

Company name: Created by:

| G | RUNDFOS | Phone: | |
|-------|--|---|---|
| | | Date: | 5/4/2020 |
| Count | Description | | |
| 1 | CRN 10-17 A-FGJ-A-E-HQQE | | |
| | | | |
| | Product No.: 96522791 | | |
| | Vertical, multistage centrifugal pump with inlet and contact with the liquid are in high-grade stainless s handling, and easy access and service. Power trar combined DIN-ANSI-JIS flanges. | teel. A cartridg | e shaft seal ensures high reliability, safe |
| | The pump is fitted with a 3-phase, fan-cooled asyn | chronous moto | Dr. |
| | Further product details | | |
| | Steel, cast iron and aluminium components have a (CED) process. CED is a high-quality dip-painting preparition of paint particles as a thin, well-controlled pretreatment. The entire process consists of these | process where ed layer on the | d coating made in a cathodic electro-deposition an electrical field around the products ensures surface. An integral part of the process is a |
| | Alkaline-based cleaning. Zinc phosphating. Cathodic electro-deposition. Curing to a dry film thickness 18-22 my m. The colour code for the finished product is NCS 90 | 000/RAL 9005. | |
| | Duran | | |
| | Pump A long split coupling connects the pump and motor coupling guards. The long coupling makes it possib the pump. | ⁻ shaft. It is end ble to replace t | closed in the motor stool by means of two he shaft seal without removing the motor from |
| | and the second s | | |
| | The pump head and flange for motor mounting is n separate component (stainless steel). The pump he | nade in one pie ead has a com | ece (cast iron). The pump head cover is a bined 1/2" priming plug and vent screw. |
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5/4/2020

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Count | Description
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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: 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 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).

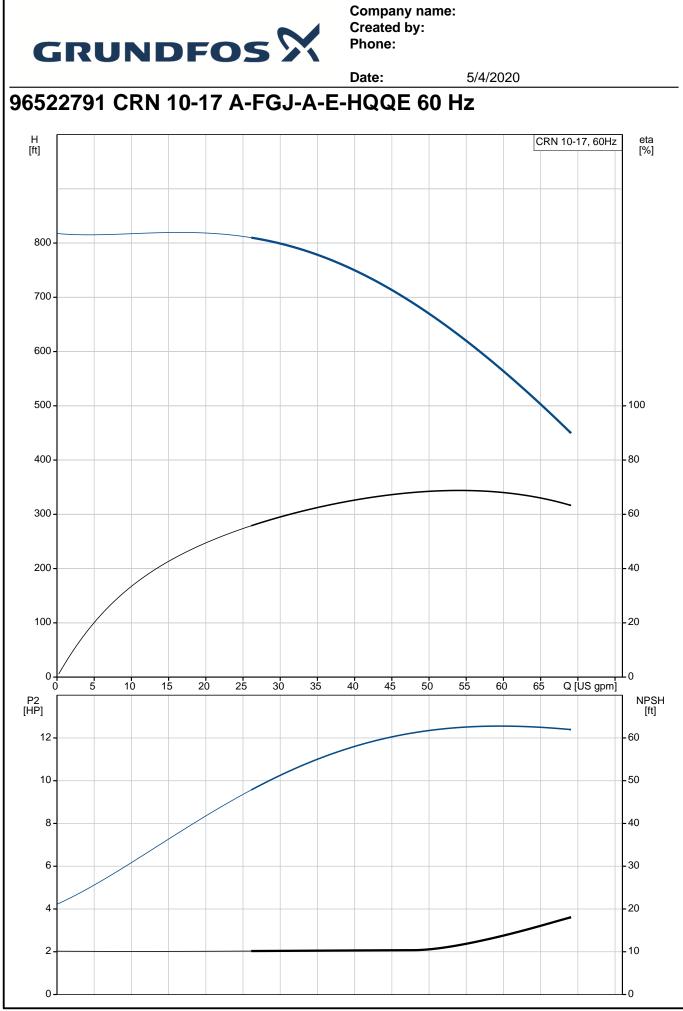
The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

Technical data

| Liquid: Pumped liquid: Liquid temperature range: Selected liquid temperature: Density: | Water -4 248 °F 68 °F 62.29 lb/ft ³ |
|--|---|
| Technical: Rated pump speed: | 3444 rpm |



| unt | Description | | |
|-----|---------------------------------|----------------------|--|
| | Rated flow: | 53.3 US gpm | |
| | Rated head: | 638.2 ft | |
| | Actual impeller diameter: | 3.66 in | |
| | | | |
| | Pump orientation: | Vertical | |
| | Shaft seal arrangement: | Single | |
| | Code for shaft seal: | HQQE | |
| | Approvals on nameplate: | CURUS | |
| | Curve tolerance: | ISO9906:2012 3B | |
| | Materials: | | |
| | Base: | Stainless steel | |
| | Dase. | | |
| | | EN 1.4408 | |
| | | AISI 316 | |
| | Impeller: | Stainless steel | |
| | | EN 1.4401 | |
| | | AISI 316 | |
| | Bearing: | SIC | |
| | Installation: | | |
| | Maximum ambient temperature: | 104 °F | |
| | Maximum operating pressure: | 362.59 psi | |
| | Max pressure at stated tempera | | |
| | Max pressure at stated tempera | | |
| | — () | 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: | PN 25 | |
| | 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: | 15 HP | |
| | Main frequency: | 60 Hz | |
| | | | |
| | 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: | 236 lb | |
| | Gross weight: | 351 lb | |
| | Shipping volume: | 17.2 ft ³ | |
| | Country of origin: | US | |
| | | 00 | |
| | Custom tariff no.: | 8413.70.2040 | |



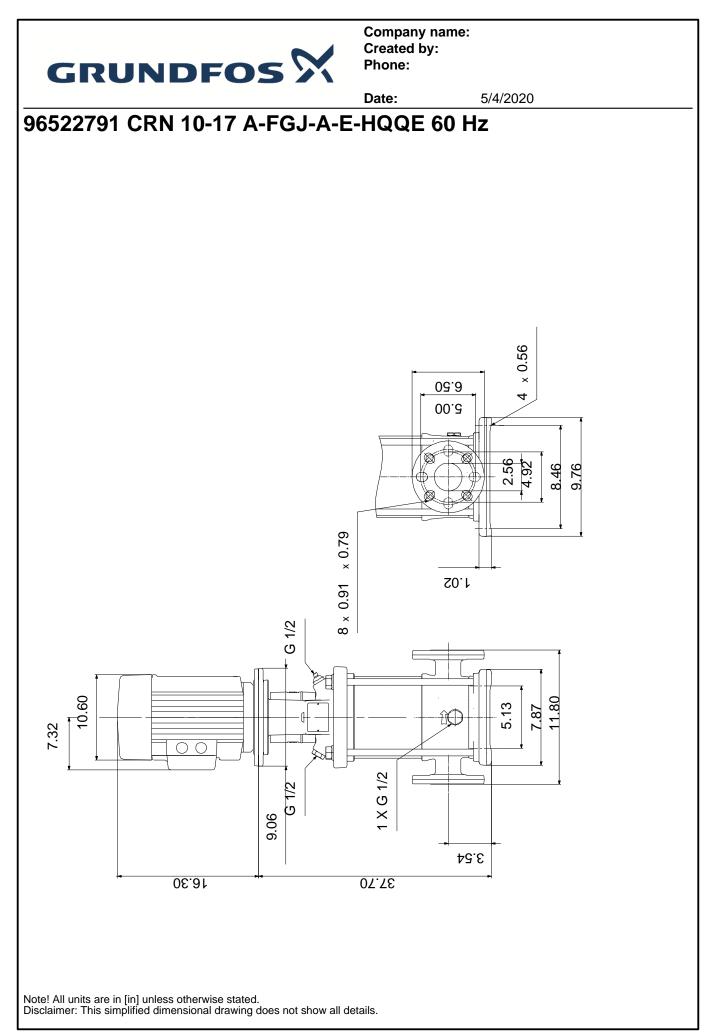


| | | Date: | 5/4/2020 | | 1 |
|-------------------------------------|-----------------------------|--|-----------------------------------|-----------------|--------------|
| Description | Value | H [ft] | | CRN 10-17, 60Hz | eta [% |
| General information: | | | | | 1 |
| Product name: | CRN 10-17 A-FGJ-A-E-HQQE | 800 - | | | |
| Product No.: | 96522791 | 800- | | | 1 |
| EAN: | 5700396893884 | 700 - | | | |
| | 5700396893884 | | | | |
| Technical: | 01000000000 | 600 - | | | |
| Rated pump speed: | 3444 rpm | | | | |
| Rated flow: | 53.3 US gpm | 500 - | | | 100 |
| Rated head: | 638.2 ft | | | | |
| Maximum head: | 817 ft | 400 - | | | - 80 |
| Actual impeller diameter: | 3.66 in | | | | |
| Stages: | 18 | 300 - | | | - 60 |
| Impellers: | 17 | 200 - | | | 40 |
| Number of reduced-diameter | 0 | | | | |
| Low NPSH: | Ν | 100- | | | - 20 |
| Pump orientation: | Vertical | | | | Γ^{0} |
| Shaft seal arrangement: | Single | 0 1 | 10 20 30 40 | 0 50 Q [US gpm] | _ |
| Code for shaft seal: | HQQE | P2 [HP] | | | NP: [ft |
| Approvals on nameplate: | CURUS | — · · · · · + | | | + " |
| Curve tolerance: | ISO9906:2012 3B | 10 - | | | - 50 |
| Pump version: | A | | | | |
| Model: | Α | 8- | | | - 40 |
| Cooling: | ODP | 6- | | | - 30 |
| Materials: | | 4 | | | 20 |
| Base: | Stainless steel | | | | |
| | EN 1.4408 | 2 | | | - 10 |
| | AISI 316 | 0 | | | Lo |
| Impeller: | Stainless steel | 3 | | | |
| | EN 1.4401 | | 7.32 | | |
| | AISI 316 | | | | |
| Material code: | A | | | | |
| Code for rubber: | E | 16.30 | | | |
| Bearing: | SIC | | | | |
| Installation: | | <u>9.06</u> | 1/2 G 1/2 | | |
| Maximum ambient temperature: | 104 °F | | XHIHX | | |
| Maximum operating pressure: | 362.59 psi | 0/ 2/2/2/ 2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/ | 8 × 0.91 × 0.79 | | |
| Max pressure at stated temperature: | 363 psi / 250 °F | | | | |
| | 363 psi / -4 °F | 45. | | | |
| Type of connection: | DIN / ANSI / JIS | , ri | 5.13 | 2.56 | |
| Size of inlet connection: | DN 50 | | 7.87 11:80 | 4.92 8.46 | |
| Size of outlet connection: | DN 50 | | | 9.76 | |
| Pressure rating for connection: | PN 25 | | | | |
| Flange rating inlet: | 300 lb | | LOW VOLTAGE | | |
| Flange size for motor: | 254TC | | IRECTION OF ROTATION | | |
| Connect code: | FGJ | ਁ | | | |
| Liquid: | Matan | | | | |
| Pumped liquid: | Water | | KKK | | |
| Liquid temperature range: | -4 248 °F | | | | |
| Selected liquid temperature: | 68 °F | | | | |
| Density: | 62.29 lb/ft ³ | | | 4 | |
| Electrical data: | | | TIGH VOLTAGE CTION OF ROTATION | | |
| Motor standard: | NEMA | | | | |
| Motor type: | BALDOR | | | | |
| IE Efficiency class: | IE3 / NEMA Premium | | N'erverver | | |
| Rated power - P2: | 15 HP | │ ┩┩┩ | | | |
| Power (P2) required by pump: | 15 HP | | | | |
| Main frequency: | 60 Hz | | | <u></u> | |

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| | | 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: | 236 lb | | | |
| Gross weight: | 351 lb | | | |
| Shipping volume: | 17.2 ft ³ | | | |
| Country of origin: | US | | | |
| Custom tariff no.: | 8413.70.2040 | | | |





5/4/2020

Date:

96522791 CRN 10-17 A-FGJ-A-E-HQQE 60 Hz

