

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

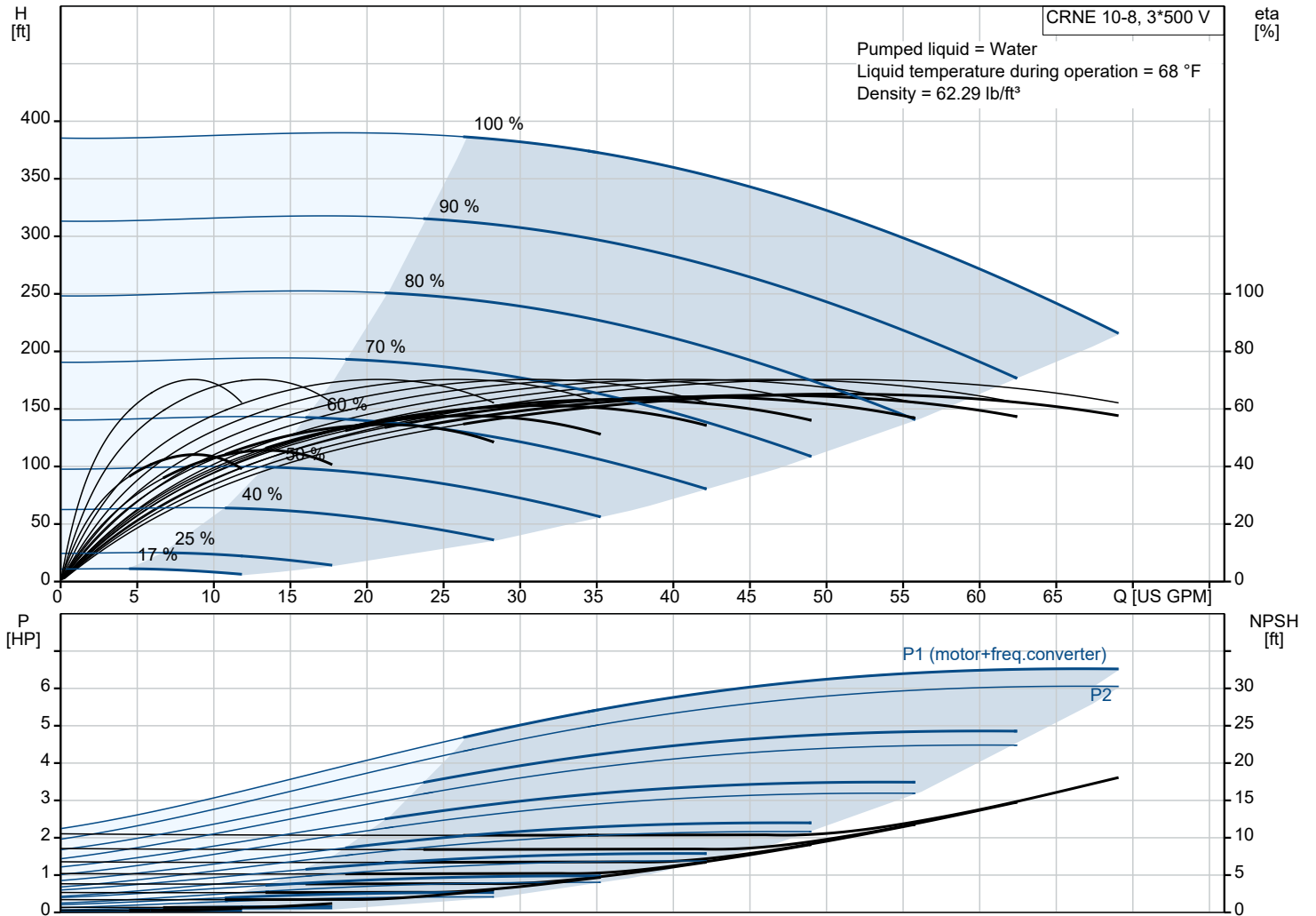


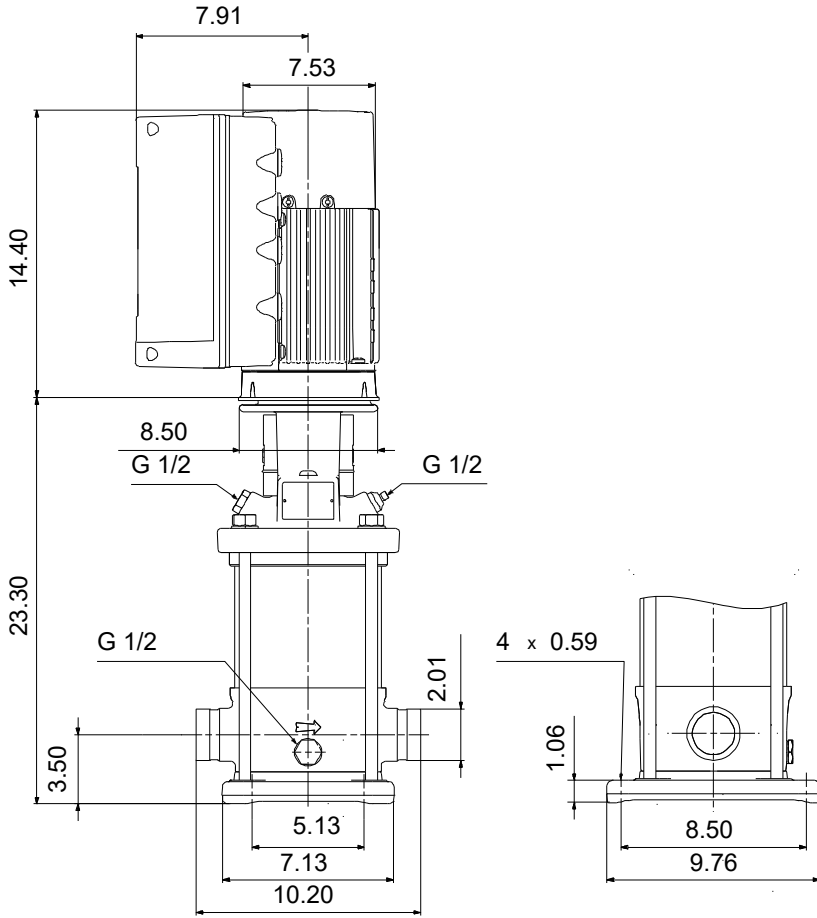
## CRNE 10-8 N-P-A-E-HQQE

Vertical, multistage centrifugal pump with integrated frequency converter. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Note! Product picture may differ from actual product

Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	363 psi / 250 °F	Rated power - P2:	7.5 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 248 °F	Rated voltage:	440-480 V
Specific Gravity:	1.000	Maximum ambient temperature:	122 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	IP55
		Product number:	99076203	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	132E
				Eta 1/1:	92.4 %





**Materials:**

- Base: Stainless steel
- Base: EN 1.4408
- Base: AISI 316
- Impeller: Stainless steel
- Impeller: AISI 316
- Impeller: EN 1.4401
- Material code: A
- Code for rubber: E

Qty.	Description
1	<p data-bbox="119 85 430 118"><b>CRNE 10-8 N-P-A-E-HQQE</b></p> <p data-bbox="119 118 391 152">Product No.: <a href="#">99076203</a></p> <p data-bbox="119 174 1524 253">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade 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 PJE (Victaulic®) couplings.</p> <p data-bbox="119 264 1053 297">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="119 297 941 331">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="119 331 1524 387">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="119 387 1476 421">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="119 443 893 477">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="119 477 1460 533">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="119 589 1524 667">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="119 701 1117 734">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="159 734 1436 824" 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="119 824 1508 880">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="159 880 1508 1272" 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="119 1294 199 1328">Liquid:</p> <p data-bbox="119 1328 558 1361">Pumped liquid: Water</p> <p data-bbox="119 1361 614 1395">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="119 1395 550 1429">Selected liquid temperature: 68 °F</p> <p data-bbox="119 1429 606 1462">Density: 62.29 lb/ft<sup>3</sup></p> <p data-bbox="119 1485 239 1518">Technical:</p> <p data-bbox="119 1518 742 1552">Pump speed on which pump data are based: 3467 rpm</p> <p data-bbox="119 1552 646 1585">Rated flow: 53.3 US GPM</p> <p data-bbox="119 1585 574 1619">Rated head: 305.8 ft</p> <p data-bbox="119 1619 566 1653">Actual impeller diameter: 3.66 in</p> <p data-bbox="119 1653 574 1686">Pump orientation: Vertical</p> <p data-bbox="119 1686 558 1720">Shaft seal arrangement: Single</p> <p data-bbox="119 1720 566 1753">Code for shaft seal: HQQE</p> <p data-bbox="119 1753 582 1787">Approvals: CURUS</p> <p data-bbox="119 1787 638 1821">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="119 1821 686 1854">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="119 1877 231 1910">Materials:</p> <p data-bbox="119 1910 646 1944">Base: Stainless steel</p> <p data-bbox="486 1944 606 1977">EN 1.4408</p> <p data-bbox="486 1977 582 2011">AISI 316</p> <p data-bbox="119 2011 646 2045">Impeller: Stainless steel</p> <p data-bbox="486 2045 606 2078">EN 1.4401</p> <p data-bbox="486 2078 582 2112">AISI 316</p> <p data-bbox="119 2112 534 2145">Bearing: SIC</p> <p data-bbox="119 2168 247 2201">Installation:</p> <p data-bbox="119 2201 566 2235">t max amb: 122 °F</p> <p data-bbox="119 2235 606 2240">Maximum operating pressure: 362.59 psi</p>

Qty.	Description
	<p>Max pressure at stated temp: 363 psi / 250 °F 363 psi / -4 °F</p> <p>Type of connection: PJE</p> <p>Size of inlet connection: DN 50</p> <p>Size of outlet connection: DN 50</p> <p>Pressure rating for connection: PN 50</p> <p>Flange size for motor: 213TC</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: 132E</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 7.5 HP</p> <p>Power (P2) required by pump: 7.5 HP</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 3 x 440-480 V</p> <p>Service factor: 1.15</p> <p>Rated current: 9.10-8.50 A</p> <p>Cos phi - power factor: 0.91-0.89</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 92.4%</p> <p>Motor efficiency at full load: 92.4 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99256773</p> <p>Controls:</p> <p>Frequency converter: Built-in</p> <p>Pressure sensor: Y</p> <p>Others:</p> <p>DOE Pump Energy Index VL: 0.40</p> <p>Net weight: 163 lb</p> <p>Gross weight: 181 lb</p> <p>Shipping volume: 8.26 ft³</p>

# 99076203 CRNE 10-8 N-P-A-E-HQQE 60 Hz



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