

Qty. Description

1 CME 10-5 A-R-G-E-AQQE S-A-D-N



Product No.: [99176105](#)

Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial discharge port. Pump materials in contact with the liquid are in high-grade stainless steel. 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 3-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

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- increased comfort
- 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)
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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 and outlet port are integrated in the pump sleeve. The inlet part, chambers and discharge part are hold together by four staybolts and a retaining flange.

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.

Seal faces:

- 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.

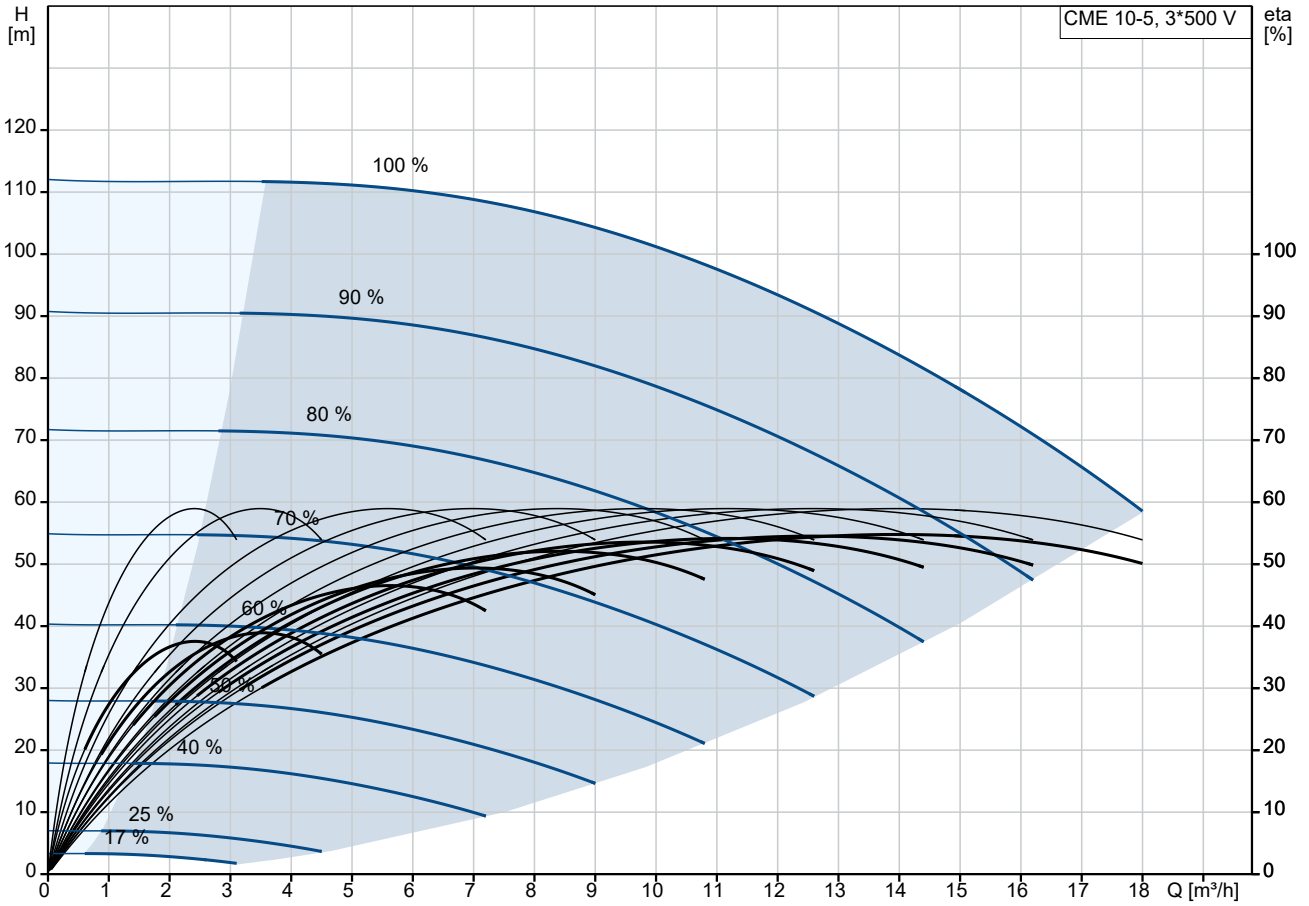
Technical data

Controls:

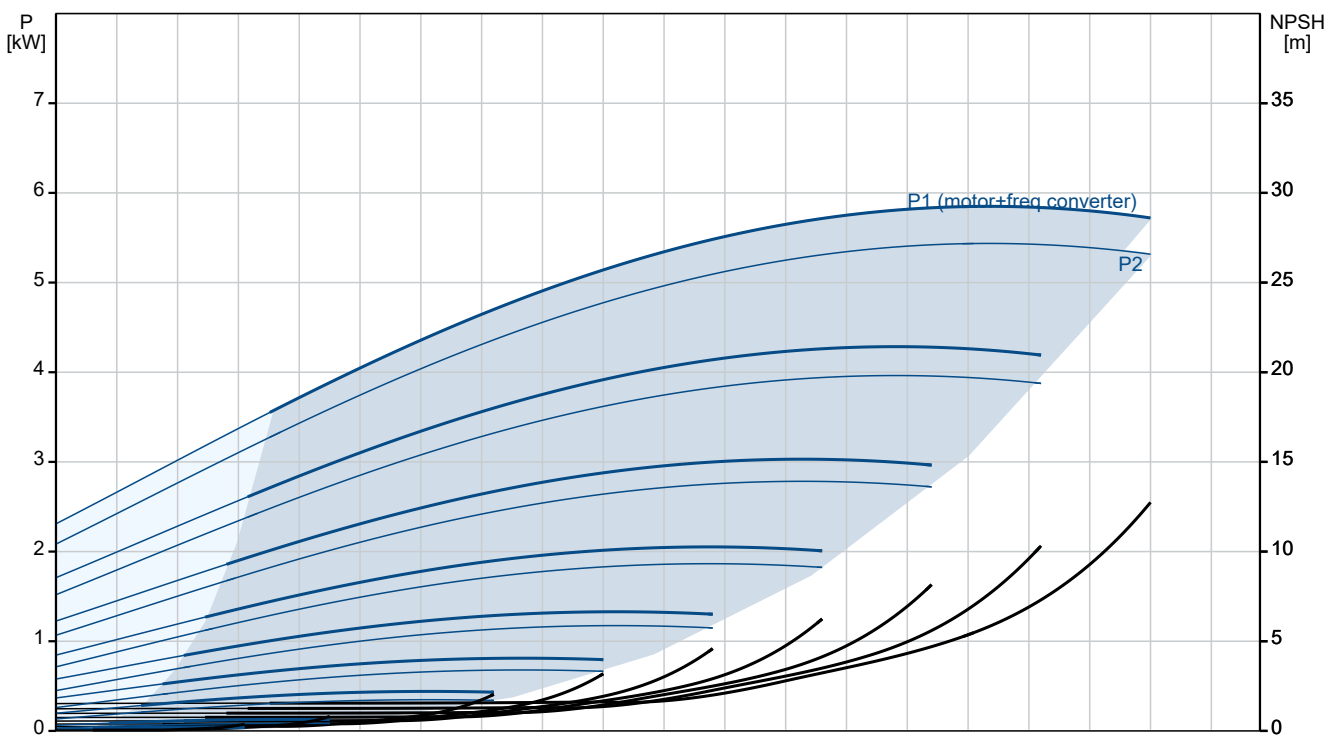
Frequency converter: Built-in

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1	<p>Liquid:</p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -20 .. 90 °C</p> <p>Selected liquid temperature: 20 °C</p> <p>Density: 998.2 kg/m³</p> <p>Technical:</p> <p>Pump speed on which pump data are based: 3480 rpm</p> <p>Rated flow: 12 m³/h</p> <p>Rated head: 93.42 m</p> <p>Code for shaft seal: AQQE</p> <p>Approvals: CE,EAC,CURUS,UKCA</p> <p>Approvals for drinking water: WRAS,ACS,UBA</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p>Materials:</p> <p>Pump housing: Stainless steel EN 1.4401 AISI 316</p> <p>Impeller: Stainless steel EN 1.4401 AISI 316</p> <p>Installation:</p> <p>Range of ambient temperature: -20 .. 55 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Max pressure at stated temp: 16 bar / 90 °C 16 bar / 90 °C</p> <p>Type of connection: Rp</p> <p>Size of inlet connection: 1 1/2 inch</p> <p>Size of outlet connection: 1 1/2 inch</p> <p>Outlet position: 12</p> <p>Electrical data:</p> <p>Motor standard: IEC</p> <p>Frame size: 112E</p> <p>Rated power - P2: 5.5 kW</p> <p>Mains frequency: 50 / 60 Hz</p> <p>Suitable for 50/60 Hz: Y</p> <p>Rated voltage: 3 x 380-500 V</p> <p>Rated current: 10.3-8.20 A</p> <p>Rated speed: 360-4000 rpm</p> <p>Enclosure class (IEC 34-5): IP55</p> <p>Insulation class (IEC 85): F</p> <p>Others:</p> <p>Terminal box position: 12</p> <p>Minimum efficiency index, MEI ≥: 0.52</p> <p>Net weight: 47.3 kg</p> <p>Gross weight: 50.8 kg</p> <p>Danish VVS No.: 385234150</p>

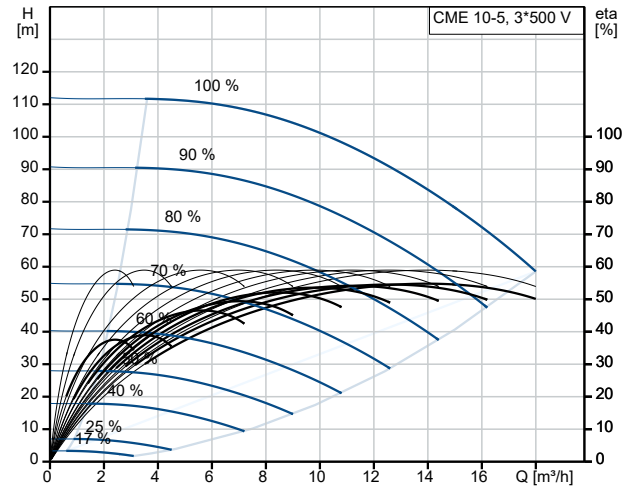
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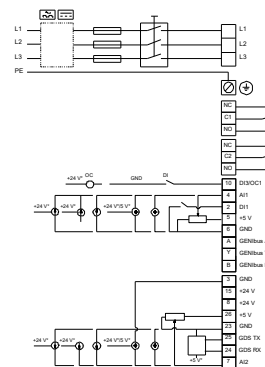
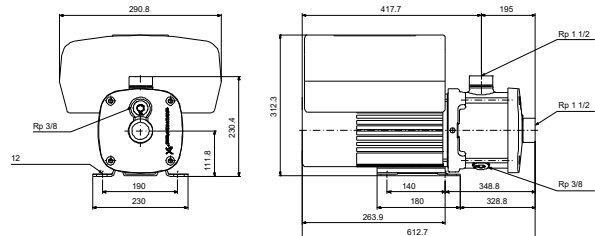
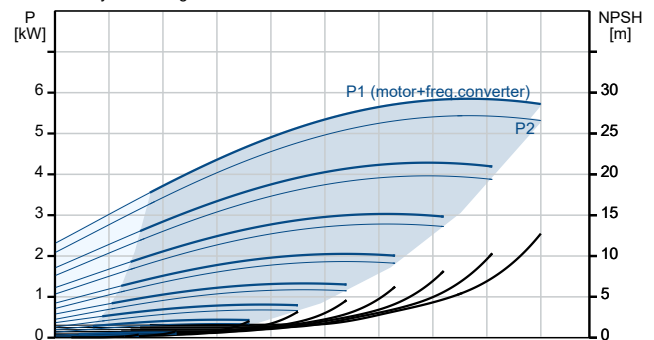
Pumped liquid = Water
Liquid temperature during operation = 20 °C
Density = 998.2 kg/m³



Description	Value
General information:	
Product name:	CME 10-5 A-R-G-E-AQQE S-A-D-N
Product No:	99176105
EAN number:	5712608131387
Technical:	
Pump speed on which pump data are based:	3480 rpm
Rated flow:	12 m ³ /h
Rated head:	93.42 m
Impellers:	5
Code for shaft seal:	AQQE
Approvals:	CE,EAC,CURUS,UKCA
Approvals for drinking water:	WRAS,ACS,UBA
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Pump housing:	Stainless steel
Pump housing:	EN 1.4401
Pump housing:	AISI 316
Impeller:	Stainless steel
Impeller:	EN 1.4401
Impeller:	AISI 316
Material code:	G
Code for rubber:	E
Installation:	
Range of ambient temperature:	-20 .. 55 °C
Maximum operating pressure:	16 bar
Max pressure at stated temp:	16 bar / 90 °C
Max pressure at stated temp:	16 bar / 90 °C
Type of connection:	Rp
Size of inlet connection:	1 1/2 inch
Size of outlet connection:	1 1/2 inch
Outlet position:	12
Connect code:	R
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m ³
Electrical data:	
Motor standard:	IEC
Frame size:	112E
Rated power - P2:	5.5 kW
Mains frequency:	50 / 60 Hz
Suitable for 50/60 Hz:	Y
Rated voltage:	3 x 380-500 V
Rated current:	10.3-8.20 A
Rated speed:	360-4000 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Controls:	
Frequency converter:	Built-in
Others:	
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.52
Net weight:	47.3 kg
Gross weight:	50.8 kg



Pumped liquid = Water
 Liquid temperature during operation = 20 °C
 Density = 998.2 kg/m³





Company name:

Created by:

Phone:

Date:

29/12/2022

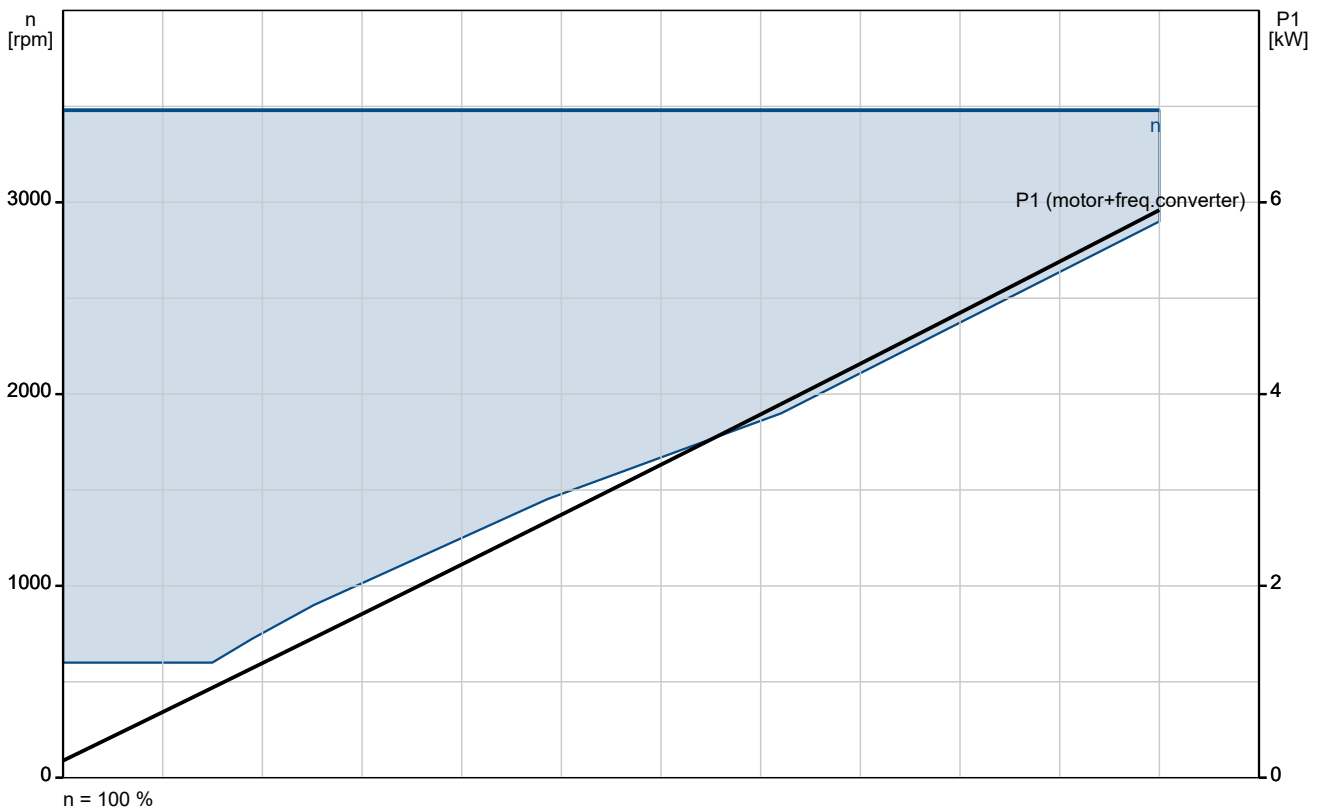
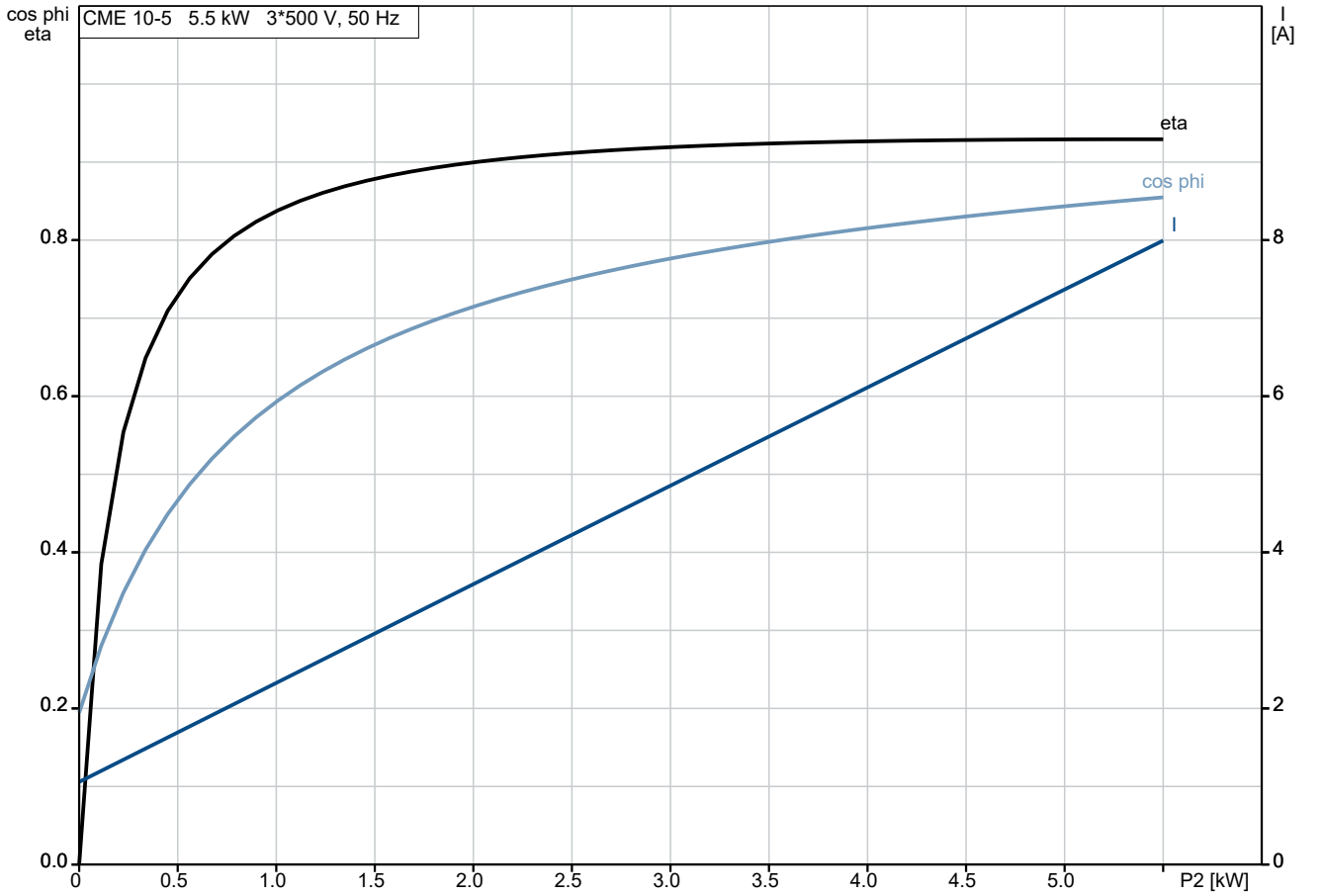
Description

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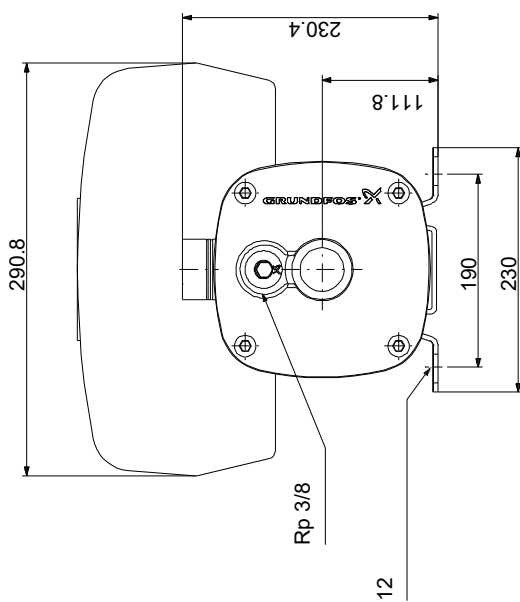
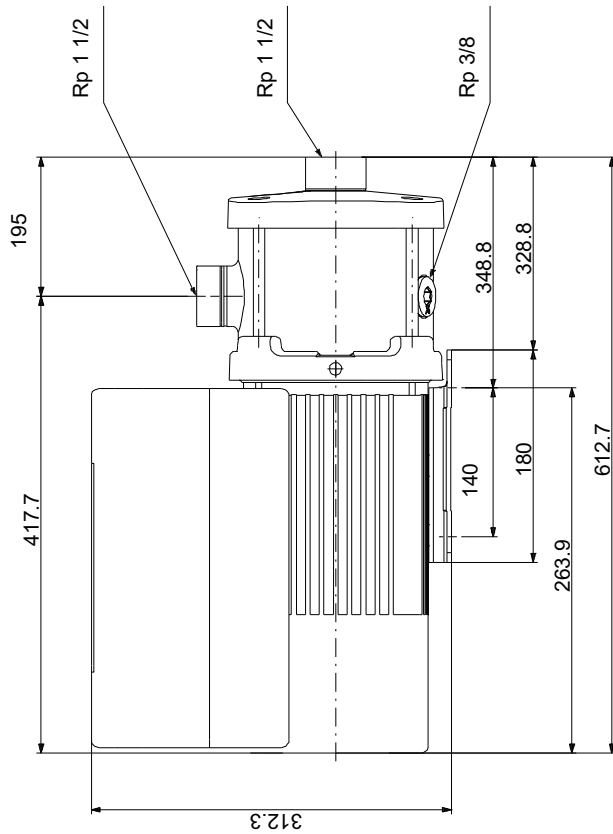
Danish VVS No.:

385234150

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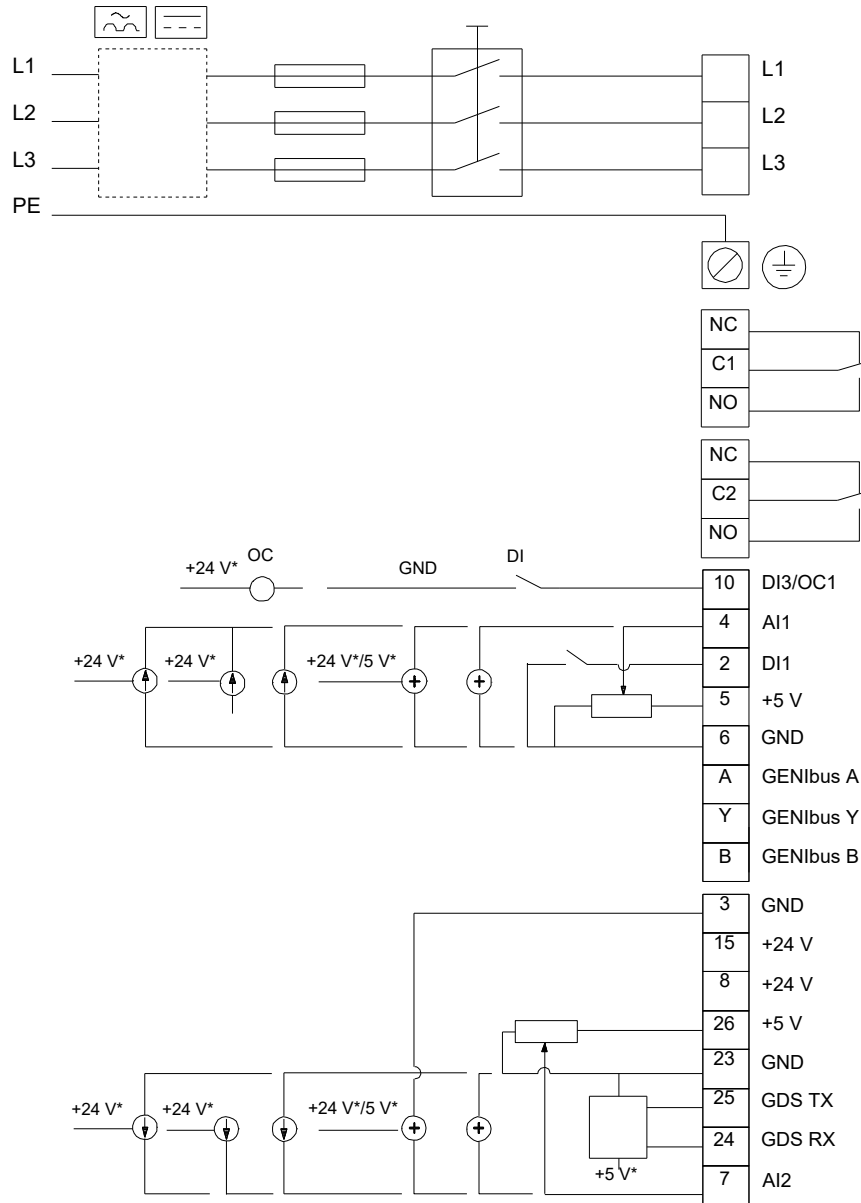


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Note! All units are in [mm] unless others are stated.
Disclaimer: This simplified dimensional drawing does not show all details.

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