


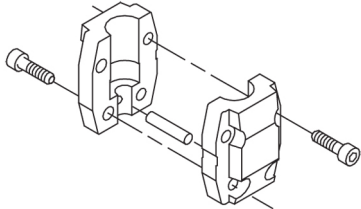
Qty.	Description
1	<p data-bbox="201 159 507 188">CRE 64-1-1 A-F-A-E-HQQE</p>  <p data-bbox="201 483 464 512">Product No.: 99072057</p> <p data-bbox="201 544 1430 640">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – 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 DIN flanges.</p> <p data-bbox="201 685 1126 714">The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="201 716 1015 745">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="201 748 1394 797">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="201 799 1449 875">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 Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="240 887 1458 1032" 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="201 1034 1422 1111">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".</p> <p data-bbox="201 1122 1437 1171">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="240 1182 900 1529" 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 • 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="201 1563 512 1592">Further product details</p> <p data-bbox="201 1603 1449 1653">An external sensor can be connected if controlled pump operation based on for example flow, differential pressure or temperature is required.</p> <p data-bbox="201 1664 1449 1740">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 Grundfos Eye indicator on the operating panel provides visual indication of pump status:</p> <ul data-bbox="240 1751 1458 1897" 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="201 1899 1422 1975">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".</p> <p data-bbox="201 1986 1394 2036">Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process.</p> <p data-bbox="201 2047 1430 2096">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.</p>

Qty. Description

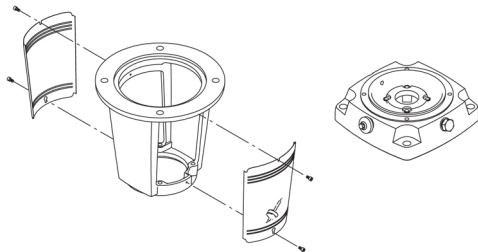
- 1 An integral part of the process is a pretreatment.
The entire process consists of these elements:
- 1) Alkaline-based cleaning.
 - 2) Zinc phosphating.
 - 3) Cathodic electro-deposition.
 - 4) Curing to a dry film thickness 18-22 my m.
- The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



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.

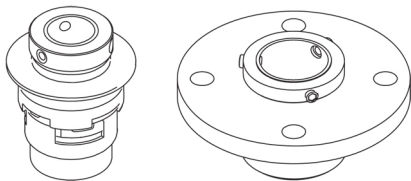
Seal faces:

- 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)

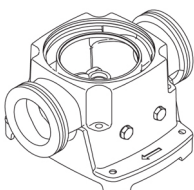
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is retained in the pump head by a cover and screws. It can be replaced without removing the motor.

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

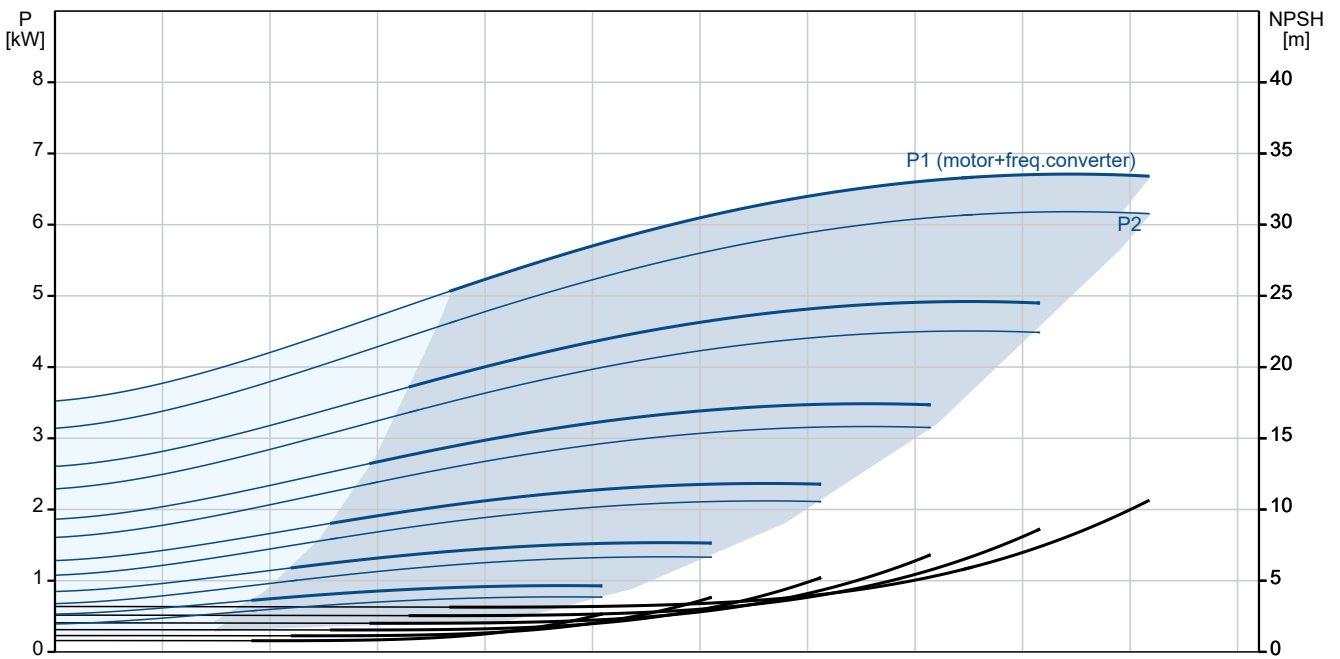
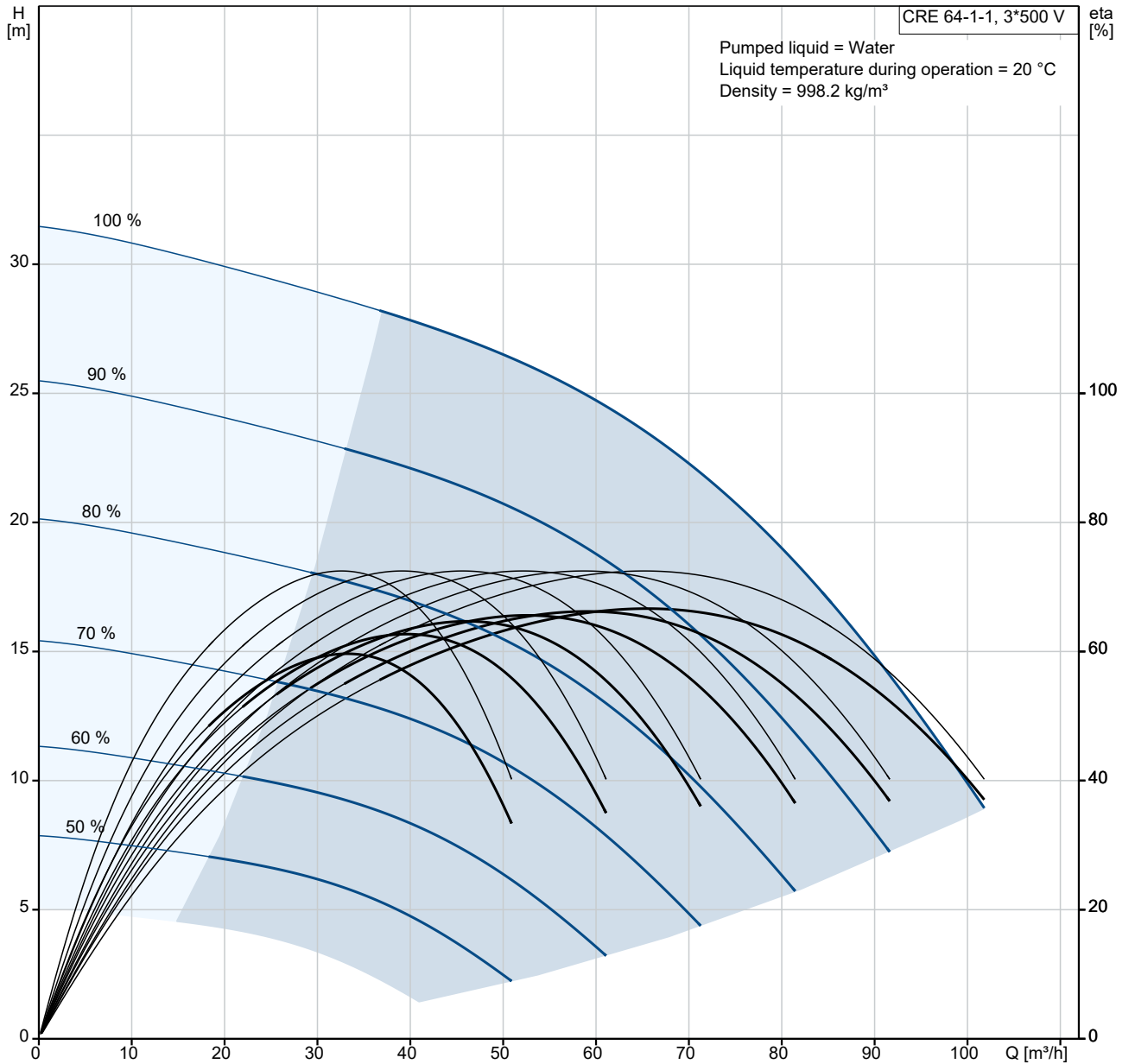
The base is made of cast iron. Both the inlet and the outlet side of the base have two pressure gauge tappings. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.



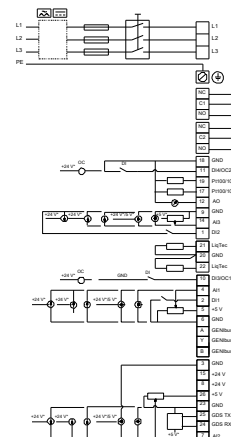
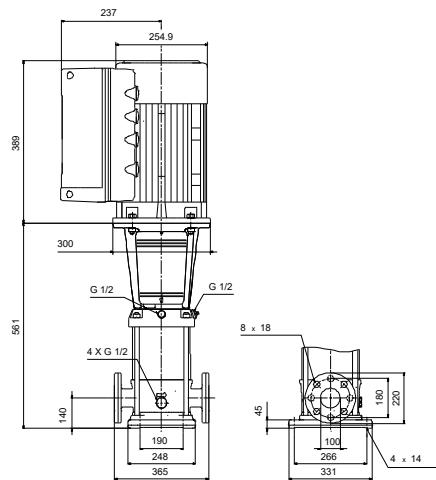
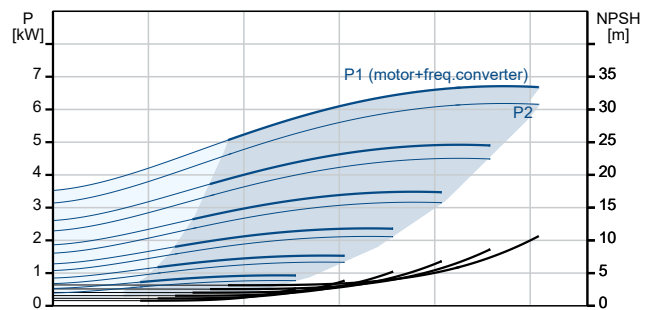
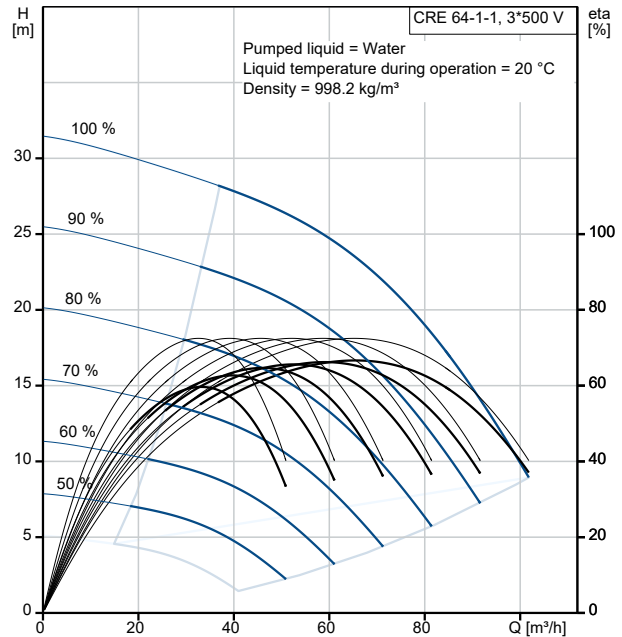
Qty.	Description
1	<p data-bbox="201 163 284 192">Motor</p> <p data-bbox="201 199 1430 248">The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).</p> <p data-bbox="201 255 1243 284">Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).</p> <p data-bbox="201 291 679 320">Electrical tolerances comply with IEC 60034.</p> <p data-bbox="201 327 1015 356">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="201 362 1410 412">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.</p> <p data-bbox="201 418 1437 468">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="240 474 900 813" 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 • 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="201 819 400 848">Technical data</p> <p data-bbox="201 913 276 943">Liquid:</p> <p data-bbox="201 949 632 978">Pumped liquid: Water</p> <p data-bbox="201 983 703 1012">Liquid temperature range: -30 .. 120 °C</p> <p data-bbox="201 1016 632 1046">Selected liquid temperature: 20 °C</p> <p data-bbox="201 1050 695 1079">Density: 998.2 kg/m³</p> <p data-bbox="201 1099 312 1128">Technical:</p> <p data-bbox="201 1133 820 1162">Pump speed on which pump data are based: 3525 rpm</p> <p data-bbox="201 1167 647 1196">Rated flow: 77 m³/h</p> <p data-bbox="201 1200 639 1229">Rated head: 20.8 m</p> <p data-bbox="201 1234 647 1263">Pump orientation: Vertical</p> <p data-bbox="201 1267 632 1296">Shaft seal arrangement: Single</p> <p data-bbox="201 1301 639 1330">Code for shaft seal: HQQE</p> <p data-bbox="201 1335 820 1364">Approvals and markings: CE,EAC,UKCA,SEPRO</p> <p data-bbox="201 1368 695 1397">Approvals for drinking water: WRAS,ACS</p> <p data-bbox="201 1402 759 1431">Curve tolerance: ISO9906:2012 3B</p> <p data-bbox="201 1451 312 1480">Materials:</p> <p data-bbox="201 1485 820 1541">Base: Cast iron EN 1563 EN-GJS-500-7 ASTM A536 80-55-06</p> <p data-bbox="201 1547 724 1626">Impeller: Stainless steel EN 1.4301 AISI 304</p> <p data-bbox="201 1637 647 1693">Bearing arrangement: SIC Support bearing: Graflon</p> <p data-bbox="201 1722 328 1751">Installation:</p> <p data-bbox="201 1756 632 1785">t max amb: 50 °C</p> <p data-bbox="201 1789 639 1818">Maximum operating pressure: 16 bar</p> <p data-bbox="201 1823 727 1879">Max pressure at stated temp: 16 bar / 120 °C 16 bar / -30 °C</p> <p data-bbox="201 1890 647 2013">Type of connection: DIN Size of inlet connection: DN 100 Size of outlet connection: DN 100 Pressure rating for connection: PN 16 Flange size for motor: FF265</p> <p data-bbox="201 2047 360 2076">Electrical data:</p> <p data-bbox="201 2080 608 2110">Motor standard: IEC</p>

Qty.	Description
1	<p>Motor type: 132SF IE Efficiency class: IE5 Rated power - P2: 7.5 kW Power (P2) required by pump: 7.5 kW Over/undersize motor: Standard motor size Mains frequency: 50 / 60 Hz Rated voltage: 3 x 380-500 V Rated current: 14.1-11.2 A Cos phi - power factor: 0.93-0.89 Rated speed: 360-4000 rpm Efficiency: 92.5% Motor efficiency at full load: 92.5 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98971052</p> <p>Controls: Frequency converter: Built-in Pressure sensor: N</p> <p>Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 108 kg Gross weight: 141 kg Shipping volume: 0.495 m³ Danish VVS No.: 386008061 Finnish LVI No.: 4925720 Country of origin: GB Custom tariff no.: 84137075</p>

99072057 CRE 64-1-1 A-F-A-E-HQQE

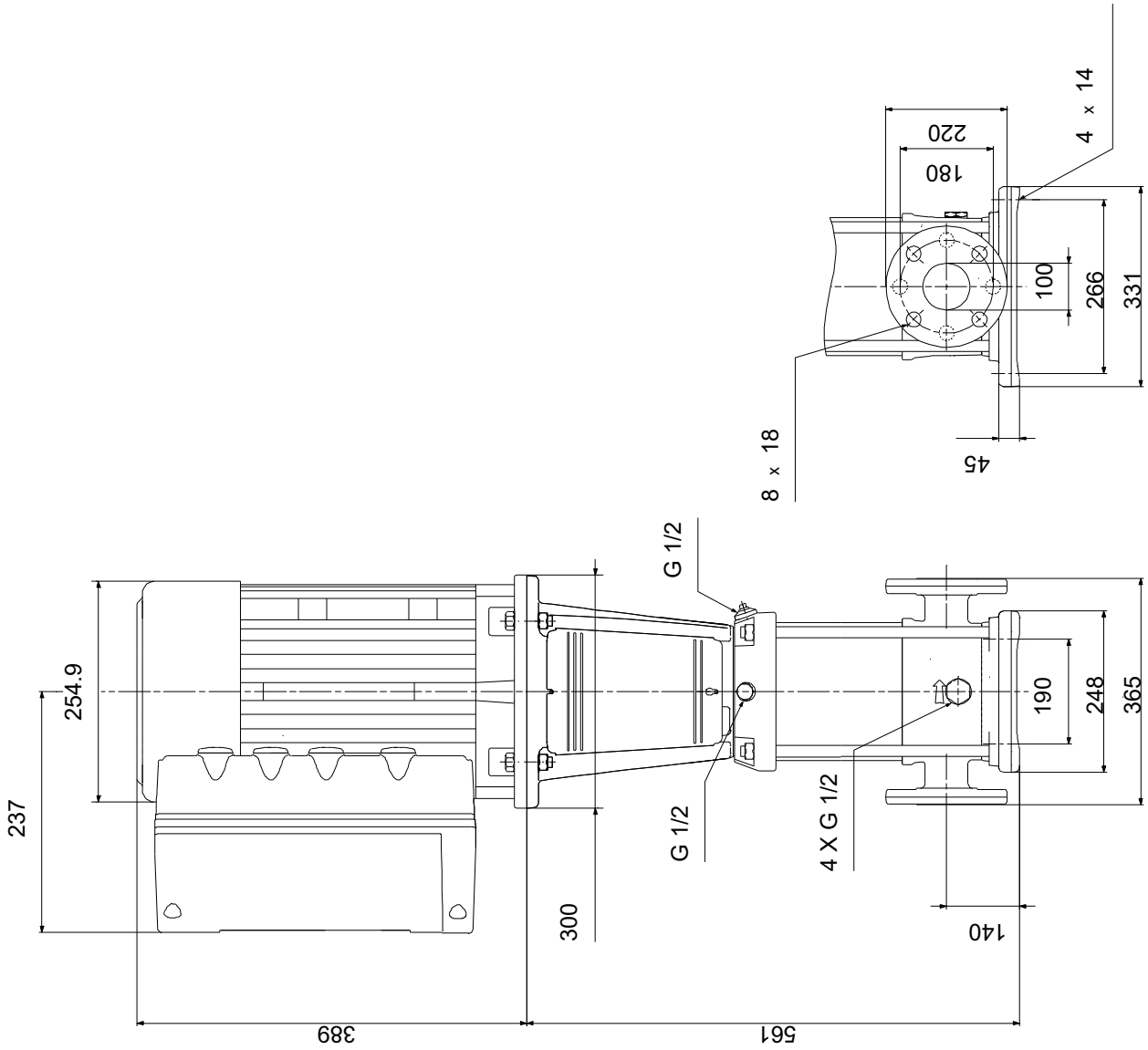


Description	Value
General information:	
Product name:	CRE 64-1-1 A-F-A-E-HQQE
Product No:	99072057
EAN number:	5712606203741
Technical:	
Pump speed on which pump data are based:	3525 rpm
Rated flow:	77 m³/h
Rated head:	20.8 m
Maximum head:	32 m
Number of stages:	1
Impellers:	1
Number of reduced-diameter impellers:	1
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:	WRAS,ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
The first model is called A which is followed by model B, C etc.:	B
Materials:	
Base:	Cast iron
Base:	EN 1563 EN-GJS-500-7
Base:	ASTM A536 80-55-06
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	A
Code for rubber:	E
Bearing arrangement:	SIC
Support bearing:	Graflon
Installation:	
t max amb:	50 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
Max pressure at stated temp:	16 bar / -30 °C
Type of connection:	DIN
Size of inlet connection:	DN 100
Size of outlet connection:	DN 100
Pressure rating for connection:	PN 16
Flange size for motor:	FF265
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-30 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor standard:	IEC
Motor type:	132SF
IE Efficiency class:	IE5
Rated power - P2:	7.5 kW
Power (P2) required by pump:	7.5 kW
Over/undersize motor:	Standard motor size
Mains frequency:	50 / 60 Hz
Rated voltage:	3 x 380-500 V
Rated current:	14.1-11.2 A
Cos phi - power factor:	0.93-0.89
Rated speed:	360-4000 rpm
Efficiency:	92.5%
Motor efficiency at full load:	92.5%



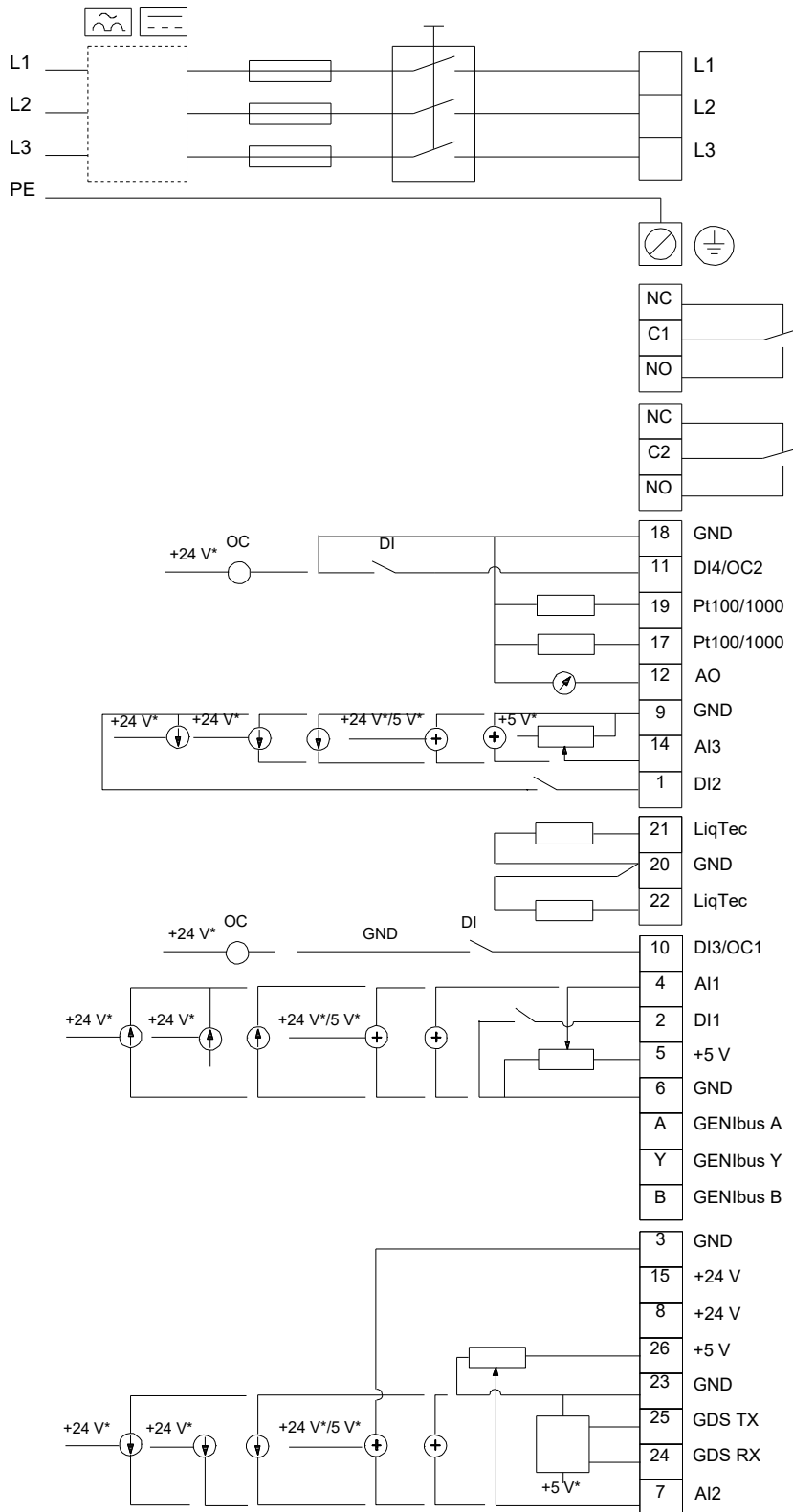
Description	Value
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Built-in motor protection:	ELEC
Motor No:	98971052
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI \geq :	0.70
Net weight:	108 kg
Gross weight:	141 kg
Shipping volume:	0.495 m ³
Config. file no:	99059380
Danish VVS No.:	386008061
Finnish LVI No.:	4925720
Country of origin:	GB
Custom tariff no.:	84137075

99072057 CRE 64-1-1 A-F-A-E-HQQE



Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

99072057 CRE 64-1-1 A-F-A-E-HQQE



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

Order Data:

Position	Your pos.	Product name	Amount	Product No	Total
		CRE 64-1-1	1	99072057	Price on request