CME1-2 A-R-A-E-AQQE U-A-D-N

Grundfos pump 98394755

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https://www.lenntech.com/grundfos/CMEBASIS/98394755/CME1-2-A-R-A-E-AQQE.html

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Position	Qty.	Description
	1	**CME1-2 A-R-A-E-AQQE**

Product No.: On request

Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial discharge port. The shaft, impellers and chambers are made of stainless steel. The inlet and discharge parts are made of cast iron. The mechanical shaft seal is a special designed, unbalanced O-ring seal. Pipework connection is via internal Whitworth pipe threads, Rp (ISO 7/1).

The pump is fitted with a 1-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 holds terminals for these connections:

- one dedicated digital input
- two 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 configurable digital input or open-collector output
- 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.

Further product details

Pump and motor are integrated in a compact and user-friendly design. The pump is fitted to a low base plate, making it ideal for installation in systems where compactness is important.

The state-of-the-art design and materials of the shaft seal ensure high wear resistance, improved sticking and dry-running capabilities and long operating life.

Servicing the pump requires no special service tools. Service parts are in stock for quick delivery and are available as kits, single parts or bulk. Service videos are available on www.youtube.com.

Frequency converter operation offers these functions:

- controlled operation, i.e. consumption fluctuates
- constant pressure
- communication with the pump.

Adaption of performance through frequency-controlled speed offers obvious benefits such as:

- energy savings
- increased comfort

Position	Qty.	Description

- control and monitoring of the application and pump performance.

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".

Pump

A combination of a stop ring and a Nord-lock® washer secures a tight and reliable fixation of the impeller spacing pipes to the splined pump shaft. It is possible to remove and fit the hydraulic parts from the pump side. The inlet part, chambers and discharge part are hold together by four staybolts.

The pump is fitted with an unbalanced O-ring seal with a rigid torque-transmission system. It has a fixed seal driver ensuring a reliable rotation of all parts. The dynamic secondary seal is an O-ring.

Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- 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 pump shaft is connected to the motor shaft through a left thread and tight fit. The shaft cannot be dismantled.

Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to EN 50347. Electrical tolerances comply with EN 60034.

The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.

The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.

The terminal box holds terminals for these connections:

- one dedicated digital input
- two 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 configurable digital input or open-collector output
- 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.

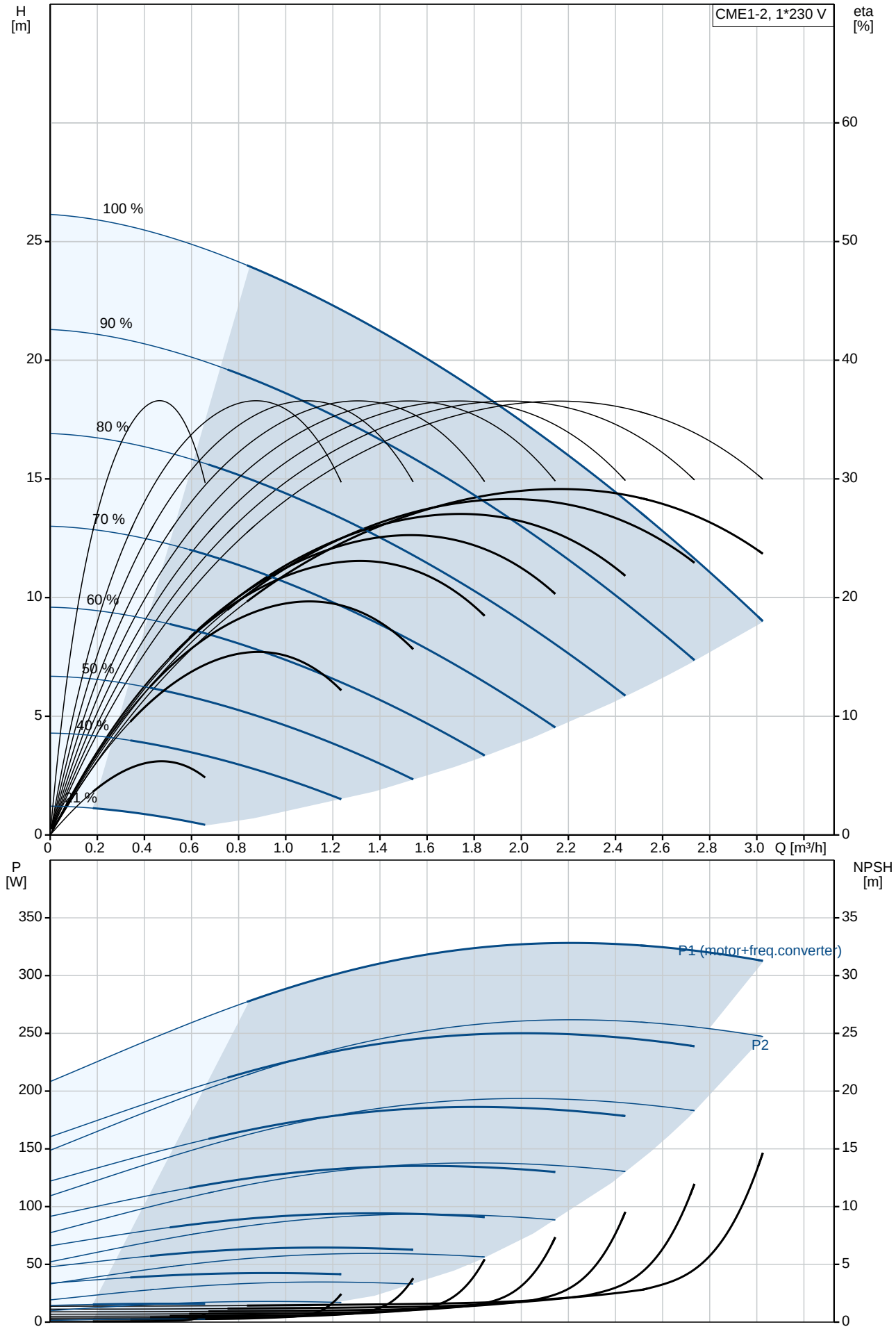
Technical data

Liquid:

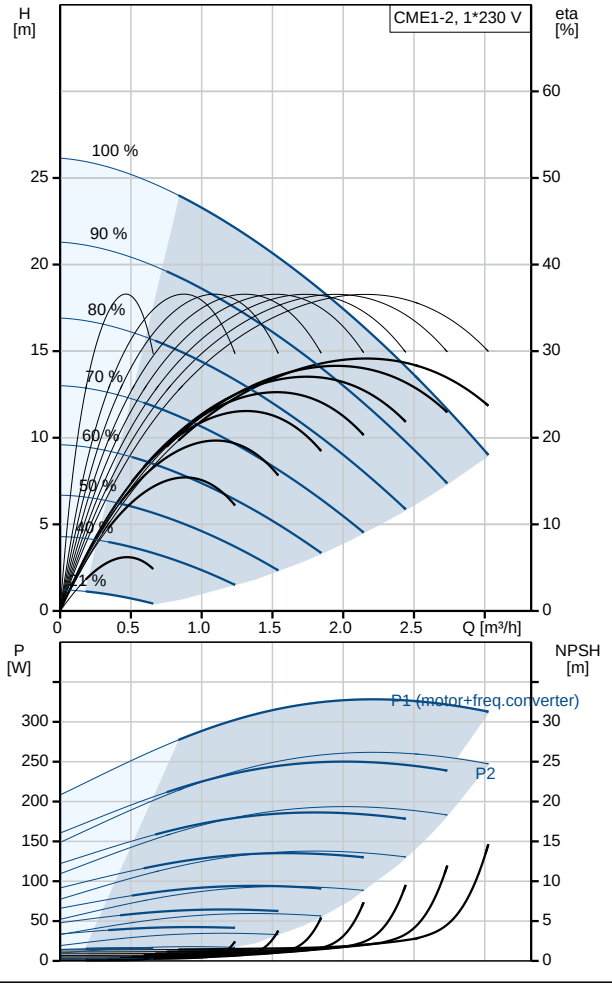
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Liquid temperature during operation:	20 °C

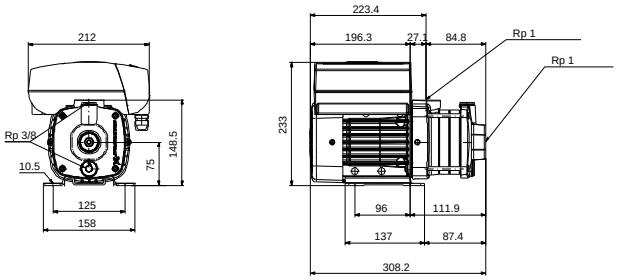
Position	Qty.	Description	
		Density:	998.2 kg/m³
		Technical:	
		Rated flow:	2 m³/h
		Rated head:	16.8 m
		Primary shaft seal:	AQQE
		Approvals on nameplate:	CE,TR,CURUS,EAC
		Curve tolerance:	ISO9906:2012 3B
		Materials:	
		Pump housing:	Cast iron EN-JL1030 ASTM 30 B
		Impeller:	Stainless steel DIN W.-Nr. 1.4301 AISI 304
		Rubber:	EPDM
		Installation:	
		Maximum ambient temperature:	40 °C
		Maximum operating pressure:	10 bar
		Max pressure at stated temp:	10 bar / 90 °C
		Flange standard:	WHITWORTH THREAD RP
		Pump inlet:	Rp 1
		Pump outlet:	Rp 1
		Electrical data:	
		Motor type:	71A
		IE Efficiency class:	IE5
		Rated power - P2:	0.55 kW
		Mains frequency:	50 Hz
		Rated voltage:	1 x 200-240 V
		Rated current:	3.45-2.90 A
		Rated speed:	360-4000 rpm
		Enclosure class (IEC 34-5):	IP55
		Insulation class (IEC 85):	F
		Others:	
		Minimum efficiency index, MEI ≥:	0.7
		Net weight:	12.8 kg
		Gross weight:	16.3 kg
		Danish VVS No.:	385220020

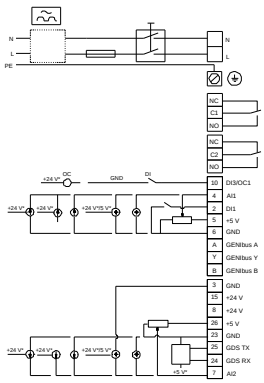
On request CME1-2 A-R-A-E-AQQE 50 Hz



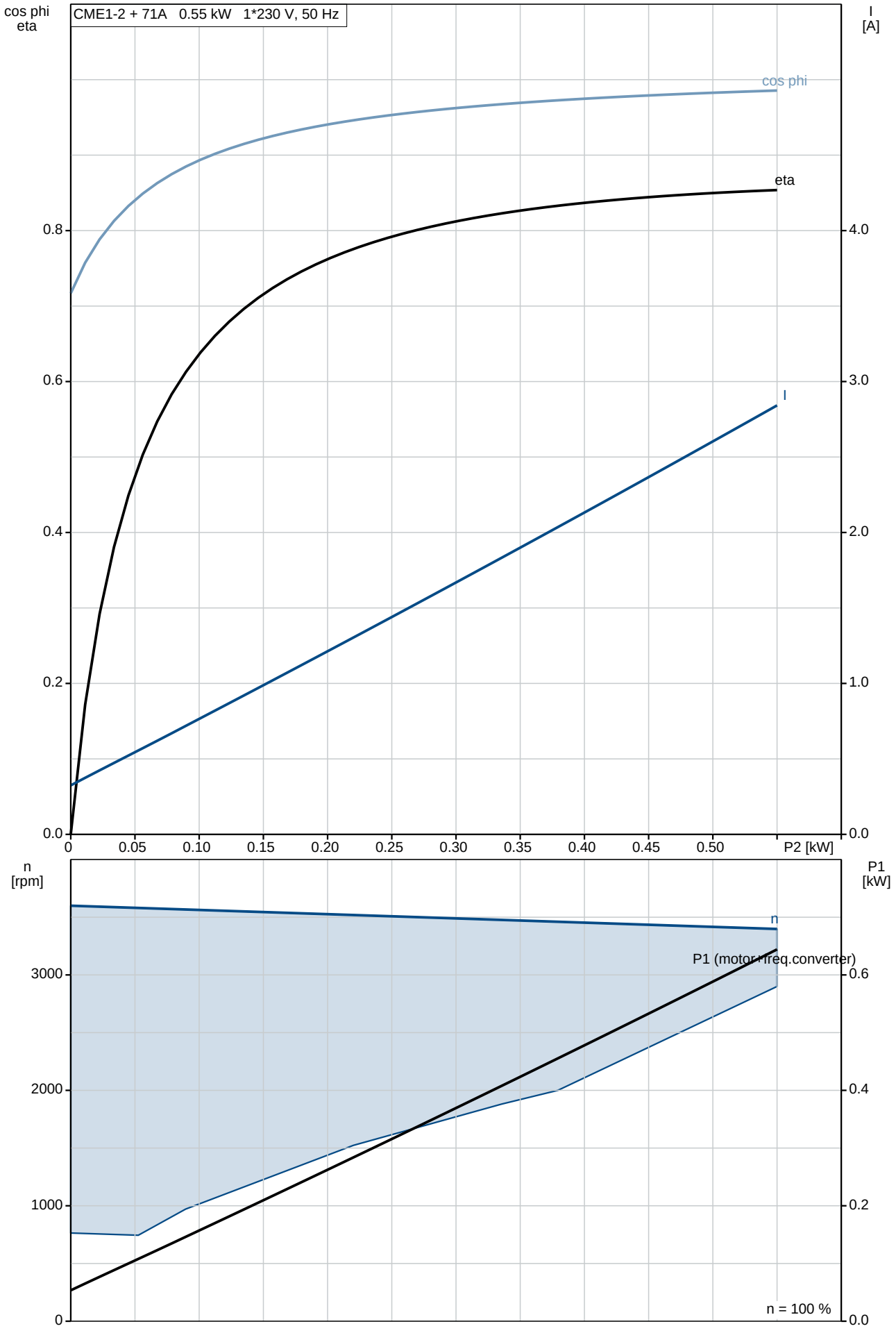
Description	Value
General information:	
Product name:	CME1-2 A-R-A-E-AQQE
Product No:	On request
EAN number:	On request
Technical:	
Rated flow:	2 m³/h
Rated head:	16.8 m
Impellers:	2
Primary shaft seal:	AQQE
Approvals on nameplate:	CE,TR,CURUS,EAC
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Cast iron
	EN-JL1030
	ASTM 30 B
Impeller:	Stainless steel
	DIN W.-Nr. 1.4301
	AISI 304
Material code:	A
Rubber:	EPDM
Code for rubber:	E
Installation:	
Maximum ambient temperature:	40 °C
Maximum operating pressure:	10 bar
Max pressure at stated temp:	10 bar / 90 °C
Flange standard:	WHITWORTH THREAD RP
Pump inlet:	Rp 1
Pump outlet:	Rp 1
Connect code:	R
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Liquid temperature during operation:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor type:	71A
IE Efficiency class:	IE5
Rated power - P2:	0.55 kW
Mains frequency:	50 Hz
Rated voltage:	1 x 200-240 V
Rated current:	3.45-2.90 A
Rated speed:	360-4000 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Others:	
Minimum efficiency index, MEI ≥:	0.7
Net weight:	12.8 kg
Gross weight:	16.3 kg
Config. file no:	98498325
Danish VVS No.:	385220020



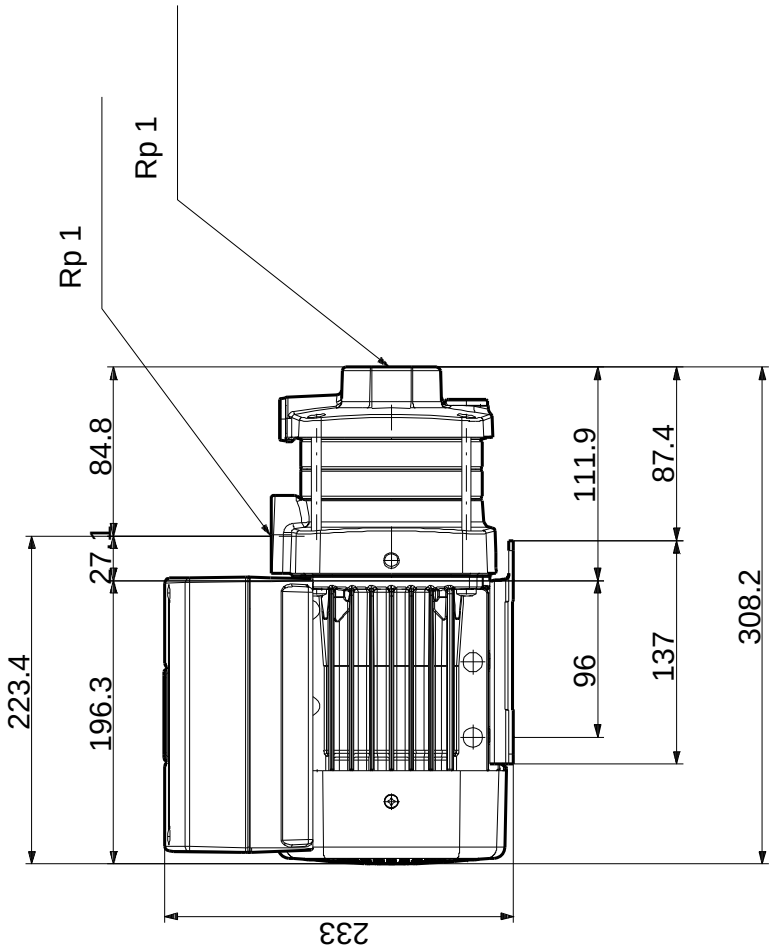


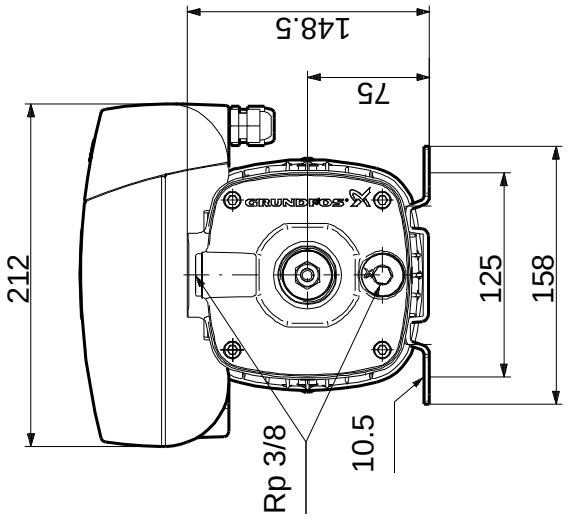


On request CME1-2 A-R-A-E-AQQE 50 Hz



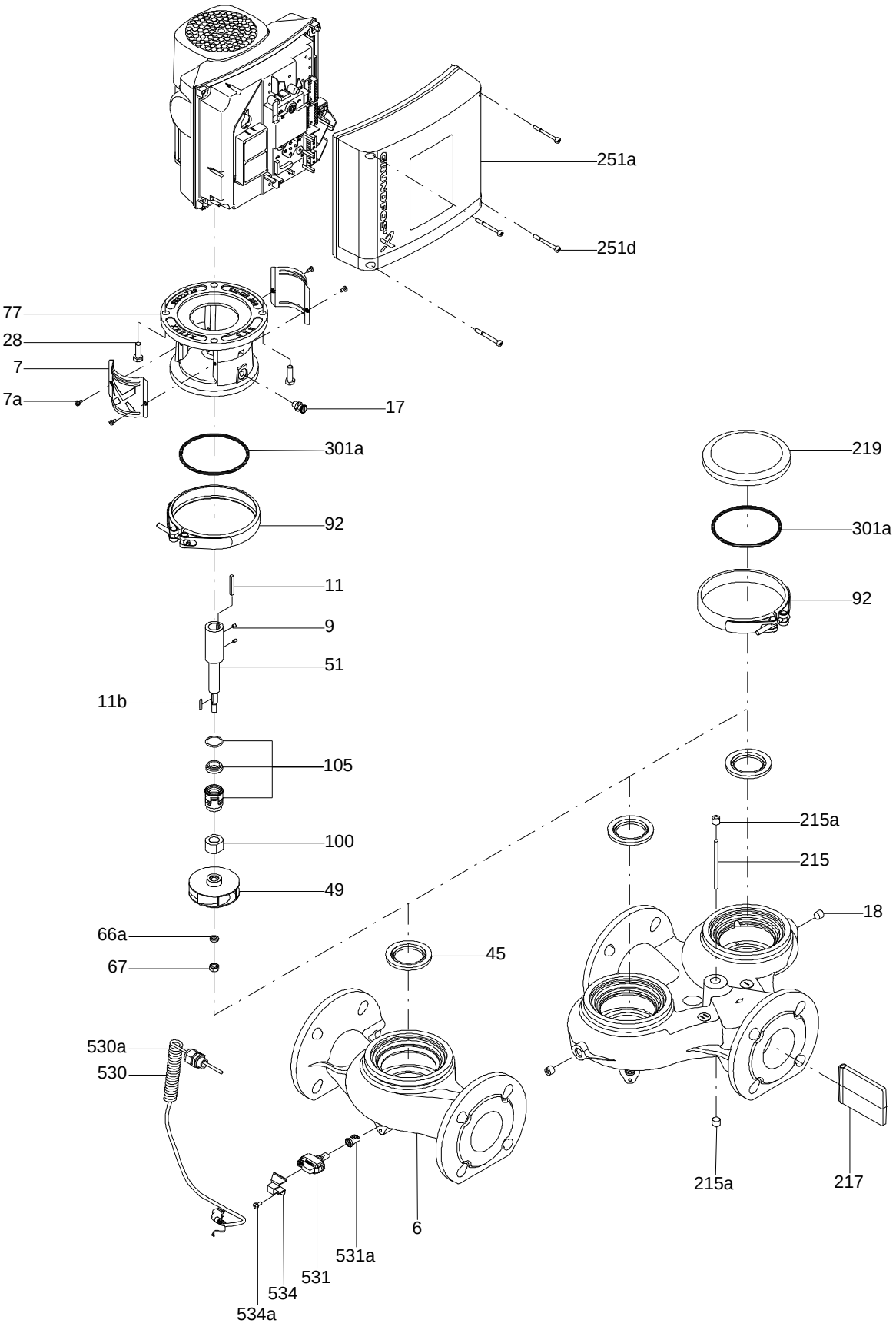
On request CME1-2 A-R-A-E-AQQE 50 Hz



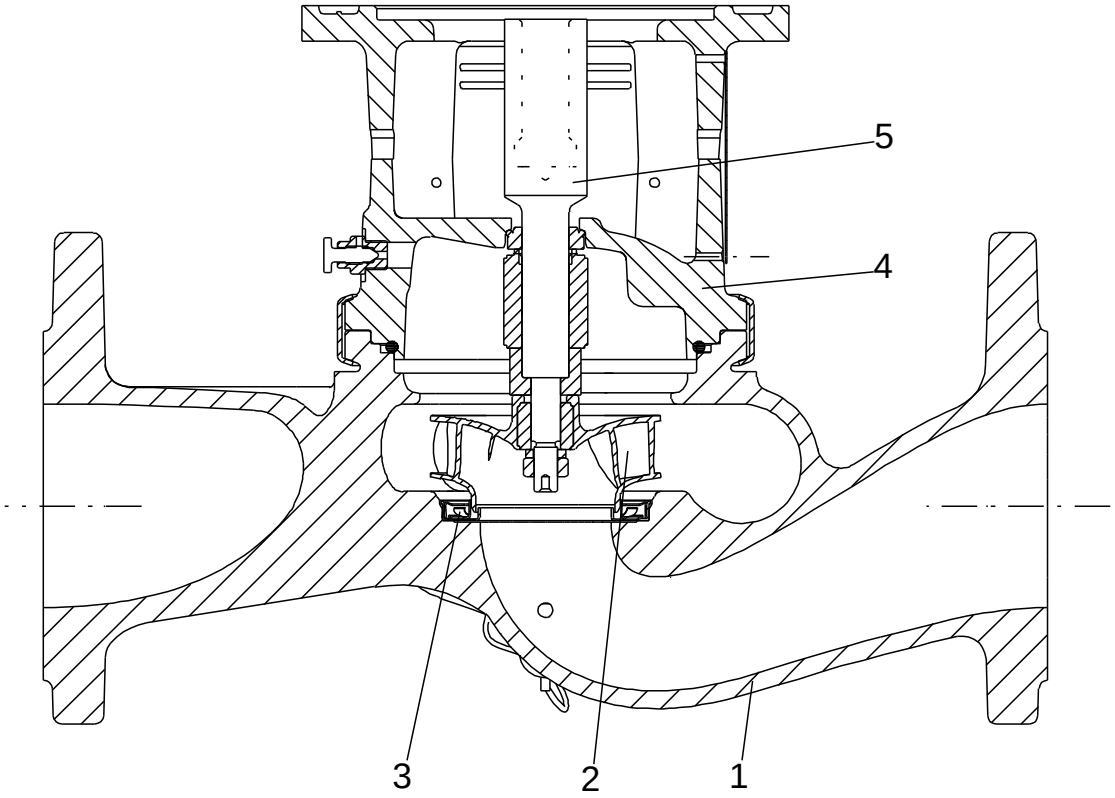


Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

Exploded view

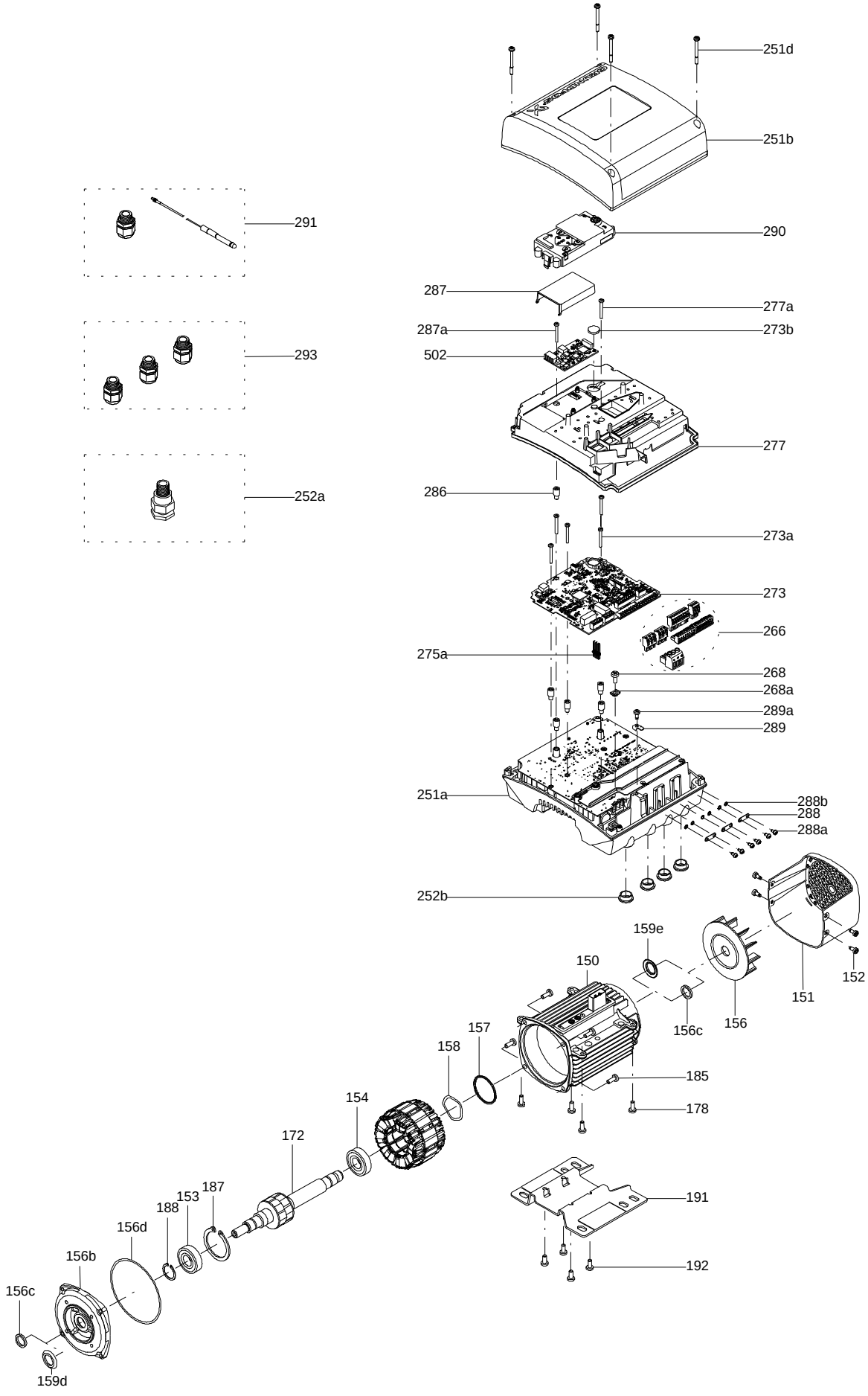


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

Exploded view (TM057026 for MGE model H/I)



Parts list CME1-2, Product No. On request
Valid from 2.1.2013 (1301)

	Pos	Description	Annotation	Données de classification	Référence	Quantité	Unité
+		MGE71A				1	pcs
		Cross recess countersunk screw				4	pcs
-	4.f	Chamber				1	pcs
		Guide vane				6	
		Plate				1	
		Plate				1	
		Retainer				1	
	45	Neck ring				1	
	65	Retainer				1	
-	4e	Chamber cpl.				1	pcs
		Retainer				1	
		Intermediate chamber				1	
		Vane				1	
	45	Neck ring				1	
	65	Retainer				1	
	6	Inlet part				1	pcs
-	25	Drain plug cpl.				2	pcs
	11	O-ring		Diameter: 18,5		1	
				Material type: EPDM			
				Thickness: 2			
	25	Plug				1	
	26	Hex socket head cap screw		Length (mm): 60		4	pcs
				Thread: M06			
	36	Lock nut		Thread: M8		1	pcs
	37	Gasket		Internal diameter: 103		3	pcs
				Outer diameter: 110			
				Thickness: 0,25			
	49	Impeller cpl.				2	pcs
	51	Pump shaft		Diameter: D12		1	pcs
	64	Spacing pipe				1	pcs
	64.c	Clamp				1	pcs
	66	Wedge lock washer				1	pcs
	76	Nameplate				2	pcs
-	105	Shaft seal				1	pcs
	102	O-ring		Diameter: 17,86		1	
				Material type: EPDM			
				Thickness: 2,62			
	103	Seal ring, stationary				1	
	104	Seal ring, rotating				1	
	107	O-ring				1	
	108	Compression spring				1	
	111	Retainer				1	
	112	Driver for shaft seal				1	
	111.a	Stop ring				1	pcs
	151	Fan cover				1	pcs
	152	Pan head thread forming screw				4	pcs
	156	Fan				1	pcs

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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