

19/03/2019

Qty. | Description

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## CRIE 1-27 N-FGJ-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: 99072123

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, permanent-magnet, synchronous motor.

The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

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 Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)
- "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)
- "Alarm": Motor has stopped (flashing red indicator lights).

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 has a number of inputs and outputs enabling the motor to be used in advanced applications where many inputs and outputs are required:

- two dedicated digital inputs
- three analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 3.5 V; the factory-fitted pressure sensor is connected to one of these inputs
- 5 V voltage supply to potentiometer and sensor
- one analog output, 0-10 V, 0(4)-20 mA
- two configurable digital inputs or open-collector outputs
- two Pt100/Pt1000 inputs
- LiqTec, dry-running protection sensor input
- Grundfos Digital Sensor input and output
- 24 V voltage supply for sensors
- two signal-relay outputs (potential-free contacts)
- GENIbus connection
- interface for Grundfos CIM fieldbus module.

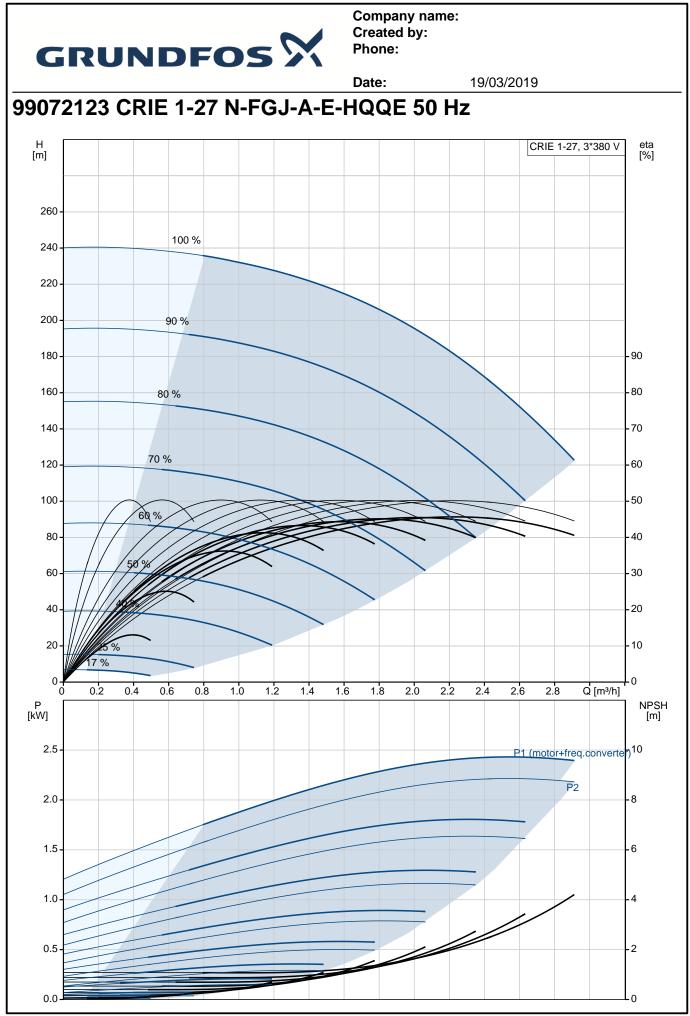
Controls:



| Description   |   | Date: | 19/03/2019 |
|---|---|-------|------------|
|   |   |       |            |
| Frequency converter:  | Built-in                                |       |            |
| Pressure sensor:  | Y                                       |       |            |
| Linuid  |   |       |            |
| Liquid:<br>Pumped liquid:   | Matar                                   |       |            |
|   | Water<br>-20 120 °C                     |       |            |
| Liquid temperature range:<br>Liquid temperature during opera  |   |       |            |
| Density:  | 998.2 kg/m <sup>3</sup>                 |       |            |
| Density.  | 990.2 Kg/IIIs                           |       |            |
| Technical:  |   |       |            |
| Pump speed on which pump dat  | a are based: 3514 rp                    | m     |            |
| Rated flow:   | 2.2 m³/h                                |       |            |
| Rated head:   | 187.8 m                                 |       |            |
| Pump orientation:   | Vertical                                |       |            |
| Shaft seal arrangement:   | Single                                  |       |            |
| Code for shaft seal:  | HQQE                                    |       |            |
| Approvals on nameplate:   | CE, EAC,ACS                             |       |            |
| Curve tolerance:  | ISO9906:2012 3B                         |       |            |
| Curve Iolerance.  | 1309900.2012 3D                         |       |            |
| Materials:  |   |       |            |
| Base:   | Stainless steel                         |       |            |
|   | EN 1.4408                               |       |            |
|   | AISI 316                                |       |            |
| Impeller:   | Stainless steel                         |       |            |
| •   | EN 1.4301                               |       |            |
|   | AISI 304                                |       |            |
| Bearing:  | SIC                                     |       |            |
| , C   |   |       |            |
| Installation:   |   |       |            |
| Maximum ambient temperature:  | 50 °C                                   |       |            |
| Maximum operating pressure:   | 25 bar                                  |       |            |
| Max pressure at stated temp:  | 25 bar / 120 °C                         |       |            |
|   | 25 bar / -20 °C                         |       |            |
| Type of connection:   | DIN / ANSI / JIS                        |       |            |
| Size of inlet connection:   | DN 25/32                                |       |            |
|   | 1 1/4 inch                              |       |            |
| Size of outlet connection:  | DN 25/32                                |       |            |
|   | 1 1/4 inch                              |       |            |
| Pressure rating for pipe connect  |   |       |            |
| Flange rating inlet:  | 300 lb                                  |       |            |
| Flange size for motor:  | FT130                                   |       |            |
| 5   |   |       |            |
| Electrical data:  |   |       |            |
| Motor standard:   | IEC                                     |       |            |
| Motor type:   | 100LA                                   |       |            |
| IE Efficiency class:  | IE5                                     |       |            |
| Rated power - P2:   | 3 kW                                    |       |            |
| Power (P2) required by pump:  | 3 kW                                    |       |            |
| Mains frequency:  | 50 Hz                                   |       |            |
| Rated voltage:  | 3 x 380-500 V                           |       |            |
| Raleu vollage.  | 5.80-4.80 A                             |       |            |
| Rated current:  |   |       |            |
| Rated current:  | 0.91-0.86                               |       |            |
| Rated current:<br>Cos phi - power factor:   | 0.91-0.86<br>360-4000 rpm               |       |            |
| Rated current:<br>Cos phi - power factor:<br>Rated speed:   | 360-4000 rpm                            |       |            |
| Rated current:<br>Cos phi - power factor:<br>Rated speed:<br>Efficiency:  | 360-4000 rpm<br>90.7%                   |       |            |
| Rated current:<br>Cos phi - power factor:<br>Rated speed:<br>Efficiency:<br>Motor efficiency at full load:                                | 360-4000 rpm<br>90.7%<br>90.7 %         |       |            |
| Rated current:<br>Cos phi - power factor:<br>Rated speed:<br>Efficiency:<br>Motor efficiency at full load:<br>Enclosure class (IEC 34-5): | 360-4000 rpm<br>90.7%<br>90.7 %<br>IP55 |       |            |
| Rated current:<br>Cos phi - power factor:<br>Rated speed:<br>Efficiency:<br>Motor efficiency at full load:                                | 360-4000 rpm<br>90.7%<br>90.7 %         |       |            |



| A     Description       Minimum efficiency index, MEI #%-X*     0.70       Net weight:     50.7 kg       Gross weight:     71.7 kg       Shipping volume:     0.285 m <sup>3</sup> Country of origin:     GB       Custor of origin:     6B       Custor of origin:     84137075 |  | 19/03/2019 | Date: |                           | GRUND               |   |
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| Country of origin: GB  |  |            |       | 0.285 m <sup>3</sup>      | Shipping volume:    |   |
| Custom tariff no.: 84137075  |  |            |       | GB                        | Country of origin:  |   |
|  |  |            |       | 84137075                  | Custom tariff no .: |   |
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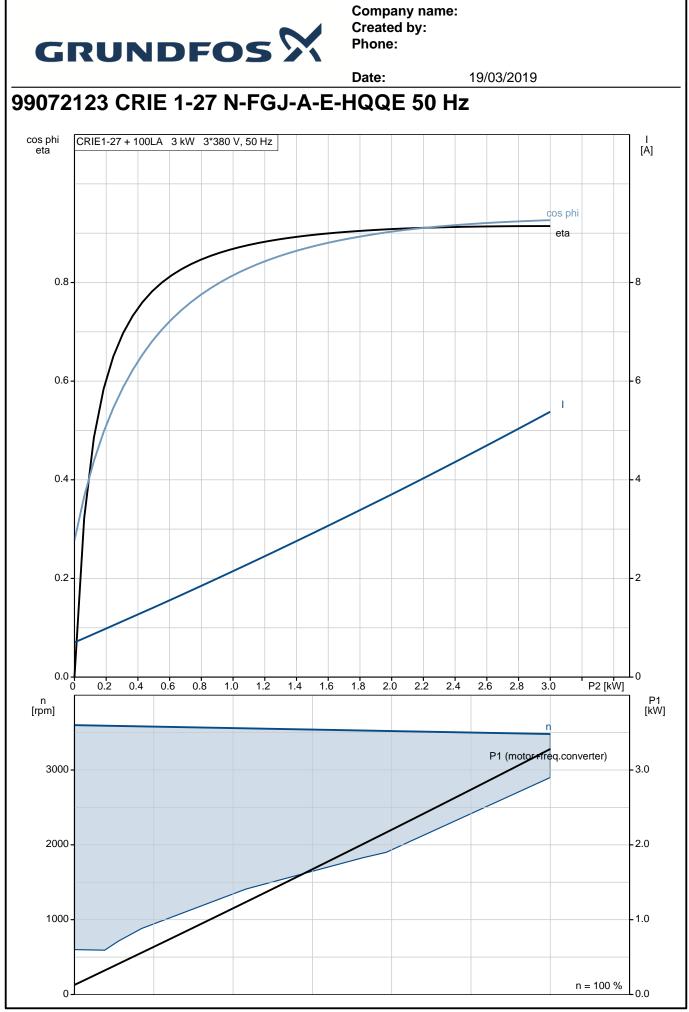


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|---|-----------------------------|------------------------------|----------------------------|-------------|--------------------|----------------|
| Description                                 | Value                       | H<br>[m]                     |                            |             | CRIE 1-27, 3*380 V | eta<br>[%]     |
| General information:                        |                             |                              |                            |             |                    |                |
| Product name:                               | CRIE 1-27<br>N-FGJ-A-E-HQQE | 260 <b>-</b><br>240 <b>-</b> | 100 %                      |             |                    |                |
| Product No:                                 | 99072123                    | 220 -                        |                            |             |                    |                |
| EAN number:                                 | 5712606205011               |                              |                            |             |                    |                |
| Price:                                      | 3.745,00 GBP                | 200 -                        | 90 %                       |             |                    |                |
| Technical:                                  |                             | 180 -                        |                            |             |                    | - 90           |
| Pump speed on which pump data are based:    | 3514 rpm                    | 160 -                        | 80 %                       |             |                    | - 80           |
| Rated flow:                                 | 2.2 m³/h                    | 140 -                        |                            |             |                    | - 70           |
| Rated head:                                 | 187.8 m                     | 120 -                        | 70 %                       |             |                    | - 60           |
| Head max:                                   | 244.4 m                     | 100 -                        |                            |             |                    | - 50           |
| Stages:                                     | 27                          |                              | 60 %                       |             | and a set          |                |
| Impellers:                                  | 27                          | 80 -                         |                            | $\leq$      |                    | - 40           |
| Number of reduced-diameter impellers:       | 0                           | 60 - //                      |                            |             |                    | - 30           |
| Low NPSH:                                   | N                           | 40 - ///                     |                            |             |                    | - 20           |
| Pump orientation:                           | Vertical                    |                              |                            |             |                    | - 10           |
| Shaft seal arrangement:                     | Single                      |                              | 7%                         |             |                    |                |
| Code for shaft seal:                        | HQQE                        | 0 <b>F</b>                   | 0.5 1.0                    | 1.5         | 2.0 2.5 Q [m³/h]   | LO             |
|   | CE, EAC,ACS                 | P                            |                            |             |                    | ] NPS          |
| Approvals on nameplate:<br>Curve tolerance: | ISO9906:2012 3B             | [kW]<br>2.5 -                |                            |             | P1 (motor+freq.cor | [m             |
|   |                             | 2.0                          |                            |             |                    | aginte()       |
| Pump version:                               | N                           | 2.0 -                        |                            |             | P2                 | -8             |
| Model:                                      | Α                           |                              |                            |             |                    |                |
| Materials:                                  | Otobalaan start             | 1.5 -                        | ///                        |             |                    | -6             |
| Base:                                       | Stainless steel             | 1.0                          |                            |             |                    | -4             |
|   | EN 1.4408                   | 1.0                          |                            |             | - //               | [ ]            |
|   | AISI 316                    | 0.5 -                        |                            |             |                    | -2             |
| Impeller:                                   | Stainless steel             |                              |                            |             |                    |                |
|   | EN 1.4301                   | 0.0                          |                            |             | · · · · ·          | L <sub>0</sub> |
|   | AISI 304                    |                              |                            |             |                    |                |
| Material code:                              | A                           |                              | 201                        |             |                    |                |
| Code for rubber:                            | E                           |                              |                            |             |                    |                |
| Bearing:                                    | SIC                         |                              |                            |             |                    |                |
| Installation:                               |                             | 334                          |                            |             |                    |                |
| Maximum ambient temperature:                | 50 °C                       |                              |                            |             |                    |                |
| Maximum operating pressure:                 | 25 bar                      | =                            | 160 G 1/2 G 1/2            | ,           |                    |                |
| Max pressure at stated temp:                | 25 bar / 120 °C             |                              | <u> </u>                   | -           |                    |                |
|   | 25 bar / -20 °C             | 741                          | 'IL+II,                    | 4 x 19 x 27 |                    |                |
| Type of connection:                         | DIN / ANSI / JIS            | 72                           | <u>1 X G 1/2</u>           | L           |                    |                |
| Size of inlet connection:                   | DN 25/32                    |                              |                            |             | Ĵ∰ ŝį              |                |
|   | 1 1/4 inch                  | 75                           | ┝──┞╉╤╤╤╬║                 | "⊨≓¶        |                    |                |
| Size of outlet connection:                  | DN 25/32                    |                              | 100<br>150                 |             | 32<br>85<br>4 x 13 |                |
|   | 1 1/4 inch                  |                              |                            | -           | 210                |                |
| Pressure rating for pipe connection:        | PN 25                       |                              |                            |             |                    |                |
| Flange rating inlet:                        | 300 lb                      |                              |                            |             |                    |                |
| Flange size for motor:                      | FT130                       | کا<br>ت                      | Ŧ                          |             |                    |                |
| Connect code:                               | FGJ                         | Li                           |                            |             |                    |                |
| Liquid:                                     |                             |                              | <u> </u>                   |             |                    |                |
| Pumped liquid:                              | Water                       |                              | 8008                       |             |                    |                |
| Liquid temperature range:                   | -20 120 °C                  |                              |                            |             |                    |                |
| Liquid temperature during operation:        | 20 °C                       | C                            |                            |             |                    |                |
| Density:                                    | 998.2 kg/m <sup>3</sup>     | are Korr                     |                            |             |                    |                |
| Electrical data:                            | -                           |                              |                            |             |                    |                |
| Motor standard:                             | IEC                         |                              |                            |             |                    |                |
| Motor type:                                 | 100LA                       |                              |                            |             |                    |                |
| IE Efficiency class:                        | IE5                         |                              | A GROAD                    |             |                    |                |
| Rated power - P2:                           | 3 kW                        |                              | 8 GENELLS R<br>3 GAD<br>15 |             |                    |                |
| Power (P2) required by pump:                | 3 kW                        |                              |                            |             |                    |                |
| Mains frequency:                            | 50 Hz                       |                              | ♥♥ ♥   L, <u></u>          |             |                    |                |

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Date: 19/03/2019 Description Value 3 x 380-500 V Rated voltage: Rated current: 5.80-4.80 A Cos phi - power factor: 0.91-0.86 Rated speed: 360-4000 rpm Efficiency: 90.7% Motor efficiency at full load: 90.7 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F YES Motor protec: Motor No: 98971049 Controls: Control panel: Standard Function Module: FM300 - Advanced Built-in Frequency converter: Υ Pressure sensor: Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 50.7 kg Gross weight: 71.7 kg Shipping volume: 0.285 m<sup>3</sup> Country of origin: GB Custom tariff no .: 84137075



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