

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

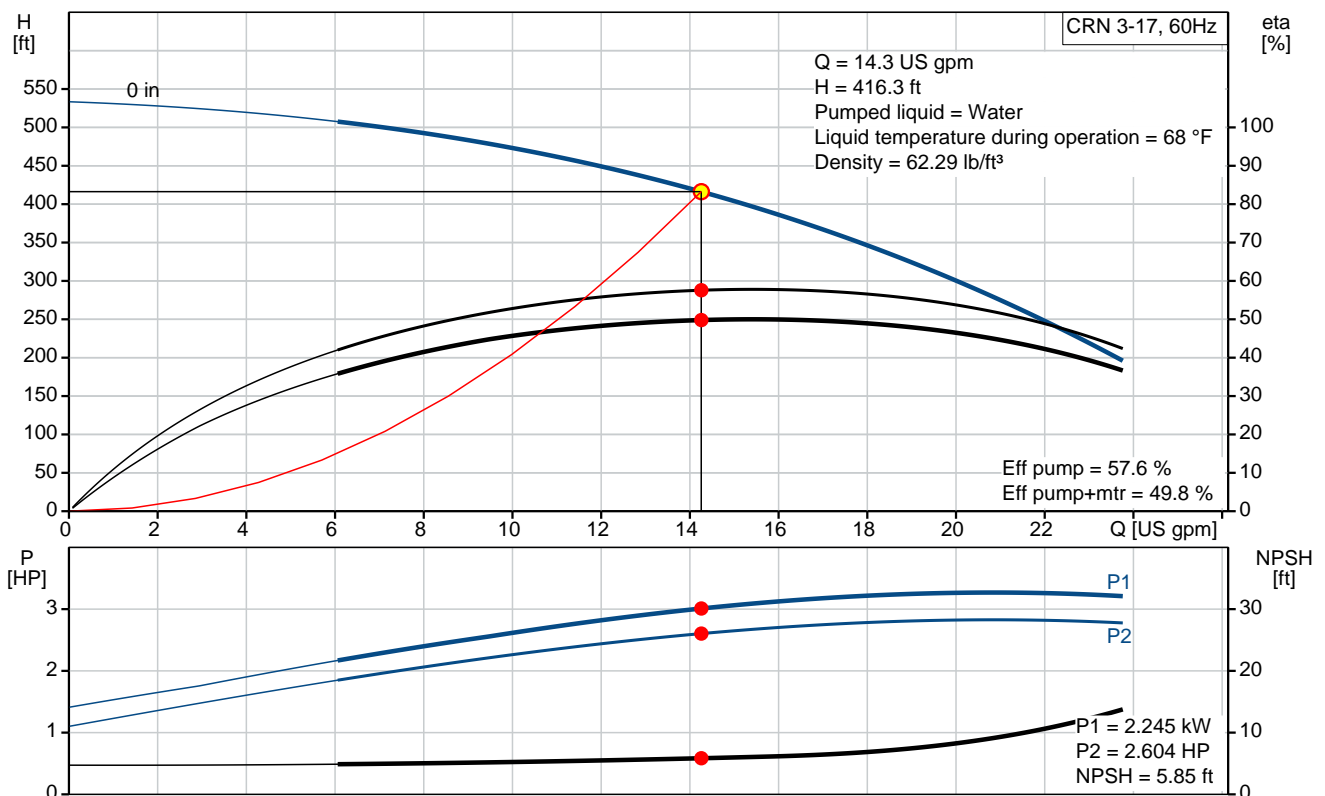


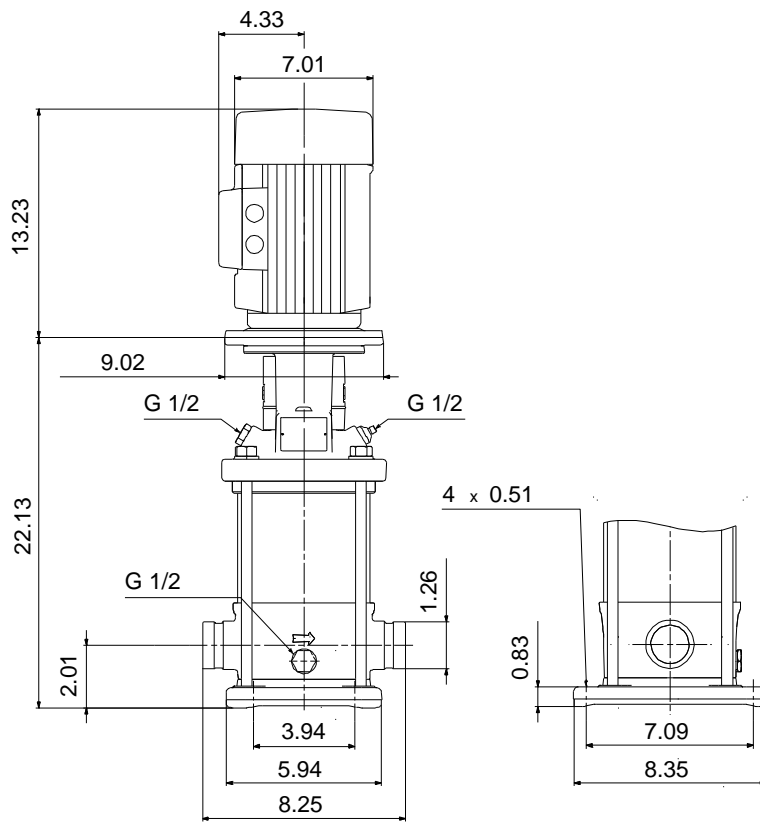
CRN 3-17

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	Pump Data	Motor Data
Flow: 14.3 US gpm	Max pressure at stated temperature: 363 psi / 194 °F	Rated power - P2: 3 HP
Head: 416.3 ft	Maximum ambient temperature: 140 °F	Rated voltage: 208-230YY/460Y V
Efficiency: 49.8 %	Approvals: CURUS	Main frequency: 60 Hz
Liquid: Water	Shaft seal: HQQV	Enclosure class: 55 Dust/Jetting
Temperature: 68 °F	Product number: 96083856	Insulation class: F
NPSH required: 5.85 ft		Motor protection: NONE
Viscosity: _____		Motor type: 90FA
Specific Gravity: 1.000		Motor_efficiency: 86.5 %





Materials:

Base: Stainless steel
EN 1.4408
AISI 316

Impeller: Stainless steel
AISI 316
EN 1.4401

Material code: G

Code for rubber: V

Tender Text



Product No.: [96083856](#)

CRN 3-17 A-P-G-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
Actual calculated flow: 14.3 US gpm
Resulting head of the pump: 416.3 ft
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 1.4401
AISI 316
Bearing material: SIC

Installation:

Maximum ambient temperature: 140 °F
Max pressure at stated temperature: 363 psi / 194 °F


Type of connection: 363 psi / -4 °F
Size of inlet connection: PJE
Size of suction port: DN 32
Size of outlet connection: 1 1/4 inch
Size of outlet port: DN 32
Pressure rating: 1 1/4 inch
Flange size for motor: PN 50
182TC

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: 89.9 lb
Gross weight: 104 lb
Shipping volume: 8.26 ft³

Position	Count	Description
	1	<p>CRN 3-17 A-P-G-V-HQQV</p>  <p>Product No.: 96083856 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, 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. <p>flanges/couplings.</p> <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: 14.3 US gpm Resulting head of the pump: 416.3 ft Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQV Approvals on nameplate: CURUS Curve tolerance: ISO9906:2012 3B</p> <p>Materials: Base: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4401 AISI 316 Bearing material: SIC</p> <p>Installation: Maximum ambient temperature: 140 °F Max pressure at stated temperature: 363 psi / 194 °F 363 psi / -4 °F</p>



Company name:

Created by:

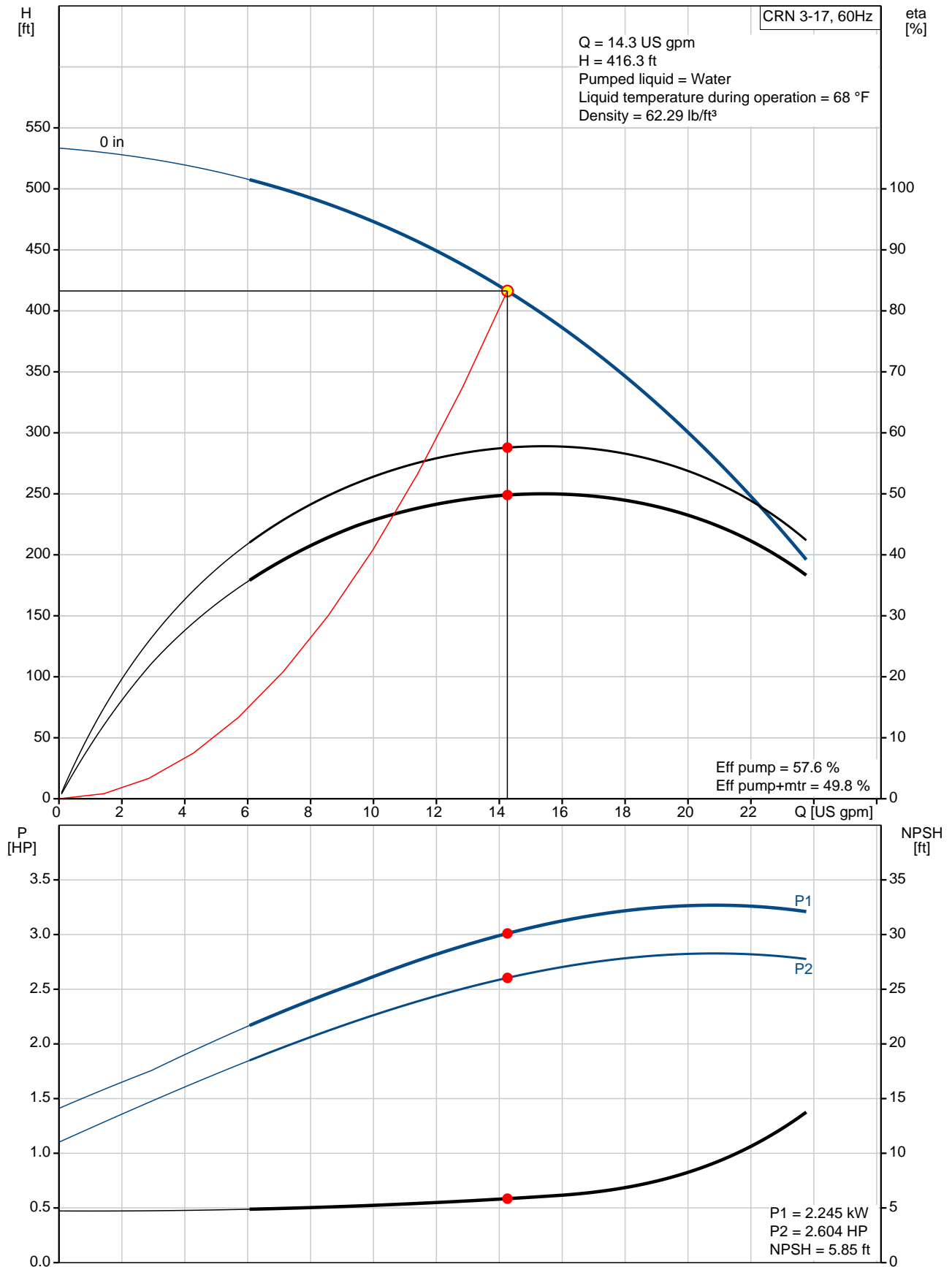
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Date:

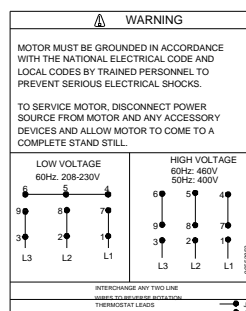
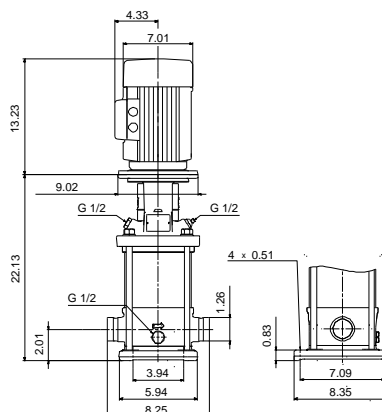
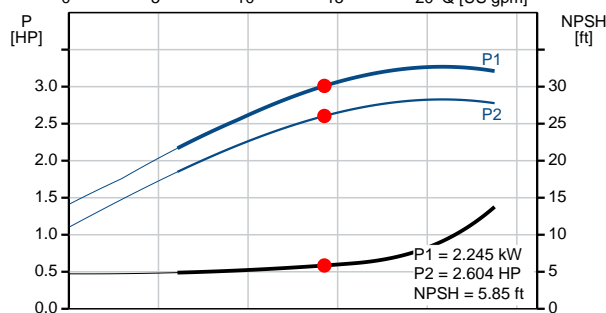
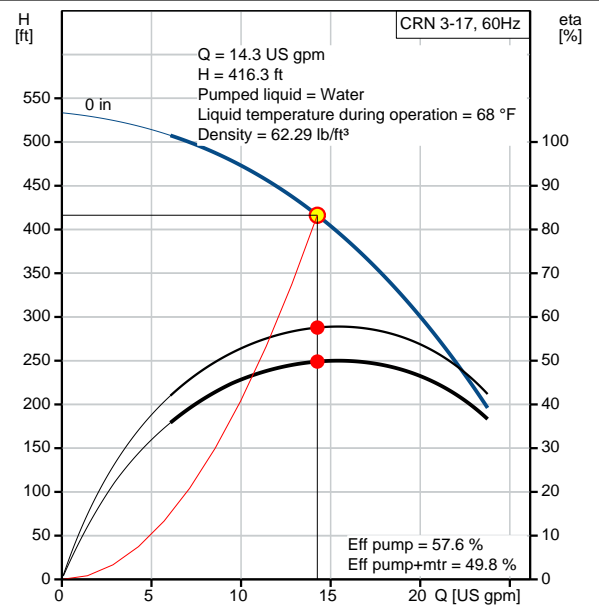
2/21/2018

Position	Count	Description
		Type of connection: PJE Size of inlet connection: DN 32 Size of suction port: 1 1/4 inch Size of outlet connection: DN 32 Size of outlet port: 1 1/4 inch Pressure rating: PN 50 Flange size for motor: 182TC 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: 89.9 lb Gross weight: 104 lb Shipping volume: 8.26 ft³

96083856 CRN 3-17 60 Hz



Description	Value
General information:	
Product name:	CRN 3-17 A-P-G-V-HQQV
Product No.:	96083856
EAN:	5700395179743
Technical:	
Speed for pump data:	3461 rpm
Actual calculated flow:	14.3 US gpm
Resulting head of the pump:	416.3 ft
Stages:	17
Impellers:	17
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
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4401
	AISI 316
Material code:	G
Code for rubber:	V
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:	PJE
Connect code:	P
Size of inlet connection:	DN 32
Size of suction port:	1 1/4 inch
Size of outlet connection:	DN 32
Size of outlet port:	1 1/4 inch
Pressure rating:	PN 50
Flange size for motor:	182TC
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
Service factor:	1,15





Company name:

Created by:

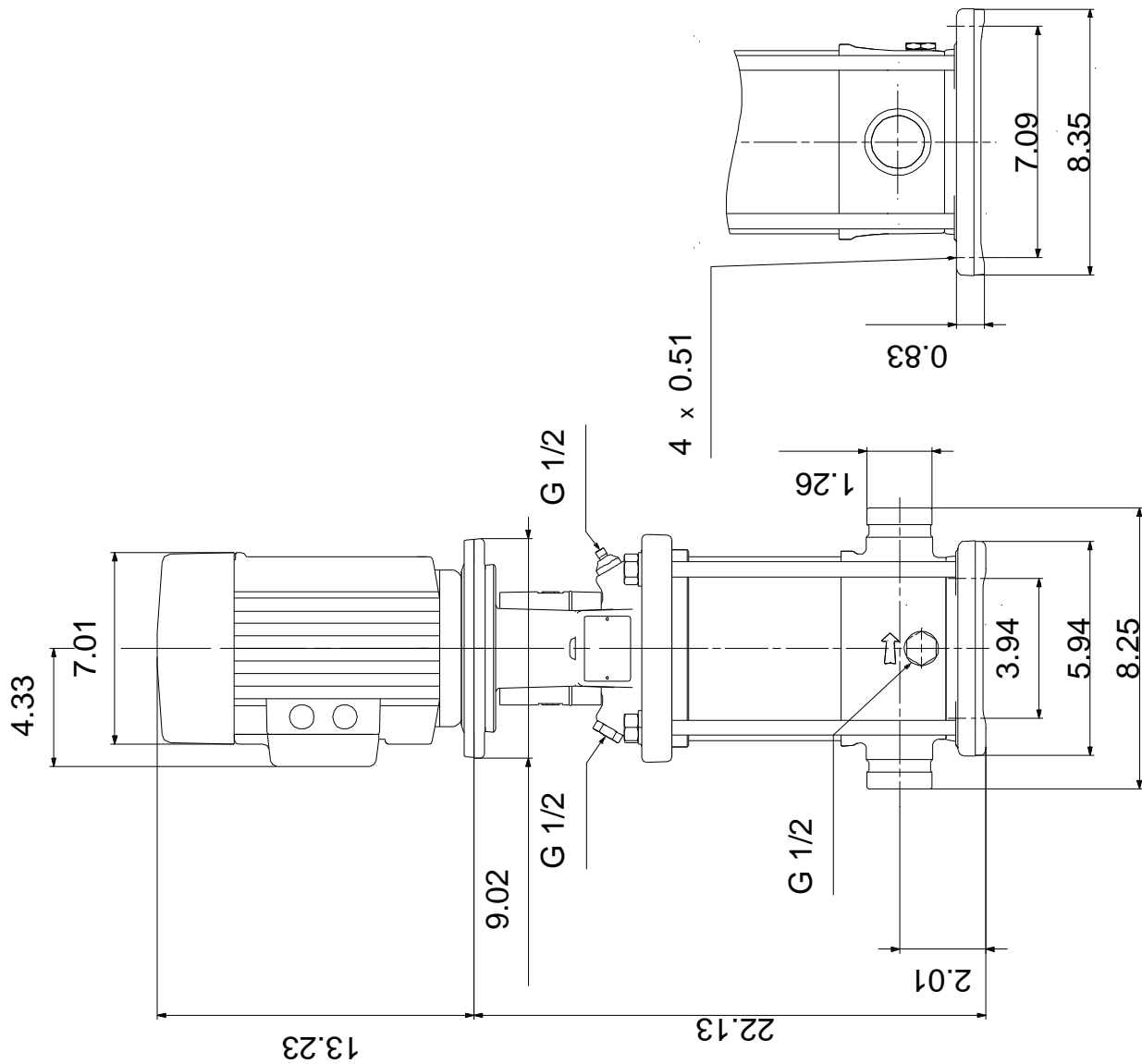
Phone:

Date:

2/21/2018

Description	Value
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:	89.9 lb
Gross weight:	104 lb
Shipping volume:	8.26 ft ³

96083856 CRN 3-17 60 Hz



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

96083856 CRN 3-17 60 Hz



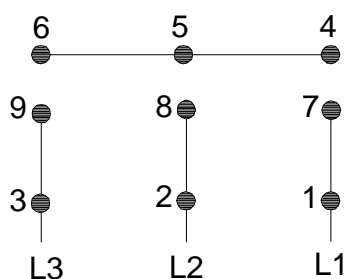
WARNING

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

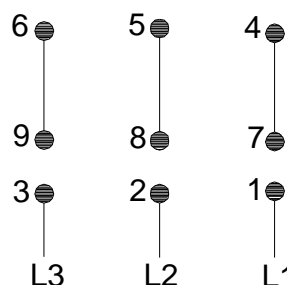
60Hz. 208-230V



HIGH VOLTAGE

60Hz: 460V

50Hz: 400V

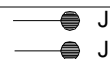


96553852

INTERCHANGE ANY TWO LINE WIRES TO REVERSE ROTATION

THERMOSTAT LEADS

(WHEN PROVIDED)





Company name:

Created by:

Phone:

Date:

2/21/2018

Order Data:

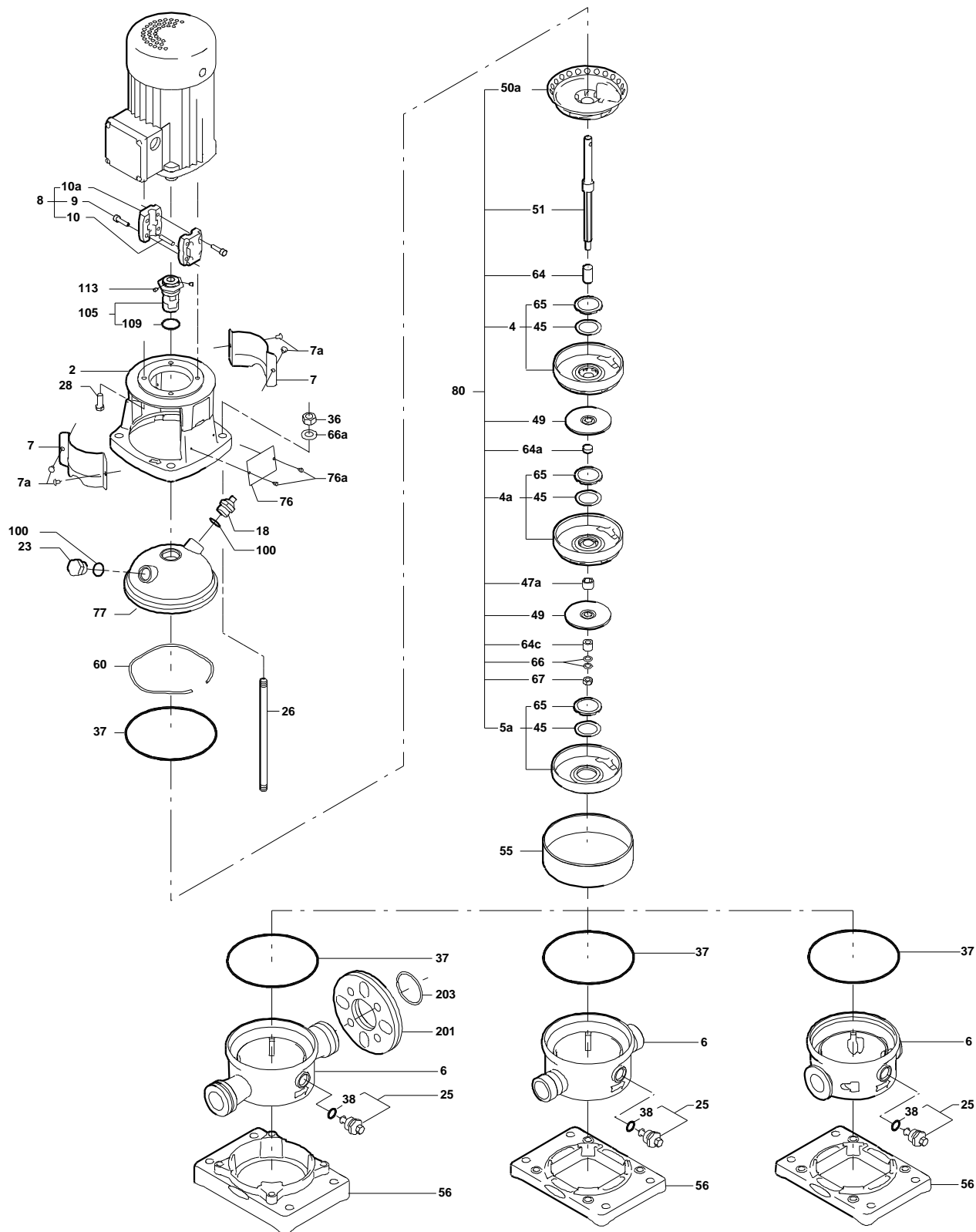
Product name: CRN 3-17 A-P-G-V-HQQV

Amount: 1

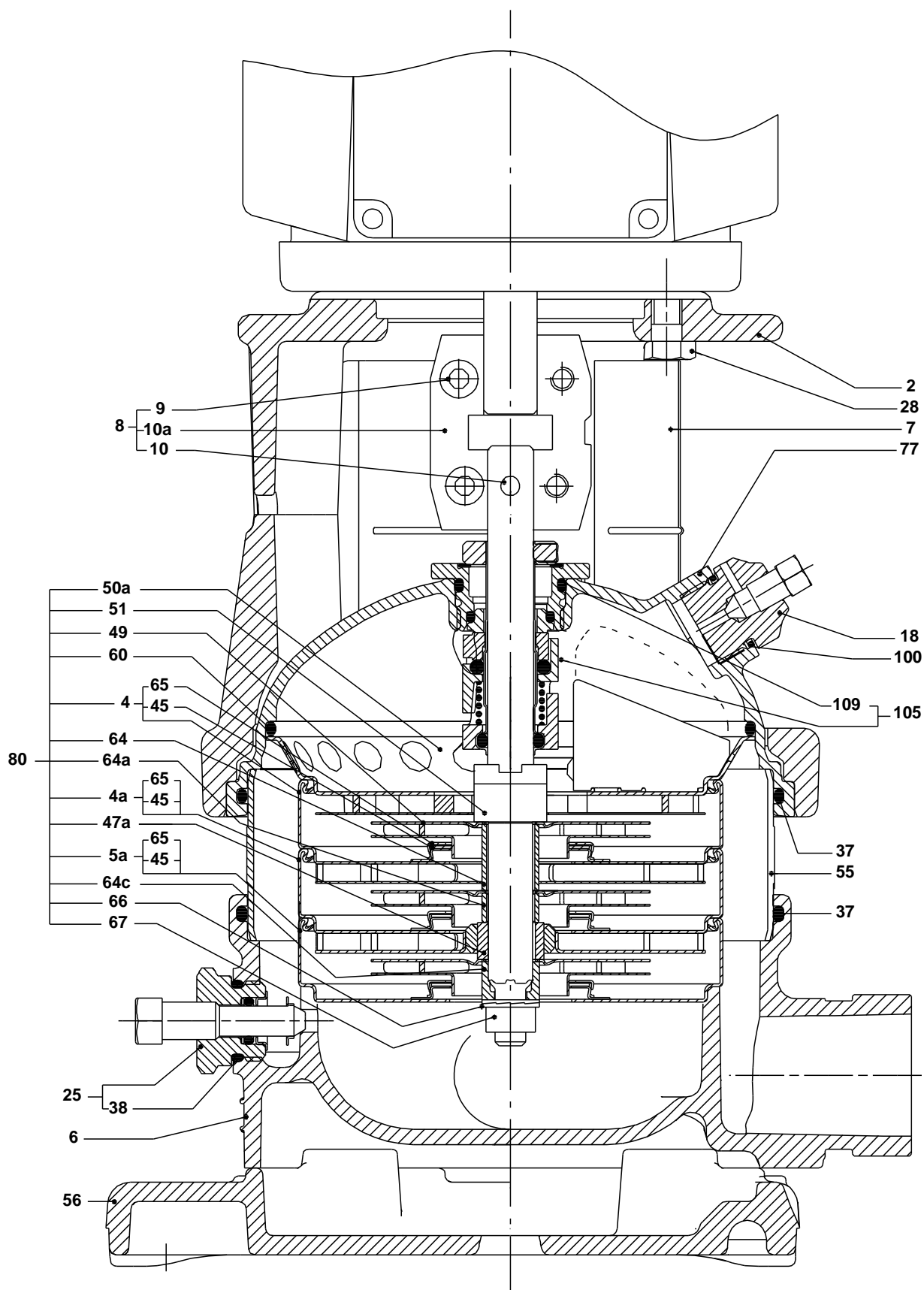
Product No.: 96083856

Total: Price on request

Exploded view (TM02 0212 4100)

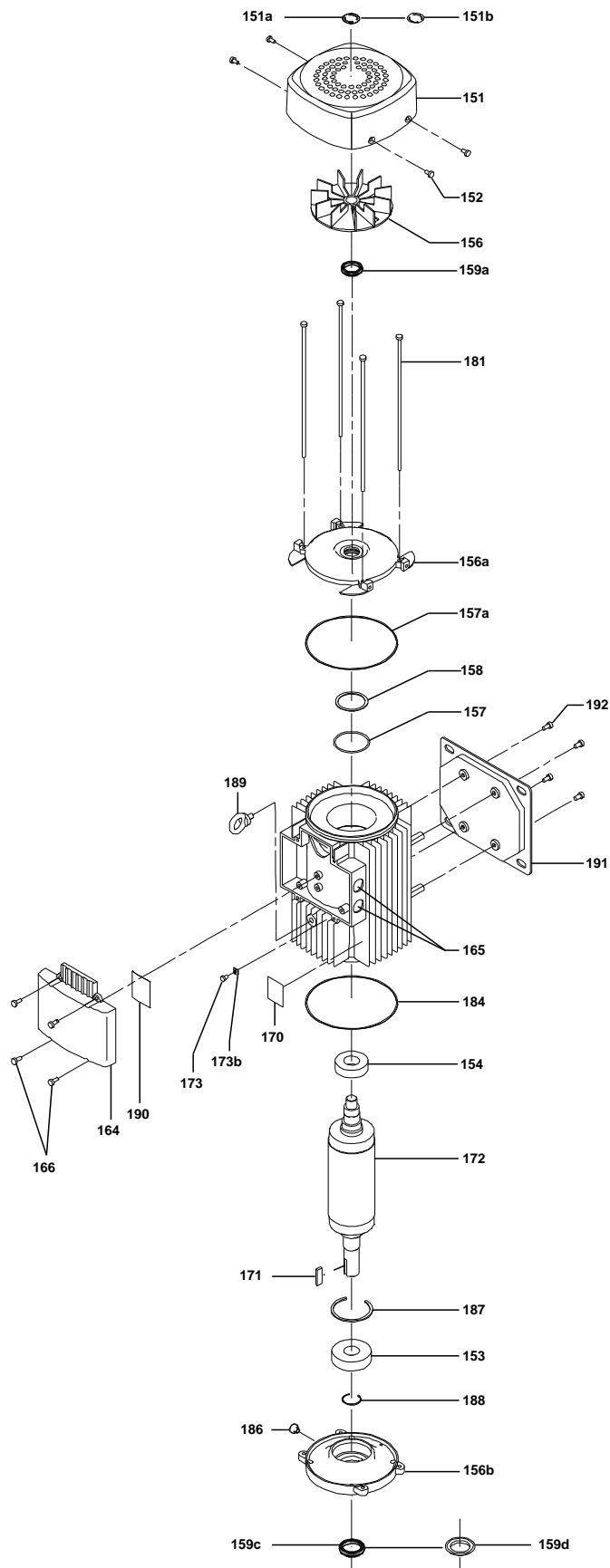


Sectional drawing (TM02 0215 4100)

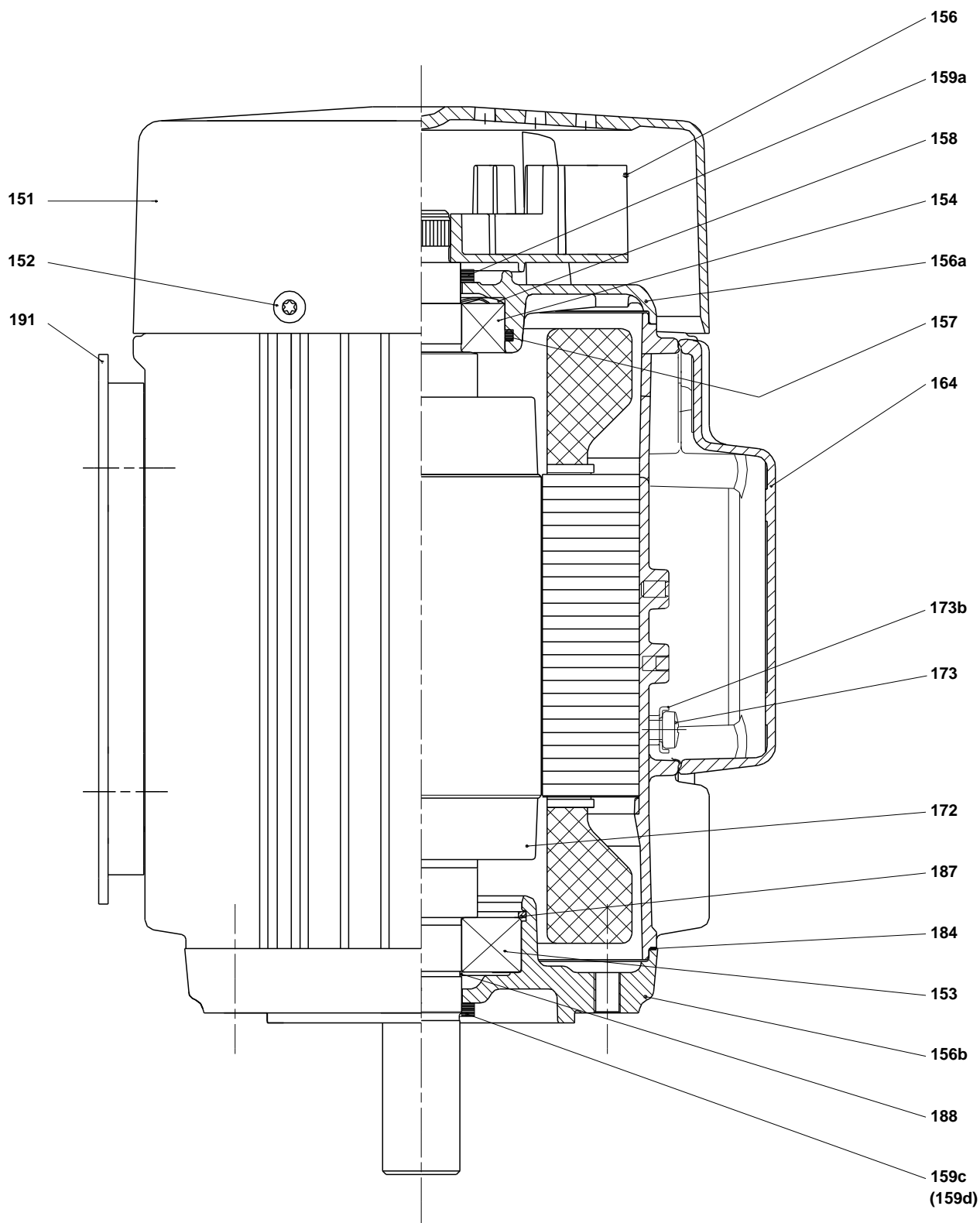


TM02

Exploded view (tm030553)



Sectional drawing (TM031465)



TM031465)

Parts list CRN 3-17, Prod number 96083856

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	
25	Plug				2	
56	Base plate				1	
-	Sealing parts				1	pcs
- 25	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3			
			Material type: FKM			
			Thickness: 2,4			
37	O-ring		Diameter: 137,5		2	
			Material type: FKM			
			Thickness: 3,3			
100	O-ring		Diameter: 16,3		2	
			Material type: FKM			
			Thickness: 2,4			
- 2	Pump head cpl.				1	pcs
2	Motor stool				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	
77	Pump cover				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: 403		4	pcs
			Thread: M12			
36	Nut		Thread: M12		4	pcs
55	Outer sleeve				1	pcs
66a	Washer		Designation: DIN 125 A2		4	pcs
			Inner diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
- 80	Chamber stack				1	pcs
-	Chamber cpl.				14	
4a	Intermediate chamber					
45	Neck ring					
65	Neck ring retainer					
	Impeller cpl.				17	
-	Chamber w. bearing cpl.				2	

Position	Description	Annotation	Classification data	Part No.	Count	Unit
4a	Intermediate chamber					
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				2	
- 50a	Guide vane cpl.				1	
	Guide vane					
	Plate					
50b	Top plate					
51	Shaft, spline, cpl.				1	
64a	Spacing pipe				14	
64a	Spacing pipe		Inner diameter: 12,85		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	