

Inventflow: Grundfos A-partner

Grundfos CRE 20-1 A-F-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/cre/grundfos-cre-20-1-a-f-a-e-hqqe>

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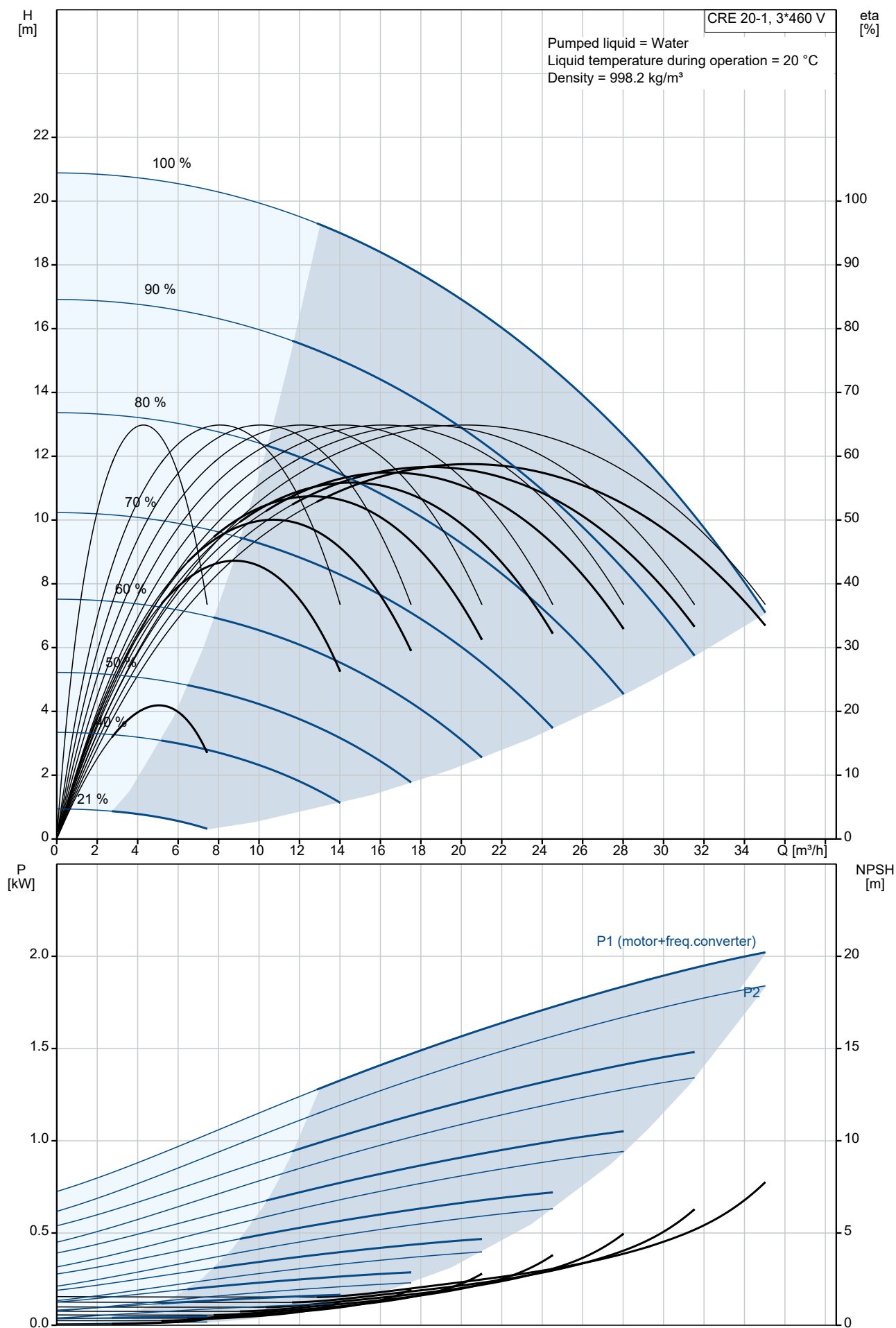
Datasheet



Qty.	Description
1	CRE 20-1 A-F-A-E-HQQE  Note! Product picture may differ from actual product Product No.: 98390766 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. 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. 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: • "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). 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 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 • 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: -20 .. 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Technical: Pump speed on which pump data are based: 3501 rpm Rated flow: 25.3 m³/h Rated head: 14.3 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE,EAC,UKCA,WRAS,ACS

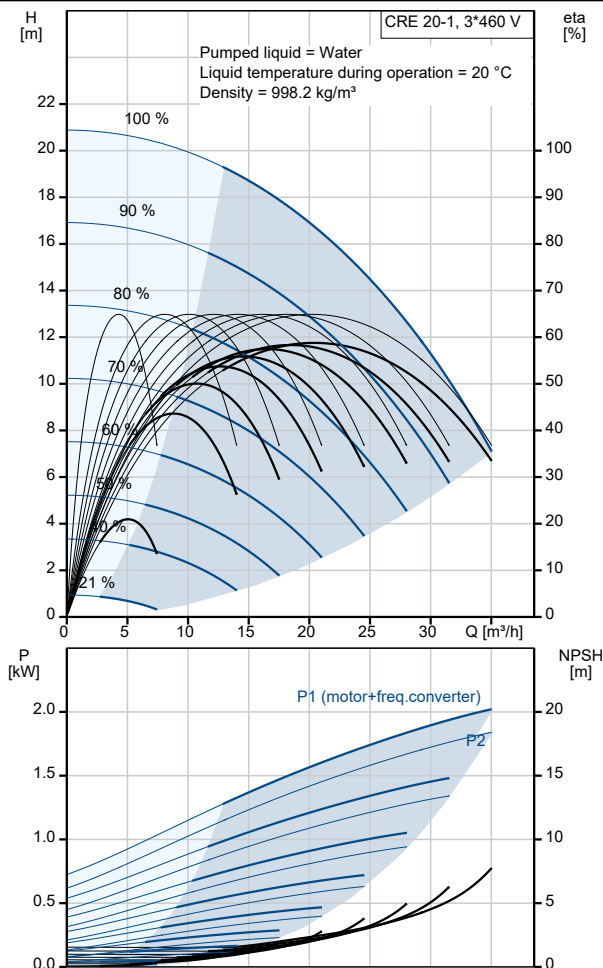
Qty.	Description
	Curve tolerance: ISO9906:2012 3B Materials: Base: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B Impeller: Stainless steel EN 1.4301 AISI 304 Bearing: SIC Installation: Maximum ambient temperature: 50 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -20 °C Type of connection: DIN Size of inlet connection: DN 50 Size of outlet connection: DN 50 Pressure rating for connection: PN 25 Flange size for motor: FT115 Electrical data: Motor standard: IEC Motor type: 90LD IE Efficiency class: IE5 Rated power - P2: 2.2 kW Power (P2) required by pump: 2.2 kW Mains frequency: 50 / 60 Hz Rated voltage: 3 x 380-500 V Rated current: 4.15-3.40 A Cos phi - power factor: 0.93-0.87 Rated speed: 360-4000 rpm Efficiency: 90.1% Motor efficiency at full load: 90.1 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98190193 Controls: Frequency converter: Built-in Pressure sensor: N Others: Minimum efficiency index, MEI ≥: 0.70 DOE Pump Energy Index CL: 0.00 DOE Pump Energy Index VL: 0.00 Net weight: 48 kg Gross weight: 52 kg Shipping volume: 0.143 m³ Danish VVS No.: 385945701 Country of origin: HU Custom tariff no.: 84137075

98390766 CRE 20-1 A-F-A-E-HQQE



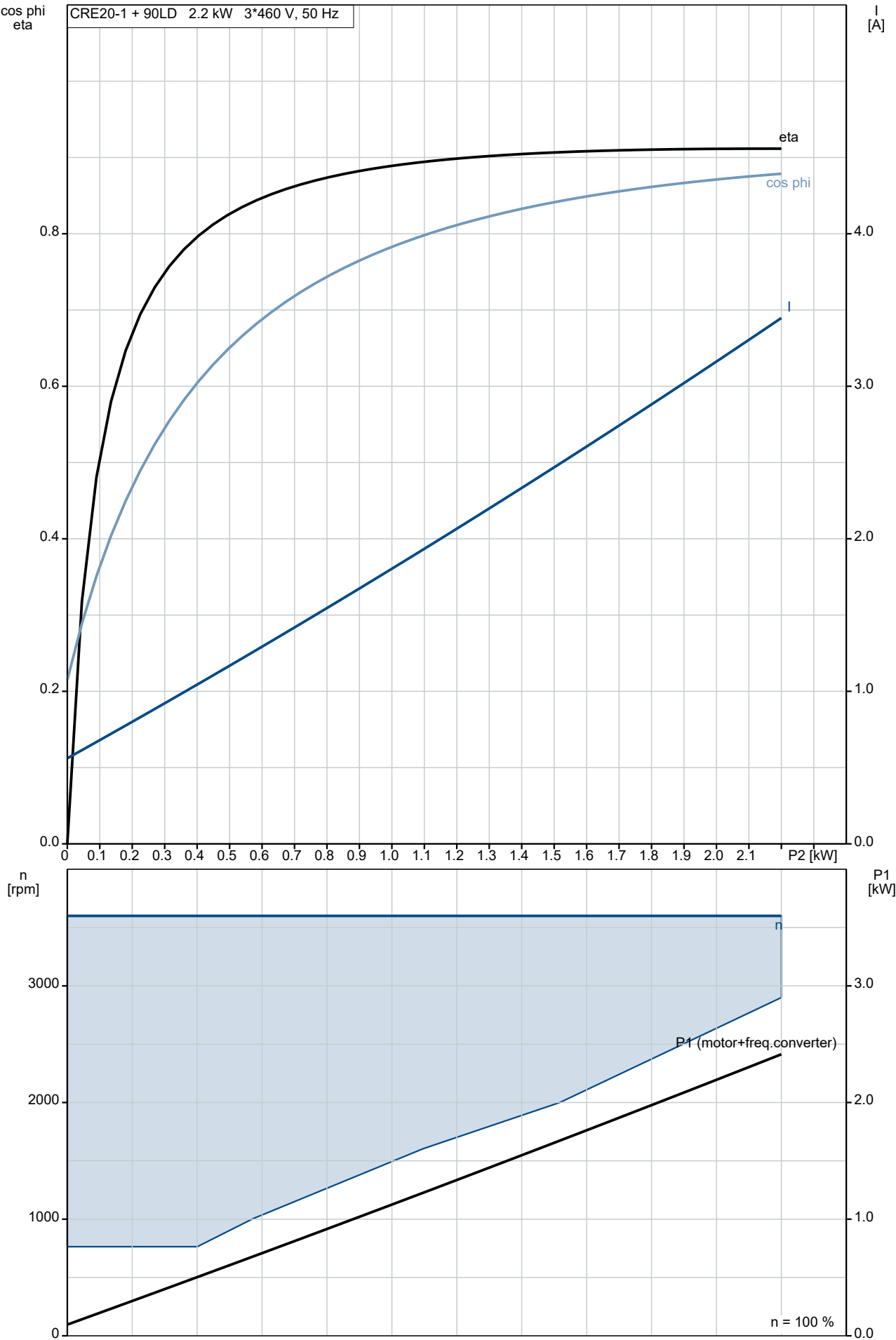
Description	Value
General information:	
Product name:	CRE 20-1 A-F-A-E-HQQE
Product No:	98390766
EAN number:	5711494202898
Technical:	
Pump speed on which pump data are based:	3501 rpm
Rated flow:	25.3 m³/h
Rated head:	14.3 m
Maximum head:	20.4 m
Stages:	2
Impellers:	1
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE,EAC,UKCA,WRAS,A CS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Base:	Cast iron
Base:	EN 1561 EN-GJL-200
Base:	ASTM A48-25B
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
Maximum ambient temperature:	50 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
Max pressure at stated temp:	16 bar / -20 °C
Type of connection:	DIN
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 25
Flange size for motor:	FT115
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:	
Motor standard:	IEC
Motor type:	90LD
IE Efficiency class:	IE5
Rated power - P2:	2.2 kW
Power (P2) required by pump:	2.2 kW
Mains frequency:	50 / 60 Hz
Rated voltage:	3 x 380-500 V
Rated current:	4.15-3.40 A
Cos phi - power factor:	0.93-0.87
Rated speed:	360-4000 rpm
Efficiency:	90.1%
Motor efficiency at full load:	90.1 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	ELEC

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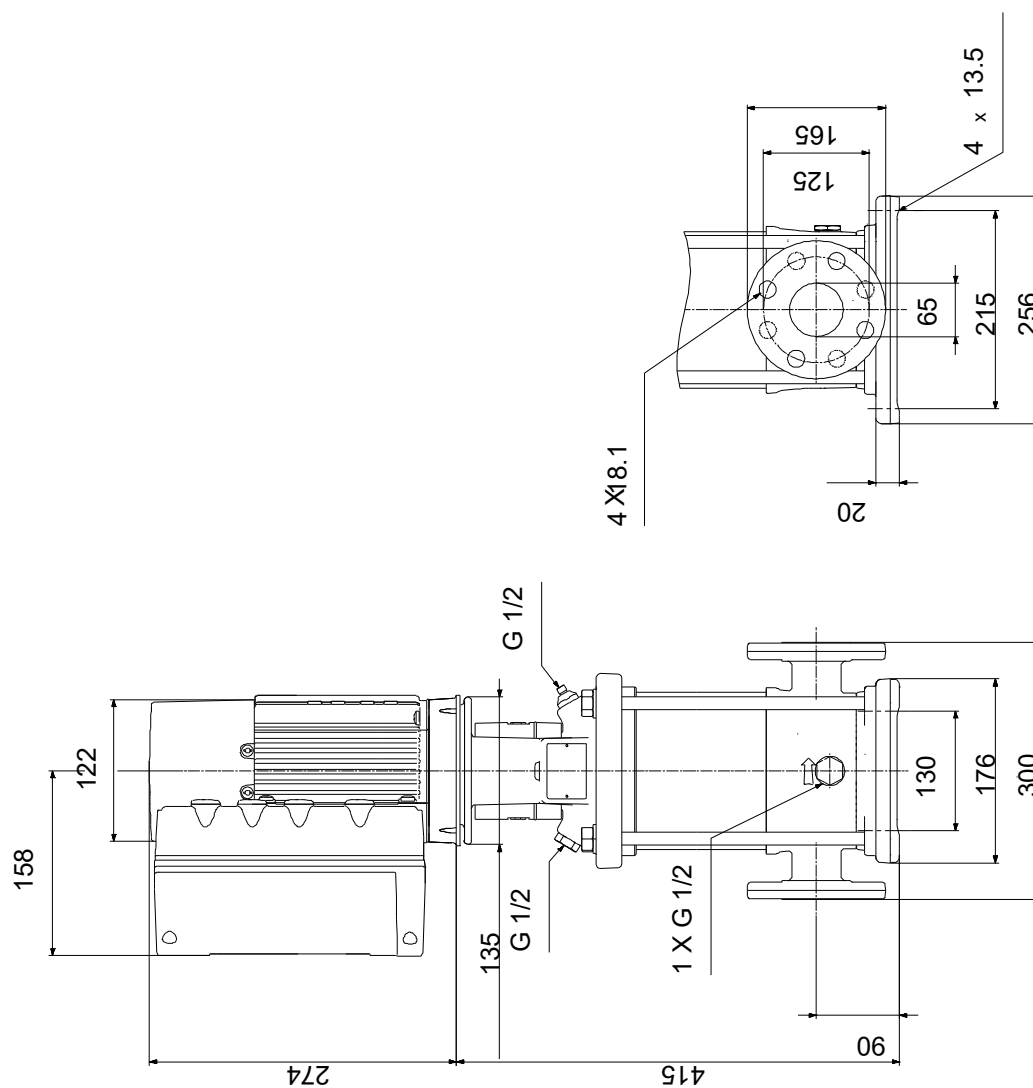


Description	Value
Motor No:	98190193
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
DOE Pump Energy Index CL:	0.00
DOE Pump Energy Index VL:	0.00
Net weight:	48 kg
Gross weight:	52 kg
Shipping volume:	0.143 m ³
Config. file no:	98500926
Danish VVS No.:	385945701
Country of origin:	HU
Custom tariff no.:	84137075

98390766 CRE 20-1 A-F-A-E-HQQE



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

Spare parts CRE 20-1, Product No. 98390766
Produced After 1252 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, chamber stack			96508541	1	pcs
- 80	Chamber stack				1	
- 4a	Intermediate chamber cpl.				1	
	Bearing plate					
3	Intermediate chamber					
45	Neck ring cpl.					
47	Bearing bush					
65	Retainer for upper seal ring					
- 4	Upper chamber cpl.				1	
3	Chamber					
26a	Strap cpl.				2	
26.c	Washer		Designation: DIN 125A		2	
			Thickness: 1,6			
26.b	Hex head screw				2	
44b	Inlet part				1	
- 44a	Inlet part cpl.				1	
	Sand Lifter					
	Guide cup					
	Inlet part					
45	Neck ring cpl.					
65	Retainer for upper seal ring					
47a	Bearing ring				1	
- 49	Impeller cpl.				1	
	Impeller blade					
	Impeller plate					
	Impeller plate					
49c	Wear ring					
- 51	Shaft, spline, cpl.				1	
	Bar					
62	Stop ring					
64d	Spacing bush				1	
64c	Spacer				1	
64b	Spacing bush		Length (mm): 5.00		1	
64a	Spacing pipe		Internal diameter: 17,5		1	
			Length (mm): 17			
64	Spacing pipe		Length (mm): 29.05		1	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
-	Kit, coupling			96511319	1	pcs
	Adjusting fork				1	
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M8			
10a	Coupling half				2	
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
-	Kit, coupling guard			96509612	1	pcs
7.a	Combi Slot Torx screw				4	
7	Coupling guard				2	
-	Kit, gaskets			96509609	1	pcs
	Gasket				2	
24	O-ring				2	
37	O-ring				2	
38	O-ring				1	
38	O-ring				1	
38	O-ring				2	
60	Spring				4	
415	Gasket		Internal diameter: 44		2	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
			Outer diameter: 60			
			Thickness: 2			
441b	Gasket		Internal diameter: 49		2	
			Outer diameter: 92			
			Thickness: 2			
-	Kit, plug			96511311	1	pcs
- 18	Air vent screw				1	
	Spindle				1	
	Plug				1	
25a	Drain plug				1	
25	Plug				1	
38	O-ring				1	
38	O-ring				1	
38	O-ring				2	
38	O-ring		Diameter: 5,3		1	
			Material type: FKM			
			Thickness: 2,4			
38	O-ring		Diameter: 16,3		1	
			Material type: FKM			
			Thickness: 2,4			
38	O-ring		Diameter: 16,3		2	
			Material type: FKM			
			Thickness: 2,4			
-	Kit, shaft seal HQQE			96511844	1	pcs
105	Shaft seal		Material type: HQQE		1	
-	Kit, wear parts			96511824	1	pcs
- 4a	Intermediate chamber cpl.				1	
	Sand Lifter				1	
	Guide cup				1	
	Bearing plate				1	
	Guide vane				10	
3	Intermediate chamber				1	
45	Neck ring cpl.				1	
47	Bearing bush				1	
65	Retainer				1	
26.c	Washer		Designation: DIN 125A		2	
			Thickness: 1,6			
26.b	Hex head screw				2	
45	Neck ring cpl.				5	
47a	Bearing ring				1	
49c	Wear ring				6	
62	Retaining ring				1	
64d	Spacing bush				1	
64c	Spacer				1	
64b	Spacing bush		Length (mm): 5.00		1	
64a	Spacing pipe		Internal diameter: 17,5		1	
			Length (mm): 17			
65	Retainer				5	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
-	Motor			99131993	1	pcs
-	Kit, adapter			98345796	1	
- 252a	Adapter set				1	
	Adapter					
	Adapter					
167	Cable gland					
-	Kit, bearing cpl.			98330605	1	
111	Ball bearing		Designation: 6204.2Z.C3.SYN		1	
154	Ball bearing				1	
156d	Gasket		Internal diameter: 114,80		1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
			Outer diameter: 121,20 Thickness: 0,25			
156c	Seal ring				1	
156c	Seal ring				1	
157	O-ring		Diameter: 47 Material type: NBR Thickness: 3		1	
158	Waved washer				1	
-	Kit, Blanking plug			98334761	1	
252b	Plug cpl.				4	
-	Kit, cable gland			98337336	1	
- 293	Cable glands set			98271484	1	
167	Cable gland					
167	Cable gland					
-	Kit, connector plugs			98403113	1	
266	Connector plug 10-pole				1	
266	Connector plug 2-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
-	Kit, control box			98406659	1	
152	Pan head thread forming screw				1	
166	Torx Screw				2	
178	Pan head thread forming screw				4	
251d	Pan head thread forming screw				4	
251b	Control box				1	
251a	Control box				1	
252b	Plug cpl.				4	
266	Connector plug 8-pole				1	
266	Connector plug 3-pole				1	
268a	Base				1	
268	Pan head screw				1	
273b	Battery				1	
273	Funct. Module cpl.				1	
275a	Pin				1	
277a	Cross recess Pan head screw				1	
277a	Cross recess Pan head screw				1	
277a	Cross recess Pan head screw				5	
277	Isolation cover				1	
286	Spacer				1	
286	Spacer				1	
287	Cover				1	
288b	Retaining ring				6	
288a	Pan head thread forming screw				6	
288	Wire clamp				3	
289	Wire clamp				1	
290	Control panel, cpl.				1	
-	Kit, Control box upper			98334765	1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aantal	Eenheid
251d	Pan head thread forming screw					4	
251b	Control box					1	
+	Kit, Control panel				98939973	1	
-	Kit, cover				98330622	1	
287	Cover					1	
-	Kit, fan				98290124	1	
152	Pan head thread forming screw					4	
156c	Seal ring					1	
156	Fan					1	
-	Kit, flange (DE)				98290128	1	
156d	Gasket			Internal diameter: 114,80		1	
				Outer diameter: 121,20			
				Thickness: 0,25			
156b	Flange					1	
185	Cross recess Pan head screw					4	
186	Drain plug					1	
188	Retaining ring					1	
-	Kit, Funct. module				98334777	1	
273a	Cross recess Pan head screw					5	
273	Funct. Module cpl.					1	
275a	Pin					1	
286	Spacer					1	
-	Kit, Isolation cover				98330625	1	
277a	Cross recess Pan head screw					1	
277	Isolation cover					1	
-	Kit, Lower part cpl.				98330619	1	
178	Pan head thread forming screw					4	
251a	Control box cpl.					1	
275a	Pin					1	
277a	Cross recess Pan head screw					1	
277	Isolation cover					1	
-	Kit, motor				98293865	1	
	Terminal					3	
99a	Retaining ring					1	
99	Retaining ring					1	
111	Ball bearing			Designation: 6204.2Z.C3.SYN		1	
150	Stator					1	
150	Stator housing					1	
151	Fan cover					1	
152	Pan head thread forming screw					4	
154	Ball bearing					1	
156d	Gasket			Internal diameter: 114,80		1	
				Outer diameter: 121,20			
				Thickness: 0,25			
156c	Seal ring					1	
156c	Seal ring					1	
156b	Flange					1	
156	Fan					1	
157	O-ring			Diameter: 47		1	
				Material type: NBR			
				Thickness: 3			

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aantal	Eenheid
158	Waved washer					1	
172	Shaft w/rotor					1	
178	Pan head thread forming screw					4	
185	Cross recess Pan head screw					4	
186	Drain plug					1	
203	Terminal plug					1	
289a	Pan head thread forming screw					1	
-	Kit, plug				99369622	1	
	Terminal					3	
203	Terminal plug					1	
205	Pan head thread forming screw					1	
-	Kit, screws				98330627	1	
268a	Base					1	
268	Pan head screw					1	
288b	Retaining ring					6	
288a	Pan head thread forming screw					6	
288	Wire clamp					3	
289a	Pan head thread forming screw					1	
289	Wire clamp					1	
-	Kit, staybolts				98881544	1	
181	Pan head staybolt					4	
	Pan head thread forming screw				99598708	4	
111	Ball bearing	Designation: 6204.2Z.C3.SYN			97914979	1	
152	Pan head thread forming screw				99834207	1	
152	Pan head thread forming screw				99814578	1	
156d	Gasket	Internal diameter: 114,80			99406425	1	
		Outer diameter: 121,20					
		Thickness: 0,25					
156	Fan				96591801	1	
159a	Seal ring				97689816	1	
186	Drain plug				99980519	1	
251d	Pan head thread forming screw				98995460	4	
266	Connector plug 3-pole				99421265	1	
2a	Pump head				98852386	1	pcs
- 4a	Intermediate chamber cpl.				96538842	1	pcs
3	Intermediate chamber				96535086	1	
65	Retainer for upper seal ring				97699527	1	
65	Retainer for upper seal ring				96587913	1	
+ 4a	Intermediate chamber cpl.				98371109	1	pcs
6	Base				98681111	1	pcs
7.a	Combi Slot Torx screw				96886324	4	pcs
10	Shaft pin	Diameter: 5			96536473	1	pcs
		Length (mm): 26					
10	Shaft pin	Diameter: 5			96587588	1	pcs
		Length (mm): 26					
+ 18	Air vent screw				96547461	1	pcs
+ 18	Air vent screw				95061351	1	pcs
25	Plug				96536013	1	pcs
25a	Drain plug				96535881	1	pcs
26a	Strap cpl.				98964727	2	pcs
26.c	Washer	Designation: DIN 125A			99262704	2	pcs
		Thickness: 1,6					
26.c	Washer	Designation: DIN 125A			99886930	2	pcs
		Thickness: 1,6					
26	Staybolt	Length (mm): 163			98680984	4	pcs
		Thread: M16					
26	Staybolt	Length (mm): 163			98680982	4	pcs

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
28	Hex head screw		Thread: M16 Length (mm): 20	99932722	4	pcs
32	Washer		Thread: M8 Designation: DIN 125 A Internal diameter: 17 Outer diameter: 30 Thickness: 3	98923051	4	pcs
36	Hex nut		Thread: M16	96620480	4	pcs
37	O-ring			96538857	2	pcs
38	O-ring			99198791	1	pcs
38	O-ring			99198815	2	pcs
38	O-ring			99412727	2	pcs
44b	Inlet part			98814595	1	pcs
+ 44a	Inlet part cpl.			98818924	1	pcs
47a	Bearing ring			96538795	1	pcs
- 49	Impeller cpl.			96538799	1	pcs
49c	Wear ring			96547340	1	
+ 49	Impeller cpl.			98394458	1	pcs
+ 51	Shaft, spline, cpl.			98368605	1	pcs
55	Outer sleeve			98812619	1	pcs
60	Spring			96538963	4	pcs
64d	Spacing bush			96538947	1	pcs
64c	Spacer			97980241	1	pcs
64b	Spacing bush		Length (mm): 5.00	96535098	1	pcs
64a	Spacing pipe		Internal diameter: 17,5 Length (mm): 17	98417487	1	pcs
64	Spacing pipe		Length (mm): 29.05	96535101	1	pcs
66	Wedge lock washer			96536157	1	pcs
66	Wedge lock washer			92575609	1	pcs
67	Lock nut		Thread: M8	98277008	1	pcs
76a	Rivet			96620489	1	pcs
105	Shaft seal		Material type: HQQE	96538914	1	pcs