

## SEV.80.100.110.A.Ex.2.51D

Grundfos pump 96780752



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<https://www.lenntech.com/grundfos/SEV00/96780752/SEV-80-100-110-A-EX-2-51D.html>

[info@lenntech.com](mailto:info@lenntech.com)

tel. +31 152 610 900

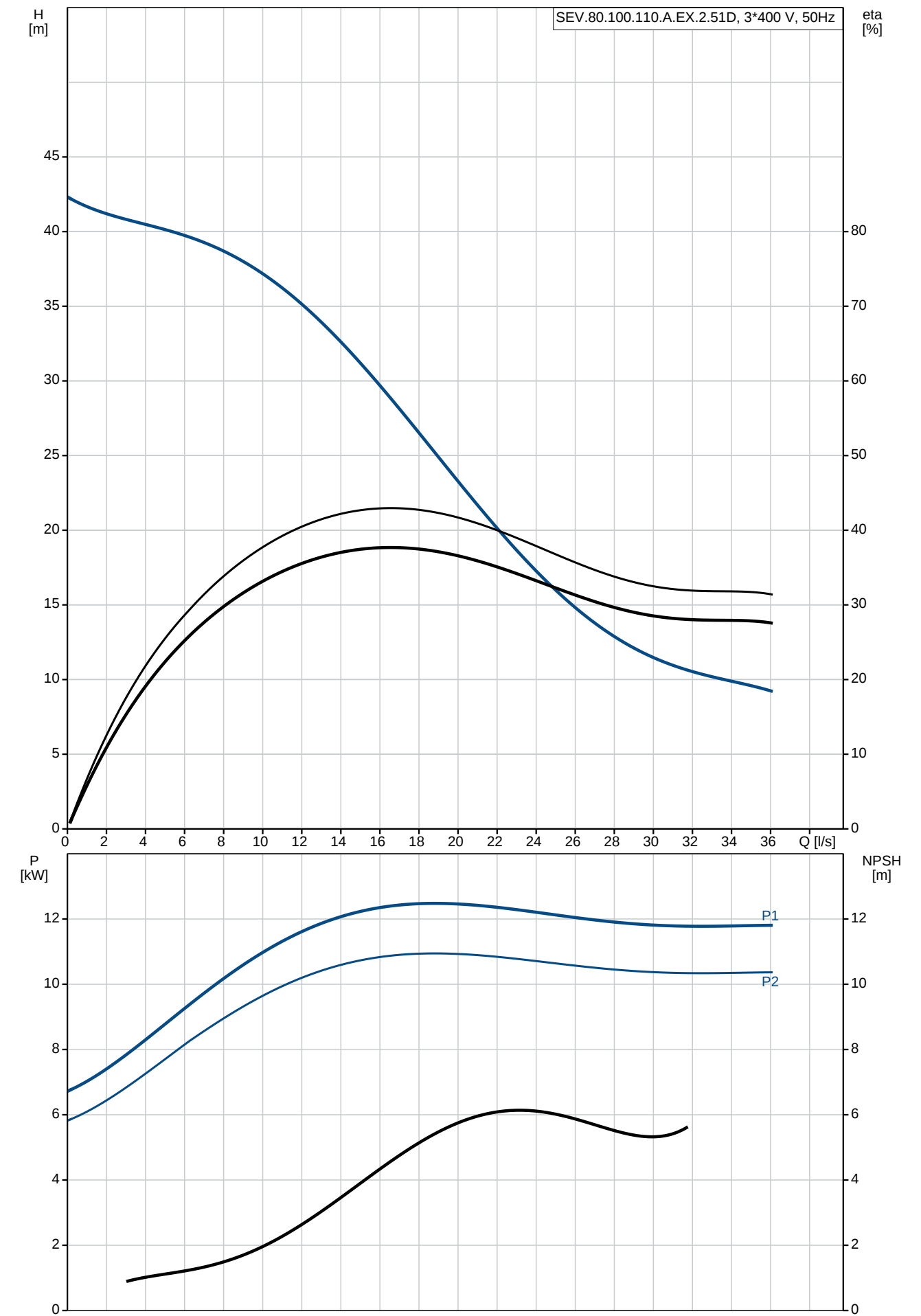
fax. +31 152 616 289

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|          | 1    | <p><b>SEV.80.100.110.A.EX.2.51D</b></p>  <p><b>Note! Product picture may differ from actual product</b></p> <p>Product No.: On request</p> <p>Non-self-priming, single-stage, centrifugal pump designed for handling wastewater, process water and unscreened raw sewage.</p> <p>The pump is designed for intermittent and continuous operation. The liquidless and maintenance free cooling system ensures that the pump can be used for submerged or dry installation. The efficient SuperVortex impeller provides passage of long fibres and solids up to 80 mm and is suitable for wastewater with a dry matter content of up to 5 %.</p> <p>A unique stainless-steel clamp assembling system enables quick and easy disassembly of the pump from the motor unit for service and inspection. No special tools are required. Pipework connection is via a DIN flange.</p> <p>The pump is explosion-proof.</p> <p><b>Further product details</b></p> <p>Typical application is transfer of liquid, such as:</p> <ul style="list-style-type: none"> <li>- large quantities of drainage and surface water</li> <li>- domestic wastewater with discharge from toilets</li> <li>- wastewater from commercial buildings without discharge from toilets</li> <li>- sludge-containing industrial wastewater.</li> </ul> <p>The pump is ideal for pumping of the above liquids from for instance:</p> <ul style="list-style-type: none"> <li>- municipal network pumping stations</li> <li>- public buildings</li> <li>- blocks of flats</li> <li>- factories/industry.</li> </ul> <p>The pump is suitable for both temporary and permanent installation either as free-standing on ring stand, on base stand, on brackets or on an auto-coupling system.</p> <p><b>Pump</b></p> <p>The pump is fitted with an easy-to-clean stainless-steel motor sleeve (EN 1.4301) that is extremely robust and impact-resistant. Pump housing and impeller is made of cast iron (EN-GJL-250).</p> <p>The SuperVortex impeller is a symmetrical multivane winglet impeller. The design ensures a flow entirely outside the impeller providing limited contact between the impeller and the pumped liquid. This ensures that long fibres, rags and more passes freely through the pump without getting caught and without causing clogging or jamming.</p>  <p>The shaft seal consists of two mechanical seals that ensure a reliable sealing between the pumped liquid and motor. The shaft seals are incorporated in a single-unit cartridge shaft seal system that is easy to replace in the field without use of special tools.</p> <p>The combination of the primary and secondary seals in a cartridge shaft seal system results in a shorter assembly length compared to conventional shaft seals.</p> <ul style="list-style-type: none"> <li>- Primary seal: Silicon carbide/silicon carbide (SiC/SiC)</li> <li>- Secondary seal: Carbon/Ceramics</li> </ul> |

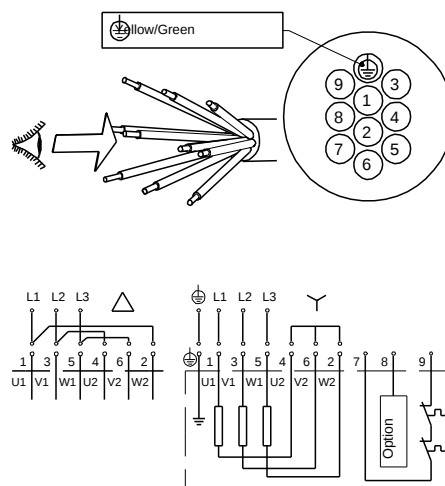
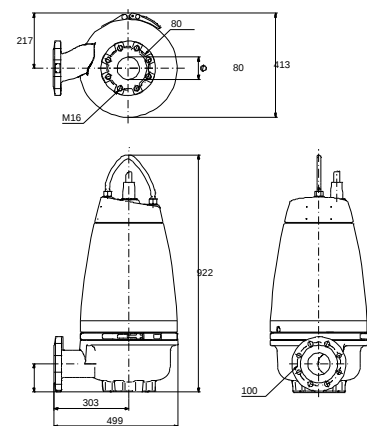
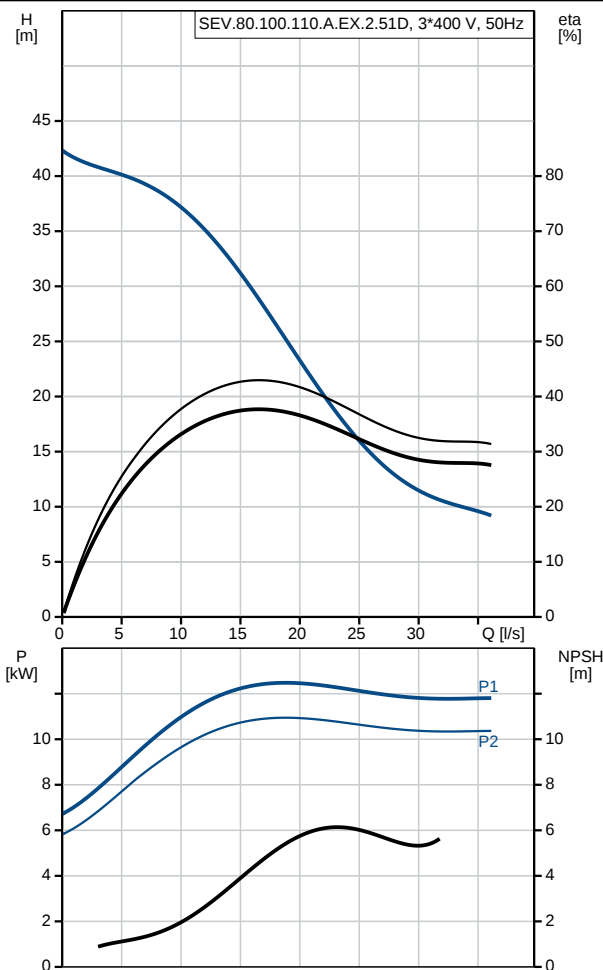
| Position                     | Qty.                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
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|                              |                          | <p>The shaft seal is bidirectional, meaning it operates correctly in case of backflow through the pump.</p> <div></div> <p>The pump is approved according to EN12050-1.</p> <p><b>Motor</b></p> <p>The motor is a watertight, totally encapsulated motor supplied with a 10 m power cable. The stainless steel plug is fastened with a union nut. This nut and the O-rings provide sealing against ingress of the liquid.</p> <p>The plug is polyurethane-embedded, ensuring a watertight and durable seal around the leads of the cable. This prevents the ingress of water into the motor through the cable in case of cable breakage or adverse handling in connection with installation or service.</p> <p>A compact motor construction with a short shaft reduces vibrations, resulting in an increased efficiency and lifetime of the shaft seal and ball bearings.</p> <p>The motor features built-in thermal protection to protect the motor against overheating and ensure the reliability.</p> <p>A solid-block stator housing with built-in cooling conduits, efficiently transfers excess heat to the pumped liquid via a solid cast intermediate cooling flange, that is in direct contact with the pumped liquid. This allows for continuous operation even in a dry installation. An extremely robust impact-resistant stainless-steel jacket with an easy-to-clean smooth surface is fitted on the top of the solid-block stator housing.</p> <p>The pump is equipped with the following sensor(s):</p> <ul style="list-style-type: none"><li>- A digital moisture switch that is fitted in the motor chamber monitors whether water enters the motor chamber. If moisture is detected in the motor chamber, the switch will trip and send a warning to the sensor module.</li><li>- A Pt1000 sensor in motor windings for stator temperature measurements.</li><li>- An analog sensor that is fitted in the oil chamber monitors whether water enters the pump from the liquid side. It sends a signal if the water content is outside the normal range (warning), or if there is air in the oil chamber (alarm).</li></ul> <p>All sensor signals are incorporated in the power cable and connected to the Grundfos IO 113 sensor module which is delivered together with the pump.</p> <p>The pump is designed for speed-controlled operation to keep the energy consumption at a minimum. To avoid the risk of sedimentation in the pipes, we recommend that you operate the speed-controlled pump within a speed range of 30 % to 100 % and at a flow rate above 1 m/s.</p> <p><b>Controls:</b></p> <table><tr><td>Moisture sensor:</td><td>with moisture sensors</td></tr><tr><td>Water-in-oil sensor:</td><td>with water-in-oil sensor</td></tr><tr><td>Temp. sensor:</td><td>Y</td></tr></table> <p><b>Liquid:</b></p> <table><tr><td>Liquid temperature range:</td><td>0 .. 40 °C</td></tr><tr><td>Density:</td><td>998.2 kg/m³</td></tr></table> <p><b>Technical:</b></p> <table><tr><td>Type of impeller:</td><td>SUPER VORTEX</td></tr><tr><td>Maximum particle size:</td><td>80 mm</td></tr><tr><td>Primary shaft seal:</td><td>SIC/SIC</td></tr><tr><td>Secondary shaft seal:</td><td>CARBON/CERAMICS</td></tr><tr><td>Max. hydraulic efficiency:</td><td>43 %</td></tr><tr><td>Approvals on nameplate:</td><td>EN12050-1</td></tr><tr><td>Curve tolerance:</td><td>ISO9906:2012 3B</td></tr></table> <p><b>Materials:</b></p> <table><tr><td>Pump housing:</td><td>EN 1561 EN-GJL-250</td></tr><tr><td>Impeller:</td><td>Cast iron</td></tr></table> <p><b>Installation:</b></p> <table><tr><td>Maximum ambient temperature:</td><td>40 °C</td></tr><tr><td>Maximum operating pressure:</td><td>6 bar</td></tr><tr><td>Flange standard:</td><td>DIN</td></tr></table> | Moisture sensor: | with moisture sensors | Water-in-oil sensor: | with water-in-oil sensor | Temp. sensor: | Y | Liquid temperature range: | 0 .. 40 °C | Density: | 998.2 kg/m³ | Type of impeller: | SUPER VORTEX | Maximum particle size: | 80 mm | Primary shaft seal: | SIC/SIC | Secondary shaft seal: | CARBON/CERAMICS | Max. hydraulic efficiency: | 43 % | Approvals on nameplate: | EN12050-1 | Curve tolerance: | ISO9906:2012 3B | Pump housing: | EN 1561 EN-GJL-250 | Impeller: | Cast iron | Maximum ambient temperature: | 40 °C | Maximum operating pressure: | 6 bar | Flange standard: | DIN |
| Moisture sensor:             | with moisture sensors    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Water-in-oil sensor:         | with water-in-oil sensor |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Temp. sensor:                | Y                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Liquid temperature range:    | 0 .. 40 °C               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Density:                     | 998.2 kg/m³              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Type of impeller:            | SUPER VORTEX             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Maximum particle size:       | 80 mm                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Primary shaft seal:          | SIC/SIC                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Secondary shaft seal:        | CARBON/CERAMICS          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Max. hydraulic efficiency:   | 43 %                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Approvals on nameplate:      | EN12050-1                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Curve tolerance:             | ISO9906:2012 3B          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Pump housing:                | EN 1561 EN-GJL-250       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Impeller:                    | Cast iron                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Maximum ambient temperature: | 40 °C                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Maximum operating pressure:  | 6 bar                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |
| Flange standard:             | DIN                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                  |                       |                      |                          |               |   |                           |            |          |             |                   |              |                        |       |                     |         |                       |                 |                            |      |                         |           |                  |                 |               |                    |           |           |                              |       |                             |       |                  |     |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|          |      | Pump outlet: DN 100<br>Pressure rating: PN 10<br>Maximum installation depth: 20 m<br><br><b>Electrical data:</b><br>Power input - P1: 12.6 kW<br>Rated power - P2: 11 kW<br>Mains frequency: 50 Hz<br>Rated voltage: 3 x 380-415 V<br>Voltage tolerance: +6/-10 %<br>Max starts per. hour: 20<br>Rated current: 22.7-21.4 A<br>Rated current at 3/4 load: 16.2 A<br>Rated current at 1/2 load: 12.3 A<br>Starting current: 162 A<br>Rated current at no load: 7.2 A<br>Cos phi - power factor: 0.88<br>Cos phi - p.f. at no load: 0.15<br>Cos phi - p.f. at 3/4 load: 0.84<br>Cos phi - p.f. at 1/2 load: 0.75<br>Rated speed: 2935 rpm<br>Locked-rotor torque: 85 Nm<br>Breakdown torque: 118 Nm<br>Moment of inertia: 0.0368 kg m <sup>2</sup><br>Motor efficiency at full load: 87.7 %<br>Motor efficiency at 3/4 load: 88.1 %<br>Motor efficiency at 1/2 load: 86.4 %<br>Number of poles: 2<br>Start. method: star/delta<br>Enclosure class (IEC 34-5): IP68<br>Insulation class (IEC 85): F<br>Explosion proof: yes<br>Ex-protection standard: Ex cd mb IIB T4,T3<br>Length of cable: 10 m<br>Cable type: LYNIFLEX<br>Type of cable plug: NO PLUG<br><br><b>Others:</b><br>Net weight: 196 kg |

On request SEV.80.100.110.A.EX.2.51D 50 Hz

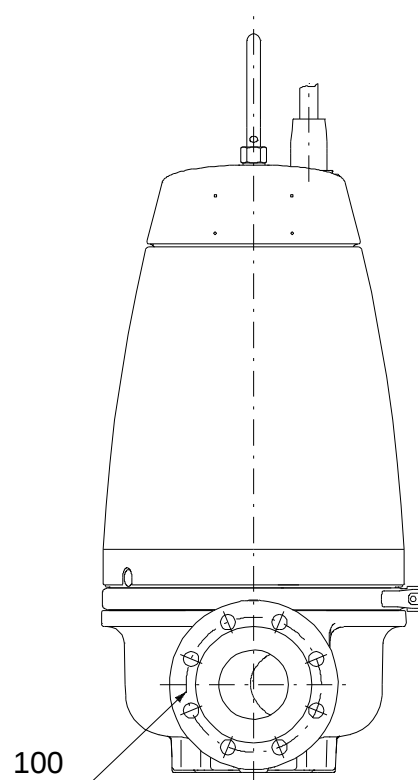
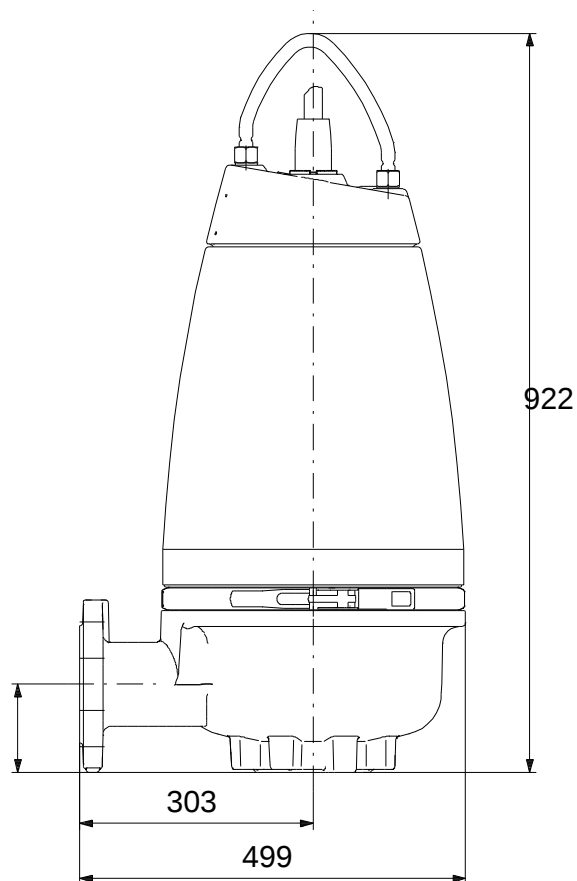


| Description                    | Value                     |
|--------------------------------|---------------------------|
| <b>General information:</b>    |                           |
| Product name:                  | SEV.80.100.110.A.EX.2.51D |
| Product No:                    | On request                |
| EAN number:                    | On request                |
| <b>Technical:</b>              |                           |
| Max flow:                      | 36.1 l/s                  |
| Head max:                      | 41.6 m                    |
| Type of impeller:              | SUPER VORTEX              |
| Maximum particle size:         | 80 mm                     |
| Primary shaft seal:            | SIC/SIC                   |
| Secondary shaft seal:          | CARBON/CERAMICS           |
| Max. hydraulic efficiency:     | 43 %                      |
| Approvals on nameplate:        | EN12050-1                 |
| Curve tolerance:               | ISO9906:2012 3B           |
| Cooling jacket:                | with cooling jacket       |
| <b>Materials:</b>              |                           |
| Pump housing:                  | EN 1561 EN-GJL-250        |
| Impeller:                      | Cast iron                 |
| <b>Installation:</b>           |                           |
| Maximum ambient temperature:   | 40 °C                     |
| Maximum operating pressure:    | 6 bar                     |
| Flange standard:               | DIN                       |
| Pump outlet:                   | DN 100                    |
| Pressure rating:               | PN 10                     |
| Maximum installation depth:    | 20 m                      |
| Inst dry/wet:                  | DRY/SUBMERGED             |
| Installation:                  | horizontal or vertical    |
| <b>Liquid:</b>                 |                           |
| Liquid temperature range:      | 0 .. 40 °C                |
| Density:                       | 998.2 kg/m <sup>3</sup>   |
| <b>Electrical data:</b>        |                           |
| Power input - P1:              | 12.6 kW                   |
| Rated power - P2:              | 11 kW                     |
| Mains frequency:               | 50 Hz                     |
| Rated voltage:                 | 3 x 380-415 V             |
| Voltage tolerance:             | +6/-10 %                  |
| Max starts per. hour:          | 20                        |
| Rated current:                 | 22.7-21.4 A               |
| Rated current at 3/4 load:     | 16.2 A                    |
| Rated current at 1/2 load:     | 12.3 A                    |
| Starting current:              | 162 A                     |
| Rated current at no load:      | 7.2 A                     |
| Cos phi - power factor:        | 0.88                      |
| Cos phi - p.f. at no load:     | 0.15                      |
| Cos phi - p.f. at 3/4 load:    | 0.84                      |
| Cos phi - p.f. at 1/2 load:    | 0.75                      |
| Rated speed:                   | 2935 rpm                  |
| Locked-rotor torque:           | 85 Nm                     |
| Breakdown torque:              | 118 Nm                    |
| Moment of inertia:             | 0.0368 kg m <sup>2</sup>  |
| Motor efficiency at full load: | 87.7 %                    |
| Motor efficiency at 3/4 load:  | 88.1 %                    |
| Motor efficiency at 1/2 load:  | 86.4 %                    |
| Number of poles:               | 2                         |
| Start. method:                 | star/delta                |
| Enclosure class (IEC 34-5):    | IP68                      |
| Insulation class (IEC 85):     | F                         |
| Explosion proof:               | yes                       |
| Ex-protection standard:        | Ex cd mb IIB T4,T3        |
| Motor protec:                  | THERMAL SWITCH            |
| Thermal protec:                | internal                  |
| Length of cable:               | 10 m                      |
| Cable type:                    | LYNIFLEX                  |
| Type of cable plug:            | NO PLUG                   |



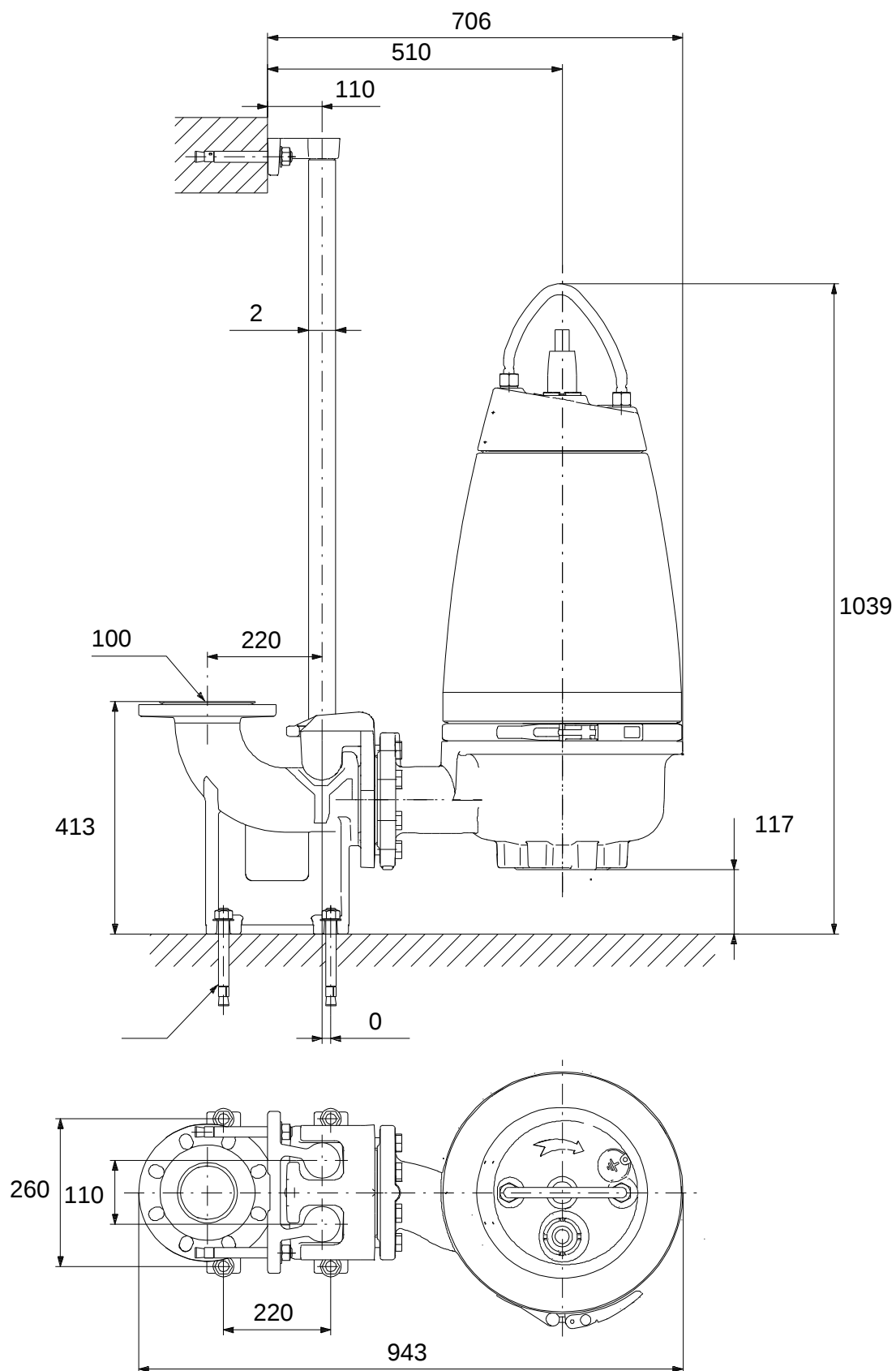
| Description          | Value                    |
|----------------------|--------------------------|
| <b>Controls:</b>     |                          |
| Control box:         | not included             |
| Moisture sensor:     | with moisture sensors    |
| Water-in-oil sensor: | with water-in-oil sensor |
| Temp. sensor:        | Y                        |
| <b>Others:</b>       |                          |
| Net weight:          | 196 kg                   |

# On request SEV.80.100.110.A.EX.2.51D 50 Hz



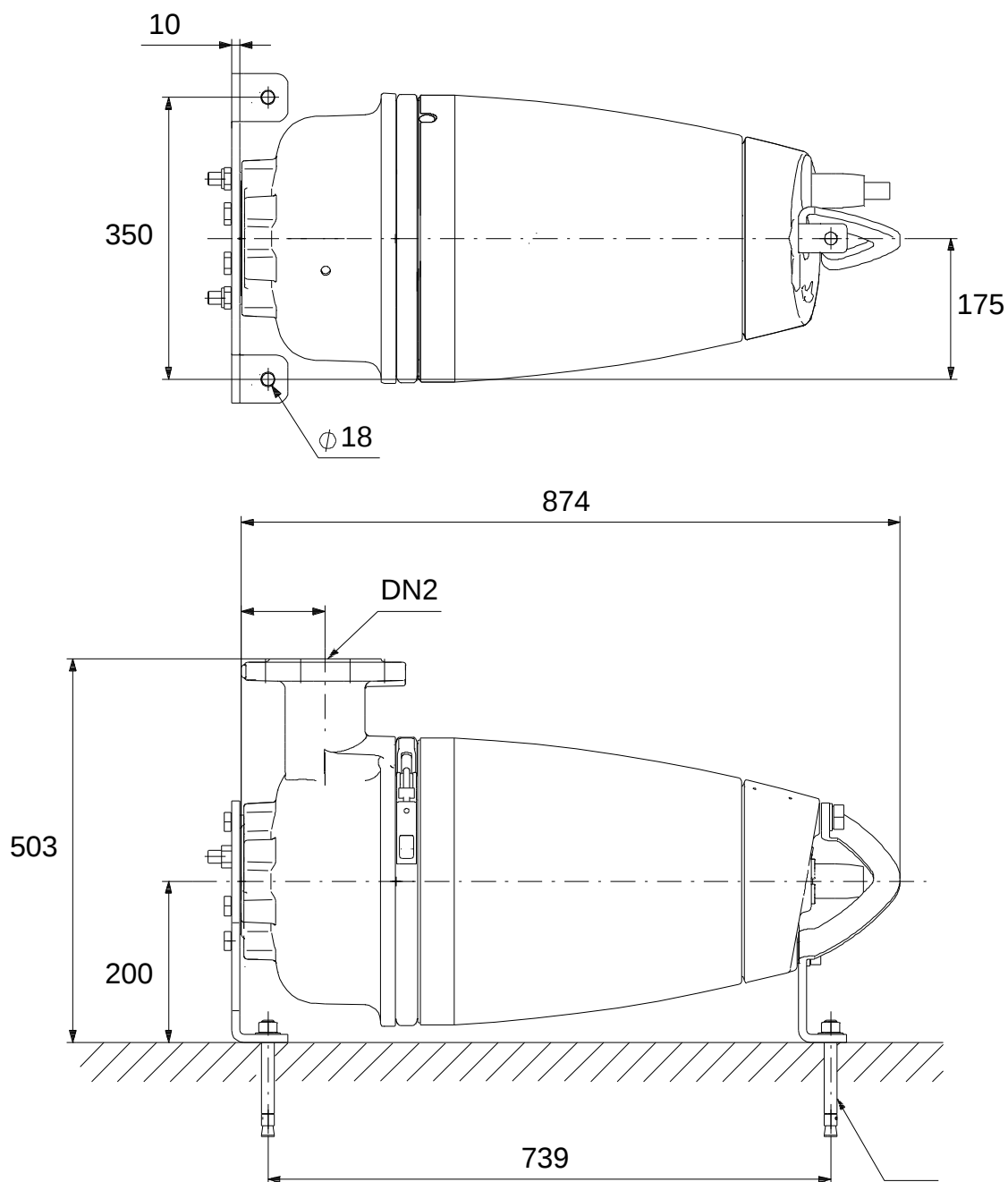
Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

# On request SEV.80.100.110.A.EX.2.51D 50 Hz



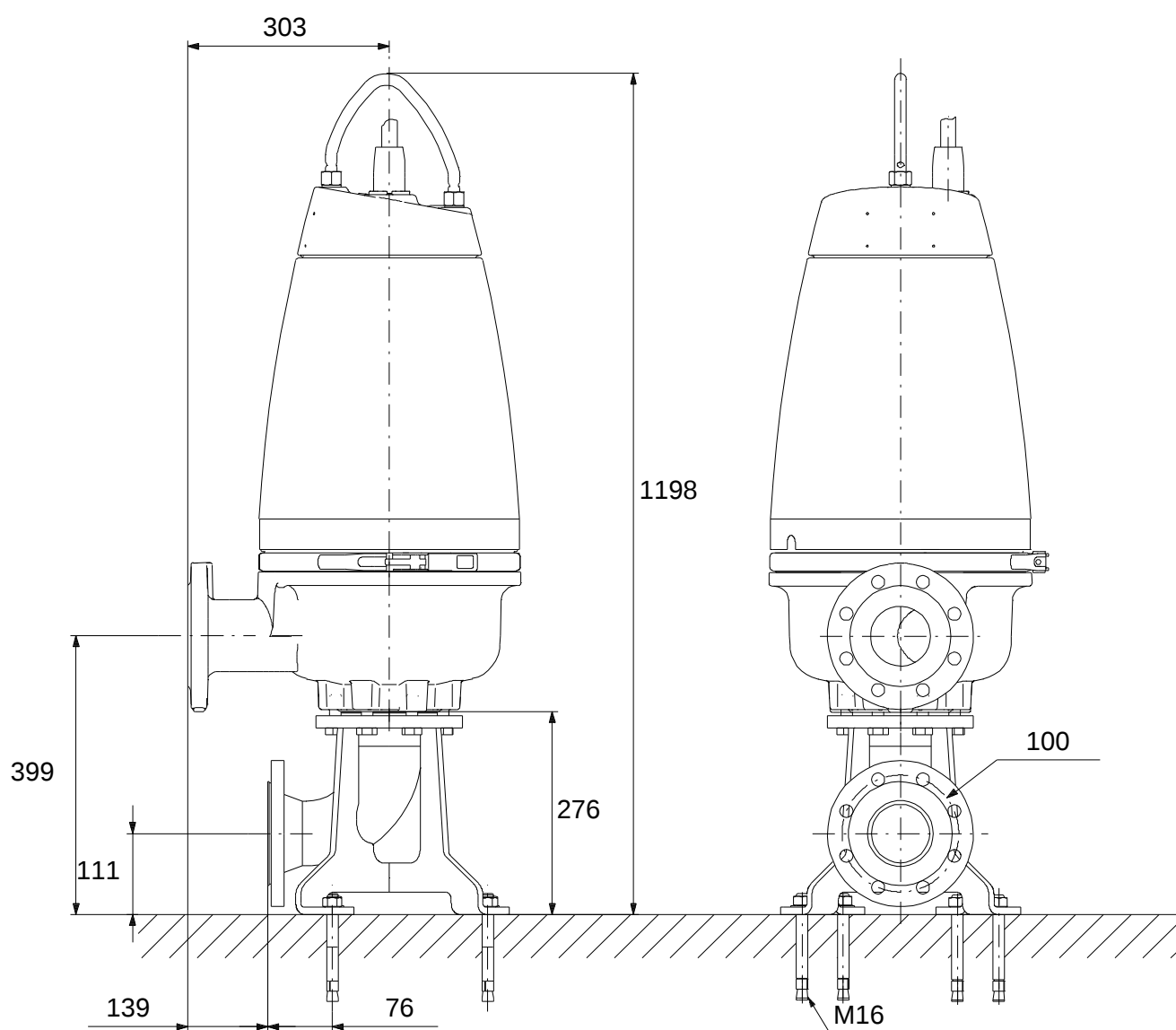
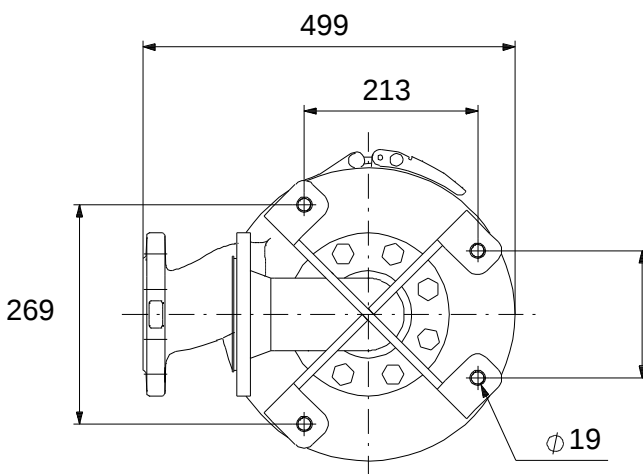
Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

On request SEV.80.100.110.A.EX.2.51D 50 Hz



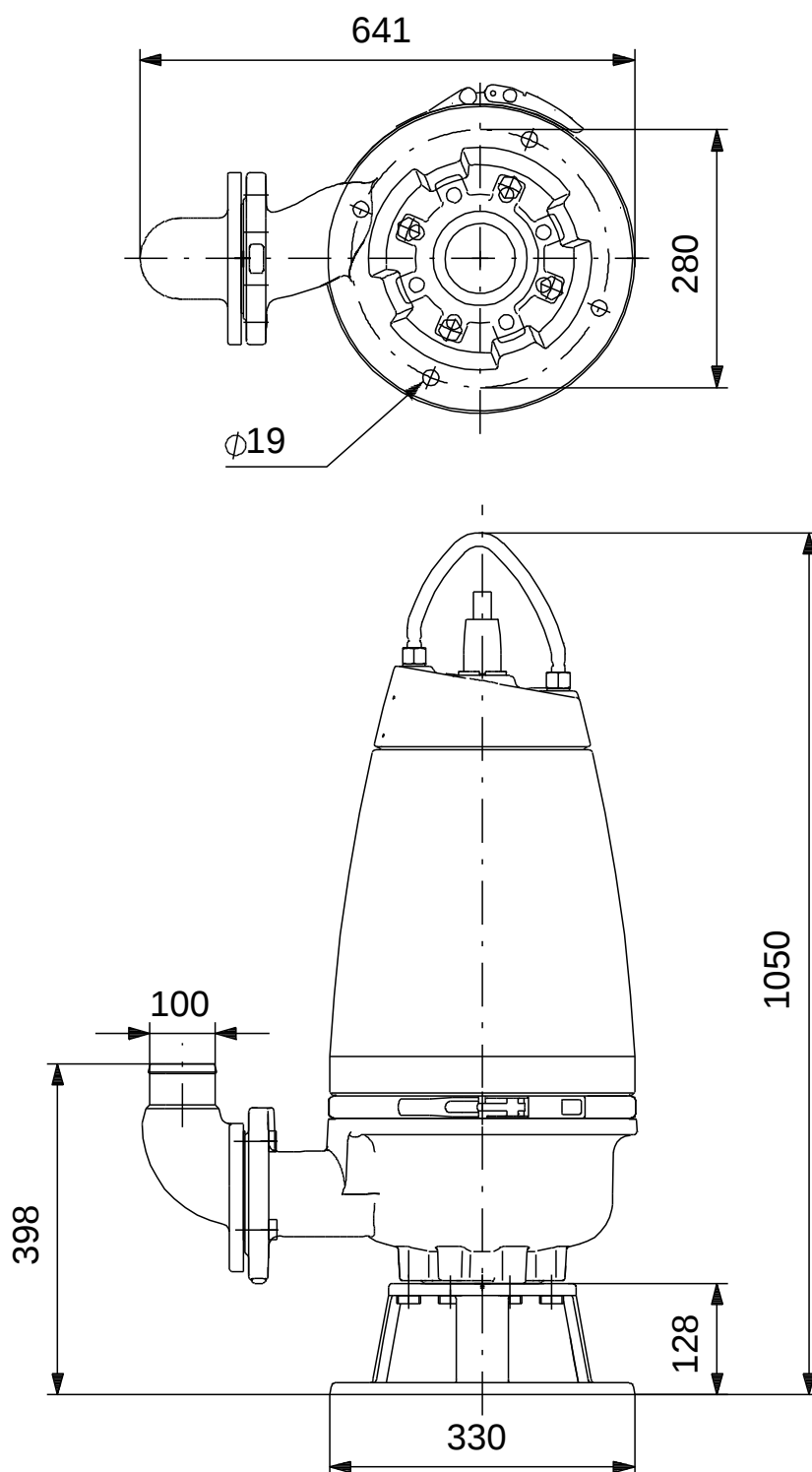
Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

**On request SEV.80.100.110.A.EX.2.51D 50 Hz**



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

On request SEV.80.100.110.A.EX.2.51D 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 SEV.80.100.110.A.EX.2.51D, Product No. On request**  
**Valid from 3.5.2004 (0419)**

| Pos   | Description                 | Annotation | Données de classification | Référence | Quantité | Unité |
|-------|-----------------------------|------------|---------------------------|-----------|----------|-------|
|       | Washer                      |            | Internal diameter: 5,3    |           | 1        | pcs   |
|       |                             |            | Outer diameter: 15        |           |          |       |
|       |                             |            | Thickness: 2              |           |          |       |
|       | Clamp                       |            |                           |           | 2        | pcs   |
|       | Disc spring                 |            |                           |           | 4        | pcs   |
|       | Rubber bush                 |            |                           |           | 1        | pcs   |
|       | Earth connector             |            |                           |           | 1        | pcs   |
|       | Connector                   |            |                           |           | 2        | pcs   |
|       | Mylar                       |            |                           |           | 1        | pcs   |
|       | Internal cable              |            |                           |           | 1        | pcs   |
| 6a    | Pin                         |            |                           |           | 1        | pcs   |
| 6a    | Pin                         |            |                           |           | 1        | pcs   |
| 7a    | Rivet                       |            |                           |           | 4        | pcs   |
| 7a    | Combi Slot Torx screw       |            |                           |           | 1        | pcs   |
| 9a    | Parallel key                |            | Dimension: 8X7X28         |           | 1        | pcs   |
| 19    | Plug                        |            |                           |           | 1        | pcs   |
| 37    | O-ring                      |            | Diameter: 330             |           | 1        | pcs   |
|       |                             |            | Material type: NBR70      |           |          |       |
|       |                             |            | Thickness: 4              |           |          |       |
| 37a   | O-ring                      |            | Diameter: 346             |           | 2        | pcs   |
|       |                             |            | Material type: NBR70      |           |          |       |
|       |                             |            | Thickness: 4              |           |          |       |
| 37b   | O-ring                      |            | Diameter: 250             |           | 1        | pcs   |
|       |                             |            | Material type: NBR70      |           |          |       |
|       |                             |            | Thickness: 4              |           |          |       |
| 48    | Stator                      |            |                           |           | 1        | pcs   |
| 49    | Impeller                    |            |                           |           | 1        | pcs   |
| 50    | Pump housing                |            |                           |           | 1        | pcs   |
| 55    | Stator housing              |            |                           |           | 1        | pcs   |
| 58    | Cover                       |            |                           |           | 1        | pcs   |
| 59    | Bearing cover               |            |                           |           | 1        | pcs   |
| 60    | Bearing retainer            |            |                           |           | 1        | pcs   |
| 61    | Bearing retainer            |            |                           |           | 1        | pcs   |
| 66    | Washer                      |            | Internal diameter: 12.5   |           | 1        | pcs   |
|       |                             |            | Outer diameter: 31        |           |          |       |
|       |                             |            | Thickness: 5              |           |          |       |
| 76    | Nameplate                   |            |                           |           | 1        | pcs   |
| + 92  | Strap cpl.                  |            |                           |           | 1        | pcs   |
| - 105 | Shaft seal                  |            |                           |           | 1        | pcs   |
|       | Shaft seal                  |            |                           |           | 1        |       |
|       | Shaft seal                  |            |                           |           | 1        |       |
|       | Retaining ring              |            |                           |           | 1        |       |
|       | Shaft seal, rotating part   |            |                           |           | 1        |       |
|       | Shaft seal, rotating part   |            |                           |           | 1        |       |
|       | Shaft seal, stationary part |            |                           |           | 1        |       |
|       | Shaft seal, stationary part |            |                           |           | 1        |       |
| 106   | O-ring                      |            | Diameter: 62              |           | 2        |       |
|       |                             |            | Material type: NBR        |           |          |       |
|       |                             |            | Thickness: 3              |           |          |       |
| 107   | O-ring                      |            | Diameter: 160             |           | 1        | pcs   |
|       |                             |            | Material type: NBR70      |           |          |       |
|       |                             |            | Thickness: 3              |           |          |       |
| 108   | O-ring                      |            | Diameter: 120             |           | 1        | pcs   |
|       |                             |            | Material type: NBR70      |           |          |       |
|       |                             |            | Thickness: 3              |           |          |       |
| 109   | O-ring                      |            | Diameter: 100             |           | 1        | pcs   |
|       |                             |            | Material type: NBR        |           |          |       |
|       |                             |            | Thickness: 3              |           |          |       |

| Pos   | Description               | Annotation | Données de classification   | Référence | Quantité | Unité |
|-------|---------------------------|------------|-----------------------------|-----------|----------|-------|
| 150   | Motor sleeve              |            |                             |           | 1        | pcs   |
| - 151 | Motor cover               |            |                             |           | 1        | pcs   |
|       | Motor cover               |            |                             |           | 1        |       |
| 174   | Hex socket head cap screw |            |                             |           | 1        |       |
| 174a  | Lock washer               |            |                             |           | 1        |       |
| 153   | Ball bearing              |            | Designation: 6306.2Z.C4.SYN | 1         | 1        | pcs   |
| 153b  | O-ring                    |            | Diameter: 28                | 1         | 1        | pcs   |
|       |                           |            | Material type: NBR          |           |          |       |
|       |                           |            | Thickness: 2                |           |          |       |
| 153b  | Circlip                   |            |                             | 1         | 1        | pcs   |
| 154   | Ball bearing              |            |                             | 1         | 1        | pcs   |
| 155   | Intermediate flange       |            |                             | 1         | 1        | pcs   |
| 157   | Waved washer              |            |                             | 1         | 1        | pcs   |
| 158   | Waved washer              |            |                             | 1         | 1        | pcs   |
| 159   | O-ring                    |            | Diameter: 41                | 1         | 1        | pcs   |
|       |                           |            | Material type: NBR          |           |          |       |
|       |                           |            | Thickness: 4                |           |          |       |
| 172   | Shaft w/rotor             |            |                             | 1         | 1        | pcs   |
| 174a  | Lock washer               |            |                             | 1         | 1        | pcs   |
| 176   | Plug                      |            |                             | 1         | 1        | pcs   |
| 177   | Plug protector            |            |                             | 1         | 1        | pcs   |
| 177   | Hex socket head cap screw |            |                             | 1         | 1        | pcs   |
| - 181 | Cable Ex                  |            |                             | 1         | 1        | pcs   |
| 198   | O-ring                    |            |                             |           | 1        |       |
| 183   | Hex socket head cap screw |            | Length (mm): 50             | 1         | 1        | pcs   |
|       |                           |            | Thread: M30                 |           |          |       |
| 183a  | Washer                    |            | Internal diameter: 33       | 1         | 1        | pcs   |
|       |                           |            | Outer diameter: 38          |           |          |       |
|       |                           |            | Thickness: 2                |           |          |       |
| 184   | Hex socket head cap screw |            | Designation: DIN 912        | 6         | 6        | pcs   |
|       |                           |            | Length (mm): 40             |           |          |       |
|       |                           |            | Thread: M10                 |           |          |       |
| 184a  | Washer                    |            | Internal diameter: 10.5     | 6         | 6        | pcs   |
|       |                           |            | Outer diameter: 18          |           |          |       |
|       |                           |            | Thickness: 1.6              |           |          |       |
| 186   | Hex socket head cap screw |            |                             | 2         | 2        | pcs   |
| 188   | Hex socket head cap screw |            |                             | 4         | 4        | pcs   |
| 188a  | Hex socket head cap screw |            | Length (mm): 35             | 1         | 1        | pcs   |
|       |                           |            | Thread: M12                 |           |          |       |
| 190   | Lifting bracket           |            |                             | 1         | 1        | pcs   |
| 190a  | Rubber bush               |            |                             | 2         | 2        | pcs   |
| 192   | Cooling paste             |            |                             | 6         | 6        | G     |
| 193   | Hex socket head cap screw |            | Designation: A2-70          | 2         | 2        | pcs   |
|       |                           |            | Length (mm): 20             |           |          |       |
|       |                           |            | Thread: M12                 |           |          |       |
| 193a  | Oil                       |            |                             | 0         | 0        | L     |
| 194   | Washer                    |            | Internal diameter: 19       | 2         | 2        | pcs   |
|       |                           |            | Outer diameter: 12.2        |           |          |       |
|       |                           |            | Thickness: 4.4              |           |          |       |
| 518   | Transient barrier         |            |                             | 1         | 1        | pcs   |
| 520   | Moisture sensor           |            |                             | 1         | 1        | pcs   |
| 521   | Sensor unit cpl.          |            |                             | 1         | 1        | pcs   |
| 522   | Holder                    |            |                             | 1         | 1        | pcs   |
| 1031  | Connector pin             |            |                             | 6         | 6        | 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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