

# Submittal Data

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

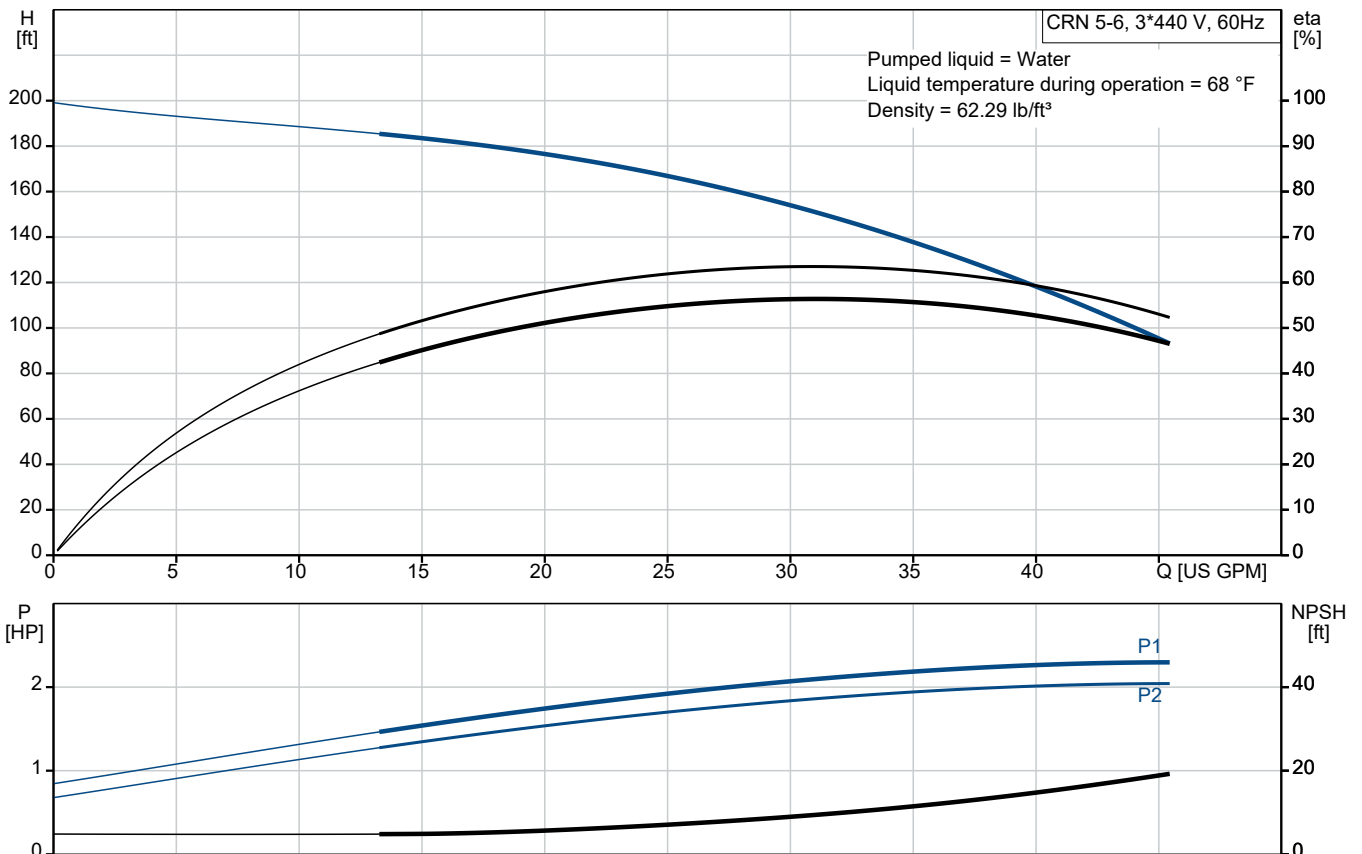


## CRN 5-6 A-FGJ-A-E-HQQE

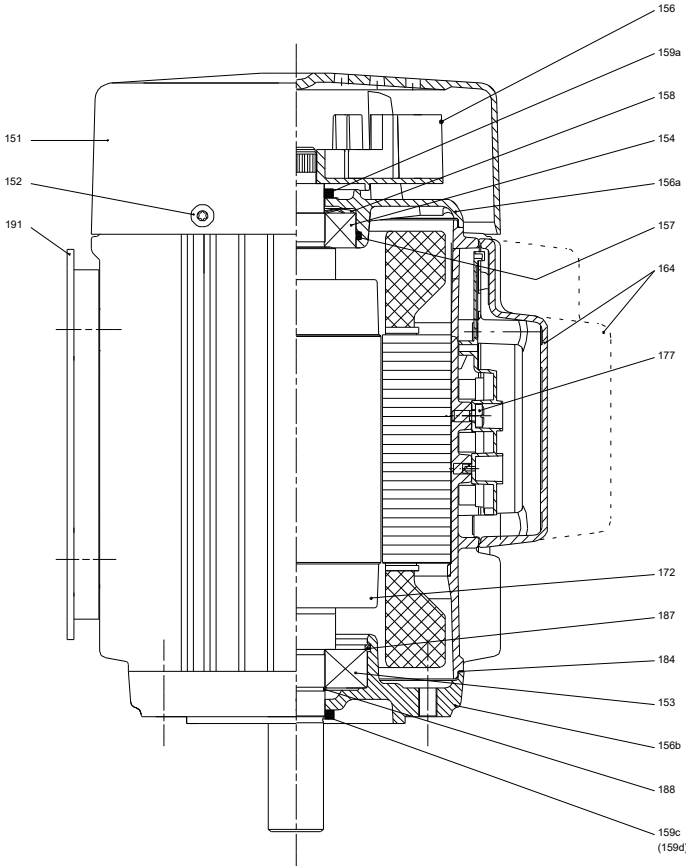
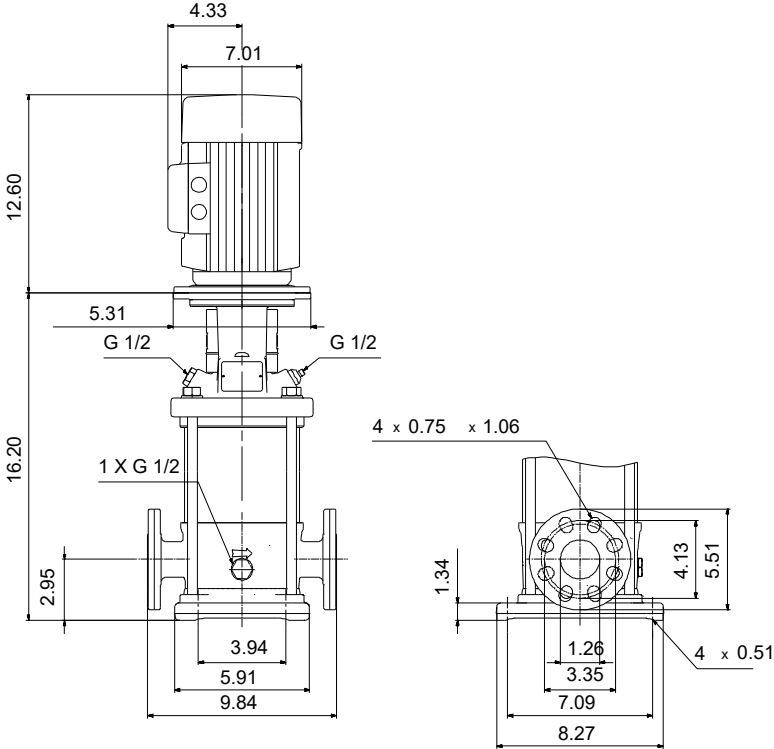
Vertical, multistage centrifugal pump with suction and discharge ports on the same level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	363 psi / 250 °F	Rated power - P2:	3 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 248 °F	Rated voltage:	230-277D/400-480Y V
Specific Gravity:	1.000	Maximum ambient temperature:	140 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	55 Dust/Jetting
		Product number:	96518114	Insulation class:	F
				Motor protection:	NONE
				Motor type:	90LE
				Eta 1/1:	86.5 %



# Submittal Data



**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: E

**Qty. Description**

1 CRN 5-6 A-FGJ-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: [96518114](#)

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.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

**Further product details**

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.

An integral part of the process is a pretreatment.

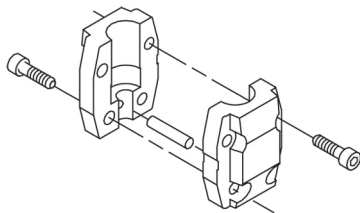
The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

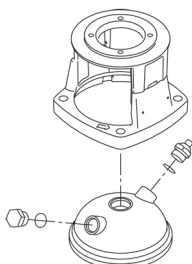
The colour code for the finished product is NCS 9000/RAL 9005.

**Pump**

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.



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.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system.

**Qty. Description**

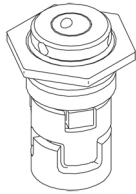
1 This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)  
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is screwed into the pump head.

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.

The pump has a stainless-steel base mounted on a separate base plate.

This base and base plate are kept in position by the tension of the staybolts which hold the pump together.

The outlet side of the base has a combined drain plug and bypass valve.

The pump is secured to the foundation by four bolts through the base plate.

The flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS.

**Motor**

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).

Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as premium efficiency in accordance with EISA2007.

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).

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.

**Technical data**

Liquid:

Pumped liquid: Water

Liquid temperature range: -4 .. 248 °F

Selected liquid temperature: 68 °F

Density: 62.29 lb/ft<sup>3</sup>

Technical:

Pump speed on which pump data are based: 3501 rpm

Rated flow: 30.4 US GPM

Rated head: 153.6 ft

Pump orientation: Vertical

Shaft seal arrangement: Single

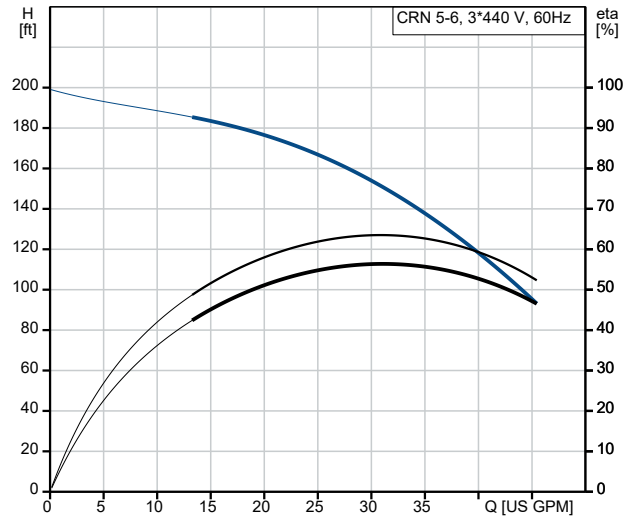
Code for shaft seal: HQQE

Approvals: CE,EAC,UKCA,SEPRO

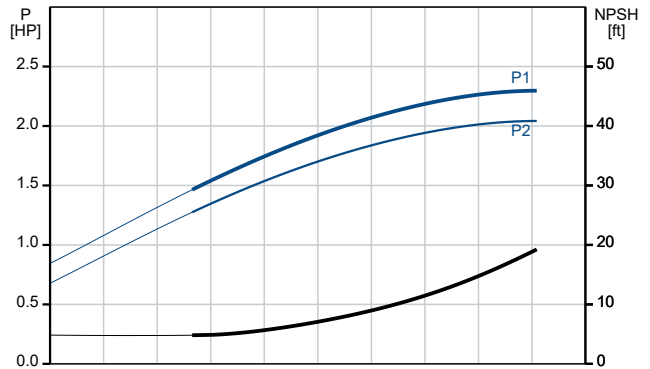
Approvals for drinking water: WRAS,ACS

Qty.	Description
1	<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>Maximum ambient temperature: 140 °F Maximum operating pressure: 362.59 psi Max pressure at stated temp: 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 outlet connection: DN 25/32 Pressure rating for connection: PN 25 Flange rating inlet: 300 lb Flange size for motor: FT115</p> <p>Electrical data:</p> <p>Motor standard: IEC Motor type: 90LE Rated power - P2: 3 HP Power (P2) required by pump: 3 HP Mains frequency: 60 Hz Rated voltage: 3 x 230-277D/400-480Y V Rated current: 7,50-6,95/4,30-4,00 A Starting current: 820-1050 % Cos phi - power factor: 0.88-0.80 Rated speed: 3480-3530 rpm IE Efficiency class: NEMA Premium / IE3 60Hz Motor efficiency at full load: 86.5 % Motor efficiency at 3/4 load: 89.5-88.5 % Motor efficiency at 1/2 load: 89.2-86.3 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U01908</p> <p>Controls:</p> <p>Frequency converter: None</p> <p>Others:</p> <p>Terminal box position: 6 Minimum efficiency index, MEI ≥: 0.57 Net weight: 83 lb Gross weight: 92 lb Shipping volume: 3.25 ft³</p>

Description	Value
<b>General information:</b>	
Product name:	CRN 5-6 A-FGJ-A-E-HQQE
Product No:	96518114
EAN number:	5700396776491
Price:	
<b>Technical:</b>	
Pump speed on which pump data are based:	3501 rpm
Rated flow:	30.4 US GPM
Rated head:	153.6 ft
Maximum head:	209.3 ft
Stages:	6
Impellers:	6
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals:	CE,EAC,UKCA,SEPRO
Approvals for drinking water:	WRAS,ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
<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:	E
Bearing:	SIC
<b>Installation:</b>	
Maximum ambient temperature:	140 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temp:	363 psi / 250 °F
Max pressure at stated temp:	363 psi / -4 °F
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 25/32
Size of outlet connection:	DN 25/32
Pressure rating for connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	FT115
Connect code:	FGJ
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-4 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft <sup>3</sup>
<b>Electrical data:</b>	
Motor standard:	IEC
Motor type:	90LE
Rated power - P2:	3 HP
Power (P2) required by pump:	3 HP
Mains frequency:	60 Hz
Rated voltage:	3 x 230-277D/400-480Y V



Pumped liquid = Water  
 Liquid temperature during operation = 68 °F  
 Density = 62.29 lb/ft<sup>3</sup>





Company name:

Created by:

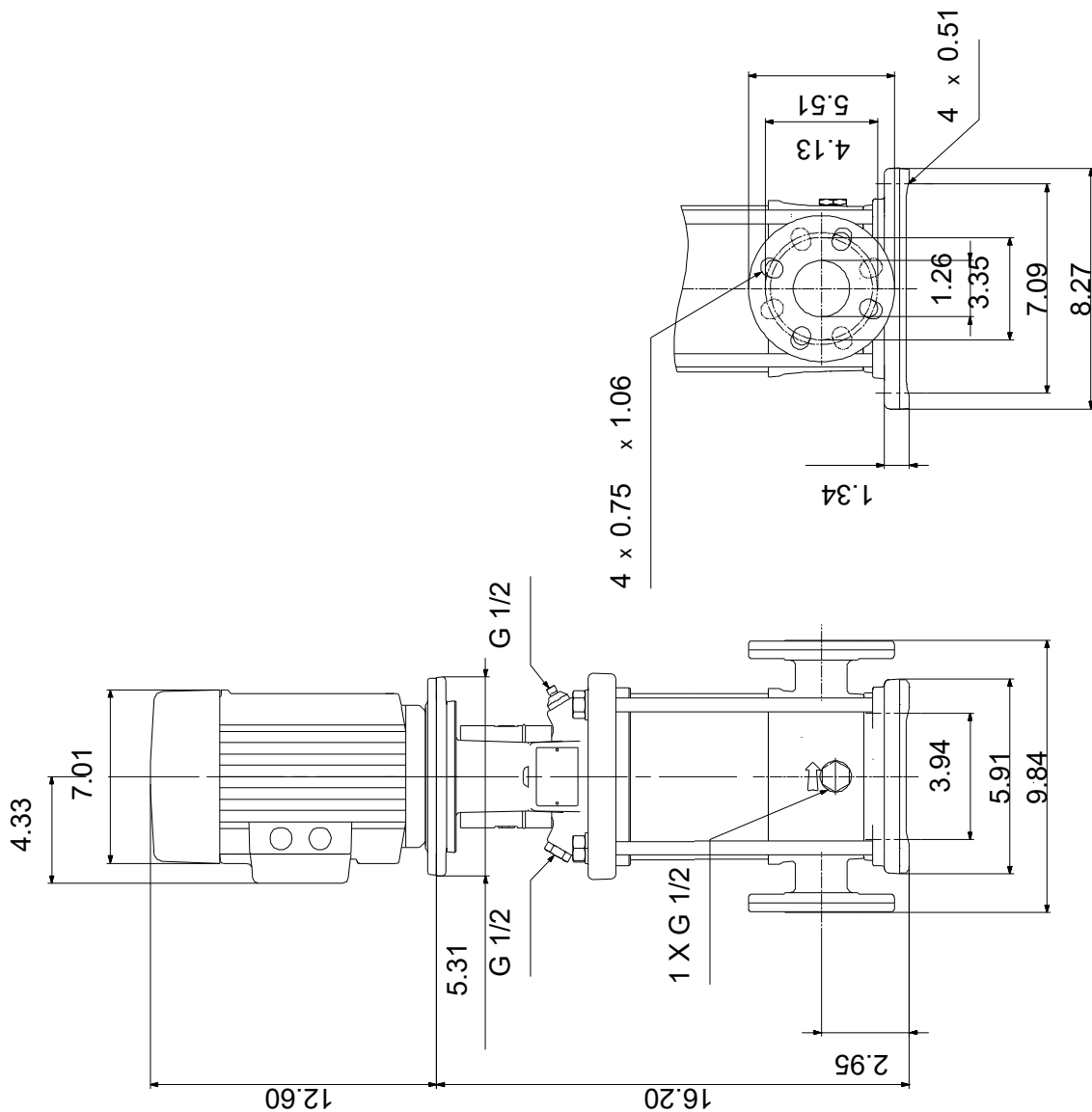
Phone:

Date:

10/10/2024

Description	Value
Rated current:	7,50-6,95/4,30-4,00 A
Starting current:	820-1050 %
Cos phi - power factor:	0.88-0.80
Rated speed:	3480-3530 rpm
IE Efficiency class:	NEMA Premium / IE3 60Hz
Motor efficiency at full load:	86.5 %
Motor efficiency at 3/4 load:	89.5-88.5 %
Motor efficiency at 1/2 load:	89.2-86.3 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	85U01908
<b>Controls:</b>	
Frequency converter:	None
<b>Others:</b>	
Terminal box position:	6
Minimum efficiency index, MEI $\geq$ :	0.57
Net weight:	83 lb
Gross weight:	92 lb
Shipping volume:	3.25 ft <sup>3</sup>

**96518114 CRN 5-6 A-FGJ-A-E-HQQE 60 Hz**



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