

Qty.	Description
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1	CRN 5-8 A-FGJ-A-E-HQQE
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Product No.: [96517187](#)

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact with the liquid are in high-grade stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via combined DIN-ANSI-JIS flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

Further product details

Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A standard split coupling connects the pump and motor shaft. It is enclosed in the pump head/motor stool by means of two coupling guards.



The pump head and flange for motor mounting is made in one piece (cast iron). The pump head cover is a separate component (stainless steel). The pump head has a combined 1/2" priming plug and vent screw.



The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)

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- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is screwed into the pump head.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The pump has a stainless-steel base mounted on a separate base plate. This base and base plate are kept in position by the tension of the staybolts which hold the pump together. The outlet side of the base has a combined drain plug and bypass valve. The pump is secured to the foundation by four bolts through the base plate. The flanges and base are cast in one piece and prepared for connection by means of DIN, ANSI or JIS.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with tapped-hole flange (FT).

Motor-mounting designation in accordance with IEC 60034-7: IM B 14 (Code I) / IM 3601 (Code II).

Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as IE3 in accordance with IEC 60034-30-1.

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

Technical data

Controls:

Frequency converter: NONE

Liquid:

Pumped liquid: Water
 Liquid temperature range: -20 .. 120 °C
 Liquid temperature during operation: 20 °C
 Density: 998.2 kg/m³

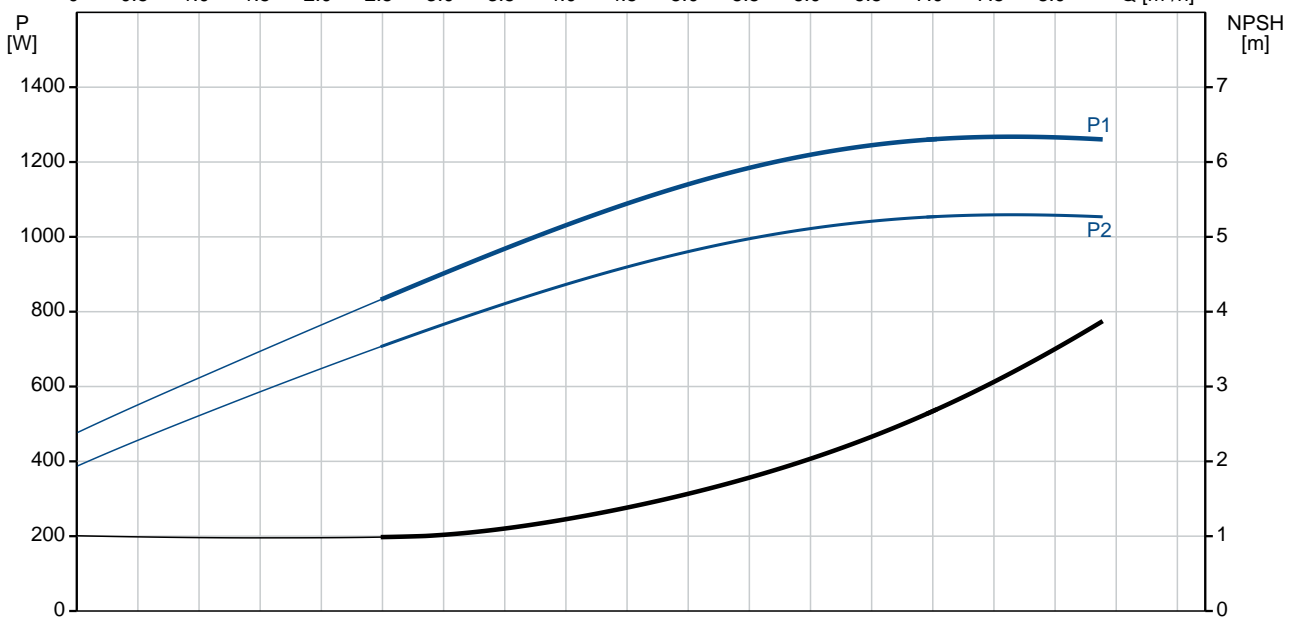
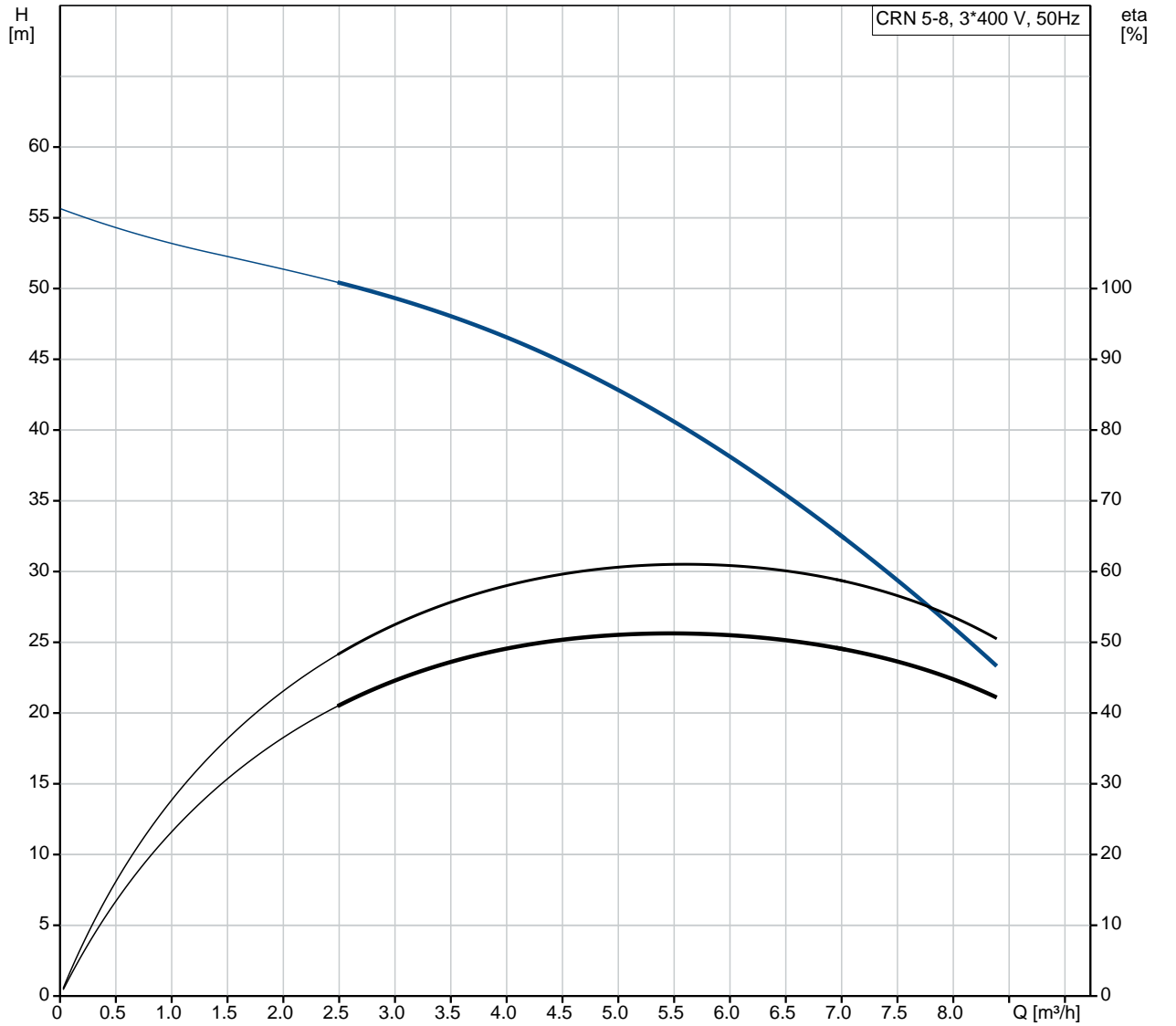
Technical:

Pump speed on which pump data are based: 2853 rpm
 Rated flow: 5.8 m³/h
 Rated head: 40.3 m
 Pump orientation: Vertical
 Shaft seal arrangement: Single
 Code for shaft seal: HQQE
 Approvals on nameplate: CE, EAC, ACS
 Curve tolerance: ISO9906:2012 3B

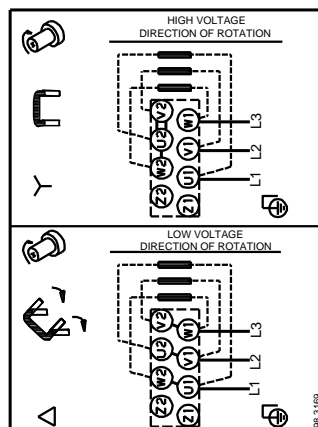
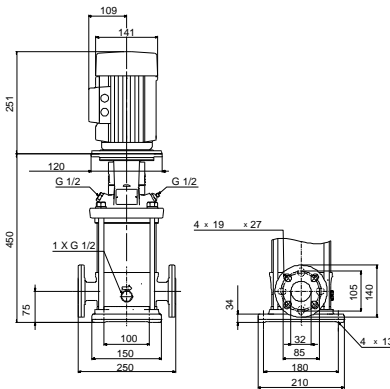
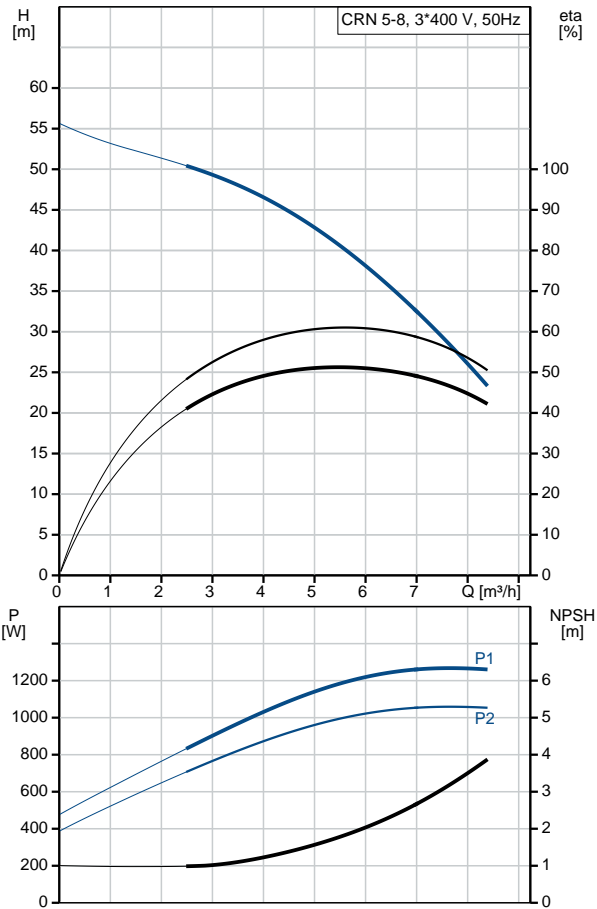
Materials:

Base: Stainless steel
 EN 1.4408
 AISI 316

96517187 CRN 5-8 A-FGJ-A-E-HQQE 50 Hz



Description	Value
General information:	
Product name:	CRN 5-8 A-FGJ-A-E-HQQE
Product No:	96517187
EAN number:	5700396757926
Technical:	
Pump speed on which pump data are based:	2853 rpm
Rated flow:	5.8 m ³ /h
Rated head:	40.3 m
Head max:	56.5 m
Stages:	8
Impellers:	8
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 EN 1.4408 AISI 316
Impeller:	Stainless steel EN 1.4401 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 25 bar / -20 °C
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 25/32 1 1/4 inch
Size of outlet connection:	DN 25/32 1 1/4 inch
Pressure rating for pipe connection:	PN 25
Flange rating inlet:	300 lb
Flange size for motor:	FT100
Connect code:	FGJ
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m ³
Electrical data:	
Motor standard:	IEC
Motor type:	80C
IE Efficiency class:	IE3
Rated power - P2:	1.1 kW
Power (P2) required by pump:	1.1 kW
Mains frequency:	50 Hz





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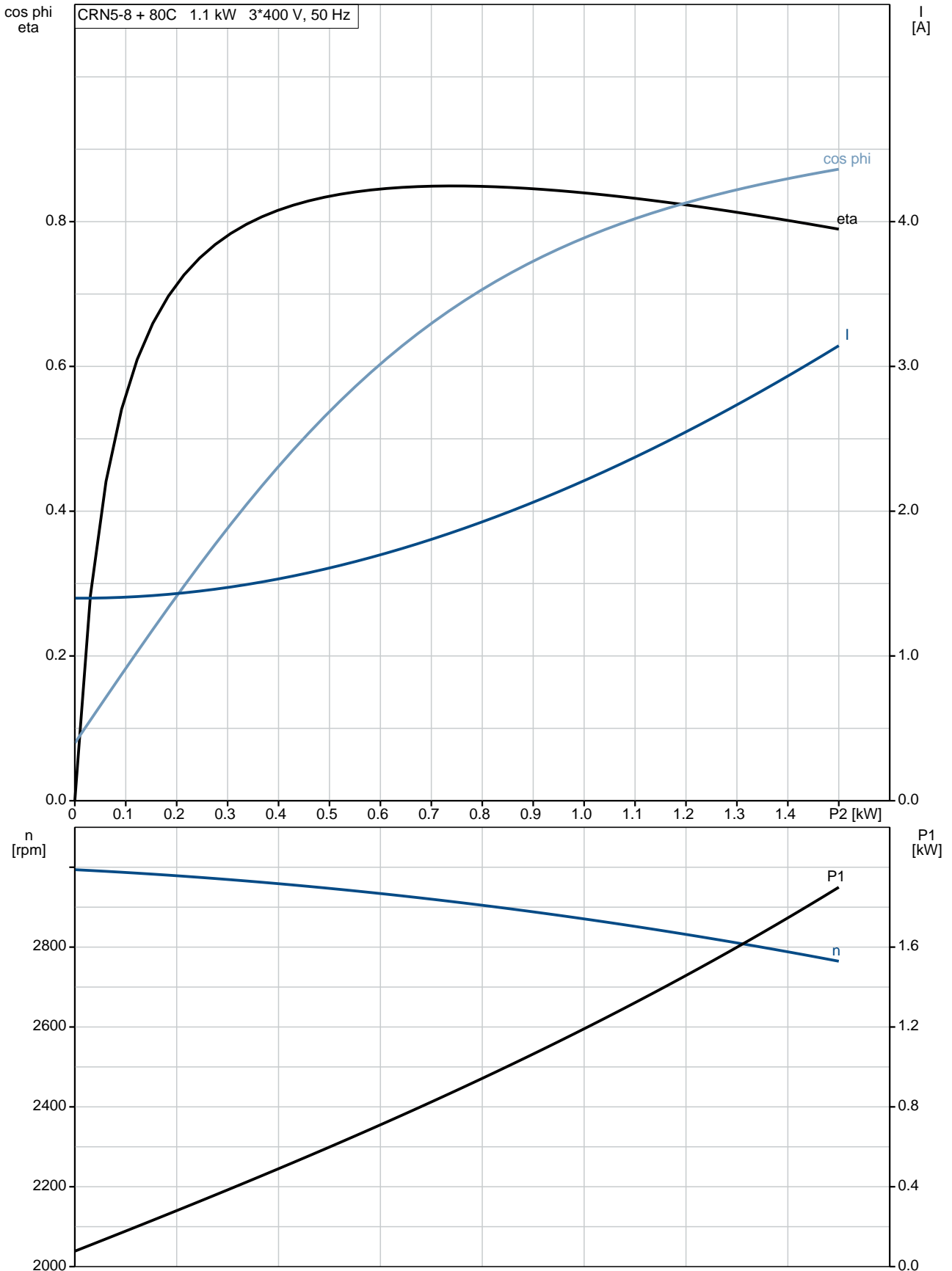
Phone:

Date:

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Description	Value
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	4.35/2.50 A
Starting current:	450-500 %
Cos phi - power factor:	0.83-0.76
Rated speed:	2840-2870 rpm
Efficiency:	IE3 82,7%
Motor efficiency at full load:	82.7 %
Motor efficiency at 3/4 load:	84.6 %
Motor efficiency at 1/2 load:	85.4 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85U05105
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI $\hat{a}\%$ ¥:	0.57
Net weight:	29.1 kg
Gross weight:	31.9 kg
Shipping volume:	0.074 m ³

96517187 CRN 5-8 A-FGJ-A-E-HQQE 50 Hz



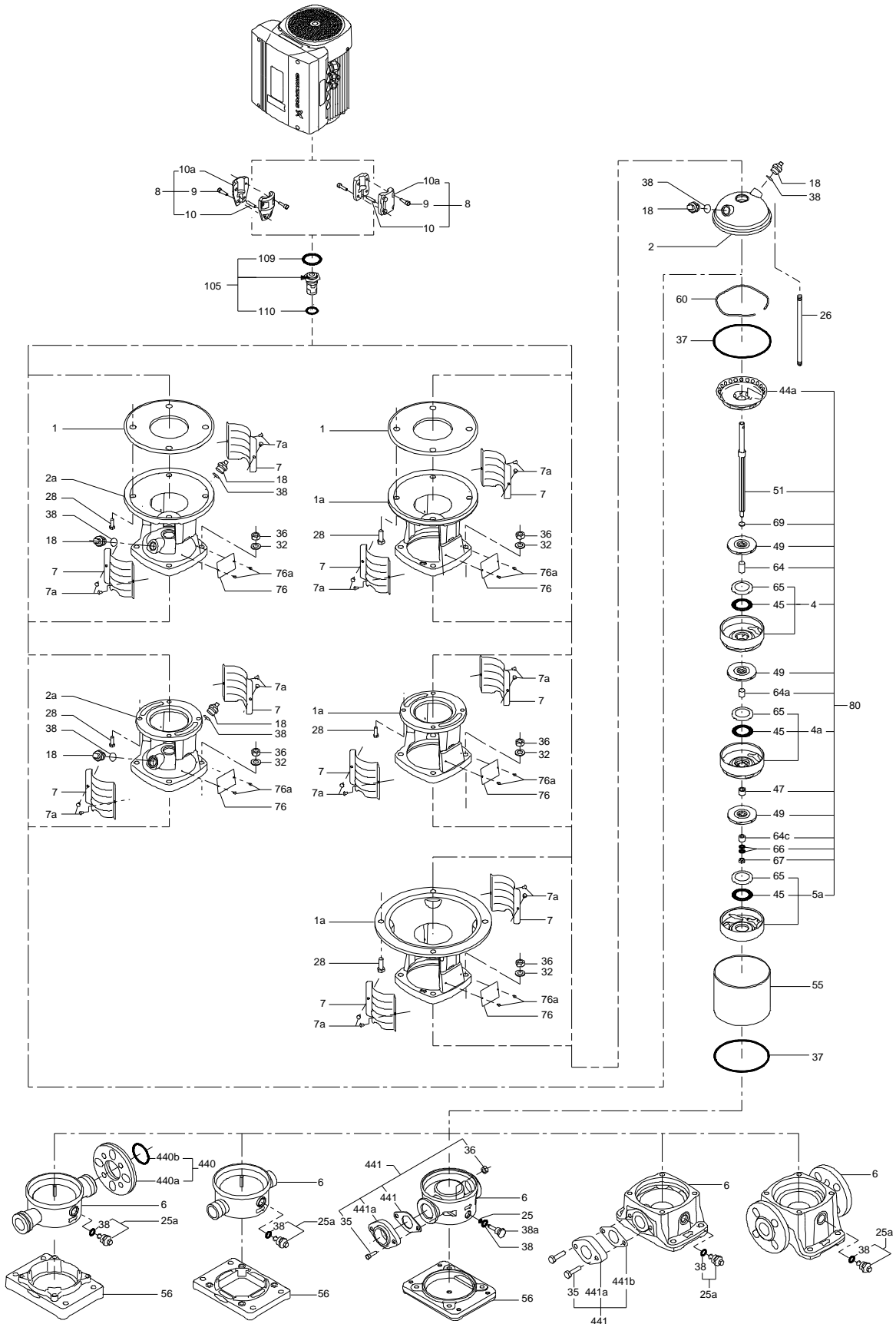
96517187 CRN 5-8 A-FGJ-A-E-HQQE 50 Hz



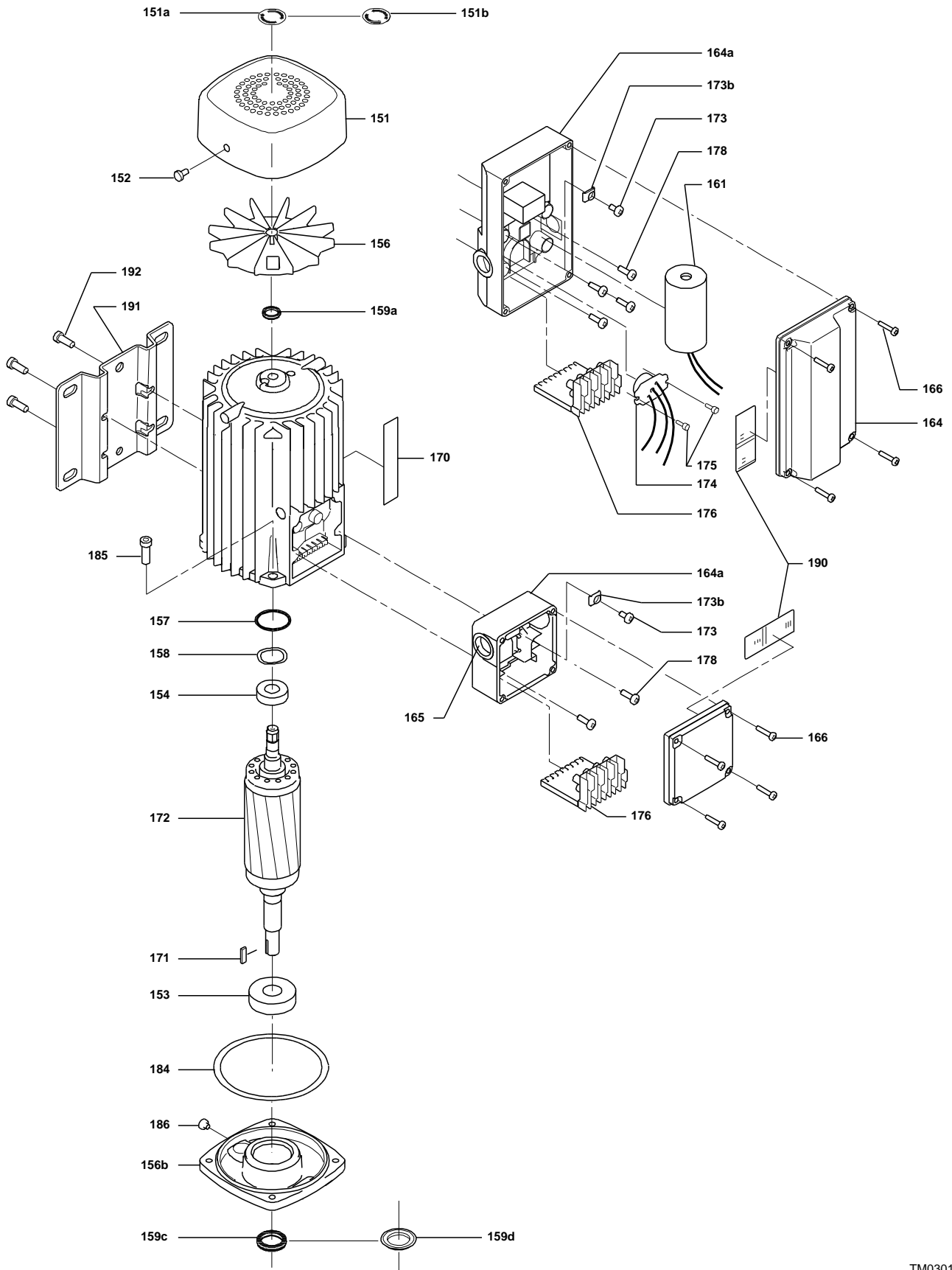
98.3169

Note! All units are in [mm] unless others are stated.

(TM069451 for SMCR standard)



(TM030163 0505)



(TM029177)



TM029177)

**Spare parts CRN 5-8, Product No. 96517187
Valid from 1.5.2011 (1117)**

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
- 80	Kit, chamber stack		Bearing type: SILICON CARBIDE	96453604	1	pcs
- 4a	Chamber w. bearing cpl.				2	
	Chamber					
	45	Neck ring				
	65	Neck ring retainer				
- 4	Chamber cpl.				5	
	Chamber					
	45	Neck ring				
	65	Neck ring retainer				
- 5a	Chamber cpl.				1	
	Chamber					
	45	Neck ring				
	65	Neck ring retainer				
- 44a	Guide vane				1	
	Plate					
	Guide vane					
	50	Top plate				
	47	Bearing ring, rotating			2	
+ 49	Impeller cpl.				8	
- 51	Shaft, spline, cpl.				1	
	Shaft					
	62	Stop ring				
	64d	Spacing pipe	Internal diameter: 12,85 Outer diameter: 15,85 Length (mm): 4,50		1	
	64c	Clamp, splined	Internal diameter: 8,5 Outer diameter: 15		1	
	64a	Spacing pipe	Length (mm): 13.00		2	
	64	Spacing pipe	Length (mm): 26.0		5	
	66	Wedge lock washer			1	
	67	Lock nut	Thread: M8		1	
	69	Spacing pipe	Length (mm): 2.00		1	
-	Kit, coupling			00415061	1	pcs
	9	Hex socket head cap screw	Designation: DIN 912 Length (mm): 20 Thread: M6		4	
	10a	Coupling half			2	
	10	Shaft pin	Diameter: 5 Length (mm): 26		1	
-	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	Diameter: 16,3 Material type: EPDM Thickness: 2,4		1	
	38	O-ring	Diameter: 16,3 Material type: EPDM Thickness: 2,4		2	
	109	O-ring	Diameter: 22,00 Material type: EPDM Thickness: 2,75		1	

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
-	Kit, plug			96505133	1	pcs
- 18	Air vent screw				1	
	Spindle					
	Plug					
23b	Spindle				1	
25	Plug				1	
25	Plug				1	
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			
38	O-ring		Diameter: 16,3		1	
			Material type: EPDM			
			Thickness: 2,4			
38	O-ring		Diameter: 16,3		2	
			Material type: EPDM			
			Thickness: 2,4			
-	Kit, shaft seal HQQE			96455086	1	pcs
+ 105	Shaft seal		Material type: HQQE		1	
-	Kit, wear parts		Material type: SIC	96455097	1	pcs
- 4a	Chamber w. bearing cpl.				2	
	Chamber					
45	Neck ring					
65	Neck ring retainer					
45	Neck ring				10	
47	Bearing ring, rotating				2	
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64a	Spacing pipe		Length (mm): 13.00		2	
65	Neck ring retainer				10	
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
441b	Gasket				2	
-	Motor			91333027	1	pcs
-	Kit, Ball bearing			96279730	1	
111	Ball bearing		Designation: 6204.2Z.C3.SYN			
111	Ball bearing					
157	O-ring		Diameter: 32			
			Material type: NBR			
			Thickness: 2			
158	Waved washer					
-	Kit, fan			96279721	1	
156	Fan					
159a	Seal ring					
-	Kit, fan cover			96279720	1	
151	Fan cover					
152	Pan head thread forming screw					
-	Kit, flange			96279854	1	
156b	Flange					
159c	Seal ring					
184	Gasket		Internal diameter: 114,80			
			Outer diameter: 121,20			
			Thickness: 0,25			
185	Pan head screw					
186	Drain plug					
-	Kit, shaft seal			96279722	1	



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Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
159c	Seal ring					
159a	Seal ring					
-	Kit, terminal box			96279724	1	
152	Pan head thread forming screw					
164a	Terminal box w/gasket					
164	Terminal box cover w/gasket					
173a	Washer		Designation: SQUARE Internal diameter: 5,5 Outer diameter: 10X10 Thickness: 1,5			
173a	Base					
173	Pan head thread forming screw		Designation: COMBI TORX T25			
173	Pan head screw		Designation: DIN 7985			
175	Pan head screw		Designation: DIN 7985			
176	Terminal cpl.					
2	Pump cover			96588244	1	pcs
+ 4a	Bulk, Chamber w. bearing cpl. (5 pcs)			96547653	2	pcs
+ 4a	Chamber w. bearing cpl.			98371281	2	pcs
- 4	Chamber cpl.			98371279	5	pcs
45	Bulk, Neck ring (24 pcs)			96547603	1	
+ 5a	Chamber cpl.			98371278	1	pcs
6	Base			96588143	1	pcs
7.a	Bulk, Combi Slot Torx screw (1000 pcs)			96886324	4	pcs
10a	Coupling half			96588030	2	pcs
10	Bulk, Shaft pin (10 pcs)		Diameter: 5 Length (mm): 26	96536473	1	pcs
+ 18	Bulk, Air vent screw (5 pcs)			96547461	1	pcs
+ 18	Air vent screw			95061351	1	pcs
25	Bulk, Plug (10 pcs)			96536013	1	pcs
- 25a	Drain plug w/bypass valve			96588243	1	pcs
38	Bulk, O-ring (10 pcs)		Diameter: 16,3 Material type: EPDM Thickness: 2,4	99198815	1	
38	Bulk, O-ring (50 pcs)		Diameter: 16,3 Material type: EPDM Thickness: 2,4	99412727	1	
26	Staybolt		Length (mm): 313 Thread: M12	98985637	4	pcs
37	Bulk, O-ring (24 pcs)			96547656	2	pcs
38	Bulk, O-ring (10 pcs)		Diameter: 16,3 Material type: EPDM Thickness: 2,4	99198815	2	pcs
38	Bulk, O-ring (50 pcs)		Diameter: 16,3 Material type: EPDM Thickness: 2,4	99412727	2	pcs
+ 44a	Guide vane			98902003	1	pcs
47	Bulk, Bearing ring, rotating (10 pcs)			97905743	2	pcs
47	Bearing ring, rotating			96547649	2	pcs
+ 49	Bulk, Impeller cpl. (10 pcs)			97643331	8	pcs
+ 49	Bulk, Impeller cpl. (24 pcs)			96547650	8	pcs
+ 49	Impeller cpl.			98394423	8	pcs
+ 51	Shaft, spline, cpl.			96588233	1	pcs
56	Base plate			96588141	1	pcs
60	Formed wire spring			96547664	1	pcs
64c	Bulk, Clamp, splined (5 pcs)		Internal diameter: 8,5 Outer diameter: 15	98496968	1	pcs
64a	Bulk, Spacing pipe (24 pcs)		Length (mm): 13.00	96536452	2	pcs
64a	Spacing pipe		Length (mm): 13.00	98520104	2	pcs



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Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
64	Bulk, Spacing pipe (24 pcs)		Length (mm): 26.0	96536304	5	pcs
66	Bulk, Wedge lock washer (10 pcs)			96536157	1	pcs
67	Bulk, Lock nut (10 pcs)		Thread: M8	98277008	1	pcs
69	Bulk, Spacing pipe (10 pcs)		Length (mm): 2.00	96536451	1	pcs
+ 105	Bulk, Shaft seal (15 pcs)		Material type: HQQE	96983415	1	pcs
440b	Bulk, Lock ring (2 pcs)			98918331	2	pcs
440a	Flange			99037117	2	pcs