

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

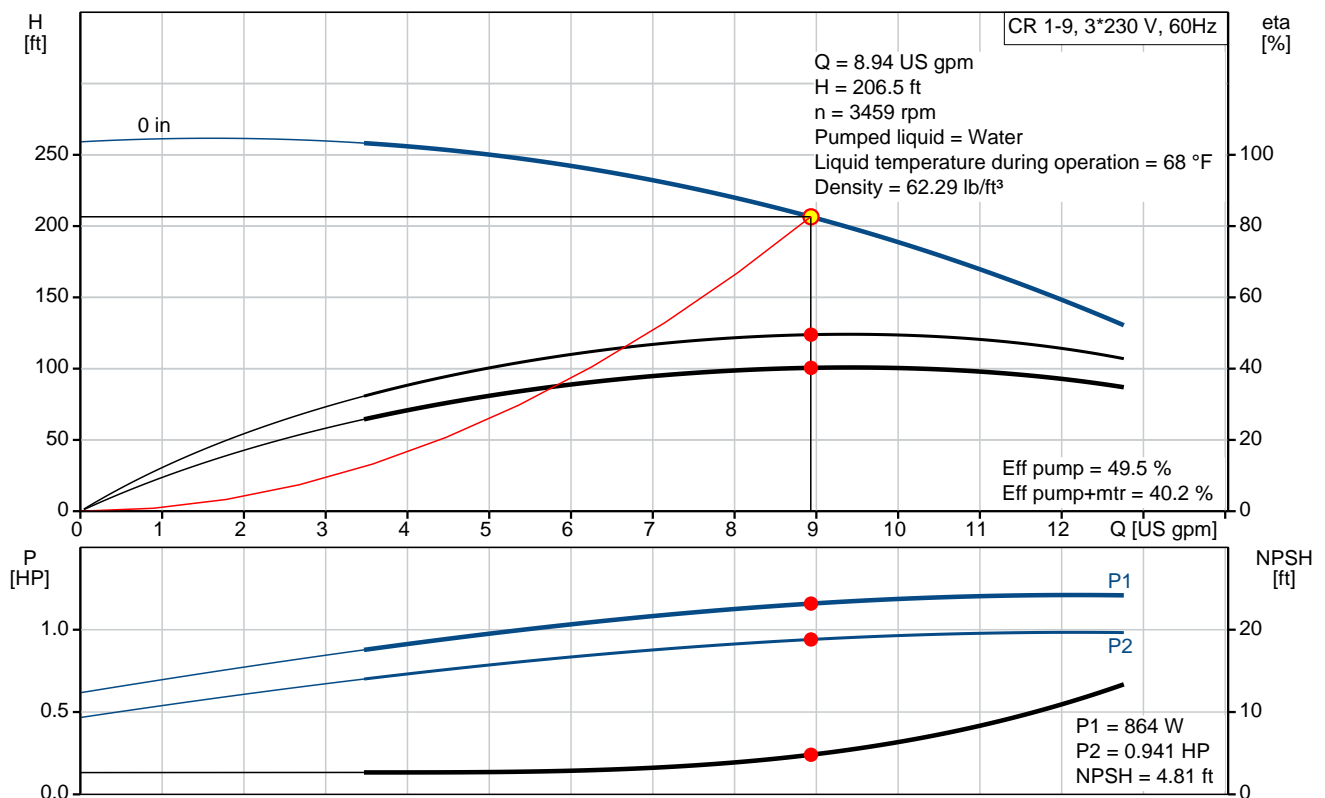


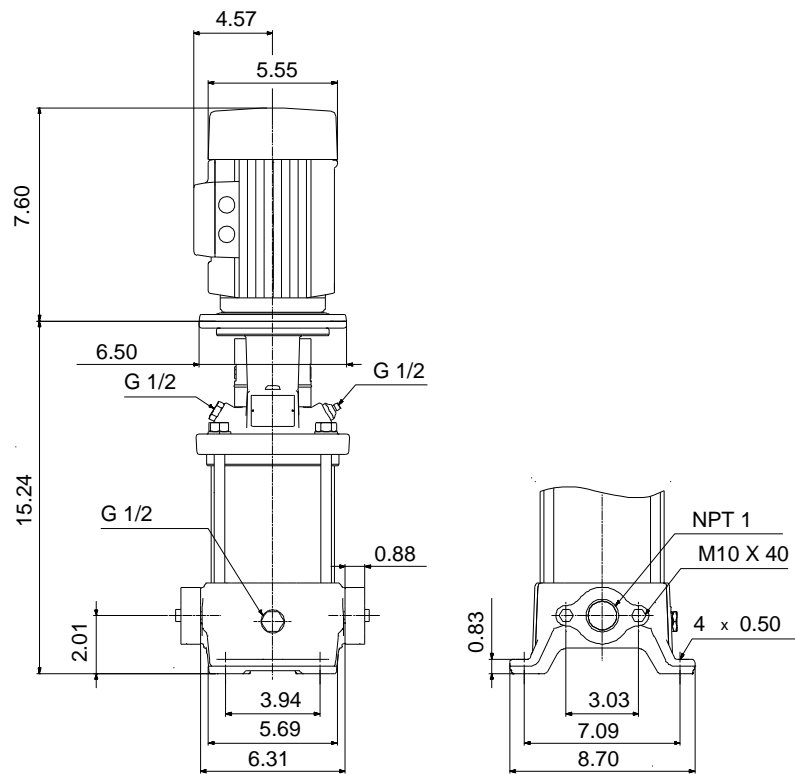
CR 1-9

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:	8.94 US gpm	Max pressure at stated temperature:	232 psi / 250 °F	Rated power - P2:	1 HP
Head:	206.5 ft	Maximum ambient temperature:	140 °F	Rated voltage:	208-230YY/460Y V
Efficiency:	40.2 %	Approvals:	CURUS, NSF61	Main frequency:	60 Hz
Liquid:	Water	Shaft seal:	HQQE	Enclosure class:	55 Dust/Jetting
Temperature:	68 °F	Product number:	96081980	Insulation class:	F
NPSH required:	4.81 ft			Motor protection:	NONE
Viscosity:	_____			Motor type:	71BB
Specific Gravity:	1.000			Motor_efficiency:	80.0 %





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.: [96081980](#)

CR 1-9 A-B-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: 3484 rpm

Actual calculated flow: 8.94 US gpm

Resulting head of the pump: 206.5 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: 232 psi / 250 °F
232 psi / -4 °F

Type of connection: Oval / NPT(F)

Size of suction port: 1 inch



Company name:

Created by:

Phone:

Date:

2/20/2018


Size of outlet port: 1 inch
Pressure rating: PN 16
Flange size for motor: 56C

Electrical data:

Motor standard: NEMA
Motor type: 71BB
IE Efficiency class: NEMA Premium / IE3 60Hz
Rated power - P2: 1 HP
Power (P2) required by pump: 1 HP
Main frequency: 60 Hz
Rated voltage: 3 x 208-230YY/460Y V
Service factor: 1,25
Rated current: 3,25-3,35/1,68 A
Starting current: 590-650 %
Cos phi - power factor: 0,81-0,72
Rated speed: 3430-3460 rpm
IE efficiency: IE3 77,0%
Motor efficiency at full load: 80.0 %
Motor efficiency at 3/4 load: 79.5 %
Motor efficiency at 1/2 load: 75.0 %
Number of poles: 2
Enclosure class (IEC 34-5): 55 Dust/Jetting
Insulation class (IEC 85): F

Others:

Net weight: 52.4 lb
Gross weight: 63.4 lb
Shipping volume: 4.94 ft³

Position	Count	Description
	1	<p>CR 1-9 A-B-A-E-HQQE</p>  <p>Product No.: 96081980 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: 3484 rpm Actual calculated flow: 8.94 US gpm Resulting head of the pump: 206.5 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: 232 psi / 250 °F 232 psi / -4 °F Type of connection: Oval / NPT(F) Size of suction port: 1 inch Size of outlet port: 1 inch</p>



Company name:

Created by:

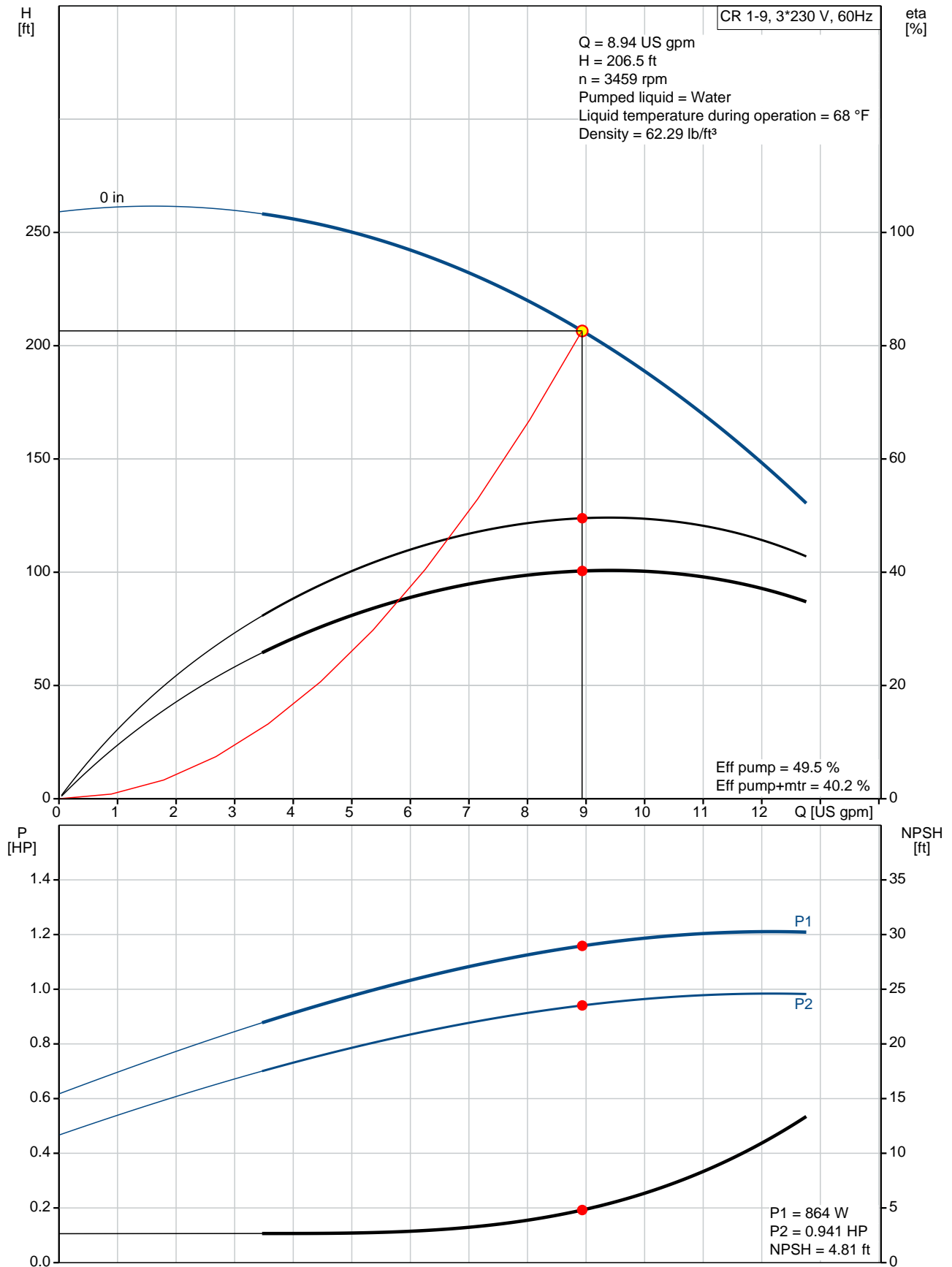
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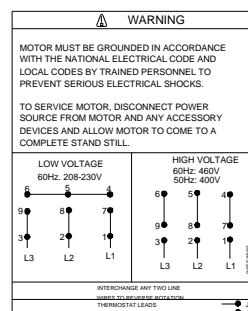
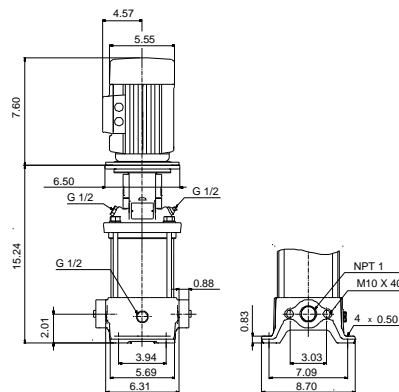
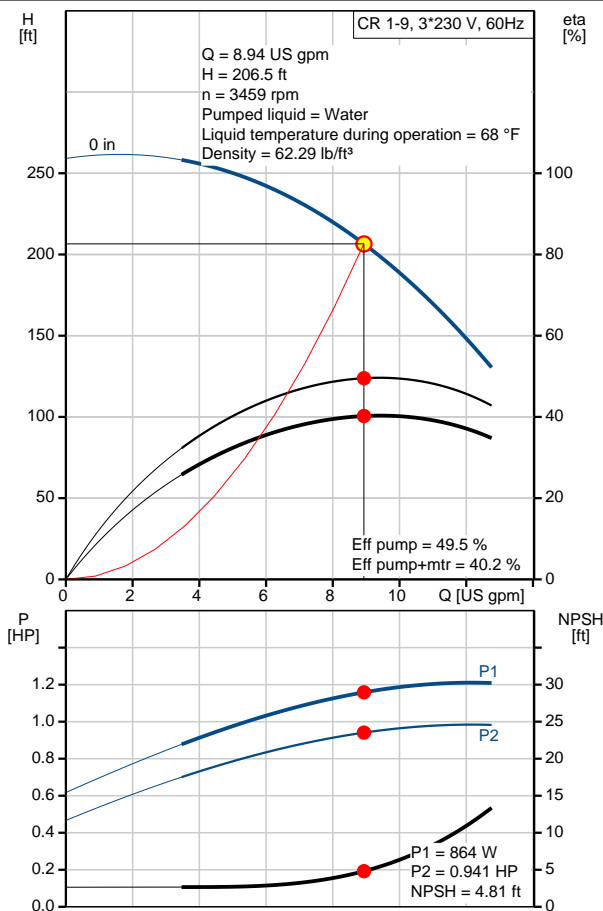
2/20/2018

Position	Count	Description
		Pressure rating: PN 16 Flange size for motor: 56C
		Electrical data:
		Motor standard: NEMA
		Motor type: 71BB
		IE Efficiency class: NEMA Premium / IE3 60Hz
		Rated power - P2: 1 HP
		Power (P2) required by pump: 1 HP
		Main frequency: 60 Hz
		Rated voltage: 3 x 208-230YY/460Y V
		Service factor: 1,25
		Rated current: 3,25-3,35/1,68 A
		Starting current: 590-650 %
		Cos phi - power factor: 0,81-0,72
		Rated speed: 3430-3460 rpm
		IE efficiency: IE3 77,0%
		Motor efficiency at full load: 80.0 %
		Motor efficiency at 3/4 load: 79.5 %
		Motor efficiency at 1/2 load: 75.0 %
		Number of poles: 2
		Enclosure class (IEC 34-5): 55 Dust/Jetting
		Insulation class (IEC 85): F
		Others:
		Net weight: 52.4 lb
		Gross weight: 63.4 lb
		Shipping volume: 4.94 ft³

96081980 CR 1-9 60 Hz



Description	Value
General information:	
Product name:	CR 1-9 A-B-A-E-HQQE
Product No.:	96081980
EAN:	5700395167184
Technical:	
Speed for pump data:	3484 rpm
Actual calculated flow:	8.94 US gpm
Resulting head of the pump:	206.5 ft
Stages:	9
Impellers:	9
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:	232 psi / 250 °F
	232 psi / -4 °F
Type of connection:	Oval / NPT(F)
Connect code:	B
Size of suction port:	1 inch
Size of outlet port:	1 inch
Pressure rating:	PN 16
Flange size for motor:	56C
Liquid:	
Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft³
Electrical data:	
Motor standard:	NEMA
Motor type:	71BB
IE Efficiency class:	NEMA Premium / IE3 60Hz
Rated power - P2:	1 HP
Power (P2) required by pump:	1 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230YY/460Y V
Service factor:	1,25
Rated current:	3,25-3,35/1,68 A
Starting current:	590-650 %





Company name:

Created by:

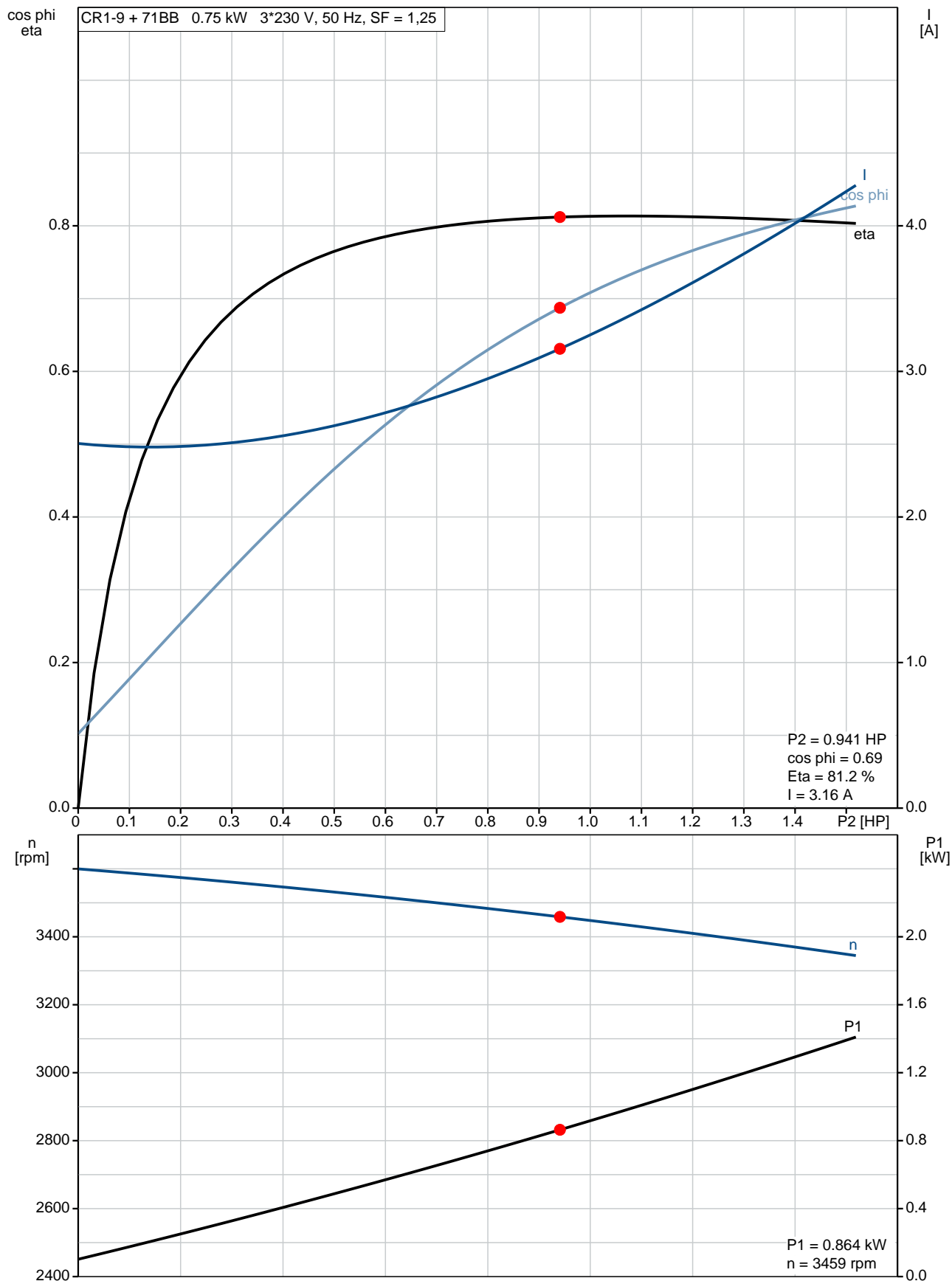
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Date:

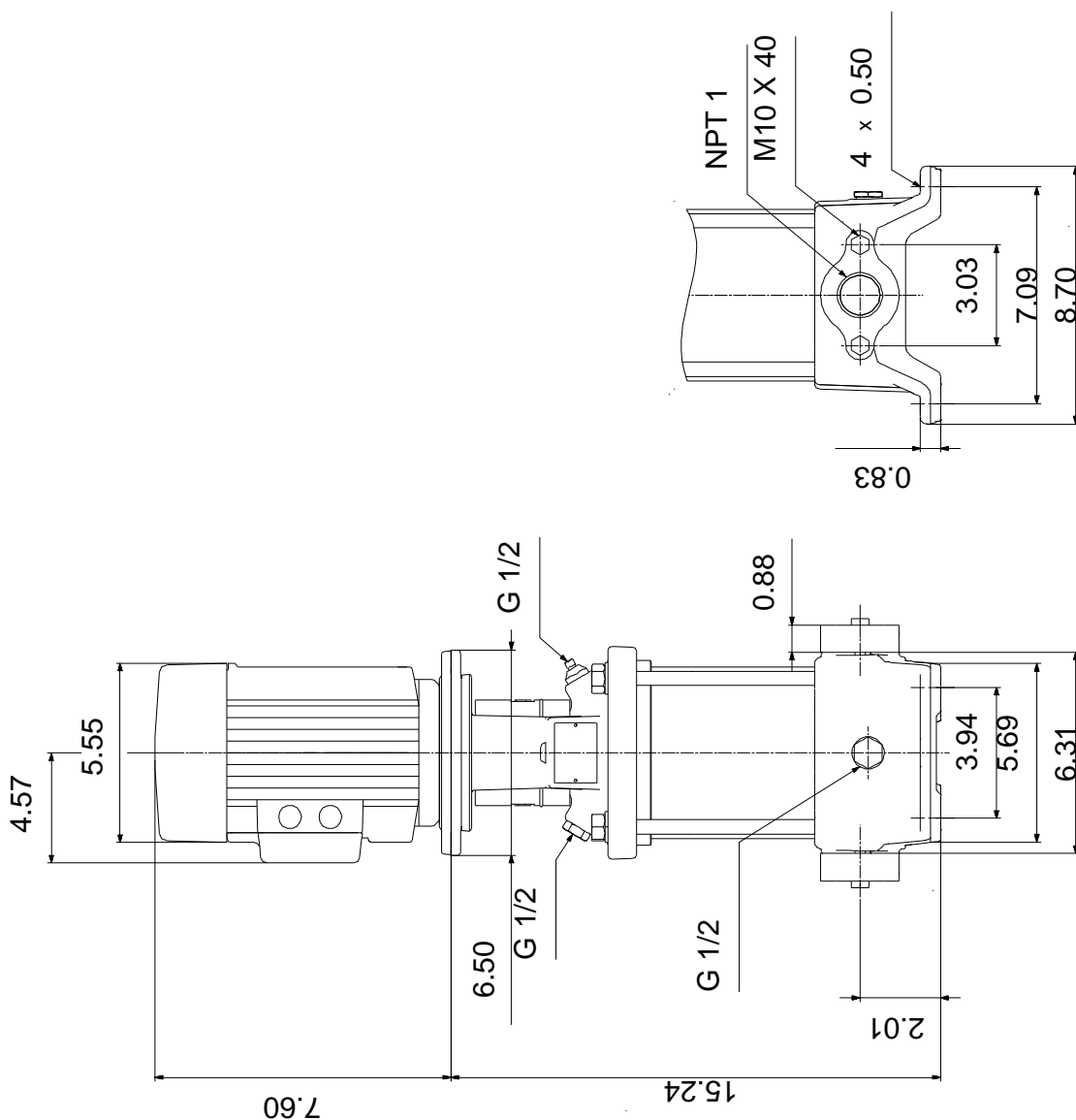
2/20/2018

Description	Value
Load current:	4,0-3,9/1,95 A
Cos phi - power factor:	0,81-0,72
Rated speed:	3430-3460 rpm
IE efficiency:	IE3 77,0%
Motor efficiency at full load:	80.0 %
Motor efficiency at 3/4 load:	79.5 %
Motor efficiency at 1/2 load:	75.0 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	85900703
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	52.4 lb
Gross weight:	63.4 lb
Shipping volume:	4.94 ft ³

96081980 CR 1-9 60 Hz



96081980 CR 1-9 60 Hz



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

96081980 CR 1-9 60 Hz

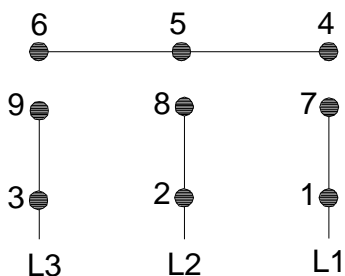


WARNING

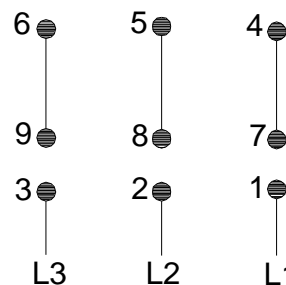
MOTOR MUST BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND LOCAL CODES BY TRAINED PERSONNEL TO PREVENT SERIOUS ELECTRICAL SHOCKS.

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



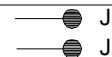
HIGH VOLTAGE 60Hz: 460V 50Hz: 400V



96553852

INTERCHANGE ANY TWO LINE
WIRES TO REVERSE ROTATION

THERMOSTAT LEADS
(WHEN PROVIDED)





Company name:

Created by:

Phone:

Date:

2/20/2018

Order Data:

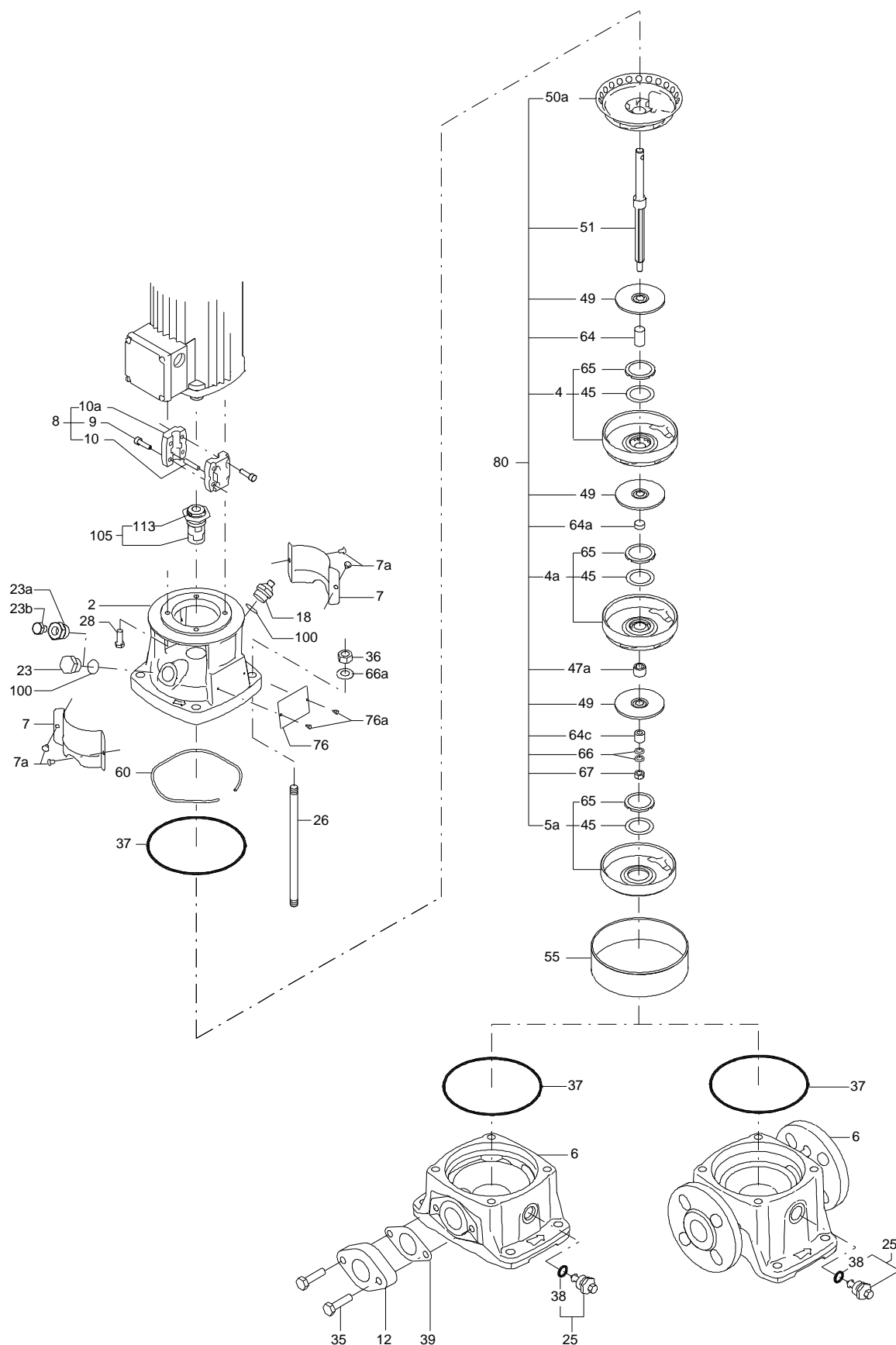
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Amount: 1

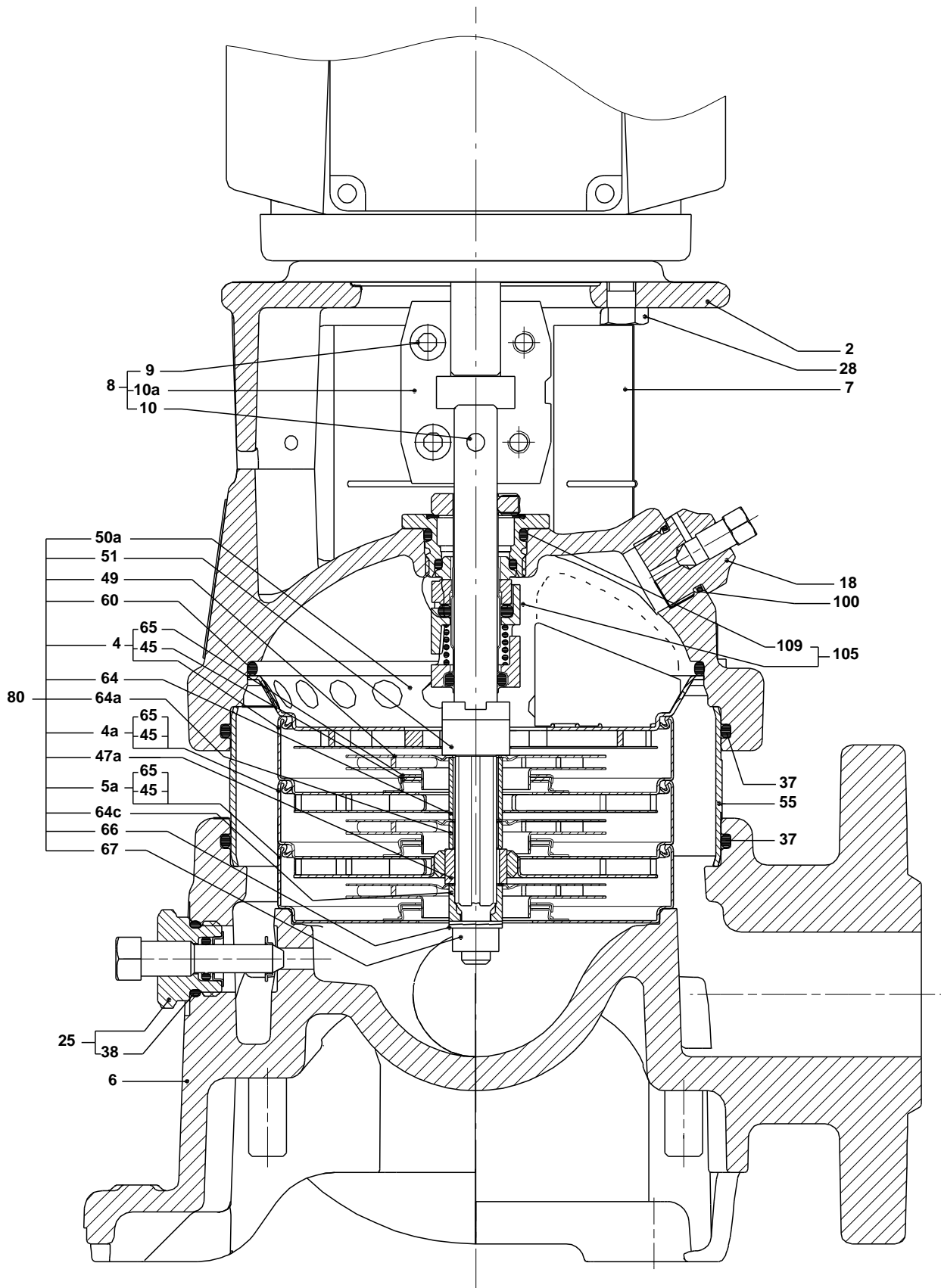
Product No.: 96081980

Total: Price on request

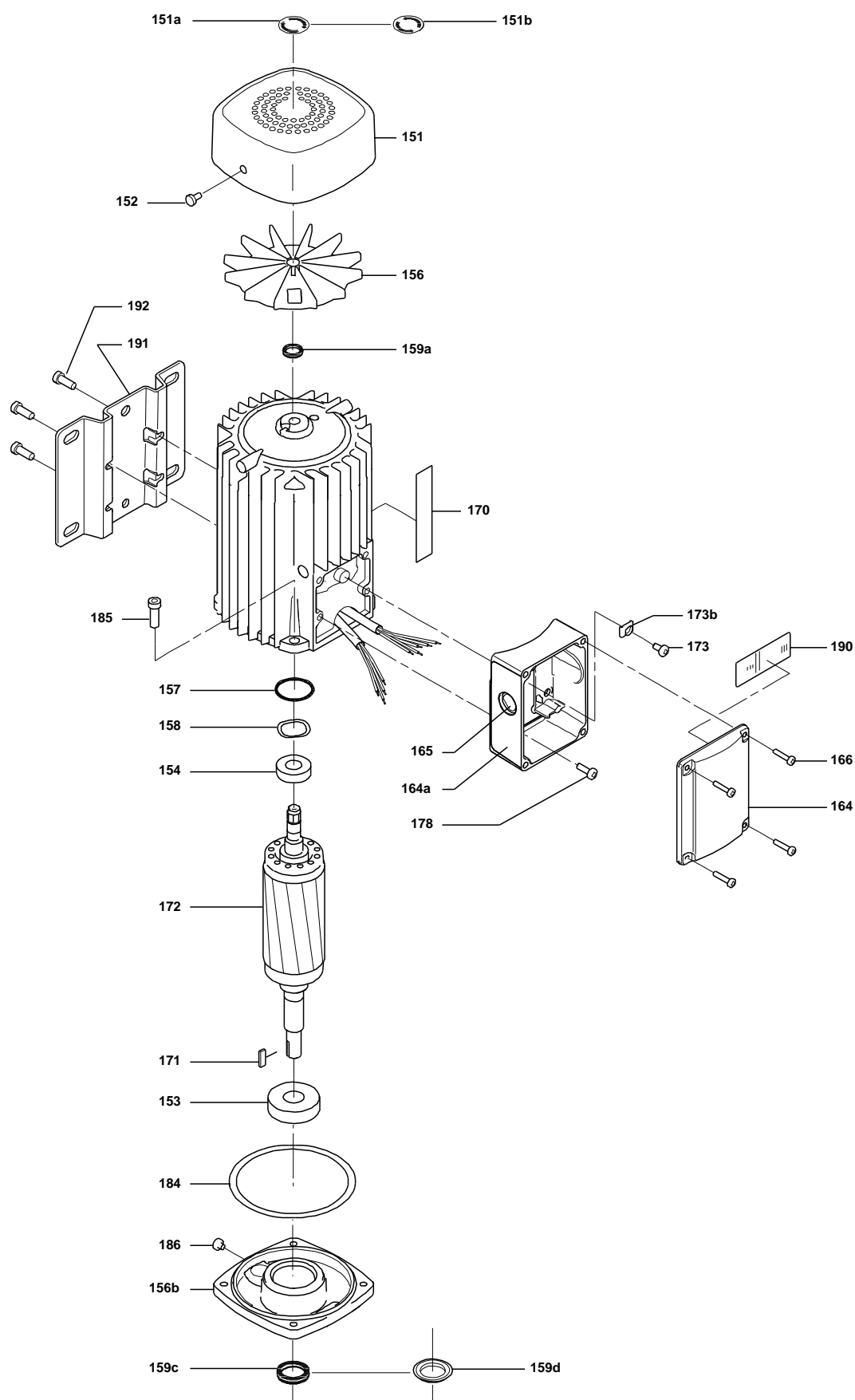
Exploded view (tm020210 4100)



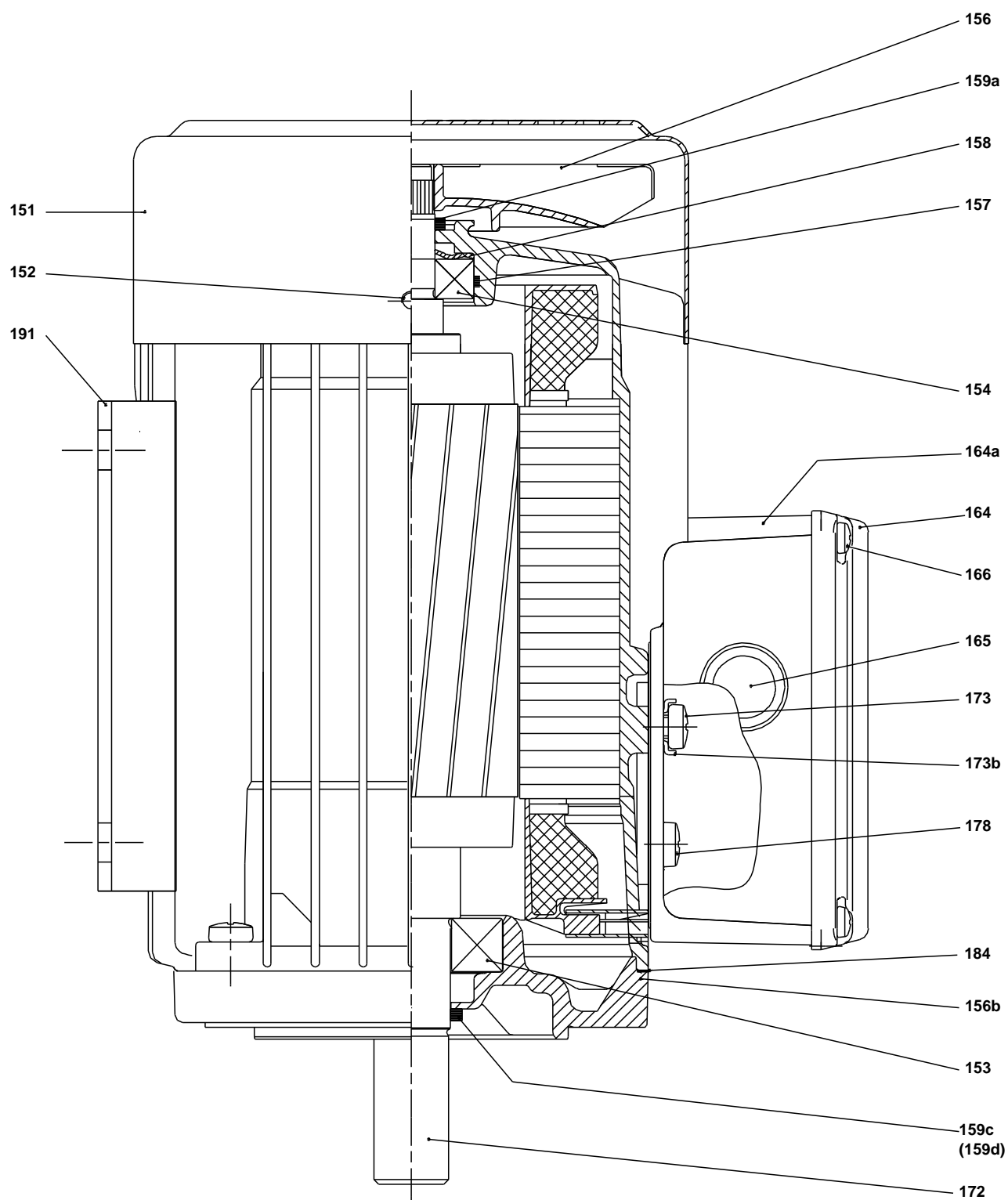
Sectional drawing (tm020211 4100)



Exploded view (tm030552)



Sectional drawing (TM031466)



Parts list CR 1-9, Prod number 96081980
Valid from 10.1.2005 (0503)

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	
37	Gasket				2	
-	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 Material type: EPDM 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 3/8"		4	
60	Formed wire spring				1	
+	8 Coupling cpl.				1	pcs
26	Staybolt		Length: 187 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
- 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 Material type: EPDM		1	



Company name:

Created by:

Phone:

Date:

2/20/2018

Position	Description	Annotation	Classification data	Part No.	Count	Unit
Thickness: 2,75						
103	Seal ring, stationary				1	
105	Seal ring, rotating				1	
107	O-ring				1	
113	Driver				1	