

Inventflow: Grundfos A-partner

Grundfos CRN 45-5 A-F-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/crn/grundfos-crn-45-5-a-f-a-e-hqqe>

Contact

info@inventflow.nl

+31 (0) 546 45 80 72

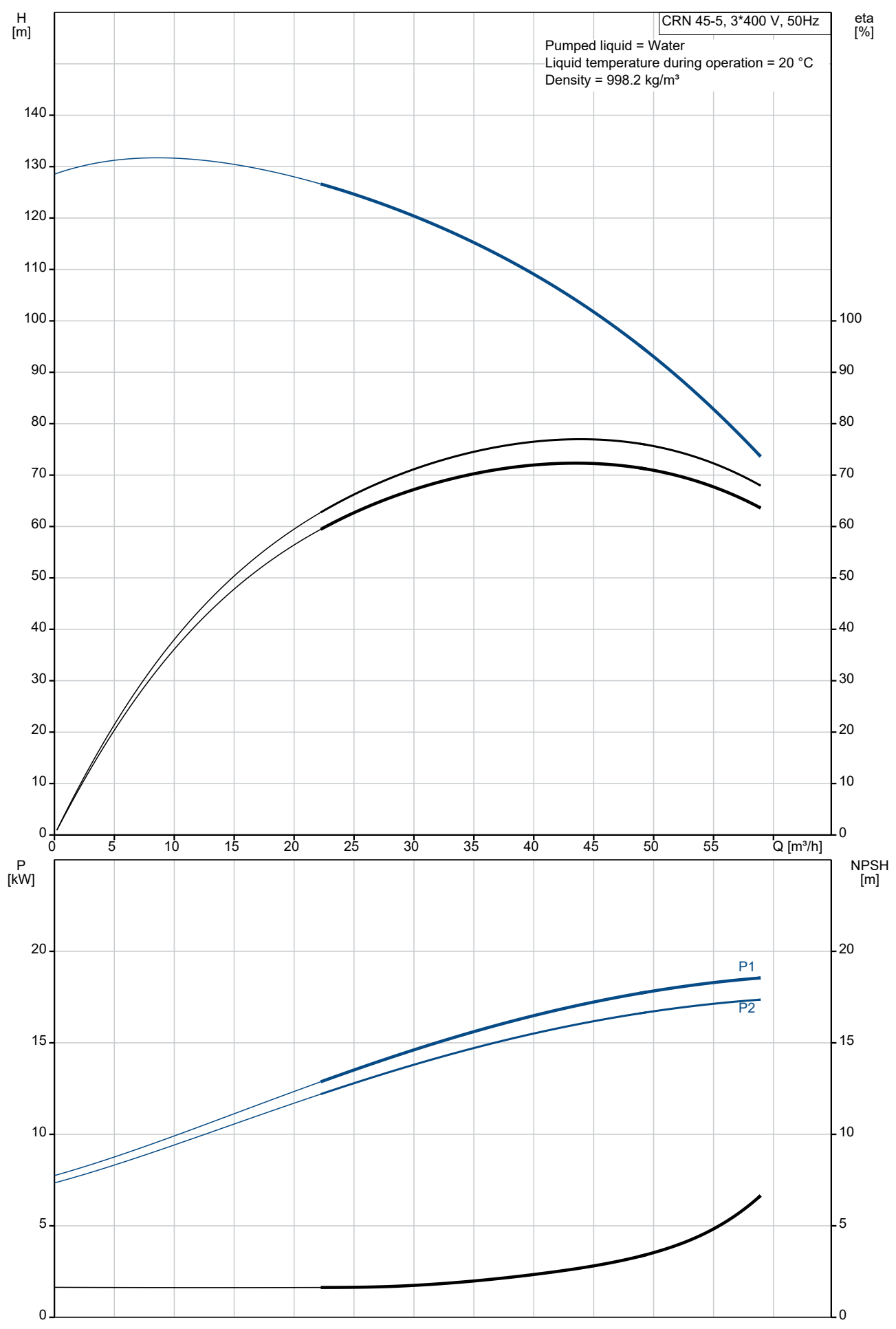
Datasheet



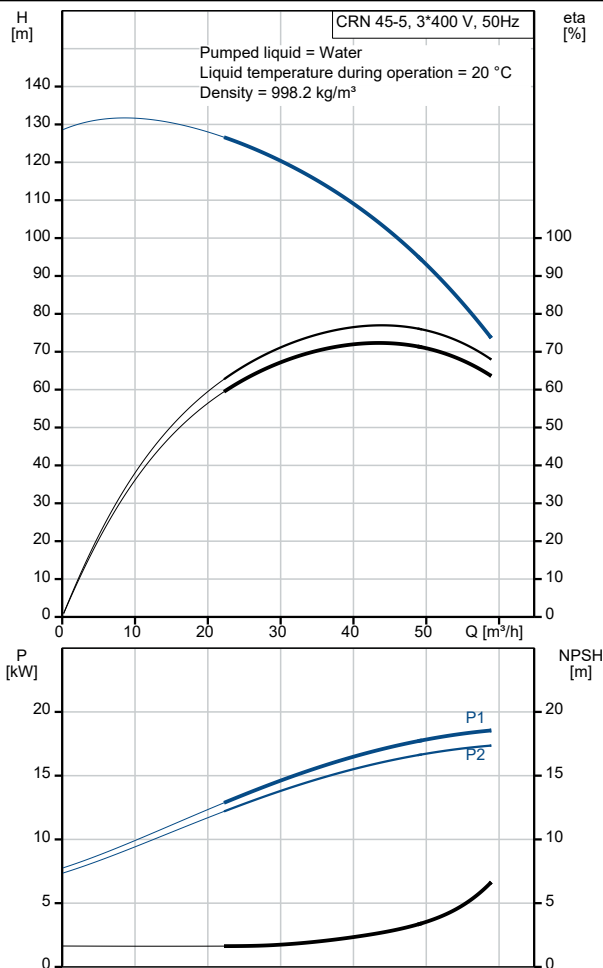
Qty.	Description
1	CRN 45-5 A-F-A-E-HQQE  Product No.: 96123125 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers, intermediate chambers and outer sleeve are made of 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 DIN flanges/couplings. Phase: The motor is a 3-phase AC motor. Controls: Frequency converter: NONE Liquid: Pumped liquid: Water Liquid temperature range: -40 .. 120 °C Selected liquid temperature: 20 °C Density: 998.2 kg/m³ Technical: Pump speed on which pump data are based: 2934 rpm Rated flow: 45 m³/h Rated head: 100.4 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 Support bearing: Graflon Installation: Maximum ambient temperature: 60 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -40 °C

Qty.	Description
	Type of connection: DIN Size of inlet connection: DN 80 Size of outlet connection: DN 80 Pressure rating for connection: PN 40 Flange size for motor: FF300 Electrical data: Motor standard: IEC Motor type: 160LB IE Efficiency class: IE3 Rated power - P2: 18.5 kW Power (P2) required by pump: 18.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D/660-690Y V Rated current: 34,5-32,5/20,0-18,8 A Starting current: 830-980 % Cos phi - power factor: 0.89-0.85 Rated speed: 2940-2950 rpm Efficiency: IE3 92,4% Motor efficiency at full load: 92.4-92.4 % Motor efficiency at 3/4 load: 93.2 % Motor efficiency at 1/2 load: 93.2 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U17528 Others: Minimum efficiency index, MEI ≥: 0.70 Net weight: 195 kg Gross weight: 228 kg Shipping volume: 0.495 m³ Danish VVS No.: 385917050 Country of origin: DK Custom tariff no.: 84137075

96123125 CRN 45-5 A-F-A-E-HQQE 50 Hz

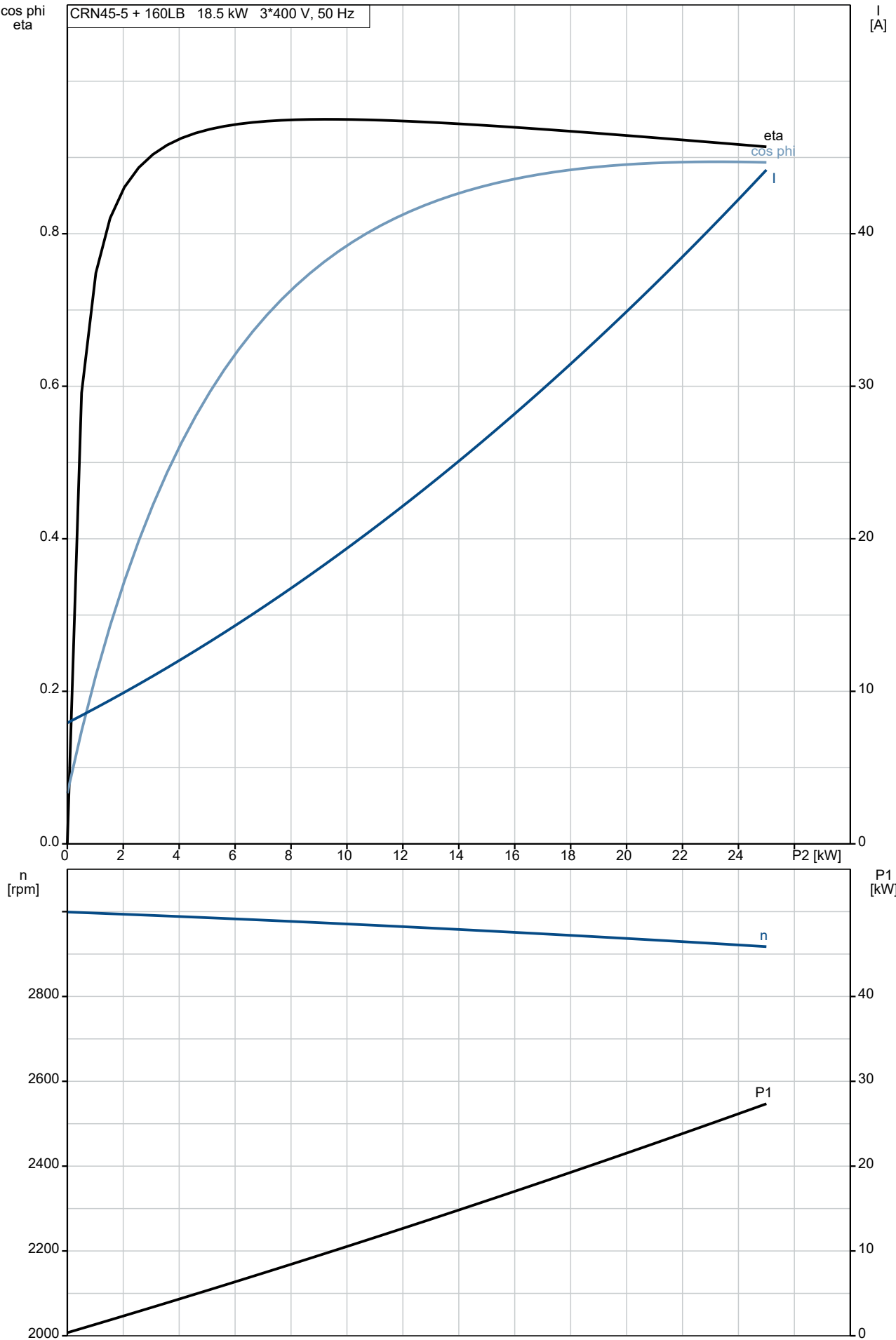


Description	Value		
General information:			
Product name:	CRN 45-5 A-F-A-E-HQQE		
Product No:	96123125		
EAN number:	5700396691701		
Technical:			
Pump speed on which pump data are based:	2934 rpm		
Rated flow:	45 m³/h		
Rated head:	100.4 m		
Maximum head:	127.8 m		
Stages:	5		
Impellers:	5		
Number 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:	B		
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		
Support bearing:	Graflon		
Installation:			
Maximum ambient temperature:	60 °C		
Maximum operating pressure:	16 bar		
Max pressure at stated temp:	16 bar / 120 °C		
Max pressure at stated temp:	16 bar / -40 °C		
Type of connection:	DIN		
Size of inlet connection:	DN 80		
Size of outlet connection:	DN 80		
Pressure rating for connection:	PN 40		
Flange size for motor:	FF300		
Connect code:	F		
Liquid:			
Pumped liquid:	Water		
Liquid temperature range:	-40 .. 120 °C		
Selected liquid temperature:	20 °C		
Density:	998.2 kg/m³		
Electrical data:			
Motor standard:	IEC		
Motor type:	160LB		
IE Efficiency class:	IE3		
Rated power - P2:	18.5 kW		
Power (P2) required by pump:	18.5 kW		
Mains frequency:	50 Hz		
Rated voltage:	3 x 380-415D/660-690Y V		
Rated current:	34,5-32,5/20,0-18,8 A		
Starting current:	830-980 %		
Cos phi - power factor:	0.89-0.85		
Rated speed:	2940-2950 rpm		
Efficiency:	IE3 92,4%		
Motor efficiency at full load:	92.4-92.4 %		

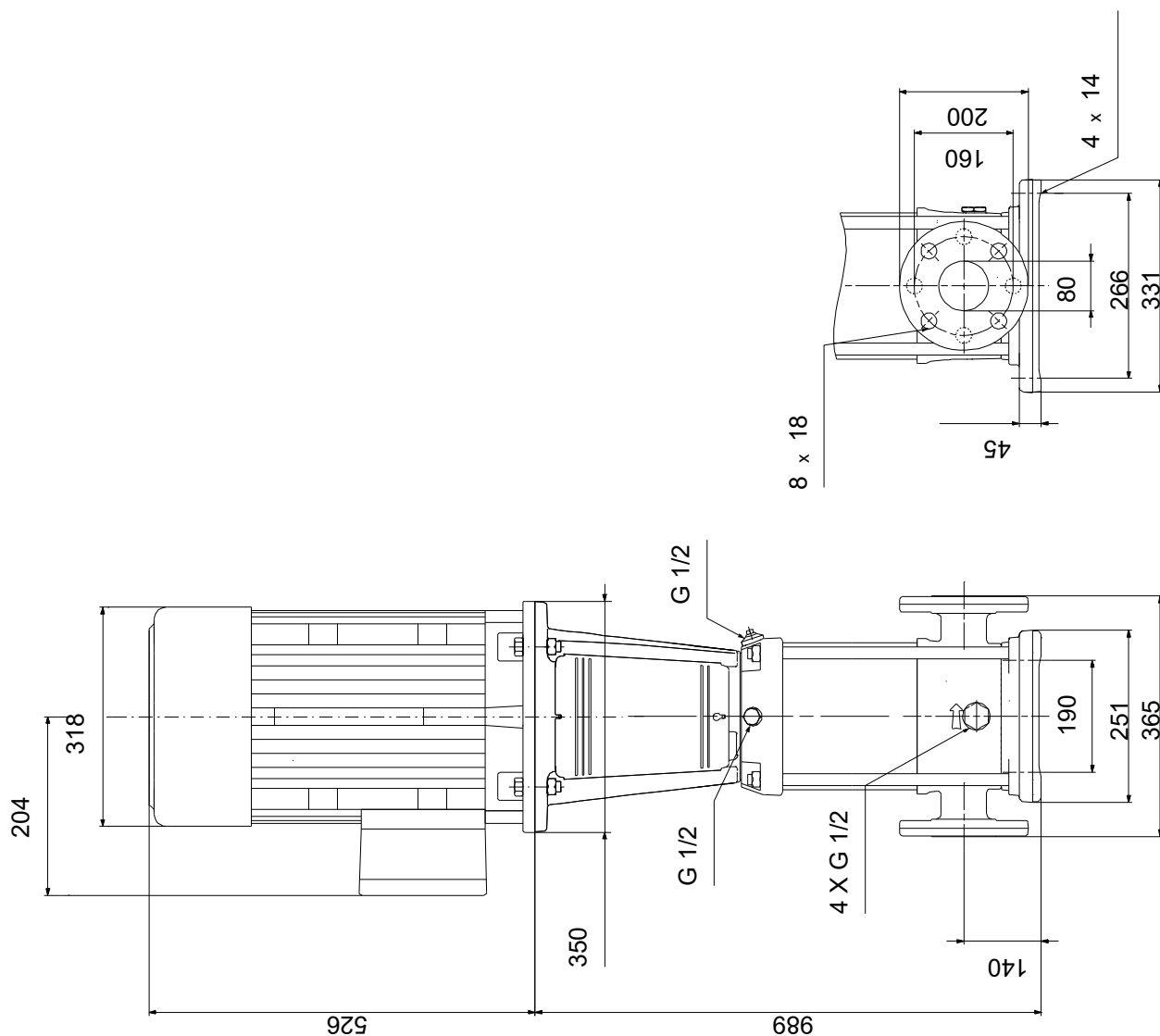


Description	Value
Motor efficiency at 3/4 load:	93.2 %
Motor efficiency at 1/2 load:	93.2 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17528
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	195 kg
Gross weight:	228 kg
Shipping volume:	0.495 m ³
Danish VVS No.:	385917050
Country of origin:	DK
Custom tariff no.:	84137075

96123125 CRN 45-5 A-F-A-E-HQQE 50 Hz



96123125 CRN 45-5 A-F-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 45-5, Product No. 96123125
Produced After 1410 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Base			96587695	1	pcs
6	Base				1	
- 80	Kit, chamber stack			96416249	1	pcs
- 80	Chamber stack				1	
- 3	Upper chamber cpl.				1	
	Cone					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
47d	Lock ring					
47c	Bush					
- 4a	Intermediate chamber cpl.				1	
	Cone					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
45a	Neck ring cpl.					
47	Bearing					
- 4	Intermediate chamber cpl.				3	
	Cone					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
	Spare, turbulence optimizer KP					
45a	Neck ring cpl.					
47d	Lock ring					
47c	Bush					
26c	Washer		Designation: DIN 125A		2	
			Thickness: 1,6			
26b	Hex socket head cap screw				2	
26a	Strap cpl.		Length (mm): 409		2	
			Thread: M8			
- 44	Suction interconnector cpl.				1	
44a	Suction interconnector					
45	Seal ring					
46	Neck ring					
65	Top f/neck ring					
- 47a	Bearing cpl.				1	
	Driver					
	Holder					
	Disc spring					
	Bearing ring					
- 49e	Impeller cpl.				5	
48	Nut					
49b	Split cone					
- 49a	Impeller, reduced diameter					
	Impeller hub					
49c	Wear ring					
51	Shaft				1	
-	Kit, chambers			98633888	1	pcs
- 4a	Intermediate chamber cpl.				1	
	Cone				1	
	Spare, turbulence optimizer KP				1	
	Spare, turbulence optimizer KP				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
	Spare, turbulence optimizer KP				1	
	Spare, turbulence optimizer KP				1	
	Spare, turbulence optimizer KP				10	
45a	Neck ring cpl.				1	
47	Bearing				1	
- 47a	Bearing cpl.				1	
	Driver				1	
	Holder				1	
	Disc spring				1	
	Bearing ring				1	
-	Kit, coupling			96416592	1	pcs
	Adjusting fork				1	
- 8	Coupling cpl.		Dimension: 22/42		1	
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M10			
10a	Coupling half				2	
-	Kit, coupling guard			96505135	1	pcs
7a	Socket button head screw				4	
7	Coupling guard				2	
-	Kit, cover			98832448	1	pcs
58a	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M10			
58	Cover				1	
-	Kit, gaskets			96416599	1	pcs
	Adjusting fork				1	
37	O-ring				2	
38	O-ring				2	
38	O-ring				4	
60	Spring				4	
109	O-ring				1	
110	O-ring		Diameter: 21,2		1	
			Material type: EPDM			
			Thickness: 3,55			
-	Kit, impeller			98634001	1	pcs
48	Nut				1	
48	Nut				1	
49b	Split cone				1	
49	Impeller				1	
-	Kit, plug			96505136	1	pcs
- 18	Air vent screw				1	
	Spindle				1	
	Plug				1	
25	Plug				4	
25	Plug				1	
38	O-ring				2	
38	O-ring				4	
38	O-ring		Diameter: 16,3		2	
			Material type: FKM			
			Thickness: 2,4			
38	O-ring		Diameter: 16,3		4	
			Material type: FKM			
			Thickness: 2,4			
38	O-ring		Diameter: 16,3		6	
			Material type: FKM			
			Thickness: 2,4			
-	Kit, shaft seal HQQE			96525458	1	pcs
	Grinding device				1	
- 105	Shaft seal		Material type: HQQE		1	
	Adjusting fork				1	
109	O-ring				1	
110	O-ring		Diameter: 21,5		1	
			Material type: EPDM			

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
Thickness: 4,25						
-	Kit, wear parts			98497474	1	pcs
45	Seal ring				7	
47d	Lock ring				7	
47c	Bush				5	
49c	Wear ring				7	
65	Top f/neck ring				7	
-	Motor				1	pcs
-	Kit, bearing cpl.			96796676	1	
32b	Waved washer				2	
153	Angular-contact bearing				1	
154	Ball bearing				1	
157	O-ring				1	
159	V-ring				1	
-	Kit, bearing plate			96796664	1	
155.a	Bearing cover				1	
208a	Gasket				3	
208	Hex socket head cap screw		Designation: DIN912		3	
Length (mm): 40						
Thread: M5						
-	Kit, eyebolt			96796712	1	
189	Eyebolt				2	
-	Kit, fan			96796654	1	
156.c	Retaining ring				1	
156	Fan				1	
-	Kit, fan cover			96796647	1	
151	Fan cover				1	
152.a	Rubber bush				4	
152	Hex head cap screw				4	
196	Diaphragm				1	
-	Kit, flange			96796662	1	
156.b	Flange				1	
159.b	Seal ring				1	
185.b	Nut				4	
185	Hex socket head cap screw				4	
186	Drain plug				4	
195.a	Grease nipple				1	
-	Kit, gaskets			96798508	1	
184	O-ring		Diameter: 235		2	
-	Kit, lubrication nipple			96796671	1	
195.b	Grease nipple				2	
195.a	Grease nipple				1	
-	Kit, ND-end shield cpl.			96796669	1	
32b	Waved washer				1	
156.a	End shield NDE				1	
157	O-ring				1	
159	V-ring				1	
185.c	Nut				4	
185.a	Hex socket head cap screw				4	
195.b	Grease nipple				1	
-	Kit, shaft seal			96843459	1	
159.b	V-ring				1	
159	V-ring				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, terminal board			96796657	1	
	Terminal connection				3	
	Washer				12	
36	Hex nut				12	
173	Torx Screw				1	
176.d	Terminal board				1	
176	Terminal board				1	
177	Torx Screw				1	
-	Kit, terminal box cover			96796659	1	
164	Terminal box cover				1	
273a	Pan head thread forming screw				4	
1a	Motor stool			98993921	1	pcs
2	Pump head			96587726	1	pcs
- 3	Upper chamber cpl.			98634048	1	pcs
47c	Bush			99321194	1	
- 4	Intermediate chamber cpl.			99335210	3	pcs
45a	Neck ring cpl.			96547392	1	
- 4a	Intermediate chamber cpl.			99262907	1	pcs
47	Bearing			99964632	1	
47	Bearing			99928986	1	
+ 4	Intermediate chamber cpl.			98634020	3	pcs
6	Base			99347238	1	pcs
7a	Socket button head screw			96549696	4	pcs
7	Coupling guard			96603279	2	pcs
9	Hex socket head cap screw	Designation: DIN 912		99789390	4	pcs
		Length (mm): 25				
		Thread: M10				
+ 18	Air vent screw			96547461	1	pcs
+ 18	Air vent screw			95061351	1	pcs
25	Plug			96536013	1	pcs
26c	Washer	Designation: DIN 125A		99262704	2	pcs
		Thickness: 1,6				
26c	Washer	Designation: DIN 125A		99886930	2	pcs
		Thickness: 1,6				
26b	Hex socket head cap screw			98931380	2	pcs
26a	Strap cpl.	Length (mm): 409		98983880	2	pcs
		Thread: M8				
26	Staybolt	Length (mm): 632		98976685	4	pcs
		Thread: M16				
28.a	Hex head screw			96620478	4	pcs
28	Hex socket head cap screw	Designation: DIN 912		96536147	4	pcs
		Length (mm): 50				
		Thread: M10				
32	Washer	Designation: DIN 125 A2		99944260	4	pcs
		Internal diameter: 17				
		Outer diameter: 30				
		Thickness: 3				
32	Washer	Designation: DIN 125 A		98923051	8	pcs
		Internal diameter: 17				
		Outer diameter: 30				
		Thickness: 3				
36	Nut	Thread: M16		99944257	4	pcs
36	Hex nut	Thread: M16		96620480	4	pcs
37	O-ring			96536142	1	pcs
38	O-ring			99198815	2	pcs
38	O-ring			99412727	2	pcs
- 44	Suction interconnector cpl.			98634055	1	pcs
45	Seal ring			97911448	1	
45	Seal ring			96535952	1	
65	Top f/neck ring			96547390	1	
+ 47a	Bearing cpl.			99270649	1	pcs
+ 47a	Bearing cpl.			96535951	1	pcs
48	Nut			99262680	1	pcs

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
48	Nut			99262683	1	pcs
48	Nut			96536016	1	pcs
49b	Split cone			96536010	1	pcs
- 49a	Impeller, reduced diameter			96535957	1	pcs
49c	Wear ring			96535949	1	
+ 49a	Impeller, reduced diameter			98585277	1	pcs
51	Shaft			98506311	1	pcs
55	Outer sleeve		Outer diameter: 216	98820353	1	pcs
			Length (mm): 423,5			
58	Cover			98893158	1	pcs
60	Spring			96536032	4	pcs
- 105	Shaft seal		Material type: HQQE	96984086	1	pcs
	Adjusting fork			96587896	1	
109	O-ring			99651108	1	
109	O-ring			96547586	1	
+ 105	Shaft seal		Material type: HQQE	96984070	1	pcs
440b	Lock ring			96535943	1	pcs