

# **Submittal Data**

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



## CRNE 15-1 N-P-A-E-HQQE

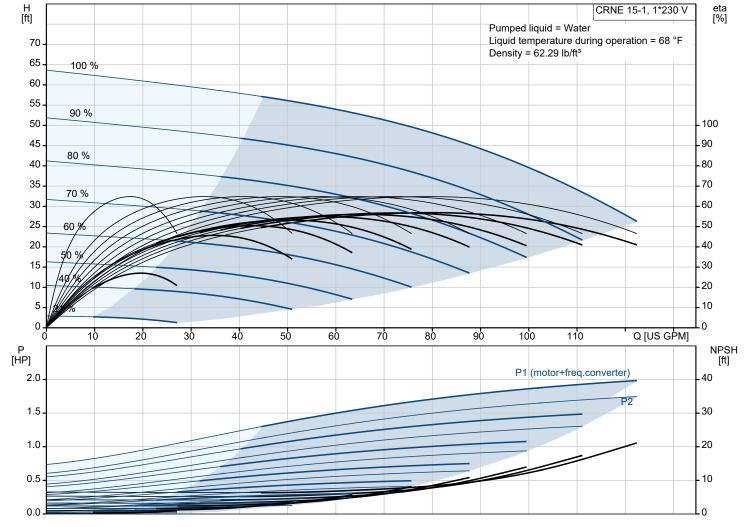
Vertical, multistage centrifugal pump with integrated frequency converter. Pump materials in contact with the liquid are in high-grade stainless steel (EN 1.4401)

Note! Product picture may differ from actual product

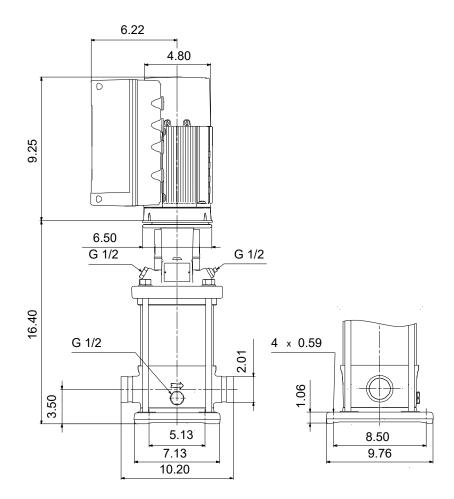
Conditions of Service		
Liquid:	Water	
Temperature:	68 °F	
Specific Gravity:	1.000	

Pump Data		
Max pressure at stated temp:	363 psi / 250 °F	
Liquid temperature range:	-4 248 °F	
Maximum ambient temperature:	122 °F	
Shaft seal:	HQQE	
Product number:	99341013	

Motor Data		
Rated power - P2:	2 HP	
Rated voltage:	200-240 V	
Mains frequency:	60 Hz	
Enclosure class:	IP55	
Insulation class:	F	
Motor protection:	ELEC	
Motor type:	90C	
Eta 1/1:	87.4 %	







## 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

## CRNE 15-1 N-P-A-E-HQQE

Product No.: 99341013

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.

The pump is fitted with a 1-phase, fan-cooled, permanent-magnet, synchronous motor.

The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

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.

The operating panel on the motor terminal box features a four-inch TFT display, push-buttons and the Grundfos Eye indicator.

The display gives an intuitive and user-friendly interface to all functions.

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".

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".

The Grundfos Eye indicator on the operating panel provides visual indication of pump status:

- "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).

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:

- 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.

### Liquid:

Pumped liquid: Water
Liquid temperature range: -4 .. 248 °F
Selected liquid temperature: 68 °F
Density: 62.29 lb/ft³

#### Technical:

Pump speed on which pump data are based: 3499 rpm

Rated flow: 79.3 US GPM Rated head: 51.84 ft Actual impeller diameter: 4.13 in Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals: **CURUS** Approvals for drinking water: NSF/ANSI 61

Materials:

Impeller:

Curve tolerance:

Base: Stainless steel

EN 1.4408 AISI 316 Stainless steel EN 1.4401

ISO9906:2012 3B

AISI 316

Bearing: SIC

Installation:

t max amb: 122 °F Maximum operating pressure: 362.59 psi

## Qty. | Description

Max pressure at stated temp: 363 psi / 250 °F

363 psi / -4 °F

Type of connection: PJE
Size of inlet connection: DN 50
Size of outlet connection: DN 50
Pressure rating for connection: PN 50
Flange size for motor: 56C

Electrical data:

Motor standard: NEMA
Motor type: 90C
IE Efficiency class: IE5
Rated power - P2: 2 HP
Power (P2) required by pump: 2 HP
Mains frequency: 60 Hz

Rated voltage: 1 x 200-240 V

Service factor: 1.0

Rated current: 9.10-7.60 A

Cos phi - power factor: 0.99

Rated speed: 360-4000 rpm

Efficiency: 87.4%

Motor efficiency at full load: 87.4 %

Enclosure class (IEC 34-5): IP55

Insulation class (IEC 85): F

Motor No: 98362279

Controls:

Frequency converter: Built-in Pressure sensor: Y

Others:

DOE Pump Energy Index VL: 0.45
Net weight: 86 lb
Gross weight: 101 lb
Shipping volume: 6.11 ft³

