

**Qty. Description**1 **CRIE 20-10 A-FGJ-A-E-HQQE**Product No.: [96514657](#)

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. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via combined DIN-ANSI-JIS flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor. The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement. An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The operating panel has indicator lights for "Operation" and "Fault".

Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption".

The terminal box holds terminals for these connections:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, I<sub>max</sub> = 5 mA
- three analog sensor inputs, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, I<sub>max</sub> = 40 mA
- one analog output
- three digital inputs
- two Pt100 inputs
- two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- RS-485 GENIbus connection
- interface for Grundfos CIM fieldbus module.

**Controls:**

Frequency converter: Built-in

Pressure sensor: N

**Liquid:**

Pumped liquid: Water

Liquid temperature range: -20 .. 120 °C

Liquid temperature during operation: 20 °C

Density: 998.2 kg/m<sup>3</sup>**Technical:**

Pump speed on which pump data are based: 3540 rpm

Rated flow: 25.3 m<sup>3</sup>/h

Rated head: 172.4 m

Pump orientation: Vertical

Shaft seal arrangement: Single

Code for shaft seal: HQQE

Approvals on nameplate: CE, EAC, ACS

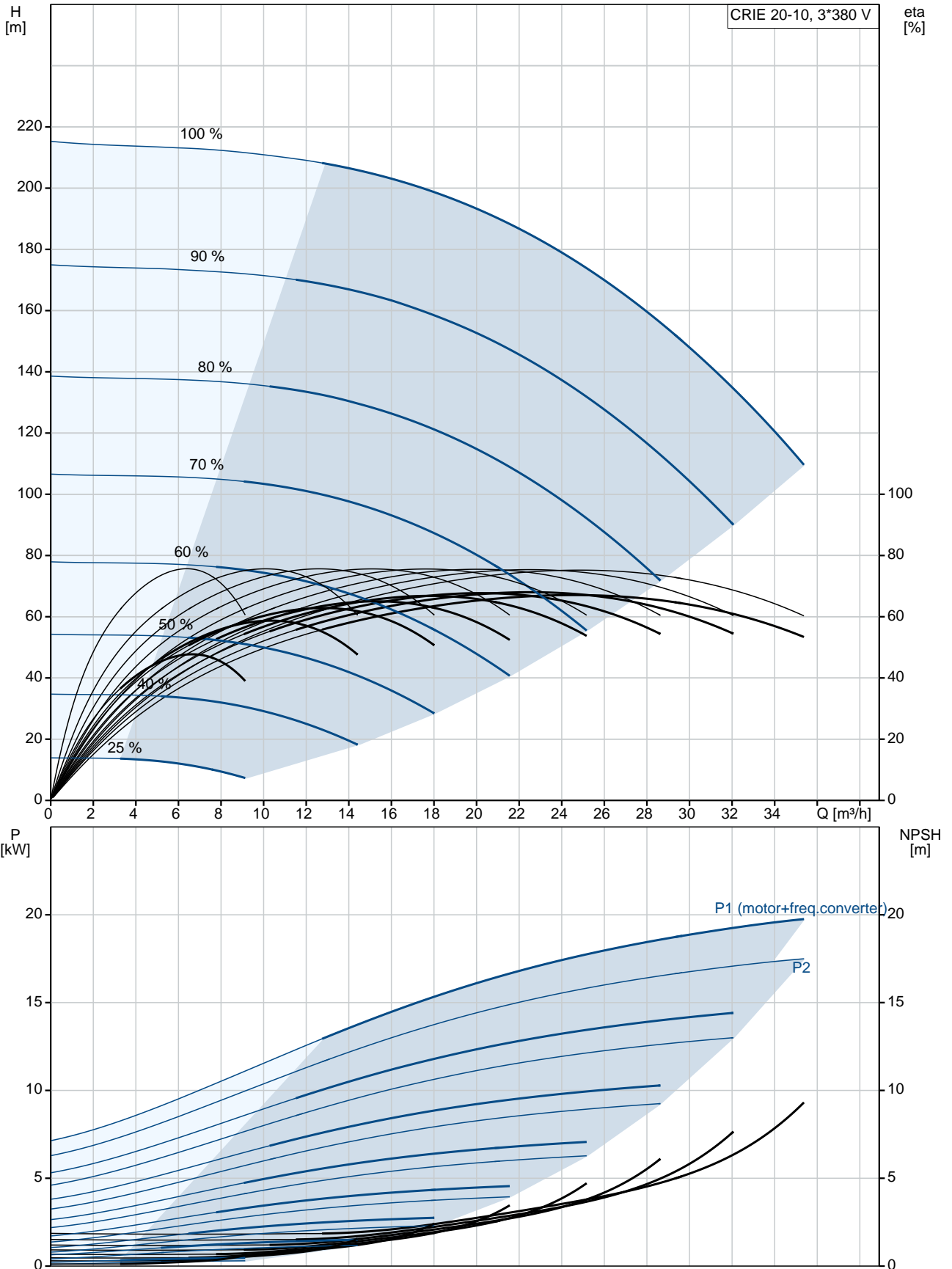
Curve tolerance: ISO9906:2012 3B

**Materials:**

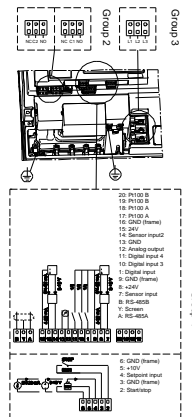
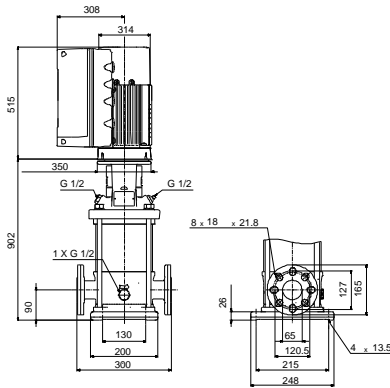
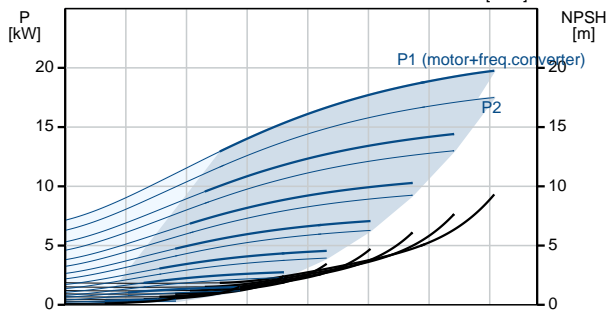
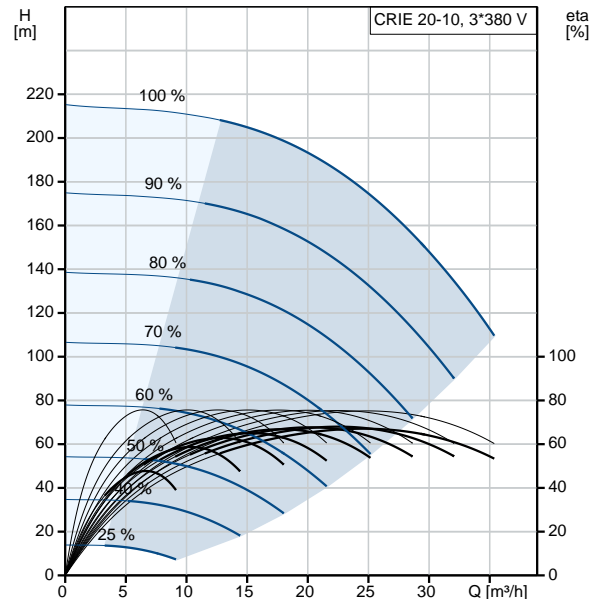
**Qty. Description**

|  |  |
|--|--|
| Base:  | Stainless steel<br>EN 1.4408<br>AISI 316 |
| Impeller:                                    | Stainless steel<br>EN 1.4301<br>AISI 304 |
| Bearing:                                     | SIC                                      |
| <b>Installation:</b>                         |  |
| Maximum ambient temperature:                 | 40 °C                                    |
| Maximum operating pressure:                  | 25 bar                                   |
| Max pressure at stated temp:                 | 25 bar / 120 °C<br>25 bar / -20 °C       |
| Type of connection:                          | DIN / ANSI / JIS                         |
| Size of inlet connection:                    | DN 50<br>2 inch                          |
| Size of outlet connection:                   | DN 50<br>2 inch                          |
| Pressure rating for pipe connection:         | PN 25                                    |
| Flange rating inlet:                         | 300 lb                                   |
| Flange size for motor:                       | FF300                                    |
| <b>Electrical data:</b>                      |  |
| Motor standard:                              | IEC                                      |
| Motor type:                                  | 160LB                                    |
| IE Efficiency class:                         | IE3                                      |
| Rated power - P2:                            | 18.5 kW                                  |
| Power (P2) required by pump:                 | 18.5 kW                                  |
| Mains frequency:                             | 50 Hz                                    |
| Rated voltage:                               | 3 x 380-480 V                            |
| Rated current:                               | 37.0-31.0 A                              |
| Cos phi - power factor:                      | 0.91-0.88                                |
| Rated speed:                                 | 480-3540 rpm                             |
| Efficiency:                                  | IE3 92,4%                                |
| Motor efficiency at full load:               | 92.4 %                                   |
| Number of poles:                             | 2  |
| Enclosure class (IEC 34-5):                  | IP55                                     |
| Insulation class (IEC 85):                   | F  |
| <b>Others:</b>                               |  |
| Minimum efficiency index, MEI $\eta_{min}$ : | 0.70                                     |
| Net weight:                                  | 219 kg                                   |
| Gross weight:                                | 271 kg                                   |
| Shipping volume:                             | 0.82 m <sup>3</sup>                      |
| Country of origin:                           | GB                                       |
| Custom tariff no.:                           | 84137075                                 |

## 96514657 CRIE 20-10 A-FGJ-A-E-HQQE 50 Hz



| Description                              | Value                                    |
|--|--|
| <b>General information:</b>              |  |
| Product name:                            | CRIE 20-10<br>A-FGJ-A-E-HQQE             |
| Product No:                              | 96514657                                 |
| EAN number:                              | 5700396710587                            |
| <b>Technical:</b>                        |  |
| Pump speed on which pump data are based: | 3540 rpm                                 |
| Rated flow:                              | 25.3 m <sup>3</sup> /h                   |
| Rated head:                              | 172.4 m                                  |
| Head max:                                | 214 m                                    |
| Stages:                                  | 10                                       |
| Impellers:                               | 10                                       |
| Number of reduced-diameter impellers:    | 0  |
| Low NPSH:                                | N  |
| Pump orientation:                        | Vertical                                 |
| Shaft seal arrangement:                  | Single                                   |
| Code for shaft seal:                     | HQQE                                     |
| Approvals on nameplate:                  | CE, EAC, ACS                             |
| Curve tolerance:                         | ISO9906:2012 3B                          |
| Pump version:                            | A  |
| Model:                                   | A  |
| <b>Materials:</b>                        |  |
| Base:                                    | Stainless steel<br>EN 1.4408<br>AISI 316 |
| Impeller:                                | Stainless steel<br>EN 1.4301<br>AISI 304 |
| Material code:                           | A  |
| Code for rubber:                         | E  |
| Bearing:                                 | SIC                                      |
| <b>Installation:</b>                     |  |
| Maximum ambient temperature:             | 40 °C                                    |
| Maximum operating pressure:              | 25 bar                                   |
| Max pressure at stated temp:             | 25 bar / 120 °C<br>25 bar / -20 °C       |
| Type of connection:                      | DIN / ANSI / JIS                         |
| Size of inlet connection:                | DN 50<br>2 inch                          |
| Size of outlet connection:               | DN 50<br>2 inch                          |
| Pressure rating for pipe connection:     | PN 25                                    |
| Flange rating inlet:                     | 300 lb                                   |
| Flange size for motor:                   | FF300                                    |
| Connect code:                            | FGJ                                      |
| <b>Liquid:</b>                           |  |
| Pumped liquid:                           | Water                                    |
| Liquid temperature range:                | -20 .. 120 °C                            |
| Liquid temperature during operation:     | 20 °C                                    |
| Density:                                 | 998.2 kg/m <sup>3</sup>                  |
| <b>Electrical data:</b>                  |  |
| Motor standard:                          | IEC                                      |
| Motor type:                              | 160LB                                    |
| IE Efficiency class:                     | IE3                                      |
| Rated power - P2:                        | 18.5 kW                                  |
| Power (P2) required by pump:             | 18.5 kW                                  |
| Mains frequency:                         | 50 Hz                                    |





Company name:

Created by:

Phone:

Date:

19/03/2019

| Description                                  | Value               |
|--|---------------------|
| Rated voltage:                               | 3 x 380-480 V       |
| Rated current:                               | 37.0-31.0 A         |
| Cos phi - power factor:                      | 0.91-0.88           |
| Rated speed:                                 | 480-3540 rpm        |
| Efficiency:                                  | IE3 92,4%           |
| Motor efficiency at full load:               | 92.4 %              |
| Number of poles:                             | 2                   |
| Enclosure class (IEC 34-5):                  | IP55                |
| Insulation class (IEC 85):                   | F                   |
| Motor protec:                                | YES                 |
| Motor No:                                    | 85901026            |
| <b>Controls:</b>                             |                     |
| Function Module:                             | ADVANCED I/O        |
| Frequency converter:                         | Built-in            |
| Pressure sensor:                             | N                   |
| <b>Others:</b>                               |                     |
| Minimum efficiency index, MEI $\eta_{min}$ : | 0.70                |
| Net weight:                                  | 219 kg              |
| Gross weight:                                | 271 kg              |
| Shipping volume:                             | 0.82 m <sup>3</sup> |
| Country of origin:                           | GB                  |
| Custom tariff no.:                           | 84137075            |

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