

Inventflow: Grundfos A-partner

Grundfos CRE 5-16 A-A-A-E-HQQE

Find the pump here:

<https://inventflow.nl/en/pompenfilter/cre/grundfos-cre-5-16-a-a-a-e-hqqe>

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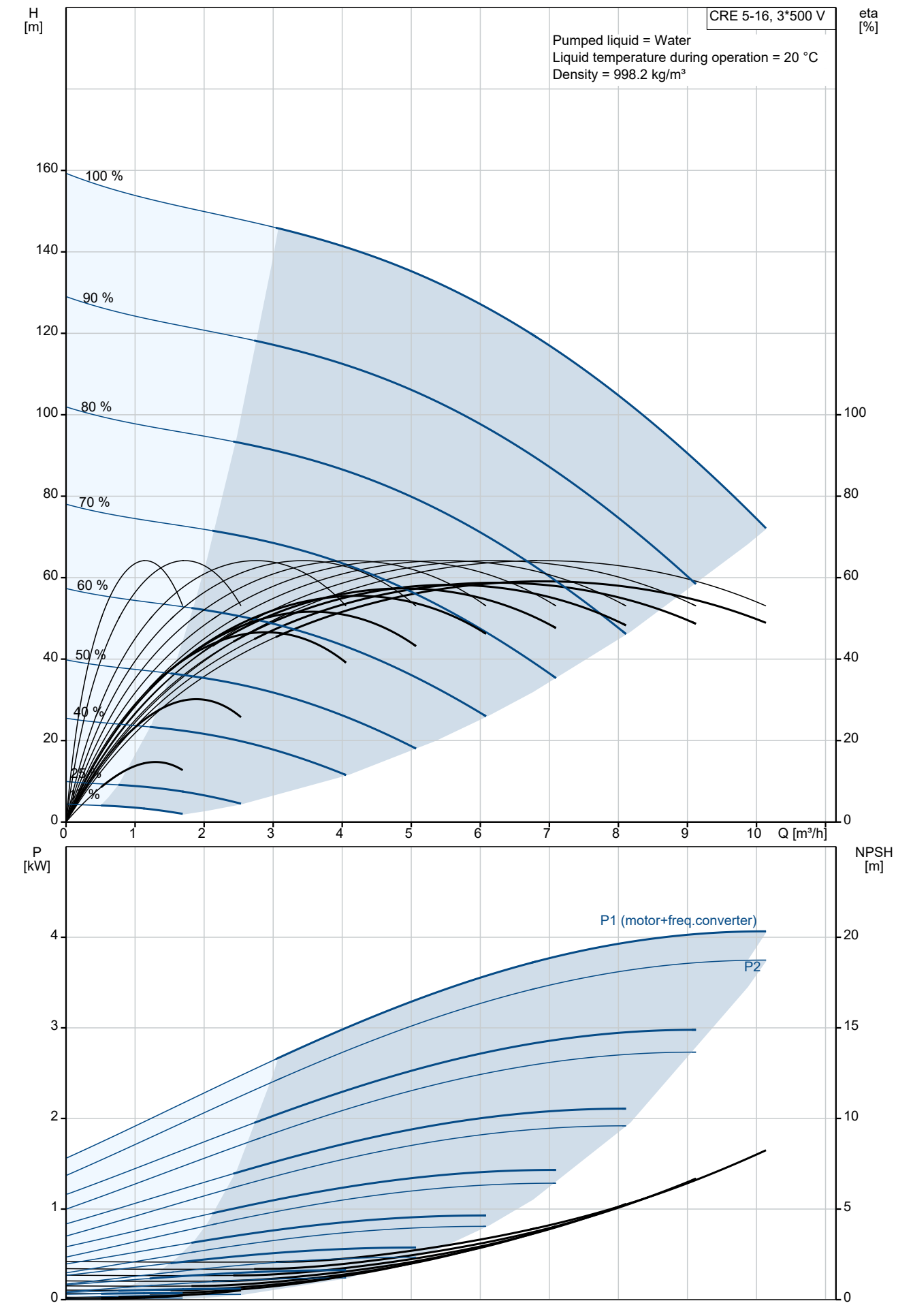
Datasheet



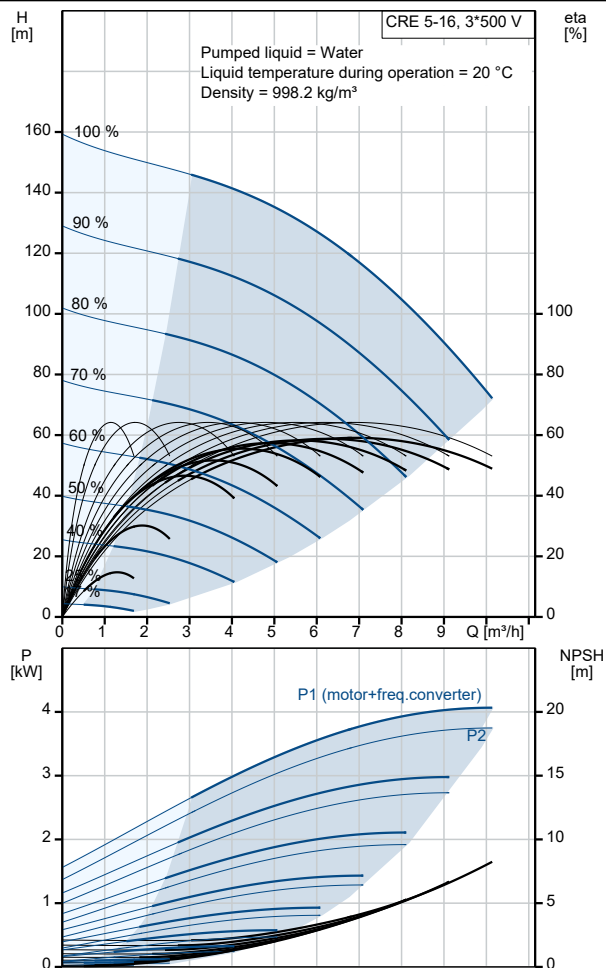
Qty.	Description
1	CRE 5-16 A-A-A-E-HQQE  Product No.: 99072191 Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. The pump is fitted with a 3-phase, fan-cooled, permanent-magnet, synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement. An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status: • "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights) • "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) • "Alarm": Motor has stopped (flashing red indicator lights). Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". The terminal box has a number of inputs and outputs enabling the motor to be used in advanced applications where many inputs and outputs are required: • two dedicated digital inputs • three analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V • 5 V voltage supply to potentiometer and sensor • one analog output, 0-10 V, 0(4)-20 mA • two configurable digital inputs or open-collector outputs • two Pt100/Pt1000 inputs • LiqTec, dry-running protection sensor input • Grundfos Digital Sensor input and output • 24 V voltage supply for sensors • two signal-relay outputs (potential-free contacts) • GENIbus connection • interface for Grundfos CIM fieldbus module. 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: 3520 rpm Rated flow: 6.9 m³/h Rated head: 119.7 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: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B

Qty.	Description
	Impeller: Stainless steel EN 1.4301 AISI 304 Bearing: SIC Installation: Maximum ambient temperature: 50 °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 1/4 inch Size of outlet connection: 1 1/4 inch Pressure rating for connection: PN 16 Flange size for motor: FT130 Electrical data: Motor standard: IEC Motor type: 112MC IE Efficiency class: IE5 Rated power - P2: 4 kW Power (P2) required by pump: 4 kW Mains frequency: 50 / 60 Hz Rated voltage: 3 x 380-500 V Rated current: 7.60-6.20 A Cos phi - power factor: 0.92-0.87 Rated speed: 360-4000 rpm Efficiency: 92.2% Motor efficiency at full load: 92.2 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Motor No: 98971050 Controls: Frequency converter: Built-in Pressure sensor: N Others: Minimum efficiency index, MEI ≥: 0.57 DOE Pump Energy Index CL: 0.00 DOE Pump Energy Index VL: 0.00 Net weight: 49.3 kg Gross weight: 70.3 kg Shipping volume: 0.285 m³ Finnish LVI No.: 4925687 Country of origin: HU Custom tariff no.: 84137075

99072191 CRE 5-16 A-A-A-E-HQQE

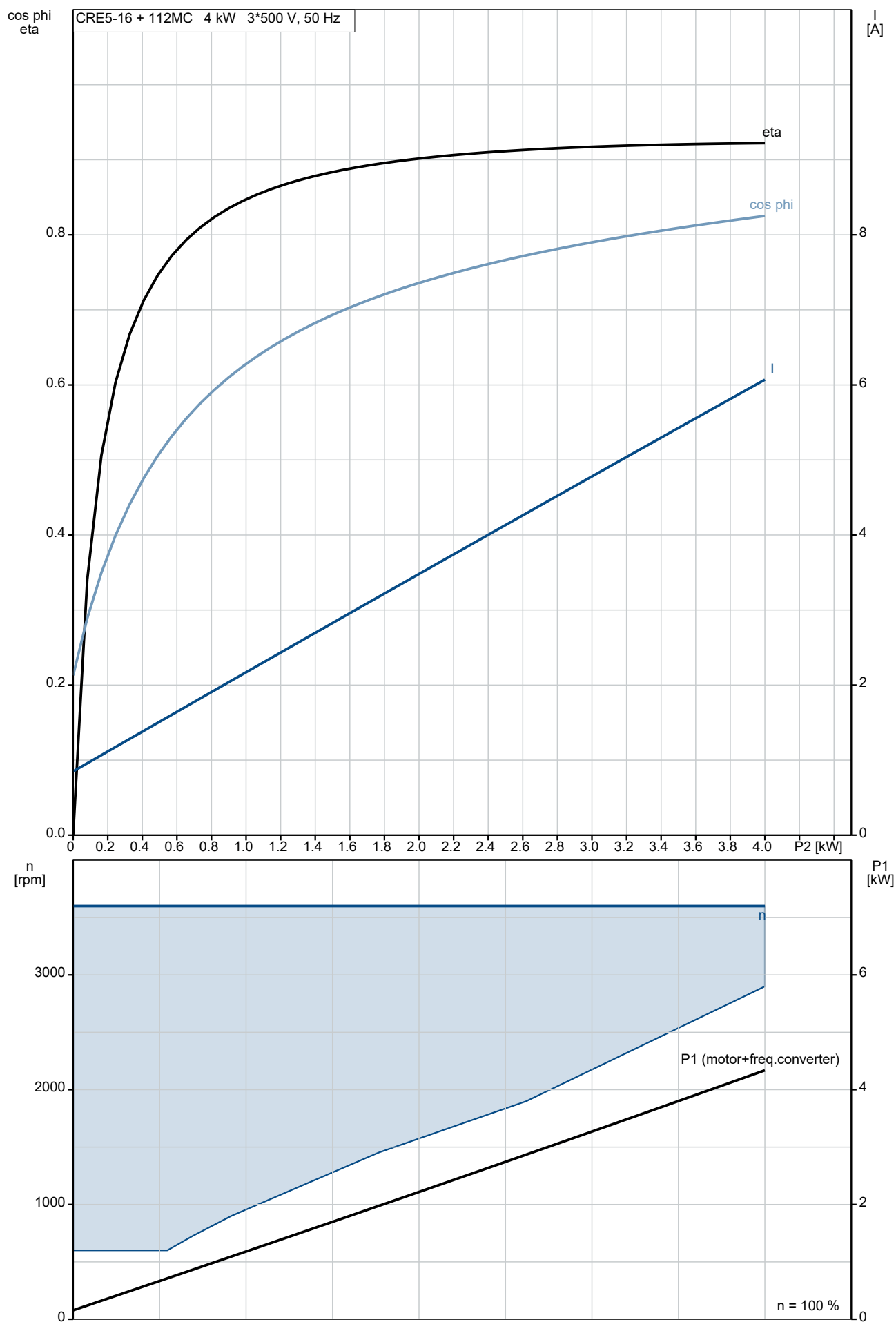


Description	Value
General information:	
Product name:	CRE 5-16 A-A-A-E-HQQE
Product No:	99072191
EAN number:	5712606206438
Technical:	
Pump speed on which pump data are based:	3520 rpm
Rated flow:	6.9 m³/h
Rated head:	119.7 m
Maximum head:	157.4 m
Stages:	16
Impellers:	16
Number of reduced-diameter impellers:	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:	50 °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 1/4 inch
Size of outlet connection:	1 1/4 inch
Pressure rating for connection:	PN 16
Flange size for motor:	FT130
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:	112MC
IE Efficiency class:	IE5
Rated power - P2:	4 kW
Power (P2) required by pump:	4 kW
Mains frequency:	50 / 60 Hz
Rated voltage:	3 x 380-500 V
Rated current:	7.60-6.20 A
Cos phi - power factor:	0.92-0.87
Rated speed:	360-4000 rpm
Efficiency:	92.2%
Motor efficiency at full load:	92.2 %
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protec:	ELEC

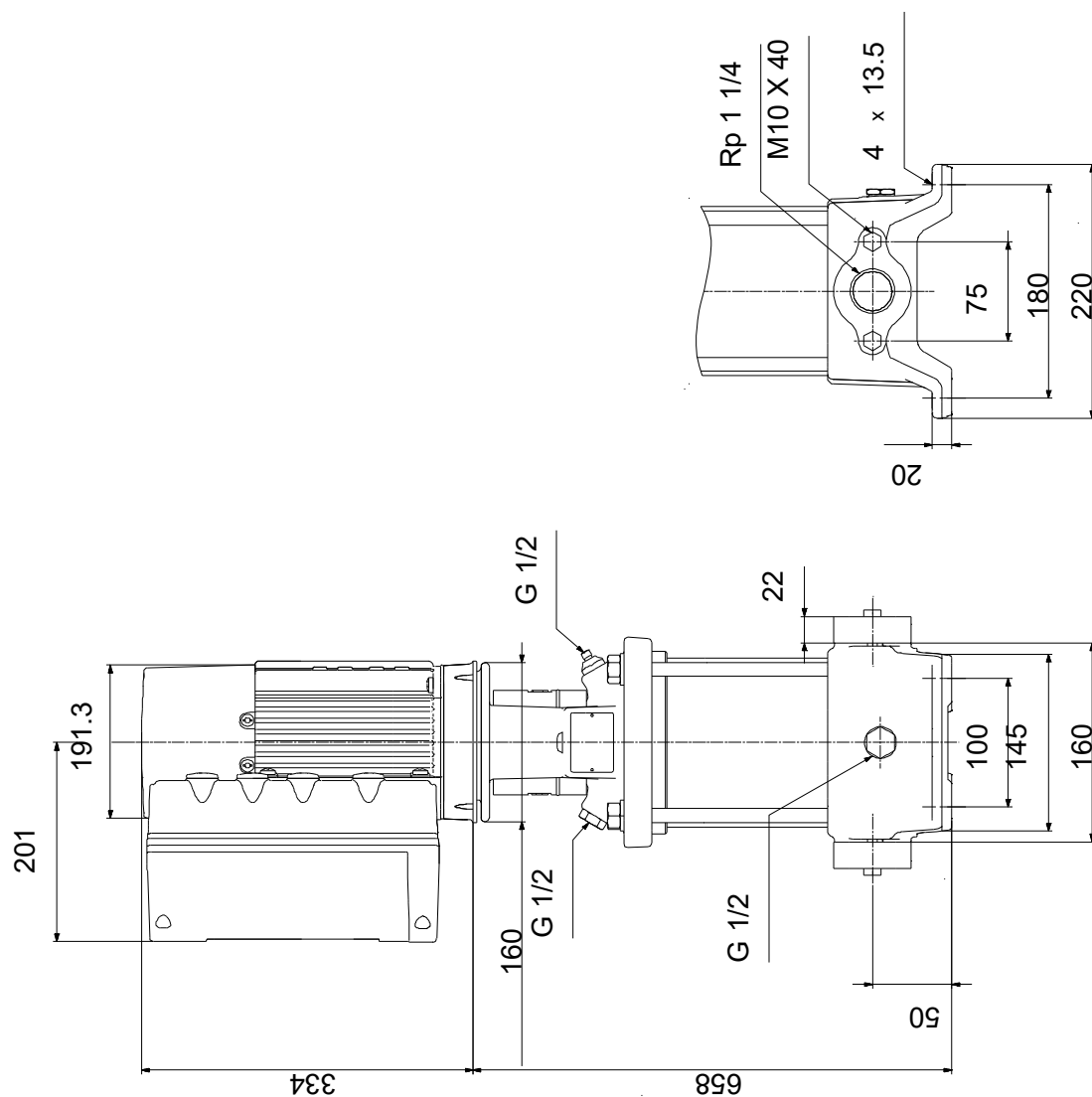


Description	Value
Motor No:	98971050
Controls:	
Control panel:	Standard
Function Module:	FM300 - Advanced
Frequency converter:	Built-in
Pressure sensor:	N
Others:	
Minimum efficiency index, MEI ≥:	0.57
DOE Pump Energy Index CL:	0.00
DOE Pump Energy Index VL:	0.00
Net weight:	49.3 kg
Gross weight:	70.3 kg
Shipping volume:	0.285 m ³
Config. file no:	99058898
Finnish LVI No.:	4925687
Country of origin:	HU
Custom tariff no.:	84137075

99072191 CRE 5-16 A-A-A-E-HQQE



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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 CRE 5-16, Product No. 99072191
Produced After 1633 (production year and week number)

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
- 80	Kit, chamber stack			96453589	1	pcs
- 4a	Chamber w. bearing cpl.				3	
	Vane				1	
	Retainer for bearing				1	
	Guide vane				6	
	Chamber				1	
45	Neck ring				1	
47	Bearing bush				1	
65	Retainer				1	
65	Retainer for seal ring				1	
- 4	Chamber cpl.				12	
	Vane				1	
	Plate				1	
	Guide vane				6	
5a	Chamber				1	
45	Neck ring				1	
65	Retainer				1	
65	Retainer for seal ring				1	
- 5a	Chamber cpl.				1	
	Vane				1	
	Guide cup				1	
5a	Chamber				1	
45	Neck ring				1	
65	Retainer				1	
65	Retainer for seal ring				1	
- 44a	Guide vane cpl.				1	
	Plate				1	
	Guide vane				6	
50	Top plate				1	
47a	Bearing ring				3	
49	Impeller cpl.				16	
51	Shaft, spline, cpl.				1	
64d	Spacing pipe		Internal diameter: 12,85		1	
			Outer diameter: 15,85			
			Length (mm): 4,50			
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64a	Spacing pipe		Length (mm): 13.00		3	
64	Spacing pipe		Length (mm): 26.0		12	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
69	Spacing pipe		Length (mm): 2.00		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			

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
-	Kit, plug			96505133	1	pcs
- 18	Air vent screw				1	
	Spindle				1	
	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: SIC	96455098	1	pcs
- 4a	Chamber w. bearing cpl.				3	
	Vane				1	
	Retainer				1	
	Guide vane				6	
	Chamber				1	
45	Neck ring				1	
47	Bearing bush				1	
65	Retainer				1	
65	Neck ring retainer				1	
45	Neck ring				13	
47a	Bearing ring				3	
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64a	Spacing pipe		Length (mm): 13.00		3	
65	Neck ring retainer				13	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
441b	Gasket				2	
-	Motor				1	pcs
-	Kit, Blanking plug			99052475	1	
252b	Plug cpl.				4	
252b	Blanking plug				1	
-	Kit, cable gland			98736096	1	
293	Cable glands set				1	
-	Kit, connector plugs			98403113	1	
266	Connector plug 10-pole				1	
266	Connector plug 2-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
-	Kit, control box			98878612	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
251a	Control box cpl.				1	
252b	Plug cpl.				4	
252b	Blanking plug				1	
266	Connector plug 10-pole				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 8-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
266	Connector plug 3-pole				1	
268a	Base				1	
268	Pan head screw				1	
273b	Battery				1	
273a	Cross recess Pan head screw				3	
273	Funct. Module cpl.				1	
275a	Pin				1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
286	Spacer				1	
287	Cover				1	
288b	Retaining ring				8	
288a	Pan head thread forming screw				8	
288	Wire clamp				4	
289a	Pan head thread forming screw				1	
289	Wire clamp				1	
290	Control panel, cpl.				1	
301	Jumper				1	
-	Kit, Control box upper			98869865	1	
251d	Pan head thread forming screw				4	
251b	Control box				1	
-	Kit, Control panel			98939973	1	
290	Control panel, cpl.				1	
-	Kit, cover			98330622	1	
287	Cover				1	
-	Kit, end shield (NDE)			98869883	1	
156c	Seal ring				1	
156a	End shield NDE				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				1	
206	Pan head thread forming screw				4	
-	Kit, fan			98869877	1	
152	Pan head thread forming screw				4	
156c	Seal ring				1	
156	Fan				1	
-	Kit, fan cover			99957566	1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
-	Kit, flange (DE)			98966301	1	
	Glue				0	
156c	Seal ring				1	
156b	Flange				1	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
201c	Drain plug				3	
-	Kit, Funct. module			98334777	1	
273a	Cross recess Pan head screw				5	
273	Funct. Module cpl.				1	
275a	Pin				1	
286	Spacer				1	
-	Kit, Isolation cover			98859508	1	
277b	Spring				4	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, Lower part cpl.			98859571	1	
178	Pan head thread forming screw				4	
251a	Control box cpl.				1	
275a	Pin				1	
277a	Cross recess Pan head screw				1	
277	Cover				1	
-	Kit, motor			99010750	1	
	Glue				0	
	Terminal				3	
111	Ball bearing		Designation: 6206.2Z.C3.SYN		1	
150	Stator w/housing				1	
151	Fan cover				1	
152	Pan head thread forming screw				4	
153	Angular-contact bearing				1	
156d	Gasket				1	
156c	Seal ring				1	
156c	Seal ring				1	
156b	Flange				1	
156a	End shield NDE				1	
156	Fan				1	
157	O-ring		Diameter: 62		1	
			Material type: NBR			
			Thickness: 3			
158	Waved washer				2	
172	Shaft w/rotor				1	
181	Pan head staybolt				4	
186	Drain plug				3	
190	Eyebolt				2	
201b	Blind plug				1	
203	Terminal plug				1	
289a	Pan head thread forming screw				2	
-	Kit, plug			99028676	1	
152	Pan head thread forming screw				2	
203	Terminal plug				1	
205	Gasket				1	
-	Kit, screws			99028712	1	
268a	Base				1	
268	Pan head screw				1	
288b	Retaining ring				8	

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
288a	Pan head thread forming screw				8	
288	Wire clamp				4	
289a	Pan head thread forming screw				1	
289	Wire clamp				1	
-	Kit, staybolts			98881543	1	
181	Pan head staybolt				4	
111	Ball bearing	Designation: 6206.2Z.C3.SYN		99078033	1	
111	Ball bearing	Designation: 6206.2Z.C3.SYN		97501070	1	
152	Pan head thread forming screw			99834207	4	
152	Pan head thread forming screw			99814578	4	
153	Angular-contact bearing			99078040	1	
153	Angular-contact bearing			96550559	1	
186	Drain plug			99980519	3	
251d	Pan head thread forming screw			98995460	4	
266	Connector plug 3-pole			99421265	1	
2a	Pump head			98681106	1	pcs
+ 4a	Chamber w. bearing cpl.			96547652	3	pcs
+ 4a	Chamber w. bearing cpl.			98371274	3	pcs
- 4	Chamber cpl.			96547651	12	pcs
45	Neck ring			96547603	1	
65	Retainer			97911446	1	
+ 4	Chamber cpl.			98371272	12	pcs
+ 5a	Chamber cpl.			98371269	1	pcs
6	Base			96588138	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	Priming valve cpl.			96588242	1	pcs
38	O-ring			99198815	1	
38	O-ring			99412727	1	
25	Plug			96536013	1	pcs
26	Staybolt	Length (mm): 454		98986332	4	pcs
		Thread: M12				
28	Hex head screw	Length (mm): 25		99335941	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.			96547658	1	pcs
+ 44a	Guide vane cpl.			98681144	1	pcs
47a	Bearing ring			97905743	3	pcs
47a	Bearing ring			96547649	3	pcs
49	Impeller cpl.			96547648	16	pcs
49	Impeller cpl.			98394422	16	pcs
51	Shaft, spline, cpl.			98368523	1	pcs
55	Outer sleeve			98811260	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	Length (mm): 13.00		96536452	3	pcs

Pos	Omschrijving	Opmerking tekst	Classificatie Gegevens	Onderdeelnr.	Aantal	Eenheid
64a	Spacing pipe		Length (mm): 13.00	98520104	3	pcs
64	Spacing pipe		Length (mm): 26.0	96536304	12	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 pipe		Length (mm): 2.00	96536451	1	pcs
+ 105	Shaft seal		Material type: HQQE	96983415	1	pcs
441b	Gasket			96536206	2	pcs
+ 441a	Flange		Thread: RP 1	96547454	2	pcs