


| Position | Qty. | Description |
|----------|------|---|
| | 1 | <p data-bbox="320 338 646 367">CRIE 10-2 AN-CA-I-E-HQQE</p> <div data-bbox="448 387 571 633" style="text-align: center;">  </div> <p data-bbox="320 663 582 692">Product No.: 98390291</p> <p data-bbox="320 721 1417 797">Vertical, multistage centrifugal pump with suction and discharge ports on same the level (in-line) enabling installation in a horizontal one-pipe system. Pump materials in contact with the liquid are in stainless steel.</p> <p data-bbox="320 806 1378 860">A cartridge shaft seal ensures high reliability, safe handling and easy service and access. Power transmission is via a rigid split coupling. Pipework connection is via FlexiClamps.</p> <p data-bbox="320 896 1391 949">The pump is fitted with a 1-phase, fan-cooled, permanent-magnet, synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="320 956 1453 1077">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. A control 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 control panel provides visual indication of pump status:</p> <ul data-bbox="357 1093 1436 1236" style="list-style-type: none"> - "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). <p data-bbox="320 1270 1401 1346">Communication with the pump is possible by means of the 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".</p> <p data-bbox="320 1382 1378 1435">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:</p> <ul data-bbox="357 1442 1436 1823" style="list-style-type: none"> - 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. <p data-bbox="320 1886 405 1915">Liquid:</p> <p data-bbox="320 1915 823 2033">Pumped liquid: Water Liquid temperature range: -20 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³</p> <p data-bbox="320 2065 443 2094">Technical:</p> |

| Position | Qty. | Description |
|----------|------|--|
| | | Speed for pump data: 3350 rpm Rated flow: 12.1 m ³ /h Rated head: 21.1 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: Base: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4301 AISI 304 Bearing material: SIC Installation: Maximum ambient temperature: 50 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -20 °C Type of connection: FlexiClamp Size of inlet connection: DN 50 2 inch Size of outlet connection: DN 50 2 inch Pressure rating: PN 25 Flange size for motor: FT115 Electrical data: Motor standard: IEC Motor type: 90SC IE Efficiency class: IE5 Rated power - P2: 1.5 kW Power (P2) required by pump: 1.5 kW Mains frequency: 50 Hz Rated voltage: 1 x 200-240 V Rated current: 9,10-7,60 A Cos phi - power factor: 0,99 Rated speed: 360-4000 rpm Efficiency: 87,4% Motor efficiency at full load: 87.4 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Controls: Frequency converter: Built-in Pressure sensor: Y Others: Minimum efficiency index, MEI : 0.7 Net weight: 38 kg Gross weight: 41 kg Shipping volume: 0.143 m ³ |

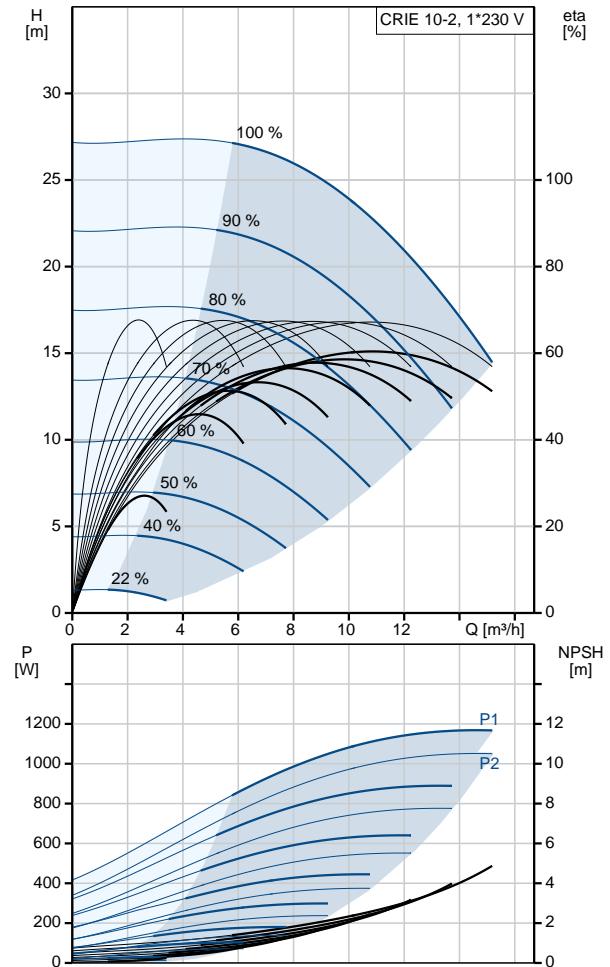
| Description | Value |
|-----------------------------|--------------------------|
| General information: | |
| Product name: | CRIE 10-2 AN-CA-I-E-HQQE |
| Product No: | 98390291 |
| EAN number: | 5711494194582 |
| Technical: | |
| Speed for pump data: | 3350 rpm |
| Rated flow: | 12.1 m ³ /h |
| Rated head: | 21.1 m |
| Stages: | 2 |
| Impellers: | 2 |
| 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: | AN |
| Model: | A |

| | |
|-------------------|-----------------|
| Materials: | |
| Base: | Stainless steel |
| | EN 1.4408 |
| | AISI 316 |
| Impeller: | Stainless steel |
| | EN 1.4301 |
| | AISI 304 |
| Material code: | I |
| Code for rubber: | E |
| Bearing material: | SIC |

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|------------------------------|-----------------|
| Installation: | |
| Maximum ambient temperature: | 50 °C |
| Maximum operating pressure: | 16 bar |
| Max pressure at stated temp: | 16 bar / 120 °C |
| | 16 bar / -20 °C |
| Type of connection: | FlexiClamp |
| Connect code: | CA |
| Size of inlet connection: | DN 50 |
| | 2 inch |
| Size of outlet connection: | DN 50 |
| | 2 inch |
| Pressure rating: | PN 25 |
| Flange size for motor: | FT115 |

| | |
|--------------------------------------|-------------------------|
| Liquid: | |
| Pumped liquid: | Water |
| Liquid temperature range: | -20 .. 120 °C |
| Liquid temperature during operation: | 20 °C |
| Density: | 998.2 kg/m ³ |

| | |
|------------------------------|--------|
| Electrical data: | |
| Motor standard: | IEC |
| Motor type: | 90SC |
| IE Efficiency class: | IE5 |
| Rated power - P2: | 1.5 kW |
| Power (P2) required by pump: | 1.5 kW |
| Mains frequency: | 50 Hz |





Company name:

Created by:

Phone:

Date:

20/02/2018

| Description | Value |
|--------------------------------|---------------|
| Rated voltage: | 1 x 200-240 V |
| Rated current: | 9,10-7,60 A |
| Cos phi - power factor: | 0,99 |
| Rated speed: | 360-4000 rpm |
| Efficiency: | 87,4% |
| Motor efficiency at full load: | 87.4 % |
| Enclosure class (IEC 34-5): | IP55 |
| Insulation class (IEC 85): | F |
| Motor protec: | YES |
| Motor No: | 98190188 |

Controls:

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|----------------------|------------------|
| Control panel: | Standard |
| Function Module: | FM300 - Advanced |
| Frequency converter: | Built-in |
| Pressure sensor: | Y |

Others:

| | |
|---------------------------------|----------------------|
| Minimum efficiency index, MEI : | 0.7 |
| Net weight: | 38 kg |
| Gross weight: | 41 kg |
| Shipping volume: | 0.143 m ³ |