

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

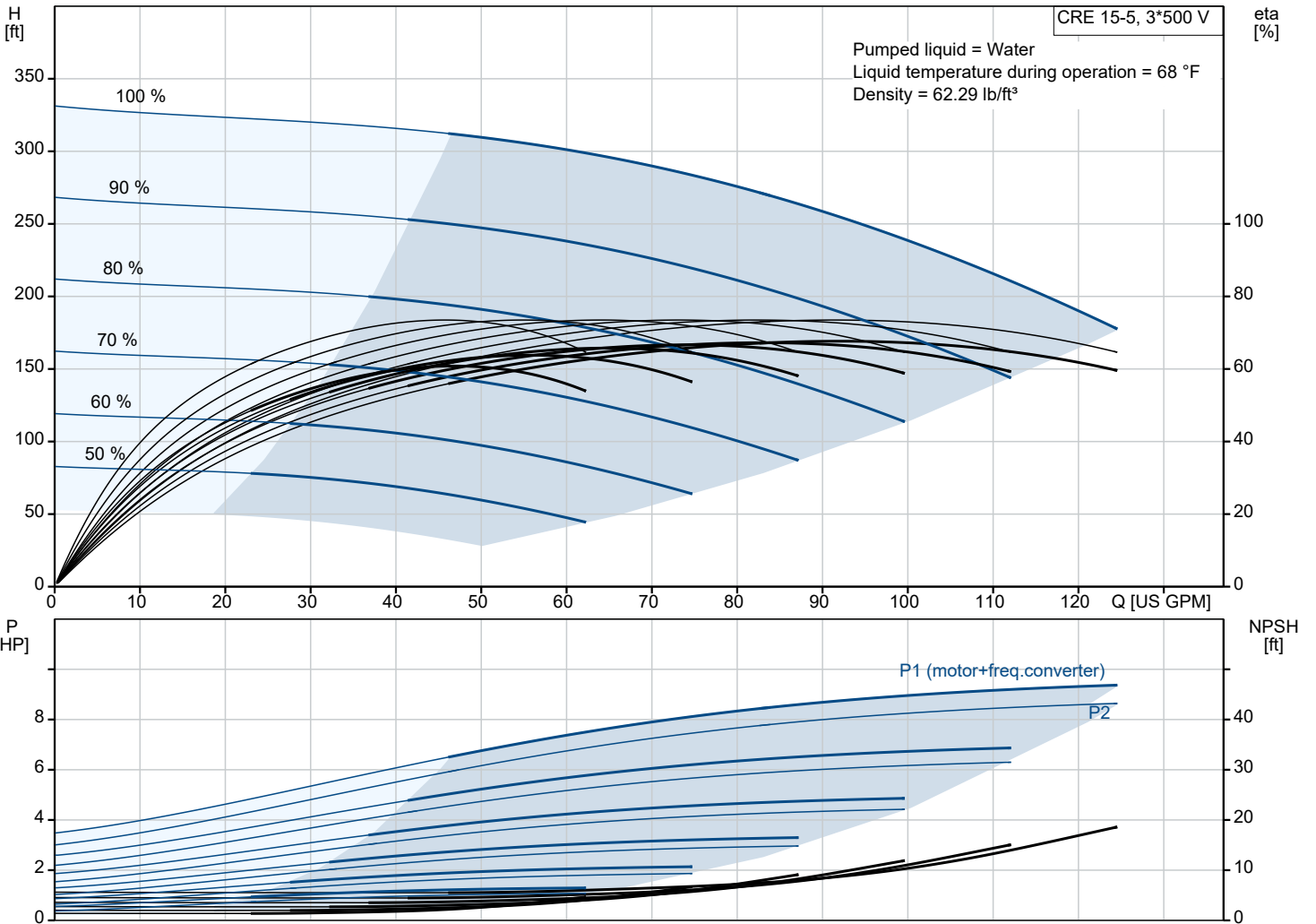


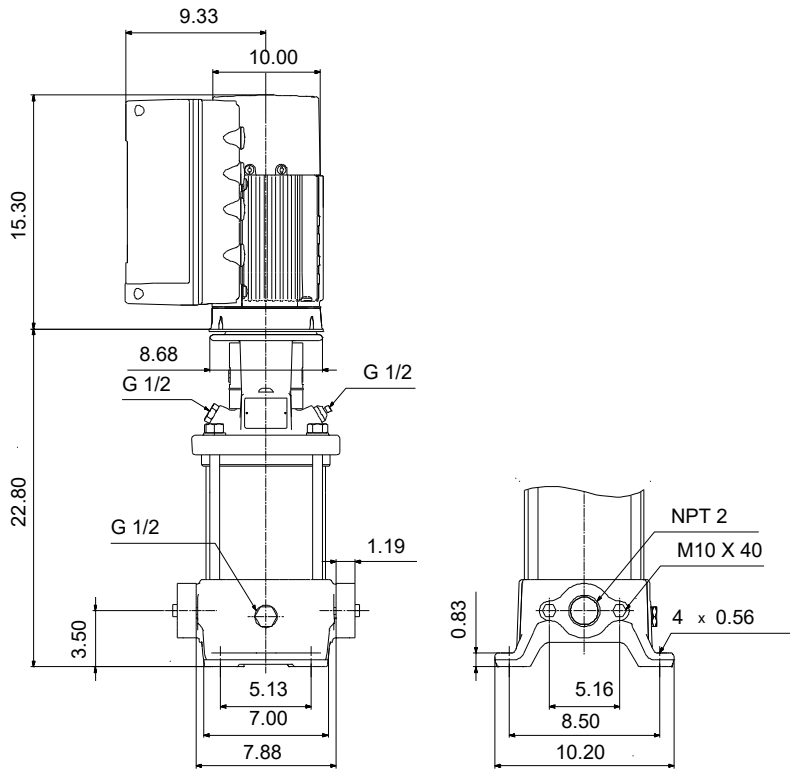
## CRE 15-5 N-B-A-E-HQQE

Vertical, multistage centrifugal pump with integrated frequency converter. The pump head and base are in cast iron - all other wetted parts are in stainless steel (EN 1.4301)

Note! Product picture may differ from actual product


Conditions of Service		Pump Data		Motor Data	
Liquid:	Water	Max pressure at stated temp:	145 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:	99076223	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	132F
				Eta 1/1:	92.5 %





**Materials:**

Base: Cast iron  
 Base: EN 1561 EN-GJL-200  
 Base: ASTM A48-25B  
 Impeller: Stainless steel  
 Impeller: AISI 304  
 Impeller: EN 1.4301  
 Material code: A  
 Code for rubber: E

Qty.	Description
1	<p data-bbox="124 85 413 114"><b>CRE 15-5 N-B-A-E-HQQE</b></p>  <p data-bbox="517 434 987 456"><b>Note! Product picture may differ from actual product</b></p> <p data-bbox="124 465 387 488">Product No.: <a href="#">99076223</a></p> <p data-bbox="124 524 1522 600">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in 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 oval flanges with internal NPT threads.</p> <p data-bbox="124 611 1051 633">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 640 940 663">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 669 1522 719">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="124 725 1469 748">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="124 786 890 808">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 815 1461 864">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="124 934 1522 1005">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 1048 1115 1070">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="164 1077 1434 1162" 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 1169 1501 1218">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 1225 1501 1606" 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 1641 201 1664">Liquid:</p> <p data-bbox="124 1671 557 1693">Pumped liquid: Water</p> <p data-bbox="124 1700 611 1722">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1729 549 1751">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1758 606 1780">Density: 62.29 lb/ft<sup>3</sup></p> <p data-bbox="124 1816 237 1839">Technical:</p> <p data-bbox="124 1845 743 1868">Pump speed on which pump data are based: 3470 rpm</p> <p data-bbox="124 1874 639 1897">Rated flow: 90.3 US GPM</p> <p data-bbox="124 1904 572 1926">Rated head: 254.6 ft</p> <p data-bbox="124 1933 564 1955">Actual impeller diameter: 4.13 in</p> <p data-bbox="124 1962 572 1984">Pump orientation: Vertical</p> <p data-bbox="124 1991 549 2013">Shaft seal arrangement: Single</p> <p data-bbox="124 2020 564 2042">Code for shaft seal: HQQE</p> <p data-bbox="124 2049 576 2072">Approvals: CURUS</p> <p data-bbox="124 2078 635 2101">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 2107 683 2130">Curve tolerance: ISO9906:2012 3B</p>

Qty.	Description
	<p><b>Materials:</b></p> <p>Base: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B</p> <p>Impeller: Stainless steel EN 1.4301 AISI 304</p> <p>Bearing: SIC</p> <p>Installation:</p> <p>t max amb: 122 °F</p> <p>Maximum operating pressure: 145.04 psi</p> <p>Max pressure at stated temp: 145 psi / 250 °F 145 psi / -4 °F</p> <p>Type of connection: Oval / NPT(F)</p> <p>Size of inlet connection: 2 inch</p> <p>Size of outlet connection: 2 inch</p> <p>Pressure rating for connection: PN 10</p> <p>Flange size for motor: 213TC</p> <p><b>Electrical data:</b></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><b>Controls:</b></p> <p>Frequency converter: Built-in</p> <p>Pressure sensor: Y</p> <p><b>Others:</b></p> <p>DOE Pump Energy Index VL: 0.40</p> <p>Net weight: 198 lb</p> <p>Gross weight: 284 lb</p> <p>Shipping volume: 13.1 ft³</p>

# 99076223 CRE 15-5 N-B-A-E-HQQE 60 Hz



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