9/30/2019

Date:

Count | Description

1 CRI 1S-15 A-CA-A-V-HQQV



Product No.: 96081330

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:

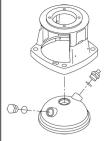
1) Alkaline-based cleaning.

- 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: FKM (fluorocarbon rubber)

FKM has excellent resistance to oils and chemicals. Above 90 °C, FKM should only be used in media without water.



Date:

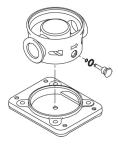
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The shaft seal is screwed into the pump head.

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.

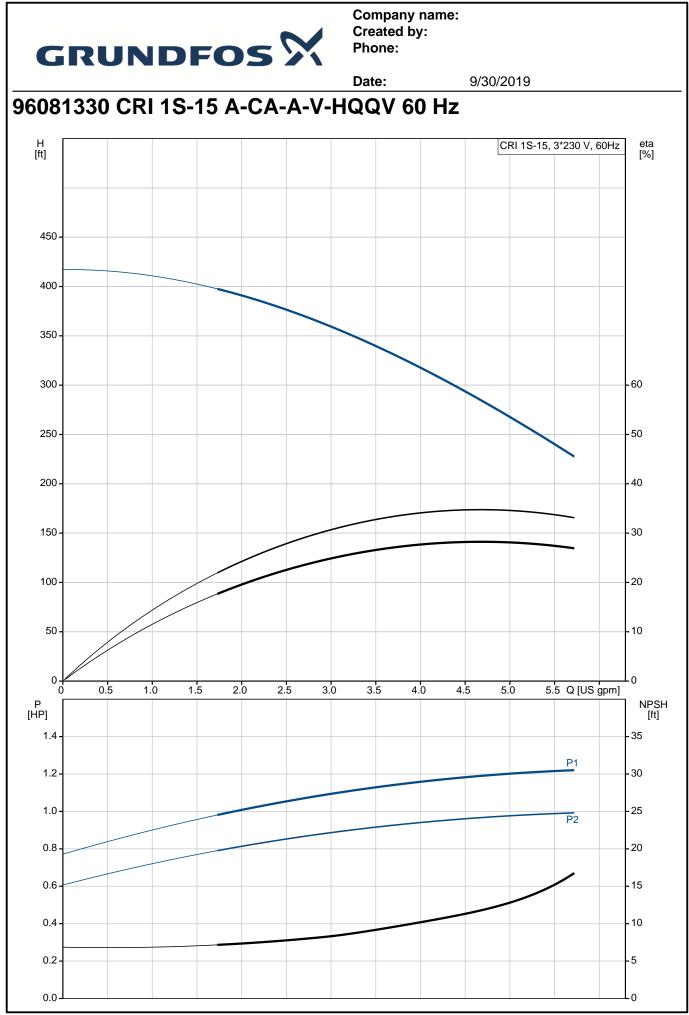
The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

### **Technical data**

<b>Controls:</b> Frequency converter:	NONE
Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -4 194 °F 68 °F 62.29 lb/ft <sup>3</sup>
Technical: Rated pump speed: Rated flow: Rated head: Pump orientation: Shaft seal arrangement: Code for shaft seal: Approvals on nameplate: Curve tolerance:	3484 rpm 4.84 US gpm 279.9 ft Vertical Single HQQV CURUS ISO9906:2012 3B



<b>-</b> • •	Date:	9/30/2019
Description		
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 tempera	ture: 363 psi / 194 °F	
	363 psi /  -4 °F	
Type of connection:	FlexiClamp	
Size of inlet connection:	DN 32	
Size of outlet connection: Pressure rating for pipe connect	DN 32	
Flange size for motor:	56C	
	500	
Electrical data:		
Motor standard:	NEMA	
Motor type:	71BB	
IE Efficiency class: Rated power - P2:	NEMA Premium / IE3 60Hz 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: Motor efficiency at full load:	IE3 77,0% 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 Number:	85900703	
Others:		
Net weight:	53 lb	
Gross weight:	64 lb	
Shipping volume:	6.11 ft <sup>3</sup>	
Country of origin:	US	
Custom tariff no .:	8413.70.2040	





		Date:	9/30/2019
Description	Value	H [ft]	CRI 1S-15, 3*230 V, 60Hz [%]
General information:			
	CRI 1S-15		
Product name:	A-CA-A-V-HQQV	450 -	
Product No.:	96081330	400 -	
EAN:	5700395157444	400-	
	5700395157444	350 -	
Technical:			
Rated pump speed:	3484 rpm	300 -	- 60
Rated flow:	4.84 US gpm		
Rated head:	279.9 ft	250 -	
Head max:	419.6 ft	200 -	40
Stages:	15	2007	40
Impellers:	15	150 -	30
Number of reduced-diameter			
impellers:	0	100 -	20
Low NPSH:	Ν		
Pump orientation:	Vertical	50 -	<b>–</b> 10
Shaft seal arrangement:	Single	0	
Code for shaft seal:	HQQV	0 0.5	1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 Q[USgpm]
Approvals on nameplate:	CURUS	P [HP]	NPSH [ft]
Curve tolerance:	ISO9906:2012 3B	• • •	P1
Pump version:	Α	1.2 -	
Model:	Α	1.0 -	-25
Cooling:	TEFC	0.8 -	P2 20
Materials:			
Base:	Stainless steel	0.6	15
	EN 1.4408	0.4 -	10
	AISI 316	0.2 -	-5
Impeller:	Stainless steel	0.0	
•	EN 1.4301	۹	· · · · · · · · · · · · · · · · · · ·
	AISI 304		5.63
Material code:	A		
Code for rubber:	V		
Bearing:	SIC	10.20	
Installation:		=	
Maximum ambient temperature:	140 °F		
Maximum operating pressure:	362.59 psi	<u>6.42</u> 	
Max pressure at stated temperature:	363 psi / 194 °F		
	363 psi / -4 °F	00 <u>6.38</u>	
Type of connection:	FlexiClamp	<del>-</del> <u>G1</u>	
Size of inlet connection:	DN 32		
Size of outlet connection:	DN 32	1.97	
Pressure rating for pipe connection:	PN 25		5.91 7.09
Flange size for motor:	56C		8.27
Connect code:	CA		
Liquid:			
Pumped liquid:	Water	[	
Liquid temperature range:	-4 194 °F	10700-000	WARNING     GROUNDED IN ACCORDANCE
Selected liquid temperature:	68 °F	WITH THE NATION LOCAL CODES BY	IAL ELECTRICAL CODE AND / TRAINED PERSONNEL TO
Density:	62.29 lb/ft <sup>3</sup>	PREVENT SERIOL	JS ELECTRICAL SHOCKS.
Electrical data:	52.20 ID/IL	SOURCE FROM M DEVICES AND ALL	OR, DISCONNECT POWER OTOR AND ANY ACCESSORY OW MOTOR TO COME TO A
Motor standard:	NEMA	COMPLETE STAN	D STILL.
Motor type:	71BB	60Hz. 208-230	E0H 460/
	NEMA Premium / IE3 60Hz	9 8	
IE Efficiency class:		3	
Rated power - P2:	1 HP		L3 L2 L1 🖉
Power (P2) required by pump:	1 HP		INTERCIAVEG ANY TWO LIKE INTERCIAVEG ANY TWO LIKE I THERMODENTATION I THERMODENTATION I I I I I I I I I I I I I I I I I I I
Main frequency:	60 Hz		
Rated voltage:	3 x 208-230YY/460Y V		

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		Date:	9/30/2019
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:	53 lb		
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