

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

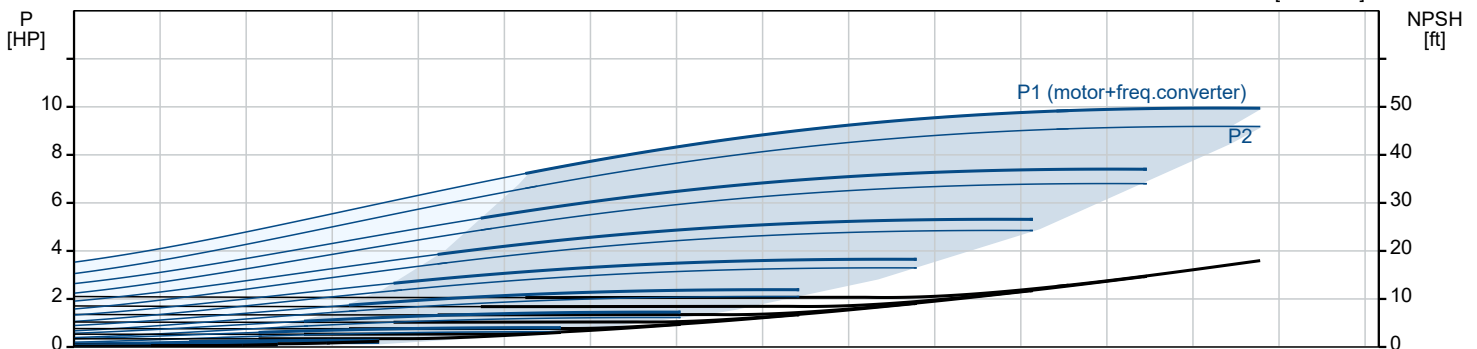
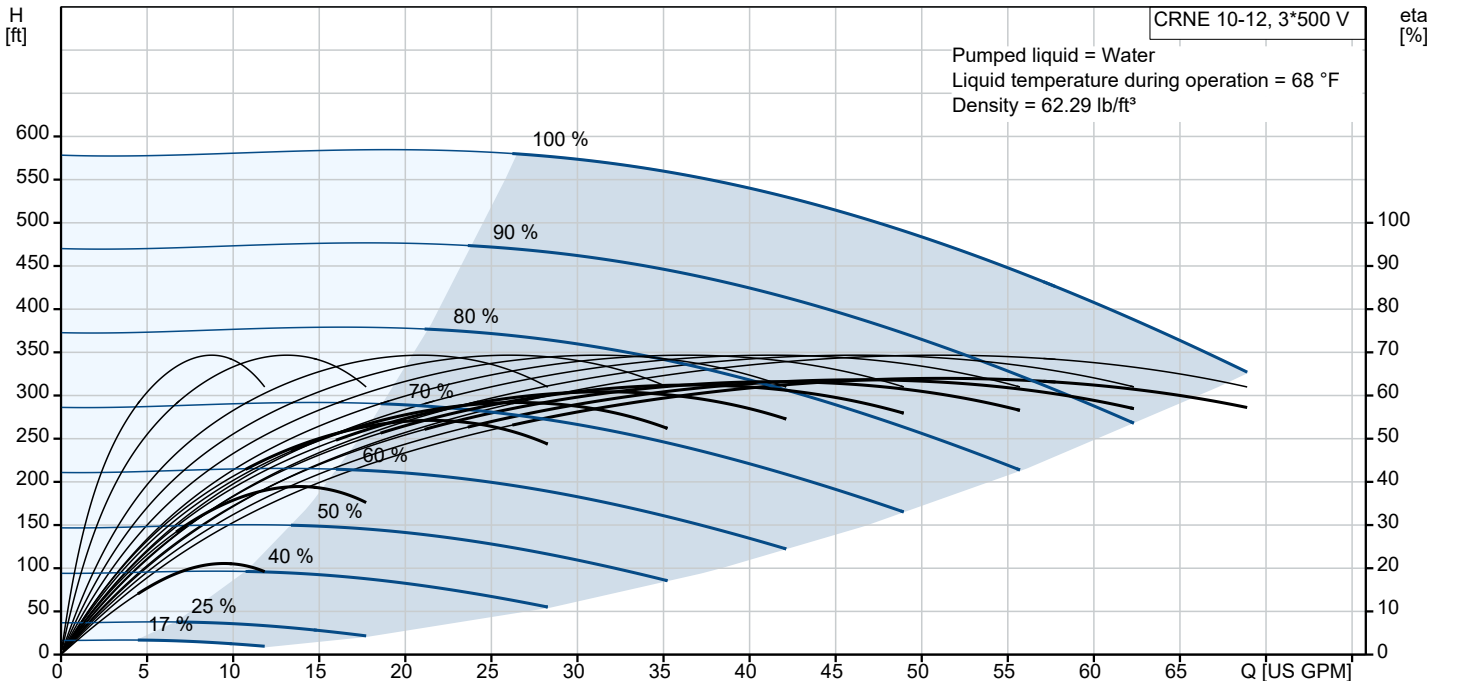


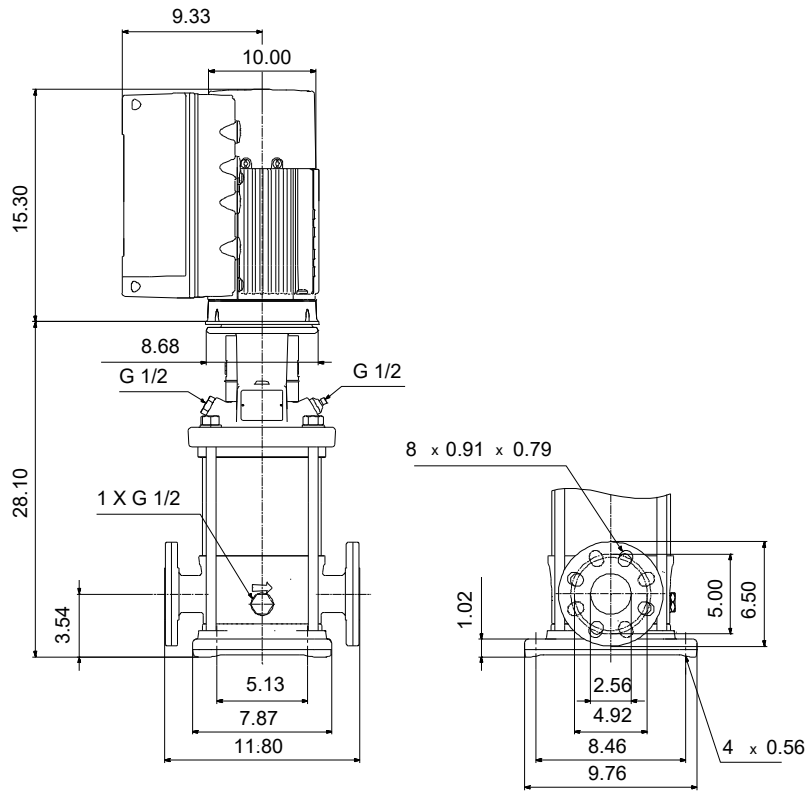
### CRNE 10-12 N-FGJ-A-E-HQQE

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:	10 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:	99076210	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	132F
				Eta 1/1:	92.5 %





**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="124 85 472 114"><b>CRNE 10-12 N-FGJ-A-E-HQQE</b></p> <p data-bbox="124 116 389 145">Product No.: <a href="#">99076210</a></p> <p data-bbox="124 174 1519 250">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 combined DIN-ANSI-JIS flanges.</p> <p data-bbox="124 262 1050 291">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 293 940 322">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 324 1519 374">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="124 376 1469 405">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="124 439 890 468">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 470 1461 519">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="124 584 1519 660">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="124 698 1114 728">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 730 1433 817" 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="124 819 1501 871">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="164 880 1501 1261" 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 1292 199 1321">Liquid:</p> <p data-bbox="124 1323 555 1352">Pumped liquid: Water</p> <p data-bbox="124 1355 611 1384">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1386 549 1415">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1417 606 1447">Density: 62.29 lb/ft<sup>3</sup></p> <p data-bbox="124 1471 237 1500">Technical:</p> <p data-bbox="124 1503 743 1532">Pump speed on which pump data are based: 3470 rpm</p> <p data-bbox="124 1534 639 1563">Rated flow: 53.3 US GPM</p> <p data-bbox="124 1565 572 1594">Rated head: 446.5 ft</p> <p data-bbox="124 1597 563 1626">Actual impeller diameter: 3.66 in</p> <p data-bbox="124 1628 571 1657">Pump orientation: Vertical</p> <p data-bbox="124 1659 555 1688">Shaft seal arrangement: Single</p> <p data-bbox="124 1691 563 1720">Code for shaft seal: HQQE</p> <p data-bbox="124 1722 576 1751">Approvals: CURUS</p> <p data-bbox="124 1753 635 1783">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 1785 683 1814">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="124 1827 233 1856">Materials:</p> <p data-bbox="124 1859 647 1942">Base: Stainless steel EN 1.4408 AISI 316</p> <p data-bbox="124 1944 647 2027">Impeller: Stainless steel EN 1.4401 AISI 316</p> <p data-bbox="124 2029 531 2058">Bearing: SIC</p> <p data-bbox="124 2094 250 2123">Installation:</p> <p data-bbox="124 2125 563 2154">t max amb: 122 °F</p> <p data-bbox="124 2157 603 2186">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: DIN / ANSI / JIS</p> <p>Size of inlet connection: DN 50</p> <p>Size of outlet connection: DN 50</p> <p>Pressure rating for connection: PN 25</p> <p>Flange rating inlet: 300 lb</p> <p>Flange size for motor: 213TC</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: 132F</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 10 HP</p> <p>Power (P2) required by pump: 10 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: 12.4-11.5 A</p> <p>Cos phi - power factor: 0.91-0.90</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 92.5%</p> <p>Motor efficiency at full load: 92.5 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99256776</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: 207 lb</p> <p>Gross weight: 293 lb</p> <p>Shipping volume: 13.1 ft³</p>

# 99076210 CRNE 10-12 N-FGJ-A-E-HQQE 60 Hz



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