

Inventflow: Grundfos A-partner

Grundfos CRE 20-4 N-A-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/cre/grundfos-cre-20-4-n-a-a-e-hqqe>

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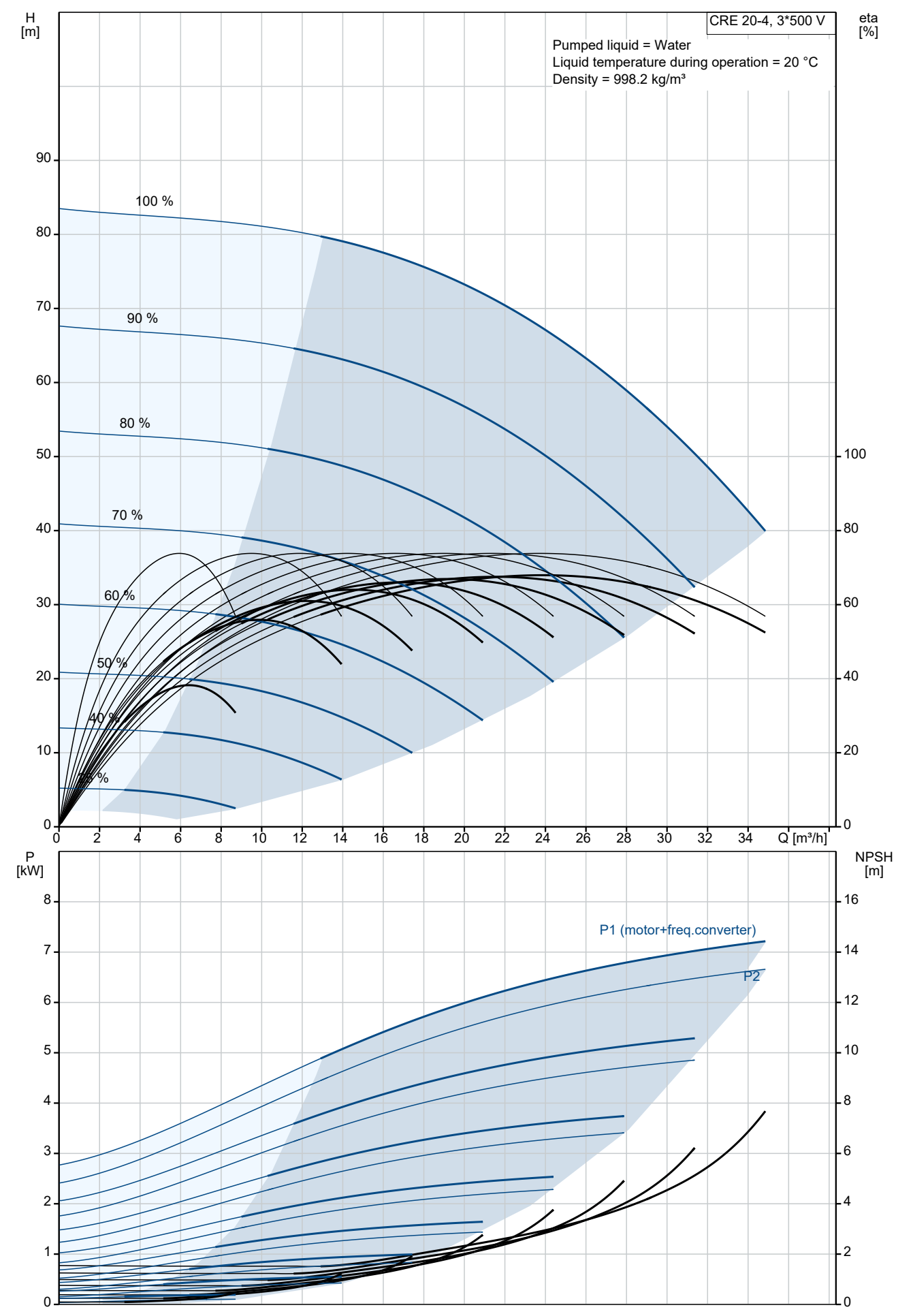
Datasheet



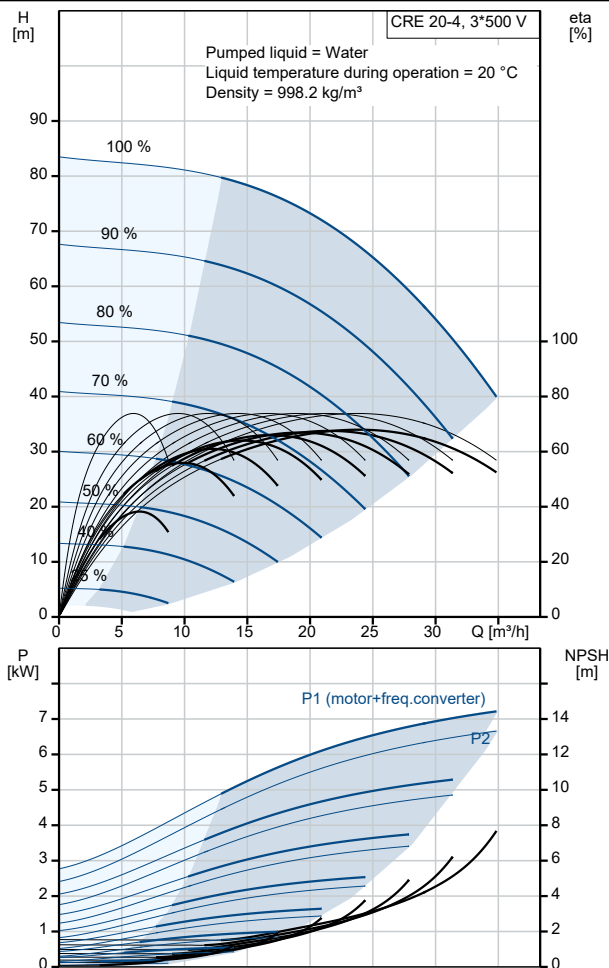
Qty.	Description
1	CRE 20-4 N-A-A-E-HQQE  Product No.: 99071666 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers and intermediate chambers are made of - Impeller: Stainless steel DIN W.-Nr. EN 1.4301. - Pump housing: - Pump head and base are made of Cast iron. - The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling. Flange standard: - Pipework connection is via Oval / Rp flanges. The pump is fitted with an IEC-flanged three-phase MGE motor with frequency converter and PI-controller integrated in the motor terminal box. No additional motor protection is required as both motor and electronics are protected by integrated overload and temperature protection. The pump is equipped with a pressure transmitter registering pump discharge pressure and enabling controlled pump operation based on constant pressure. A control panel enables setting of required setpoint as well as setting of pump to MIN or MAX operation or to STOP. The control panel has indicator lights for "Operation" and "Fault". Communication with the pump is possible by means of Grundfos R100 Remote Control enabling 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 the connection of: - Pump start/stop (potential-free contact), - external remote setpoint setting via analog signal, 0 - 5 V, 0 - 10 V, 0(4) - 20 mA, - 5 V voltage supply for setpoint potentiometer, I_{max} = 5 mA, - pressure sensor factory-fitted. - input for forced control to MIN or MAX (potential-free contact), - potential-free fault signal relay with changeover contact, reporting Fault, Operation or Ready, - RS485 GENibus. Controls: Frequency converter: Built-in

Qty.	Description
	Pressure sensor: Y 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: 3525 rpm Rated flow: 25.3 m³/h Rated head: 67.1 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 ASTM A48-25B Impeller: Stainless steel EN 1.4301 AISI 304 Bearing: SIC Installation: Maximum ambient temperature: 50 °C Maximum operating pressure: 10 bar Max pressure at stated temp: 10 bar / 120 °C 10 bar / -20 °C Type of connection: Oval / Rp Size of inlet connection: 2 inch Size of outlet connection: 2 inch Pressure rating for connection: PN 10 Flange size for motor: FF265 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 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 Others: Minimum efficiency index, MEI ≥: 0.70 DOE Pump Energy Index CL: 0.00 DOE Pump Energy Index VL: 0.00 Net weight: 93 kg Gross weight: 121 kg Shipping volume: 0.37 m³ Country of origin: DK Custom tariff no.: 84137075

99071666 CRE 20-4 N-A-A-E-HQQE

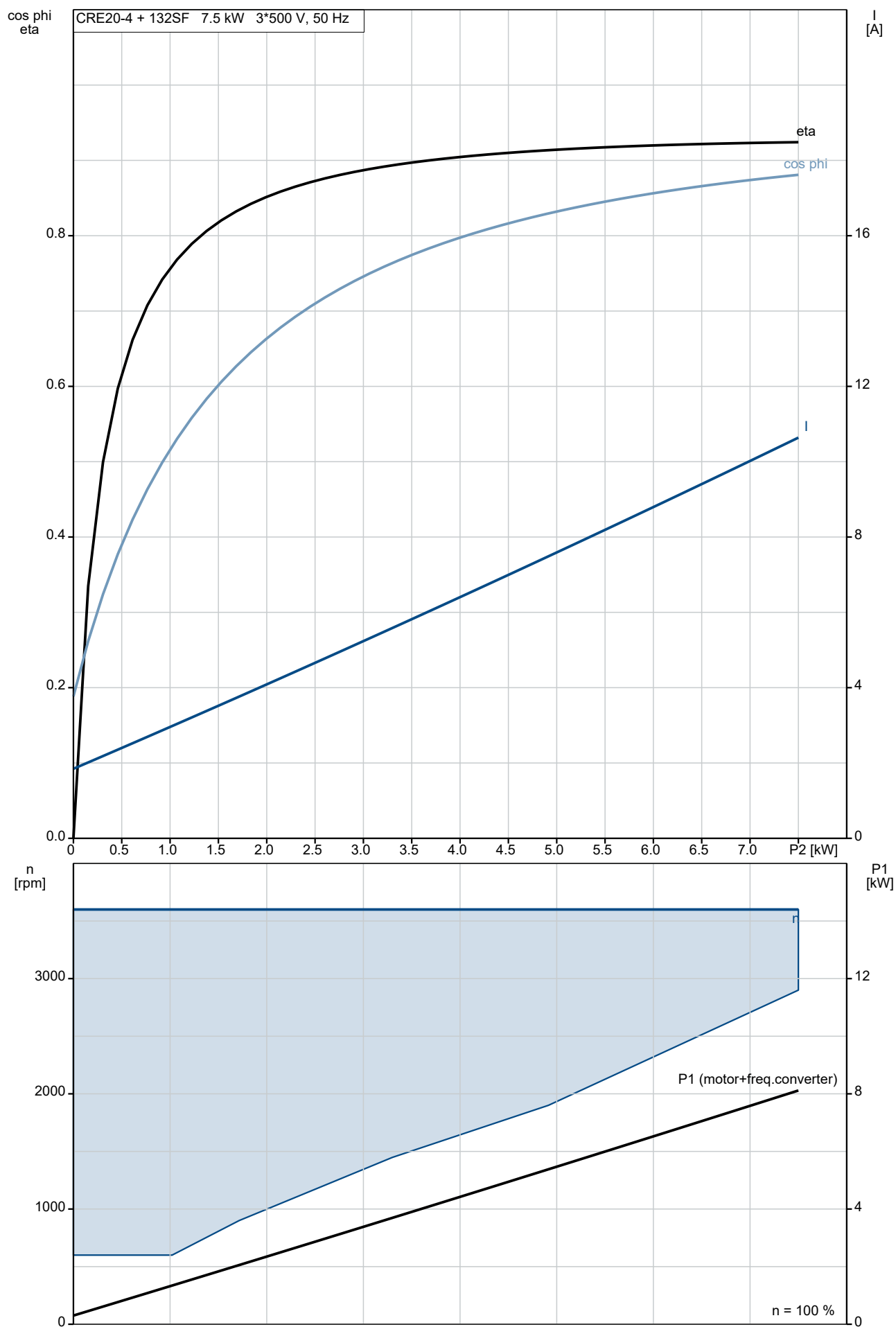


Description	Value		
General information:			
Product name:	CRE 20-4 N-A-A-E-HQQE		
Product No:	99071666		
EAN number:	5712606195695		
Technical:			
Pump speed on which pump data are based:	3525 rpm		
Rated flow:	25.3 m³/h		
Rated head:	67.1 m		
Maximum head:	84.7 m		
Stages:	4		
Impellers:	4		
Number 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:	N		
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:	10 bar		
Max pressure at stated temp:	10 bar / 120 °C		
Max pressure at stated temp:	10 bar / -20 °C		
Type of connection:	Oval / Rp		
Size of inlet connection:	2 inch		
Size of outlet connection:	2 inch		
Pressure rating for connection:	PN 10		
Flange size for motor:	FF265		
Connect code:	A		
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:	132SF		
IE Efficiency class:	IE5		
Rated power - P2:	7.5 kW		
Power (P2) required by pump:	7.5 kW		
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 protec:	ELEC		

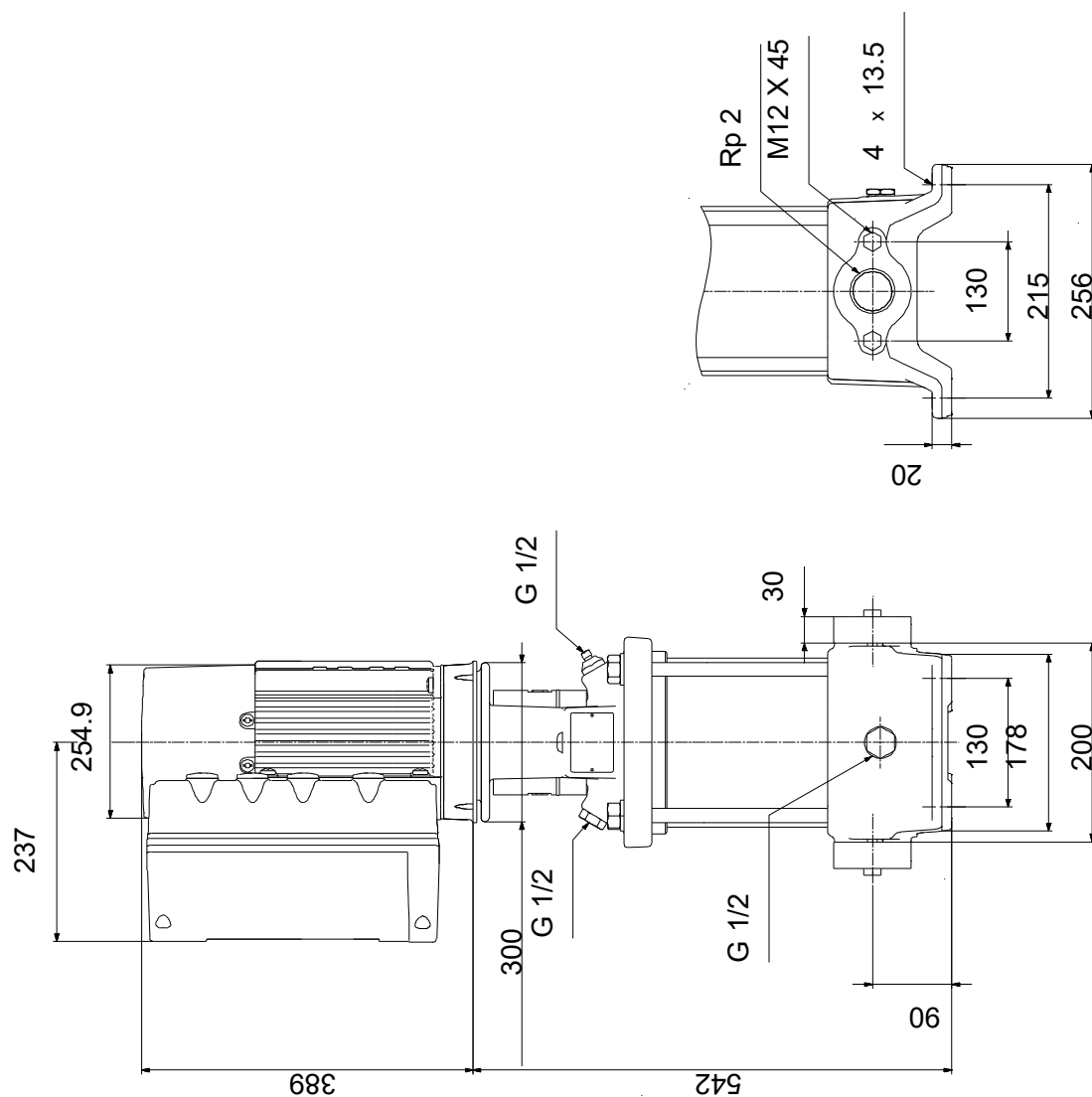


Description	Value
Motor No:	98971052
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	Y
Others:	
Minimum efficiency index, MEI ≥:	0.70
DOE Pump Energy Index CL:	0.00
DOE Pump Energy Index VL:	0.00
Net weight:	93 kg
Gross weight:	121 kg
Shipping volume:	0.37 m ³
Config. file no:	99059193
Country of origin:	DK
Custom tariff no.:	84137075

99071666 CRE 20-4 N-A-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 20-4, Product No. 99071666
Produced After 1633 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, chamber stack			96508544	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.				2	
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.				4	
	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): 43.6		2	
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	
-	Base cpl.			99077820	1	pcs
6	Base			99535016	1	
25a	Drain plug			96535881	1	
35	Hex head screw			96620478	4	
441a	Flange			99315185	2	
-	Motor				1	pcs
-	Kit, Blanking plug			99052476	1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
252b	Blind plug				1	
252b	Plug cpl.				5	
-	Kit, cable gland			98736115	1	
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			98878613	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
251a	Control box cpl.				1	
252b	Blind plug				1	
252b	Plug cpl.				5	
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				2	
268	Pan head screw				2	
273b	Battery				1	
273a	Cross recess Pan head screw				4	
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			98869869	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
-	Kit, Control panel			98939973	1	
290	Control panel, cpl.				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, cover			98330622	1	
287	Cover				1	
-	Kit, end shield (NDE)			98869885	1	
150b	O-ring				1	
156c	Seal ring				1	
156.a	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	
206	Hex socket head cap screw				4	
207b	Nut				4	
-	Kit, fan			98869879	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)			98869905	1	
	Glue				0	
150b	O-ring				1	
155a	Bearing cover				1	
156c	Seal ring				1	
156b	Flange				1	
185	Hex socket head cap screw				4	
201c	Drain plug				4	
208b	Nut				4	
208a	Gasket				3	
208	Hex socket head cap screw		Designation: DIN912		3	
			Length (mm): 40			
			Thread: M5			
-	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			98859523	1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, Lower part cpl.			98859573	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			99010792	1	
	Hex socket head cap screw				2	
	Glue				0	
	Terminal				6	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
66a	Washer				2	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
118a	Hex socket head cap screw				4	
150b	O-ring				2	
150	Stator w/housing				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
153	Angular-contact bearing				1	
155a	Bearing cover				1	
156d	Gasket				1	
156c	Seal ring				1	
156c	Seal ring				1	
156b	Flange				1	
156.a	End shield NDE				1	
156	Fan				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				2	
172	Shaft w/rotor				1	
185	Hex socket head cap screw				4	
186	Drain plug				4	
187	Retaining ring				1	
203	Terminal plug				1	
208b	Nut				4	
208b	Nut				4	
208a	Gasket				3	
208	Hex socket head cap screw		Designation: DIN912		3	
			Length (mm): 40			
			Thread: M5			
289a	Pan head thread forming screw				2	
-	Kit, plug			99028677	1	
152	Pan head thread forming screw				2	
203	Terminal plug				1	
205	Gasket				1	
-	Kit, screws			99028725	1	
268a	Base				2	
268	Pan head screw				2	
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	
	Lifting device			99140040	2	
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	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
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	2	pcs
65	Retainer for upper seal ring			97699527	1	
65	Retainer for upper seal ring			96587913	1	
+ 4	Intermediate chamber cpl.			98371107	2	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
26a	Strap cpl.			98926722	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			98982842	4	pcs
32	Washer		Designation: DIN 125 A	98923051	4	pcs
			Internal diameter: 17			
			Outer diameter: 30			
			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	3	pcs
38	O-ring			99412727	3	pcs
44b	Inlet part			98814595	1	pcs
+ 44a	Inlet part cpl.			98818924	1	pcs
47a	Bearing ring			96538795	1	pcs
- 49	Impeller cpl.			96538799	4	pcs
49c	Wear ring			96547340	1	
+ 49	Impeller cpl.			98394458	4	pcs
+ 51	Shaft, spline, cpl.			98368609	1	pcs
55	Outer sleeve			98812623	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	98417487	1	pcs
			Length (mm): 17			
64	Spacing pipe		Length (mm): 43.6	96535107	2	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	2	pcs
105	Shaft seal		Material type: HQQE	96538914	1	pcs