

## CRN32-3 A-F-G-E-HQQE 3x400D 50 HZ Grundfos pump 96122355




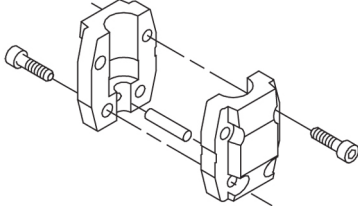
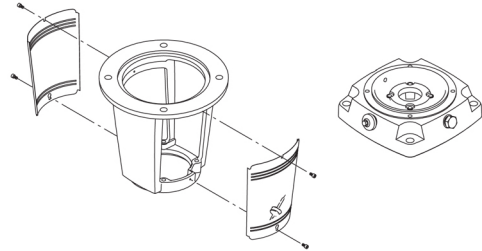
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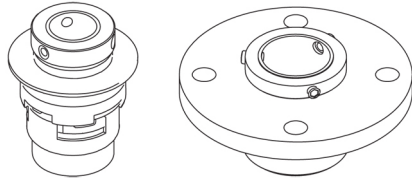
<https://www.lenntech.com/grundfos/CRN32/96122355/CRN-32-3-A-F-G-E-HQQE.html>

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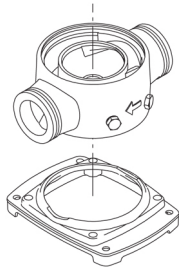
Position	Qty.	Description
	1	<p data-bbox="320 163 612 194"><b>CRN 32-3 A-F-A-E-HQQE</b></p>  <p data-bbox="320 486 600 517">Product No.: On request</p> <p data-bbox="320 546 1445 647">Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). Pump materials in contact 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 DIN 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"><b>Further product details</b></p> <p data-bbox="320 784 1445 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="320 898 1027 1041" style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Zinc phosphating.</li> <li>3) Cathodic electro-deposition.</li> <li>4) Curing to a dry film thickness 18-22 my m.</li> </ol> <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"><b>Pump</b></p> <p data-bbox="320 1113 1414 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 1404 1453 1456">The motor stool connects the pump head and motor. The pump head has a combined 1/2" priming plug and vent screw.</p>  <p data-bbox="320 1729 1422 1830">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 1843 464 1874">Primary seal:</p> <ul data-bbox="357 1874 919 1928" style="list-style-type: none"> <li>• Rotating seal ring material: silicon carbide (SiC)</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p data-bbox="320 1928 1422 1980">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 1989 986 2020">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="320 2020 1219 2051">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p>



The shaft seal is retained in the pump head by a cover and screws. It can be replaced without removing the motor.

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. The base and base plate are kept in position by the tension of the staybolts which hold the pump together. Both the inlet and the outlet side of the base have two pressure gauge tapings. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.



## Motor

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

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).

Electrical tolerances comply with IEC 60034.

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

The motor has thermistors (PTC sensors) in the windings in accordance with DIN 44081/DIN 44082. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

Thermal switches must be connected to an external control circuit in a way which ensures that the automatic reset cannot cause accidents. The motors must be connected to a motor-protective circuit breaker according to local regulations.

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

## Technical data

### Controls:

Frequency converter: NONE

### Liquid:

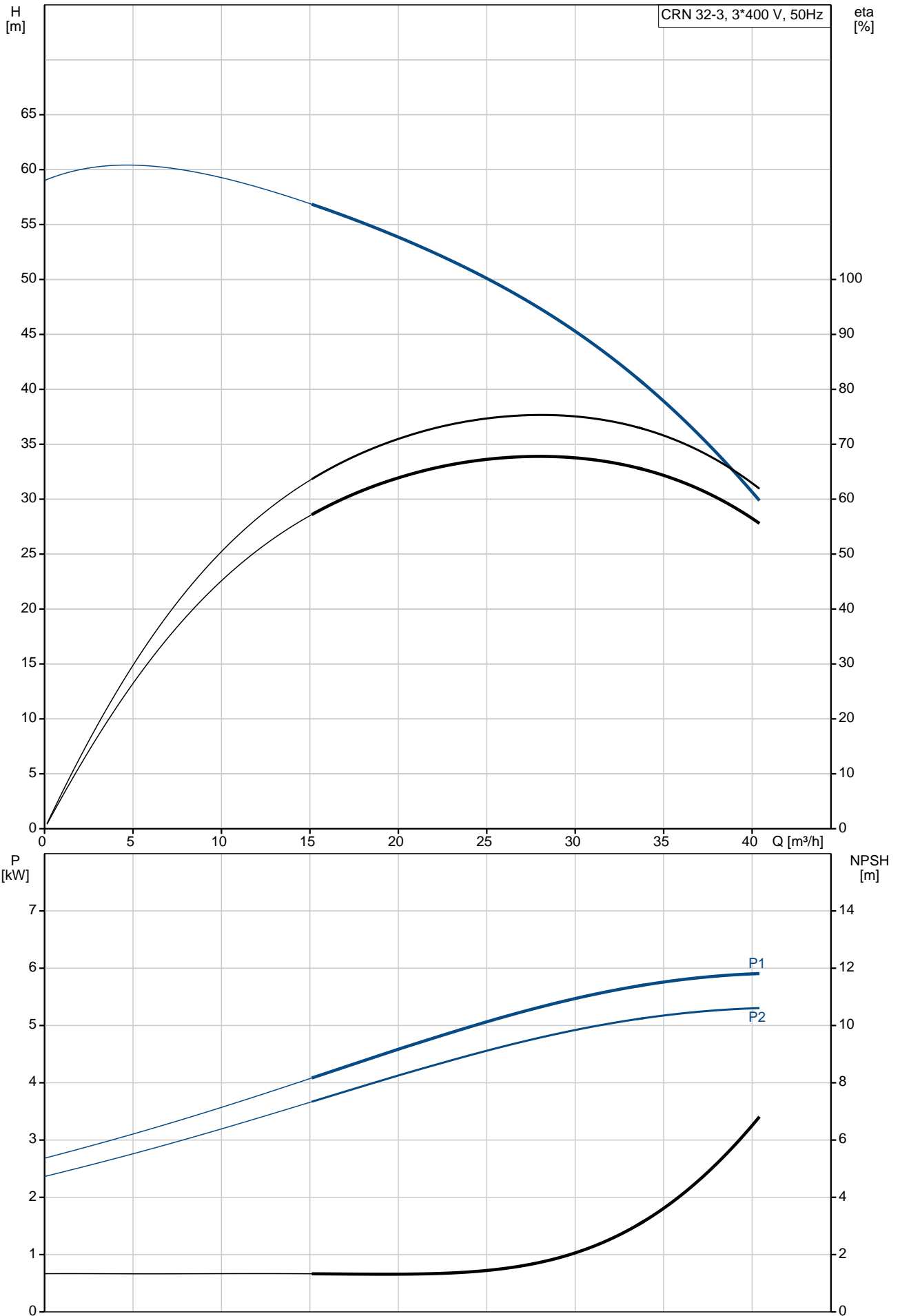
Pumped liquid: Water  
 Liquid temperature range: -40 .. 120 °C  
 Liquid temperature during operation: 20 °C  
 Density: 998.2 kg/m<sup>3</sup>

### Technical:

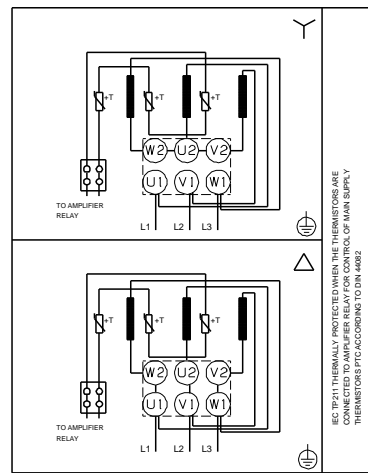
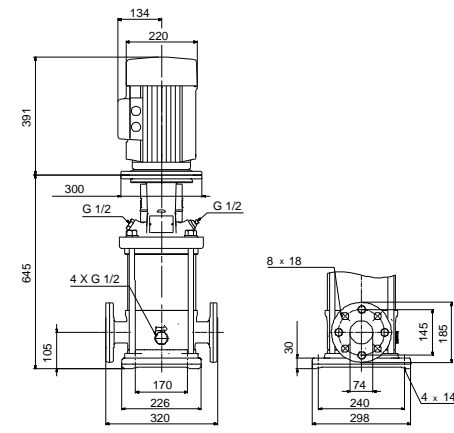
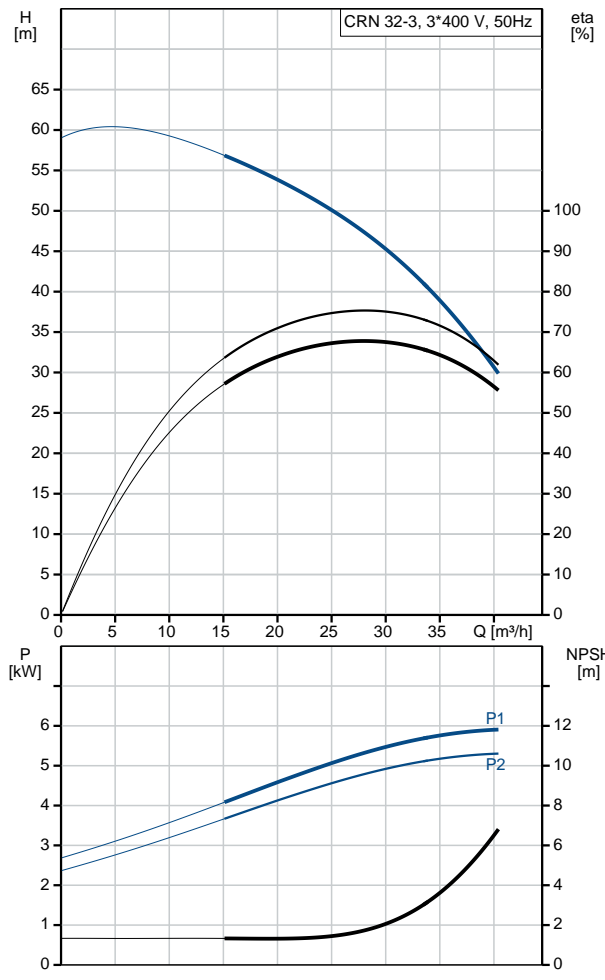
Rated flow: 30 m<sup>3</sup>/h  
 Rated head: 44.1 m  
 Pump orientation: Vertical  
 Shaft seal arrangement: Single  
 Code for shaft seal: HQQE  
 Approvals on nameplate: CE, EAC, ACS  
 Curve tolerance: ISO9906:2012 3B

Position	Qty.	Description
		<p><b>Materials:</b></p> <p>Base: Stainless steel EN 1.4408 AISI 316</p> <p>Impeller: Stainless steel EN 1.4401 AISI 316</p> <p>Bearing: SIC</p> <p>Support bearing: Graflon</p> <p><b>Installation:</b></p> <p>Maximum ambient temperature: 60 °C Maximum operating pressure: 16 bar Max pressure at stated temp: 16 bar / 120 °C 16 bar / -40 °C</p> <p>Type of connection: DIN Size of inlet connection: DN 65 Size of outlet connection: DN 65 Pressure rating for pipe connection: PN 40 Flange size for motor: FF265</p> <p><b>Electrical data:</b></p> <p>Motor standard: IEC Motor type: 132SC IE Efficiency class: IE3 Rated power - P2: 5.5 kW Power (P2) required by pump: 5.5 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-415D V Rated current: 11 A Starting current: 1080-1180 % Cos phi - power factor: 0.87-0.82 Rated speed: 2920-2940 rpm Efficiency: IE3 89,2% Motor efficiency at full load: 89.2 % Motor efficiency at 3/4 load: 90.0 % Motor efficiency at 1/2 load: 89.6 % Number of poles: 2 Enclosure class (IEC 34-5): 55 Dust/Jetting Insulation class (IEC 85): F</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI : 0.7 Net weight: 99.2 kg Gross weight: 122 kg Shipping volume: 0.309 m<sup>3</sup> Danish VVS No.: 385916030</p>

# On request CRN 32-3 A-F-A-E-HQQE 50 Hz



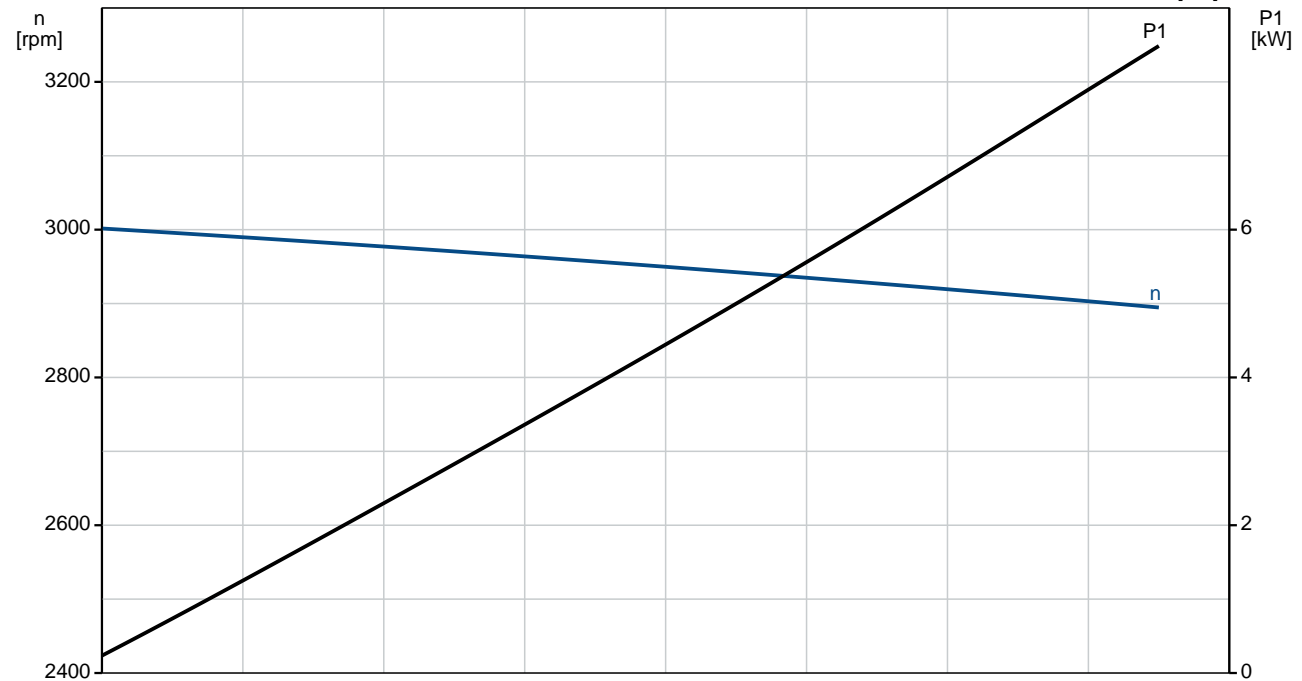
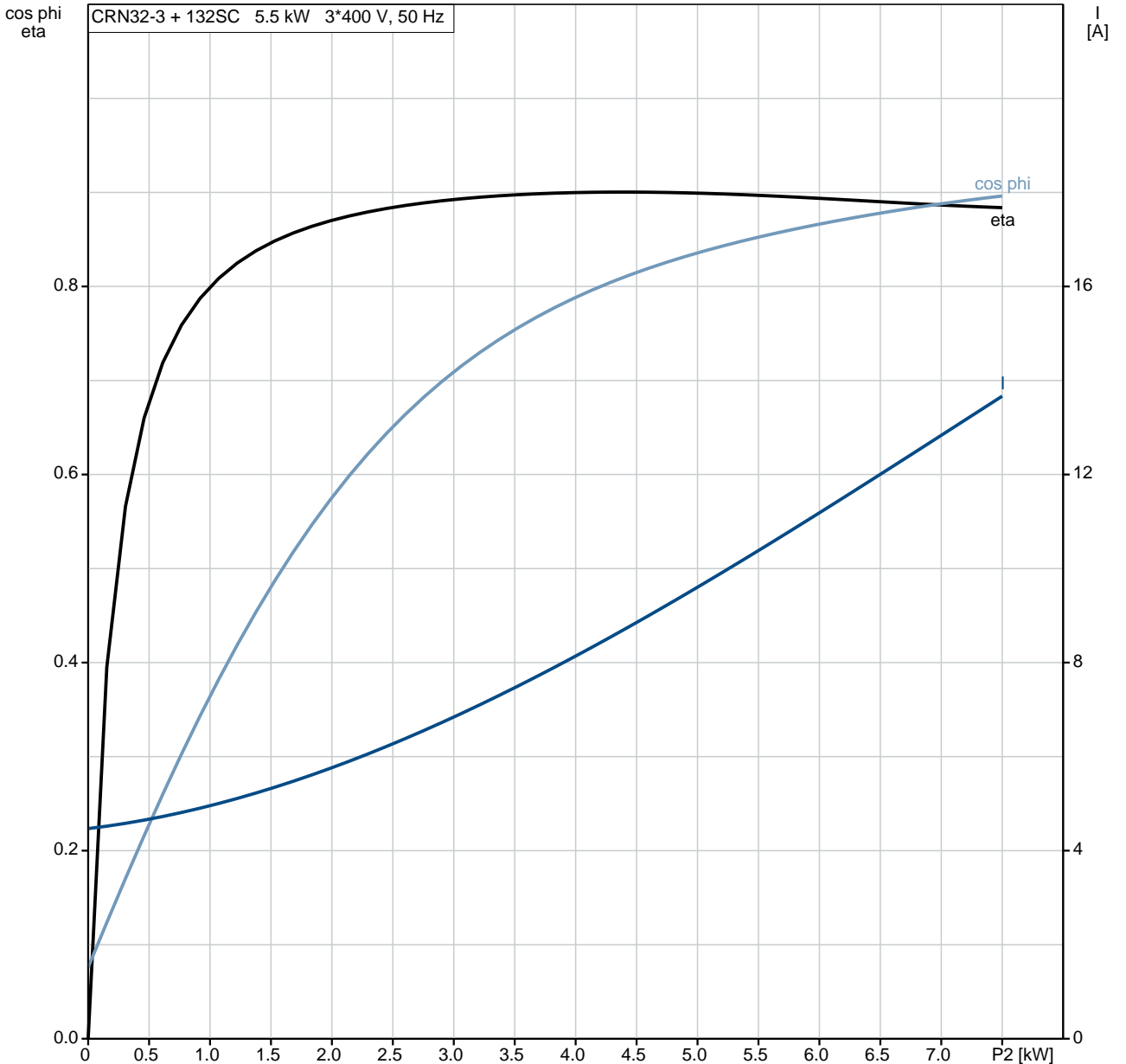
Description	Value
<b>General information:</b>	
Product name:	CRN 32-3 A-F-A-E-HQQE
Product No:	On request
EAN number:	On request
<b>Technical:</b>	
Rated flow:	30 m <sup>3</sup> /h
Rated head:	44.1 m
Stages:	3
Impellers:	3
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CE, EAC, ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
<b>Materials:</b>	
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
Support bearing:	Graflon
<b>Installation:</b>	
Maximum ambient temperature:	60 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 120 °C 16 bar / -40 °C
Type of connection:	DIN
Size of inlet connection:	DN 65
Size of outlet connection:	DN 65
Pressure rating for pipe connection:	PN 40
Flange size for motor:	FF265
Connect code:	F
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-40 .. 120 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor standard:	IEC
Motor type:	132SC
IE Efficiency class:	IE3
Rated power - P2:	5.5 kW
Power (P2) required by pump:	5.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-415D V
Rated current:	11 A
Starting current:	1080-1180 %
Cos phi - power factor:	0.87-0.82
Rated speed:	2920-2940 rpm
Efficiency:	IE3 89,2%
Motor efficiency at full load:	89.2 %
Motor efficiency at 3/4 load:	90.0 %
Motor efficiency at 1/2 load:	89.6 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting



Description	Value
Insulation class (IEC 85):	F
Motor protec:	PTC
Motor No:	85U17417
<b>Controls:</b>	
Frequency converter:	NONE
<b>Others:</b>	
Minimum efficiency index, MEI :	0.7
Net weight:	99.2 kg
Gross weight:	122 kg
Shipping volume:	0.309 m <sup>3</sup>
Danish VVS No.:	385916030

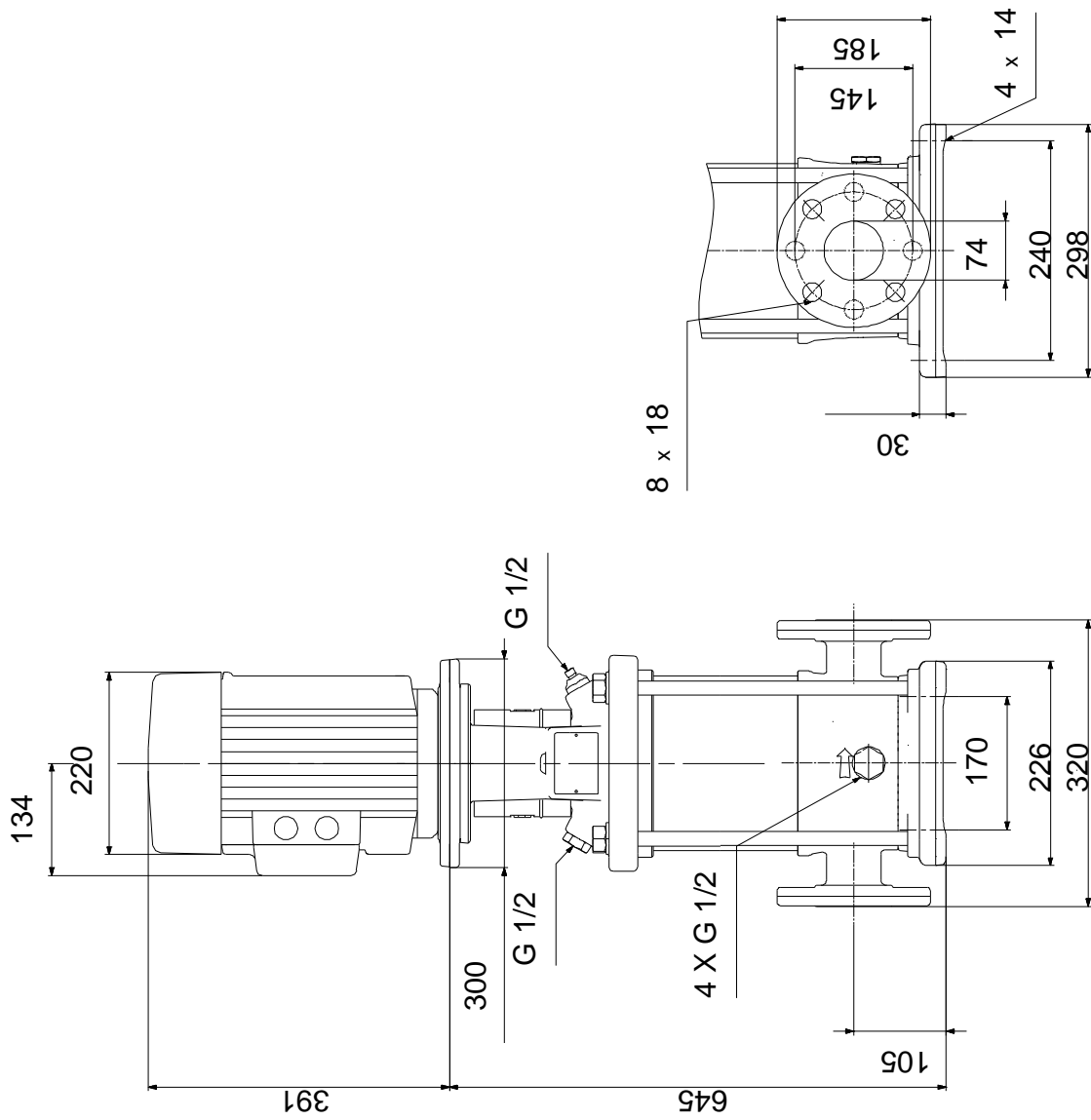
# On request CRN 32-3 A-F-A-E-HQQE 50 Hz

CRN32-3 + 132SC 5.5 kW 3\*400 V, 50 Hz



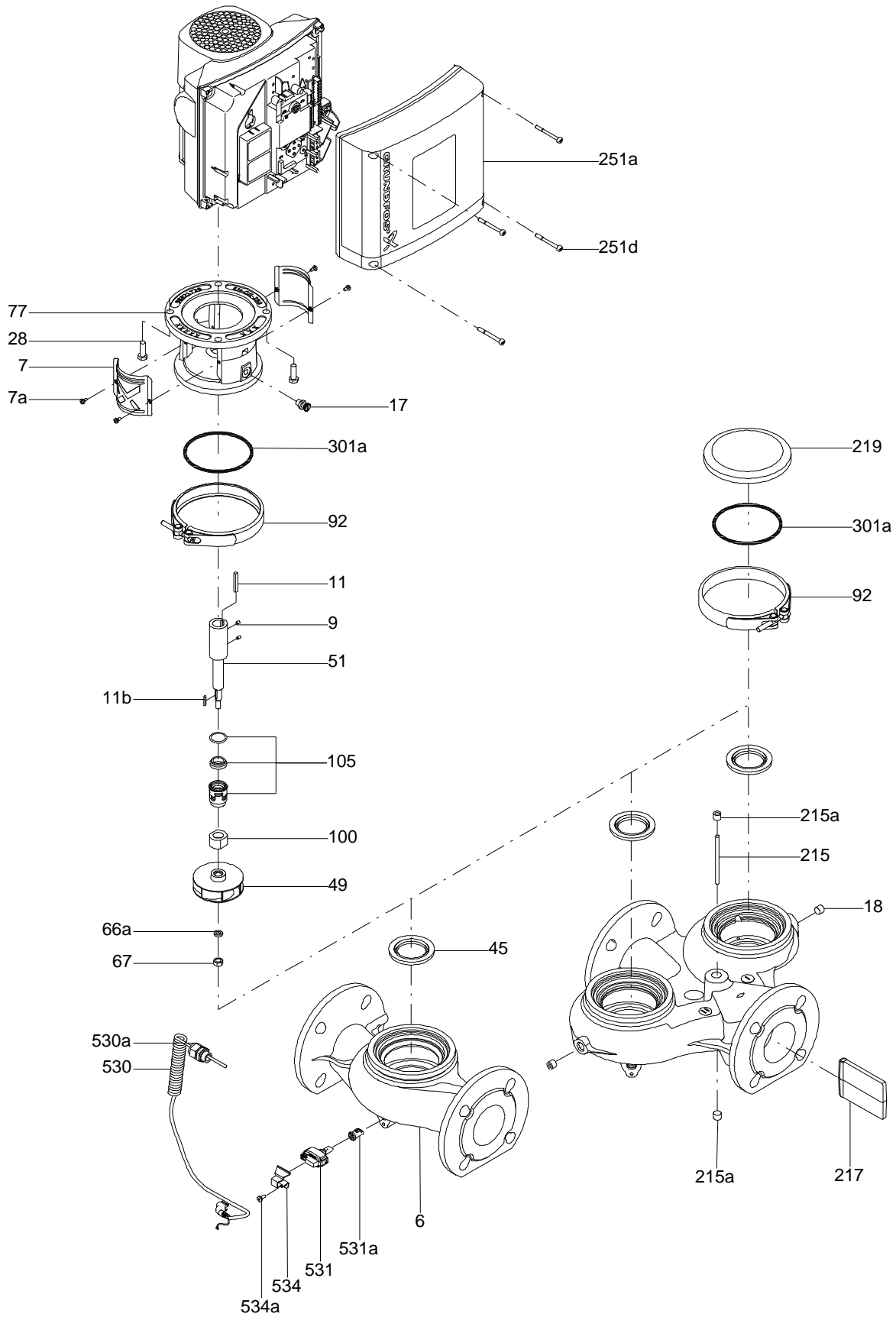


# On request CRN 32-3 A-F-A-E-HQQE 50 Hz



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

Exploded view

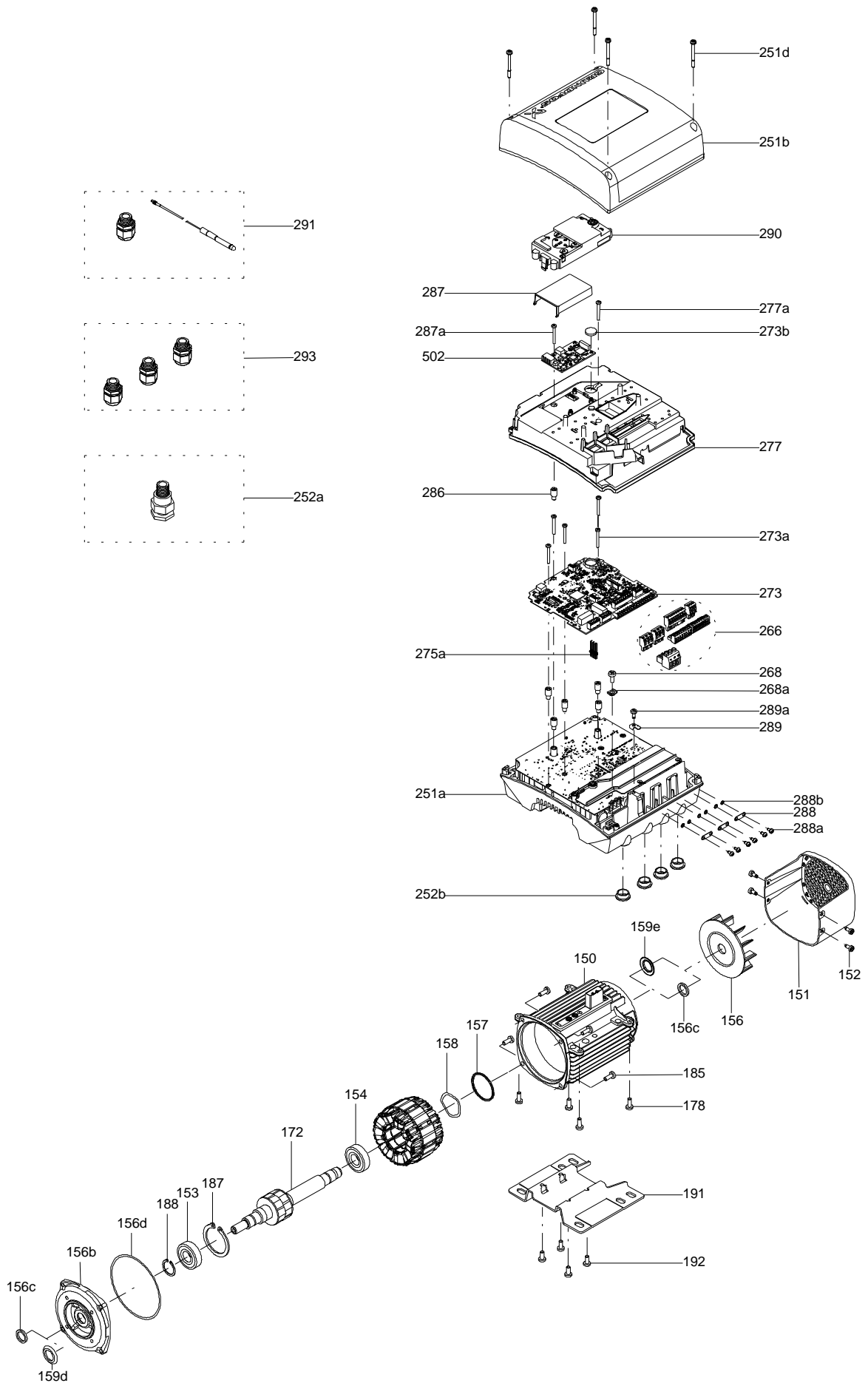


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view ( TM057026 for MGE model H/I )



**Parts list CRN 32-3, Product No. On request**  
**Valid from 7.2.2011 (1106)**

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+	Motor				1	pcs
- 1	Basic unit				1	pcs
- 2a	Pump head cpl.				1	
2	Pump head				1	
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M10			
- 18	Air vent screw				1	
	Plug					
	Spindle					
23	Plug				1	
37	O-ring				1	
58	Cover				1	
60	Spring				4	
100	O-ring		Diameter: 16,3		2	
			Material type: EPDM			
			Thickness: 2,4			
- 6b	Base cpl.		Rubber type: EPDM		1	
	Bearing ring, stationary				1	
6	Base				1	
25	Plug				4	
31	Hex socket head cap screw				1	
32	Washer		Designation: DIN 125A		1	
			Internal diameter: 6,4			
			Outer diameter: 12,0			
			Thickness: 1,6			
37	O-ring				1	
38	O-ring		Diameter: 16,3		4	
			Material type: EPDM			
			Thickness: 2,4			
56	Base plate				1	
26	Staybolt		Length (mm): 422		4	
			Thread: M16			
36	Nut		Thread: M16		4	
55	Outer sleeve		Outer diameter: 197		1	
			Length (mm): 235,5			
66a	Washer		Designation: DIN 125 A2		4	
			Internal diameter: 17			
			Outer diameter: 30			
			Thickness: 3			
- 1a	Motor stool cpl.				1	pcs
1a	Motor stool				1	
7	Coupling guard				2	
7a	Socket button head screw				4	
- 8	Coupling cpl.		Dimension: 22/38		1	
8	Coupling		Type: SPACER		1	
9	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 25			
			Thread: M10			
28	Hex socket head cap screw		Designation: DIN 912		4	
			Length (mm): 50			
			Thread: M10			
28a	Hex head screw		Length (mm): 45 MM		4	
			Thread: M12			
36a	Washer		Designation: DIN 125 A		8	
			Internal diameter: 13			
			Outer diameter: 24			
			Thickness: 2,5			
66a	Nut		Thread: M12		4	

Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
- 76	Nameplate set				1	pcs
76	Plate				1	
76a	Rivet				2	
- 105	Shaft seal		Material type: HQQE		1	pcs
	Adjusting fork				1	
109	O-ring				1	
110	O-ring		Diameter: 21,5		1	
			Material type: EPDM			
			Thickness: 4,25			
- 200	Flange cpl.				2	pcs
201	Flange		Diameter: DN 65		1	
			Pressure: PN 40			
203	Lock ring				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.*

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