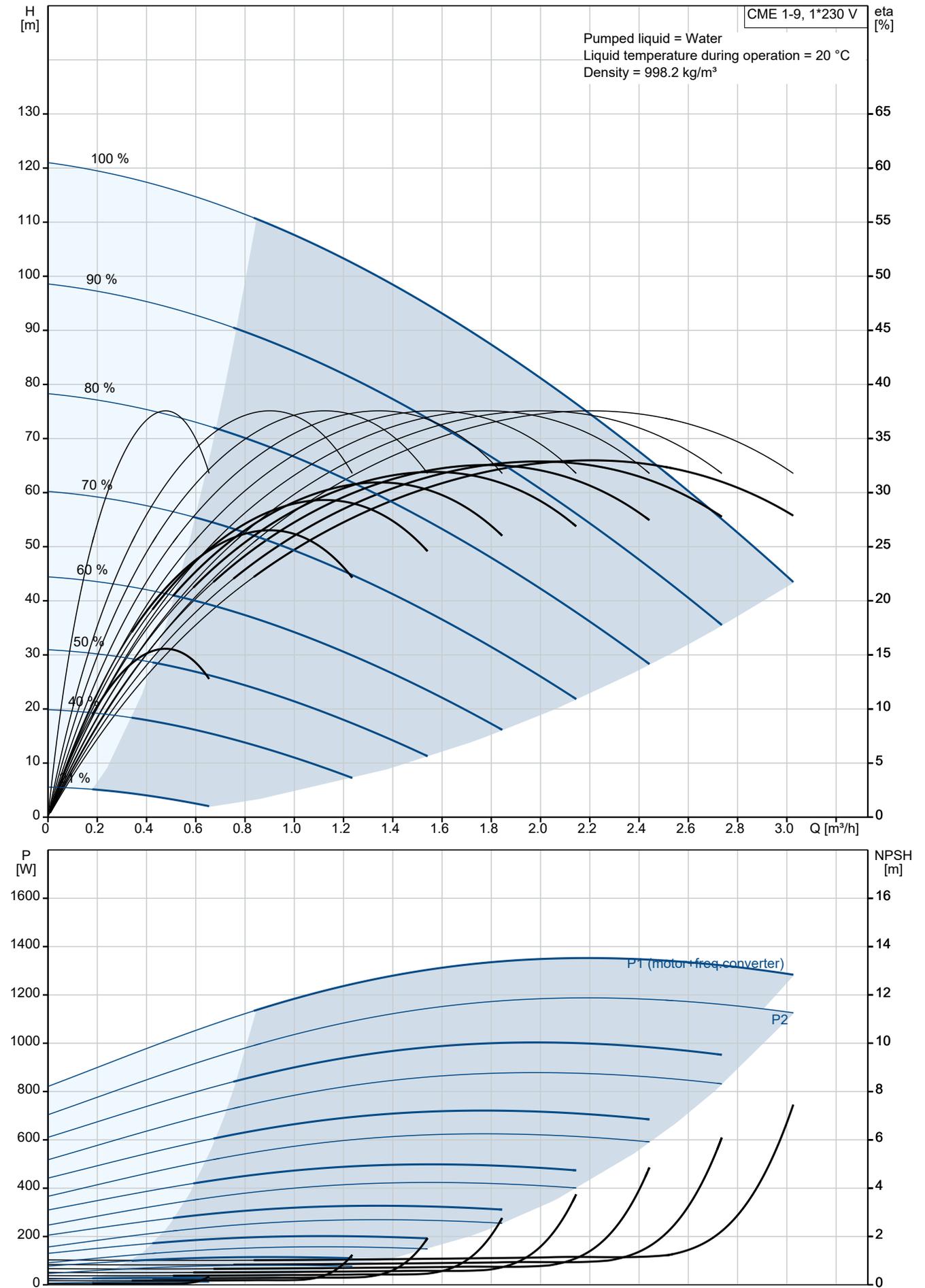


Qty.	Description
1	<p data-bbox="201 161 579 188"><b>CME 1-9 A-R-G-E-AQQE U-A-D-N</b></p>  <p data-bbox="201 481 464 508">Product No.: <a href="#">98395299</a></p> <p data-bbox="201 542 1457 616">Compact, reliable, horizontal, multistage, end-suction centrifugal pump with axial suction port and radial 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).</p> <p data-bbox="201 683 1126 710">The pump is fitted with a 1-phase, fan-cooled, permanent-magnet, synchronous motor.</p> <p data-bbox="201 712 1015 739">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="201 741 1394 792">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.</p> <p data-bbox="201 831 1449 904">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:</p> <ul data-bbox="240 916 1457 1059" style="list-style-type: none"> <li>• "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)</li> <li>• "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)</li> <li>• "Alarm": Motor has stopped (flashing red indicator lights).</li> </ul> <p data-bbox="201 1064 1422 1137">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".</p> <p data-bbox="201 1149 794 1176">The terminal box holds terminals for these connections:</p> <ul data-bbox="240 1178 882 1440" style="list-style-type: none"> <li>- one dedicated digital input</li> <li>- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V</li> <li>- 5 V voltage supply to potentiometer and sensor</li> <li>- one configurable digital input or open-collector output</li> <li>- Grundfos Digital Sensor input and output</li> <li>- 24 V voltage supply for sensors</li> <li>- two signal-relay outputs (potential-free contacts)</li> <li>- GENIbus connection</li> <li>- interface for Grundfos CIM fieldbus module.</li> </ul> <p data-bbox="201 1473 512 1500"><b>Further product details</b></p> <p data-bbox="201 1509 1449 1561">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.</p> <p data-bbox="201 1568 1372 1619">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.</p> <p data-bbox="201 1626 1457 1677">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 <a href="http://www.youtube.com">www.youtube.com</a>.</p> <p data-bbox="201 1713 775 1740">Frequency converter operation offers these functions:</p> <ul data-bbox="240 1742 799 1830" style="list-style-type: none"> <li>- controlled operation, i.e. consumption fluctuates</li> <li>- constant pressure</li> <li>- communication with the pump.</li> </ul> <p data-bbox="201 1861 1198 1888">Adaption of performance through frequency-controlled speed offers obvious benefits such as:</p> <ul data-bbox="240 1890 970 1977" style="list-style-type: none"> <li>- energy savings</li> <li>- increased comfort</li> <li>- control and monitoring of the application and pump performance.</li> </ul> <p data-bbox="201 1982 1449 2056">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:</p> <ul data-bbox="240 2067 256 2094" style="list-style-type: none"> <li>•</li> </ul>

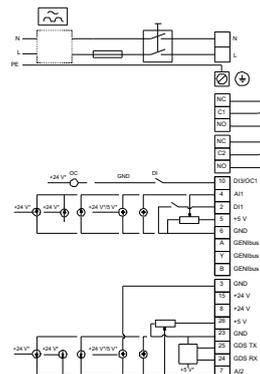
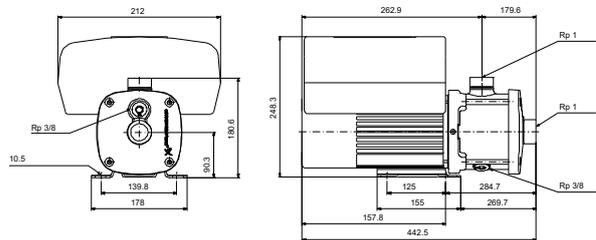
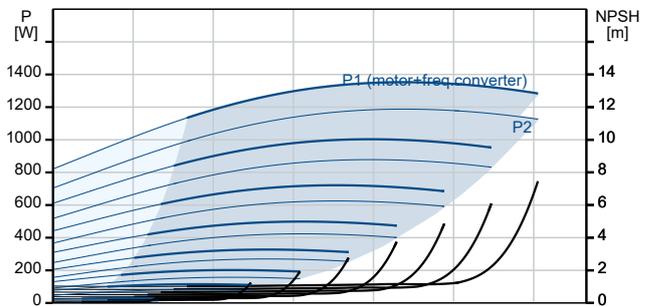
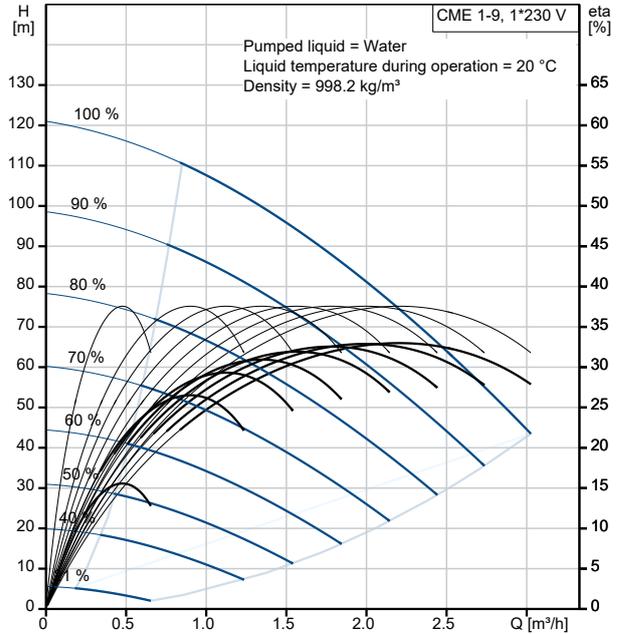
Qty.	Description
1	<p data-bbox="277 159 1461 188">"Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights)</p> <ul data-bbox="240 219 1441 304" style="list-style-type: none"> <li data-bbox="240 219 1441 271">• "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights)</li> <li data-bbox="240 277 887 304">• "Alarm": Motor has stopped (flashing red indicator lights).</li> </ul> <p data-bbox="201 311 1423 383">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".</p> <p data-bbox="201 394 284 423"><b>Pump</b></p> <p data-bbox="201 430 1441 526">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.</p> <p data-bbox="201 539 1430 593">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.</p> <p data-bbox="201 600 323 627">Seal faces:</p> <ul data-bbox="240 629 788 685" style="list-style-type: none"> <li data-bbox="240 629 788 656">• Rotating seal ring material: silicon carbide (SiC)</li> <li data-bbox="240 658 762 685">• Stationary seat material: silicon carbide (SiC)</li> </ul> <p data-bbox="201 687 1449 741">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="201 745 850 772">Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p data-bbox="201 775 1075 801">EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p>  <p data-bbox="201 1021 1414 1048">The pump shaft is connected to the motor shaft through a left thread and tight fit. The shaft cannot be dismantled.</p> <p data-bbox="201 1081 284 1111"><b>Motor</b></p> <p data-bbox="201 1117 1453 1171">The motor is a totally enclosed, fan-cooled motor with principal dimensions to EN 50347. Electrical tolerances comply with EN 60034.</p> <p data-bbox="201 1205 1015 1232">The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2.</p> <p data-bbox="201 1234 1409 1288">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.</p> <p data-bbox="201 1292 798 1319">The terminal box holds terminals for these connections:</p> <ul data-bbox="240 1323 882 1585" style="list-style-type: none"> <li data-bbox="240 1323 560 1350">- one dedicated digital input</li> <li data-bbox="240 1352 882 1379">- two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V</li> <li data-bbox="240 1382 783 1408">- 5 V voltage supply to potentiometer and sensor</li> <li data-bbox="240 1411 847 1438">- one configurable digital input or open-collector output</li> <li data-bbox="240 1440 719 1467">- Grundfos Digital Sensor input and output</li> <li data-bbox="240 1469 616 1496">- 24 V voltage supply for sensors</li> <li data-bbox="240 1498 794 1525">- two signal-relay outputs (potential-free contacts)</li> <li data-bbox="240 1527 501 1554">- GENIbus connection</li> <li data-bbox="240 1556 746 1583">- interface for Grundfos CIM fieldbus module.</li> </ul> <p data-bbox="201 1590 400 1619"><b>Technical data</b></p> <p data-bbox="201 1682 300 1709">Controls:</p> <p data-bbox="201 1713 639 1740">Frequency converter: Built-in</p> <p data-bbox="201 1774 276 1800">Liquid:</p> <p data-bbox="201 1805 632 1832">Pumped liquid: Water</p> <p data-bbox="201 1834 691 1861">Liquid temperature range: -20 .. 90 °C</p> <p data-bbox="201 1863 628 1890">Selected liquid temperature: 20 °C</p> <p data-bbox="201 1892 695 1919">Density: 998.2 kg/m<sup>3</sup></p> <p data-bbox="201 1953 312 1980">Technical:</p> <p data-bbox="201 1984 818 2011">Pump speed on which pump data are based: 3480 rpm</p> <p data-bbox="201 2013 671 2040">Rated flow: 2.04 m<sup>3</sup>/h</p> <p data-bbox="201 2042 655 2069">Rated head: 81.65 m</p> <p data-bbox="201 2072 636 2098">Code for shaft seal: AQQE</p>

Qty.	Description
1	<p>Approvals and markings: CE,EAC,CURUS,UKCA  Approvals for drinking water: WRAS,ACS,UBA  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  Maximum operating pressure: 16 bar  Max pressure at stated temp: 16 bar / 90 °C  16 bar / 90 °C</p> <p>Type of connection: Rp  Size of inlet connection: 1 inch  Size of outlet connection: 1 inch  Outlet position: 12</p> <p>Electrical data:</p> <p>Motor standard: IEC  Frame size: 90C  Rated power - P2: 1.5 kW  Mains frequency: 50 / 60 Hz  Suitable for 50/60 Hz: Y  Rated voltage: 1 x 200-240 V  Rated current: 9.10-7.60 A  Rated speed: 360-4000 rpm  Enclosure class (IEC 34-5): IP55  Insulation class (IEC 85): F</p> <p>Others:</p> <p>Terminal box position: 12  Minimum efficiency index, MEI ≥: 0.68  Net weight: 18.6 kg  Gross weight: 22.1 kg  Country of origin: HU  Custom tariff no.: 84137075</p>

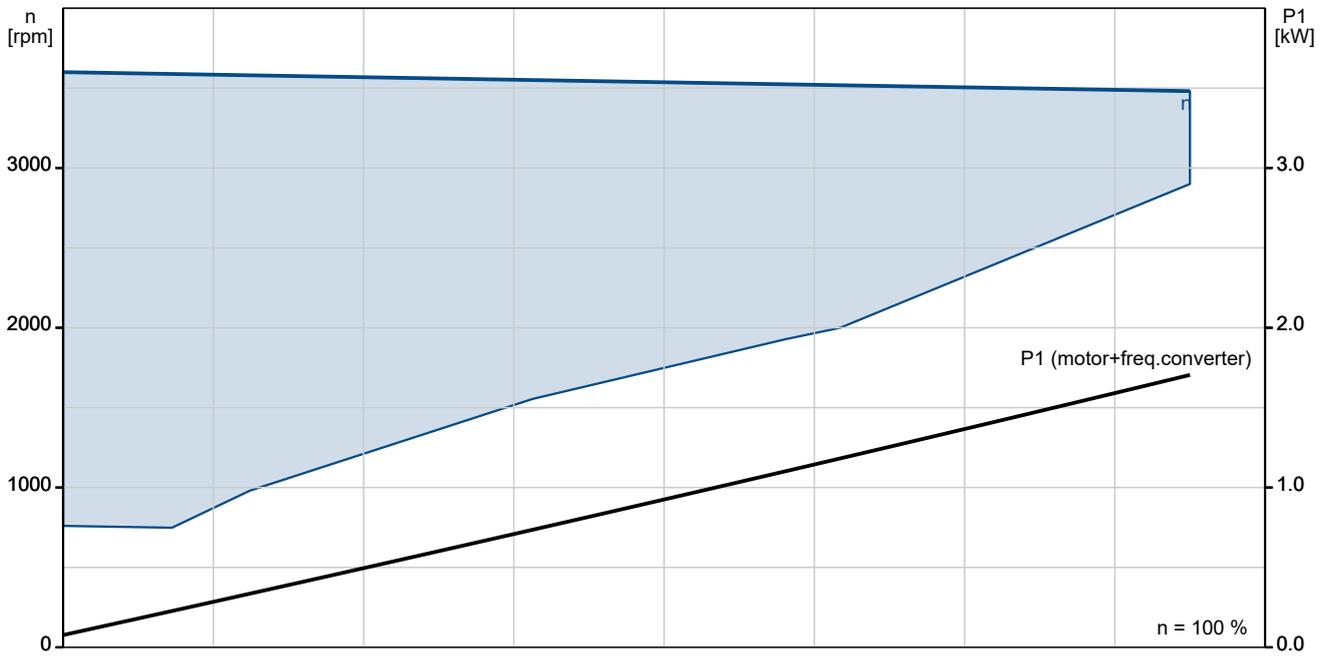
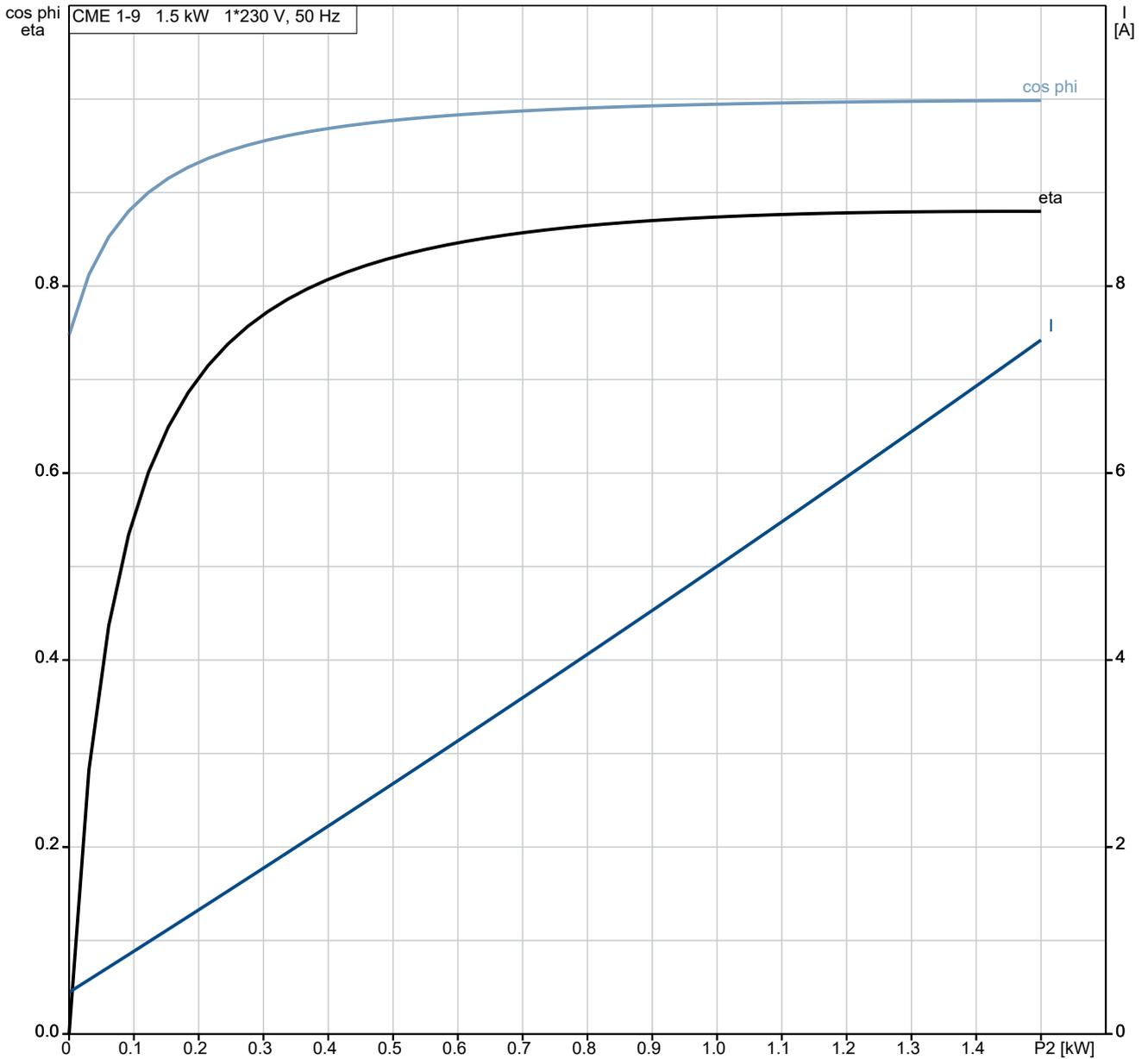
# 98395299 CME 1-9 A-R-G-E-AQQE U-A-D-N



Description	Value
<b>General information:</b>	
Product name:	CME 1-9 A-R-G-E-AQQE U-A-D-N
Product No:	98395299
EAN number:	5711494287864
<b>Technical:</b>	
Pump speed on which pump data are based:	3480 rpm
Rated flow:	2.04 m <sup>3</sup> /h
Rated head:	81.65 m
Impellers:	9
Code for shaft seal:	AQQE
Approvals and markings:	CE,EAC,CURUS,UKCA
Approvals for drinking water:	WRAS,ACS,UBA
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
The first model is called A which is followed by model B, C etc.:	A
<b>Materials:</b>	
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
<b>Installation:</b>	
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 inch
Size of outlet connection:	1 inch
Outlet position:	12
Connect code:	R
<b>Liquid:</b>	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 90 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m <sup>3</sup>
<b>Electrical data:</b>	
Motor standard:	IEC
Frame size:	90C
Rated power - P2:	1.5 kW
Mains frequency:	50 / 60 Hz
Suitable for 50/60 Hz:	Y
Rated voltage:	1 x 200-240 V
Rated current:	9.10-7.60 A
Rated speed:	360-4000 rpm
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
<b>Controls:</b>	
Frequency converter:	Built-in
<b>Others:</b>	
Terminal box position:	12
Minimum efficiency index, MEI ≥:	0.68
Net weight:	18.6 kg
Gross weight:	22.1 kg
Country of origin:	HU
Custom tariff no.:	84137075

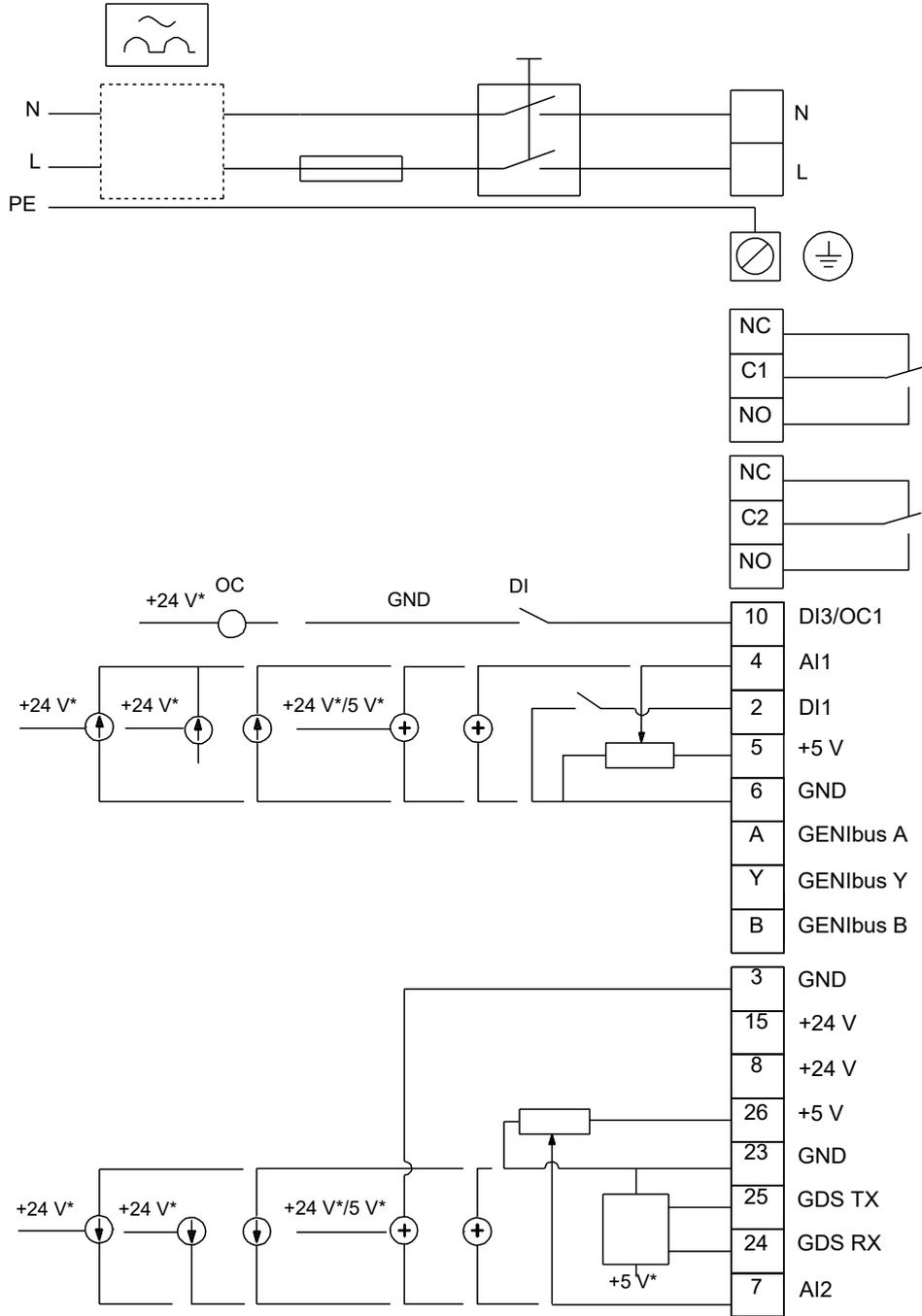


# 98395299 CME 1-9 A-R-G-E-AQQE U-A-D-N





# 98395299 CME 1-9 A-R-G-E-AQQE U-A-D-N



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

