

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

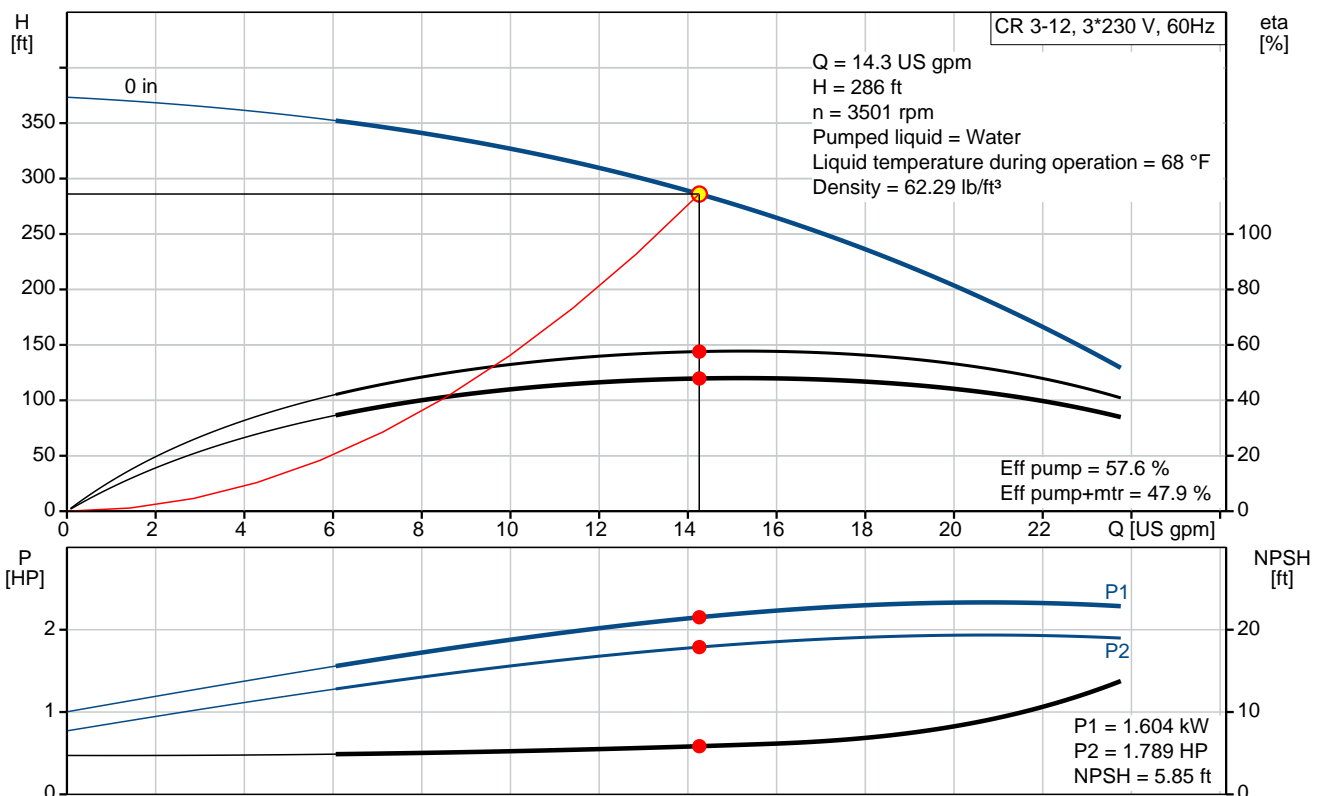
### CR 3-12

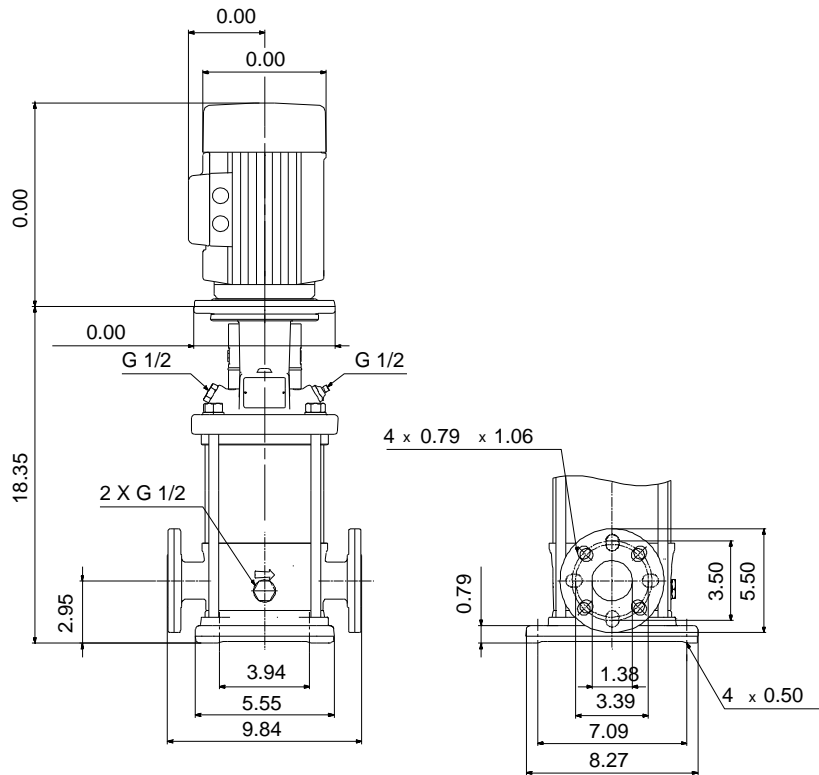
Vertical, multistage centrifugal pump with suction and discharge ports on the same level. The pump head and base are in cast iron. All other wetted parts are in stainless steel (EN 1.4301)(AISI 304)



Product photo could vary from the actual product

Conditions of Service		Pump Data		Motor Data	
Flow:	14.3 US gpm	Max pressure at stated temperature:	363 psi / 250 °F	Rated power - P2:	2 HP
Head:	286 ft	Maximum ambient temperature:	140 °F	Rated voltage:	208-230YY/460Y V
Efficiency:	47.9 %	Approvals:	CURUS,NSF61	Main frequency:	60 Hz
Liquid:	Water	Shaft seal:	HQQE	Enclosure class:	55 Dust/Jetting
Temperature:	68 °F	Product number:	96083220	Insulation class:	F
NPSH required:	5.85 ft			Motor protection:	NONE
Viscosity:	_____			Motor type:	90CC
Specific Gravity:	1.000			Motor_efficiency:	85.5 %





**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.: [96083220](#)

### CR 3-12 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/ft<sup>3</sup>

#### Technical:

Speed for pump data: 3452 rpm

Actual calculated flow: 14.3 US gpm

Resulting head of the pump: 286 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: 56C  
Flange rating inlet: 250 lb

**Electrical data:**

Motor standard: NEMA  
Motor type: 90CC  
IE Efficiency class: NEMA Premium / IE3 60Hz  
Rated power - P2: 2 HP  
Power (P2) required by pump: 2 HP  
Main frequency: 60 Hz  
Rated voltage: 3 x 208-230YY/460Y V  
Service factor: 1,15  
Rated current: 5,70-5,40/2,70 A  
Starting current: 810-900 %  
Cos phi - power factor: 0,88-0,84  
Rated speed: 3480-3510 rpm  
IE efficiency: IE3 85,5%  
Motor efficiency at full load: 85.5 %  
Motor efficiency at 3/4 load: 85.0 %  
Motor efficiency at 1/2 load: 83.0 %  
Number of poles: 2  
Enclosure class (IEC 34-5): 55 Dust/Jetting  
Insulation class (IEC 85): F

**Others:**

Net weight: 87.2 lb  
Gross weight: 102 lb  
Shipping volume: 8.26 ft<sup>3</sup>

Position	Count	Description
	1	<p><b>CR 3-12 A-FGJ-A-E-HQQE</b></p>  <p>Product No.: <a href="#">96083220</a>            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"> <li>- Impellers and intermediate chambers are made of</li> <li>- The shaft seal has assembly length according to EN 12756.</li> <li>- Power transmission is via cast iron split coupling.</li> </ul> <p>The motor is a 3-phase AC motor.</p> <p>Controls:            Frequency converter: NONE</p> <p><b>Liquid:</b>            Pumped liquid: Water            Liquid temperature during operation: 68 °F            Density: 62.29 lb/ft<sup>3</sup></p> <p><b>Technical:</b>            Speed for pump data: 3452 rpm            Actual calculated flow: 14.3 US gpm            Resulting head of the pump: 286 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><b>Materials:</b>            Base: Cast iron                      EN 1561 EN-GJL-200                      ASTM A48-25B            Impeller: Stainless steel                      EN 1.4301                      AISI 304            Bearing material: SIC</p> <p><b>Installation:</b>            Maximum ambient temperature: 140 °F            Max pressure at stated temperature: 363 psi / 250 °F              363 psi / -4 °F</p> <p>Type of connection: DIN / ANSI / JIS            Size of inlet connection: DN 25/32            Size of suction port: 1 1/4 inch</p>



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Phone:

Date:

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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: 56C Flange rating inlet: 250 lb
		<b>Electrical data:</b> Motor standard: NEMA Motor type: 90CC IE Efficiency class: NEMA Premium / IE3 60Hz Rated power - P2: 2 HP Power (P2) required by pump: 2 HP Main frequency: 60 Hz Rated voltage: 3 x 208-230YY/460Y V Service factor: 1,15 Rated current: 5,70-5,40/2,70 A Starting current: 810-900 % Cos phi - power factor: 0,88-0,84 Rated speed: 3480-3510 rpm IE efficiency: IE3 85,5% Motor efficiency at full load: 85.5 % Motor efficiency at 3/4 load: 85.0 % Motor efficiency at 1/2 load: 83.0 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F
		<b>Others:</b> Net weight: 87.2 lb Gross weight: 102 lb Shipping volume: 8.26 ft <sup>3</sup>



Company name:

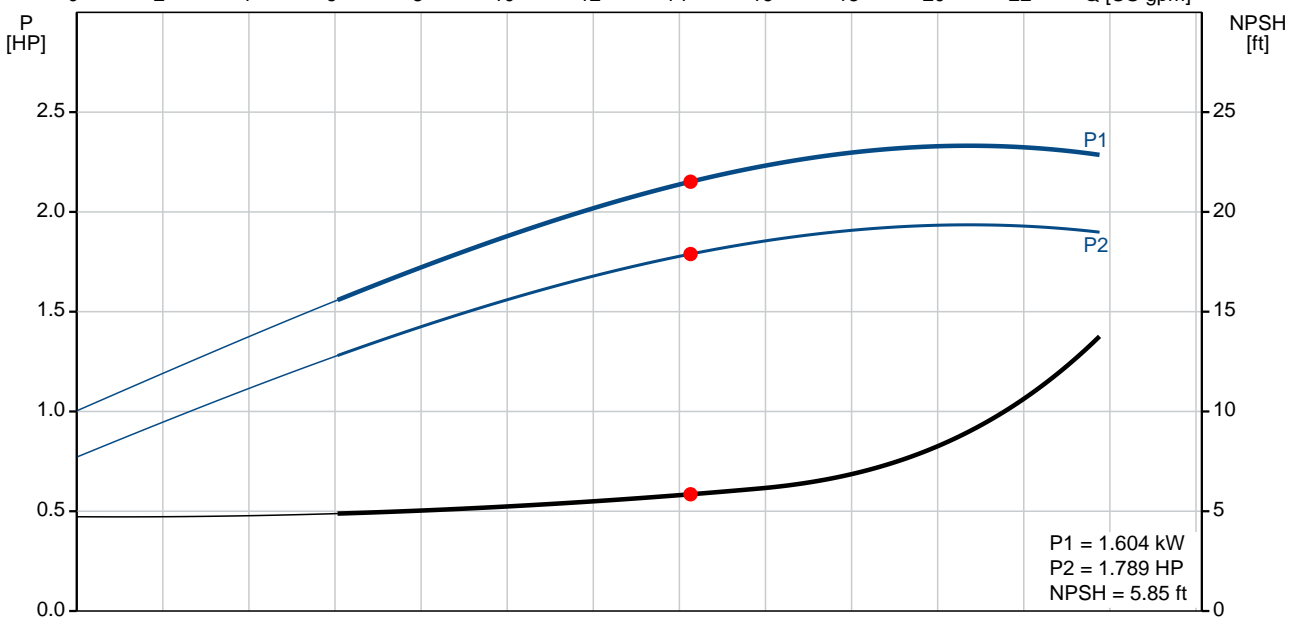
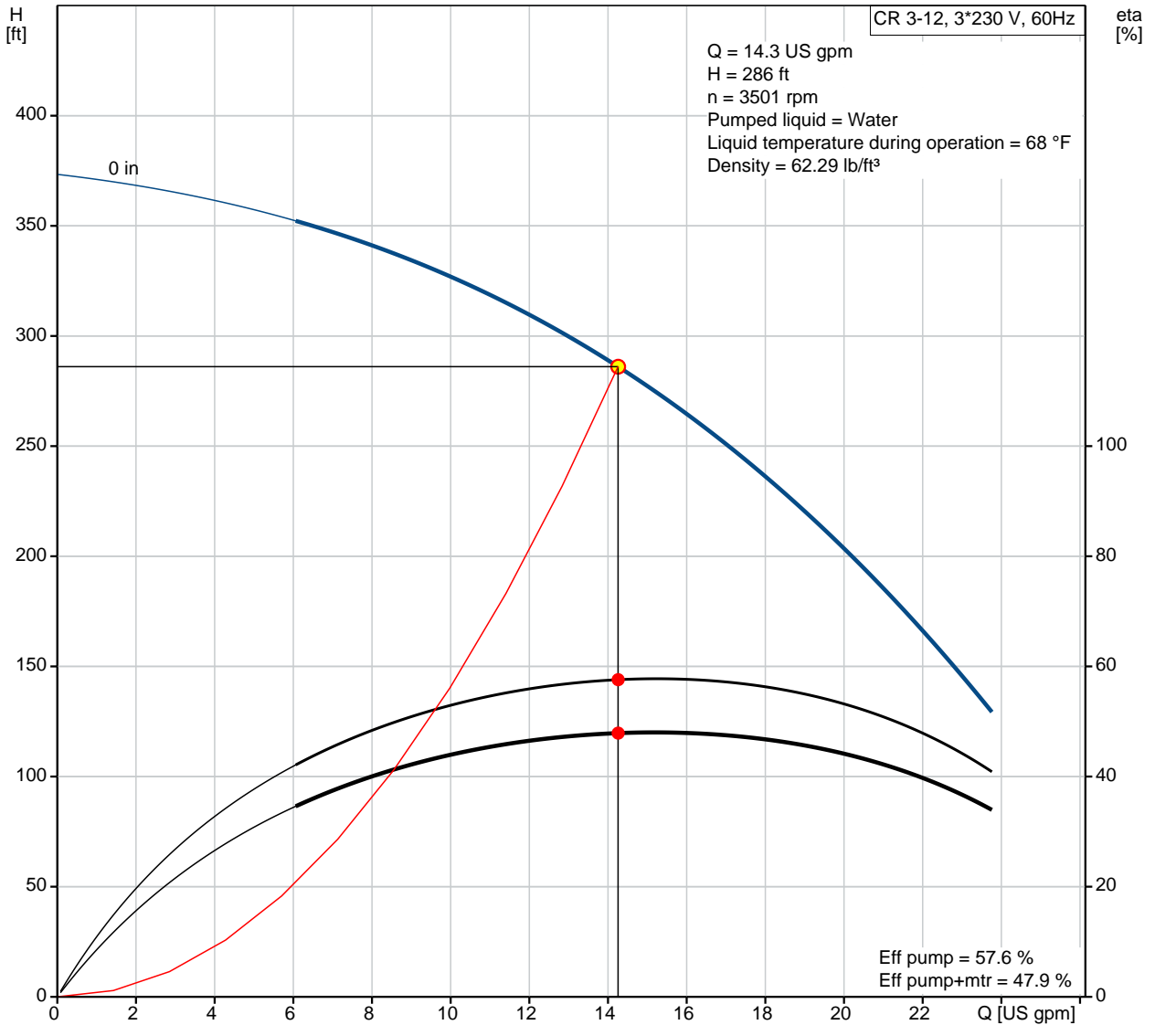
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Phone:

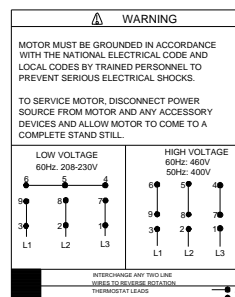
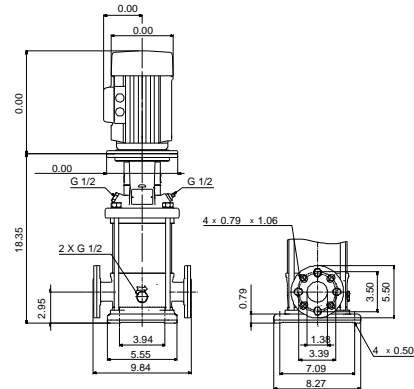
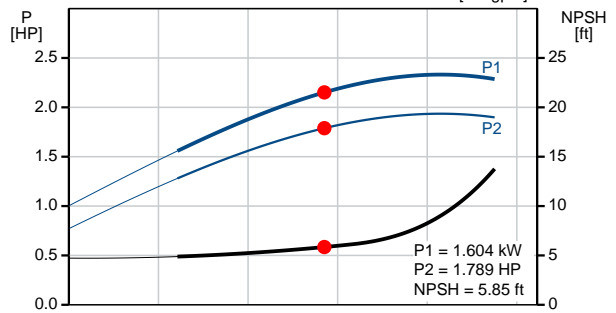
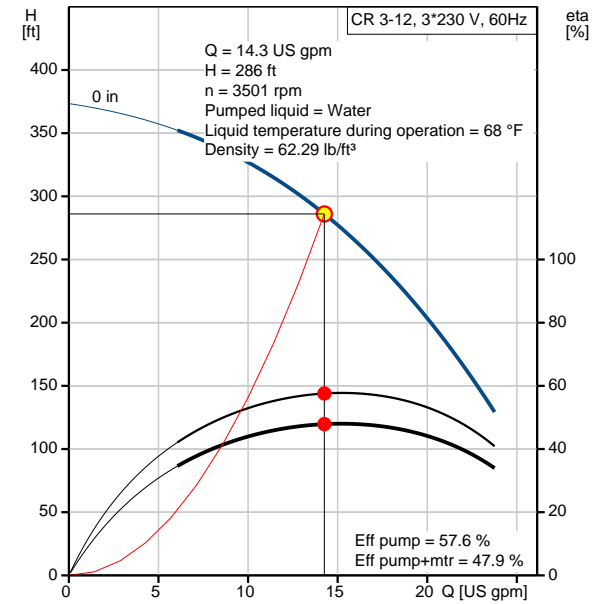
Date:

2/20/2018

### 96083220 CR 3-12 60 Hz



Description	Value
<b>General information:</b>	
Product name:	CR 3-12 A-FGJ-A-E-HQQE
Product No.:	96083220
EAN:	5700395183887
<b>Technical:</b>	
Speed for pump data:	3452 rpm
Actual calculated flow:	14.3 US gpm
Resulting head of the pump:	286 ft
Stages:	12
Impellers:	12
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
<b>Materials:</b>	
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
<b>Installation:</b>	
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:	56C
Flange rating inlet:	250 lb
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature during operation:	68 °F
Density:	62.29 lb/ft <sup>3</sup>
<b>Electrical data:</b>	
Motor standard:	NEMA
Motor type:	90CC
IE Efficiency class:	NEMA Premium / IE3 60Hz
Rated power - P2:	2 HP
Power (P2) required by pump:	2 HP
Main frequency:	60 Hz
Rated voltage:	3 x 208-230YY/460Y V







Company name:

Created by:

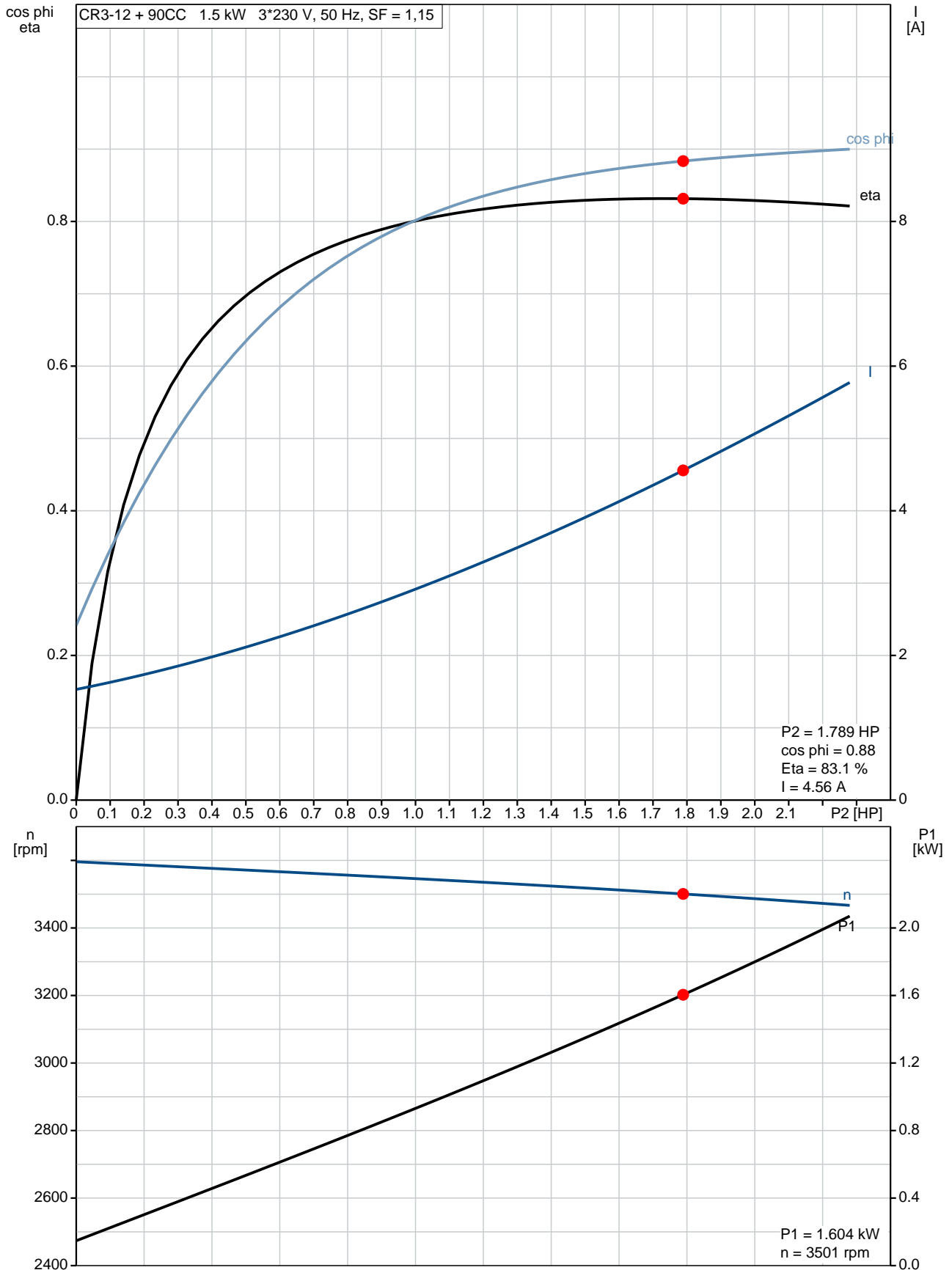
Phone:

Date:

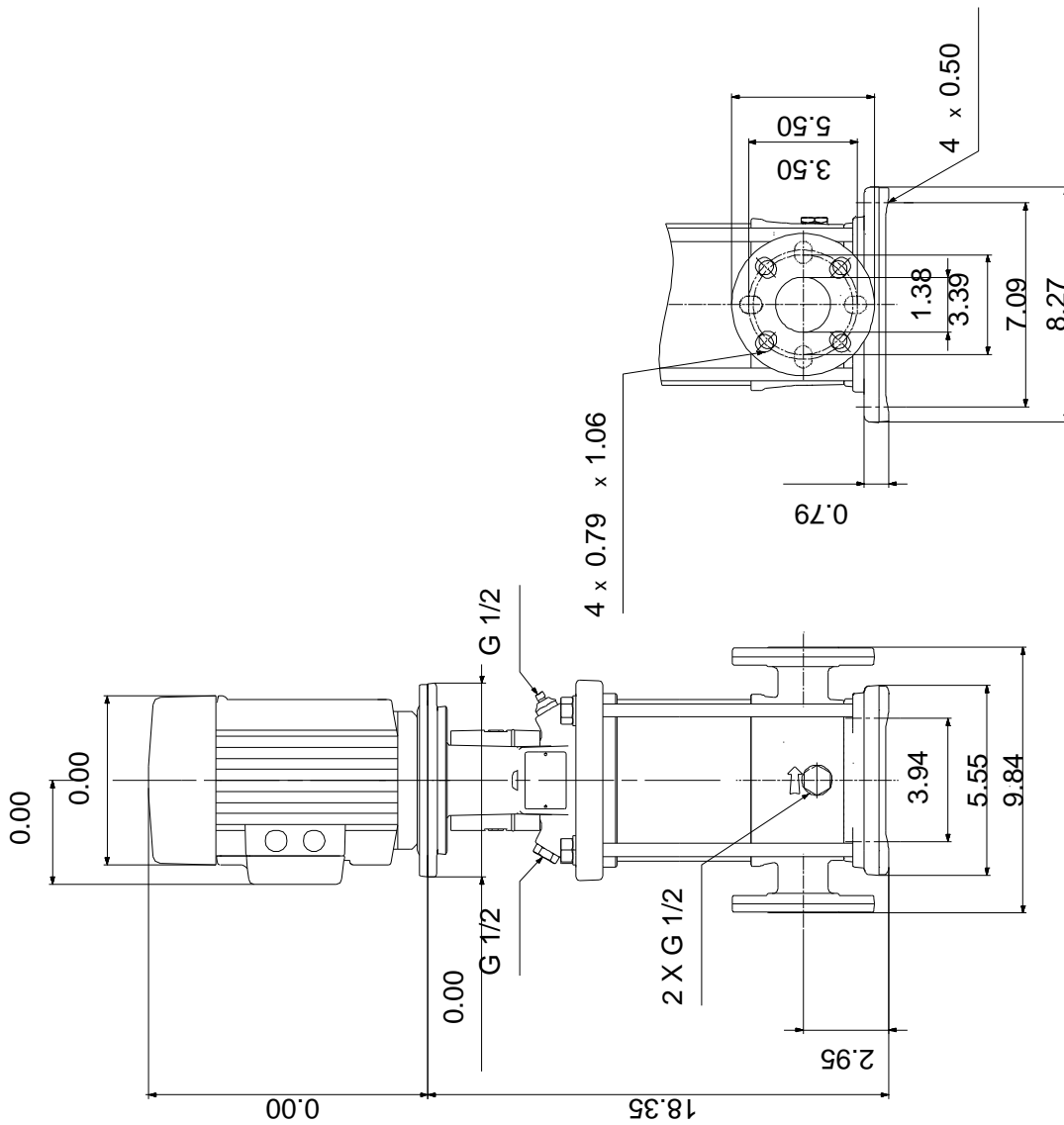
2/20/2018

Description	Value
Service factor:	1,15
Rated current:	5,70-5,40/2,70 A
Starting current:	810-900 %
Load current:	6,55-6,1/3,05 A
Cos phi - power factor:	0,88-0,84
Rated speed:	3480-3510 rpm
IE efficiency:	IE3 85,5%
Motor efficiency at full load:	85.5 %
Motor efficiency at 3/4 load:	85.0 %
Motor efficiency at 1/2 load:	83.0 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	85900705
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
Net weight:	87.2 lb
Gross weight:	102 lb
Shipping volume:	8.26 ft <sup>3</sup>

## 96083220 CR 3-12 60 Hz



**96083220 CR 3-12 60 Hz**



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

## 96083220 CR 3-12 60 Hz



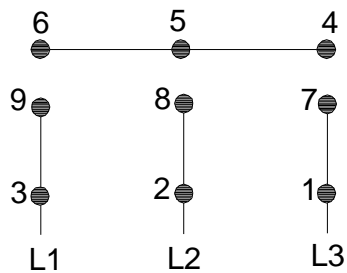
### WARNING

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

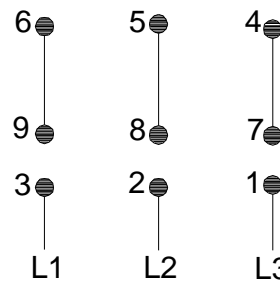
60Hz. 208-230V



#### HIGH VOLTAGE

60Hz: 460V

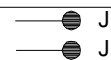
50Hz: 400V



96569464

INTERCHANGE ANY TWO LINE WIRES TO REVERSE ROTATION

THERMOSTAT LEADS (WHEN PROVIDED)





Company name:

Created by:

Phone:

Date: 2/20/2018

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**Order Data:**

Product name: CR 3-12 A-FGJ-A-E-HQQE

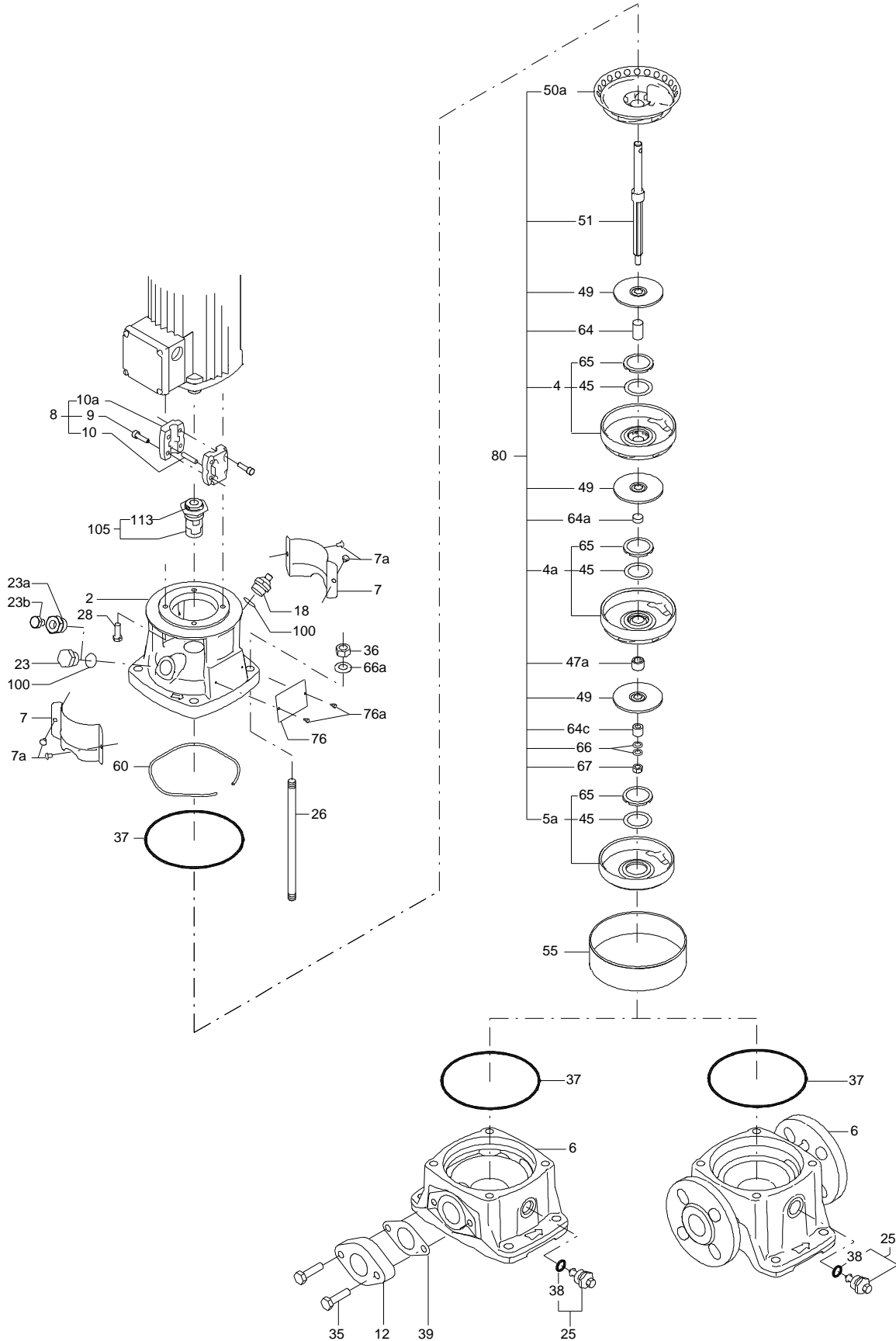
Amount: 1

Product No.: 96083220

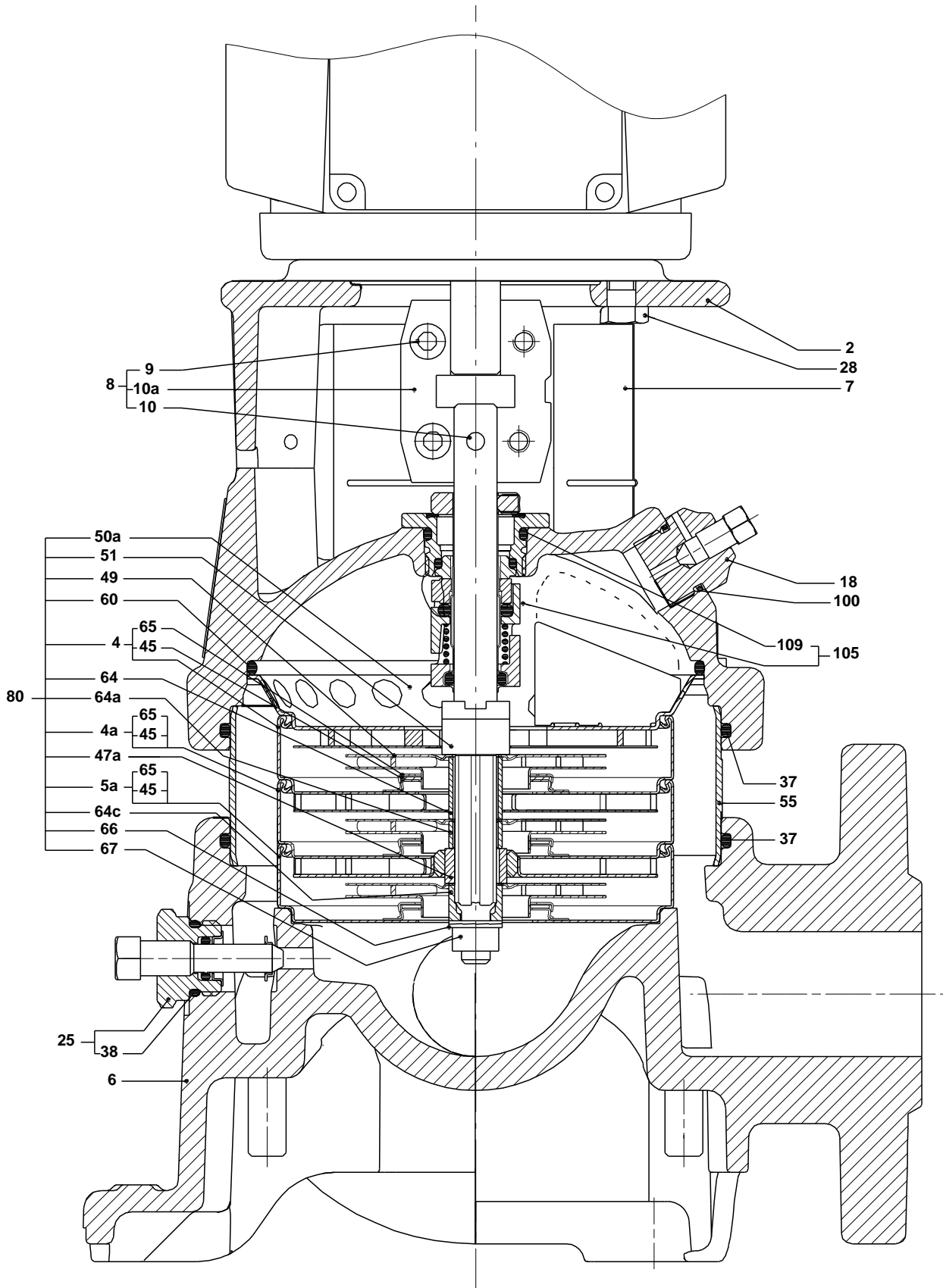
Total: Price on request

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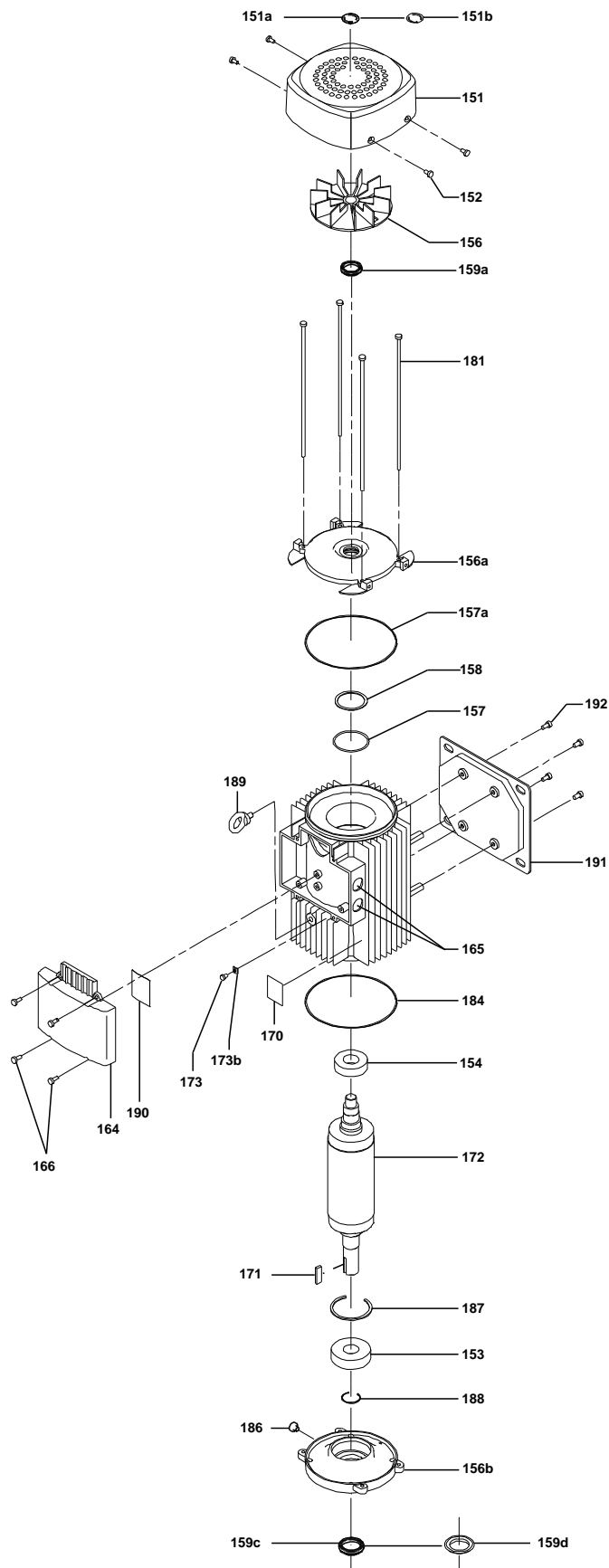
Exploded view (tm020210 4100)



## Sectional drawing (tm020211 4100)

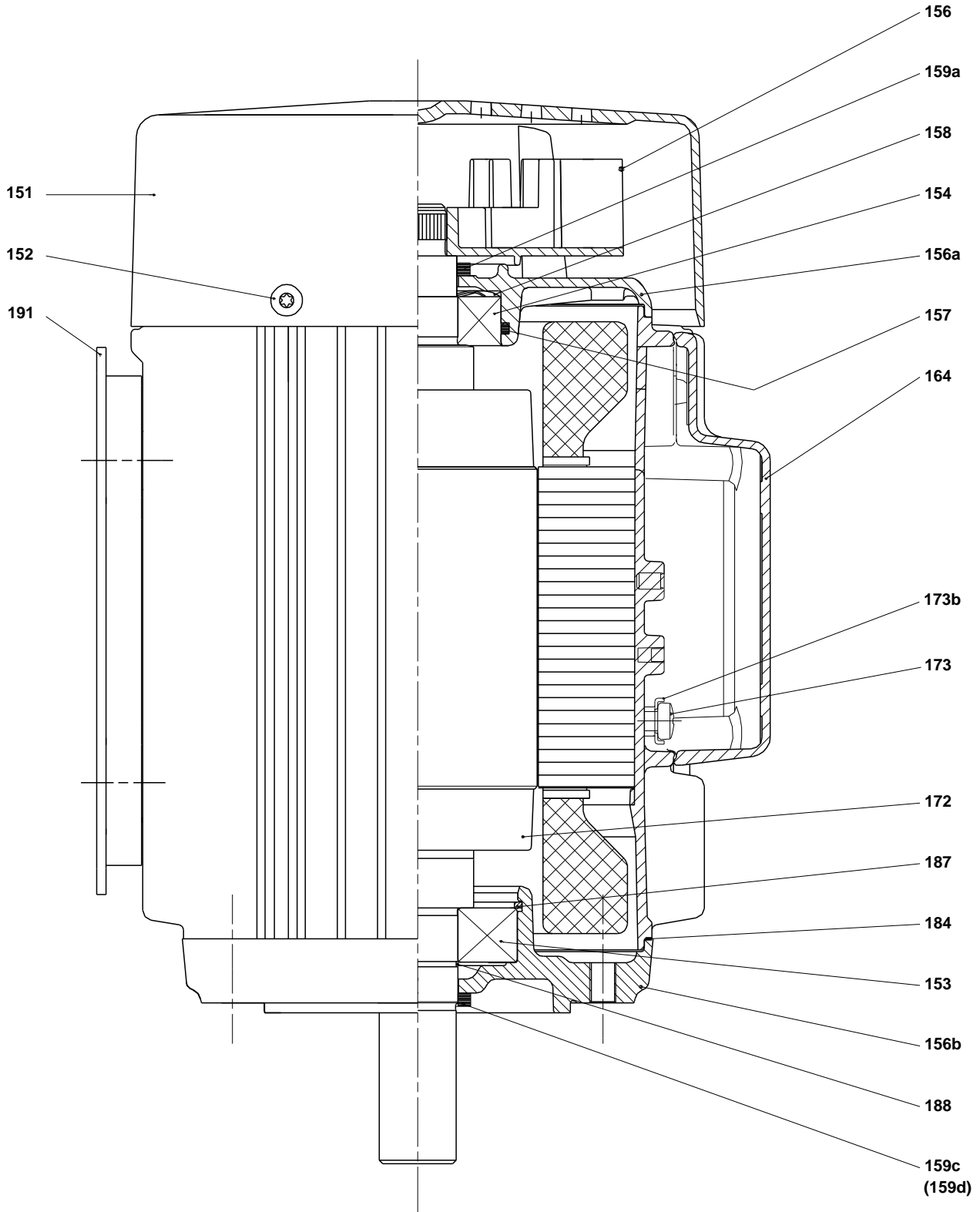


## Exploded view (tm030553)





## Sectional drawing (TM031465)



**Parts list CR 3-12, Prod number 96083220**

**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	
-	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 3/8"			
60	Formed wire spring				1	
+ 8	Coupling cpl.				1	pcs
26	Staybolt		Length: 241		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
- 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	



Company name:

Created by:

Phone:

Date: 2/20/2018

Position	Description	Annotation	Classification data	Part No.	Count	Unit
113	Driver				1	