

**Date:** 9/30/2019

Count | Description

CRI 1S-13 A-CA-A-E-HQQE



Product No.: 96081233

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in stainless steel. Power transmission is via a rigid split coupling. Pipe connection is via FlexiClamps.

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

### Further product details

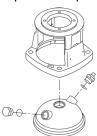
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An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

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. 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.



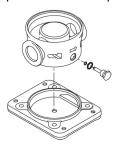
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The shaft seal is screwed into the pump head.

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 pump has a stainless-steel base mounted on a separate base plate. The 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 base is prepared for connection by means of FlexiClamp couplings.



#### 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).

#### **Technical data**

#### Controls:

Frequency converter: NONE

### Liquid:

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

#### Technical:

Rated pump speed: 3484 rpm
Rated flow: 4.84 US gpm
Rated head: 243.8 ft
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals on nameplate: CURUS,NSF61 Curve tolerance: ISO9906:2012 3B



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Materials:

Base: Stainless steel

EN 1.4408

AISI 316

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing: SIC

Installation:

Maximum ambient temperature: 140 °F Maximum operating pressure: 362.59 psi

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

363 psi / -4 °F

Type of connection: FlexiClamp
Size of inlet connection: DN 32
Size of outlet connection: DN 32
Pressure rating for pipe connection: PN 25
Flange size for motor: 56C

Electrical data:

Motor standard: NEMA Motor type: 71BB

IE Efficiency class: NEMA Premium / IE3 60Hz

Rated power - P2: 1 HP
Power (P2) required by pump: 1 HP
Main frequency: 60 Hz

Rated voltage: 3 x 208-230YY/460Y V

Service factor: 1.25

Rated current: 3,25-3,35/1,68 A Starting current: 590-650 % Cos phi - power factor: 0.81-0.72 Rated speed: 3430-3460 rpm IE efficiency: IE3 77,0% Motor efficiency at full load: 80.0 % Motor efficiency at 3/4 load: 79.5 % Motor efficiency at 1/2 load: 75.0 %

Enclosure class (IEC 34-5): 55 Dust/Jetting

2

Insulation class (IEC 85): F

Motor Number: 85900703

Others:

Number of poles:

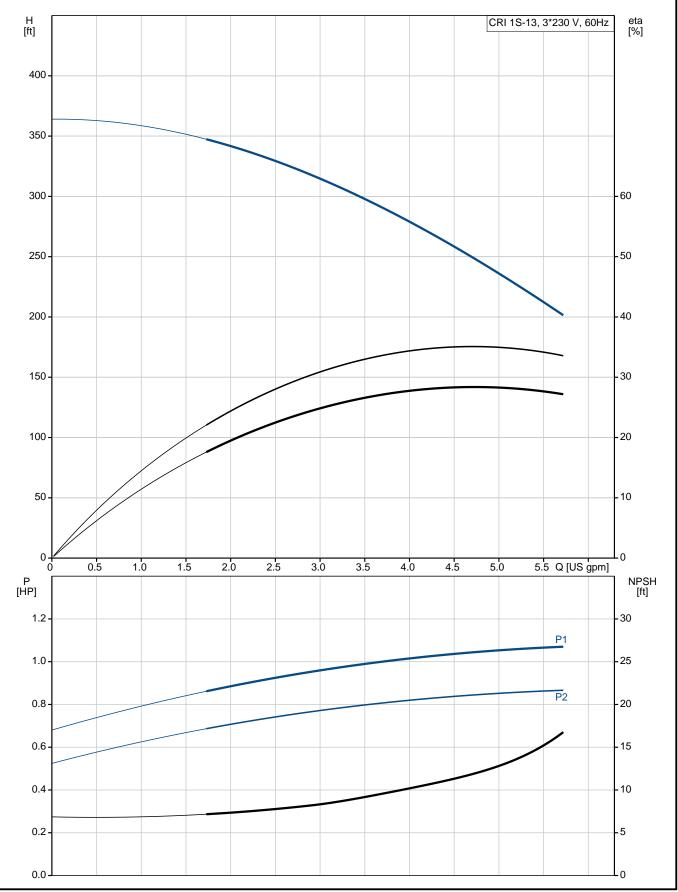
Net weight: 51.2 lb
Gross weight: 62.2 lb
Shipping volume: 6.11 ft³
Country of origin: US

Custom tariff no.: 8413.70.2040



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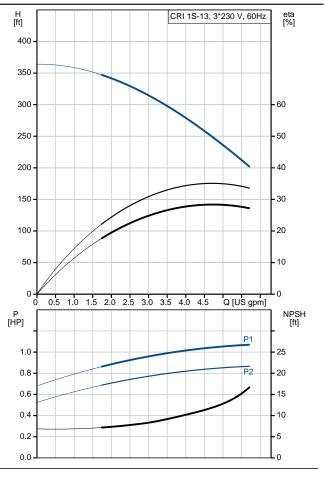
# 96081233 CRI 1S-13 A-CA-A-E-HQQE 60 Hz

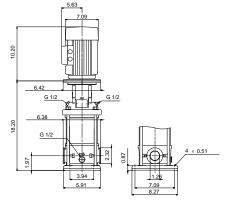


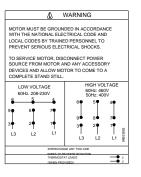


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Description	Value
General information:	
Product name:	CRI 1S-13 A-CA-A-E-HQQE
Product No.:	96081233
EAN:	5700395156775
	5700395156775
Technical:	
Rated pump speed:	3484 rpm
Rated flow:	4.84 US gpm
Rated head:	243.8 ft
Head max:	365.5 ft
Stages:	13
Impellers:	13
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:	Stainless steel
	EN 1.4408
	AISI 316
Impeller:	Stainless steel
	EN 1.4301
	AISI 304
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
Maximum ambient temperature:	140 °F
Maximum operating pressure:	362.59 psi
Max pressure at stated temperature:	363 psi / 250 °F
	363 psi / -4 °F
Type of connection:	FlexiClamp
Size of inlet connection:	DN 32
Size of outlet connection:	DN 32
Pressure rating for pipe connection:	PN 25
Flange size for motor:	56C
Connect code:	CA
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:	71BB
IE Efficiency class:	NEMA Premium / IE3 60Hz
Rated power - P2:	1 HP
	4 LID
Power (P2) required by pump:	1 HP
Power (P2) required by pump: Main frequency: Rated voltage:	60 Hz 3 x 208-230YY/460Y V









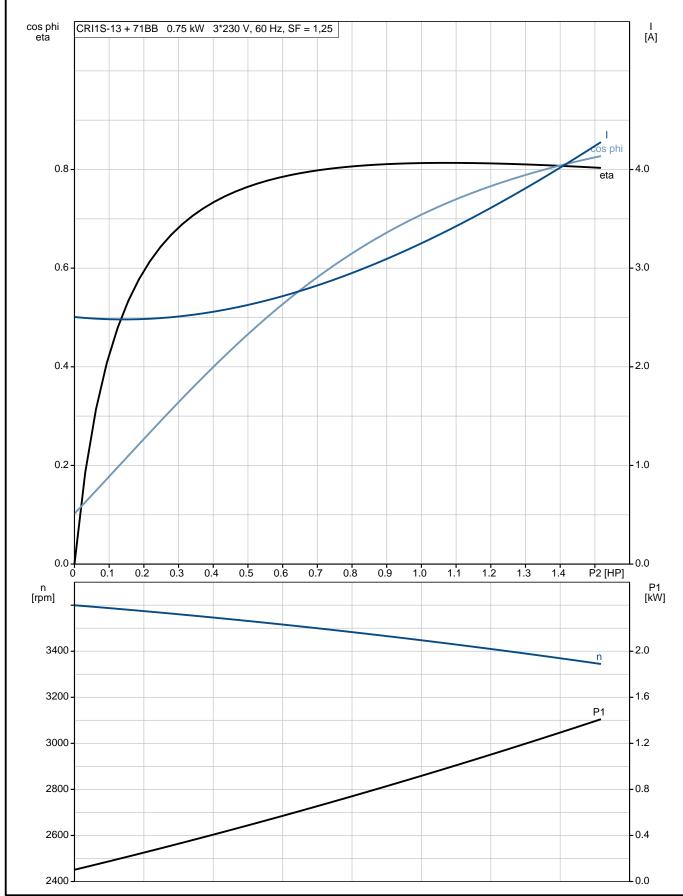
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Description	Value
Service factor:	1.25
Rated current:	3,25-3,35/1,68 A
Starting current:	590-650 %
Load current:	4,0-3,9/1,95 A
Cos phi - power factor:	0.81-0.72
Rated speed:	3430-3460 rpm
IE efficiency:	IE3 77,0%
Motor efficiency at full load:	80.0 %
Motor efficiency at 3/4 load:	79.5 %
Motor efficiency at 1/2 load:	75.0 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	85900703
Controls:	
Frequency converter:	NONE
Others:	
Net weight:	51.2 lb
Gross weight:	62.2 lb
Shipping volume:	6.11 ft <sup>3</sup>
Country of origin:	US
Custom tariff no.:	8413.70.2040



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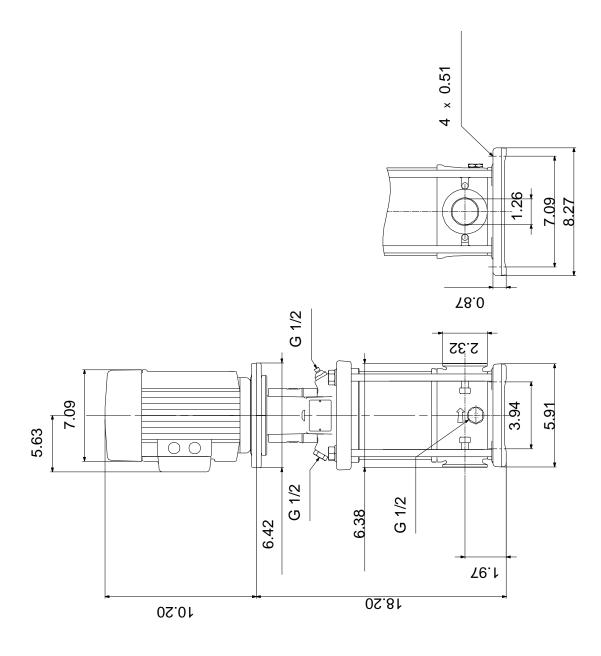
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Note! All units are in [in] unless otherwise stated. Disclaimer: This simplified dimensional drawing does not show all details.



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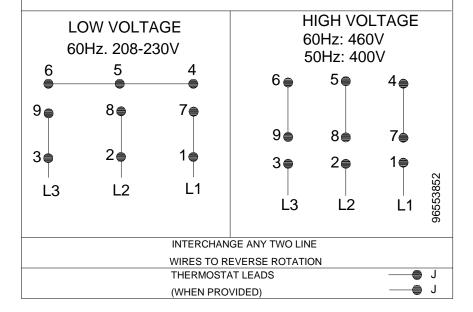
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## WARNING

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.



All units are [in] unless otherwise presented.