

# **Submittal Data**

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



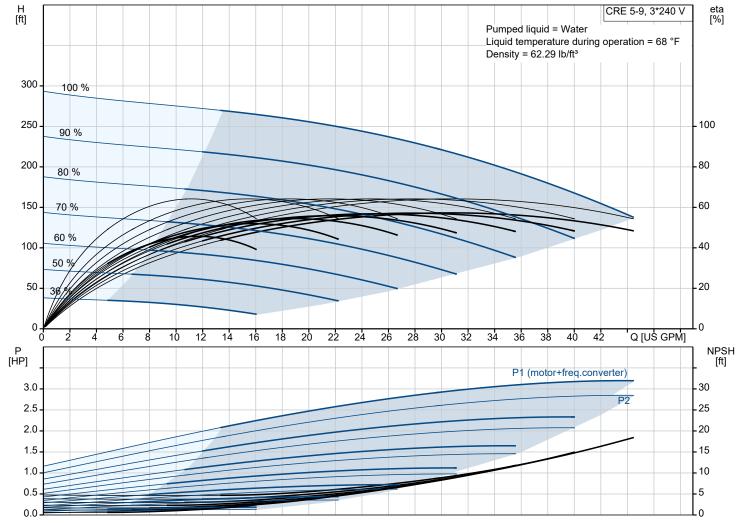
## CRE 5-9 N-FGJ-A-E-HQQE

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)

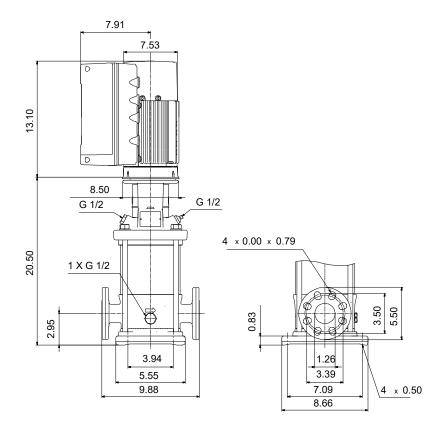
| Conditions of Service |       |  |
|-----------------------|-------|--|
| Liquid:               | Water |  |
| Temperature:          | 68 °F |  |
| Specific Gravity:     | 1.000 |  |

| Pump Data                    |                  |
|------------------------------|------------------|
| Max pressure at stated temp: | 363 psi / 250 °F |
| Liquid temperature range:    | -4 248 °F        |
| Maximum ambient temperature: | 104 °F           |
| Shaft seal:                  | HQQE             |
| Product number:              | 99389086         |
|                              |                  |

| Motor Data        |           |  |
|-------------------|-----------|--|
| Rated power - P2: | 3 HP      |  |
| Rated voltage:    | 200-240 V |  |
| Mains frequency:  | 60 Hz     |  |
| Enclosure class:  | IP55      |  |
| Insulation class: | F         |  |
| Motor protection: | ELEC      |  |
| Motor type:       | 100A      |  |
| Eta 1/1:          | 88.7 %    |  |







## 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

### CRE 5-9 N-FGJ-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: 99389086

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.

The pump is fitted with a 3-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
- LigTec, 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: 3461 rpm

Rated flow: 30.4 US GPM Rated head: 222.8 ft Vertical Pump orientation: Shaft seal arrangement: Single Code for shaft seal: **HQQE CURUS** Approvals: Approvals for drinking water: NSF/ANSI 61 Curve tolerance: ISO9906:2012 3B

Materials:

Qty. | Description

Base: Cast iron

EN 1561 EN-GJL-200

ASTM A48-25B

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing: SIC

Installation:

t max amb: 104 °F

Maximum operating pressure: 362.59 psi

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

363 psi / -4 °F

182TC

Type of connection:

Size of inlet connection:

DIN / ANSI / JIS

DN 25/32

Size of outlet connection:

Pressure rating for connection:

Flange rating inlet:

DN 25/32

PN 25

250 lb

Electrical data:

Flange size for motor:

Motor standard: NEMA
Motor type: 100A
IE Efficiency class: IE5
Rated power - P2: 3 HP
Power (P2) required by pump: 3 HP
Mains frequency: 60 Hz

Rated voltage: 3 x 200-240 V

Service factor: 1.15
Rated current: 7.90-6.60 A
Cos phi - power factor: 0.94

Rated speed: 360-4000 rpm

Efficiency: 88.7%

Motor efficiency at full load: 88.7 %

Enclosure class (IEC 34-5): IP55

Insulation class (IEC 85): F

Motor No: 99302693

Controls:

Frequency converter: Built-in Pressure sensor: Y

Others:

Net weight: 101 lb Gross weight: 184 lb Shipping volume: 8.26 ft³

