

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

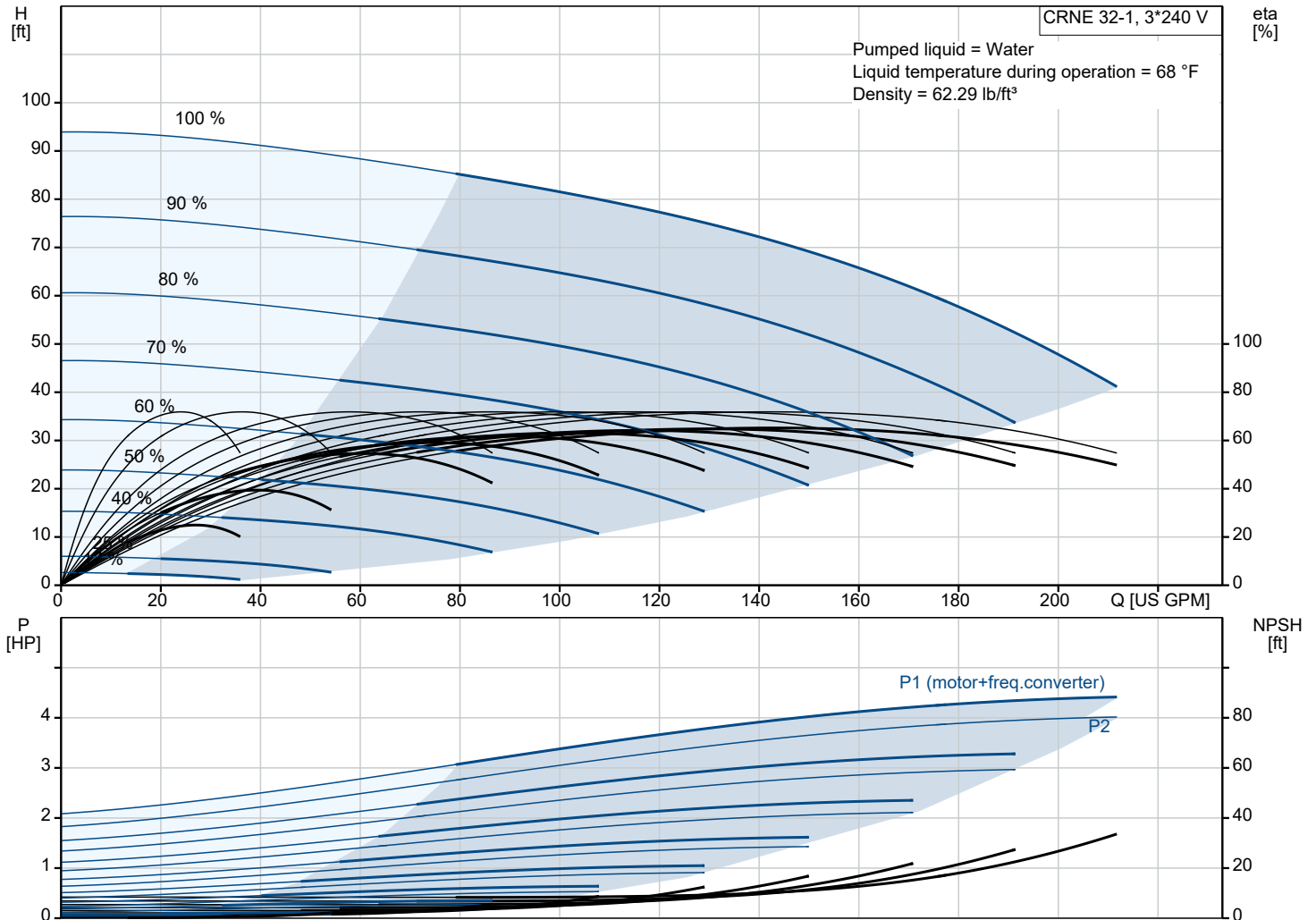


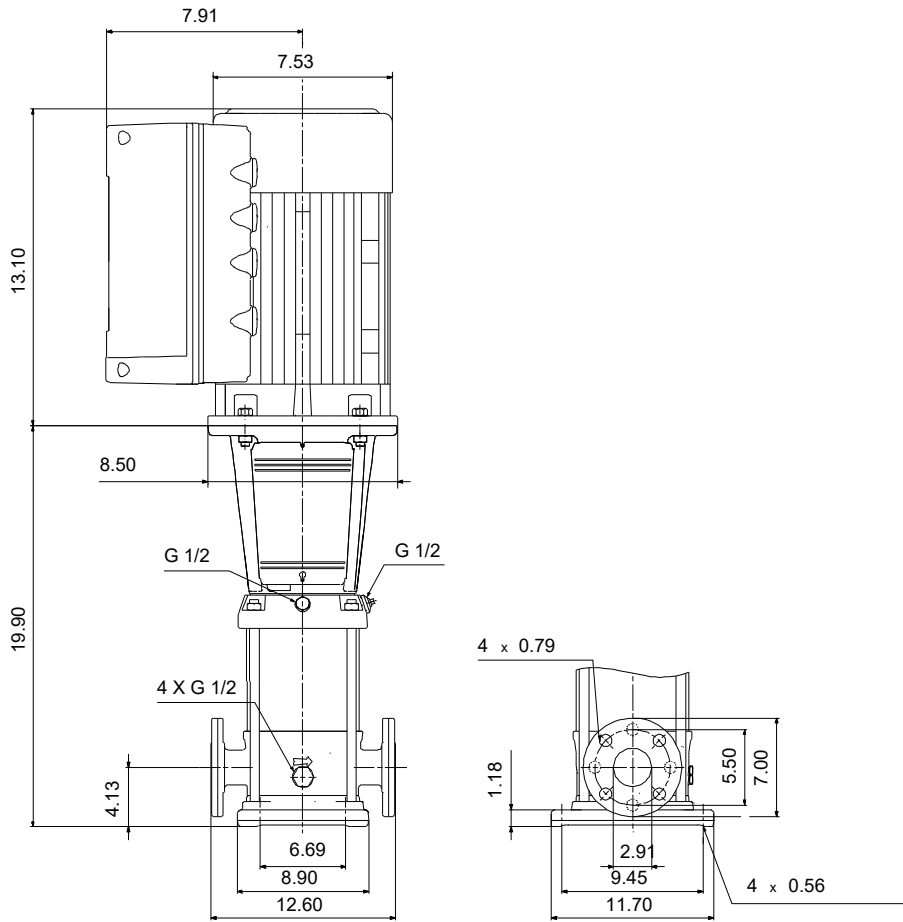
## CRNE 32-1 N-G-A-E-HQQE

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:	232 psi / 250 °F	Rated power - P2:	5 HP
Temperature:	68 °F	Liquid temperature range:	-40 .. 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:	99392749	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	112C
				Eta 1/1:	90.9 %





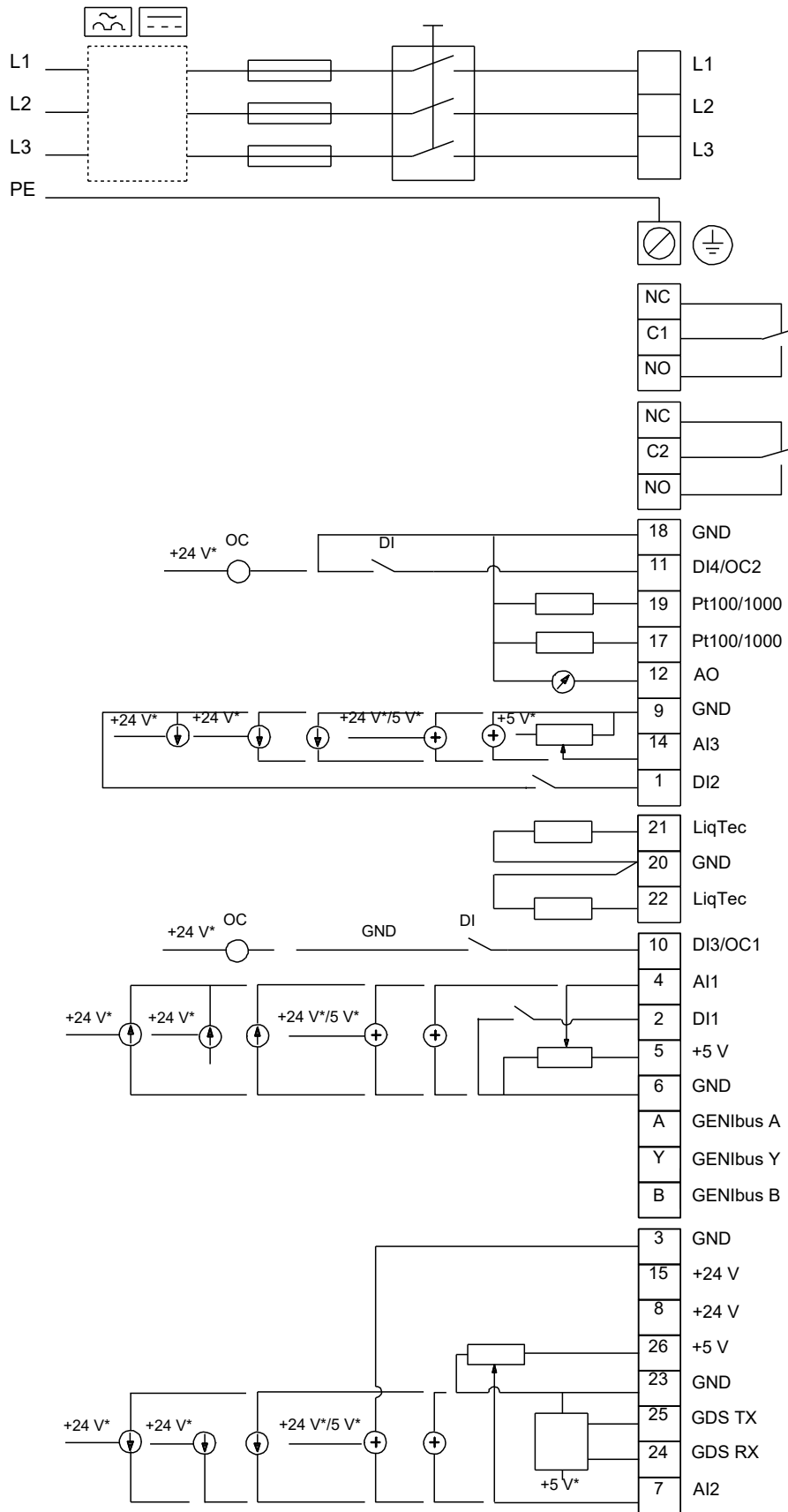
**Materials:**

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

Qty.	Description
1	<p data-bbox="124 85 432 114"><b>CRNE 32-1 N-G-A-E-HQQE</b></p> <p data-bbox="124 114 389 143">Product No.: <a href="#">99392749</a></p> <p data-bbox="124 174 1517 248">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 ANSI flanges.</p> <p data-bbox="124 259 1051 288">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 291 940 320">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 322 1517 371">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="124 468 1461 517">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 1517 658">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="124 696 1114 725">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 728 1433 815" 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="124 817 1501 866">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="164 875 1501 1256" 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 1290 197 1319">Liquid:</p> <p data-bbox="124 1321 557 1350">Pumped liquid: Water</p> <p data-bbox="124 1352 624 1382">Liquid temperature range: -40 .. 248 °F</p> <p data-bbox="124 1384 549 1413">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1415 606 1444">Density: 62.29 lb/ft<sup>3</sup></p> <p data-bbox="124 1469 237 1498">Technical:</p> <p data-bbox="124 1500 743 1529">Pump speed on which pump data are based: 3461 rpm</p> <p data-bbox="124 1532 633 1561">Rated flow: 159 US GPM</p> <p data-bbox="124 1563 572 1592">Rated head: 67.59 ft</p> <p data-bbox="124 1594 563 1624">Actual impeller diameter: 4.66 in</p> <p data-bbox="124 1626 571 1655">Pump orientation: Vertical</p> <p data-bbox="124 1657 549 1686">Shaft seal arrangement: Single</p> <p data-bbox="124 1688 563 1718">Code for shaft seal: HQQE</p> <p data-bbox="124 1720 576 1749">Approvals: CURUS</p> <p data-bbox="124 1751 633 1780">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 1783 683 1812">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 533 2058">Bearing: SIC</p> <p data-bbox="124 2060 571 2089">Support bearing: Graflon</p> <p data-bbox="124 2123 248 2152">Installation:</p> <p data-bbox="124 2154 563 2184">t max amb: 104 °F</p>

Qty.	Description
	<p>Maximum operating pressure: 232.06 psi</p> <p>Max pressure at stated temp: 232 psi / 250 °F 232 psi / -40 °F</p> <p>Type of connection: ANSI</p> <p>Size of inlet connection: 2 1/2 inch</p> <p>Size of outlet connection: 2 1/2 inch</p> <p>Pressure rating for connection: PN 16</p> <p>Flange rating inlet: 150 lb</p> <p>Flange size for motor: 182TC</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: 112C</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 5 HP</p> <p>Power (P2) required by pump: 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: 13.2-10.9 A</p> <p>Cos phi - power factor: 0.94</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 90.9%</p> <p>Motor efficiency at full load: 90.9 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99301701</p> <p>Controls:</p> <p>Frequency converter: Built-in</p> <p>Pressure sensor: Y</p> <p>Others:</p> <p>DOE Pump Energy Index VL: 0.41</p> <p>Net weight: 161 lb</p> <p>Gross weight: 179 lb</p> <p>Shipping volume: 10.9 ft<sup>3</sup></p>

# 99392749 CRNE 32-1 N-G-A-E-HQQE 60 Hz



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