

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

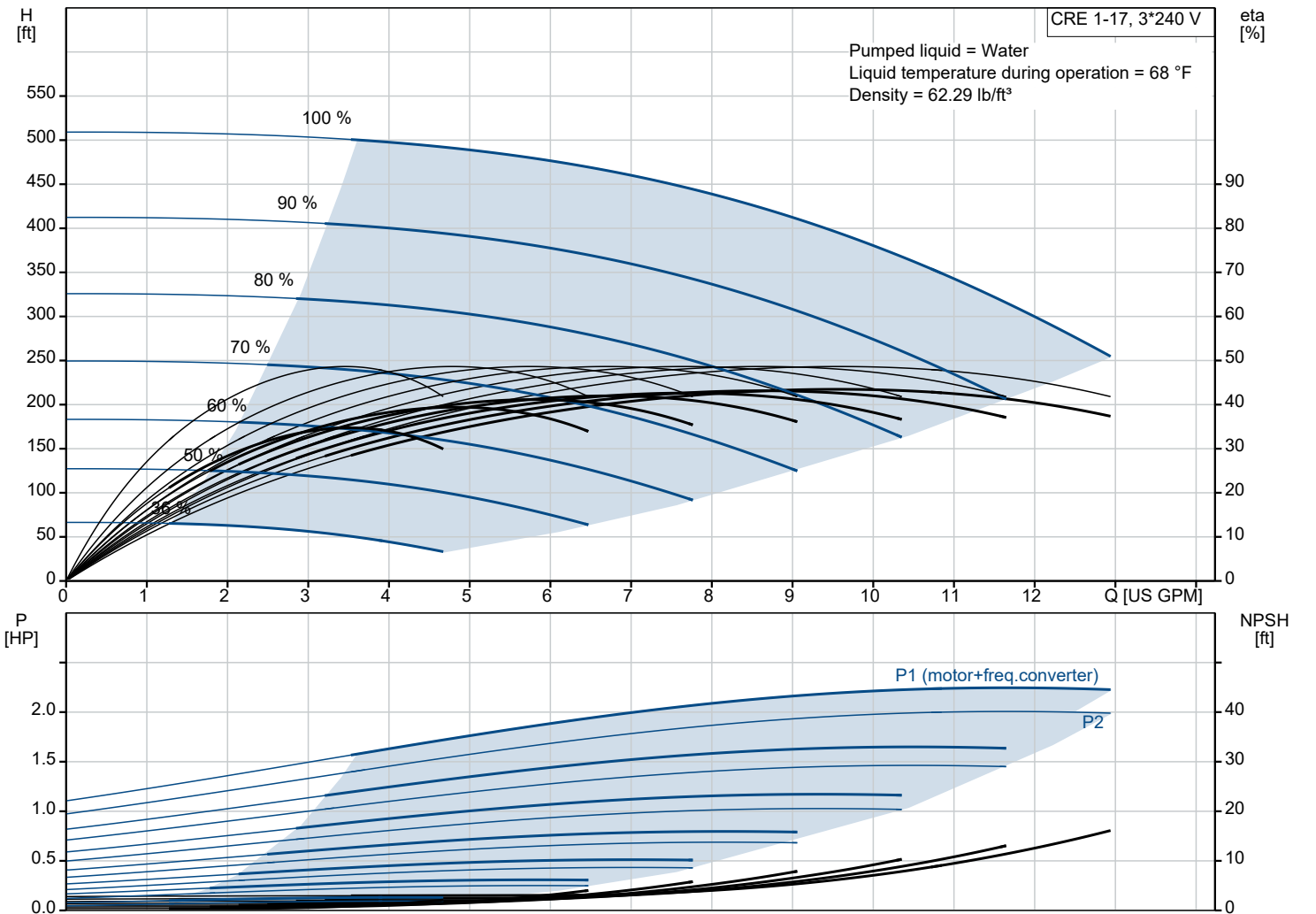


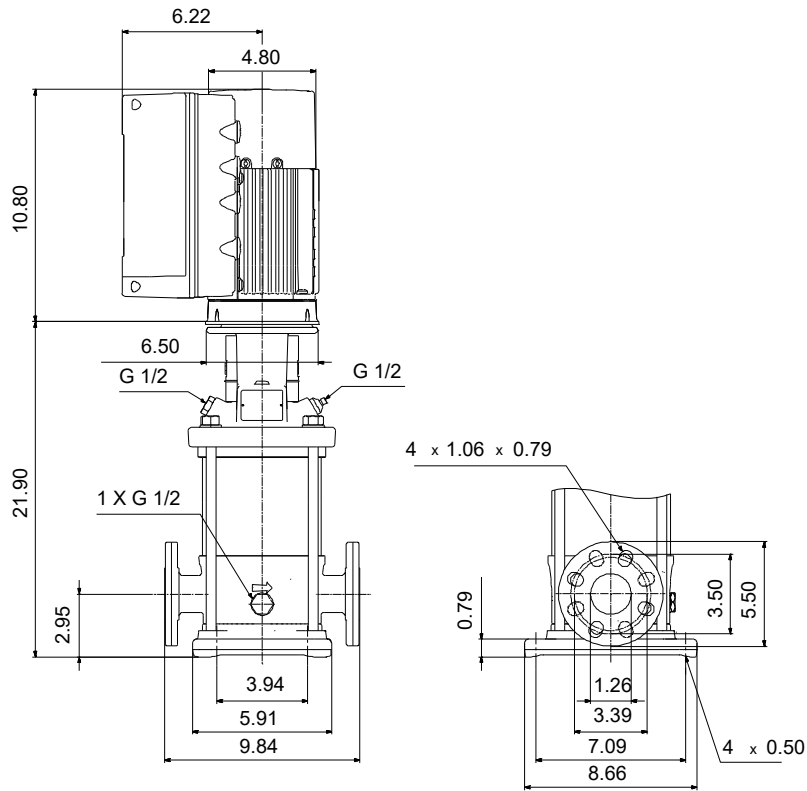
CRE 1-17 N-FGJ-A-E-HQQE

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:	363 psi / 250 °F	Rated power - P2:	2 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:	99389016	Insulation class:	F
				Motor protection:	ELEC
				Motor type:	90C
				Eta 1/1:	88.9 %





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 85 443 116">CRE 1-17 N-FGJ-A-E-HQQE</p>  <p data-bbox="518 432 989 459">Note! Product picture may differ from actual product</p> <p data-bbox="124 465 391 492">Product No.: 99389016</p> <p data-bbox="124 526 1524 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 combined DIN-ANSI-JIS flanges.</p> <p data-bbox="124 611 1050 638">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="124 645 938 672">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="124 678 1524 723">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="124 730 1476 757">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="124 790 890 817">The display gives an intuitive and user-friendly interface to all functions.</p> <p data-bbox="124 824 1460 869">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="124 936 1524 1010">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 1117 1075">The Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="159 1081 1436 1171" 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 1178 1500 1223">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="159 1229 1500 1608" 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 1641 199 1668">Liquid:</p> <p data-bbox="124 1675 558 1702">Pumped liquid: Water</p> <p data-bbox="124 1709 614 1736">Liquid temperature range: -4 .. 248 °F</p> <p data-bbox="124 1742 550 1769">Selected liquid temperature: 68 °F</p> <p data-bbox="124 1776 606 1803">Density: 62.29 lb/ft³</p> <p data-bbox="124 1832 239 1859">Technical:</p> <p data-bbox="124 1865 742 1892">Pump speed on which pump data are based: 3452 rpm</p> <p data-bbox="124 1899 638 1926">Rated flow: 9.69 US GPM</p> <p data-bbox="124 1933 574 1960">Rated head: 362.9 ft</p> <p data-bbox="124 1966 574 1993">Pump orientation: Vertical</p> <p data-bbox="124 2000 542 2027">Shaft seal arrangement: Single</p> <p data-bbox="124 2033 558 2060">Code for shaft seal: HQQE</p> <p data-bbox="124 2067 574 2094">Approvals: CURUS</p> <p data-bbox="124 2101 638 2128">Approvals for drinking water: NSF/ANSI 61</p> <p data-bbox="124 2134 686 2161">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="124 2190 231 2217">Materials:</p>

Qty.	Description
	<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: 104 °F</p> <p>Maximum operating pressure: 362.59 psi</p> <p>Max pressure at stated temp: 363 psi / 250 °F 363 psi / -4 °F</p> <p>Type of connection: DIN / ANSI / JIS</p> <p>Size of inlet connection: DN 25/32</p> <p>Size of outlet connection: DN 25/32</p> <p>Pressure rating for connection: PN 25</p> <p>Flange rating inlet: 250 lb</p> <p>Flange size for motor: 56C</p> <p>Electrical data:</p> <p>Motor standard: NEMA</p> <p>Motor type: 90C</p> <p>IE Efficiency class: IE5</p> <p>Rated power - P2: 2 HP</p> <p>Power (P2) required by pump: 2 HP</p> <p>Mains frequency: 60 Hz</p> <p>Rated voltage: 3 x 200-240 V</p> <p>Service factor: 1.00</p> <p>Rated current: 5.40-4.60 A</p> <p>Cos phi - power factor: 0.92</p> <p>Rated speed: 360-4000 rpm</p> <p>Efficiency: 88.9%</p> <p>Motor efficiency at full load: 88.9 %</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Motor No: 99301706</p> <p>Controls:</p> <p>Frequency converter: Built-in</p> <p>Pressure sensor: Y</p> <p>Others:</p> <p>Net weight: 84.3 lb</p> <p>Gross weight: 168 lb</p> <p>Shipping volume: 8.26 ft³</p>