

Inventflow: Grundfos A-partner

Grundfos CR 3-19 A-A-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/cr/grundfos-cr-3-19-a-a-a-e-hqqe>

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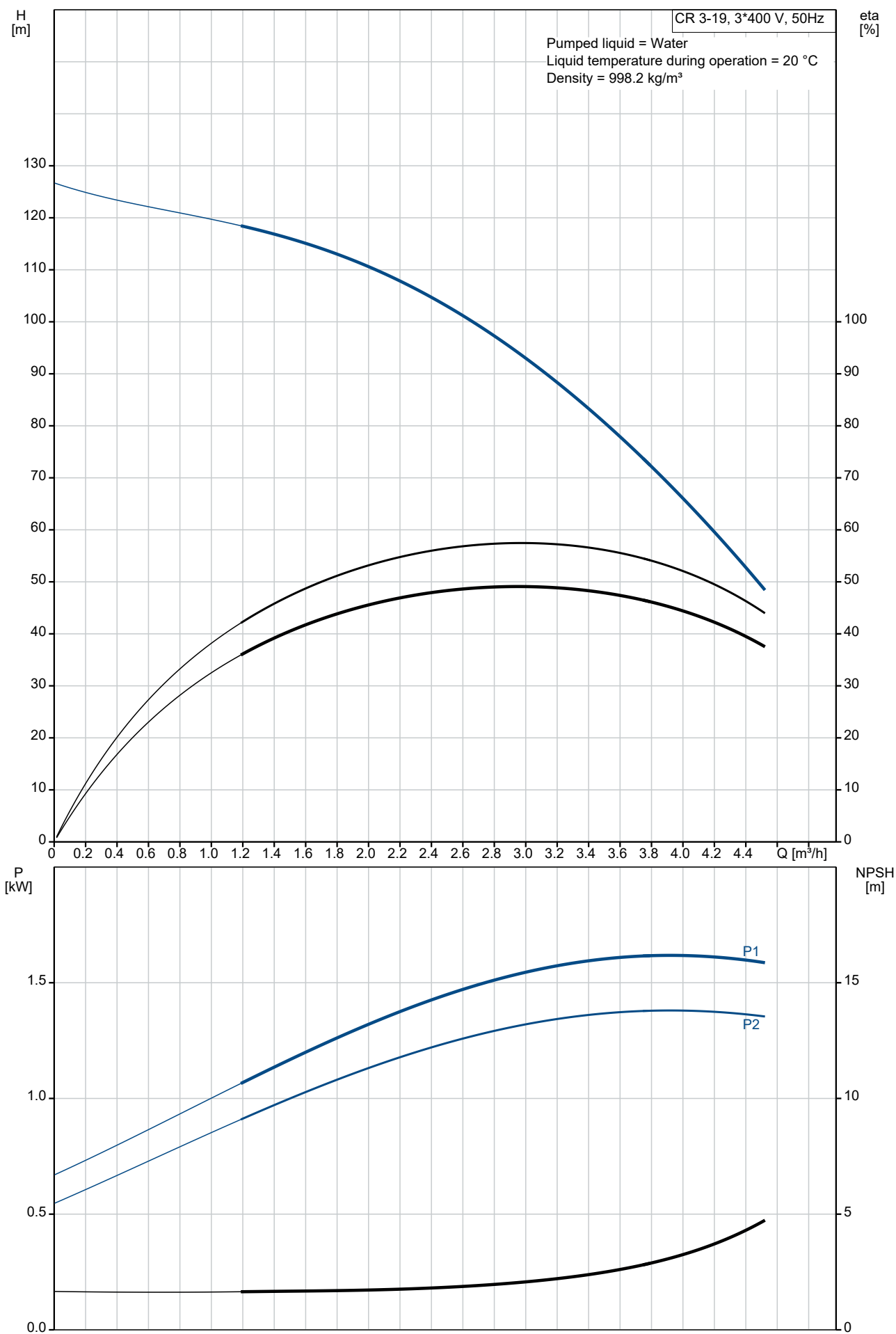
Datasheet



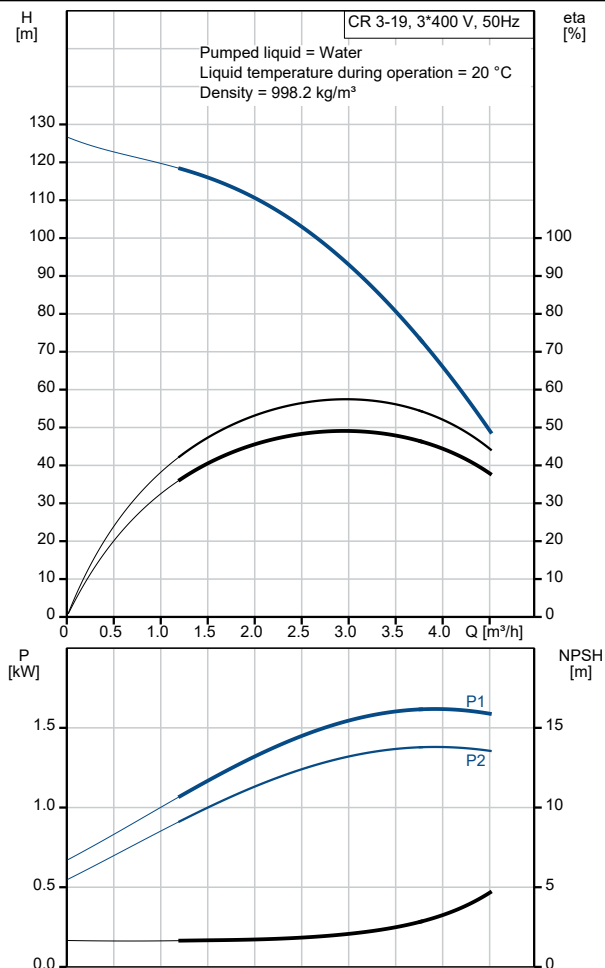
Qty.	Description
1	CR 3-19 A-A-A-E-HQQE  Note! Product picture may differ from actual product Product No.: 96516603 Vertical, non-self-priming, multistage, in-line, centrifugal pump for installation in pipe systems and mounting on a foundation. The pump has the following characteristics: - Impellers and intermediate chambers are made of Impeller: Stainless steel, 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. 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: 2896 rpm Rated flow: 3 m³/h Rated head: 92.5 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: 60 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -20 °C Type of connection: Oval / Rp Size of inlet connection: 1 inch Size of outlet connection: 1 inch Pressure rating for connection: PN 16

Qty.	Description
	Flange size for motor: FT115 Electrical data: Motor standard: IEC Motor type: 90SD IE Efficiency class: IE3 Rated power - P2: 1.5 kW Power (P2) required by pump: 1.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-415Y V Rated current: 5.70/3.30 A Starting current: 750-820 % Cos phi - power factor: 0.84-0.78 Rated speed: 2890-2910 rpm Efficiency: IE3 84,2% Motor efficiency at full load: 84.2-84.2 % Motor efficiency at 3/4 load: 86.4 % Motor efficiency at 1/2 load: 86.0 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F Motor No: 85U01906 Others: Minimum efficiency index, MEI $\geq$: 0.70 Net weight: 36 kg Gross weight: 40.1 kg Shipping volume: 0.092 m³ Danish VVS No.: 385901019 Country of origin: HU Custom tariff no.: 84137075

96516603 CR 3-19 A-A-A-E-HQQE 50 Hz

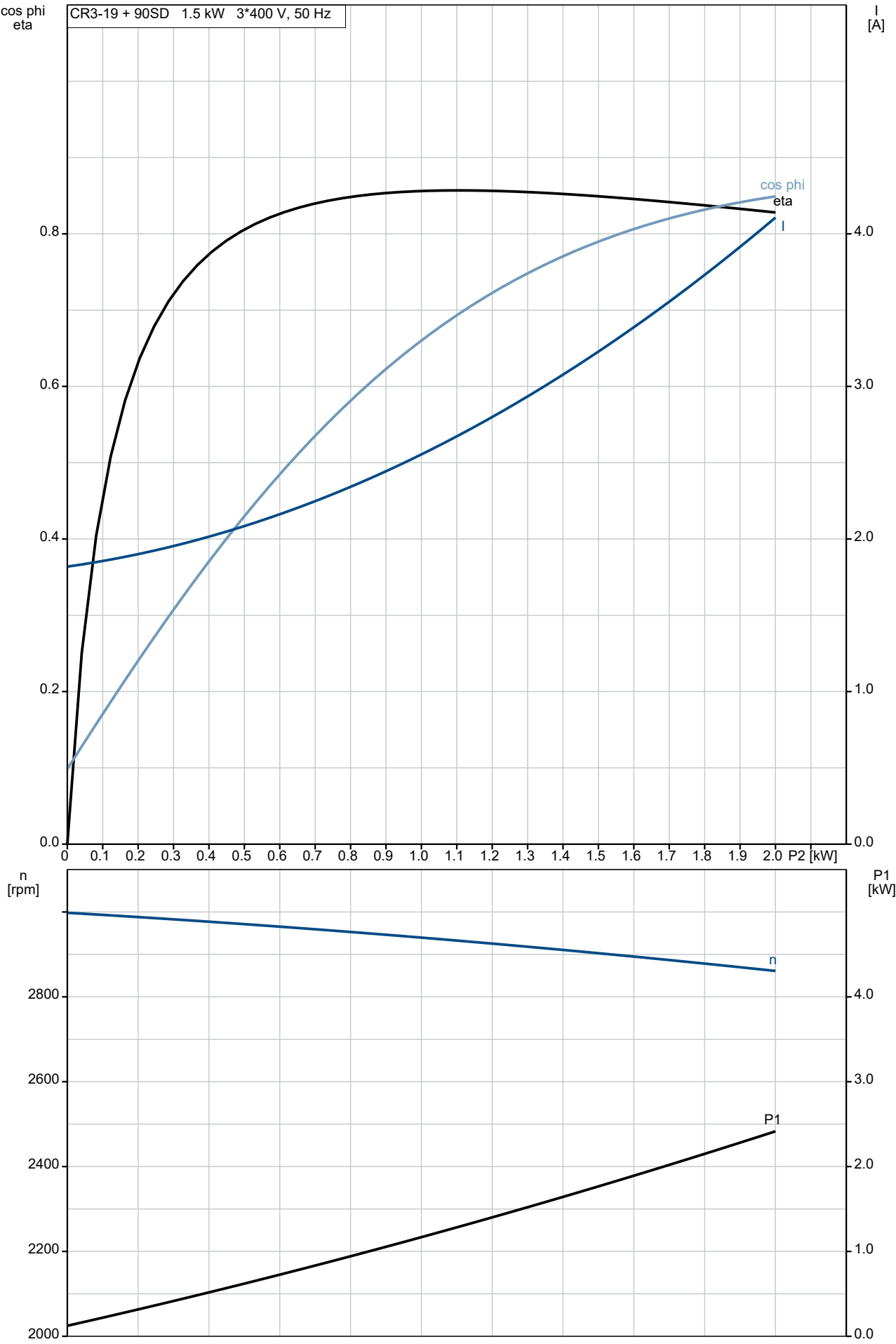


Description	Value
General information:	
Product name:	CR 3-19 A-A-A-E-HQQE
Product No:	96516603
EAN number:	5700396746197
Technical:	
Pump speed on which pump data are based:	2896 rpm
Rated flow:	3 m³/h
Rated head:	92.5 m
Maximum head:	125.8 m
Stages:	19
Impellers:	19
Number of reduced-diameter impellers:	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:	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:	60 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C
Max pressure at stated temp:	16 bar / -20 °C
Type of connection:	Oval / Rp
Size of inlet connection:	1 inch
Size of outlet connection:	1 inch
Pressure rating for connection:	PN 16
Flange size for motor:	FT115
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:	90SD
IE Efficiency class:	IE3
Rated power - P2:	1.5 kW
Power (P2) required by pump:	1.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	5.70/3.30 A
Starting current:	750-820 %
Cos phi - power factor:	0.84-0.78
Rated speed:	2890-2910 rpm
Efficiency:	IE3 84,2%
Motor efficiency at full load:	84.2-84.2 %
Motor efficiency at 3/4 load:	86.4 %

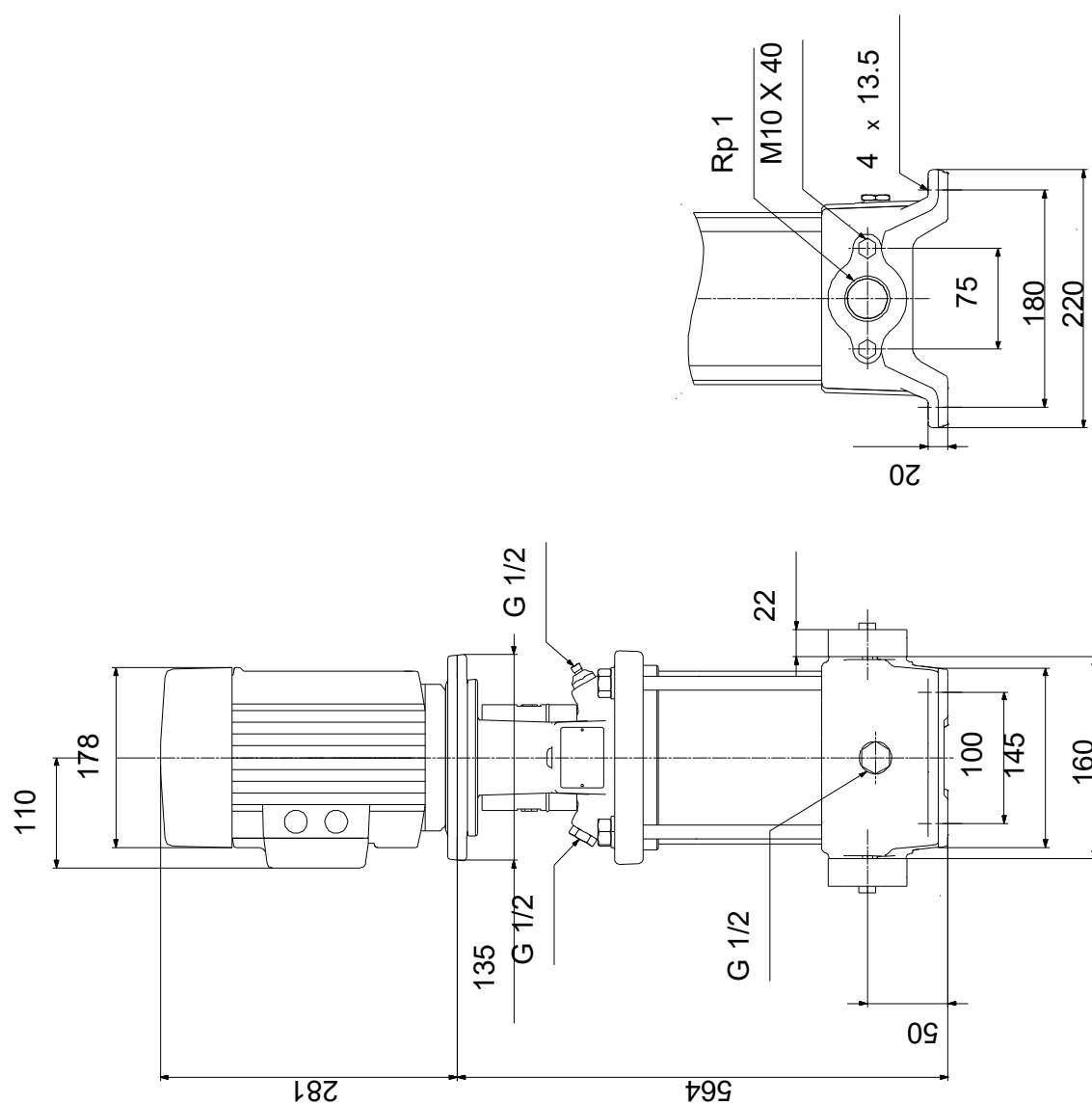


Description	Value
Motor efficiency at 1/2 load:	86.0 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U01906
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.70
Net weight:	36 kg
Gross weight:	40.1 kg
Shipping volume:	0.092 m³
Danish VVS No.:	385901019
Country of origin:	HU
Custom tariff no.:	84137075

96516603 CR 3-19 A-A-A-E-HQQE 50 Hz



96516603 CR 3-19 A-A-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 CR 3-19, Product No. 96516603
Produced After 1944 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenhei
- 80	Kit, chamber stack			96453543	1	pcs
- 4a	Chamber w. bearing cpl.				2	
	Vane				1	
	Intermediate chamber				1	
	Retainer for bearing				1	
	Guide vane				6	
45	Neck ring				1	
47	Bearing bush				1	
65	Retainer				1	
65	Retainer				1	
- 4	Chamber cpl.				16	
	Vane				1	
	Intermediate chamber				1	
	Plate				1	
	Guide vane				6	
45	Neck ring				1	
65	Retainer				1	
65	Retainer				1	
- 5a	Chamber cpl.				1	
	Vane				1	
	Intermediate chamber				1	
45	Neck ring				1	
65	Retainer				1	
65	Retainer				1	
- 44a	Guide vane cpl.				1	
	Plate				1	
	Guide vane				6	
50	Top plate				1	
47a	Bearing ring				2	
49	Impeller cpl.				19	
51	Shaft, spline, cpl.				1	
64d	Spacing pipe		Internal diameter: 12,85 Outer diameter: 15,85 Length (mm): 4,50		2	
64c	Clamp, splined		Internal diameter: 8,5 Outer diameter: 15		1	
64a	Spacing pipe				16	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
-	Kit, coupling			00415062	1	pcs
9	Hex socket head cap screw		Designation: DIN 912 Length (mm): 25 Thread: M8		4	
10a	Coupling half				2	
10	Shaft pin		Diameter: 5 Length (mm): 26		1	
-	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 Material type: EPDM Thickness: 2,75		1	
-	Kit, plug			96505133	1	pcs
- 18	Air vent screw				1	
	Spindle				1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenhei
	Plug						1
23b	Spindle					1	
25	Plug					1	
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	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	
441b	Gasket					2	
-	Motor				99606486	1	pcs
-	Kit, bearing cpl.				96279794	1	
111	Ball bearing					1	
154	Ball bearing					1	
157	O-ring			Diameter: 52		1	
				Material type: NBR			
				Thickness: 3			
158	Waved washer					1	
187	Retaining ring					1	
188	Retaining ring					1	
-	Kit, end shield				96279789	1	
156a	End shield					1	
157a	Gasket			Internal diameter: 141,2		1	
				Outer diameter: 145,5			
				Thickness: 0,2			
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				96279755	1	

Pos	Omschrijving	Opmerking tekst	Classificatie	Gegevens	Onderdeelnr.	Aanta	Eenhei
151	Fan cover					1	
152	Pan head thread forming screw					4	
-	Kit, flange				96279777	1	
156b	Flange					1	
159. c	Seal ring					1	
184	Gasket			Internal diameter: 141,2		1	
				Outer diameter: 145,5			
				Thickness: 0,2			
186	Drain plug					3	
-	Kit, retaining ring				96279798	1	
187	Retaining ring					1	
188	Retaining ring					1	
-	Kit, shaft seal				96279761	1	
159c	Seal ring					1	
159a	Seal ring					1	
-	Kit, staybolts				96279791	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	
2a	Pump head				96588194	1	pcs
4a	Chamber w. bearing cpl.				98371208	2	pcs
4a	Chamber w. bearing cpl.				97690601	2	pcs
4a	Chamber w. bearing cpl.				97690590	2	pcs
4a	Chamber w. bearing cpl.				96547660	2	pcs
4a	Chamber w. bearing cpl.				98371207	2	pcs
- 4	Chamber cpl.				97690020	16	pcs
45	Neck ring				96536194	1	
65	Retainer				92501765	1	
65	Retainer				98270018	1	
65	Retainer				92501764	1	
4	Chamber cpl.				96547662	16	pcs
4	Chamber cpl.				98371206	16	pcs
5a	Chamber cpl.				98371205	1	pcs
5a	Chamber cpl.				96588148	1	pcs
6	Base				96588138	1	pcs
7a	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	Priming valve cpl.				96588242	1	pcs
38	O-ring				99198815	1	
38	O-ring				99412727	1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aanta	Eenhei
25	Plug			96536013	1	pcs
26	Staybolt		Length (mm): 367	96536342	4	pcs
			Thread: M12			
26	Staybolt		Length (mm): 367	98986277	4	pcs
			Thread: M12			
28	Hex head screw		Length (mm): 20	99932722	4	pcs
			Thread: M8			
32	Washer		Designation: DIN 125 A	99883474	4	pcs
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
36	Nut		Thread: M12	96620479	4	pcs
37	O-ring			96547656	2	pcs
38	O-ring			99198815	2	pcs
38	O-ring			99412727	2	pcs
44a	Guide vane cpl.			96547659	1	pcs
47a	Bearing ring			97905743	2	pcs
47a	Bearing ring			96547649	2	pcs
49	Impeller cpl.			98426771	19	pcs
49	Impeller cpl.			96547599	19	pcs
49	Impeller cpl.			98394415	19	pcs
51	Shaft, spline, cpl.			98368520	1	pcs
55	Outer sleeve			98811293	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	16	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
441b	Gasket			96536206	2	pcs
441a	Flange		Thread: RP 1	96547453	2	pcs