

PROJECT: _____	UNIT TAG: _____	QUANTITY: _____
REPRESENTATIVE: _____	TYPE OF SERVICE: _____	DATE: _____
ENGINEER: _____	SUBMITTED BY: _____	DATE: _____
CONTRACTOR: _____	APPROVED BY: _____	DATE: _____
	ORDER NO.: _____	DATE: _____

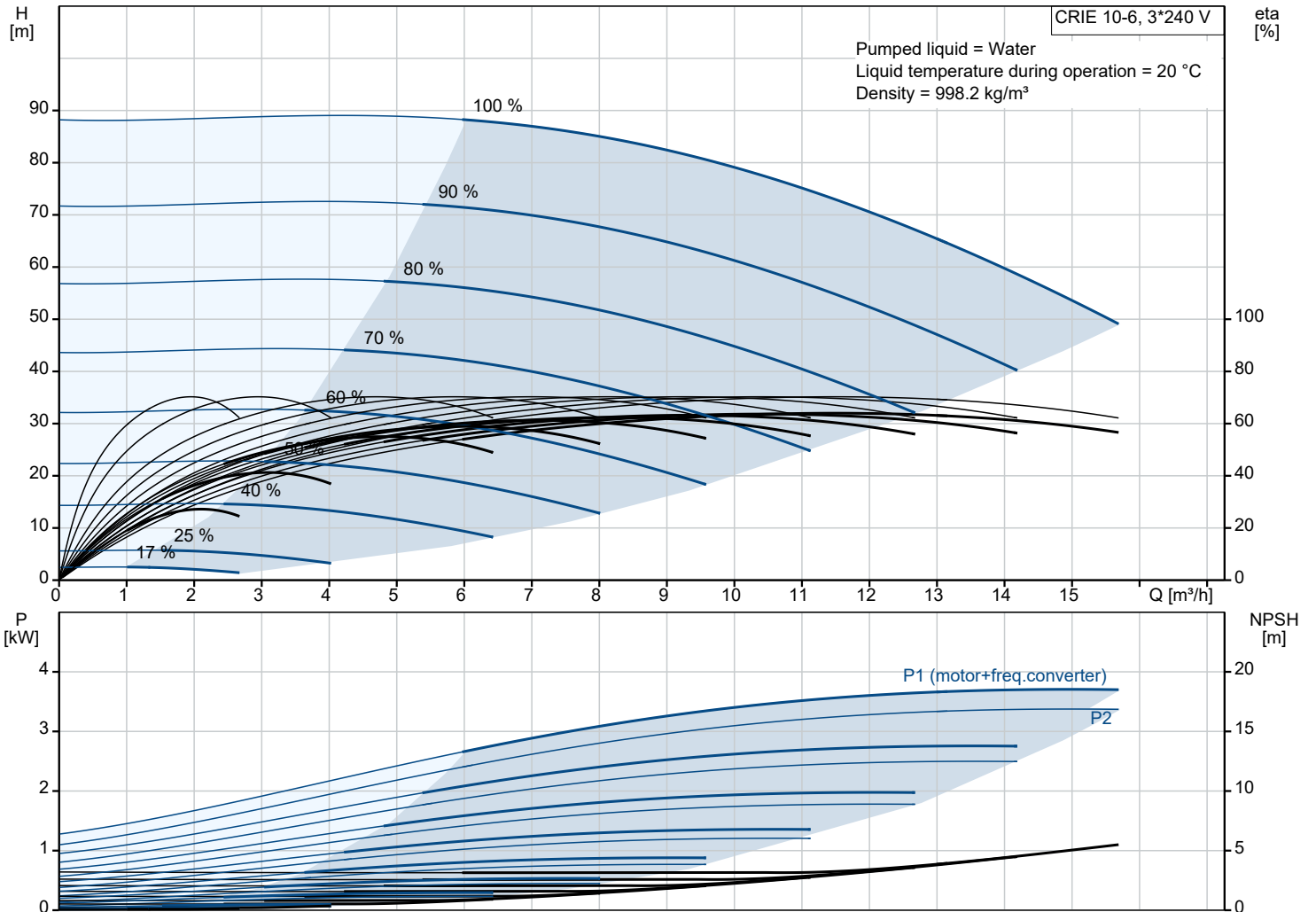


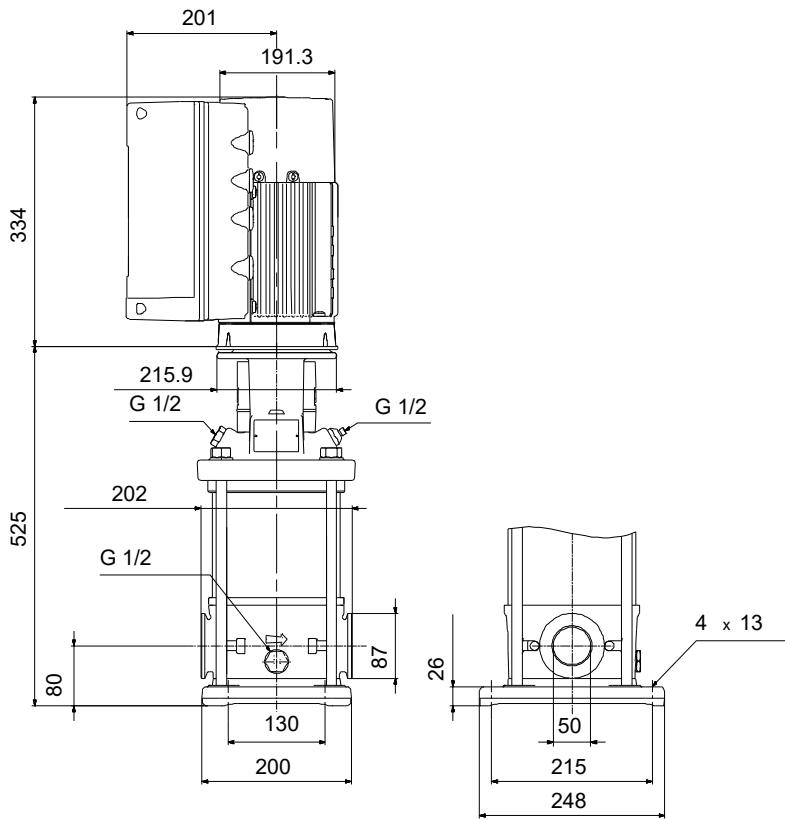
## CRIE 10-6 N-CA-A-E-HQQE

Vertical, multistage centrifugal pump with integrated frequency converter.  
Pump materials in contact with the liquid are in stainless steel (EN 1.4301)

Note! Product picture may differ from actual product


Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	16 bar / 120 °C	Rated power - P2:	3.7 kW
Temperature:	20 °C	Liquid temperature range:	-20 .. 120 °C	Rated voltage:	200-240 V
Specific Gravity:	1.000	Maximum ambient temperature:	40 °C	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	IP55
		Product number:	99392023	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	112C
				Eta 1/1:	90.9 %





**Materials:**

- Base: Stainless steel
- Base: EN 1.4408
- Base: AISI 316
- Impeller: Stainless steel
- Impeller: AISI 304
- Impeller: EN 1.4301
- Material code: A
- Code for rubber: E

Qty.	Description
1	<p data-bbox="124 85 437 114"><b>CRIE 10-6 N-CA-A-E-HQQE</b></p>  <p data-bbox="517 434 989 456"><b>Note! Product picture may differ from actual product</b></p> <p data-bbox="124 463 389 488">Product No.: <a href="#">99392023</a></p> <p data-bbox="124 524 1513 600">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 FlexiClamps.</p> <p data-bbox="124 611 1050 636">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 640 938 665">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 669 1519 719">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.</p> <p data-bbox="124 723 1469 748">The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.</p> <p data-bbox="124 786 890 810">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 815 1461 864">The push-buttons are used to navigate through the menu structure to access pump and performance data on site and enable setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop".</p> <p data-bbox="124 934 1519 1005">Communication with the pump is also 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".</p> <p data-bbox="124 1048 1114 1072">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 1077 1433 1164" style="list-style-type: none"> <li>• "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)</li> <li>• "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)</li> <li>• "Alarm": Motor has stopped (flashing red indicator lights).</li> </ul> <p data-bbox="124 1169 1501 1218">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="164 1223 1501 1608" style="list-style-type: none"> <li>• two dedicated digital inputs</li> <li>• 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</li> <li>• 5 V voltage supply to potentiometer and sensor</li> <li>• one analog output, 0-10 V, 0(4)-20 mA</li> <li>• two configurable digital inputs or open-collector outputs</li> <li>• two Pt100/Pt1000 inputs</li> <li>• LiqTec, dry-running protection sensor input</li> <li>• Grundfos Digital Sensor input and output</li> <li>• 24 V voltage supply for sensors</li> <li>• two signal-relay outputs (potential-free contacts)</li> <li>• GENIbus connection</li> <li>• interface for Grundfos CIM fieldbus module.</li> </ul> <p data-bbox="124 1641 197 1666">Liquid:</p> <p data-bbox="124 1671 555 1695">Pumped liquid: Water</p> <p data-bbox="124 1700 627 1724">Liquid temperature range: -20 .. 120 °C</p> <p data-bbox="124 1729 552 1753">Selected liquid temperature: 20 °C</p> <p data-bbox="124 1758 619 1783">Density: 998.2 kg/m<sup>3</sup></p> <p data-bbox="124 1816 236 1841">Technical:</p> <p data-bbox="124 1845 743 1870">Pump speed on which pump data are based: 3461 rpm</p> <p data-bbox="124 1874 592 1899">Rated flow: 12.1 m<sup>3</sup>/h</p> <p data-bbox="124 1904 564 1928">Rated head: 69.2 m</p> <p data-bbox="124 1933 600 1957">Actual impeller diameter: 92.96 mm</p> <p data-bbox="124 1962 571 1986">Pump orientation: Vertical</p> <p data-bbox="124 1991 544 2016">Shaft seal arrangement: Single</p> <p data-bbox="124 2020 563 2045">Code for shaft seal: HQQE</p> <p data-bbox="124 2049 576 2074">Approvals: CURUS</p> <p data-bbox="124 2078 635 2103">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 2107 683 2132">Curve tolerance: ISO9906:2012 3B</p>

Qty.	Description
	<p><b>Materials:</b></p> <p>Base:                                 Stainless steel  EN 1.4408  AISI 316</p> <p>Impeller:                            Stainless steel  EN 1.4301  AISI 304</p> <p>Bearing:                             SIC</p> <p>Installation:</p> <p>t max amb:                         40 °C  Maximum operating pressure:    16 bar  Max pressure at stated temp:    16 bar / 120 °C  16 bar / -20 °C</p> <p>Type of connection:               FlexiClamp  Size of inlet connection:         DN 50  Size of outlet connection:        DN 50  Pressure rating for connection:  PN 25  Flange size for motor:            182TC</p> <p><b>Electrical data:</b></p> <p>Motor standard:                    NEMA  Motor type:                         112C  IE Efficiency class:                IE5  Rated power - P2:                 3.7 kW  Power (P2) required by pump:     3.7 kW  Mains frequency:                  60 Hz  Rated voltage:                     3 x 200-240 V  Service factor:                    1.15  Rated current:                     13.2-10.9 A  Cos phi - power factor:            0.94  Rated speed:                       360-4000 rpm  Efficiency:                         90.9%  Motor efficiency at full load:     90.9 %  Enclosure class (IEC 34-5):       IP55  Insulation class (IEC 85):        F  Motor No:                         99301701</p> <p><b>Controls:</b></p> <p>Frequency converter:               Built-in  Pressure sensor:                    Y</p> <p><b>Others:</b></p> <p>DOE Pump Energy Index VL:     0.41  Net weight:                         60 kg  Gross weight:                      99 kg  Shipping volume:                  0.234 m<sup>3</sup></p>

# 99392023 CRIE 10-6 N-CA-A-E-HQQE 60 Hz



Note! All units are in [mm] unless others are stated.