

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

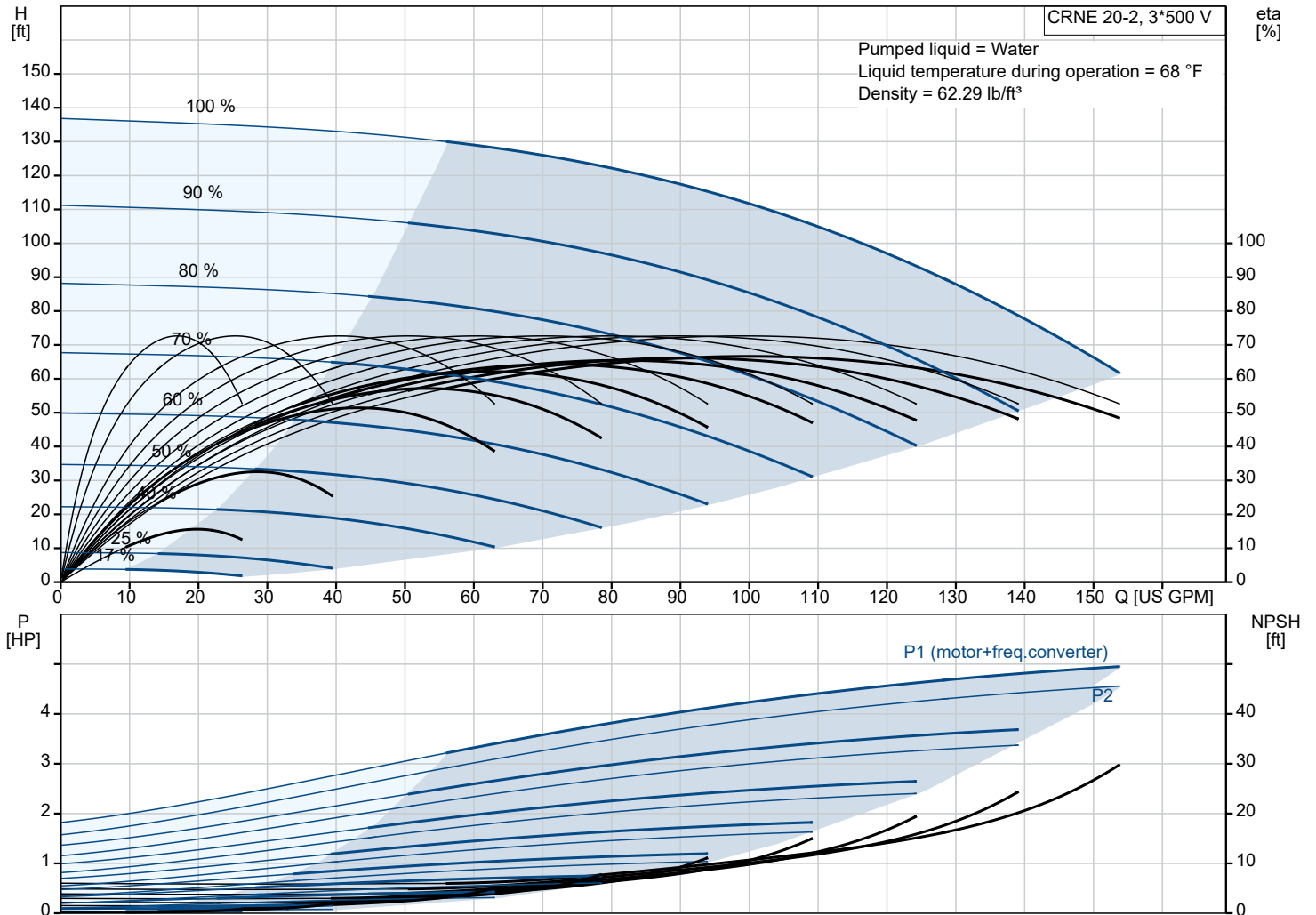


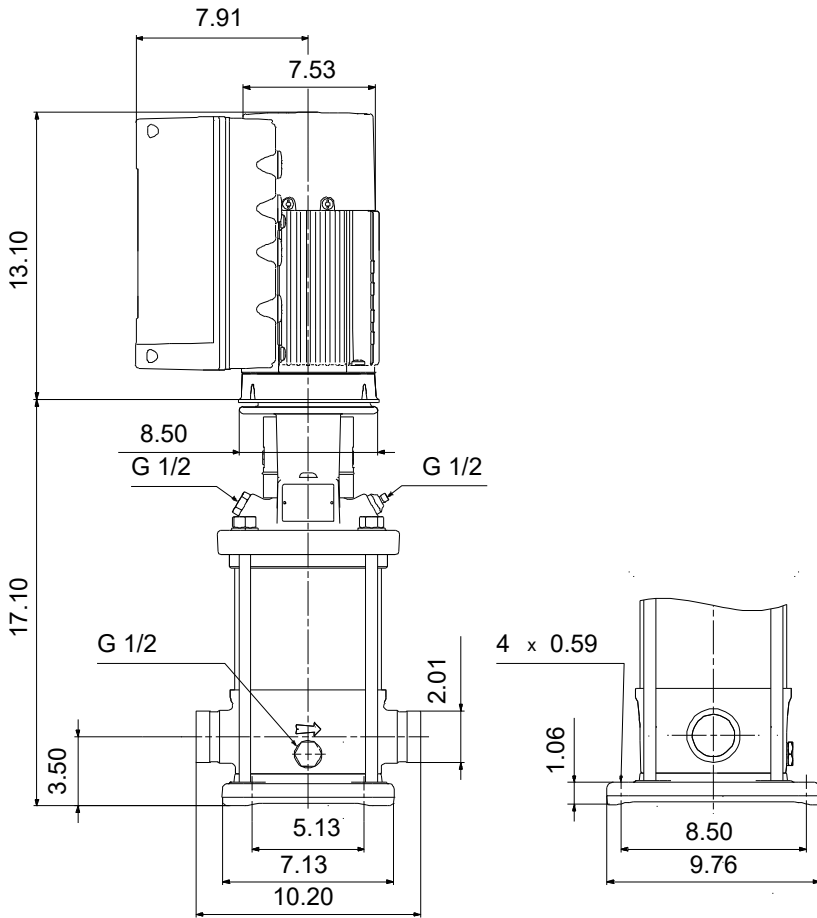
CRNE 20-2 N-P-A-E-HQQE

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:	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:	99076296	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	112C
				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 85 427 114">CRNE 20-2 N-P-A-E-HQQE</p> <p data-bbox="124 116 389 145">Product No.: 99076296</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="124 262 1050 291">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 293 938 322">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 324 1522 380">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="124 383 1469 412">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="124 441 890 470">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 472 1461 528">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="124 696 1114 725">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 728 1433 819" style="list-style-type: none"> • "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights) • "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) • "Alarm": Motor has stopped (flashing red indicator lights). <p data-bbox="124 822 1501 878">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 1263" style="list-style-type: none"> • two dedicated digital inputs • 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 • 5 V voltage supply to potentiometer and sensor • one analog output, 0-10 V, 0(4)-20 mA • two configurable digital inputs or open-collector outputs • two Pt100/Pt1000 inputs • LiqTec, dry-running protection sensor input • Grundfos Digital Sensor input and output • 24 V voltage supply for sensors • two signal-relay outputs (potential-free contacts) • GENIbus connection • interface for Grundfos CIM fieldbus module. <p data-bbox="124 1294 199 1323">Liquid:</p> <p data-bbox="124 1326 555 1355">Pumped liquid: Water</p> <p data-bbox="124 1357 611 1386">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1388 549 1417">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1420 606 1449">Density: 62.29 lb/ft³</p> <p data-bbox="124 1473 236 1503">Technical:</p> <p data-bbox="124 1505 743 1534">Pump speed on which pump data are based: 3461 rpm</p> <p data-bbox="124 1536 635 1565">Rated flow: 111 US GPM</p> <p data-bbox="124 1568 555 1597">Rated head: 104 ft</p> <p data-bbox="124 1599 564 1628">Actual impeller diameter: 4.13 in</p> <p data-bbox="124 1630 571 1659">Pump orientation: Vertical</p> <p data-bbox="124 1662 555 1691">Shaft seal arrangement: Single</p> <p data-bbox="124 1693 564 1722">Code for shaft seal: HQQE</p> <p data-bbox="124 1724 574 1753">Approvals: CURUS</p> <p data-bbox="124 1756 635 1785">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 1787 683 1816">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="124 1841 231 1870">Materials:</p> <p data-bbox="124 1872 647 1942">Base: Stainless steel EN 1.4408 AISI 316</p> <p data-bbox="124 1966 647 2036">Impeller: Stainless steel EN 1.4401 AISI 316</p> <p data-bbox="124 2038 533 2067">Bearing: SIC</p> <p data-bbox="124 2092 252 2121">Installation:</p> <p data-bbox="124 2123 564 2152">t max amb: 122 °F</p> <p data-bbox="124 2154 603 2184">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: 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 440-480 V</p> <p>Service factor: 1.15</p> <p>Rated current: 6.20-5.80 A</p> <p>Cos phi - power factor: 0.90-0.88</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: 99256771</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: 137 lb</p> <p>Gross weight: 152 lb</p> <p>Shipping volume: 8.26 ft³</p>

99076296 CRNE 20-2 N-P-A-E-HQQE 60 Hz



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