

**Date:** 4/16/2020

Count | Description

CR 1-23 A-FGJ-A-E-HQQE



Product No.: 96082142

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in 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 1-phase, fan-cooled asynchronous motor.

## Further product details

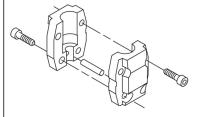
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An 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.

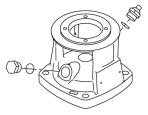
The colour code for the finished product is NCS 9000/RAL 9005.

## **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, pump head cover and flange for motor mounting is made in one piece. 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)



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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 pump has a special air-cooled shaft-seal chamber generating the same insulation effect as that of a vacuum flask. No external cooling is necessary; the ambient temperature is sufficient. An automatic vent vents the pump seal chamber.

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 base is made of cast iron. The flanges and base are cast in one piece. 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.



#### 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 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 has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.

### Technical data

Liquid:

Pumped liquid: Water
Liquid temperature range: -4 .. 248 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

Technical:

Rated pump speed: 3457 rpm Rated flow: 9.69 US gpm



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Rated head: 504.6 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 AISI 304

Bearing: SIC

Installation:

Maximum ambient temperature: 104 °F Maximum operating pressure: 362.59 psi

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

363 psi / -4 °F

Type of connection:
Size of inlet connection:
DIN / ANSI / JIS
DN 25/32
Size of outlet connection:
Pressure rating for connection:
Flange rating inlet:
Flange size for motor:
DN 25/32
PN 25/32
PN 25
250 lb
Flange size for motor:
182TC

Electrical data:

Motor standard: NEMA
Motor type: BALDOR
Rated power - P2: 3 HP
Power (P2) required by pump: 3 HP
Main frequency: 60 Hz

Rated voltage: 1 x 115/208-230 V

Service factor: 1.15

Rated current: 29/16-14,5 A Rated speed: 3450 rpm

Number of poles: 2
Insulation class (IEC 85): F

Motor Number: 84Z04014

Controls:

Frequency converter: NONE

Others:

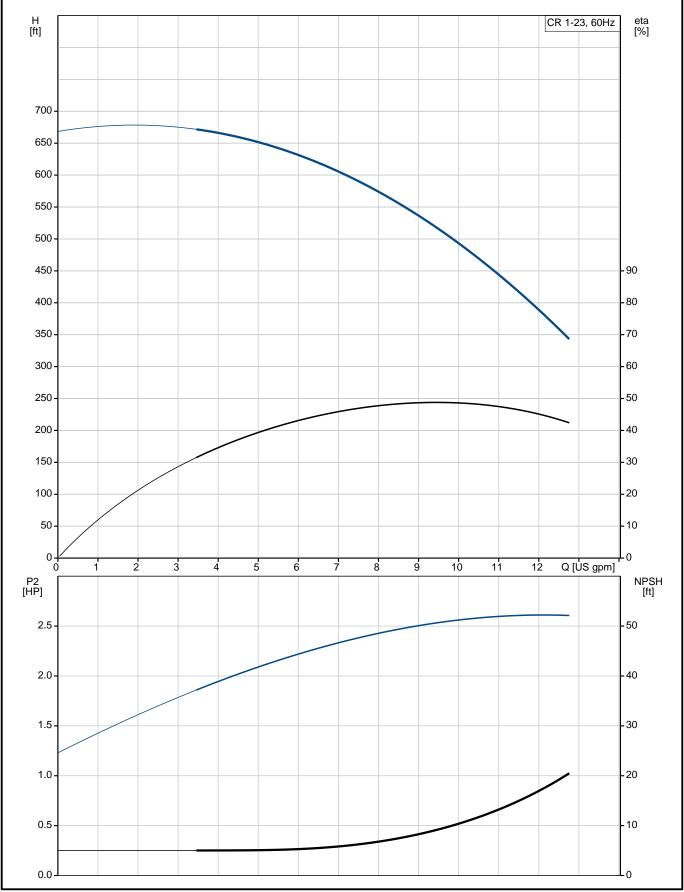
Net weight: 135 lb
Gross weight: 153 lb
Shipping volume: 10.1 ft³
Country of origin: US

Custom tariff no.: 8413.70.2040



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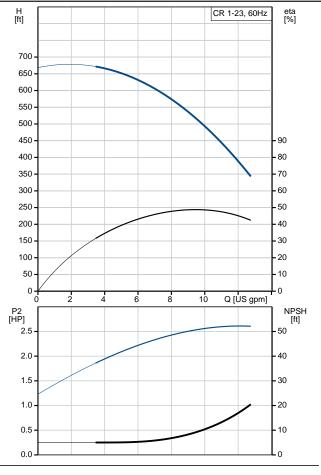
## 96082142 CR 1-23 A-FGJ-A-E-HQQE 60 Hz

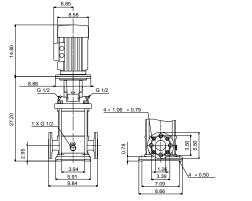


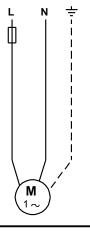


**Date:** 4/16/2020

Description	Value
General information:	
Product name:	CR 1-23
	A-FGJ-A-E-HQQE
Product No.:	96082142
EAN:	5700395168808
	5700395168808
Technical:	
Rated pump speed:	3457 rpm
Rated flow:	9.69 US gpm
Rated head:	504.6 ft
Maximum head:	674.2 ft
Stages:	23
Impellers:	23
Number of reduced-diameter impellers:	0
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:	SIC
Installation:	
Maximum ambient temperature:	104 °F
Maximum operating pressure:	362.59 psi
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
Size of outlet connection:	DN 25/32
Pressure rating for connection:	PN 25
Flange rating inlet:	250 lb
Flange size for motor:	182TC
Connect code:	FGJ
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-4 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft <sup>3</sup>
Electrical data:	
Motor standard:	NEMA
Motor type:	BALDOR
Rated power - P2:	3 HP
Power (P2) required by pump:	3 HP
Main frequency:	60 Hz
Rated voltage:	1 x 115/208-230 V
Service factor:	1.15









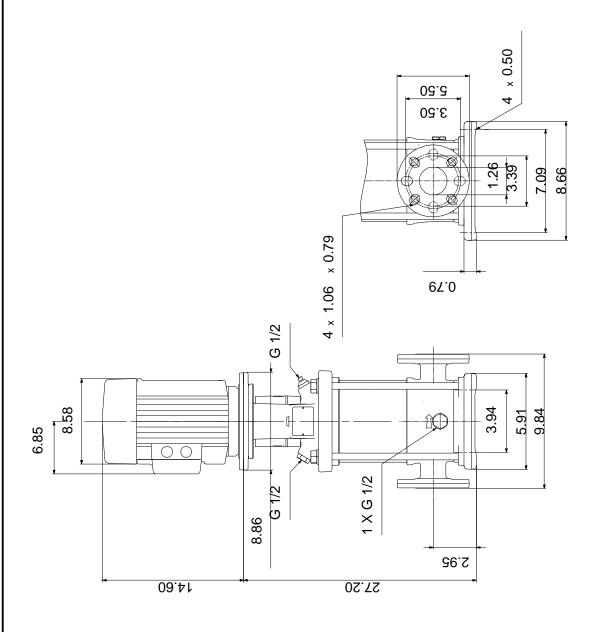
**Date:** 4/16/2020

Description	Value
Rated current:	29/16-14,5 A
Load current:	31,8/18-16,9 A
Rated speed:	3450 rpm
Number of poles:	2
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	84Z04014
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	135 lb
Gross weight:	153 lb
Shipping volume:	10.1 ft <sup>3</sup>
Country of origin:	US
Custom tariff no.:	8413.70.2040



Date: 4/16/2020

## 96082142 CR 1-23 A-FGJ-A-E-HQQE 60 Hz

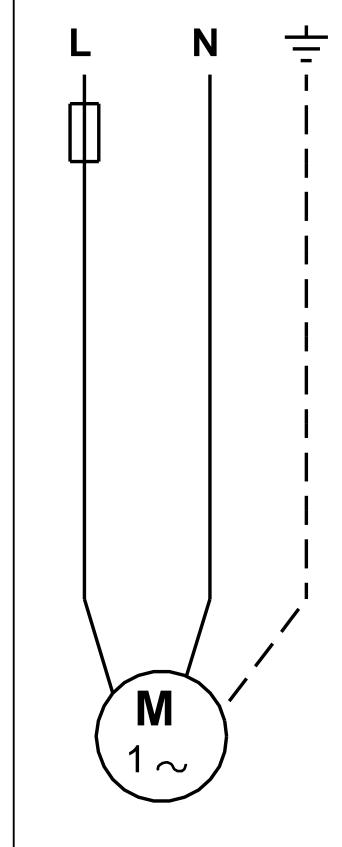


Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



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# 96082142 CR 1-23 A-FGJ-A-E-HQQE 60 Hz



All units are [in] unless otherwise presented.