

CR3-3 A-FGJ-A-E-HQQE 3x230/400 50HZ Grundfos pump 96516650




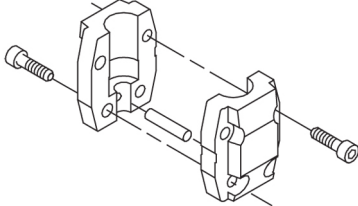
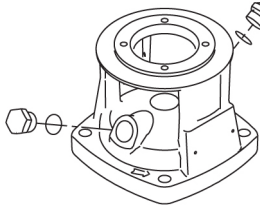
Thank you for your interest in our products. Please contact us for more information, or visit our website

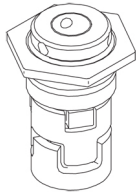
<https://www.lenntech.com/grundfos/CRFAM/96516650/CR-3-3-A-FGJ-A-E-HQQE.html>

info@lenntech.com

tel. +31 152 610 900

fax. +31 152 616 289

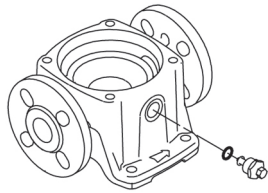
Position	Qty.	Description
	1	<p data-bbox="320 163 614 194">CR 3-3 A-FGJ-A-E-HQQE</p>  <p data-bbox="320 483 600 515">Product No.: On request</p> <p data-bbox="320 544 1430 645">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in 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.</p> <p data-bbox="320 685 1054 716">The pump is fitted with a 3-phase, fan-cooled asynchronous motor.</p> <p data-bbox="320 745 639 777">Further product details</p> <p data-bbox="320 784 1449 884">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:</p> <ol data-bbox="320 896 1027 1041" style="list-style-type: none"> 1) Alkaline-based cleaning. 2) Zinc phosphating. 3) Cathodic electro-deposition. 4) Curing to a dry film thickness 18-22 my m. <p data-bbox="320 1014 1027 1046">The colour code for the finished product is NCS 9000/RAL 9005.</p> <p data-bbox="320 1075 400 1106">Pump</p> <p data-bbox="320 1113 1417 1164">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.</p>  <p data-bbox="320 1406 1398 1458">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.</p>  <p data-bbox="320 1709 1422 1809">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.</p> <p data-bbox="320 1821 464 1852">Primary seal:</p> <ul data-bbox="357 1850 919 1906" style="list-style-type: none"> • Rotating seal ring material: silicon carbide (SiC) • Stationary seat material: silicon carbide (SiC) <p data-bbox="320 1910 1425 1962">This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.</p> <p data-bbox="320 1966 986 1998">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="320 2002 1219 2033">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p>



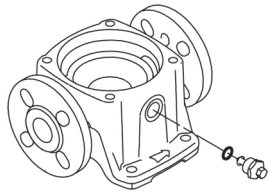
The shaft seal is screwed into the pump head.

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.



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.



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:

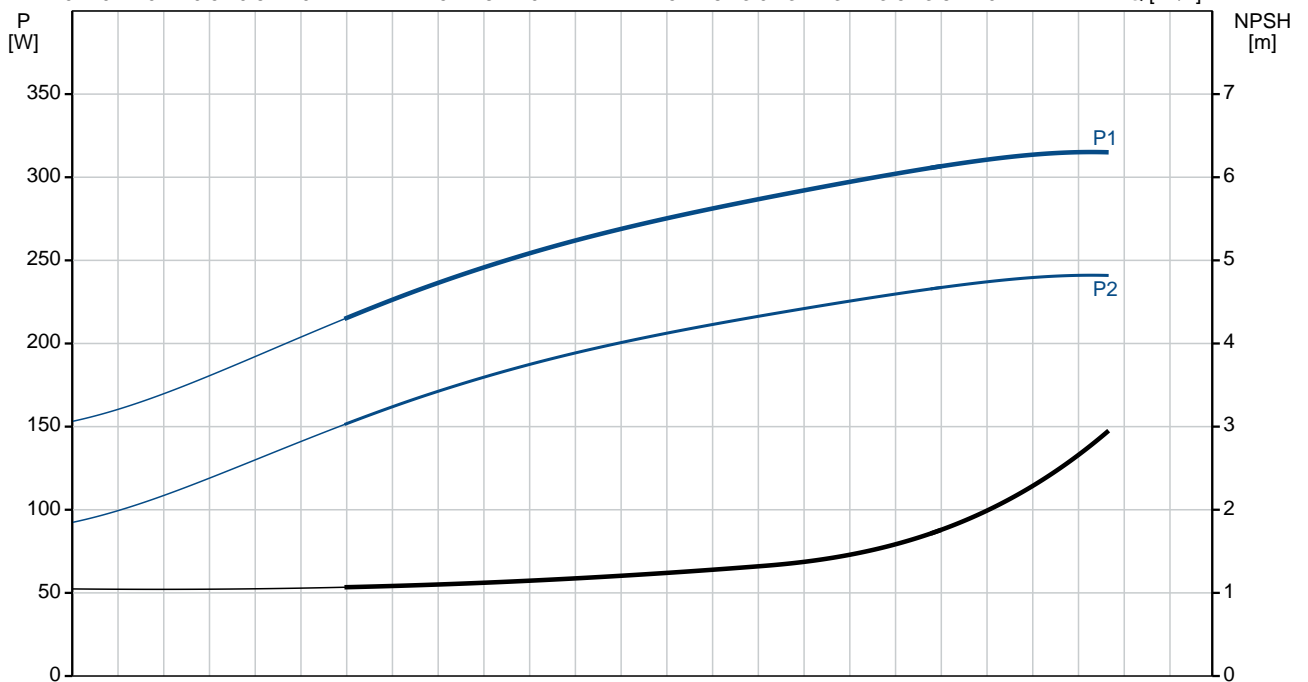
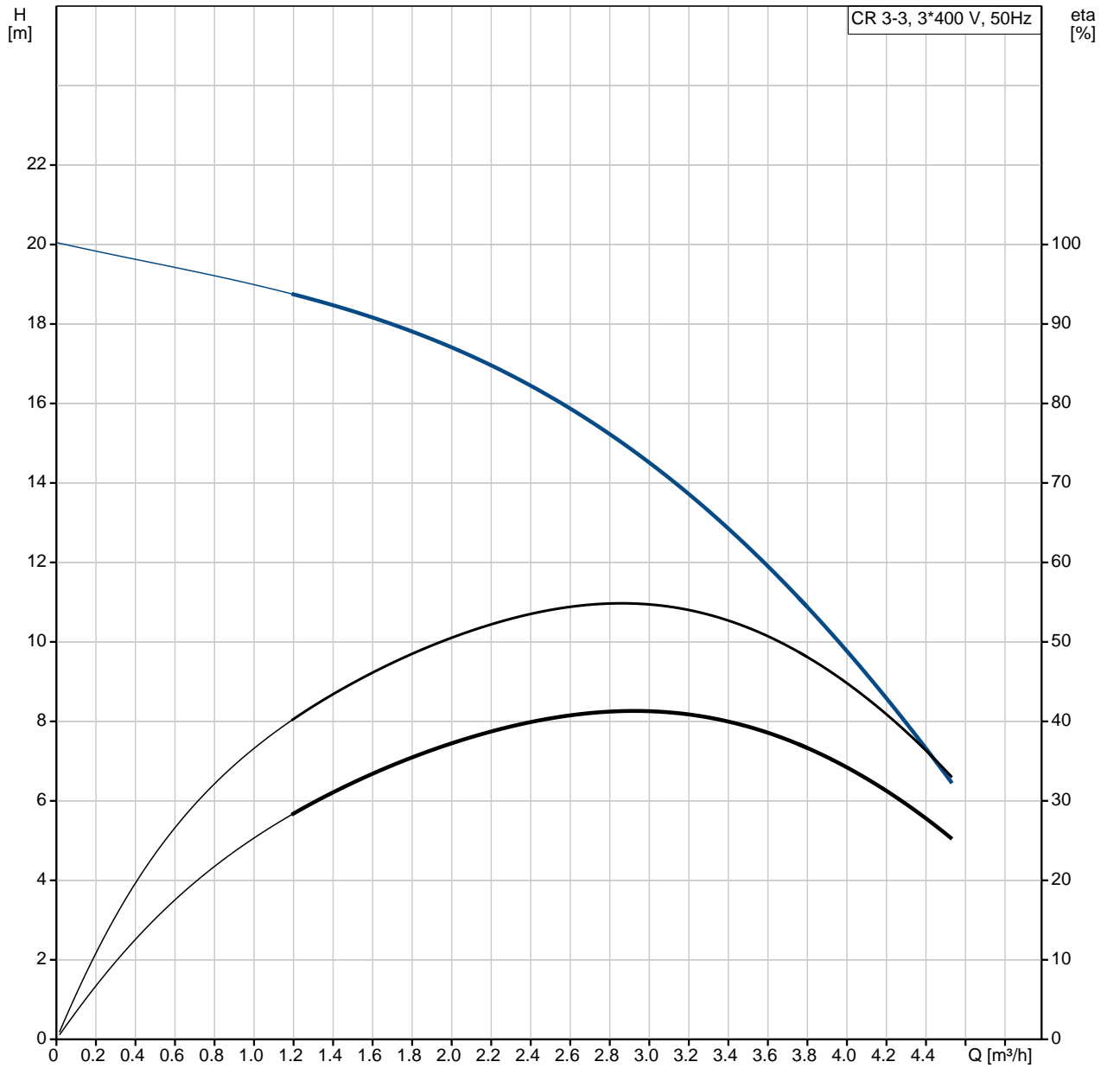
Pumped liquid: Water
 Liquid temperature range: -20 .. 120 °C
 Liquid temperature during operation: 20 °C
 Density: 998.2 kg/m³

Technical:

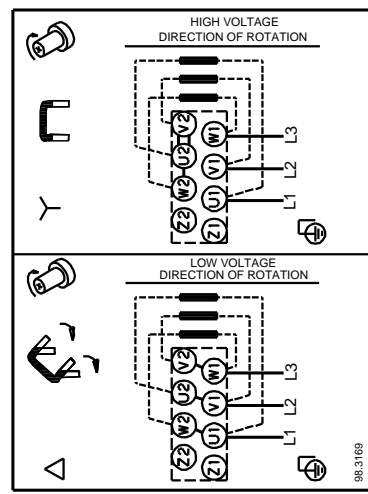
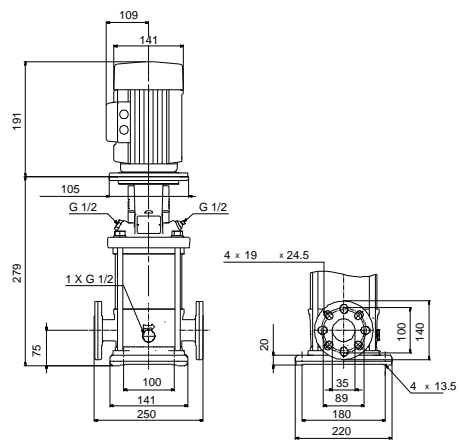
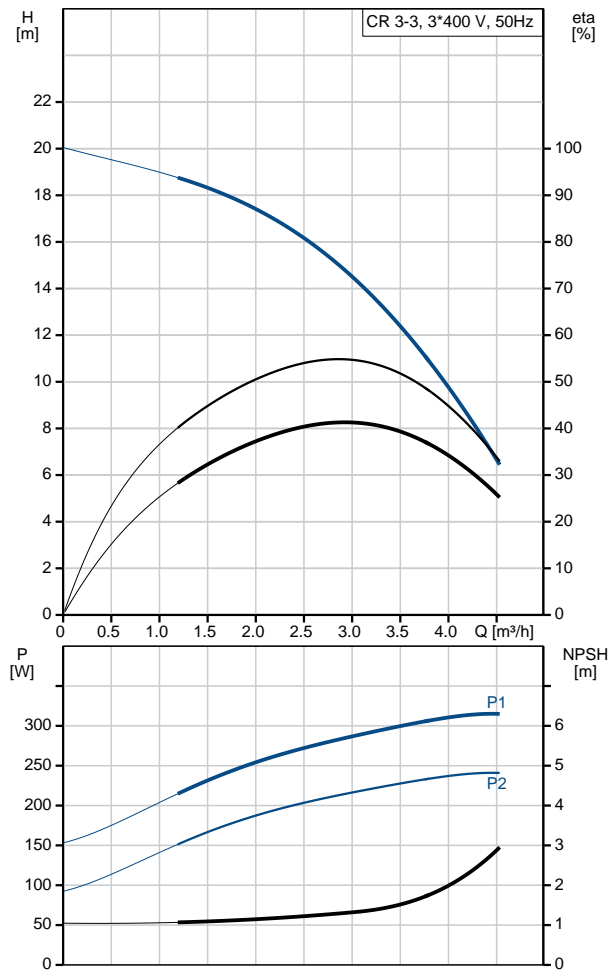
Rated flow: 3 m³/h
 Rated head: 15.1 m
 Pump orientation: Vertical
 Shaft seal arrangement: Single
 Code for shaft seal: HQQE
 Approvals on nameplate: CE, EAC, ACS
 Curve tolerance: ISO9906:2012 3B

Position	Qty.	Description
		<p>Materials:</p> <p>Base: Cast iron EN 1561 EN-GJL-200 ASTM A48-25B</p> <p>Impeller: Stainless steel EN 1.4301 AISI 304</p> <p>Bearing: SIC</p> <p>Installation:</p> <p>Maximum ambient temperature: 40 °C Maximum operating pressure: 25 bar Max pressure at stated temp: 25 bar / 120 °C 25 bar / -20 °C</p> <p>Type of connection: DIN / ANSI / JIS Size of inlet connection: DN 25/32 1 1/4 inch</p> <p>Size of outlet connection: DN 25/32 1 1/4 inch</p> <p>Pressure rating for pipe connection: PN 25 Flange rating inlet: 250 lb Flange size for motor: FT85</p> <p>Electrical data:</p> <p>Motor standard: IEC Motor type: 71A IE Efficiency class: IE3 Rated power - P2: 0.37 kW Power (P2) required by pump: 0.37 kW Mains frequency: 50 Hz Rated voltage: 3 x 220-240D/380-415Y V Rated current: 1.74/1.00 A Starting current: 490-530 % Cos phi - power factor: 0.80-0.70 Rated speed: 2850-2880 rpm Efficiency: IE3 73,8% Motor efficiency at full load: 73.8 % Motor efficiency at 3/4 load: 79.0 % Motor efficiency at 1/2 load: 75.5 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F</p> <p>Others:</p> <p>Minimum efficiency index, MEI : 0.7 Net weight: 23.1 kg Gross weight: 25.7 kg Shipping volume: 0.054 m³</p>

On request CR 3-3 A-FGJ-A-E-HQQE 50 Hz

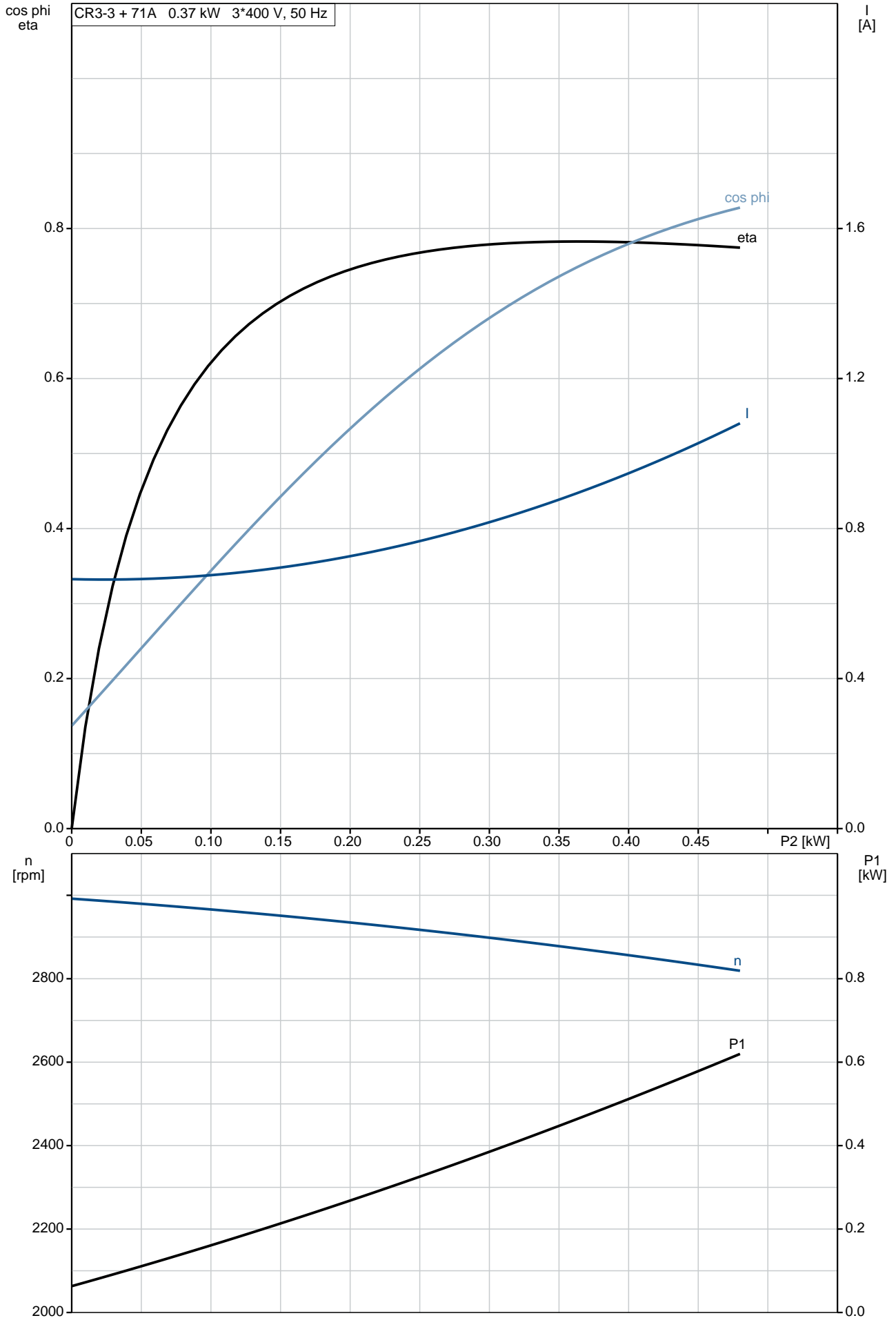


Description	Value
General information:	
Product name:	CR 3-3 A-FGJ-A-E-HQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	3 m ³ /h
Rated head:	15.1 m
Stages:	3
Impellers:	3
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
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:	40 °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:	FT85
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:	71A
IE Efficiency class:	IE3
Rated power - P2:	0.37 kW
Power (P2) required by pump:	0.37 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	1.74/1.00 A
Starting current:	490-530 %
Cos phi - power factor:	0.80-0.70
Rated speed:	2850-2880 rpm
Efficiency:	IE3 73,8%
Motor efficiency at full load:	73.8 %
Motor efficiency at 3/4 load:	79.0 %
Motor efficiency at 1/2 load:	75.5 %

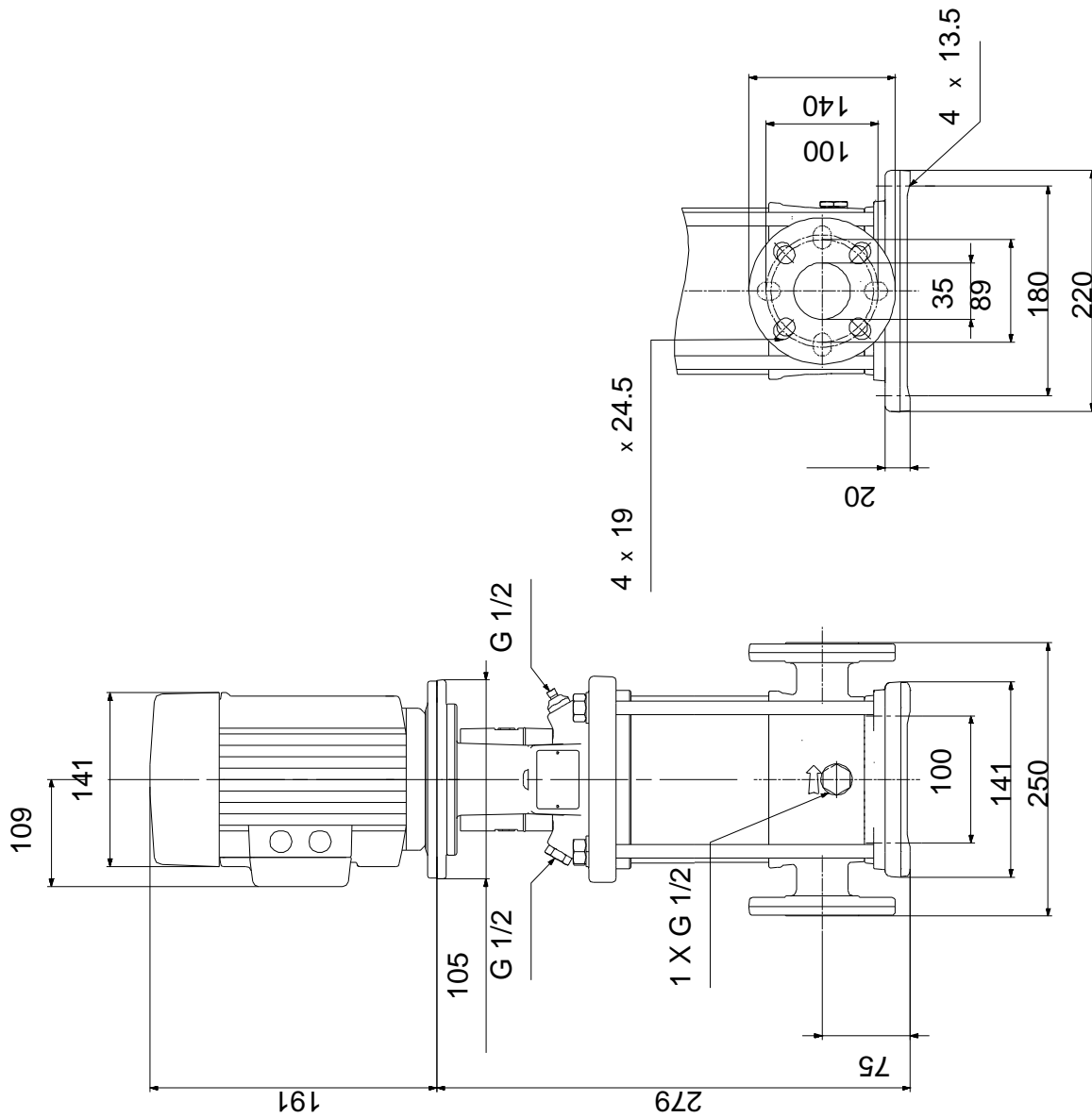


Description	Value
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Motor protec:	NONE
Motor No:	85805102
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI :	0.7
Net weight:	23.1 kg
Gross weight:	25.7 kg
Shipping volume:	0.054 m ³

On request CR 3-3 A-FGJ-A-E-HQQE 50 Hz

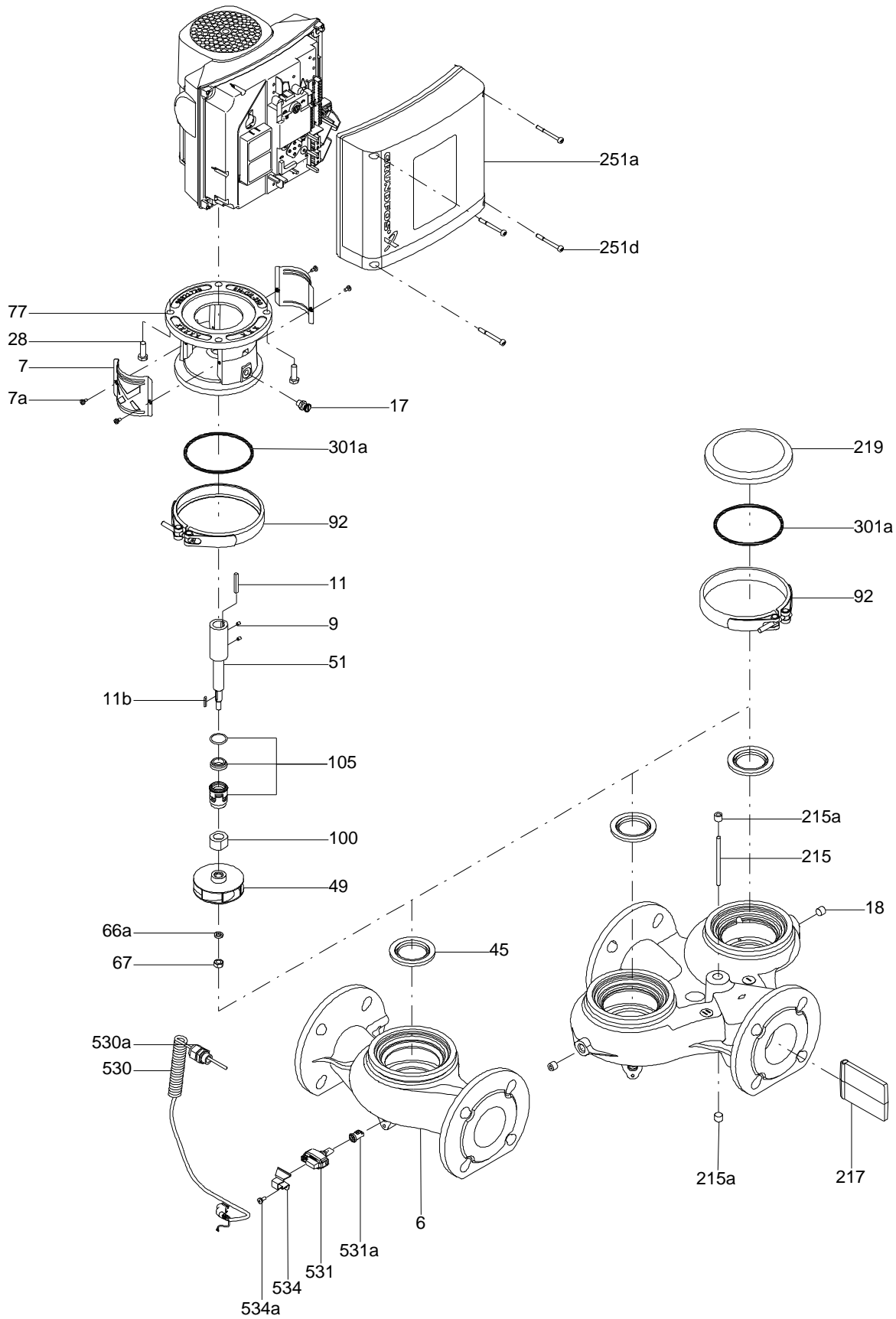


On request CR 3-3 A-FGJ-A-E-HQQE 50 Hz



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

Exploded view

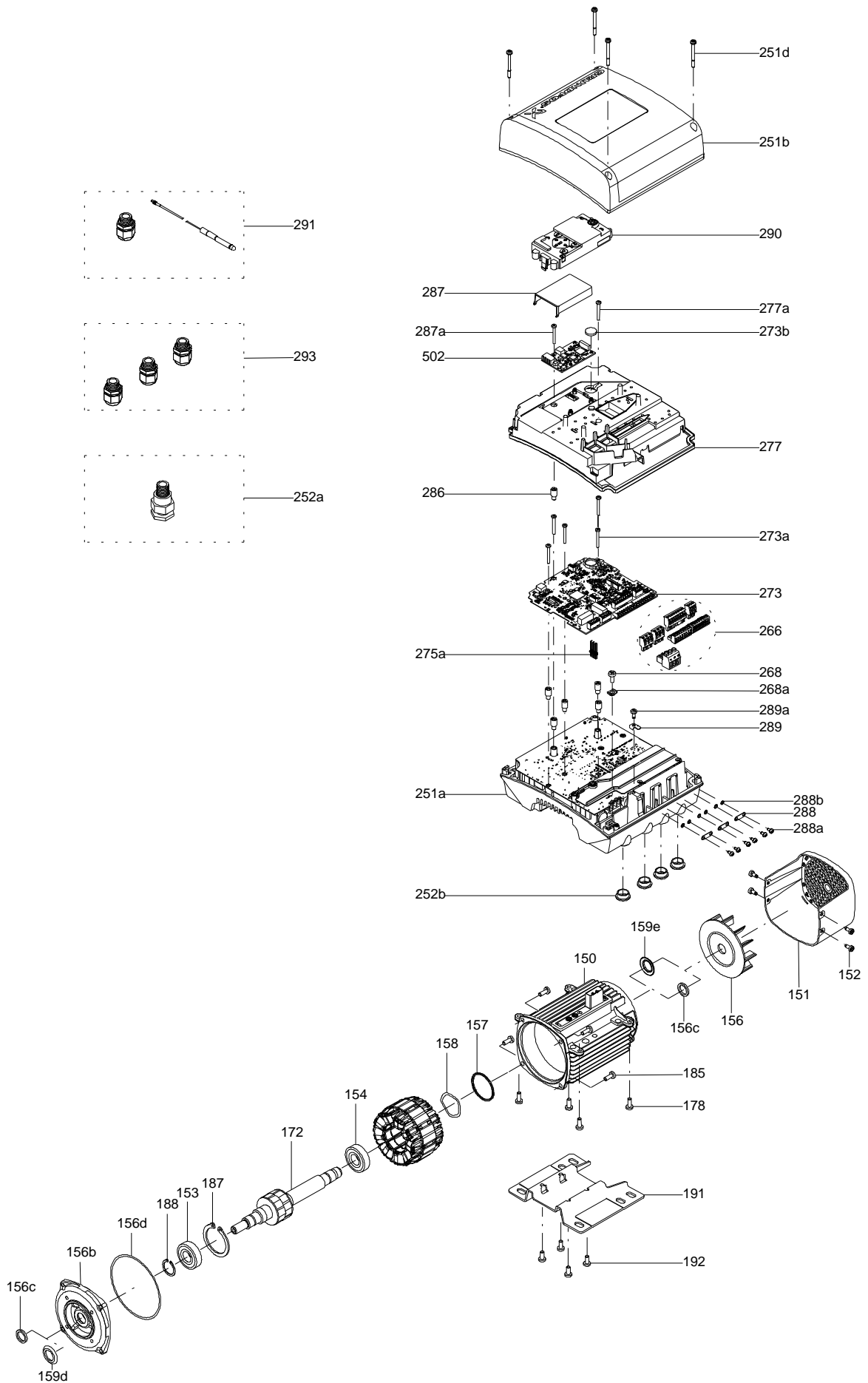


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list CR 3-3, Product No. On request
Valid from 1.1.2004 (0401)

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
-	Base cpl.				1	pcs
6	Base				1	
-	Sealing parts				1	pcs
- 25	Drain plug w/bypass valve				1	
38	O-ring		Diameter: 16,3		1	
			Material type: EPDM			
			Thickness: 2,4			
37	O-ring				2	
100	O-ring		Diameter: 16,3		2	
			Material type: EPDM			
			Thickness: 2,4			
- 2	Pump head cpl.				1	pcs
2	Pump head				1	
7	Coupling guard				2	
7a	Combi Slot Torx screw				4	
- 18	Air vent screw				1	
	Plug				1	
	Spindle				1	
23a	Plug				1	
28	Hex head screw		Length (mm): 20		4	
			Thread: M6			
60	Formed wire spring				1	
- 8	Coupling				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): 79		4	pcs
			Thread: M12			
36a	Washer		Designation: DIN 125 A		4	pcs
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
55	Outer sleeve				1	pcs
66a	Nut		Thread: M12		4	pcs
- 80	Chamber stack				1	pcs
- 4	Chamber cpl.				1	
	Guide vane				6	
	Plate				1	
	Retainer				1	
	Intermediate chamber				1	
	Vane				1	
45	Neck ring				1	
65	Retainer				1	
- 4a	Chamber w. bearing cpl.				1	
	Guide vane				6	
	Retainer for bearing				1	
	Bearing bush				1	
	Retainer				1	
	Intermediate chamber				1	
	Vane				1	
45	Neck ring				1	
65	Retainer				1	
- 5a	Chamber cpl.				1	
	Retainer				1	
	Intermediate chamber				1	

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
	Vane				1	
45	Neck ring				1	
65	Retainer				1	
36	Lock nut		Thread: M8		1	
47a	Bearing ring, rotating				1	
49	Impeller cpl.				3	
- 50a	Guide vane cpl.				1	
	Guide vane				6	
	Plate				1	
50b	Top plate				1	
51	Shaft, spline, cpl.				1	
64a	Spacing pipe				1	
64a	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			
66	Wedge lock washer				1	
- 105	Shaft seal		Material type: HQQE		1	pcs
	O-ring				1	
	O-ring				1	
	Seal driver, upper				1	
	Seal driver, lower				1	
	Spacer ring				1	
	Pipe				1	
	Plug				1	
	Plug				1	
	Compression spring				1	
	Socket set screw				1	
102	O-ring		Diameter: 22,00		1	
			Material type: EPDM			
			Thickness: 2,75			
103	Seal ring, stationary				1	
105	Seal ring, rotating				1	
107	O-ring				1	
113	Driver				1	

Disclaimer: The information about the Grundfos pump in this document may be outdated.

Data may be subject to alterations without further notice.

Please contact us to verify the data above is still accurate/up-to-date.

All information is copyright Grundfos.



info@lenntech.com

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289