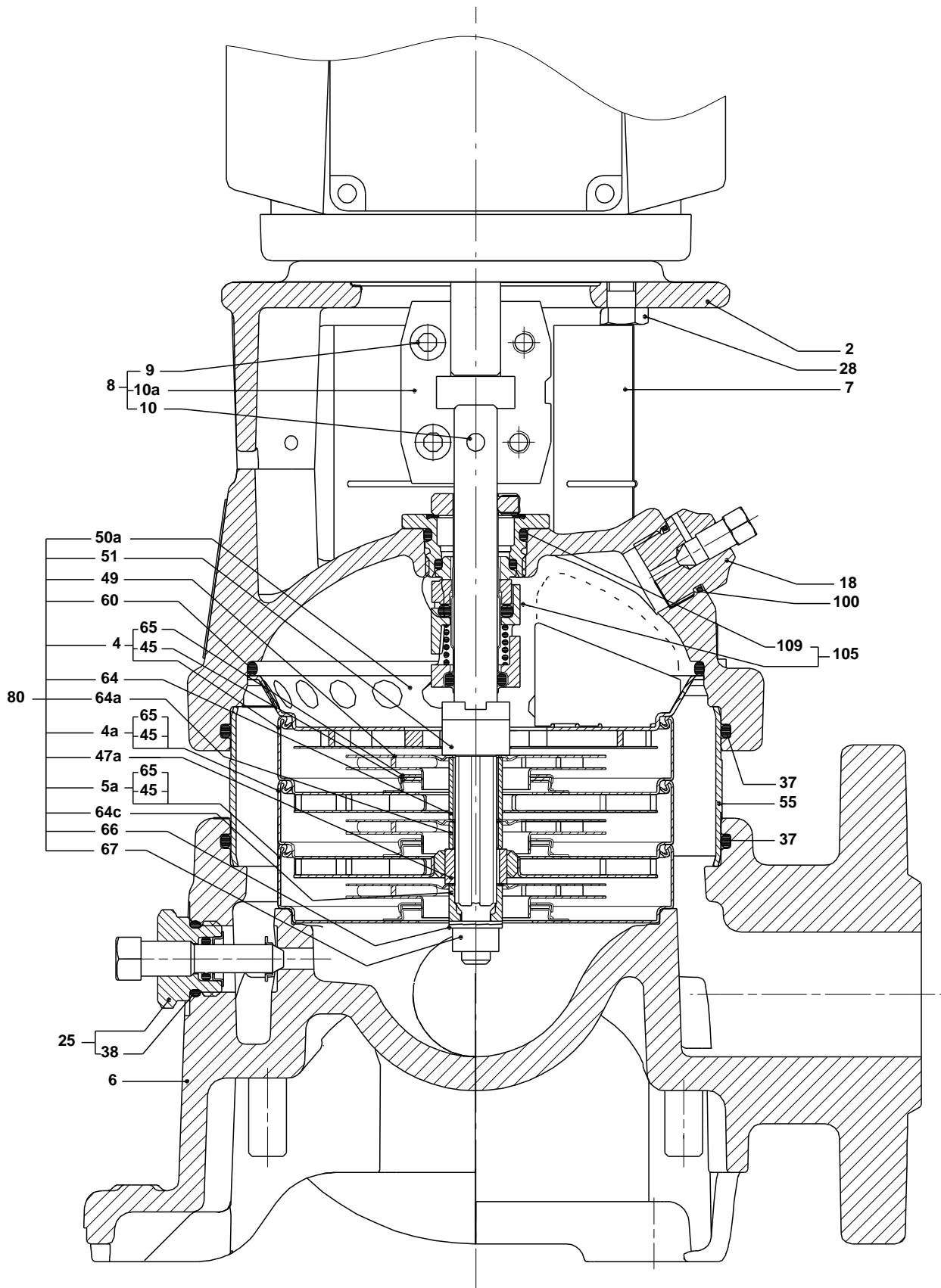
Total: Price on request

Exploded view (tm020210 4100)



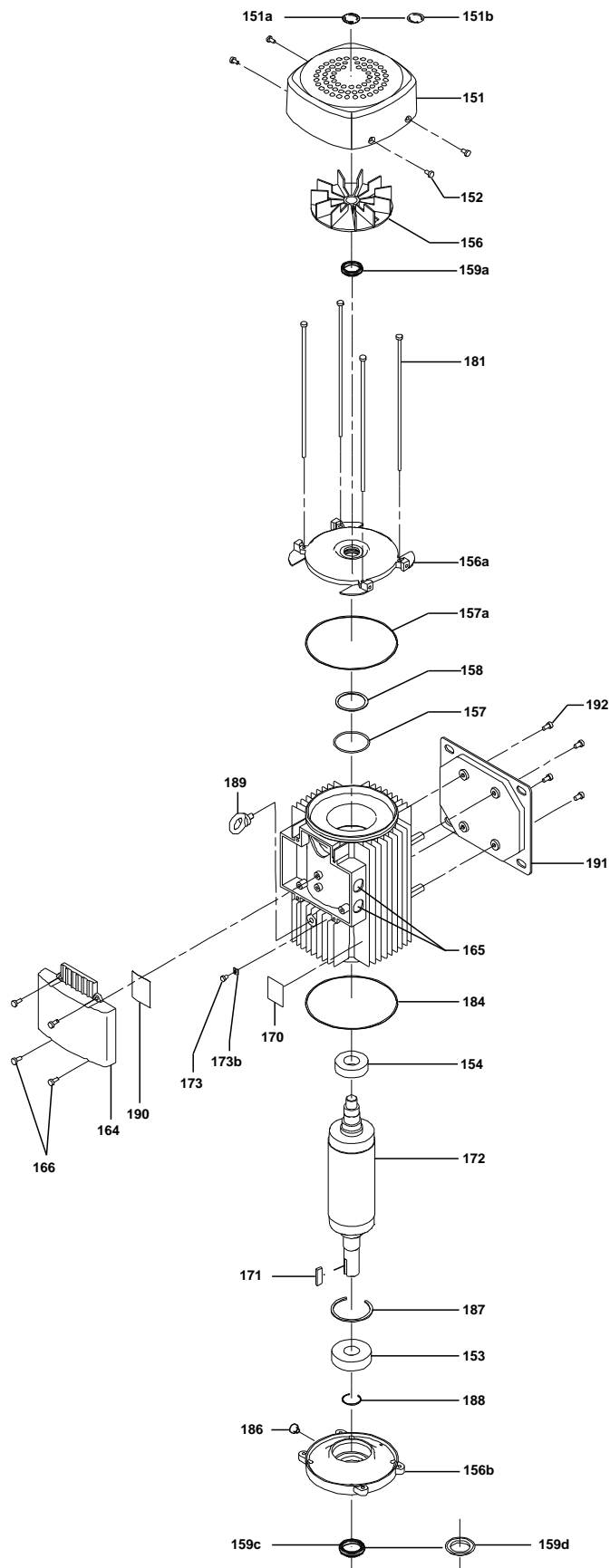
TM020210

Sectional drawing (tm020211 4100)

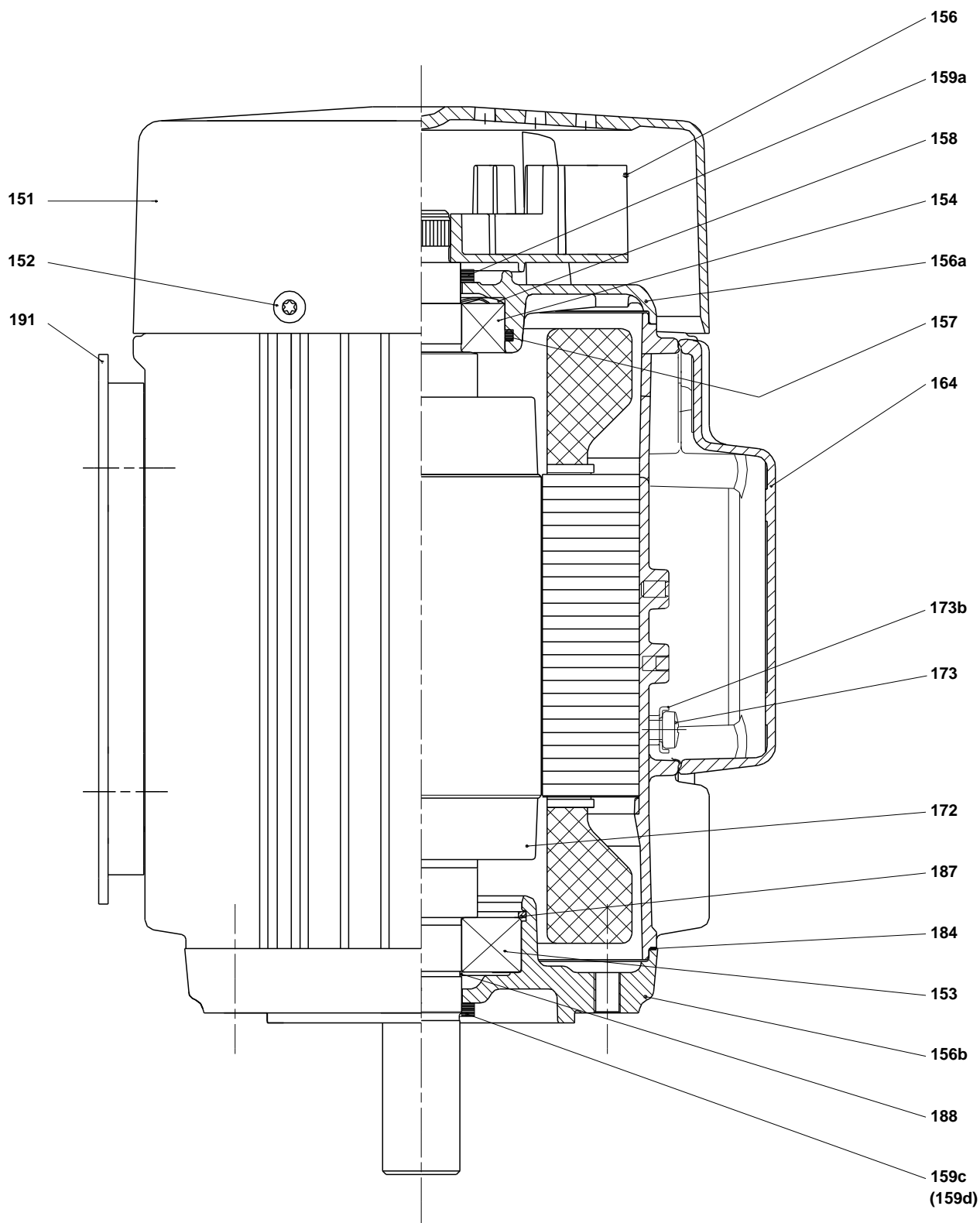


TM020211

Exploded view (tm030553)



Sectional drawing (TM031465)



TM031465)

Parts list CR 1-21, Prod number 96082141
Valid from 1.7.2011 (1127)

Position	Description	Annotation	Classification data	Part No.	Count	Unit
+	Motor				1	pcs
	Motor				1	pcs
-	Base cpl.				1	pcs
6	Base				1	
-	Sealing parts				1	pcs
- 25	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3			
			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	pcs
2	Pump head				1	
7	Coupling guard				2	
7a	Thread cutting screw				4	
- 18	Air vent screw				1	
	Plug					
	Spindle					
- 25	Drain plug				1	
23	Pipe plug					
25	Drain plug					
28	Hex head cap screw		Length: 25		4	
			Thread: UNC 1/2"			
60	Formed wire spring				1	
- 8	Coupling cpl.				1	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length: 25			
			Thread: M8			
10	Shaft pin		Diameter: 5		1	
			Length: 26			
10a	Coupling half				2	
26	Staybolt		Length: 400		4	pcs
			Thread: M12			
36a	Washer		Designation: DIN 125 A		4	pcs
			Inner diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
55	Outer sleeve				1	pcs
66a	Nut		Thread: M12		4	pcs
- 80	Chamber stack				1	pcs
	Impeller				21	
-	Guide vane cpl.				1	
	Plate					
50a	Guide vane					
50b	Top plate					
- 4	Chamber cpl.				17	
	Guide vane					
	Plate					
	Retainer					
	Intermediate chamber					
	Vane					

Position	Description	Annotation	Classification data	Part No.	Count	Unit
45	Neck ring					
65	Retainer					
- 4a	Chamber w. bearing cpl.				3	
	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				3	
51	Shaft, spline, cpl.				1	
64a	Spacing pipe				17	
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	