

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

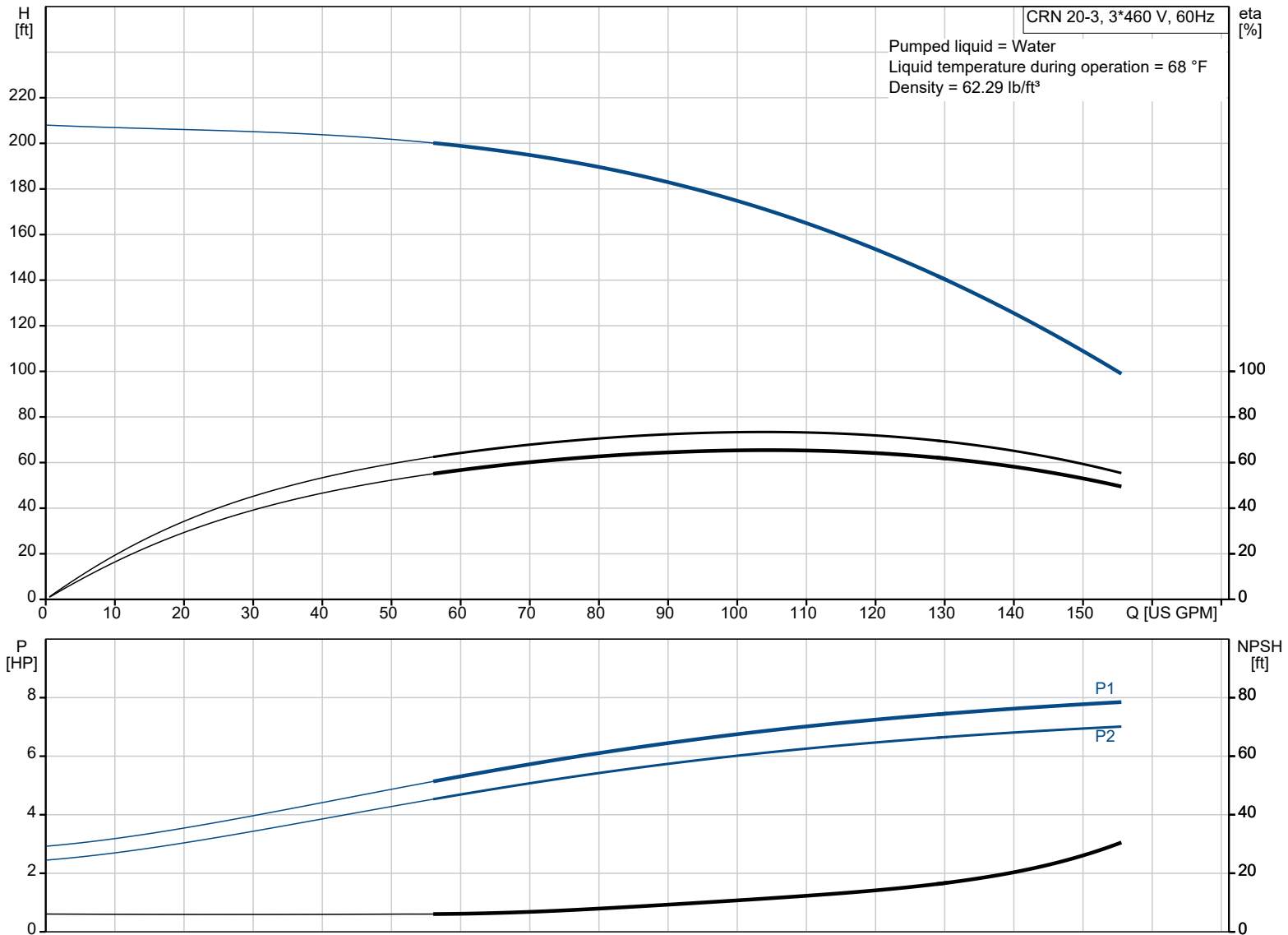


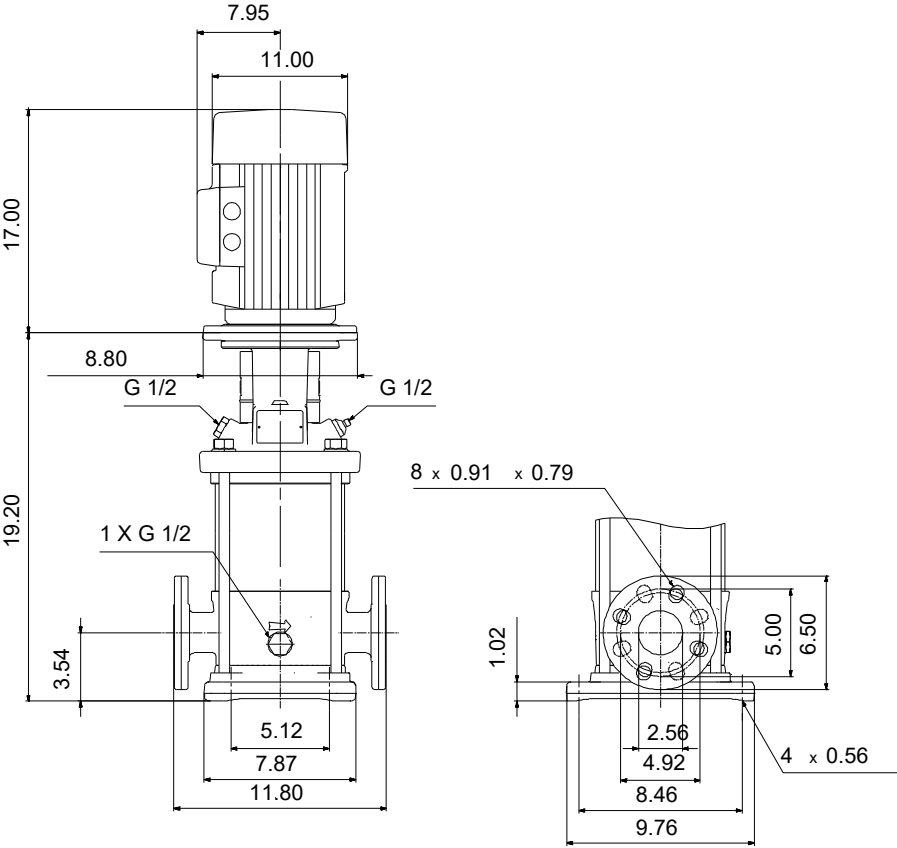
CRN 20-3 A-FGJ-A-V-HQQV

Vertical, multistage centrifugal pump with suction and discharge ports on the same level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Note! Product picture may differ from actual product


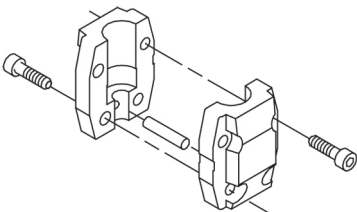
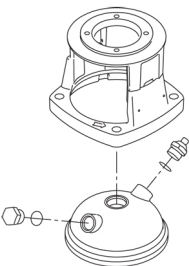
Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	363 psi / 194 °F	Rated power - P2:	7.5 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 194 °F	Rated voltage:	230/460 V
Specific Gravity:	1.000	Maximum ambient temperature:	104 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQV	Enclosure class:	IP55
		Product number:	99917898	Insulation class:	F
				Motor protection:	NONE
				Motor type:	WEG
				Eta 1/1:	89.5 %

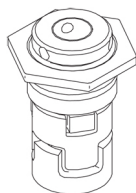




**Materials:**

Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	AISI 316
Impeller:	EN 1.4401
Material code:	A
Code for rubber:	V

Qty.	Description
1	<p><b>CRN 20-3 A-FGJ-A-V-HQQV</b></p>  <p>Product No.: <a href="#">99917898</a></p> <p>Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via combined DIN-ANSI-JIS flanges.</p> <p>The pump is fitted with a 3-phase, fan-cooled asynchronous motor.</p> <p><b>Further product details</b></p> <p>Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.</p> <p>An integral part of the process is a pretreatment.</p> <p>The entire process consists of these elements:</p> <ol style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Zinc phosphating.</li> <li>3) Cathodic electro-deposition.</li> <li>4) Curing to a dry film thickness 18-22 my m.</li> </ol> <p>The colour code for the finished product is NCS 9000/RAL 9005.</p> <p><b>Pump</b></p> <p>A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.</p>  <p>The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and vent screw.</p>  <p>The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.</p> <p>Seal faces:</p> <ul style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p>This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p>Secondary seal material: FKM (fluorocarbon rubber)</p> <p>FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.</p>

Qty.	Description
1	 <p>The shaft seal is screwed into the pump head.</p> <p>The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.</p> <p>The pump has a stainless steel base mounted on a separate base plate.</p> <p>This base and base plate are kept in position by the tension of the staybolts which hold the pump together.</p> <p>The outlet side of the base has a combined drain plug and bypass valve.</p> <p>The pump is secured to the foundation by four bolts through the base plate.</p> <p>The flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS.</p> <p><b>Motor</b></p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).</p> <p>Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).</p> <p>Electrical tolerances comply with IEC 60034.</p> <p>The motor efficiency is classified as premium efficiency in accordance with EISA2007.</p> <p>The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).</p> <p>The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.</p> <p><b>Technical data</b></p> <p>Liquid:</p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -4 .. 194 °F</p> <p>Selected liquid temperature: 68 °F</p> <p>Density: 62.29 lb/ft³</p> <p>Technical:</p> <p>Pump speed on which pump data are based: 3467 rpm</p> <p>Rated flow: 111 US GPM</p> <p>Rated head: 159.1 ft</p> <p>Actual impeller diameter: 4.13 in</p> <p>Pump orientation: Vertical</p> <p>Shaft seal arrangement: Single</p> <p>Code for shaft seal: HQQV</p> <p>Approvals: CURUS</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p>Materials:</p> <p>Base: Stainless steel EN 1.4408 AISI 316</p> <p>Impeller: Stainless steel EN 1.4401 AISI 316</p> <p>Bearing: SIC</p> <p>Installation:</p> <p>t max amb: 104 °F</p> <p>Maximum operating pressure: 362.59 psi</p> <p>Max pressure at stated temp: 363 psi / 194 °F 363 psi / -4 °F</p> <p>Type of connection: DIN / ANSI / JIS</p> <p>Size of inlet connection: DN 50</p> <p>Size of outlet connection: DN 50</p> <p>Pressure rating for connection: PN 25</p> <p>Flange rating inlet: 300 lb</p>

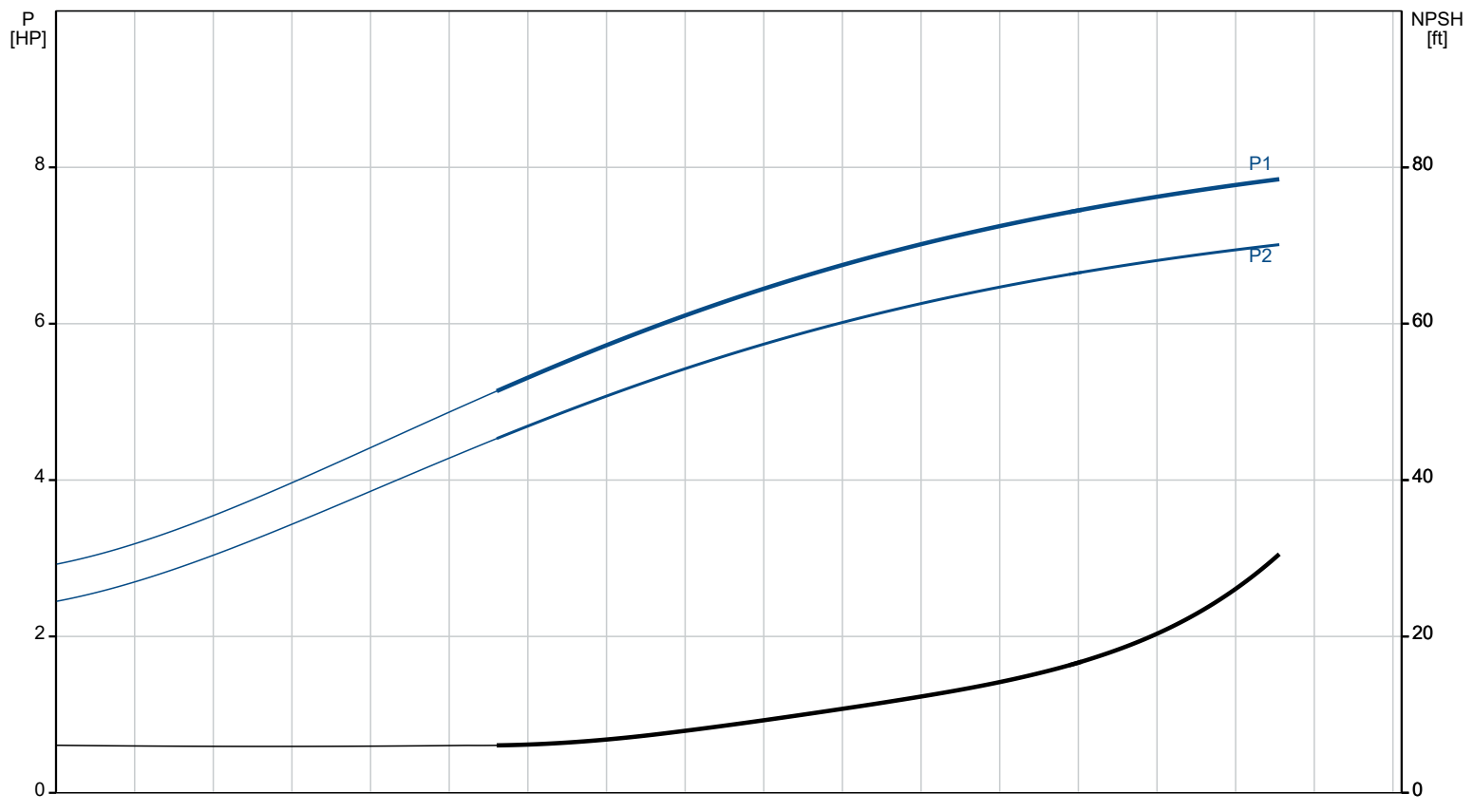
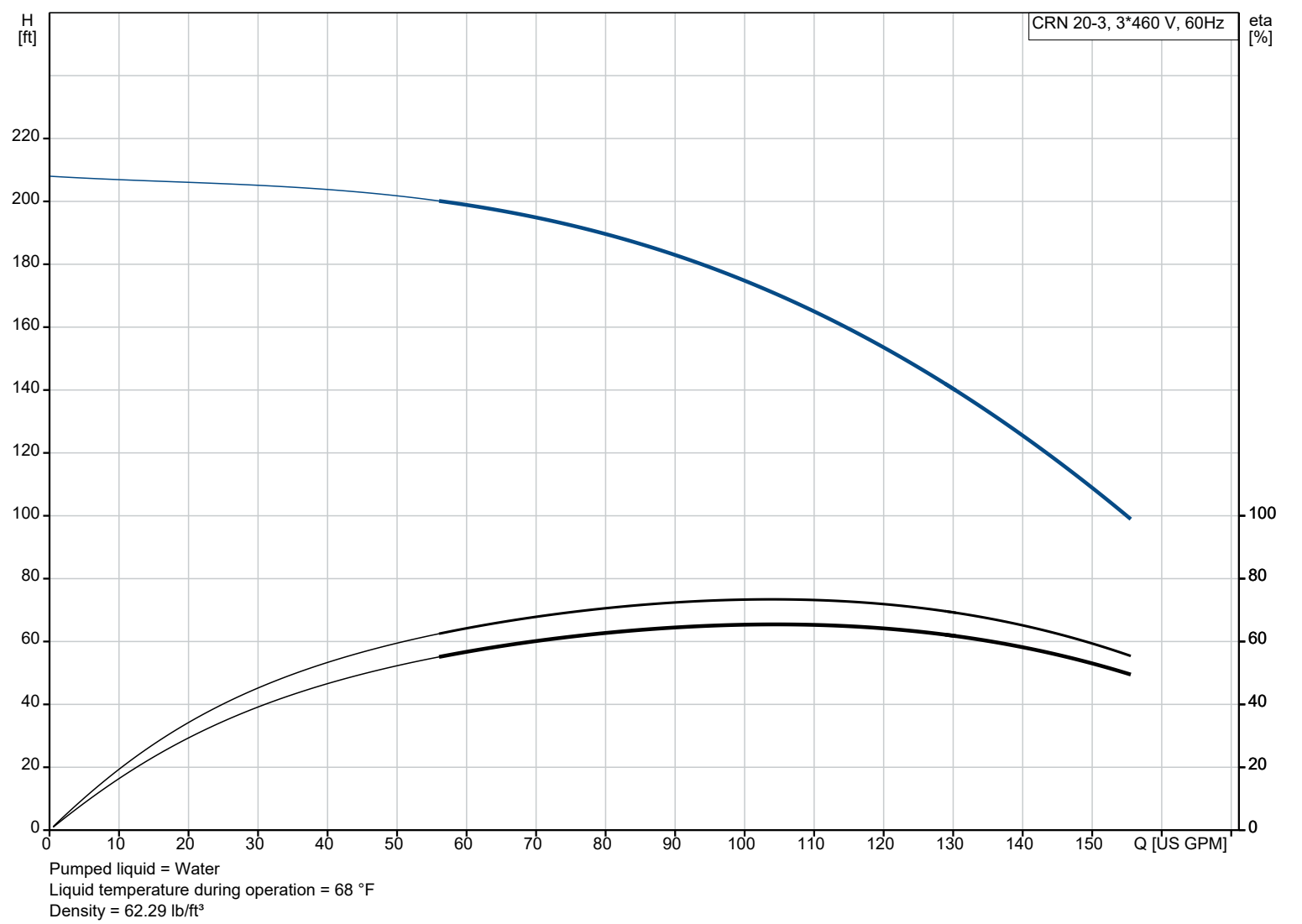
Qty.	Description
1	<p>Flange size for motor: 213TC</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: WEG</p> <p>IE Efficiency class: IE3 / NEMA Premium</p> <p>Rated power - P2: 7.5 HP</p> <p>Power (P2) required by pump: 7.5 HP</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 3 x 230/460 V</p> <p>Service factor: 1.15</p> <p>Rated current: 17.3/8.67 A</p> <p>Starting current: 760 %</p> <p>Cos phi - power factor: 0.89</p> <p>Rated speed: 3530 rpm</p> <p>Efficiency: IE3 89,5%</p> <p>Motor efficiency at full load: 89.5 %</p> <p>Motor efficiency at 3/4 load: 88.5 %</p> <p>Motor efficiency at 1/2 load: 87.5 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99882381</p> <p>Controls:</p> <p>Frequency converter: NONE</p> <p>Others:</p> <p>DOE Pump Energy Index CL: 0.91</p> <p>Net weight: 229 lb</p> <p>Gross weight: 247 lb</p> <p>Shipping volume: 13.1 ft³</p> <p>Country of origin: US</p> <p>Custom tariff no.: 8413.70.2040</p>



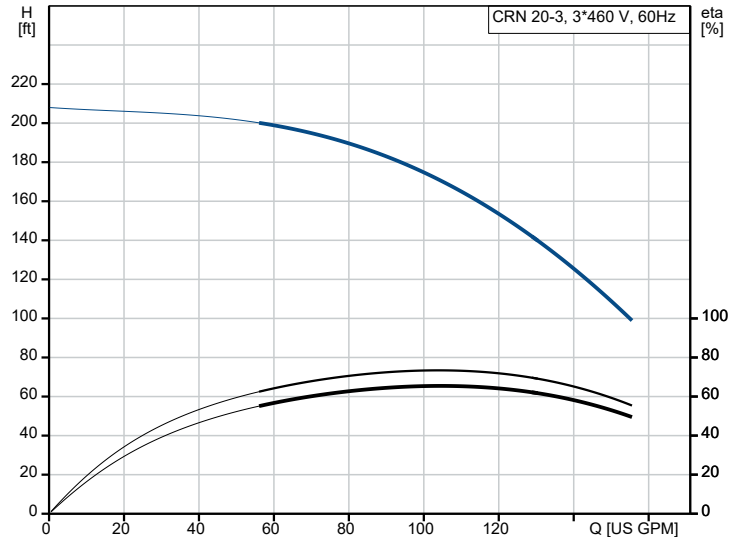
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Created by:  
Phone:

Date: 25/01/2023

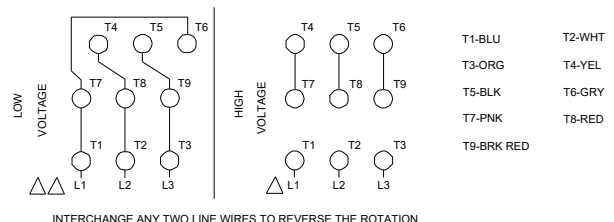
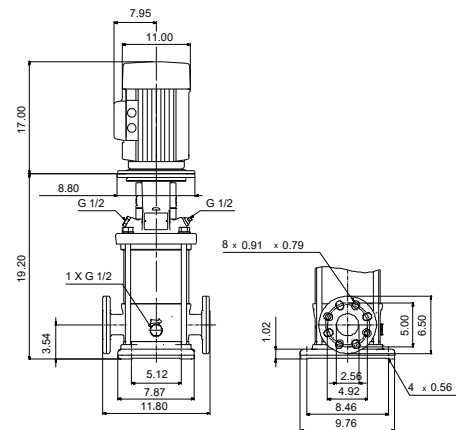
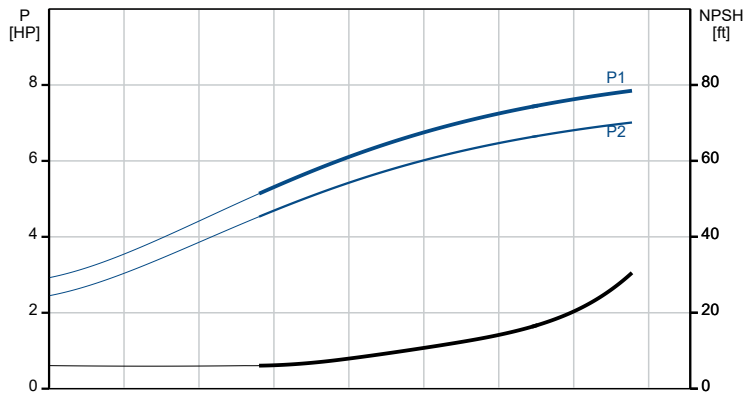
99917898 CRN 20-3 A-FGJ-A-V-HQQV 60 Hz



Description	Value
<b>General information:</b>	
Product name:	CRN 20-3 A-FGJ-A-V-HQQV
Product No:	99917898
EAN number:	5715114127264
<b>Technical:</b>	
Pump speed on which pump data are based:	3467 rpm
Rated flow:	111 US GPM
Rated head:	159.1 ft
Maximum head:	206 ft
Actual impeller diameter:	4.13 in
Stages:	3
Impellers:	3
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQV
Approvals:	CURUS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Cooling:	IC 411
<b>Materials:</b>	
Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	EN 1.4401
Impeller:	AISI 316
Material code:	A
Code for rubber:	V
Bearing:	SIC
<b>Installation:</b>	
t max amb:	104 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temp:	363 psi / 194 °F
Max pressure at stated temp:	363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	213TC
Connect code:	FGJ
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-4 .. 194 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
<b>Electrical data:</b>	
Motor standard:	NEMA
Motor type:	WEG
IE Efficiency class:	IE3 / NEMA Premium
Rated power - P2:	7.5 HP
Power (P2) required by pump:	7.5 HP
Mains frequency:	60 Hz
Rated voltage:	3 x 230/460 V
Service factor:	1.15
Rated current:	17.3/8.67 A
Starting current:	760 %
Full load SF current:	19.9/9.97 A
Cos phi - power factor:	0.89
Rated speed:	3530 rpm
Efficiency:	IE3 89,5%
Motor efficiency at full load:	89.5 %



Pumped liquid = Water  
Liquid temperature during operation = 68 °F  
Density = 62.29 lb/ft³





Company name:  
Created by:  
Phone:

Date: 25/01/2023

Description	Value
Motor efficiency at 3/4 load:	88.5 %
Motor efficiency at 1/2 load:	87.5 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	99882381
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
DOE Pump Energy Index CL:	0.91
Net weight:	229 lb
Gross weight:	247 lb
Shipping volume:	13.1 ft³
Country of origin:	US
Custom tariff no.:	8413.70.2040

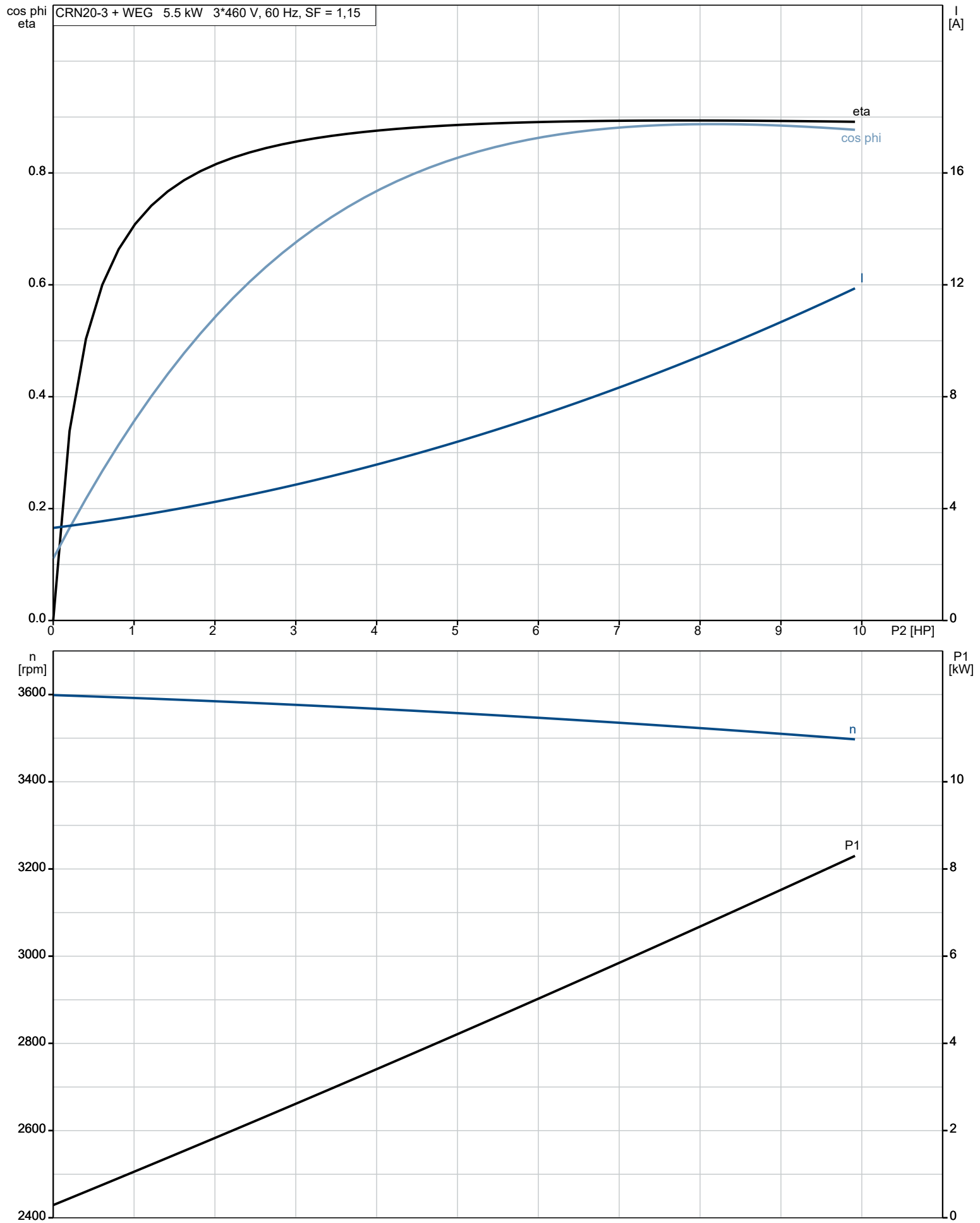




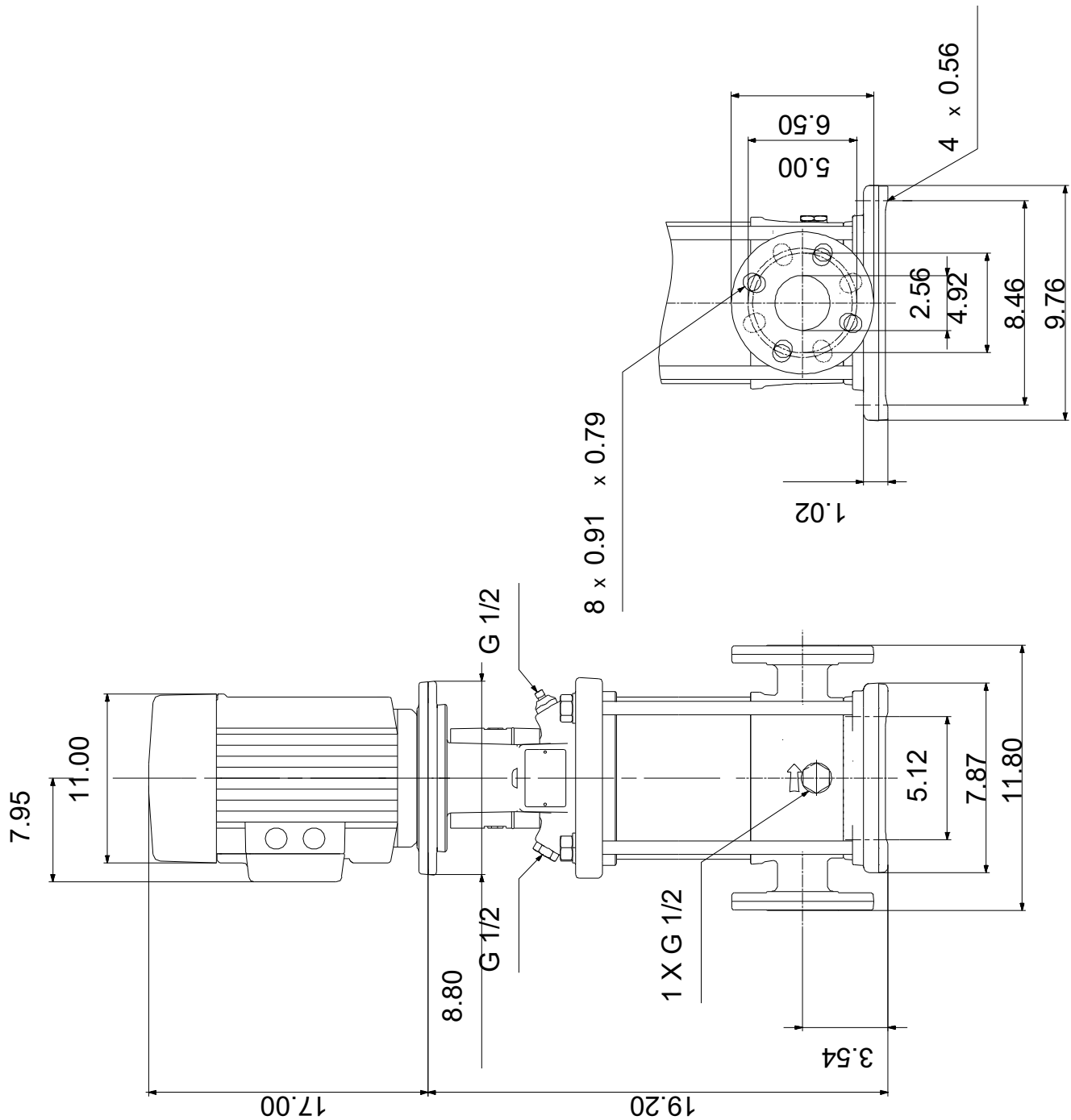
Company name:  
Created by:  
Phone:

Date: 25/01/2023

99917898 CRN 20-3 A-FGJ-A-V-HQQV 60 Hz



## 99917898 CRN 20-3 A-FGJ-A-V-HQQV 60 Hz



**Order Data:**

Position	Your pos.	Product name	Amount	Product No	Total
		CRN 20-3	1	99917898	Price on request