

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

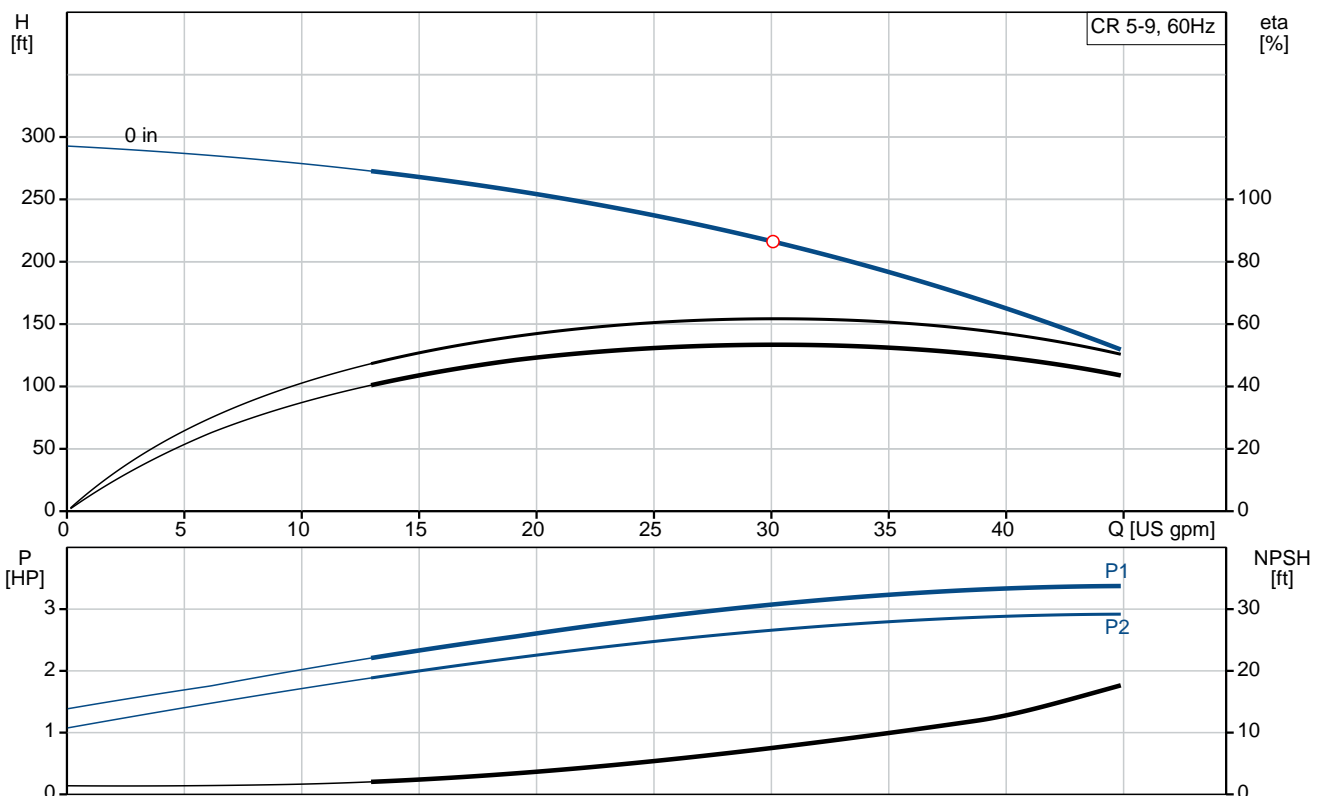


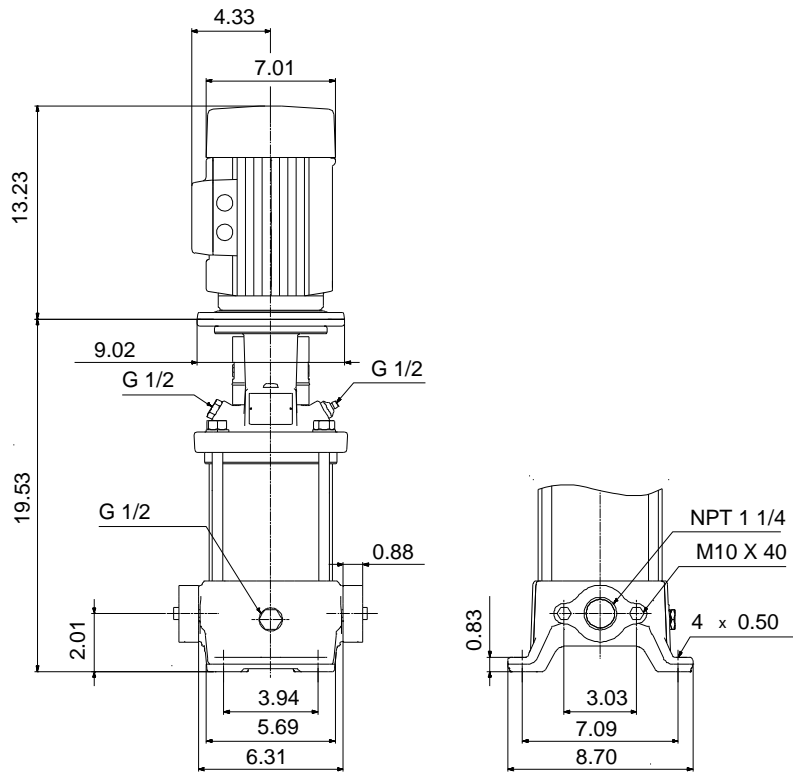
CR 5-9

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: _____	Max pressure at stated temperature: 232 psi / 194 °F	Rated power - P2: 3 HP
Head: _____	Maximum ambient temperature: 140 °F	Rated voltage: 208-230YY/460Y V
Efficiency: _____	Approvals: CURUS	Main frequency: 60 Hz
Liquid: Water	Shaft seal: HQQV	Enclosure class: 55 Dust/Jetting
Temperature: 68 °F	Product number: 96084186	Insulation class: F
NPSH required: 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:	V

Tender Text



Product No.: [96084186](#)

CR 5-9 A-B-A-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 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

Pump orientation: Vertical

Shaft seal arrangement: Single

Code for shaft seal: HQQV

Approvals on nameplate: CURUS

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: 232 psi / 194 °F
232 psi / -4 °F

Type of connection: Oval / NPT(F)

Size of suction port: 1 1/4 inch

Size of outlet port: 1 1/4 inch

Pressure rating: PN 16



Company name:

Created by:

Phone:

Date:

2/20/2018


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: 92.4 lb
Gross weight: 107 lb
Shipping volume: 8.26 ft³

Position	Count	Description
	1	<p>CR 5-9 A-B-A-V-HQQV</p>  <p>Product No.: 96084186 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 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: 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: 232 psi / 194 °F 232 psi / -4 °F</p> <p>Type of connection: Oval / NPT(F) Size of suction port: 1 1/4 inch Size of outlet port: 1 1/4 inch Pressure rating: PN 16 Flange size for motor: 182TC</p>



Company name:

Created by:

Phone:

Date:

2/20/2018

Position	Count	Description
		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: 92.4 lb Gross weight: 107 lb Shipping volume: 8.26 ft ³



Company name:

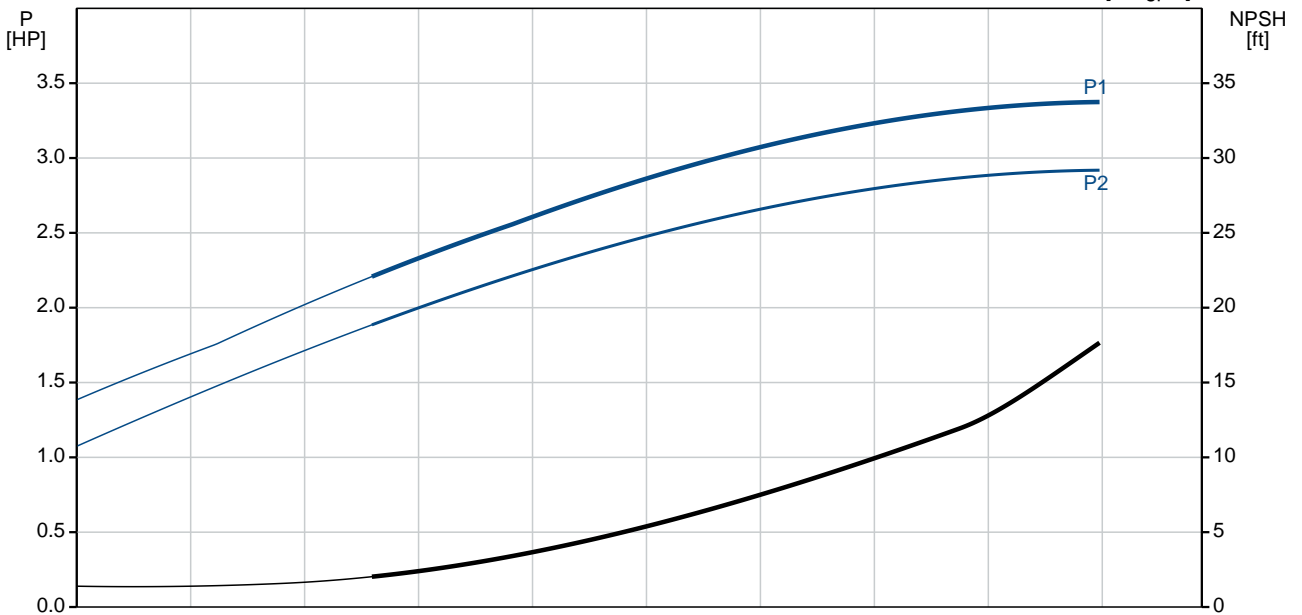
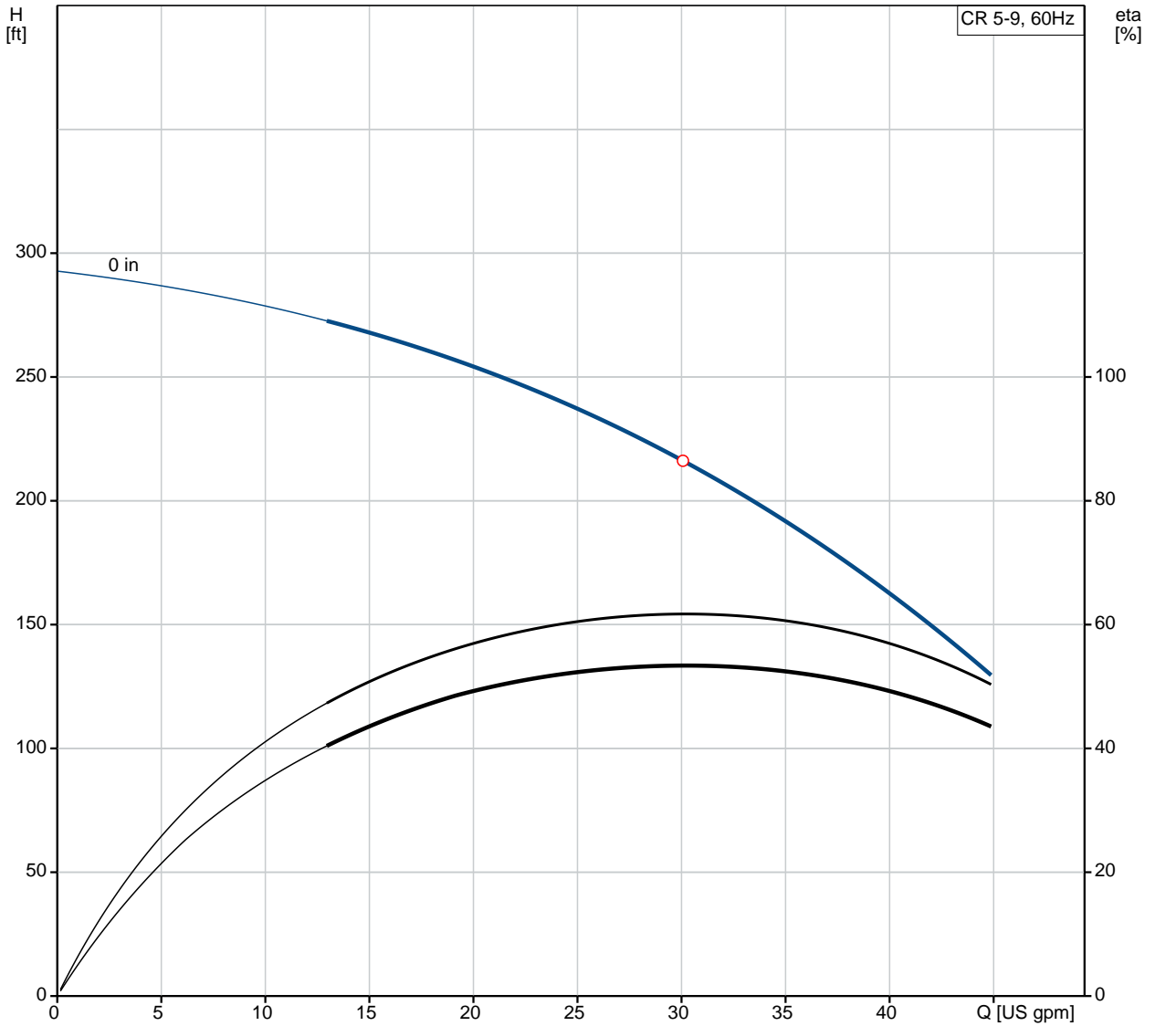
Created by:

Phone:

Date:

2/20/2018

96084186 CR 5-9 60 Hz



Description	Value
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General information:

Product name: CR 5-9 A-B-A-V-HQQV
 Product No.: 96084186
 EAN: 5700395190243

Technical:

Speed for pump data: 3461 rpm
 Stages: 9
 Impellers: 9
 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: Cast iron
 EN 1561 EN-GJL-200
 ASTM A48-25B
 Impeller: Stainless steel
 EN 1.4301
 AISI 304
 Material code: A
 Code for rubber: V
 Bearing material: SIC

Installation:

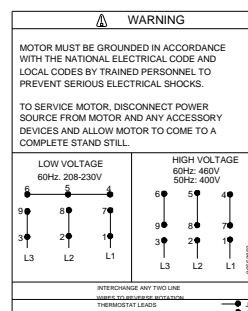
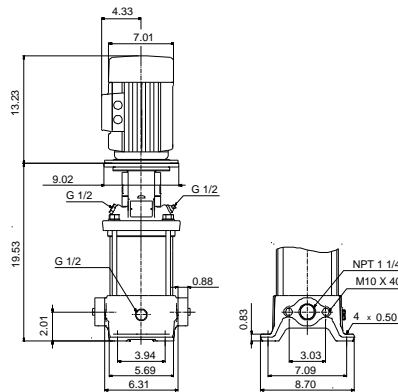
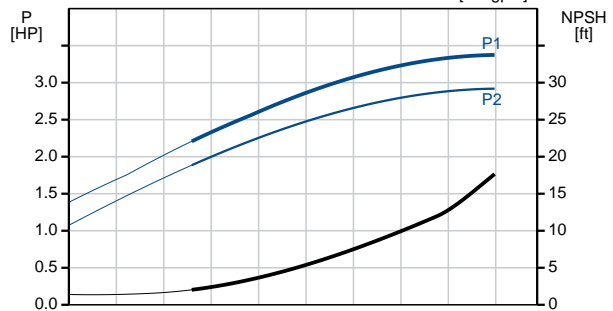
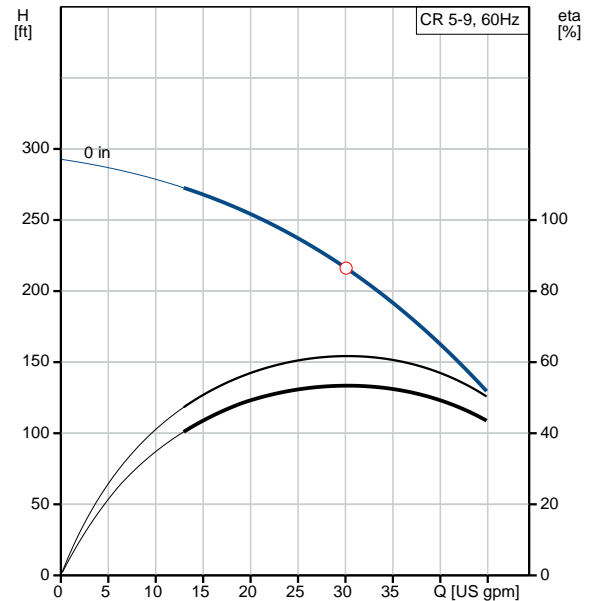
Maximum ambient temperature: 140 °F
 Max pressure at stated temperature: 232 psi / 194 °F
 232 psi / -4 °F
 Type of connection: Oval / NPT(F)
 Connect code: B
 Size of suction port: 1 1/4 inch
 Size of outlet port: 1 1/4 inch
 Pressure rating: PN 16
 Flange size for motor: 182TC

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
 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





Company name:

Created by:

Phone:

Date:

2/20/2018

Description	Value
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

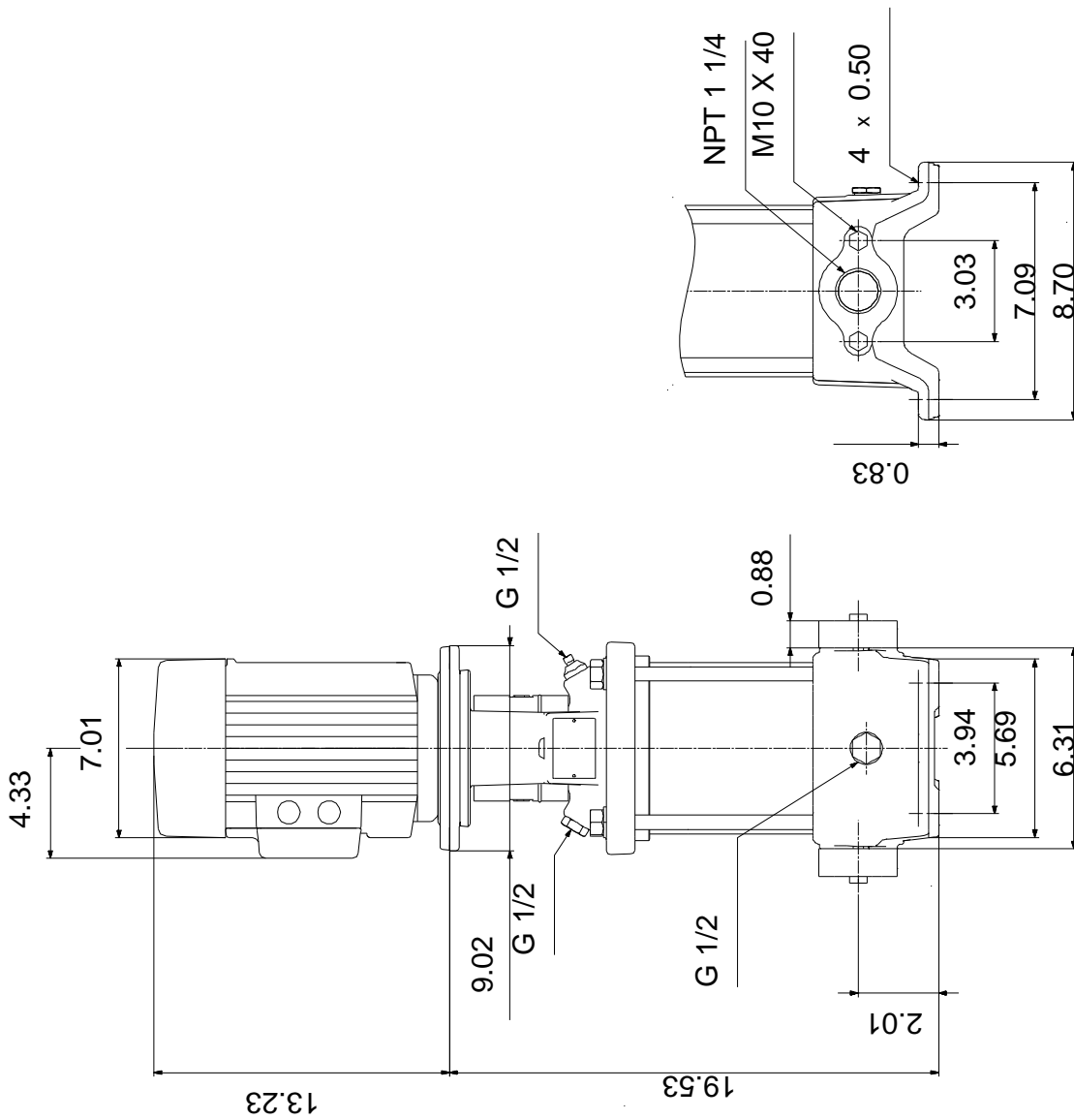
Controls:

Frequency converter:	NONE
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Others:

Net weight:	92.4 lb
Gross weight:	107 lb
Shipping volume:	8.26 ft ³

96084186 CR 5-9 60 Hz



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

96084186 CR 5-9 60 Hz



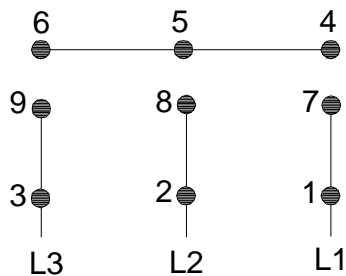
WARNING

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

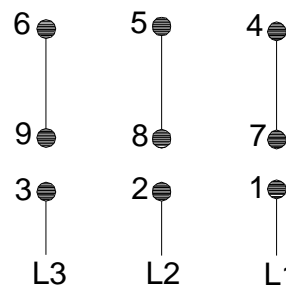
60Hz. 208-230V



HIGH VOLTAGE

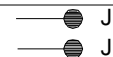
60Hz: 460V

50Hz: 400V



96553852

INTERCHANGE ANY TWO LINE WIRES TO REVERSE ROTATION
THERMOSTAT LEADS
(WHEN PROVIDED)





Company name:

Created by:

Phone:

Date: 2/20/2018

Order Data:

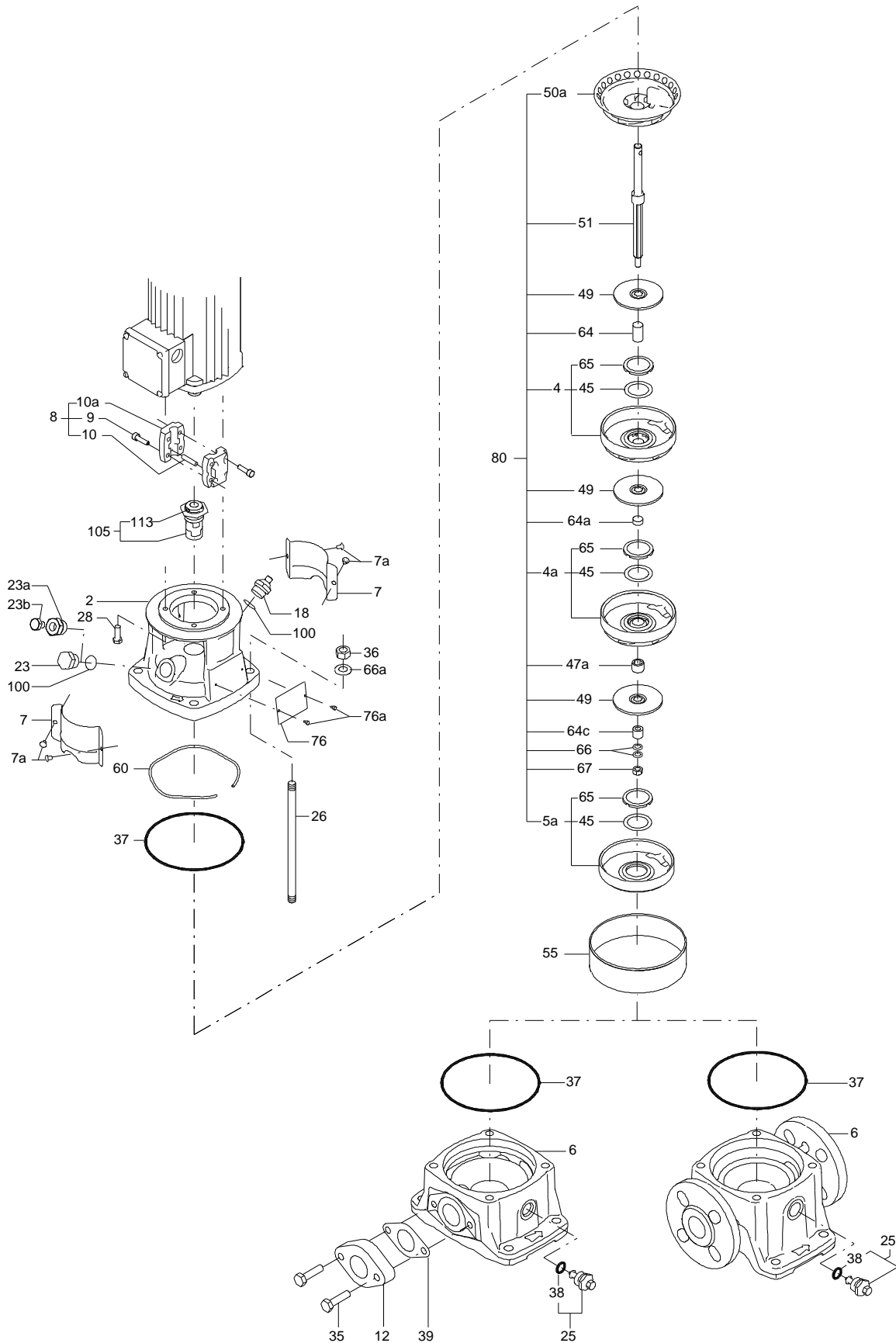
Product name: CR 5-9 A-B-A-V-HQQV

Amount: 1

Product No.: 96084186

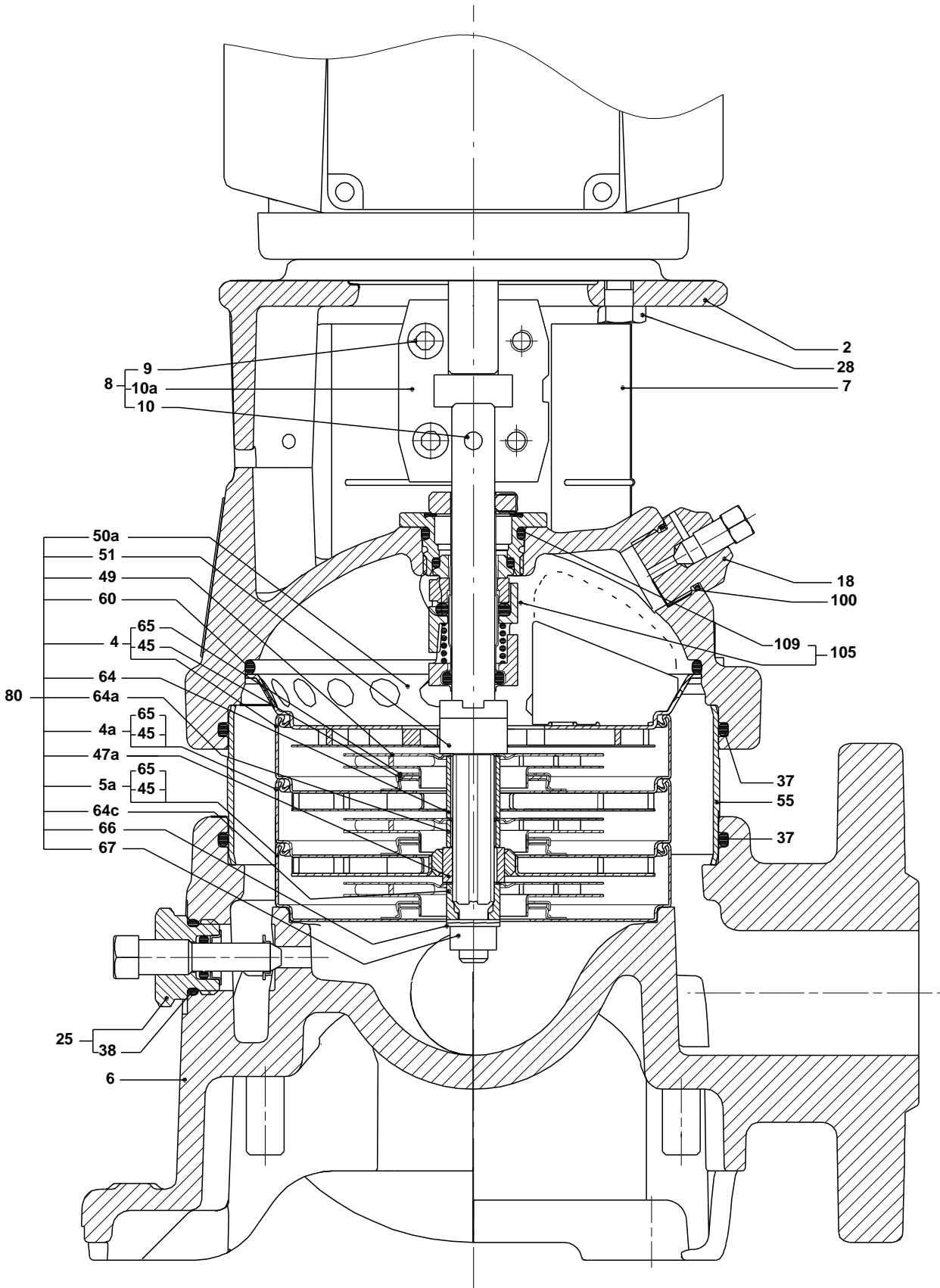
Total: Price on request

Exploded view (tm020210 4100)

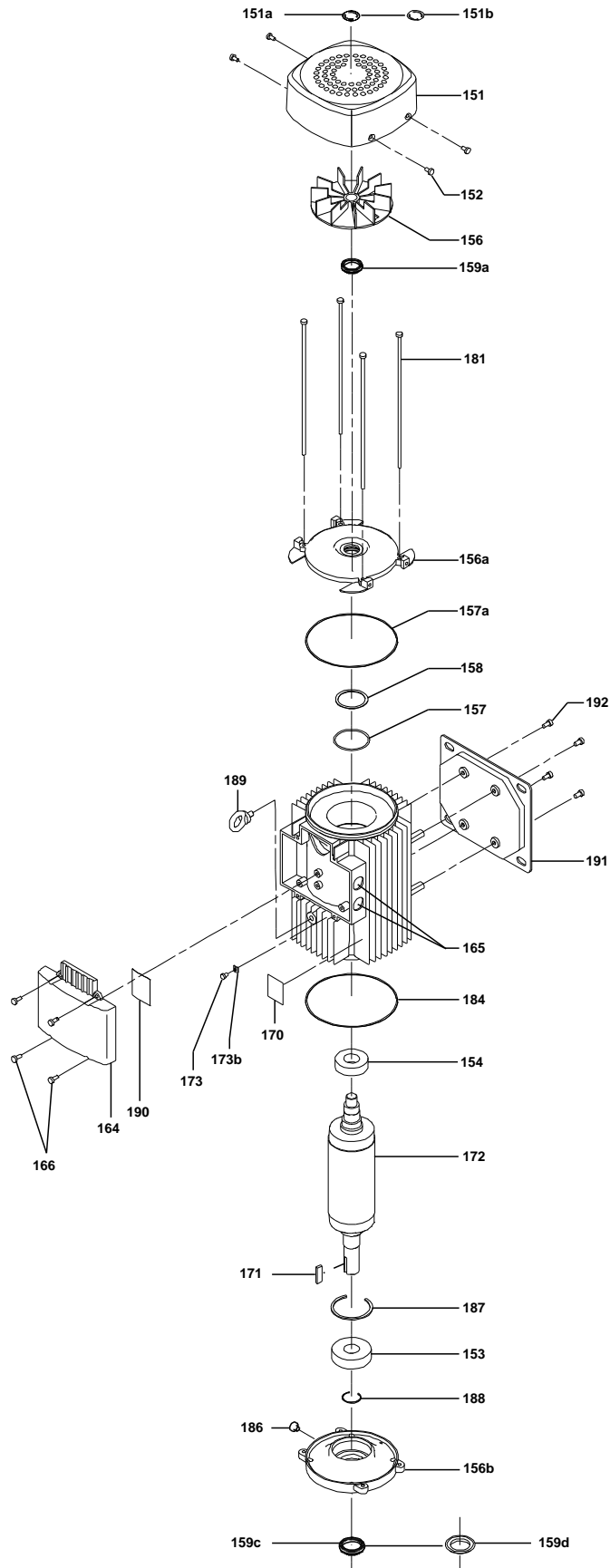


TM020210

Sectional drawing (tm020211 4100)

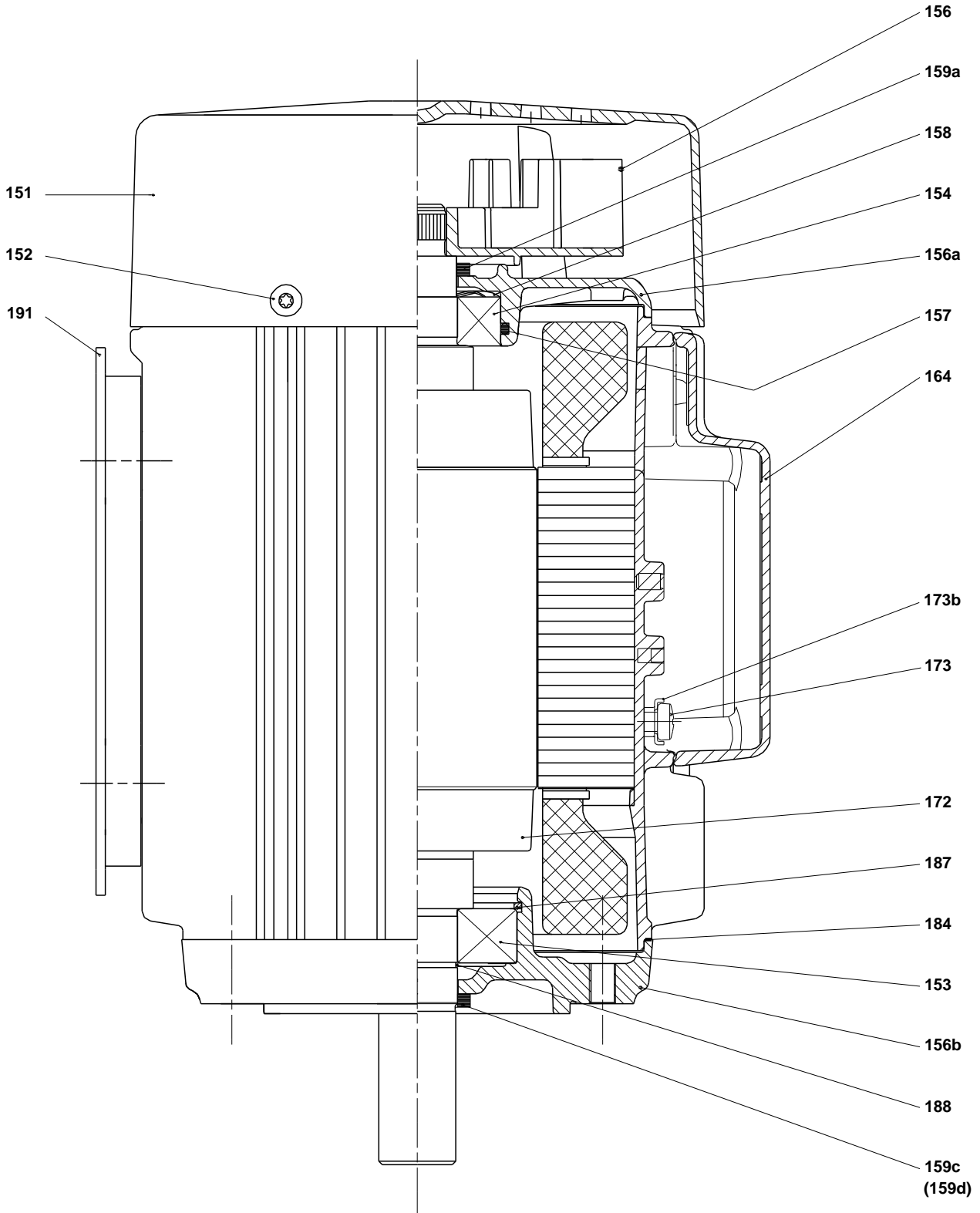


Exploded view (tm030553)



TM030553)

Sectional drawing (TM031465)



Parts list CR 5-9, Prod number 96084186

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	
12	Flange				2	
35	Hex head screw		Length: 40 Thread: M10		4	
39	Gasket				2	
-	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 Material type: FKM Thickness: 3,3		2	
100	O-ring		Diameter: 16,3 Material type: FKM Thickness: 2,4		2	
- 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 Thread: UNC 1/2"		4	
60	Formed wire spring				1	
- 8	Coupling cpl.				1	pcs
9	Hex socket head cap screw		Designation: DIN 912 Length: 25 Thread: M8		4	
10	Shaft pin		Diameter: 5 Length: 26		1	
10a	Coupling half				2	
26	Staybolt		Length: 265 Thread: M12		4	pcs
36a	Washer		Designation: DIN 125 A Inner diameter: 13 Outer diameter: 24 Thickness: 2,5		4	pcs
55	Outer sleeve				1	pcs
66a	Nut		Thread: M12		4	pcs
- 80	Chamber stack				1	pcs
	Spacing pipe		Length: 2.00		1	
-	Guide vane cpl.				1	
	Guide vane					
	Plate					
50b	Top plate					

Position	Description	Annotation	Classification data	Part No.	Count	Unit
- 4	Chamber cpl.				6	
	Chamber					
	Retainer for seal ring					
	Guide vane					
	Plate					
	Vane					
45	Neck ring					
65	Retainer					
- 4a	Chamber w. bearing cpl.				2	
	Chamber					
	Retainer for seal ring					
	Guide vane					
	Retainer for bearing					
	Bearing bush					
	Vane					
45	Neck ring					
65	Retainer					
- 5a	Chamber cpl.				1	
	Chamber					
45	Neck ring					
65	Retainer					
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				2	
49	Impeller cpl.				9	
51	Shaft, spline, cpl.				1	
64a	Spacing pipe		Length: 13.00		2	
64c	Clamp, splined		Inner diameter: 8,5 Outer diameter: 15		1	
66	Wedge lock washer				1	
69	Spacing pipe		Length: 26.0		6	
- 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	