

Submittal Data

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



CRN 255-3-1 A-G-A-E-HQQE

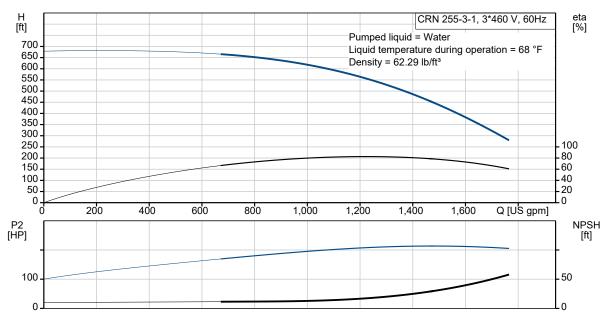
Vertical, multistage centrifugal pump with suction and discharge ports on the same level. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Product photo could vary from the actual product

Conditions of Service		
Efficiency:		
Liquid:	Water	
Temperature:	68 °F	
NPSH required:	ft	
Specific Gravity:	1.000	

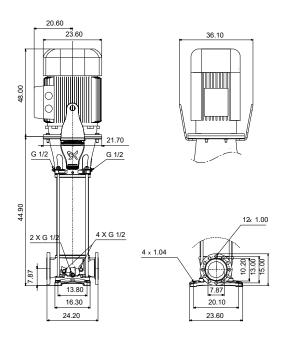
Pump Data	
Liquid temperature range:	-40 248 °F
Maximum ambient temperature:	104 °F
Shaft seal:	HQQE
Product number:	92542604

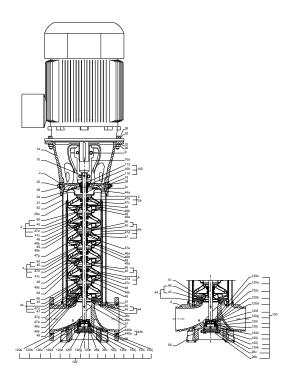
Motor Data			
Rated power - P2:	251 HP		
Rated voltage:	460 V		
Main frequency:	60 Hz		
Enclosure class:	IP55		
Insulation class:	F		
Motor protection:	NONE		
Motor type:	WEG		
Eff. 1/1:	95.8 %		





Submittal Data





Materials:

Base: Stainless steel
Base: EN 1.4408

Base: ASTM A351 CF8M Impeller: Stainless steel Impeller: AISI 316

Impeller: EN 1.4401

Material code: A
Code for rubber: E



Date: 1/26/2022

Count | Description

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Product photo could vary from the actual product

Product No.: 92542604

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 built-in thrust-handling device absorbs hydraulic axial forces which enables the use of a standard motor.

The Grundfos 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 ANSI 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.

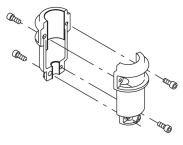
The entire process consists of these elements:

- 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 long split coupling connects the pump and motor shaft. It is enclosed in the motor stool by means of two coupling guards. The long coupling makes it possible to replace the shaft seal without removing the motor from the pump.



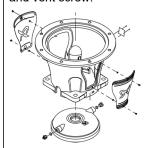


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Count

Description

The motor stool connects the pump head and motor. 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.

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.

Primary seal:

- 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 PEEK neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

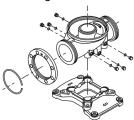
The pump has a stainless-steel base mounted on a separate cast-iron base plate.

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

Both the inlet and the outlet side of the base have two pressure gauge tappings.

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

The flanges are fastened to the base by means of locking rings.





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Count | Description

Motor

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).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (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).

A variable speed drive makes adjustment of pump performance to any duty point possible. If the motor is to be connected to a variable speed drive, the pump must be ordered with an electrically insulated motor bearing.

Technical data

Liquid:

Pumped liquid: Water
Liquid temperature range: -40 .. 248 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

Technical:

Rated pump speed: 3578 rpm
Rated flow: 1350 US gpm
Rated head: 535.1 ft
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals for drinking water: NSF/ANSI 61,NSF/ANSI 372

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Stainless steel EN 1.4408

ASTM A351 CF8M

Impeller: Stainless steel

EN 1.4401 AISI 316

Bearing: WC/WC Thrust handling device: SiC/WC

Material certified according to: European standards

Installation:

t max amb: 104 °F Maximum operating pressure: 362.59 psi

Max pressure at stated temperature: 363 psi / 250 °F

Type of connection: ANSI
Size of suction port: 8 inch
Size of outlet port: 8 inch
Pressure rating for connection: 300 lb



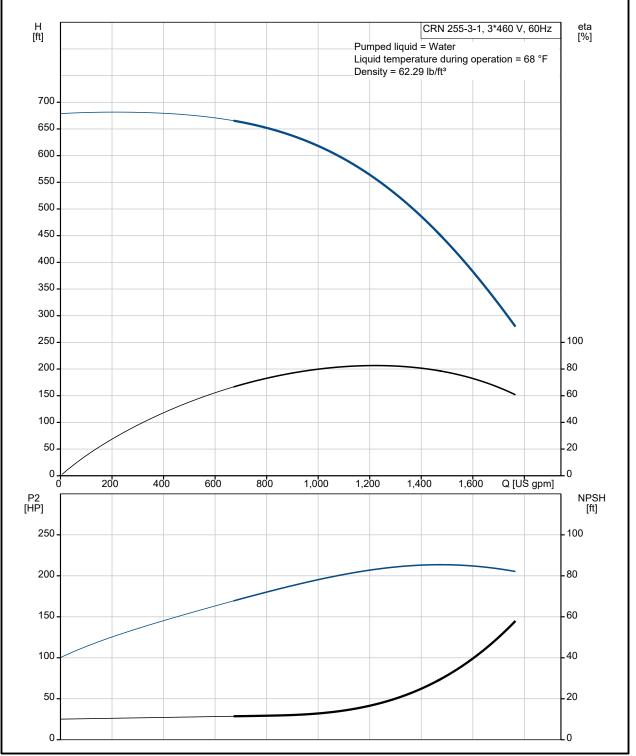
Date: 1/26/2022

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Count	Description		
	Flange size for motor:	447TSD	
	Floatrical data		
	Electrical data: Motor standard:	NEMA	
	Motor type:	WEG	
	IE Efficiency class:	IE3 / NEMA Premium	
	Rated power - P2:	251 HP	
	Power (P2) required by pump:	251 HP	
	Main frequency:	60 Hz	
	Rated voltage:	3 x 460 V	
	Service factor:	1.15	
	Rated current:	269 A	
	Starting current:	670 %	
	Cos phi - power factor:	0.90	
	Rated speed:	3573 rpm	
	IE efficiency:	IE3 95,8%	
	Motor efficiency at full load:	95.8 %	
	Motor efficiency at 3/4 load:	95.8 %	
	Motor efficiency at 1/2 load:	95.4 %	
	Number of poles:	2	
	Enclosure class (IEC 34-5): Insulation class (IEC 85):	IP55 F	
	Motor Number:	99883220	
	Motor Number.	99003220	
	Controls:		
	Frequency converter:	NONE	
	Others:		
	Net weight:	3260 lb	
	Gross weight:	3740 lb	
	Shipping volume:	138 ft³	
	Thrust handling device:	Υ	



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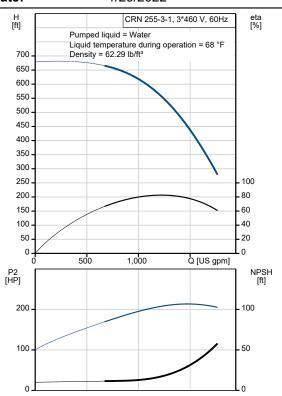
92542604 CRN 255-3-1 A-G-A-E-HQQE 60 Hz

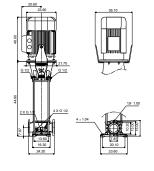


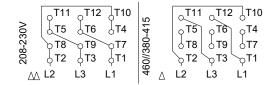


Date: 1/26/2022

CRN 255-3-1 A-G-A-E-HQQE 92542604 5715115984262 3578 rpm 1350 US gpm 535.1 ft 673.9 ft 3 3 1 N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
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535.1 ft 673.9 ft 3 3 1 N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
673.9 ft 3 3 1 N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
3 3 1 N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
1 N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
N Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
Vertical Single HQQE NSF/ANSI 61,NSF/ANSI
Single HQQE NSF/ANSI 61,NSF/ANSI
HQQE NSF/ANSI 61,NSF/ANSI
NSF/ANSI 61,NSF/ANSI
372
ISO9906:2012 3B
A
A
IC 411
Stainless steel
EN 1.4408
ASTM A351 CF8M
Stainless steel
EN 1.4401
AISI 316
A
E
WC/WC
SiC/WC
European standards
104 °F
362.59 psi
363 psi / 250 °F
ANSI
8 inch
8 inch
300 lb
447TSD
G
Water









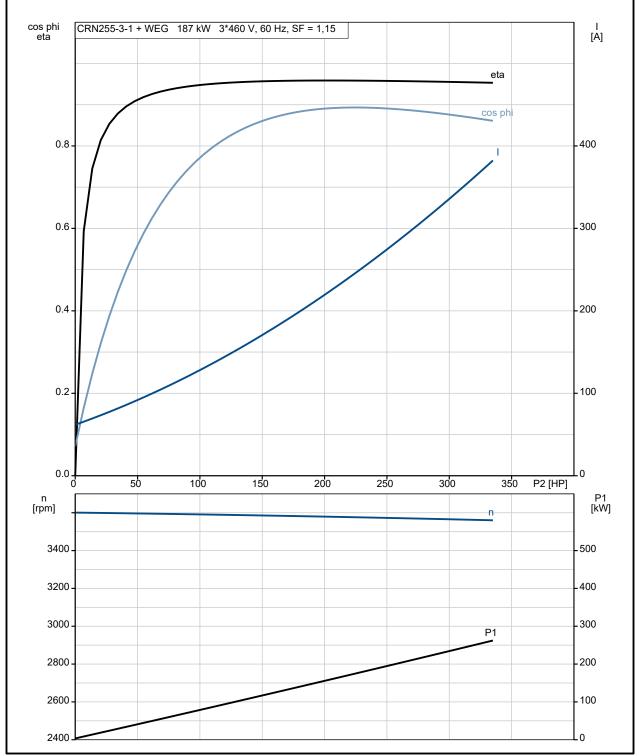
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Power (P2) required by pump:	251 HP
Main frequency:	60 Hz
Rated voltage:	3 x 460 V
Service factor:	1.15
Rated current:	269 A
Starting current:	670 %
Full load SF current:	309 A
Cos phi - power factor:	0.90
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Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor Number:	99883220
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	3260 lb
Gross weight:	3740 lb
Shipping volume:	138 ft³
Thrust handling device:	Υ



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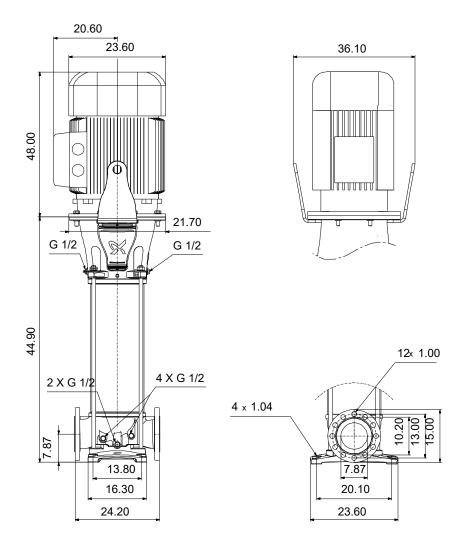
92542604 CRN 255-3-1 A-G-A-E-HQQE 60 Hz





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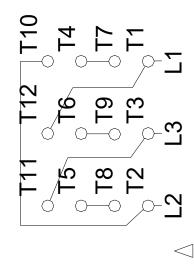
Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



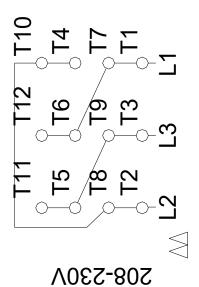
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92542604 CRN 255-3-1 A-G-A-E-HQQE 60 Hz



914-088//094



All units are [in] unless otherwise presented.