

Inventflow: Grundfos A-partner

Grundfos CRN 1-13 A-P-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/crn/grundfos-crn-1-13-a-p-a-e-hqqe>

Contact

info@inventflow.nl

+31 (0) 546 45 80 72

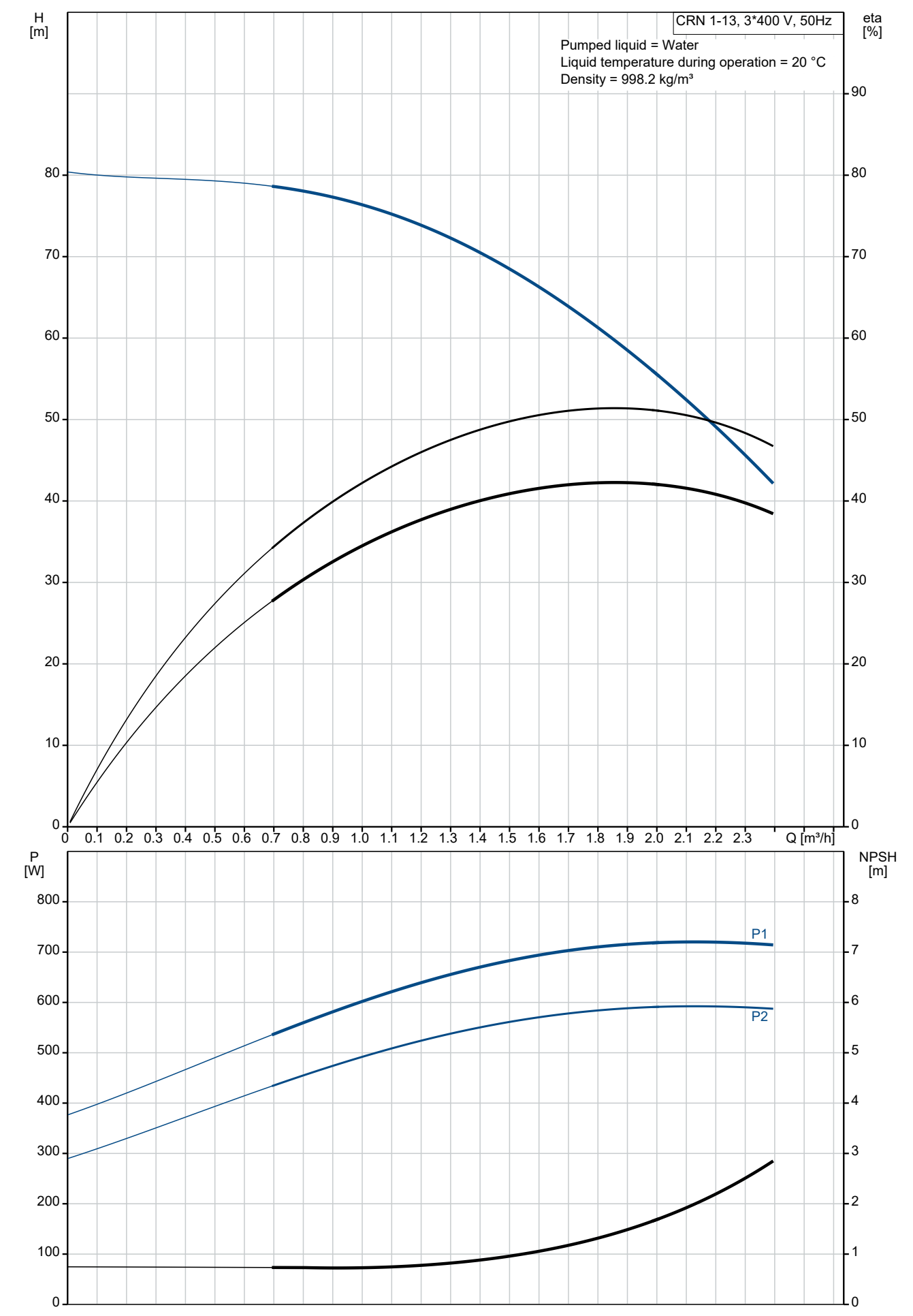
Datasheet



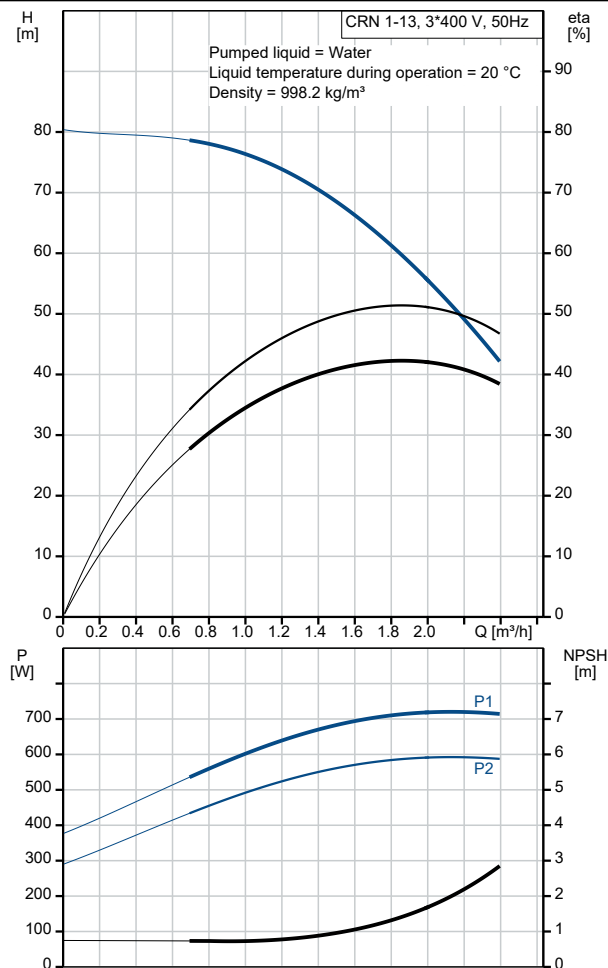
Qty.	Description
1	CRN 1-13 A-P-A-E-HQQE  Product No.: 96516493 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers, intermediate chambers and outer sleeve are made of 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: 2864 rpm Rated flow: 1.8 m³/h Rated head: 61.3 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE, EAC, 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: FT100 Electrical data: Motor standard: IEC Motor type: 80A IE Efficiency class: IE3 Rated power - P2: 0.75 kW Power (P2) required by pump: 0.75 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-415Y V Rated current: 3.30/1.90 A Starting current: 580-620 % Cos phi - power factor: 0.81-0.71 Rated speed: 2840-2870 rpm Efficiency: IE3 80,7% Motor efficiency at full load: 80.7 % Motor efficiency at 3/4 load: 82.7 % Motor efficiency at 1/2 load: 81.7 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U05104 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 23.6 kg Gross weight: 26.5 kg Shipping volume: 0.074 m ³ Danish VVS No.: 385910013 Country of origin: HU Custom tariff no.: 84137075

96516493 CRN 1-13 A-P-A-E-HQQE 50 Hz

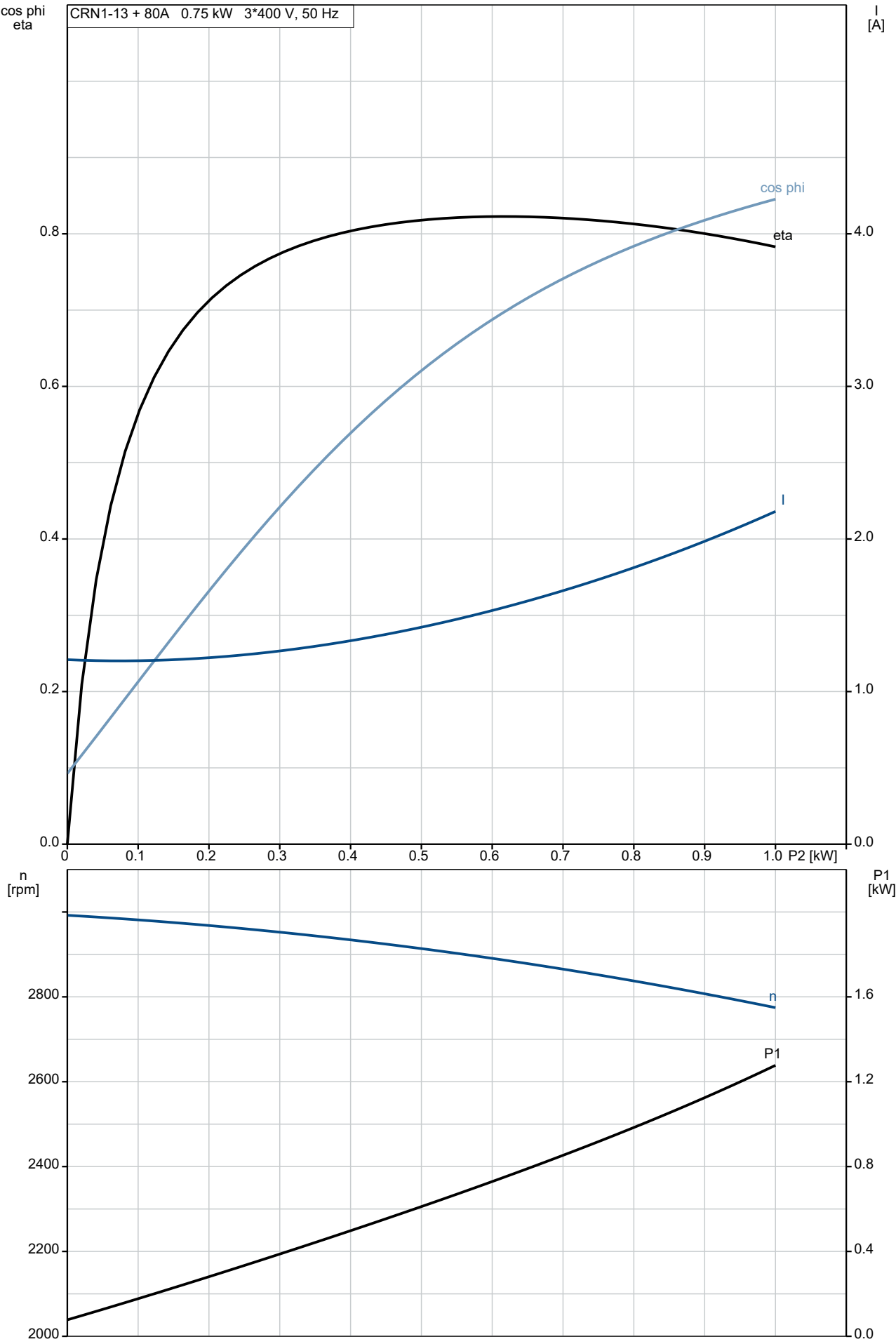


Description	Value
General information:	
Product name:	CRN 1-13 A-P-A-E-HQQE
Product No:	96516493
EAN number:	5700396744292
Technical:	
Pump speed on which pump data are based:	2864 rpm
Rated flow:	1.8 m³/h
Rated head:	61.3 m
Maximum head:	80.7 m
Stages:	13
Impellers:	13
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE, EAC, ACS
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:	FT100
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:	80A
IE Efficiency class:	IE3
Rated power - P2:	0.75 kW
Power (P2) required by pump:	0.75 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	3.30/1.90 A
Starting current:	580-620 %
Cos phi - power factor:	0.81-0.71
Rated speed:	2840-2870 rpm
Efficiency:	IE3 80,7%
Motor efficiency at full load:	80.7 %
Motor efficiency at 3/4 load:	82.7 %
Motor efficiency at 1/2 load:	81.7 %

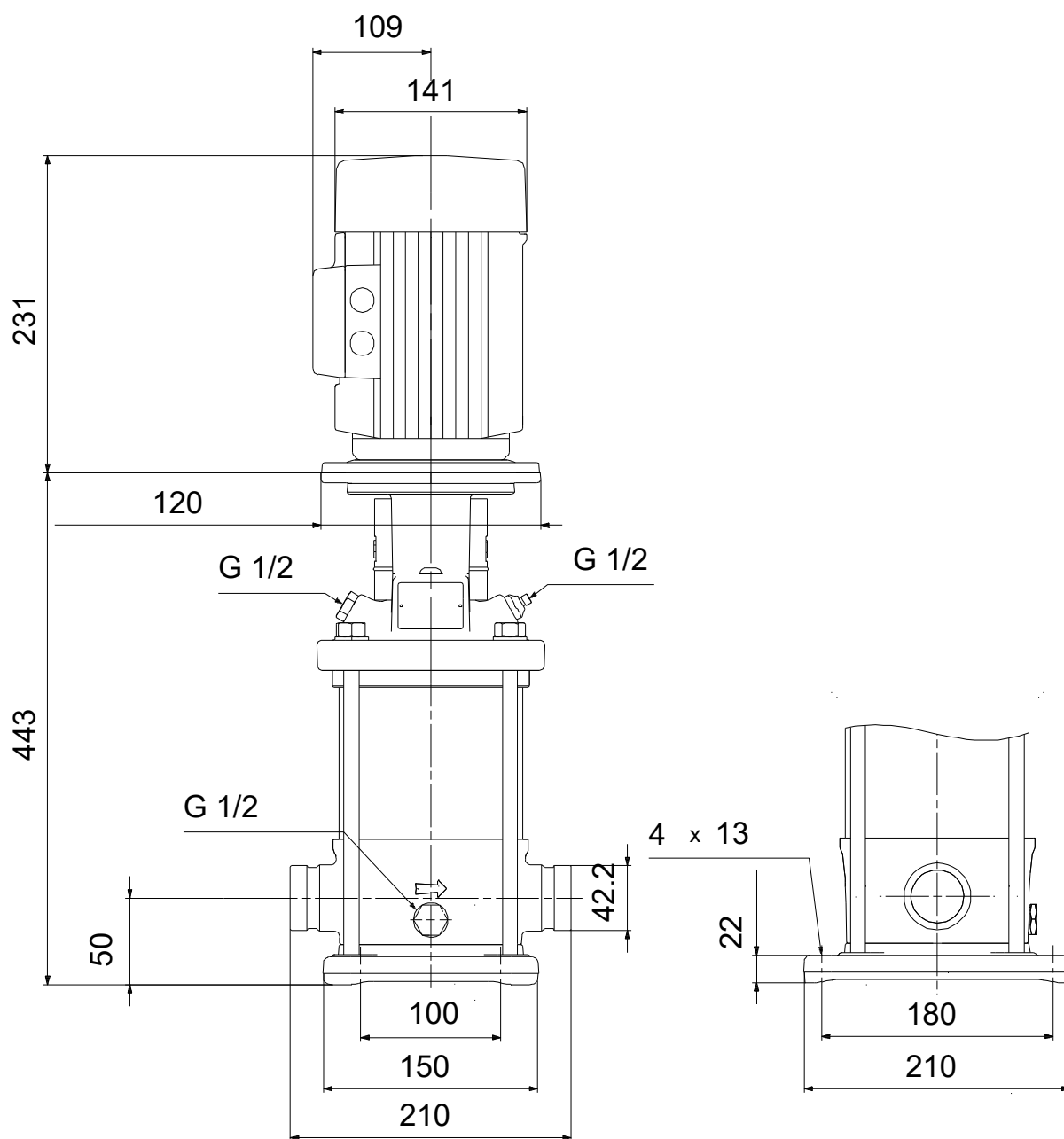


Description	Value
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U05104
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	23.6 kg
Gross weight:	26.5 kg
Shipping volume:	0.074 m³
Danish VVS No.:	385910013
Country of origin:	HU
Custom tariff no.:	84137075

96516493 CRN 1-13 A-P-A-E-HQQE 50 Hz



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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 CRN 1-13, Product No. 96516493
Produced After 1107 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenheid
-	Kit, chamber stack		Bearing type: SILICON CARBIDE	96453518	1	pcs
- 4a	Chamber w. bearing cpl.				2	
	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.				10	
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				1	
	Plate				1	
50	Top plate				1	
47a	Bearing ring				2	
49	Impeller cpl.				13	
51	Shaft, spline, cpl.				1	
64d	Spacing pipe		Internal diameter: 12,85		2	
			Outer diameter: 15,85			
			Length (mm): 4,50			
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64a	Spacing pipe				10	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
-	Kit, coupling			00415061	1	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 20			
			Thread: M6			
10a	Coupling half				2	
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
-	Kit, coupling guard			96505130	1	pcs
7.a	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	
25	Plug				1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenheid
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	96455092	1	pcs
-	4a Chamber w. bearing cpl.					2	
	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					17	
47a	Bearing ring					2	
64d	Spacing pipe			Internal diameter: 12,85		2	
				Outer diameter: 15,85			
				Length (mm): 4,50			
64c	Clamp, splined			Internal diameter: 8,5		1	
				Outer diameter: 15			
65	Neck ring retainer					17	
66	Wedge lock washer					1	
67	Lock nut			Thread: M8		1	
441 b	Gasket					2	
-	Motor				85903982	1	pcs
-	Kit, Ball bearing				96279730	1	
111	Ball bearing			Designation: 6204.2Z.C3.SYN		1	
111	Ball bearing					1	
157	O-ring			Diameter: 32		1	
				Material type: NBR			
				Thickness: 2			
158	Waved washer					1	
-	Kit, fan				96279721	1	
156	Fan					1	
159 a	Seal ring					1	
-	Kit, fan cover				96279720	1	
151	Fan cover					1	
152	Pan head thread forming screw					2	
-	Kit, flange				96279854	1	
156 b	Flange					1	
159c	Seal ring					1	
184	Gasket			Internal diameter: 114,80		1	
				Outer diameter: 121,20			
				Thickness: 0,25			
185	Pan head screw					4	
186	Drain plug					1	
-	Kit, shaft seal				96279722	1	
159c	Seal ring					1	
159 a	Seal ring					1	
-	Kit, terminal box				96279724	1	
152	Pan head thread forming screw					4	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenheid
164 a	Terminal box w/gasket					1	
164	Terminal box cover w/gasket					1	
173 a	Washer	Designation: SQUARE				1	
		Internal diameter: 5,5					
		Outer diameter: 10X10					
		Thickness: 1,5					
173 a	Base					1	
173	Pan head thread forming screw	Designation: COMBI TORX T25				1	
173	Pan head screw	Designation: DIN 7985				1	
175	Pan head screw	Designation: DIN 7985				2	
176	Terminal cpl.					1	
2	Pump cover			96588244	1	pcs	
- 4a	Chamber w. bearing cpl.			97690603	2	pcs	
65	Retainer for seal ring			99812852	1		
4a	Chamber w. bearing cpl.			98371226	2	pcs	
- 4	Chamber cpl.			97690021	10	pcs	
45	Neck ring			96536194	1		
65	Neck ring retainer			99490745	1		
65	Neck ring retainer			99490747	1		
4	Chamber cpl.			96547663	10	pcs	
4	Chamber cpl.			98371223	10	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	
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): 335		98986296	4	pcs	
		Thread: M12					
28	Hex head screw	Length (mm): 25 MM		92529866	4	pcs	
		Thread: M6					
32	Washer	Designation: DIN 125 A2		99944263	4	pcs	
		Internal diameter: 13					
		Outer diameter: 24					
		Thickness: 2,5					
37	O-ring			96547656	2	pcs	
38	O-ring			99198815	2	pcs	
38	O-ring			99412727	2	pcs	
44a	Guide vane			98488445	1	pcs	
47a	Bearing ring			97905743	2	pcs	
47a	Bearing ring			96547649	2	pcs	
49	Impeller cpl.			98287177	13	pcs	
49	Impeller cpl.			96547666	13	pcs	
49	Impeller cpl.			98394399	13	pcs	
51	Shaft, spline, cpl.			96588234	1	pcs	
55	Outer sleeve			98811307	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	10	pcs	
66	Wedge lock washer			96536157	1	pcs	
66	Wedge lock washer			92575609	1	pcs	
67	Lock nut	Thread: M8		98277008	1	pcs	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenheid
105	Shaft seal		Material type: HQQE	96983415	1	pcs