Thank you for your interest in our products

Please contact us for more information, or visit our website

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<table>
<thead>
<tr>
<th>Position</th>
<th>Qty.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
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<td>CR 15-7 A-F-A-E-HQQE</td>
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</table>

Product No.: 96501898

Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. 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 service and access. Power transmission is via a split coupling. Pipework connection is via DIN flanges.

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

Further product details
The product carries the Grundfos Blueflux® label. It represents the best from Grundfos within energy-efficient motors and frequency converters. Grundfos Blueflux® solutions either meet or exceed legislative requirements such as the EuP IE3 grade.

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 air vent screw.

![Pump Head Diagram]

The pump is fitted with a balanced O-ring seal unit with 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.

![Shaft Seal Diagram]

The shaft seal is screwed into the pump head.

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 surface, 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 discharge side of the base has a drain plug. The pump is secured to the foundation by four bolts through the base plate.

![Base Diagram]

**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 IE3 in accordance with IEC 60034-30.
The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

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 Win-/WebCAPS.

### Technical data

**Liquid:**
- Pumped liquid: Water
- Liquid temperature range: 253 .. 393 K
- Liquid temp: 293 K
- Density: 998.2 kg/m³

**Technical:**
- Speed for pump data: 2919 rpm
- Rated flow: 17 m³/h
- Rated head: 77.9 m
- Shaft seal: HQQE
- Approvals on nameplate: CE, TR
- Curve tolerance: ISO 9906:1999 Annex A

**Materials:**
- Pump housing: Cast iron
  - EN-J L1030
  - ASTM A48-30 B
- Impeller: Stainless steel
  - DIN W.-Nr. 1.4301
  - AISI 304

**Installation:**
- Maximum ambient temperature: 333 K
- Max pressure at stated temp: 16 bar / 120 °C
  - 16 bar / -20 °C
- Flange standard: DIN
- Pipe connection: DN 50
- Pressure stage: PN 16
- Flange size for motor: FF265

**Electrical data:**
- Motor type: 132SC
- IE Efficiency class: IE3
- Number of poles: 2
- Rated power - P2: 5.5 kW
- Power (P2) required by pump: 5.5 kW
  - 5.5 kW
- Mains frequency: 50 Hz
- Rated voltage: 3 x 380-415 D V
- Rated current: 11 A
- Starting current: 1080-1180 %
- Cos phi - power factor: 0.87-0.82
- Rated speed: 2920-2940 rpm
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<td>IE3 89.2%</td>
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<tr>
<td>Motor efficiency at full load:</td>
<td>89.2-89.2 %</td>
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<tr>
<td>Motor efficiency at 3/4 load:</td>
<td>90.0-89.8 %</td>
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<td>Motor efficiency at 1/2 load:</td>
<td>89.6-88.4 %</td>
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<td>Enclosure class (IEC 34-5):</td>
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<td>Insulation class (IEC 85):</td>
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**Others:**
- Label: Grundfos Blueflux
- Minimum efficiency index, MEI Q: 0.7
- Net weight: 102 kg
- Gross weight: 127 kg
- Shipping volume: 0.43 m³
96501898 CR 15-7 50 Hz

Pumped liquid = Water
Liquid temperature = 293 K
Density = 998.2 kg/m³

H [m]

0 10 20 30 40 50 60 70 80 90 100

Q [m³/h]

P [kW]

NPSH [m]

eta [%]

CR 15-7, 3×400 V, 50Hz
**Product name:** CR 15-7 A-F-A-E-HQQE  
**Product No:** 96501898  
**EAN number:** 5700396231426

### Technical:
- **Speed for pump data:** 2919 rpm
- **Rated flow:** 17 m³/h
- **Rated head:** 77.9 m
- **Head max:** 98.5 m
- **Impellers:** 07
- **Shaft seal:** HQQE
- **Approvals on nameplate:** CE, TR
- **Curve tolerance:** ISO 9906:1999 Annex A
- **Pump type:** CR 15
- **Stages:** 07
- **Pump version:** A
- **Model:** A

### Materials:
- **Pump housing:** Cast iron  
  EN-JL1030  
  ASTM A48-30 B
- **Impeller:** Stainless steel  
  DIN W.-Nr. 1.4301  
  AISI 304
- **Material code:** A  
- **Code for rubber:** E

### Installation:
- **Maximum ambient temperature:** 333 K
- **Max pressure at stated temp:** 16 bar / 120 °C  
  16 bar / -20 °C
- **Flange standard:** DIN
- **Connect code:** F
- **Pipe connection:** DN 50
- **Pressure stage:** PN 16
- **Flange size for motor:** FF265

### Liquid:
- **Pumped liquid:** Water
- **Liquid temperature range:** 253 .. 393 K
- **Liquid temp:** 293 K
- **Density:** 998.2 kg/m³

### Electrical data:
- **Motor type:** 132SC
- **IE Efficiency class:** IE3
- **Number of poles:** 2
- **Rated power - P2:** 5.5 kW
- **Power (P2) required by pump:** 5.5 kW
- **Mains frequency:** 50 Hz
- **Rated voltage:** 3 x 380-415 D V
- **Rated current:** 11 A
- **Starting current:** 1080-1180 %
- **Cos phi - power factor:** 0.87-0.82
- **Rated speed:** 2920-2940 rpm
- **Efficiency:** IE3 89.2 %
- **Motor efficiency at full load:** 89.2-89.2 %
- **Motor efficiency at 3/4 load:** 89.0-89.8 %
- **Motor efficiency at 1/2 load:** 89.6-88.4 %
- **Enclosure class (IEC 34-5):** 55 (Protect. water jets/dust)
- **Insulation class (IEC 85):** F
- **Motor protec:** PTC
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**Others:**

- **Label:** Grundfos Blueflux
- **Minimum efficiency index, MEI Ø:** 0.7
- **Net weight:** 102 kg
- **Gross weight:** 127 kg
- **Shipping volume:** 0.43 m³
Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.
Note! All units are in [mm] unless others are stated.