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Inventflow: Grundfos A-partner

Grundfos CRN 3-31 A-P-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/crn/grundfos-crn-3-31-a-p-a-e-hqqe>

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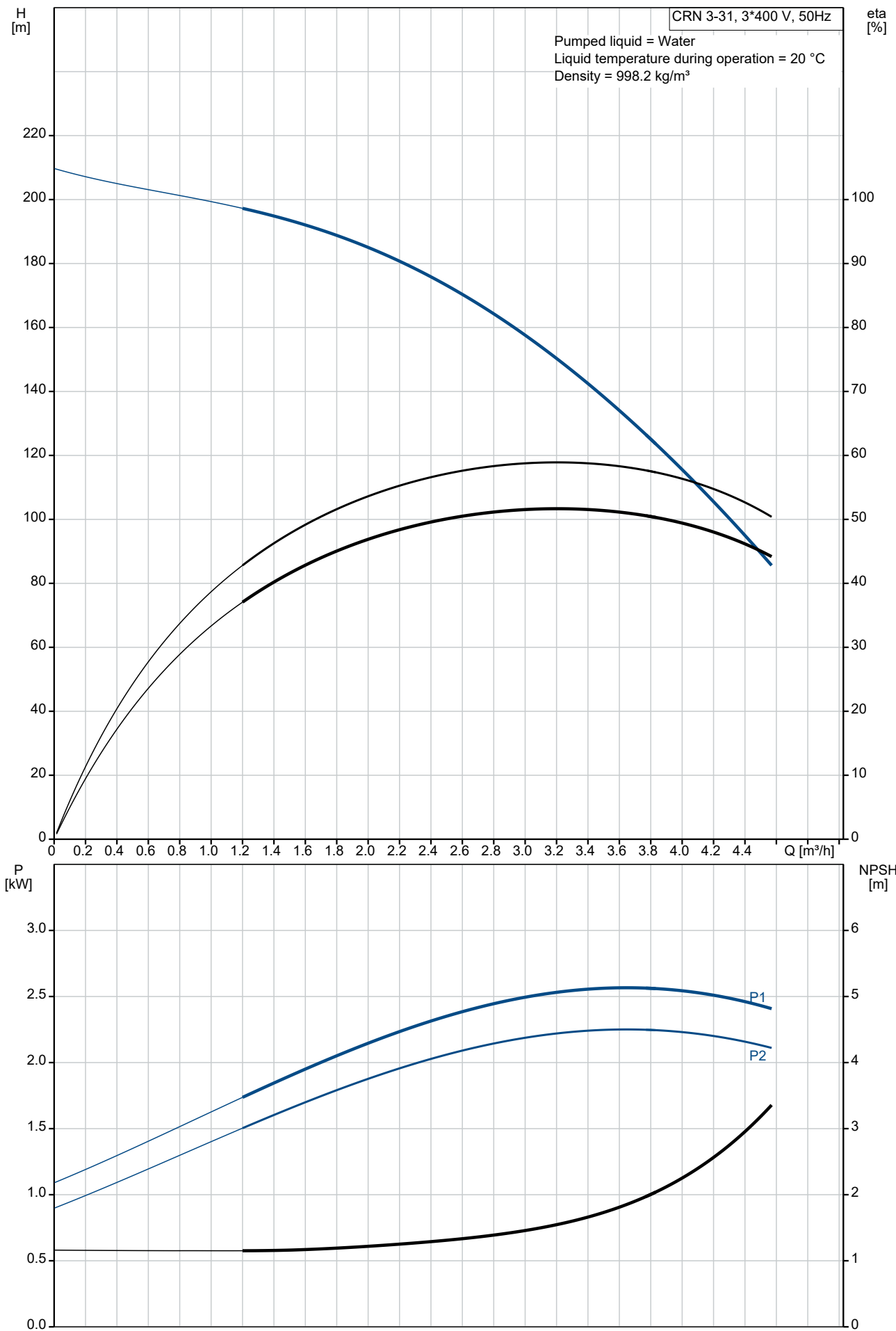
Datasheet



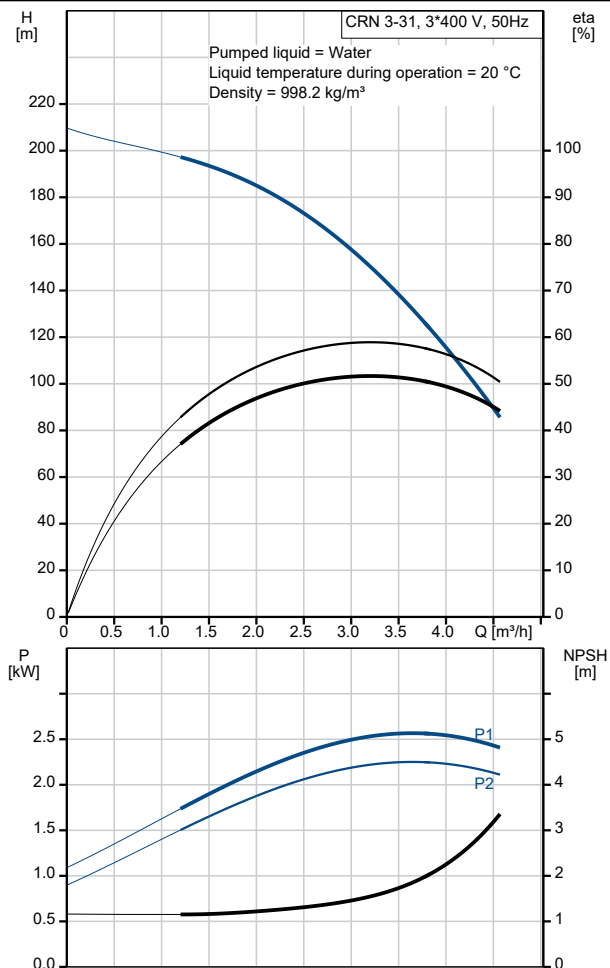
Qty.	Description
1	CRN 3-31 A-P-A-E-HQQE  Product No.: 96513461 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers, intermediate chambers and outer sleeve are made of 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: 2902 rpm Rated flow: 3 m³/h Rated head: 153.2 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 32 Size of outlet connection: DN 32 Pressure rating for connection: PN 50 Flange size for motor: FT130 Electrical data: Motor standard: IEC Motor type: 100LC IE Efficiency class: IE3 Rated power - P2: 3 kW Power (P2) required by pump: 3 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D V Rated current: 6.3 A Starting current: 840-920 % Cos phi - power factor: 0.87-0.82 Rated speed: 2900-2920 rpm Efficiency: IE3 87,1% Motor efficiency at full load: 87.1 % Motor efficiency at 3/4 load: 88.0 % Motor efficiency at 1/2 load: 87.7 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U15510 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 48.1 kg Gross weight: 53.5 kg Shipping volume: 0.133 m³ Country of origin: HU Custom tariff no.: 84137075

96513461 CRN 3-31 A-P-A-E-HQQE 50 Hz

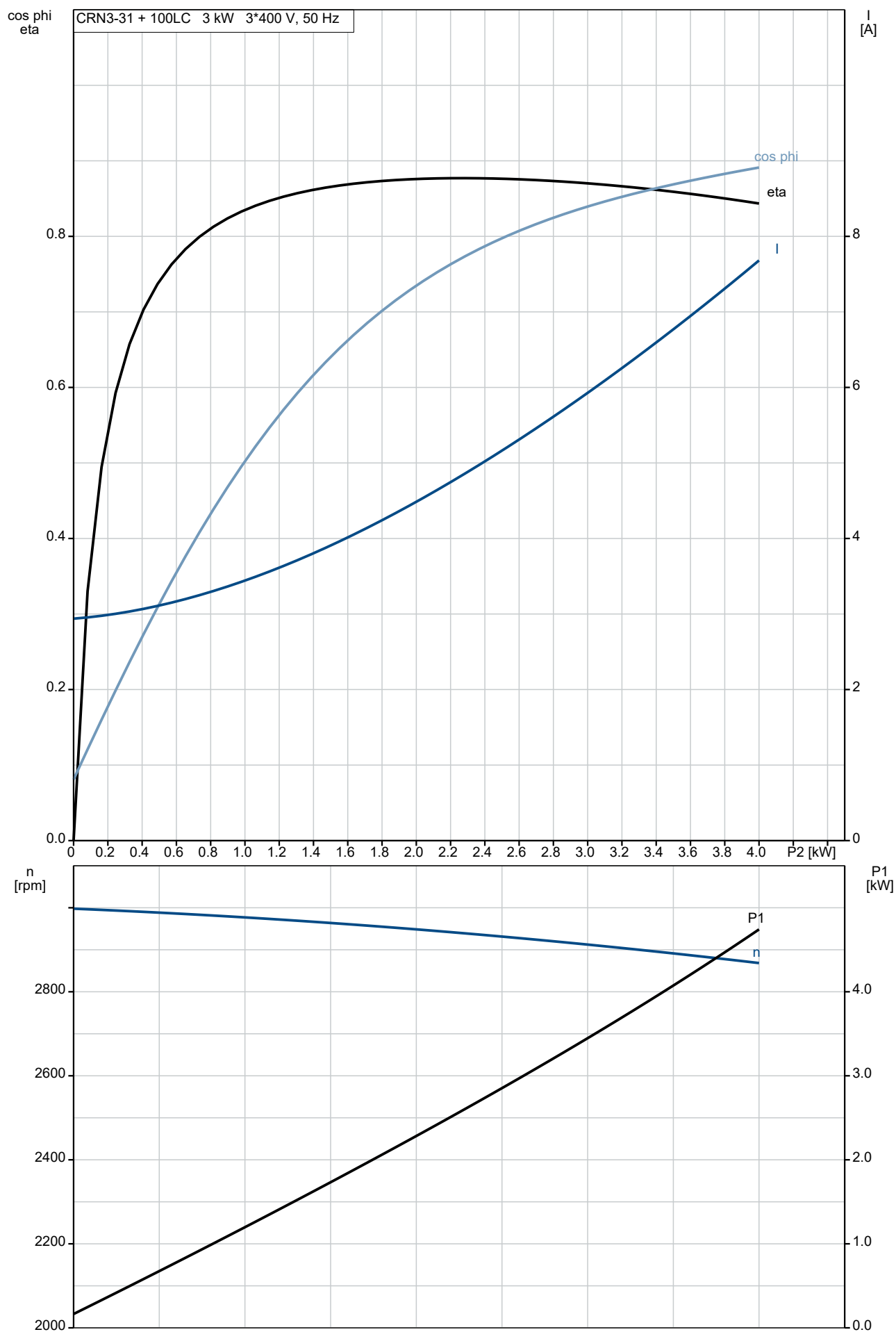


Description	Value
General information:	
Product name:	CRN 3-31 A-P-A-E-HQQE
Product No:	96513461
EAN number:	5700396643373
Technical:	
Pump speed on which pump data are based:	2902 rpm
Rated flow:	3 m³/h
Rated head:	153.2 m
Maximum head:	206.6 m
Stages:	31
Impellers:	31
Number of reduced-diameter impellers:	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 32
Size of outlet connection:	DN 32
Pressure rating for connection:	PN 50
Flange size for motor:	FT130
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:	100LC
IE Efficiency class:	IE3
Rated power - P2:	3 kW
Power (P2) required by pump:	3 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D V
Rated current:	6.3 A
Starting current:	840-920 %
Cos phi - power factor:	0.87-0.82
Rated speed:	2900-2920 rpm
Efficiency:	IE3 87,1%
Motor efficiency at full load:	87.1 %
Motor efficiency at 3/4 load:	88.0 %
Motor efficiency at 1/2 load:	87.7 %

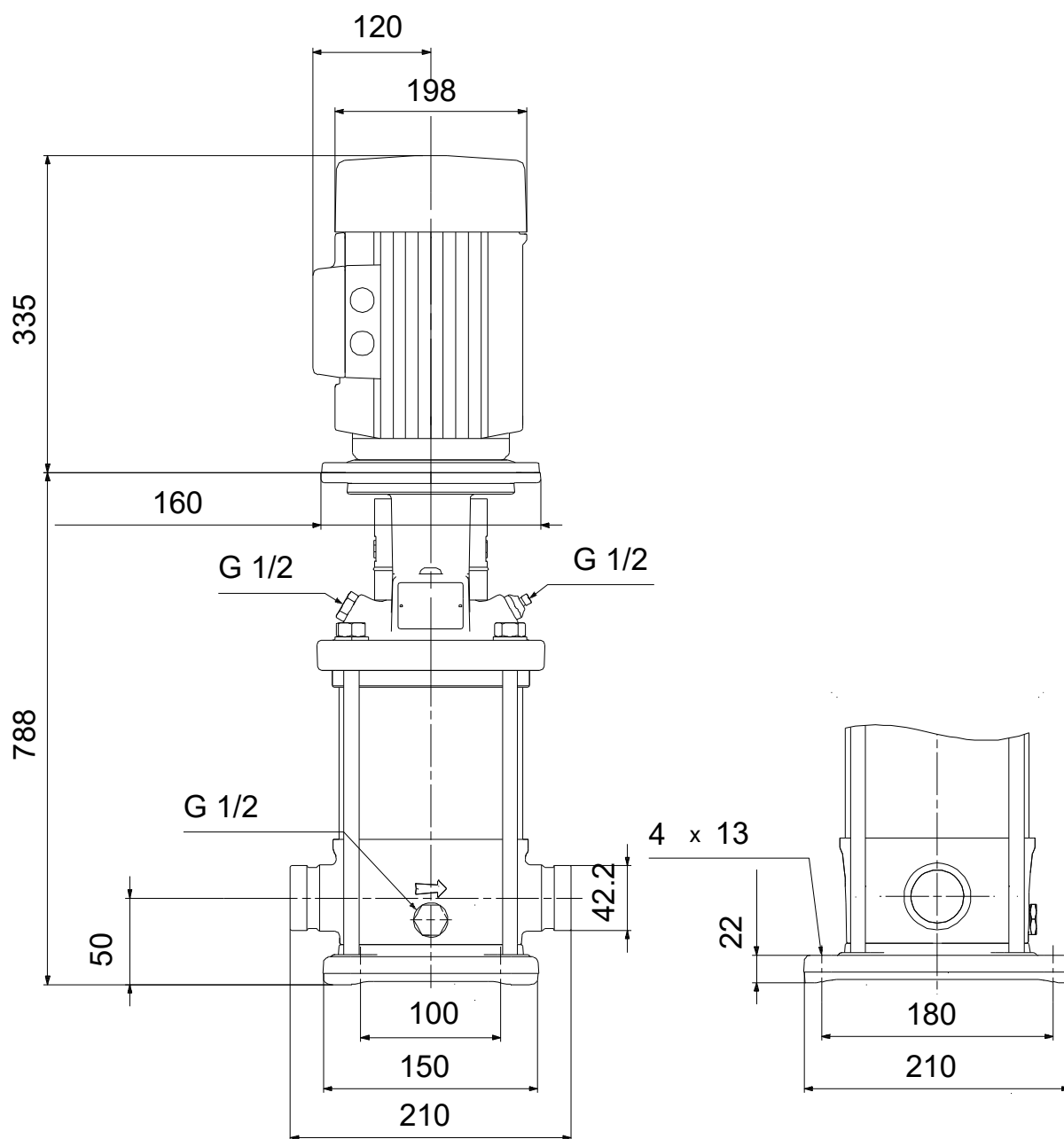


Description	Value
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U15510
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	48.1 kg
Gross weight:	53.5 kg
Shipping volume:	0.133 m ³
Country of origin:	HU
Custom tariff no.:	84137075

96513461 CRN 3-31 A-P-A-E-HQQE 50 Hz



96513461 CRN 3-31 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 3-31, Product No. 96513461
Produced After 1101 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenhei
- 80	Kit, chamber stack		Bearing type: SILICON CARBIDE	96453572	1	pcs
- 4a	Chamber w. bearing cpl.				4	
	Vane				1	
	Retainer				1	
	Guide vane				6	
4a	Intermediate chamber				1	
45	Neck ring				1	
47	Bearing bush				1	
65	Retainer for seal ring				1	
65	Neck ring retainer				1	
- 4	Chamber cpl.				26	
4a	Intermediate chamber				1	
45	Neck ring				1	
65	Neck ring retainer				1	
- 5a	Chamber cpl.				1	
	Vane				1	
4a	Intermediate chamber				1	
45	Neck ring				1	
65	Retainer for seal ring				1	
65	Neck ring retainer				1	
- 44a	Guide vane cpl.				1	
	Plate				1	
	Guide vane				6	
50	Top plate				1	
47a	Bearing ring				4	
49	Impeller cpl.				31	
51	Shaft, spline, cpl.				1	
64d	Spacing pipe		Internal diameter: 12,85		4	
			Outer diameter: 15,85			
			Length (mm): 4,50			
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64a	Spacing pipe				26	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
-	Kit, coupling			00415063	1	pcs
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			96505131	1	pcs
7a	Combi Slot Torx screw				4	
7	Coupling guard				2	
-	Kit, gaskets			96455090	1	pcs
37	O-ring				2	
38	O-ring				1	
38	O-ring				2	
109	O-ring		Diameter: 22,00		1	
			Material type: EPDM			
			Thickness: 2,75			
-	Kit, plug			96505133	1	pcs
- 18	Air vent screw				1	
	Spindle				1	
	Plug				1	
23b	Spindle				1	
25	Plug				1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenhei
25	Plug					1	
38	O-ring					1	
38	O-ring					2	
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				96455086	1	pcs
105	Shaft seal			Material type: HQQE		1	
-	Kit, wear parts			Material type: SILICON CARBIDE	96455094	1	pcs
-	4a	Chamber w. bearing cpl.				4	
		Vane				1	
		Retainer				1	
		Guide vane				6	
4a		Intermediate chamber				1	
45		Neck ring				1	
47		Bearing bush				1	
65		Retainer for seal ring				1	
65		Neck ring retainer				1	
45		Neck ring				32	
47a		Bearing ring				4	
64d		Spacing pipe		Internal diameter: 12,85		4	
				Outer diameter: 15,85			
				Length (mm): 4,50			
64c		Clamp, splined		Internal diameter: 8,5		1	
				Outer diameter: 15			
65		Neck ring retainer				32	
66		Wedge lock washer				1	
67		Lock nut		Thread: M8		1	
441b		Gasket				2	
-	Motor				85903731	1	pcs
-	Kit, Ball bearing				96279795	1	
99a		Retaining ring				1	
99		Retaining ring				1	
111		Ball bearing				1	
111		Ball bearing				1	
157		O-ring		Diameter: 52		1	
				Material type: NBR			
				Thickness: 3			
158		Waved washer				1	
-	Kit, end shield				96279831	1	
156a		End shield				1	
157		O-ring		Diameter: 52		1	
				Material type: NBR			
				Thickness: 3			
158		Waved washer				1	
159a		Seal ring				1	
-	Kit, fan				96279757	1	
156		Fan				1	
159a		Seal ring				1	
-	Kit, fan cover				96279826	1	
151b		Label				1	
151		Fan cover				1	
152		Pan head thread forming screw				4	
-	Kit, flange				96279828	1	
156b		Flange				1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenhei
156. c	Drain plug						3
159. c	Seal ring						1
-	Kit, retaining ring				96279799	1	
99	Retaining ring						1
188	Retaining ring						1
-	Kit, shaft seal				96279762	1	
159c	Seal ring						1
159a	Seal ring						1
-	Kit, staybolts				96279832	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				96279771	1	
164	Terminal box cover w/gasket						1
166	Pan head thread forming screw						4
1a	Pump head				98804047	1	pcs
2	Pump cover				96588244	1	pcs
- 4a	Chamber w. bearing cpl.				97690603	4	pcs
65	Retainer for seal ring				99812852	1	
4a	Chamber w. bearing cpl.				98371226	4	pcs
- 4	Chamber cpl.				97690021	26	pcs
45	Neck ring				96536194	1	
65	Neck ring retainer				99490745	1	
65	Neck ring retainer				99490747	1	
4	Chamber cpl.				96547663	26	pcs
4	Chamber cpl.				98371223	26	pcs
5a	Chamber cpl.				98371222	1	pcs
5a	Chamber cpl.				97564654	1	pcs
6	Base				96588139	1	pcs
7.a	Combi Slot Torx screw				96886324	4	pcs
7	Coupling guard				96603690	2	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
- 25a	Drain plug w/bypass valve				96588243	1	pcs
38	O-ring				99198815	1	
38	O-ring				99412727	1	
25	Plug				96536013	1	pcs
26	Staybolt			Length (mm): 659	98985616	4	pcs
				Thread: M12			
28	Hex head screw			Length (mm): 25	99335941	4	pcs
				Thread: M8			
32	Washer			Designation: DIN 125 A2	99944263	4	pcs
				Internal diameter: 13			
				Outer diameter: 24			
				Thickness: 2,5			

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenhei
37	O-ring			96547656	2	pcs
38	O-ring			99198815	2	pcs
38	O-ring			99412727	2	pcs
44a	Guide vane cpl.			98928568	1	pcs
47a	Bearing ring			97905743	4	pcs
47a	Bearing ring			96547649	4	pcs
49	Impeller cpl.			98271529	31	pcs
49	Impeller cpl.			96547601	31	pcs
49	Impeller cpl.			98394417	31	pcs
51	Shaft, spline, cpl.			98368527	1	pcs
55	Outer sleeve			98811317	1	pcs
56	Base plate			96588142	1	pcs
60	Formed wire spring			99935918	1	pcs
64c	Clamp, splined		Internal diameter: 8,5	98496968	1	pcs
			Outer diameter: 15			
64a	Spacing pipe			96536198	26	pcs
66	Wedge lock washer			96536157	1	pcs
66	Wedge lock washer			92575609	1	pcs
67	Lock nut		Thread: M8	98277008	1	pcs
105	Shaft seal		Material type: HQQE	96983415	1	pcs