

Qty. Description

1 CR 1-17 A-FGJ-A-E-HQQE



Note! Product picture may differ from actual product

Product No.: [96516251](#)

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. Pipe connection is via combined DIN-ANSI-JIS flanges.

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

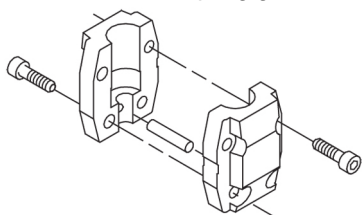
Further product details

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:

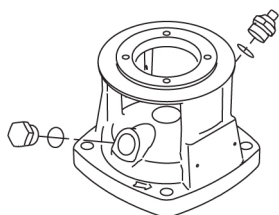
- 1) Alkaline-based cleaning.
 - 2) Zinc phosphating.
 - 3) Cathodic electro-deposition.
 - 4) Curing to a dry film thickness 18-22 my m.
- The colour code for the finished product is NCS 9000/RAL 9005.

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, pump head cover and flange for motor mounting is made in one piece. 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:

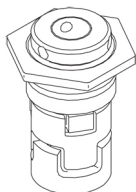
- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

Qty. Description

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)

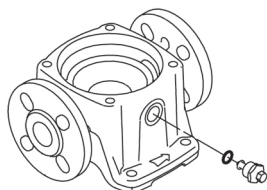
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



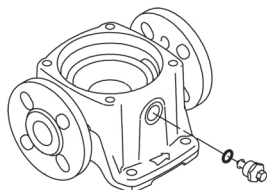
The shaft seal is screwed into the pump head.

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 base is made of cast iron. The flanges and base are cast in one piece. 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.



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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

Qty.	Description
	<p>Density: 998.2 kg/m³</p> <p>Technical: Pump speed on which pump data are based: 2853 rpm Rated flow: 1.8 m³/h Rated head: 80.1 m Pump orientation: Vertical Shaft seal arrangement: Single Code for shaft seal: HQQE Approvals on nameplate: CE, EAC, ACS Curve tolerance: ISO9906:2012 3B</p> <p>Materials: Base: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B Impeller: Stainless steel EN 1.4301 AISI 304 Bearing: SIC</p> <p>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: 250 lb Flange size for motor: FT100</p> <p>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 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</p> <p>Others: Minimum efficiency index, MEI $\hat{a}\%{\text{¥}}$: 0.70 Net weight: 33.2 kg Gross weight: 37.3 kg</p>



Company name:

Created by:

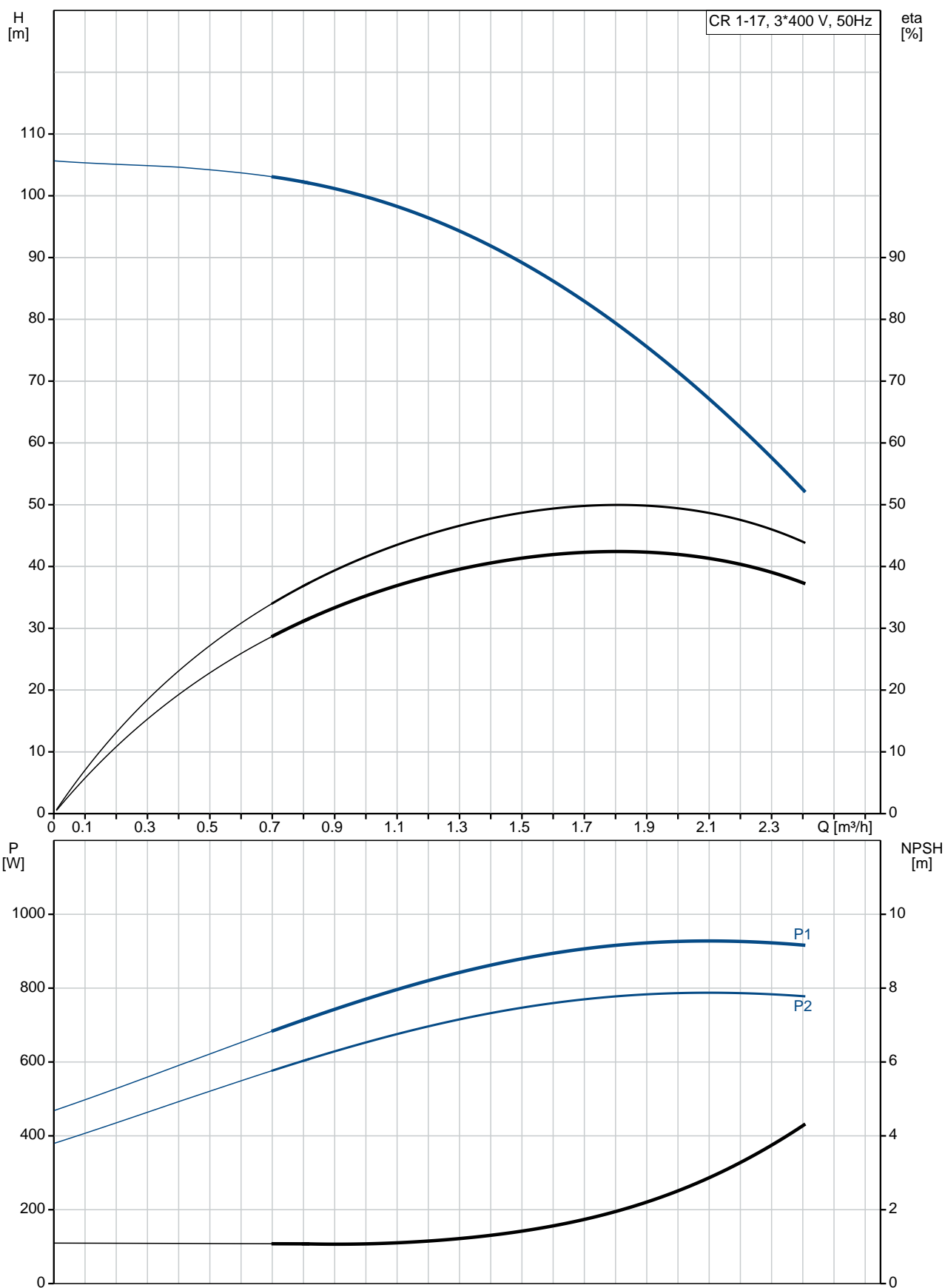
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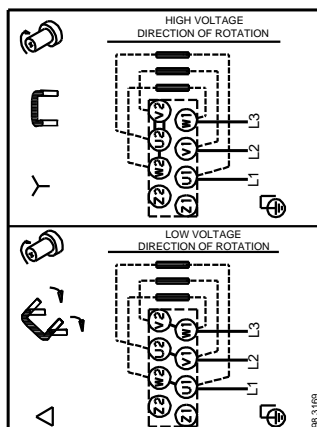
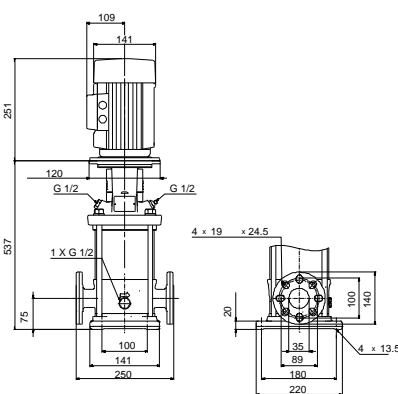
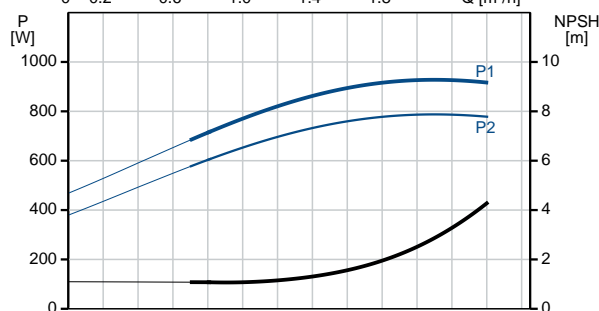
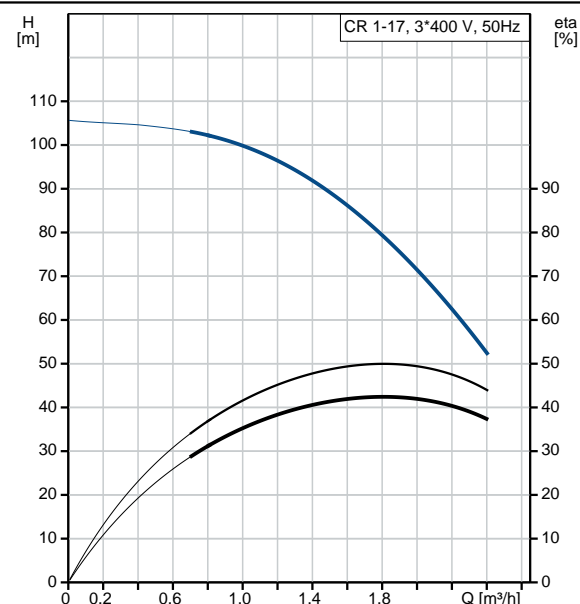
14/02/2019

Qty.	Description
	<div data-bbox="193 331 1474 369">Shipping volume: 0.092 m³</div>

96516251 CR 1-17 A-FGJ-A-E-HQQE 50 Hz



Description	Value
General information:	
Product name:	CR 1-17 A-FGJ-A-E-HQQE
Product No:	96516251
EAN number:	5700396739472
Technical:	
Pump speed on which pump data are based:	2853 rpm
Rated flow:	1.8 m³/h
Rated head:	80.1 m
Head max:	105.4 m
Stages:	17
Impellers:	17
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:	Cast iron EN 1561 EN-GJL-200 ASTM A48-25B
Impeller:	Stainless steel EN 1.4301 AISI 304
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 / -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:	250 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/m³
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





Company name:

Created by:

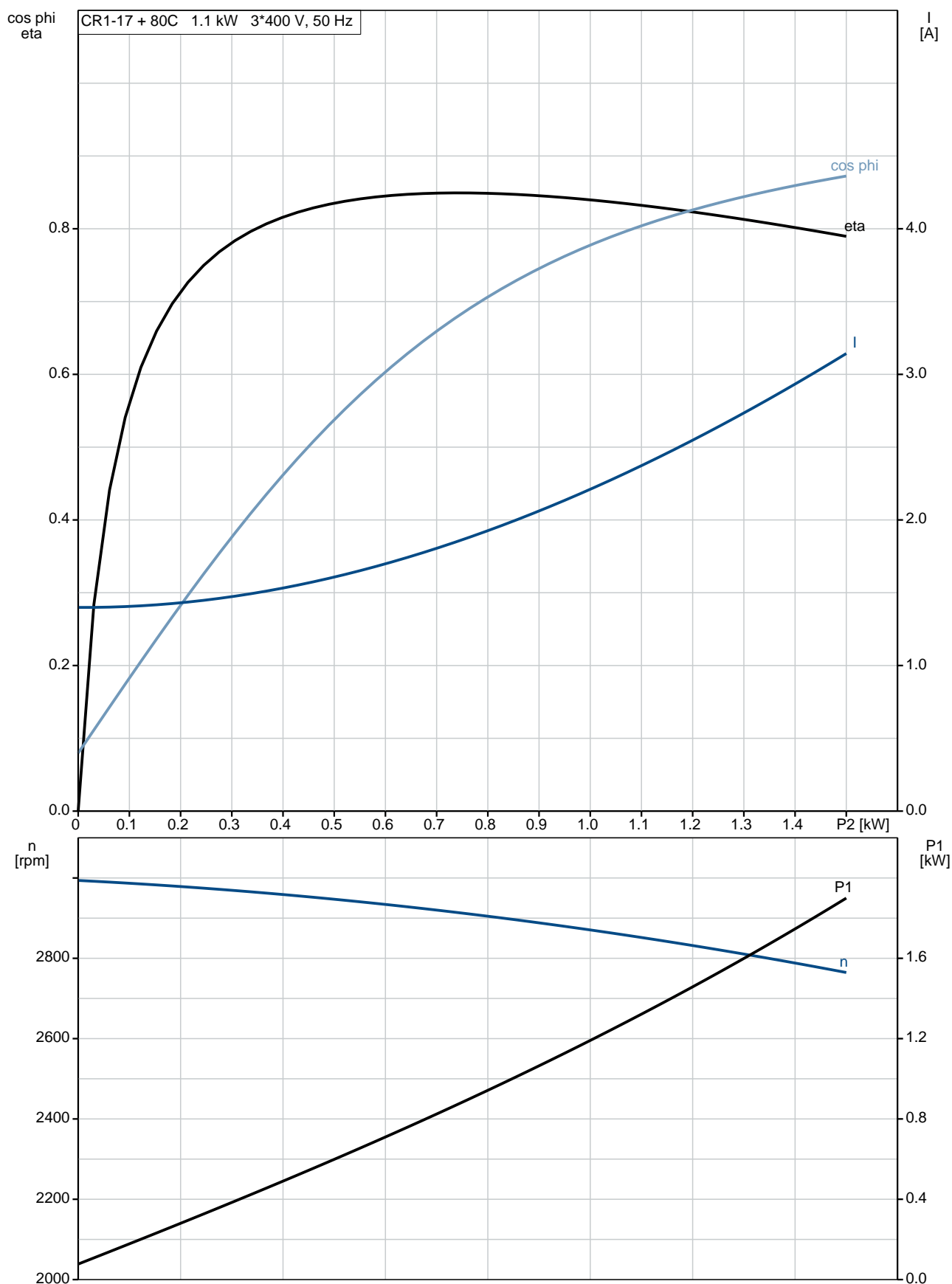
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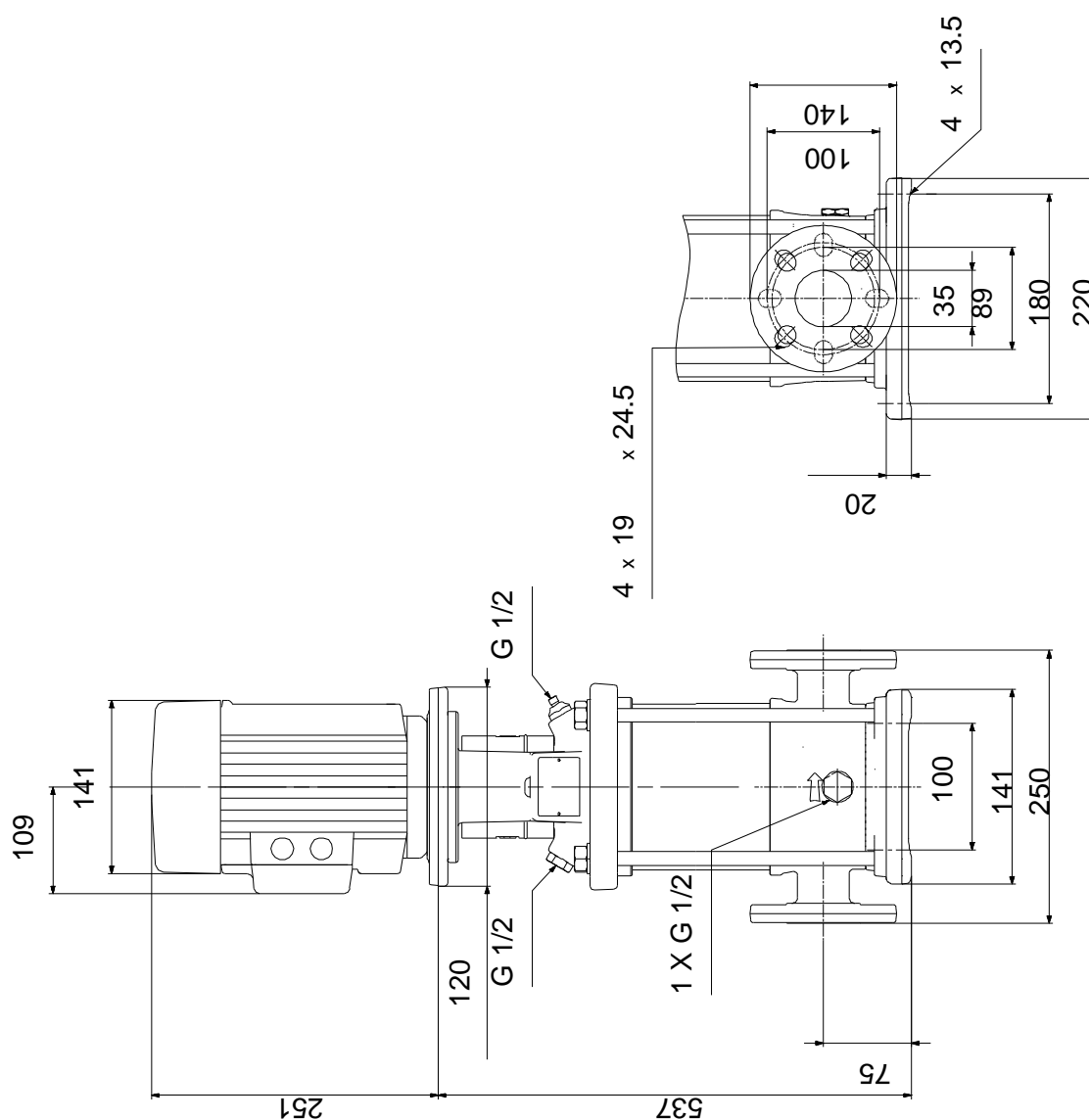
14/02/2019

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:	85905176
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI $\eta_{\%}$:	0.70
Net weight:	33.2 kg
Gross weight:	37.3 kg
Shipping volume:	0.092 m ³

96516251 CR 1-17 A-FGJ-A-E-HQQE 50 Hz

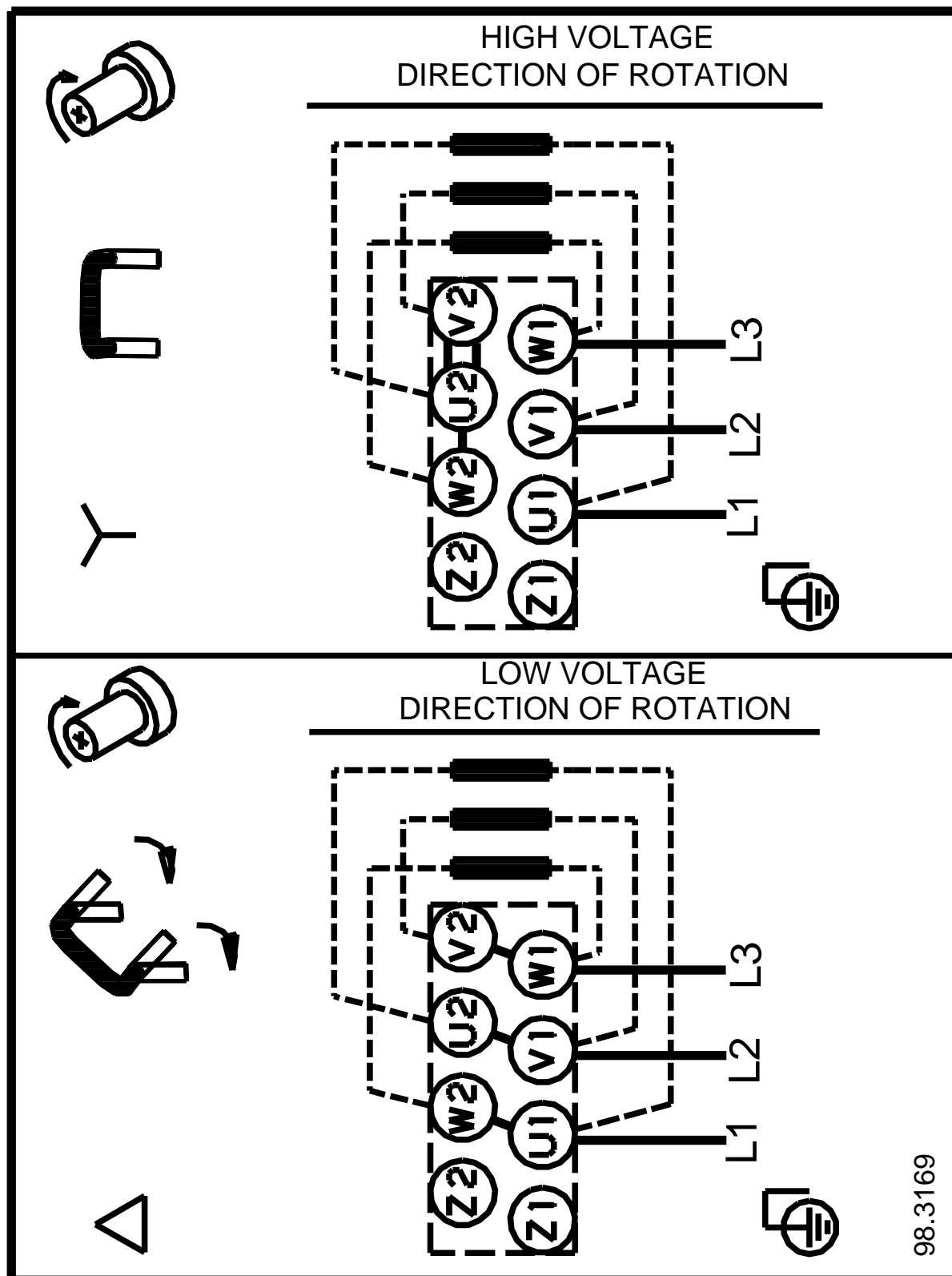


96516251 CR 1-17 A-FGJ-A-E-HQQE 50 Hz



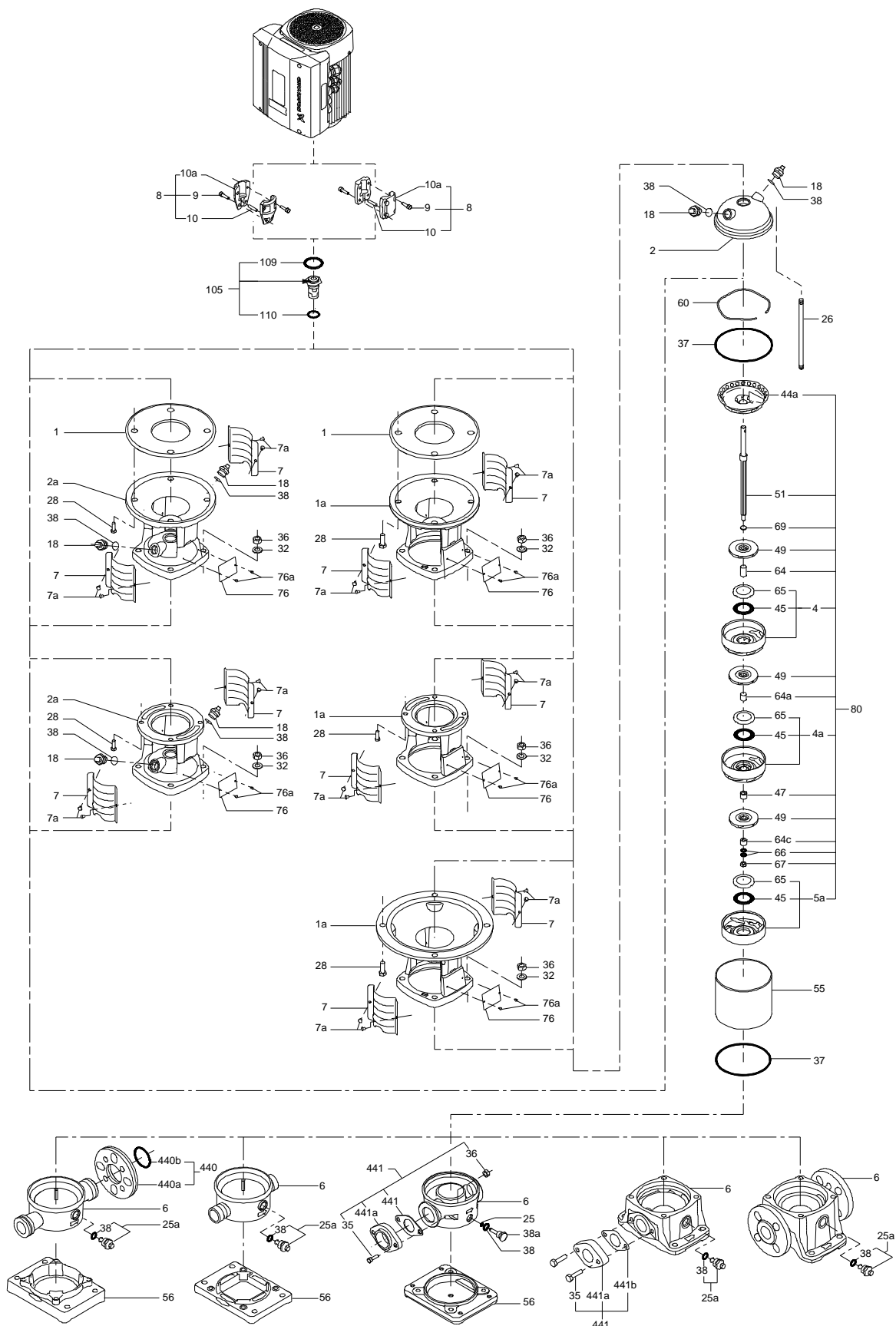
Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

96516251 CR 1-17 A-FGJ-A-E-HQQE 50 Hz



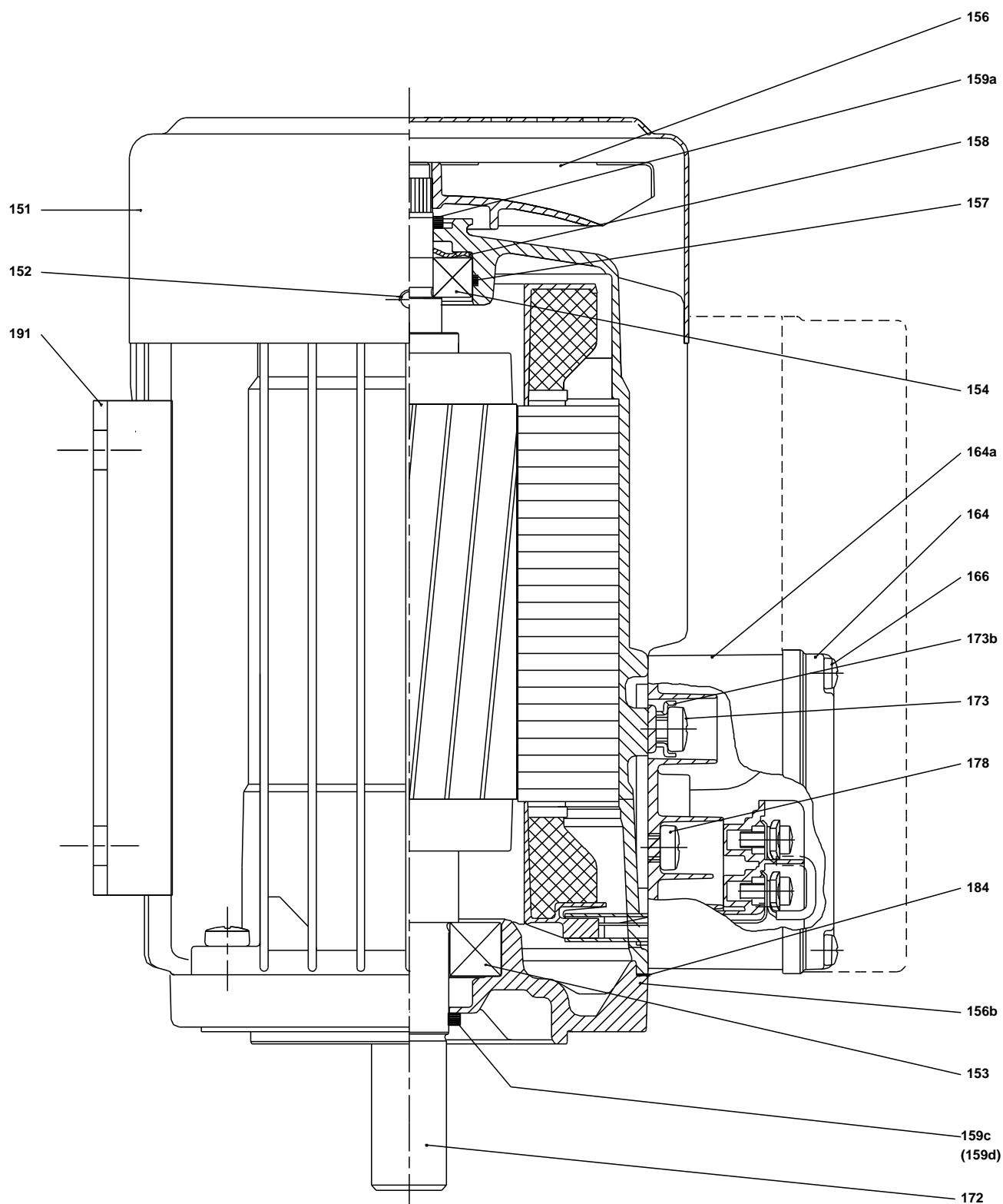
Note! All units are in [mm] unless others are stated.

(TM069451 for SMCR standard)



TM030163

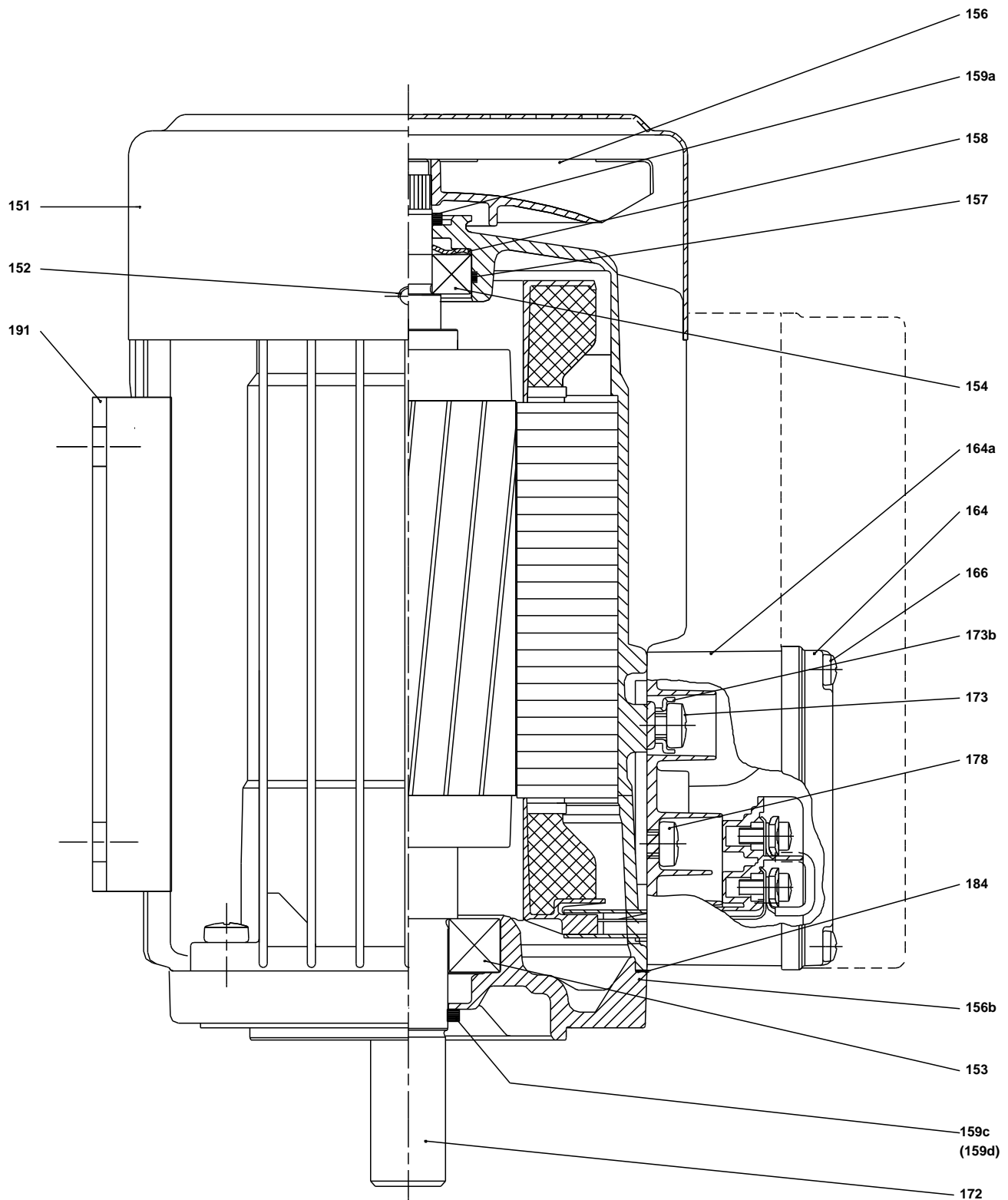
(TM029177)



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Parts list CR 1-17, Product No. 96516251

Valid from 1.1.2011 (1152)

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
+	Motor				1	pcs
+	Motor				1	pcs
-	Base cpl.				1	pcs
6	Base				1	
-	Sealing parts				1	pcs
- 25a	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3			
			Material type: EPDM			
			Thickness: 2,4			
37	O-ring				2	
38	O-ring		Diameter: 16,3		2	
			Material type: EPDM			
			Thickness: 2,4			
+ 2	Pump head cpl.				1	pcs
- 8	Coupling cpl.				1	pcs
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 20			
			Thread: M6			
10	Shaft pin		Diameter: 5		1	
			Length (mm): 26			
10a	Coupling half				2	
26	Staybolt		Length (mm): 328		4	pcs
			Thread: M12			
32	Washer		Designation: DIN 125 A		4	pcs
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
36	Nut		Thread: M12		4	pcs
55	Outer sleeve				1	pcs
- 80	Chamber stack				1	pcs
- 4	Chamber cpl.				14	
	Guide vane					
	Plate					
	Intermediate chamber					
	Vane					
45	Neck ring					
65	Retainer					
65	Retainer					
- 4a	Chamber w. bearing cpl.				2	
	Guide vane					
	Retainer for bearing					
	Intermediate chamber					
	Vane					
45	Neck ring					
47	Bearing bush					
65	Retainer					
65	Retainer					
- 5a	Chamber cpl.				1	
	Intermediate chamber					
	Vane					
45	Neck ring					
65	Retainer					
65	Retainer					

Pos	Description	Annotation	Classification Data	Part no.	Qty.	Unit
- 44a	Guide vane cpl.				1	
	Guide vane					
	Plate					
50	Top plate					
47	Bearing ring, rotating				2	
49	Impeller				17	
51	Shaft, spline, cpl.				1	
64a	Spacing pipe				14	
64c	Clamp, splined		Internal diameter: 8,5		1	
			Outer diameter: 15			
64d	Spacing pipe		Internal diameter: 12,85		2	
			Outer diameter: 15,85			
			Length (mm): 4,50			
66	Wedge lock washer				1	
67	Lock nut		Thread: M8		1	
+ 105	Shaft seal		Material type: HQQE		1	pcs