

Inventflow: Grundfos A-partner

Grundfos CRE 20-3 A-F-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/cre/grundfos-cre-20-3-a-f-a-e-hqqe>

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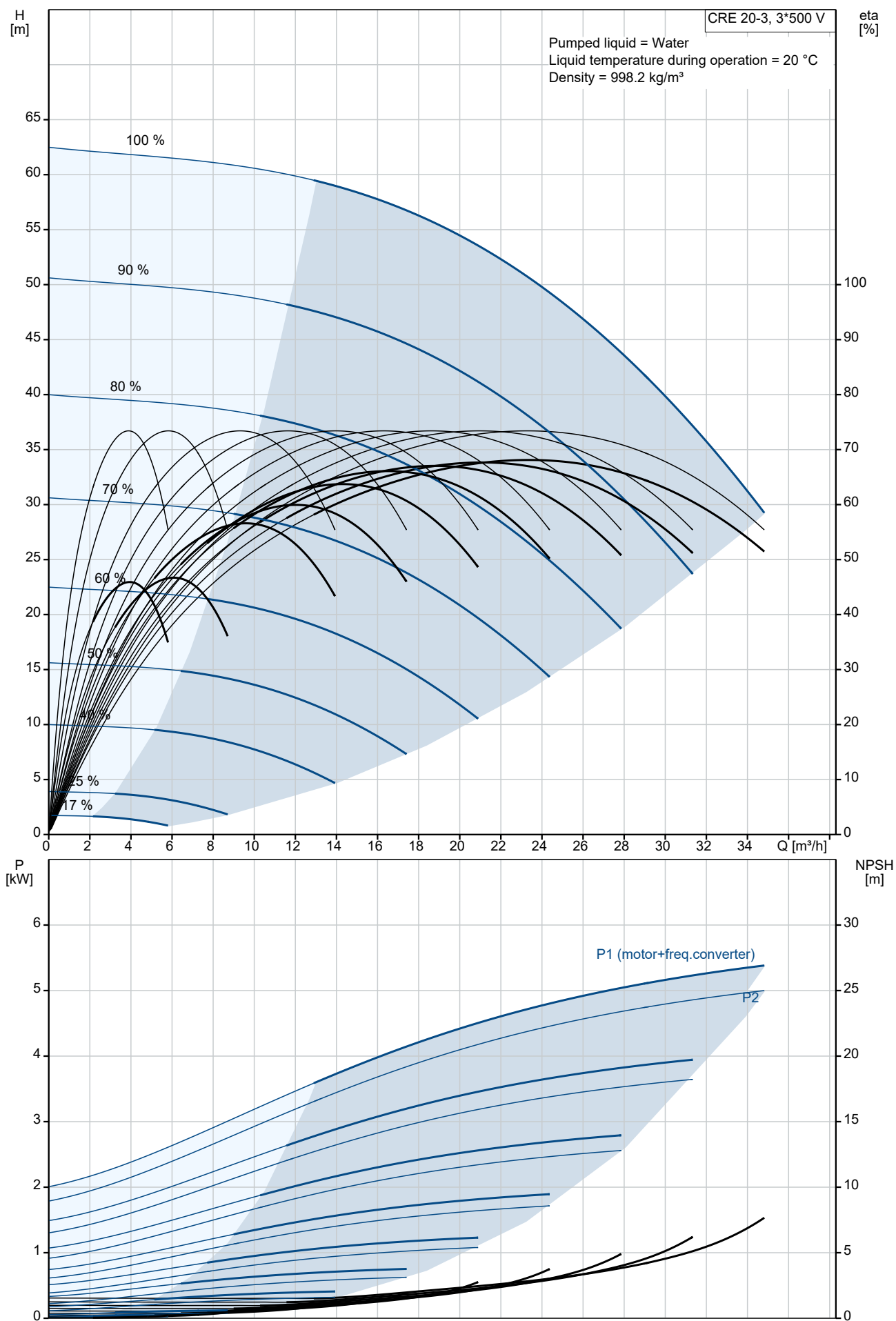
Datasheet



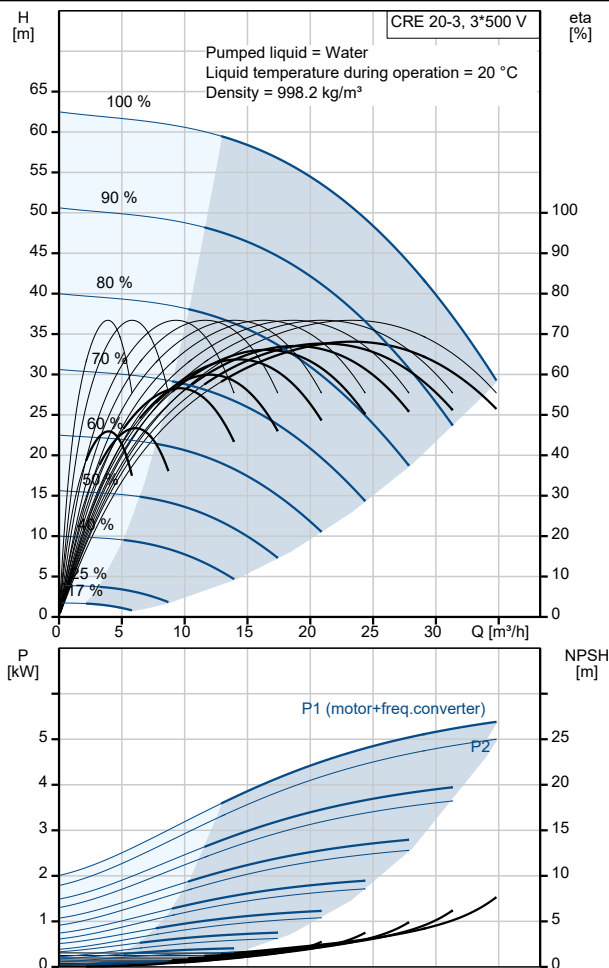
Qty.	Description
1	CRE 20-3 A-F-A-E-HQQE  Product No.: 99071657 Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe 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: 3526 rpm Rated flow: 25.3 m³/h Rated head: 49.8 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE,EAC,UKCA,WRAS,ACS Curve tolerance: ISO9906:2012 3B Materials: Base: Cast iron EN 1561 EN-GJL-200

Qty.	Description
	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: FF265 Electrical data: Motor standard: IEC Motor type: 132SE IE Efficiency class: IE5 Rated power - P2: 5.5 kW Power (P2) required by pump: 5.5 kW Mains frequency: 50 / 60 Hz Rated voltage: 3 x 380-500 V Rated current: 10.3-8.20 A Cos phi - power factor: 0.92-0.88 Rated speed: 360-4000 rpm Efficiency: 92.7% Motor efficiency at full load: 92.7 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98971051 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: 83 kg Gross weight: 111 kg Shipping volume: 0.37 m³ Danish VVS No.: 386005003 Finnish LVI No.: 4925664 Country of origin: HU Custom tariff no.: 84137075

99071657 CRE 20-3 A-F-A-E-HQQE

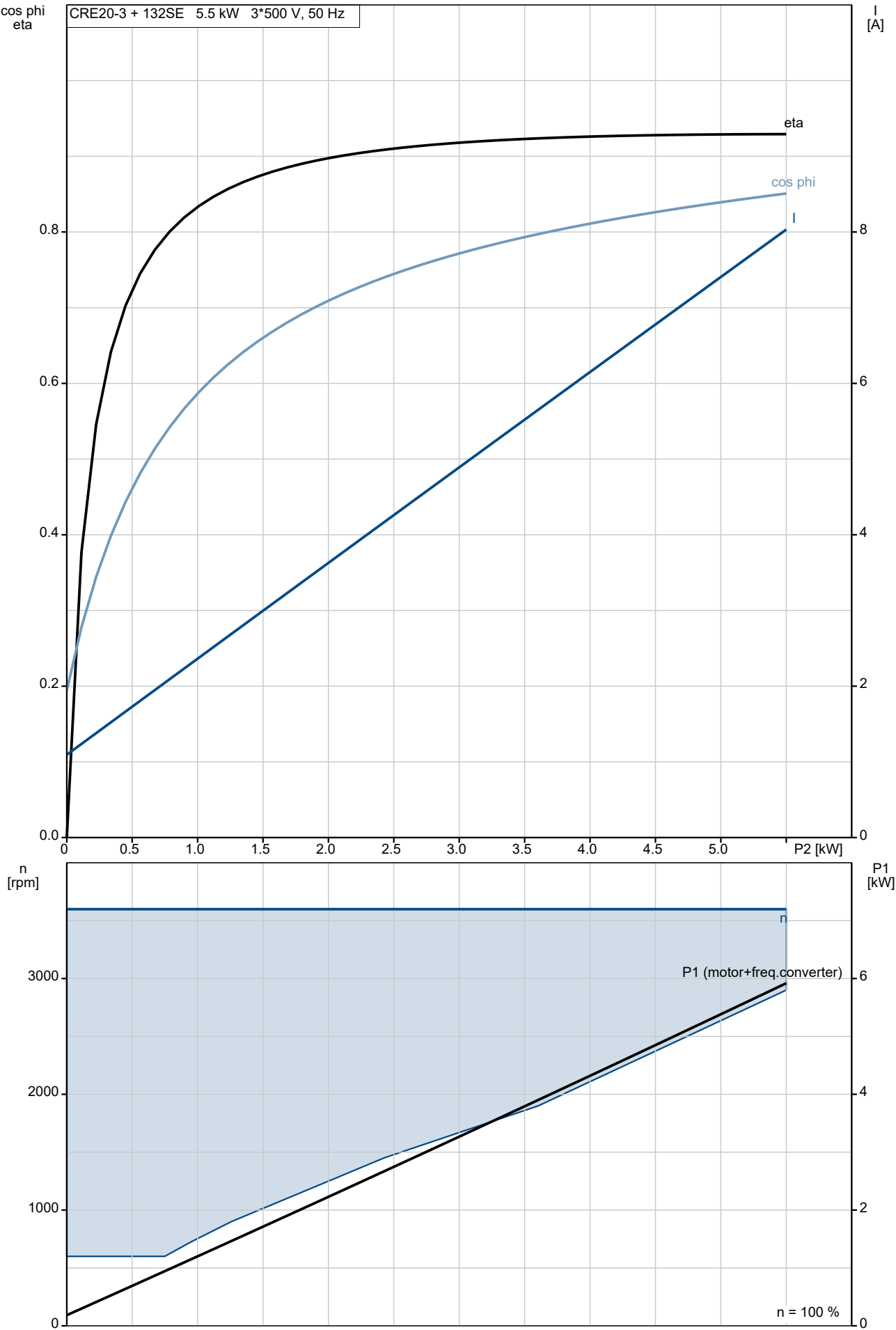


Description	Value		
General information:			
Product name:	CRE 20-3 A-F-A-E-HQQE		
Product No:	99071657		
EAN number:	5712606195510		
Technical:			
Pump speed on which pump data are based:	3526 rpm		
Rated flow:	25.3 m³/h		
Rated head:	49.8 m		
Maximum head:	63.3 m		
Stages:	3		
Impellers:	3		
Number 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:	FF265		
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:	132SE		
IE Efficiency class:	IE5		
Rated power - P2:	5.5 kW		
Power (P2) required by pump:	5.5 kW		
Mains frequency:	50 / 60 Hz		
Rated voltage:	3 x 380-500 V		
Rated current:	10.3-8.20 A		
Cos phi - power factor:	0.92-0.88		
Rated speed:	360-4000 rpm		
Efficiency:	92.7%		
Motor efficiency at full load:	92.7 %		
Enclosure class (IEC 34-5):	IP55		
Insulation class (IEC 85):	F		
Motor protec:	ELEC		

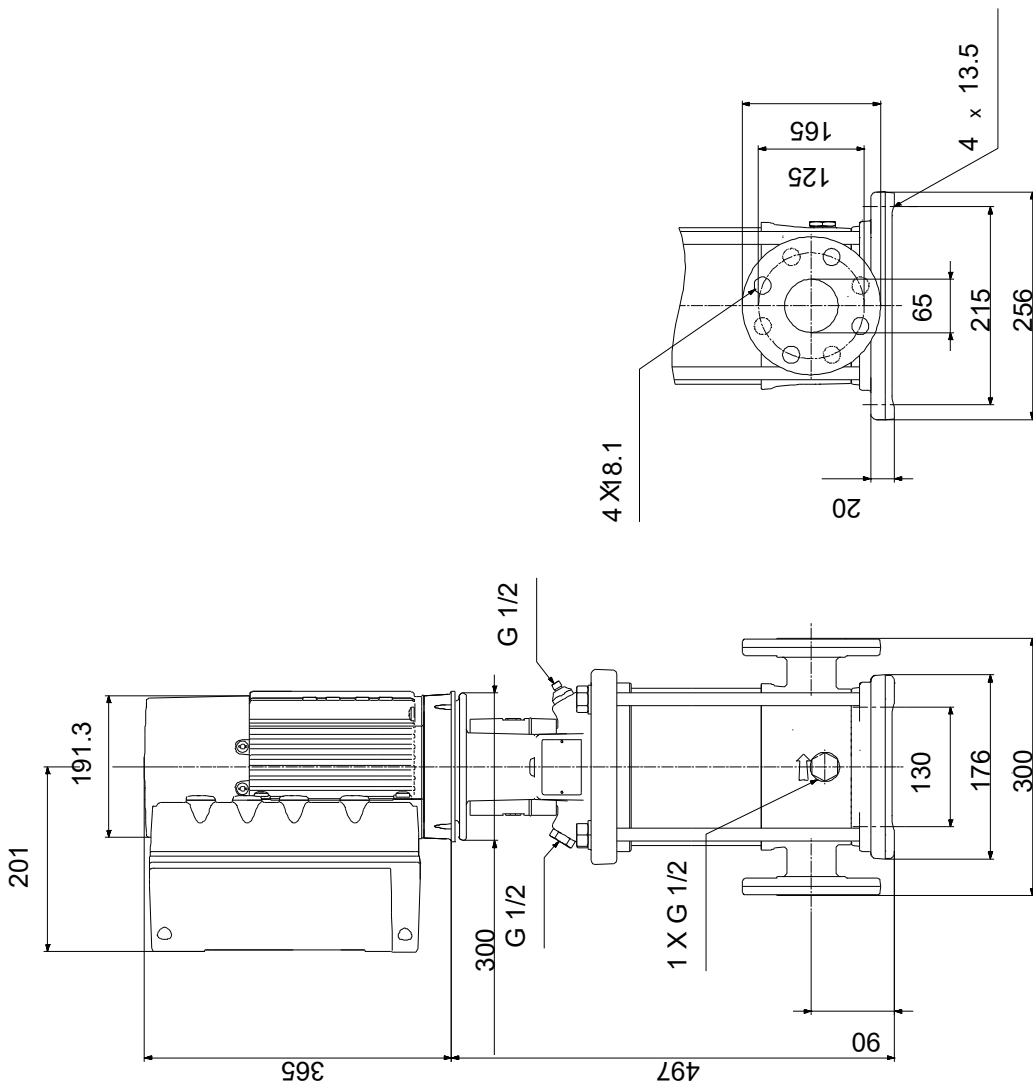


Description	Value
Motor No:	98971051
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.70
DOE Pump Energy Index CL:	0.00
DOE Pump Energy Index VL:	0.00
Net weight:	83 kg
Gross weight:	111 kg
Shipping volume:	0.37 m ³
Config. file no:	99059173
Danish VVS No.:	386005003
Finnish LVI No.:	4925664
Country of origin:	HU
Custom tariff no.:	84137075

99071657 CRE 20-3 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 20-3, Product No. 99071657
Produced After 1633 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, chamber stack			96508543	1	pcs
- 80	Chamber stack				1	
- 3	Top intermediate chamber				1	
	Intermediate chamber					
	Front plate					
	Guide vane					
- 4a	Intermediate chamber cpl.				1	
	Bearing plate					
3	Intermediate chamber					
45	Neck ring cpl.					
47	Bearing bush					
65	Retainer for upper seal ring					
- 4	Intermediate chamber cpl.				1	
45	Neck ring cpl.					
65	Retainer for upper seal ring					
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.				3	
	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	
64a	Spacing pipe		Internal diameter: 17,5		1	
			Length (mm): 17			
64	Spacing pipe		Length (mm): 43.6		1	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
69	Spacing bush				1	
-	Kit, coupling			96511351	1	pcs
	Adjusting fork				1	
- 8	Coupling				1	
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M10			
10a	Coupling half				1	
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
-	Kit, coupling guard			96509613	1	pcs
7.a	Combi Slot Torx screw				4	
7	Coupling guard				2	
-	Kit, gaskets			96509609	1	pcs
	Gasket				2	
24	O-ring				2	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aantal	Eenheid
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	
				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				99987083	1	pcs
-	Kit, Blanking plug				99052475	1	
252b	Plug cpl.					4	
252b	Blanking plug					1	
-	Kit, cable gland				98736096	1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
293	Cable glands set				1	
-	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			98878612	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
251a	Control box cpl.				1	
252b	Plug cpl.				4	
252b	Blanking plug				1	
266	Connector plug 10-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	
268a	Base				1	
268	Pan head screw				1	
273b	Battery				1	
273a	Cross recess Pan head screw				3	
273	Funct. Module cpl.				1	
275a	Pin				1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
286	Spacer				1	
287	Cover				1	
288b	Retaining ring				8	
288a	Pan head thread forming screw				8	
288	Wire clamp				4	
289a	Pan head thread forming screw				1	
289	Wire clamp				1	
290	Control panel, cpl.				1	
301	Jumper				1	
-	Kit, Control box upper			98869865	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
-	Kit, Control panel			98939973	1	
290	Control panel, cpl.				1	
-	Kit, cover			98330622	1	
287	Cover				1	
-	Kit, end shield (NDE)			98869883	1	
156c	Seal ring				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
156a	End shield NDE				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				1	
206	Pan head thread forming screw				4	
-	Kit, fan			98869877	1	
152	Pan head thread forming screw				4	
156c	Seal ring				1	
156	Fan				1	
-	Kit, fan cover			99957566	1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
-	Kit, flange (DE)			98869892	1	
	Glue				0	
156c	Seal ring				1	
156b	Flange				1	
201c	Drain plug				4	
-	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			98859508	1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, Lower part cpl.			98859571	1	
178	Pan head thread forming screw				4	
251a	Control box cpl.				1	
275a	Pin				1	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, motor			99010774	1	
	Terminal				3	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
150	Stator w/housing				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
152	Pan head thread forming screw				2	
153	Angular-contact bearing				1	
156d	Seal ring				1	
156c	Seal ring				1	
156b	Flange				1	
156	Fan				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				2	
172	Shaft w/rotor				1	
181	Pan head staybolt				4	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aantal	Eenheid
190	Eyebolt					2	
201c	Drain plug					4	
203	Terminal plug					1	
205	Gasket					1	
-	Kit, plug				99028676	1	
152	Pan head thread forming screw					2	
203	Terminal plug					1	
205	Gasket					1	
-	Kit, screws				99028712	1	
268a	Base					1	
268	Pan head screw					1	
288b	Retaining ring					8	
288a	Pan head thread forming screw					8	
288	Wire clamp					4	
289a	Pan head thread forming screw					1	
289	Wire clamp					1	
-	Kit, staybolts				98881543	1	
181	Pan head staybolt					4	
111	Ball bearing	Designation: 6206.2Z.C3.SYN			99078033	1	
111	Ball bearing	Designation: 6206.2Z.C3.SYN			97501070	1	
152	Pan head thread forming screw				99834207	4	
152	Pan head thread forming screw				99814578	4	
153	Angular-contact bearing				98412045	1	
153	Angular-contact bearing				98576644	1	
186	Drain plug				99980519	4	
251d	Pan head thread forming screw				98995460	4	
266	Connector plug 3-pole				99421265	1	
1	Flange				99104283	1	pcs
2a	Pump head				98770239	1	pcs
+ 3	Top intermediate chamber				96538971	1	pcs
+ 3	Top intermediate chamber				98371105	1	pcs
- 4a	Intermediate chamber cpl.				96538842	1	pcs
3	Intermediate chamber				96535086	1	
+ 4a	Intermediate chamber cpl.				98371109	1	pcs
- 4	Intermediate chamber cpl.				96538817	1	pcs
65	Retainer for upper seal ring				97699527	1	
65	Retainer for upper seal ring				96587913	1	
+ 4	Intermediate chamber cpl.				98371107	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.				98952934	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				98982840	4	pcs
32	Washer	Designation: DIN 125 A			98923051	4	pcs
		Internal diameter: 17					
		Outer diameter: 30					

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
			Thickness: 3			
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	3	pcs
49c	Wear ring			96547340	1	
+ 49	Impeller cpl.			98394458	3	pcs
+ 51	Shaft, spline, cpl.			98368607	1	pcs
55	Outer sleeve			98812621	1	pcs
60	Spring			96538963	4	pcs
64d	Spacing bush			96538947	1	pcs
64c	Spacer			97980241	1	pcs
64a	Spacing pipe		Internal diameter: 17,5	98417487	1	pcs
			Length (mm): 17			
64	Spacing pipe		Length (mm): 43.6	96535107	1	pcs
66	Wedge lock washer			96536157	1	pcs
66	Wedge lock washer			92575609	1	pcs
67	Lock nut		Thread: M8	98277008	1	pcs
69	Spacing bush			96538949	1	pcs
76a	Rivet			96620489	1	pcs
105	Shaft seal		Material type: HQQE	96538914	1	pcs