

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

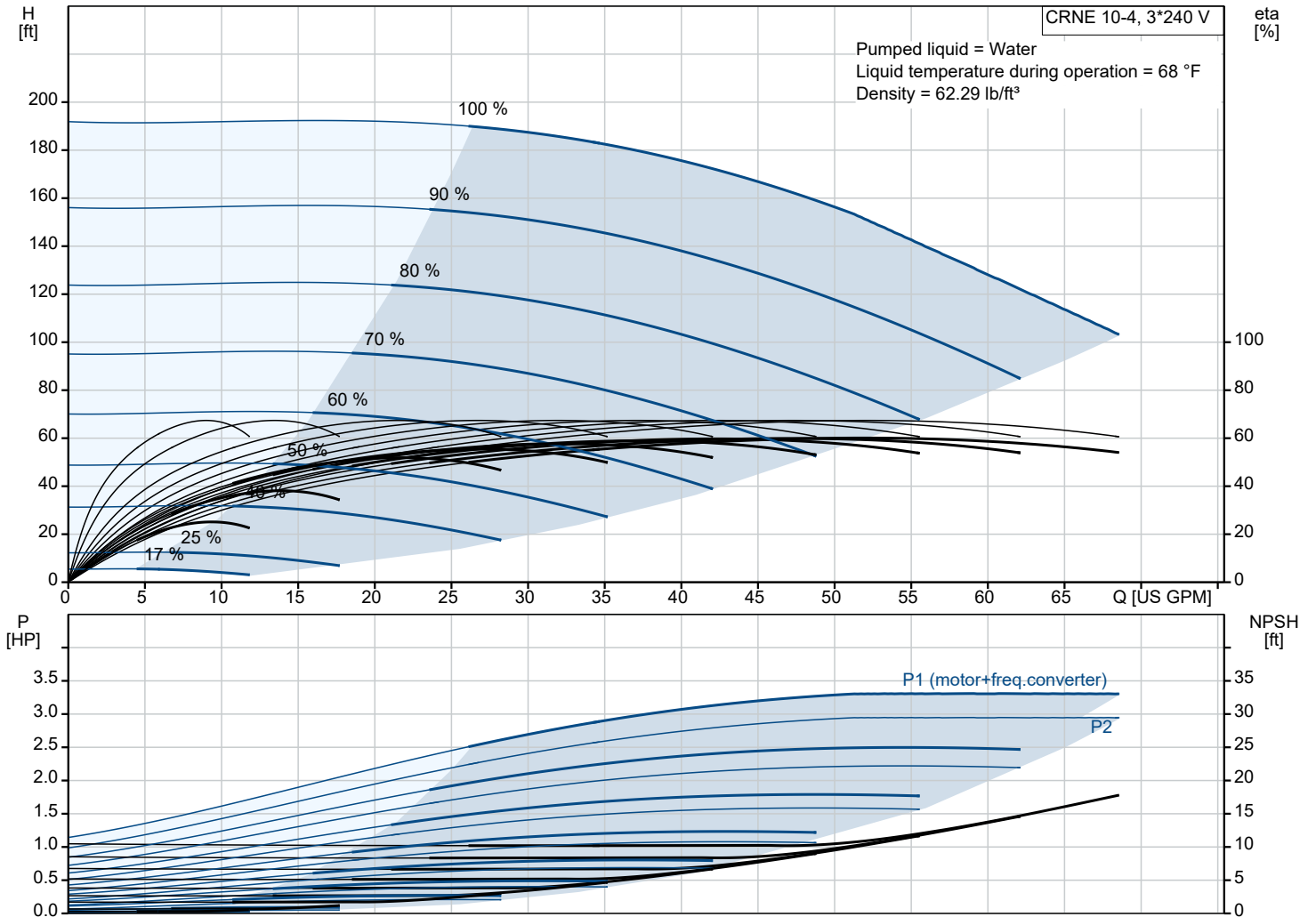


CRNE 10-4 N-P-A-E-HQQE

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:	3 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:	99392049	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	100A
				Eta 1/1:	88.7 %



Qty.	Description
1	<p data-bbox="124 85 427 116">CRNE 10-4 N-P-A-E-HQQE</p> <p data-bbox="124 116 389 138">Product No.: 99392049</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 PJE (Victaulic®) couplings.</p> <p data-bbox="124 264 1050 295">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 295 938 318">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 327 1519 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="124 380 1471 403">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="124 439 890 461">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 470 1461 515">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="124 586 1519 654">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="124 703 1114 725">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="162 730 1433 815" 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="124 819 1503 864">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="162 878 1503 1258" 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 197 1317">Liquid:</p> <p data-bbox="124 1326 555 1348">Pumped liquid: Water</p> <p data-bbox="124 1357 609 1379">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1388 549 1411">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1420 603 1442">Density: 62.29 lb/ft³</p> <p data-bbox="124 1473 236 1496">Technical:</p> <p data-bbox="124 1505 740 1527">Pump speed on which pump data are based: 3461 rpm</p> <p data-bbox="124 1536 641 1559">Rated flow: 53.3 US GPM</p> <p data-bbox="124 1568 571 1590">Rated head: 150.3 ft</p> <p data-bbox="124 1599 564 1621">Actual impeller diameter: 3.66 in</p> <p data-bbox="124 1630 571 1653">Pump orientation: Vertical</p> <p data-bbox="124 1662 549 1684">Shaft seal arrangement: Single</p> <p data-bbox="124 1693 564 1715">Code for shaft seal: HQQE</p> <p data-bbox="124 1724 577 1747">Approvals: CURUS</p> <p data-bbox="124 1756 635 1778">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 1787 683 1809">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="124 1841 229 1863">Materials:</p> <p data-bbox="124 1872 644 1944">Base: Stainless steel EN 1.4408 AISI 316</p> <p data-bbox="124 1953 644 2024">Impeller: Stainless steel EN 1.4401 AISI 316</p> <p data-bbox="124 2033 533 2056">Bearing: SIC</p> <p data-bbox="124 2101 245 2123">Installation:</p> <p data-bbox="124 2132 564 2154">t max amb: 104 °F</p> <p data-bbox="124 2163 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: 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: 100A</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 3 HP</p> <p>Power (P2) required by pump: 3 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: 7.90-6.60 A</p> <p>Cos phi - power factor: 0.94</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 88.7%</p> <p>Motor efficiency at full load: 88.7 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99302693</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: 119 lb</p> <p>Gross weight: 205 lb</p> <p>Shipping volume: 8.26 ft³</p>

99392049 CRNE 10-4 N-P-A-E-HQQE 60 Hz



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