

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

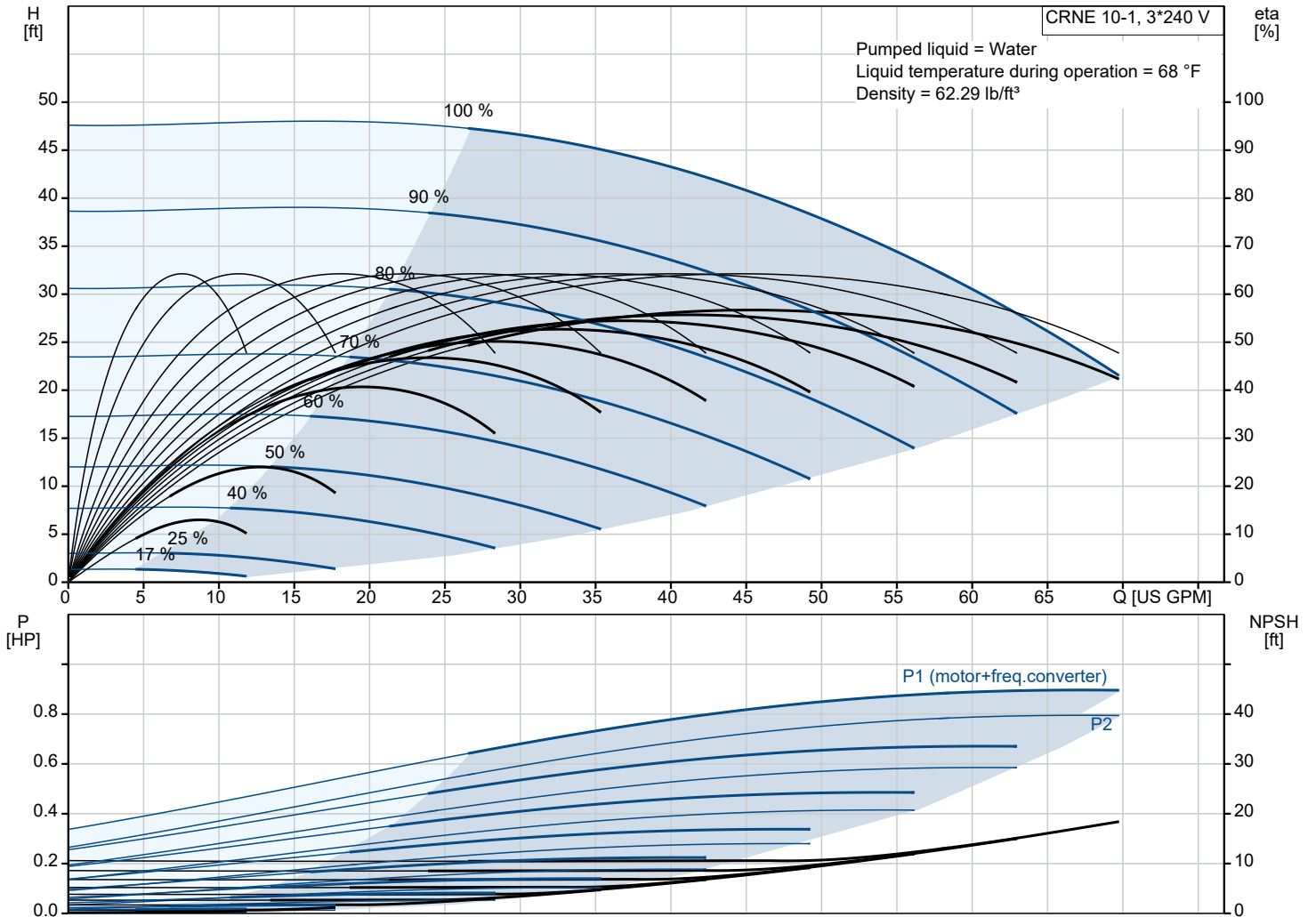


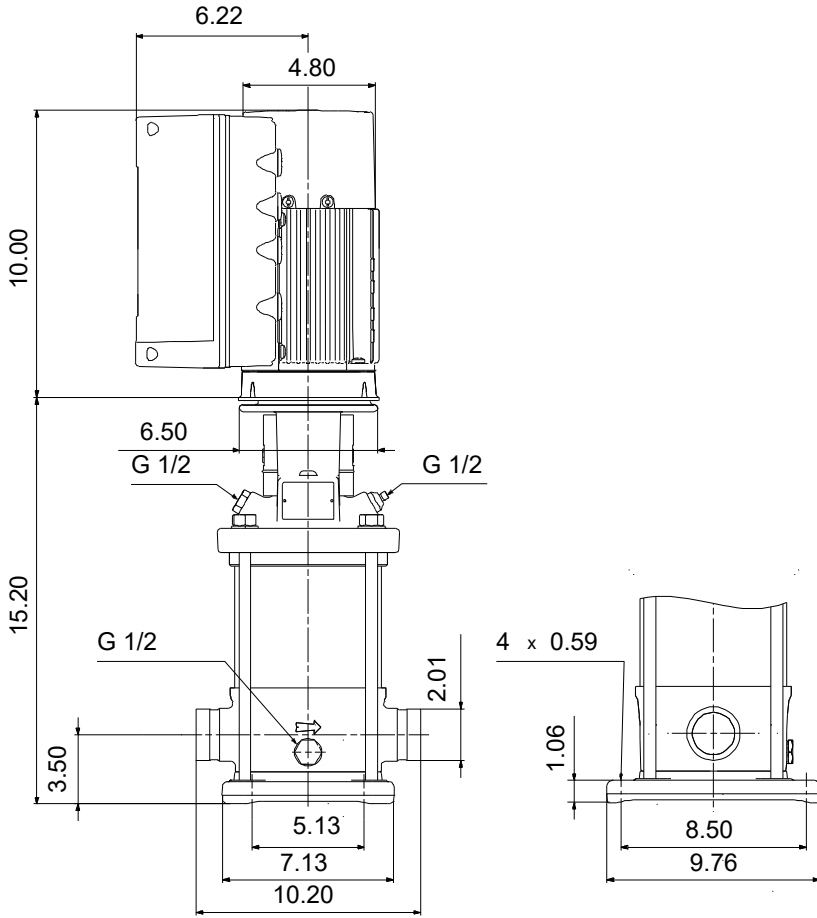
## CRNE 10-1 BN-P-A-E-HQQE

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:	1.5 HP
Temperature:	68 °F	Liquid temperature range:	-4 .. 248 °F	Rated voltage:	200-240 V
Specific Gravity:	1.000	Maximum ambient temperature:	104 °F	Mains frequency:	60 Hz
		Shaft seal:	HQQE	Enclosure class:	IP55
		Product number:	99392047	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	80B
				Eta 1/1:	89.3 %





**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 85 448 114"><b>CRNE 10-1 BN-P-A-E-HQQE</b></p> <p data-bbox="124 114 389 143">Product No.: <a href="#">99392047</a></p> <p data-bbox="124 174 1522 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="124 264 1051 293">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="124 322 1522 376">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="124 436 890 465">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 465 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 1522 663">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="124 701 1115 730">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 730 1436 819" 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 873">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="164 873 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 201 1321">Liquid:</p> <p data-bbox="124 1321 557 1350">Pumped liquid: Water</p> <p data-bbox="124 1350 611 1379">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1379 549 1408">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1408 606 1438">Density: 62.29 lb/ft<sup>3</sup></p> <p data-bbox="124 1469 239 1498">Technical:</p> <p data-bbox="124 1498 743 1527">Pump speed on which pump data are based: 3439 rpm</p> <p data-bbox="124 1527 641 1556">Rated flow: 53.3 US GPM</p> <p data-bbox="124 1556 574 1585">Rated head: 32.81 ft</p> <p data-bbox="124 1585 564 1615">Actual impeller diameter: 3.66 in</p> <p data-bbox="124 1615 572 1644">Pump orientation: Vertical</p> <p data-bbox="124 1644 557 1673">Shaft seal arrangement: Single</p> <p data-bbox="124 1673 564 1702">Code for shaft seal: HQQE</p> <p data-bbox="124 1702 576 1731">Approvals: CURUS</p> <p data-bbox="124 1731 635 1760">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 1760 683 1789">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="124 1821 234 1850">Materials:</p> <p data-bbox="124 1850 647 1942">Base: Stainless steel EN 1.4408 AISI 316</p> <p data-bbox="124 1942 647 2033">Impeller: Stainless steel EN 1.4401 AISI 316</p> <p data-bbox="124 2033 533 2063">Bearing: SIC</p> <p data-bbox="124 2094 252 2123">Installation:</p> <p data-bbox="124 2123 564 2152">t max amb: 104 °F</p> <p data-bbox="124 2152 603 2181">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: 56C</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: 80B</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 1.5 HP</p> <p>Power (P2) required by pump: 1.5 HP</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 3 x 200-240 V</p> <p>Service factor: 1.15</p> <p>Rated current: 4.10-3.50 A</p> <p>Cos phi - power factor: 0.91</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 89.3%</p> <p>Motor efficiency at full load: 89.3 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99301705</p> <p>Controls:</p> <p>Frequency converter: Built-in</p> <p>Pressure sensor: Y</p> <p>Others:</p> <p>DOE Pump Energy Index VL: 0.43</p> <p>Net weight: 81.6 lb</p> <p>Gross weight: 168 lb</p> <p>Shipping volume: 6.11 ft³</p>

# 99392047 CRNE 10-1 BN-P-A-E-HQQE 60 Hz



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