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Inventflow: Grundfos A-partner

Grundfos CRN 20-4 A-P-A-E-HQQE

Find the pump here:

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

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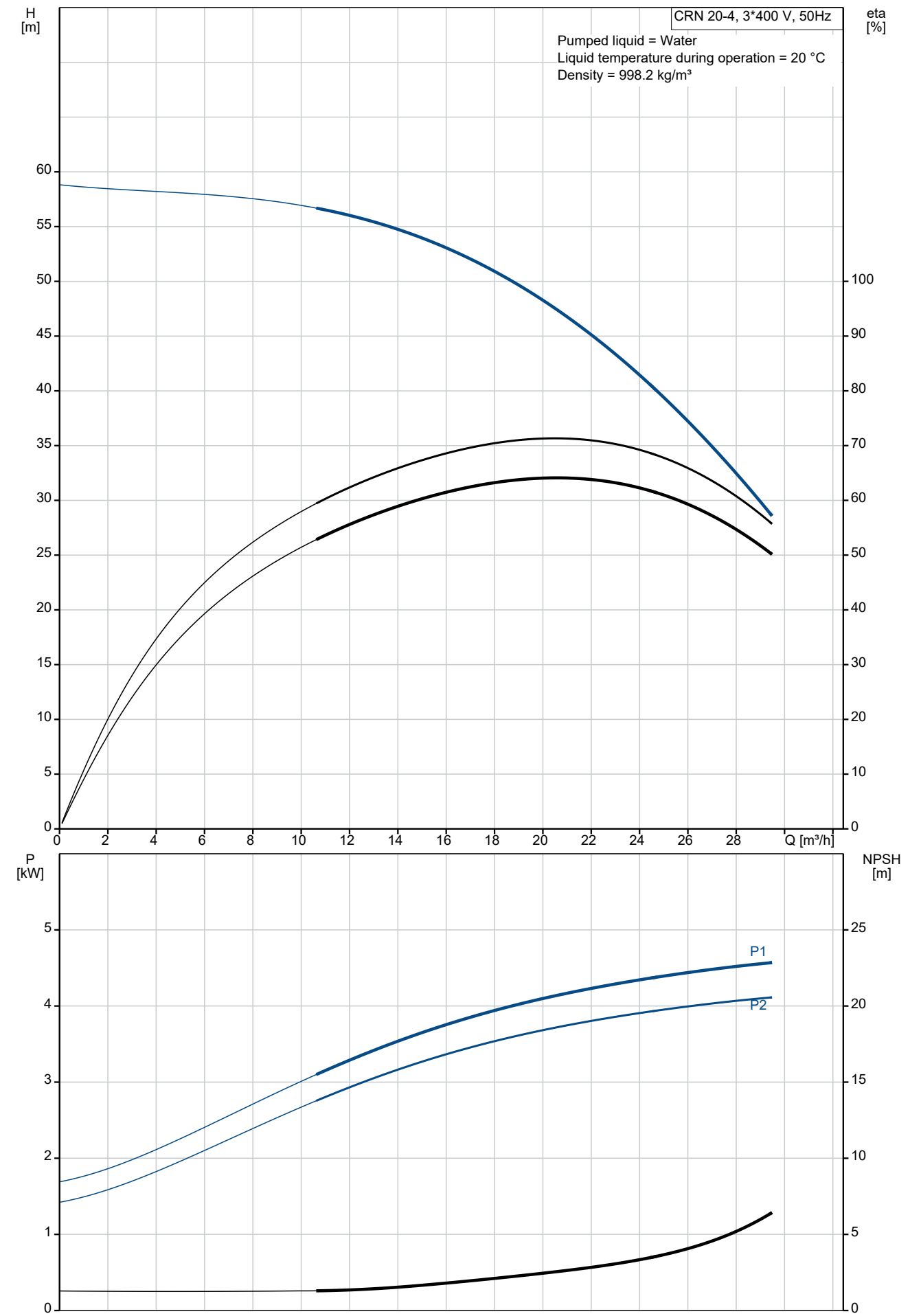
Datasheet



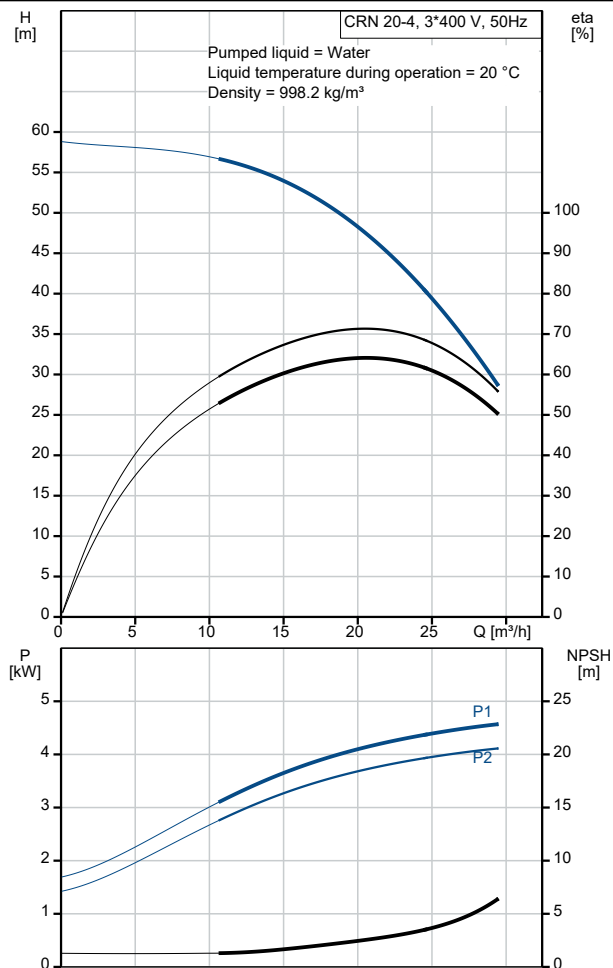
Qty.	Description
1	CRN 20-4 A-P-A-E-HQQE  Product No.: 96500560 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers, intermediate chambers and outer sleeve are made of Impeller: Stainless steel, EN 1.4401. - Pump head cover and base are made of Pump housing: Stainless steel, EN 1.4408. - The shaft seal has assembly length according to EN 12756. - Power transmission is via cast iron split coupling. Flange standard: - Pipework connection is via PJE flanges/couplings. Phase: The motor is a 3-phase AC motor. Controls: Frequency converter: NONE 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: 2919 rpm Rated flow: 21 m³/h Rated head: 46.7 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: Stainless steel EN 1.4408 AISI 316 Impeller: Stainless steel EN 1.4401 AISI 316 Bearing: SIC Installation: Maximum ambient temperature: 60 °C Maximum operating pressure: 25 bar Max pressure at stated temp: 25 bar / 120 °C 25 bar / -20 °C Type of connection: PJE

Qty.	Description
	Size of inlet connection: DN 50 Size of outlet connection: DN 50 Pressure rating for connection: PN 50 Flange size for motor: FF265 Electrical data: Motor standard: IEC Motor type: 132SC IE Efficiency class: IE3 Rated power - P2: 5.5 kW Power (P2) required by pump: 5.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D V Rated current: 11 A Starting current: 1080-1180 % Cos phi - power factor: 0.87-0.82 Rated speed: 2920-2940 rpm Efficiency: IE3 89,2% Motor efficiency at full load: 89.2 % Motor efficiency at 3/4 load: 90.0 % Motor efficiency at 1/2 load: 89.6 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U17417 Others: Minimum efficiency index, MEI $\geq$: 0.70 Net weight: 82 kg Gross weight: 104 kg Shipping volume: 0.234 m ³ Danish VVS No.: 385915040 Country of origin: HU Custom tariff no.: 84137075

96500560 CRN 20-4 A-P-A-E-HQQE 50 Hz

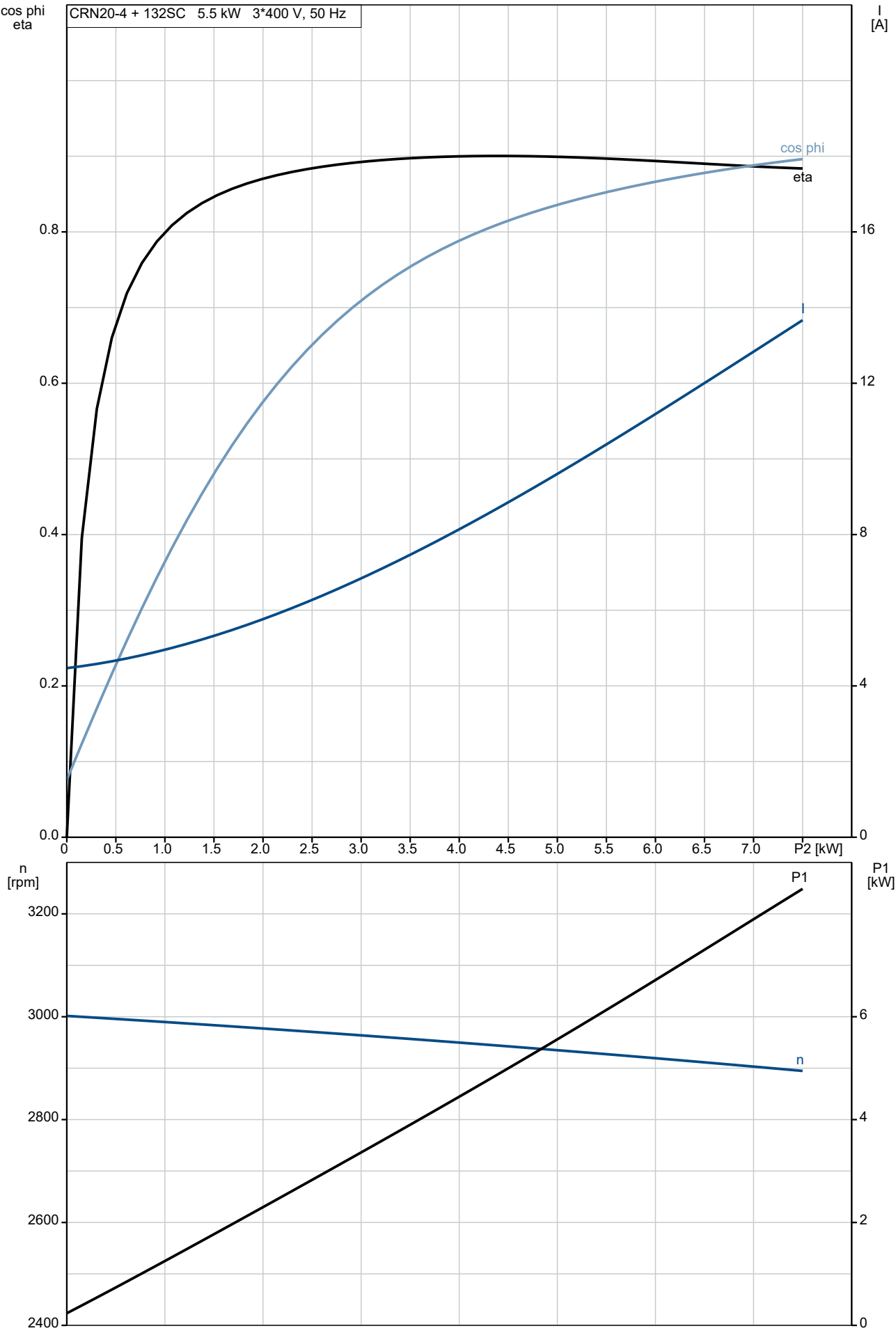


Description	Value
General information:	
Product name:	CRN 20-4 A-P-A-E-HQQE
Product No:	96500560
EAN number:	5700396204260
Technical:	
Pump speed on which pump data are based:	2919 rpm
Rated flow:	21 m³/h
Rated head:	46.7 m
Maximum head:	58.8 m
Stages:	4
Impellers:	4
Number of reduced-diameter impellers:	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:	A
Model:	A
Materials:	
Base:	Stainless steel
Base:	EN 1.4408
Base:	AISI 316
Impeller:	Stainless steel
Impeller:	EN 1.4401
Impeller:	AISI 316
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	25 bar
Max pressure at stated temp:	25 bar / 120 °C
Max pressure at stated temp:	25 bar / -20 °C
Type of connection:	PJE
Size of inlet connection:	DN 50
Size of outlet connection:	DN 50
Pressure rating for connection:	PN 50
Flange size for motor:	FF265
Connect code:	P
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:	132SC
IE Efficiency class:	IE3
Rated power - P2:	5.5 kW
Power (P2) required by pump:	5.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D V
Rated current:	11 A
Starting current:	1080-1180 %
Cos phi - power factor:	0.87-0.82
Rated speed:	2920-2940 rpm
Efficiency:	IE3 89,2%
Motor efficiency at full load:	89.2 %
Motor efficiency at 3/4 load:	90.0 %
Motor efficiency at 1/2 load:	89.6 %

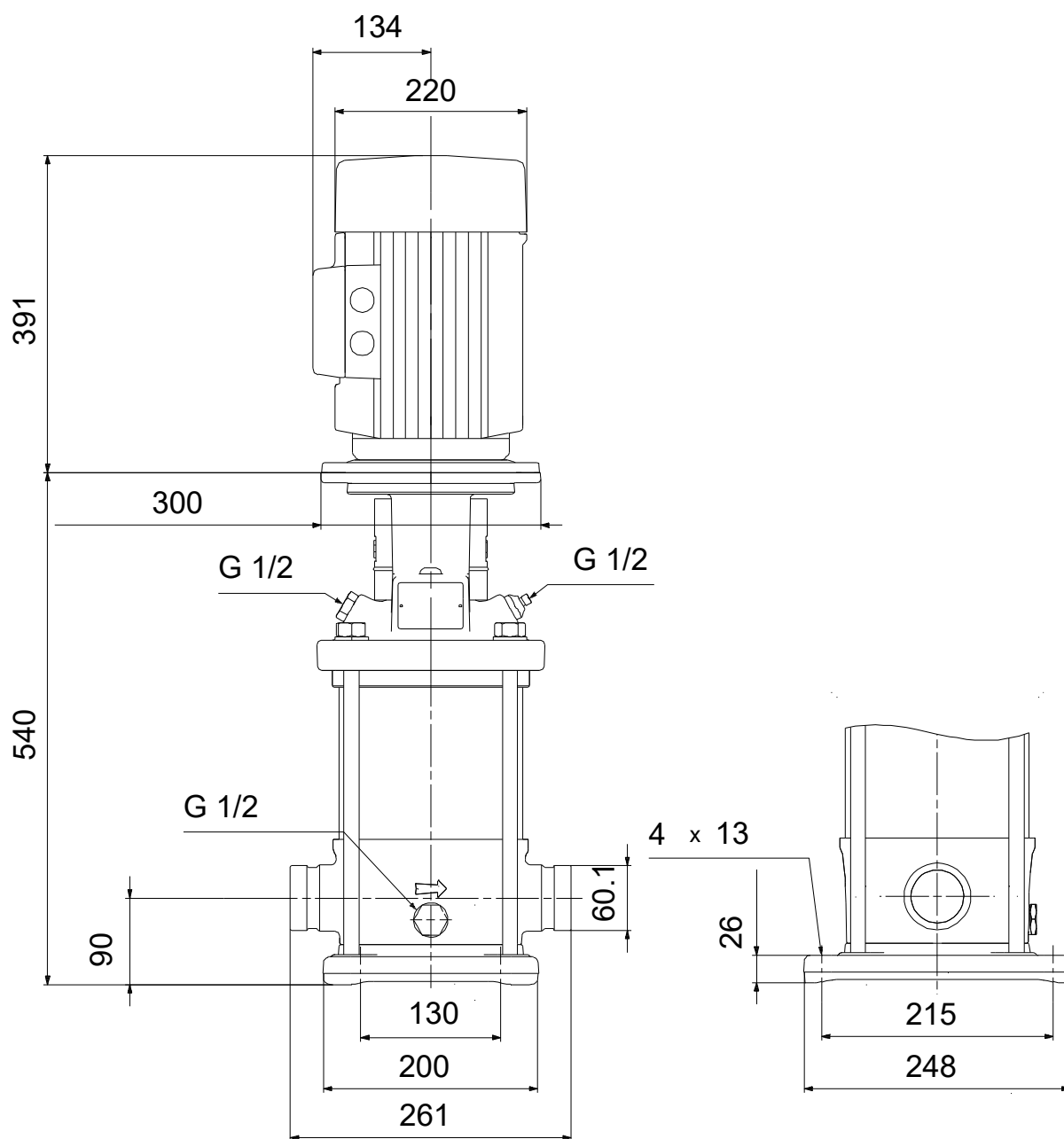


Description	Value
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17417
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	82 kg
Gross weight:	104 kg
Shipping volume:	0.234 m³
Danish VVS No.:	385915040
Country of origin:	HU
Custom tariff no.:	84137075

96500560 CRN 20-4 A-P-A-E-HQQE 50 Hz



96500560 CRN 20-4 A-P-A-E-HQQE 50 Hz



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

Spare parts CRN 20-4, Product No. 96500560
Produced After 1101 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, chamber stack			96491787	1	pcs
- 80	Chamber stack				1	
- 3	Top intermediate chamber				1	
	Guide vane					
	Cover plate					
3	Intermediate chamber					
- 4a	Intermediate chamber cpl.				1	
	Sand Lifter					
	Guide cup					
	Bearing plate					
	Guide vane					
3	Intermediate chamber					
45	Neck ring cpl.					
47	Bearing bush					
65	Retainer					
- 4	Intermediate chamber cpl.				2	
3	Intermediate chamber					
45	Neck ring cpl.					
65	Retainer					
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	
45	Neck ring cpl.					
65	Retainer					
47a	Bearing ring				1	
- 49	Impeller cpl.				4	
49c	Wear ring					
49	Impeller					
- 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	
37	O-ring				2	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
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			96511312	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				1	pcs
-	Kit, bearing cpl.			96279803	1	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
153	Angular-contact bearing				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				2	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, end shield			96279790	1	
156a	End shield				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				1	
159a	Seal ring				1	
-	Kit, eyebolt			96279825	1	
189	Eyebolt				1	
-	Kit, fan			96279758	1	
156	Fan				1	
159c	Seal ring				1	
159a	Seal ring				1	
-	Kit, fan cover			96279756	1	
151b	Label				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
-	Kit, flange			96279784	1	
156b	Flange				1	
159.c	Seal ring				1	
186	Drain plug				3	
-	Kit, retaining ring			96279801	1	
187	Retaining ring				1	
188	Retaining ring				1	
-	Kit, shaft seal			96279764	1	
159d	Seal ring				1	
159c	Seal ring				1	
-	Kit, staybolts			96279793	1	
181	Pan head staybolt				4	
-	Kit, terminal board			96279769	1	
	Bracket cpl.				1	
163	Hex socket head screw				1	
173a	Base				1	
173	Pan head thread forming screw		Designation: COMBI TORX T25		1	
176	Slot cheese head screw		Designation: COMBI TORX T25		6	
			Length (mm): 10			
			Thread: M5			
176	Terminal				1	
176	Connecting piece				3	
176	Wire clamp				3	
176	Terminal board				1	
177	Pan head screw				1	
-	Kit, terminal box			96279772	1	
164	Terminal box cover w/gasket				1	
166	Pan head thread forming screw				4	
-	Motor				1	pcs
-	Kit, bearing cpl.			96279803	1	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
153	Angular-contact bearing				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				2	
-	Kit, end shield			96279790	1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
156a	End shield				1	
157	O-ring		Diameter: 62 Material type: NBR Thickness: 3		1	
158	Waved washer				1	
159a	Seal ring				1	
-	Kit, eyebolt			96279825	1	
189	Eyebolt				1	
-	Kit, fan			96279758	1	
156	Fan				1	
159c	Seal ring				1	
159a	Seal ring				1	
-	Kit, fan cover			96279756	1	
151b	Label				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
-	Kit, flange			96279784	1	
156b	Flange				1	
159.c	Seal ring				1	
186	Drain plug				3	
-	Kit, retaining ring			96279801	1	
187	Retaining ring				1	
188	Retaining ring				1	
-	Kit, shaft seal			96279764	1	
159d	Seal ring				1	
159c	Seal ring				1	
-	Kit, staybolts			96279793	1	
181	Pan head staybolt				4	
-	Kit, terminal board			96279769	1	
	Bracket cpl.				1	
163	Hex socket head screw				1	
173a	Base				1	
173	Pan head thread forming screw		Designation: COMBI TORX T25		1	
176	Slot cheese head screw		Designation: COMBI TORX T25		6	
			Length (mm): 10 Thread: M5			
176	Terminal				1	
176	Connecting piece				3	
176	Wire clamp				3	
176	Terminal board				1	
177	Pan head screw				1	
-	Kit, terminal box			96279772	1	
164	Terminal box cover w/gasket				1	
166	Pan head thread forming screw				4	
1a	Pump head			98914854	1	pcs
1	Flange			99104283	1	pcs
2	Pump cover			98481138	1	pcs
3	Top intermediate chamber			98734577	1	pcs
4a	Intermediate chamber cpl.			96538853	1	pcs
4a	Intermediate chamber cpl.			98371117	1	pcs
- 4	Intermediate chamber cpl.			96538840	2	pcs
3	Intermediate chamber			98371143	1	
65	Retainer			96547341	1	
4	Intermediate chamber cpl.			98371115	2	pcs

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
6	Base			98654159	1	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
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			98982876	4	pcs
32	Washer		Designation: DIN 125 A2	99944260	4	pcs
			Internal diameter: 17			
			Outer diameter: 30			
			Thickness: 3			
36	Nut		Thread: M16	99944257	4	pcs
37a	O-ring			96538857	1	pcs
38	O-ring			99198791	1	pcs
38	O-ring			99198815	2	pcs
38	O-ring			99412727	2	pcs
44b	Inlet part			98814593	1	pcs
44a	Inlet part cpl.			98818922	1	pcs
47a	Bearing ring			96538795	1	pcs
- 49	Impeller cpl.			98394459	4	pcs
49c	Wear ring			96547340	1	
51	Shaft, spline, cpl.			98368630	1	pcs
55	Outer sleeve			98812636	1	pcs
56	Base plate			98481136	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	1	pcs
105	Shaft seal		Material type: HQQE	96538914	1	pcs