

Company name: Created by:

	GRUNDFOS Phone	5.
	Date:	5/4/2020
Count	nt Description	
1	CRN 10-16 A-FGJ-A-V-HQQV	
	Product No.: 96522818	
	Vertical, multistage centrifugal pump with inlet and outlet por contact with the liquid are in high-grade stainless steel. A ca handling, and easy access and service. Power transmission combined DIN-ANSI-JIS flanges.	artridge shaft seal ensures high reliability, safe
	The pump is fitted with a 3-phase, fan-cooled asynchronous	motor.
	<b>Further product details</b> Steel, cast iron and aluminium components have an epoxy-b (CED) process. CED is a high-quality dip-painting process w deposition of paint particles as a thin, well-controlled layer or pretreatment. The entire process consists of these elements	vhere an electrical field around the products ensures in the surface. An integral part of the process is a
	<ol> <li>Alkaline-based cleaning.</li> <li>Zinc phosphating.</li> <li>Cathodic electro-deposition.</li> <li>Curing to a dry film thickness 18-22 my m. The colour code for the finished product is NCS 9000/RAL 9</li> </ol>	9005.
	Pump	
	A long split coupling connects the pump and motor shaft. It is coupling guards. The long coupling makes it possible to repli- the pump.	s enclosed in the motor stool by means of two lace the shaft seal without removing the motor from
	The pump head and flange for motor mounting is made in or separate component (stainless steel). The pump head has a	ne piece (cast iron). The pump head cover is a a combined 1/2" priming plug and vent screw.



5/4/2020

```
Count | Description
```

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.

Date:

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.



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 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 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).

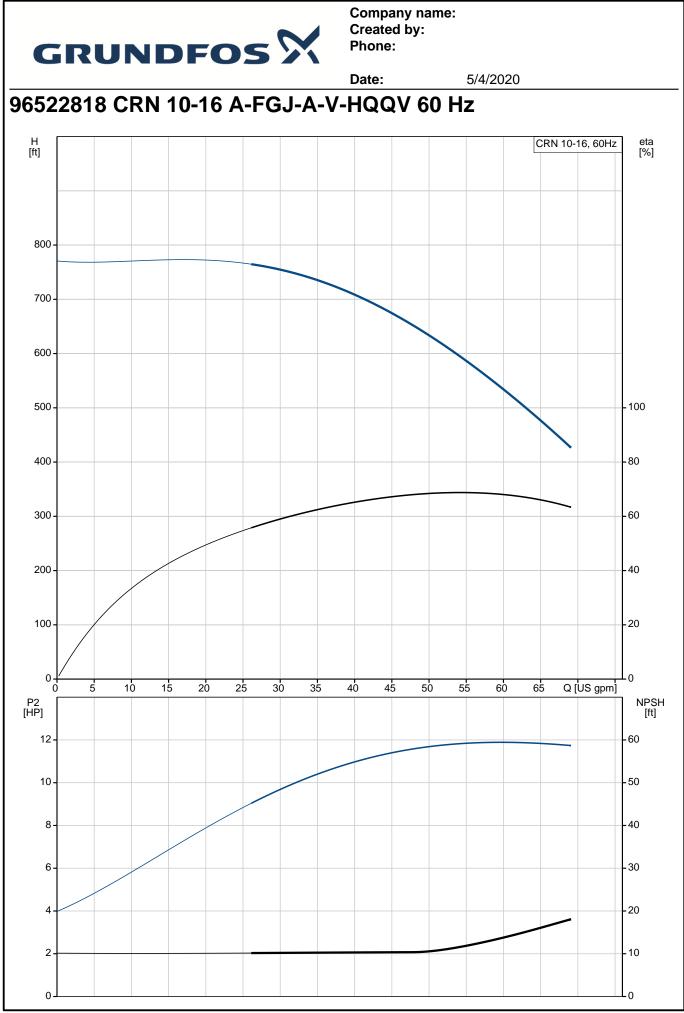
The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

## **Technical data**

Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density:	Water -4 194 °F 68 °F 62.29 lb/ft <sup>3</sup>
Technical:	



nt	Description		
	Rated pump speed:	3444 rpm	
	Rated flow:	53.3 US gpm	
	Rated head:	603.7 ft	
	Actual impeller diameter:	3.66 in	
	Pump orientation:	Vertical	
	Shaft seal arrangement:	Single	
	Code for shaft seal:	HQQV	
	Approvals on nameplate:	CURUS	
	Curve tolerance:	ISO9906:2012 3B	
	Materials:		
	Base:	Stainless steel	
	2000.	EN 1.4408	
		AISI 316	
	Impeller:	Stainless steel	
		EN 1.4401	
		AISI 316	
	Bearing:	SIC	
	Installation:		
	Maximum ambient temperature:	104 °E	
	•		
	Maximum operating pressure:	362.59 psi	
	Max pressure at stated temperat		
		363 psi /  -4 °F	
	Type of connection:	DIN / ANSI / JIS	
	Size of inlet connection:	DN 50	
	Size of outlet connection:	DN 50	
	Pressure rating for connection:		
	Flange rating inlet:	300 lb	
	Flange size for motor:	254TC	
	Electrical data:		
	Motor standard:	NEMA	
	Motor type:	BALDOR	
	IE Efficiency class:	IE3 / NEMA Premium	
	Rated power - P2:	15 HP	
	Power (P2) required by pump:	-	
		60 Hz	
	Main frequency:		
	Rated voltage:	3 x 208-230/460 V	
	Service factor:	1.15	
	Rated current:	36-35/17.5 A	
	Rated speed:	3475 rpm	
	Number of poles:	2	
	Enclosure class (IEC 34-5):	IP23	
	Insulation class (IEC 85):	F	
	Motor Number:	84Z00H19	
	Controls:		
	Frequency converter:	NONE	
	Others:		
	DOE Pump Energy Index CL:	0.87	
	Net weight:	232 lb	
	Gross weight:	346 lb	
	Shipping volume:	17.2 ft <sup>3</sup>	
I	Country of origin:	US	
	Custom tariff no.:	8413.70.2040	



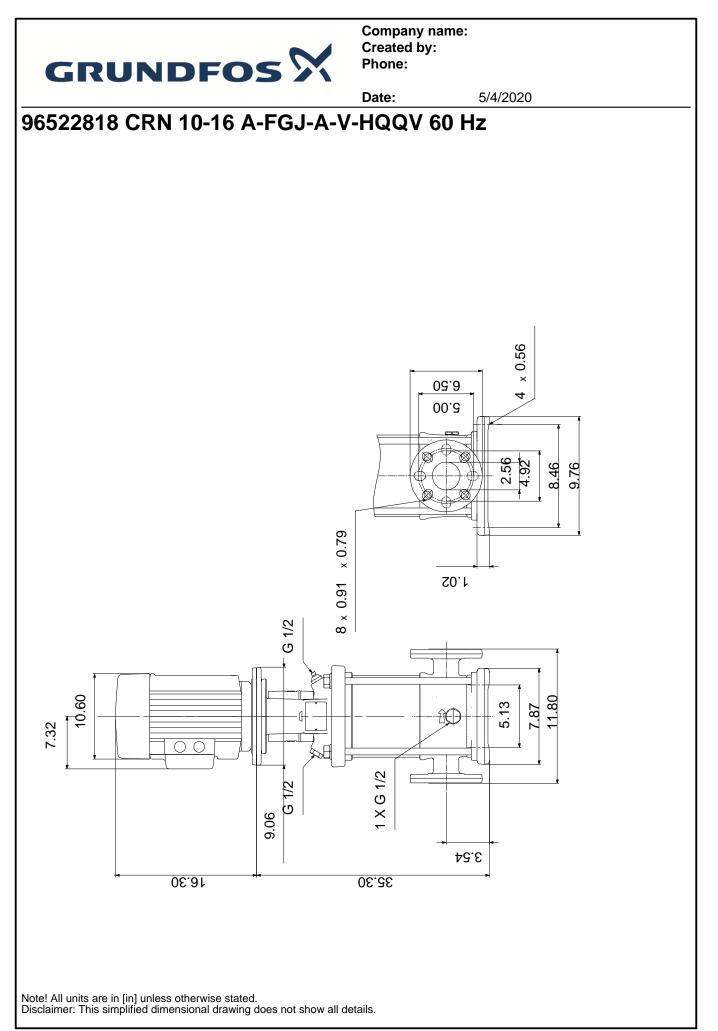


		Date: 5/4/2020				
Description	Value	H [ft]		CRN 10-16, 60H	z eta [%]	
General information:					_	
Product name:	CRN 10-16 A-FGJ-A-V-HQQV	800 -				
Product No.:	96522818					
EAN:	5700396894423	700 -			_	
	5700396894423					
Technical:		600 -				
Rated pump speed:	3444 rpm					
Rated flow:	53.3 US gpm	500 -			- 100	
Rated head:	603.7 ft					
Maximum head:	771 ft	400 -			- 80	
Actual impeller diameter:	3.66 in					
Stages:	16	300 -			- 60	
-	16					
Impellers:	10	200 -			- 40	
Number of reduced-diameter impellers:	0	100 -			- 20	
Low NPSH:	Ν	//				
Pump orientation:	Vertical	o				
Shaft seal arrangement:	Single	Ó	10 20 30 40	) 50 Q [US gpm		
Code for shaft seal:	HQQV	P2 [HP]			NP: [ft	
Approvals on nameplate:	CURUS	` <i>`</i> {			+ "	
Curve tolerance:	ISO9906:2012 3B	10 -			- 50	
Pump version:	A					
Model:	A	8 -			- 40	
Cooling:	ODP	6 -			- 30	
Materials:	- = -	—				
Base:	Stainless steel	4-			- 20	
2400.	EN 1.4408	2			- 10	
	AISI 316					
lean all an	Stainless steel				<b></b> _0	
Impeller:			7.32			
	EN 1.4401		10.60			
	AISI 316					
Material code:	A	8				
Code for rubber:	V	16.30	Ļĕ			
Bearing:	SIC					
Installation:		9.06	<u>6</u> <u>G</u> 1/2			
Maximum ambient temperature:	104 °F		X HILL			
Maximum operating pressure:	362.59 psi	08 98 <u>1</u> 2				
Max pressure at stated temperature:	363 psi / 194 °F		<u>X G 1/2</u>			
	363 psi / -4 °F					
Type of connection:	DIN / ANSI / JIS	3.54	₩▞╪╪╪╪╬╢ ╴╴╞╴┲╡			
Size of inlet connection:	DN 50		5.13	2.56 4.92		
Size of outlet connection:	DN 50		11:80	8.46 9.76		
Pressure rating for connection:	PN 25		-			
Flange rating inlet:	300 lb					
Flange size for motor:	254TC	-	LOW VOLTAGE DIRECTION OF ROTATION	7		
Connect code:	FGJ		DIRECTION OF RUTATION			
Liquid:	1.00	$-$     $\square$				
Pumped liquid:	Water					
Liquid temperature range:	-4 194 °F	──│ ┦┦				
Selected liquid temperature:	68 °F					
Density:	62.29 lb/ft <sup>3</sup>			4		
Electrical data:			HIGH VOLTAGE RECTION OF ROTATION			
Motor standard:	NEMA		]			
Motor type:	BALDOR					
IE Efficiency class:	IE3 / NEMA Premium		(ws)-(ns)-(ns)			
Rated power - P2:	15 HP					
Power (P2) required by pump:	15 HP					
Main frequency:	60 Hz	— I Y 🖢		51		

Printed from Grundfos Product Center [2020.04.002]



		Date:	5/4/2020
Description	Value		
Rated voltage:	3 x 208-230/460 V		
Service factor:	1.15		
Rated current:	36-35/17.5 A		
Load current:	42-39.2/19.6 A		
Rated speed:	3475 rpm		
Number of poles:	2		
Enclosure class (IEC 34-5):	IP23		
Insulation class (IEC 85):	F		
Motor protection:	NONE		
Motor Number:	84Z00H19		
Controls:			
Frequency converter:	NONE		
Others:			
DOE Pump Energy Index CL:	0.87		
Net weight:	232 lb		
Gross weight:	346 lb		
Shipping volume:	17.2 ft <sup>3</sup>		
Country of origin:	US		
Custom tariff no.:	8413.70.2040		





5/4/2020

Date:

96522818 CRN 10-16 A-FGJ-A-V-HQQV 60 Hz

