Qty. | Description

1 | CRE 125-1 A-F-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: 99264394

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. The Grundfos 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 DIN flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

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.

An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The operating panel has indicator lights for "Operation" and "Fault".

Communication with the pump is 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 terminal box holds terminals for these connections:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, Imax = 5 mA
- three analog sensor inputs, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, Imax = 40 mA
- · one analog output
- three digital inputs
- two Pt100 inputs
- · two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- RS-485 GENIbus connection
- interface for Grundfos CIM fieldbus module.

Further product details

An external sensor can be connected if controlled pump operation based on for example flow, differential pressure or temperature is required.

An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The operating panel has indicator lights for "Operation" and "Fault".

Communication with the pump is 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".

Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process.

CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface.

An integral part of the process is a pretreatment.

The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

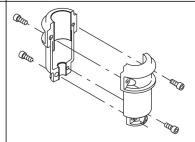
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A long split coupling connects the pump and motor shaft. It is enclosed in the motor stool by means of two coupling guards. The long coupling makes it possible to replace the shaft seal without removing the motor from the pump.

Qty. | Description

1



The motor stool connects the pump head and motor. The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system.

This seal type is assembled in a cartridge unit which makes replacement safe and easy.

Due to the balancing, this seal type is suitable for high-pressure applications.

The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

Seal faces:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is screwed into the pump head.

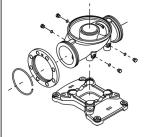
The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PEEK neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The base is made of cast iron and mounted on a separate cast-iron base plate.

Both the inlet and the outlet side of the base have two pressure gauge tappings.

The pump is secured to the foundation by four bolts through the base plate.

The flanges are fastened to the base by means of locking rings.



Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).

Electrical tolerances comply with IEC 60034.

Qty. | Description

1 The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

The terminal box holds terminals for these connections:

- pump start/stop input (potential-free contact)
- remote setpoint setting via analog signal, 0-10 V, 0(4)-20 mA
- 10 V voltage supply for setpoint potentiometer, Imax = 5 mA
- three analog sensor inputs, 0-10 V, 0(4)-20 mA
- 24 V voltage supply for sensor, Imax = 40 mA
- · one analog output
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- · two Pt100 inputs
- · two potential-free fault signal relays with changeover contact, reporting "Fault", "Operation" or "Ready"
- RS-485 GENIbus connection
- · interface for Grundfos CIM fieldbus module.

Technical data

Liquid:

Pumped liquid: Water
Liquid temperature range: -20 .. 120 °C
Selected liquid temperature: 20 °C
Density: 998.2 kg/m³

Technical:

Pump speed on which pump data are based: 3565 rpm

Rated flow: 150 m³/h
Rated head: 36.9 m
Pump orientation: Vertical
Shaft seal arrangement: Single
Code for shaft seal: HQQE

Approvals and markings: CE,EAC,UKCA,SEPRO

Approvals for drinking water: ACS

Curve tolerance: ISO9906:2012 3B

Materials:

Base: Ductile cast iron

EN 1563 EN-GJS-500-7 ASTM A536-84 65-45-12

Impeller: Stainless steel

EN 1.4301 AISI 304

Bearing arrangement: WC/WC Support bearing: Graflon

Material certified according to: European standards

Installation:

t max amb: 40 °C Maximum operating pressure: 16 bar

Max pressure at stated temp: $\,$ 16 bar / 120 °C $\,$

Type of connection:

Size of inlet connection:

Size of outlet connection:

Pressure rating for connection:

Flange size for motor:

DIN

DN 150

PN 150

FF300

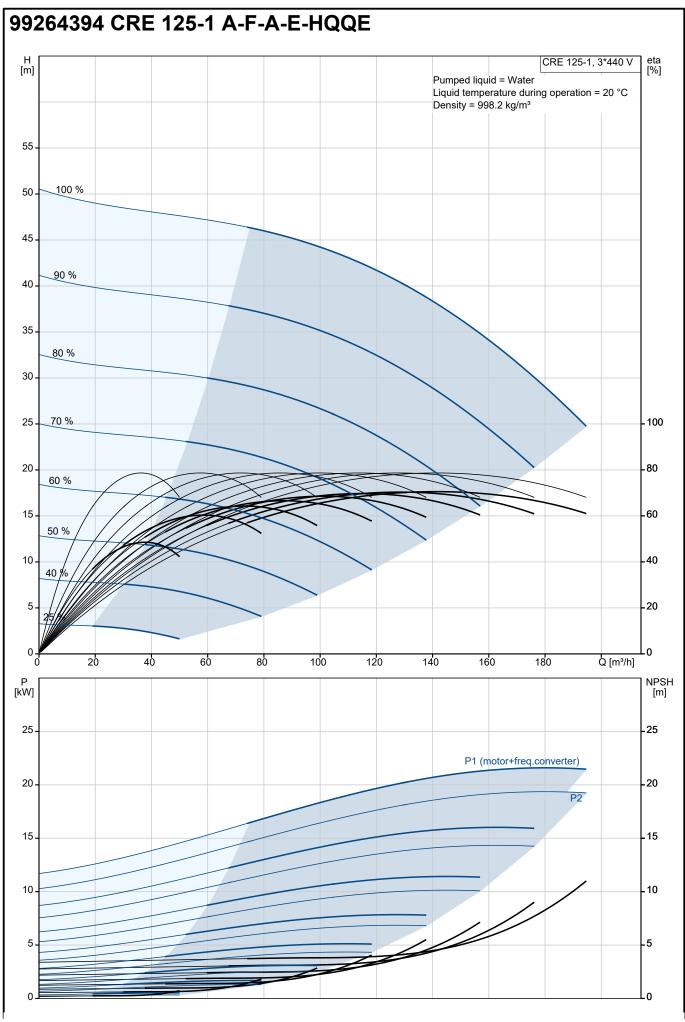
Electrical data:

Motor standard: IEC
Motor type: 180MB
IE Efficiency class: IE3
Rated power - P2: 22 kW
Power (P2) required by pump: 22 kW

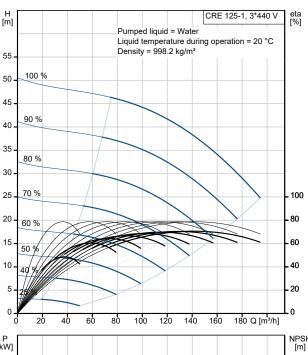
Over/undersize motor: Standard motor size

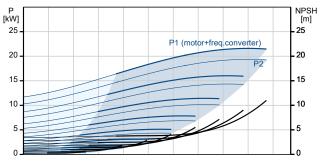
 $\begin{tabular}{lll} \mbox{Mains frequency:} & 50 / 60 \mbox{ Hz} \\ \mbox{Rated voltage:} & 3 \times 380 \mbox{-} 480 \mbox{ V} \\ \end{tabular}$

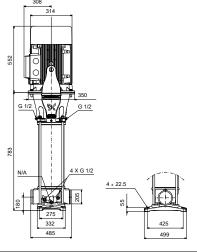
Qty. Description 43.5-35.0 A Rated current: Cos phi - power factor: 0.91-0.90 480-3540 rpm Rated speed: Efficiency: IE3 92,7% Motor efficiency at full load: 92.7 % Number of poles: 2 Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 85901027 Controls: Frequency converter: Built-in Pressure sensor: Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 303 kg Gross weight: 367 kg Shipping volume: 1.14 m³ Thrust handling device: Ν Country of origin: DK Custom tariff no.: 84137075

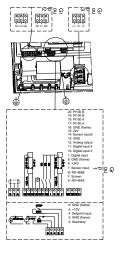


Description	Value		
General information:			
Product name:	CRE 125-1 A-F-A-E-HQQE		
Product No:	99264394		
EAN number:	5713826223670		
Technical:	0710020220070		
Pump speed on which pump data are based:	3565 rpm		
Rated flow:	150 m³/h		
Rated head:	36.9 m		
Maximum head:	50.8 m		
Impellers:	1		
Number of reduced-diameter impellers:	0		
Low NPSH:	N		
Pump orientation:	Vertical		
Shaft seal arrangement:	Single		
Code for shaft seal:	HQQE		
Approvals and markings:	CE,EAC,UKCA,SEPRO		
Approvals for drinking water:	ACS		
Curve tolerance:	ISO9906:2012 3B		
Pump version:	A		
The first model is called A which is followed by model B, C etc.:	A		
Materials:			
Base:	Ductile cast iron		
Base:	EN 1563 EN-GJS-500-7		
Base:	ASTM A536-84 65-45-12		
Impeller:	Stainless steel		
Impeller:	EN 1.4301		
Impeller:	AISI 304		
Material code:	A		
Code for rubber:	E		
Bearing arrangement:	WC/WC		
Support bearing:	Graflon		
Material certified according to: Installation:	European standards		
t max amb:	40 °C		
Maximum operating pressure: Max pressure at stated temp:	16 bar 16 bar / 120 °C		
Type of connection:	DIN		
Size of inlet connection:	DN 150		
Size of outlet connection:	DN 150		
Pressure rating for connection:	PN 16		
Flange size for motor:	FF300		
Connect code:	F		
Liquid:	•		
Pumped liquid:	Water		
Liquid temperature range:	-20 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
Electrical data:	<u> </u>		
Motor standard:	IEC		
Motor type:	180MB		
IE Efficiency class:	IE3		
	22 kW		
	22 kW		
Rated power - P2:	22 kW 22 kW		
Rated power - P2: Power (P2) required by pump:			
Rated power - P2: Power (P2) required by pump: Over/undersize motor:	22 kW		
Rated power - P2: Power (P2) required by pump: Over/undersize motor: Mains frequency:	22 kW Standard motor size		
Rated power - P2: Power (P2) required by pump: Over/undersize motor: Mains frequency: Rated voltage: Rated current:	22 kW Standard motor size 50 / 60 Hz		
Rated power - P2: Power (P2) required by pump: Over/undersize motor: Mains frequency: Rated voltage:	22 kW Standard motor size 50 / 60 Hz 3 x 380-480 V		
Rated power - P2: Power (P2) required by pump: Over/undersize motor: Mains frequency: Rated voltage: Rated current:	22 kW Standard motor size 50 / 60 Hz 3 x 380-480 V 43.5-35.0 A		



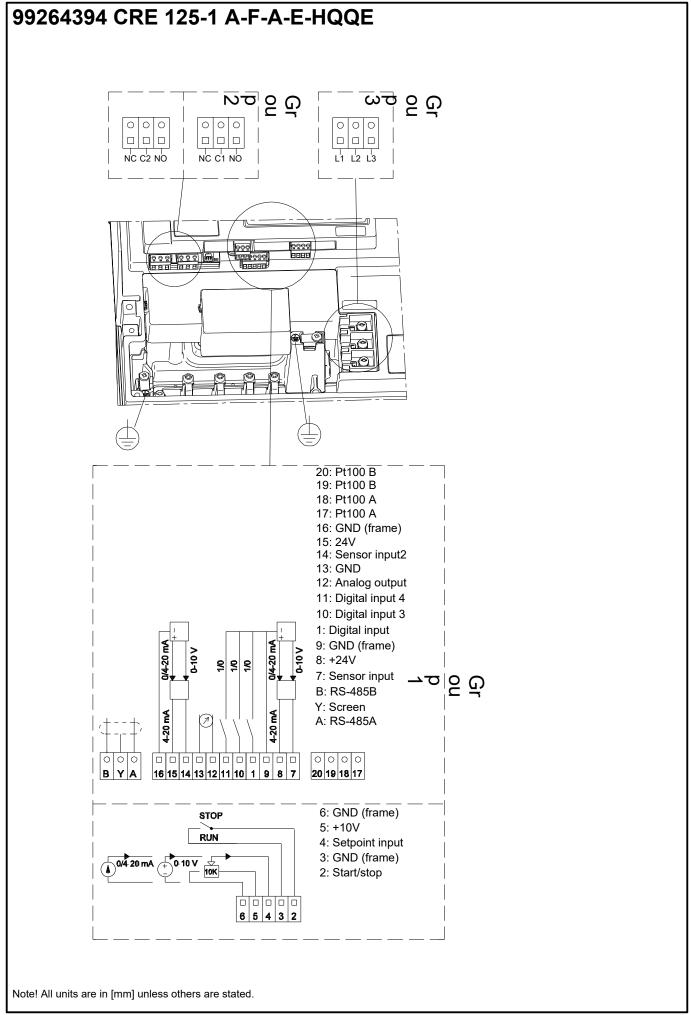






Description	Value	
Motor efficiency at full load:	92.7 %	
Number of poles:	2	
Enclosure class (IEC 34-5):	IP55	
Insulation class (IEC 85):	F	
Built-in motor protection:	YES	
Motor No:	85901027	
Controls:		
Function Module:	ADVANCED I/O	
Frequency converter:	Built-in	
Pressure sensor:	N	
Others:		
Minimum efficiency index, MEI ≥:	0.70	
Net weight:	303 kg	
Gross weight:	367 kg	
Shipping volume:	1.14 m³	
Config. file no:	95139535	
Thrust handling device:	N	
Country of origin:	DK	
Custom tariff no.:	84137075	

99264394 CRE 125-1 A-F-A-E-HQQE 308 314 350 G 1/2 G 1/2 783 4 X G 1/2 N/A 4 x 22.5 180 55 275 332 425 485 499 Note! All units are in [mm] unless others are stated. Disclaimer: This simplified dimensional drawing does not show all details.



Order Data:						
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