

## MD1.80.100.75.4.51D/450-2.SE

Grundfos pump 96102302



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<https://www.lenntech.com/grundfos/MULDOUB/96102302/MD1-80-100-75-4-51D-450-2-SE.html>

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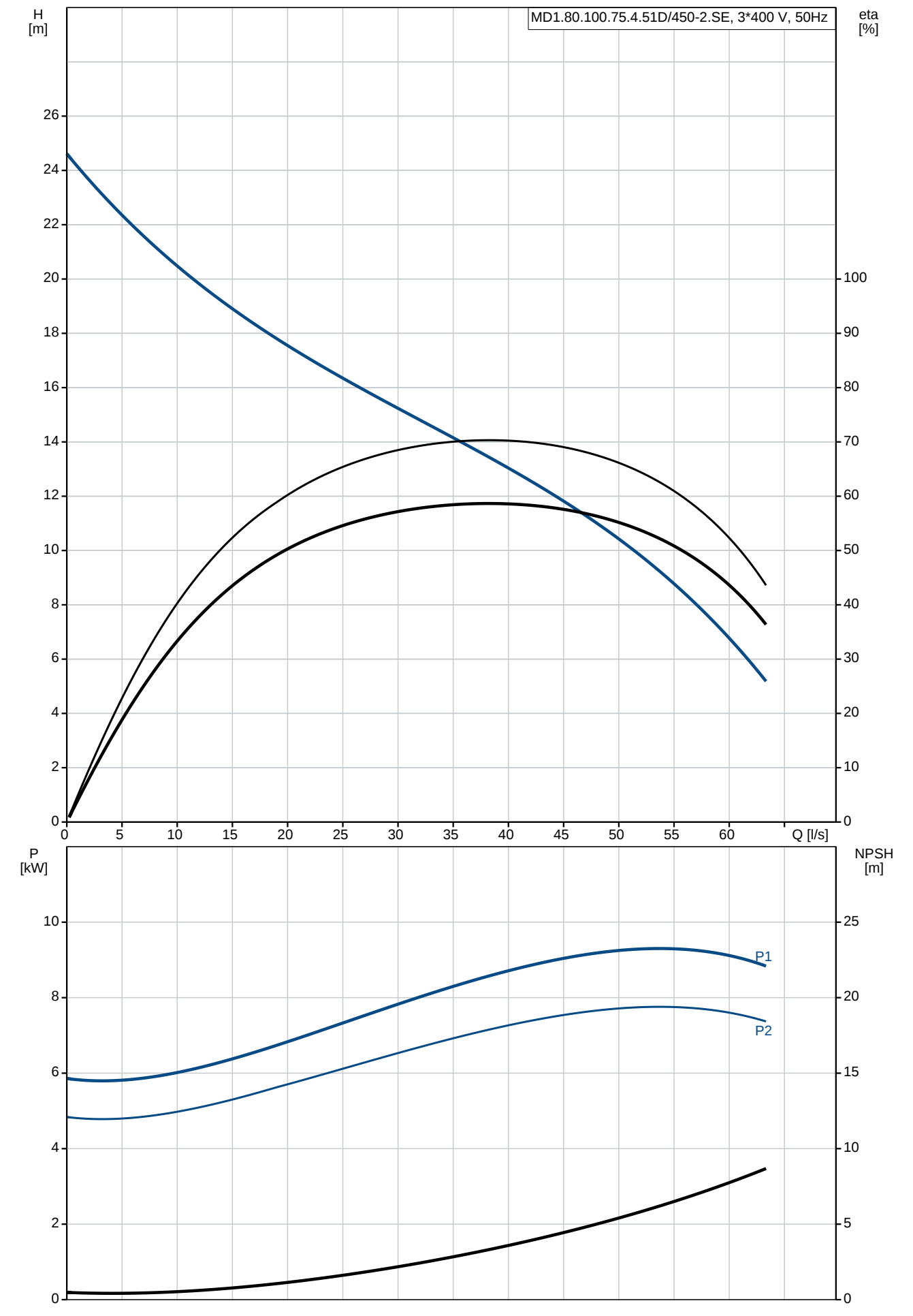
fax. +31 152 616 289

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|          | 1    | <p><b>MD1.80.100.75.4.51D/450-2.SE</b></p>  <p><b>Note! Product picture may differ from actual product</b></p> <p>Product No.: On request</p> <p>Compact wastewater lifting station consist a package of one or two 450 litre collecting tanks, two horizontal submersible sewage pumps of the SE range, controller incl. analogue level sensor and connection accessories.</p> <p>The 450 liter tank is made of airtight, corrosion free polyethylene and absolute gas and odour free. It is provided with</p> <ul style="list-style-type: none"> <li>- three horizontal inlet sockets DN150 with one socket seal,</li> <li>- vertical inlet connecting piece DN100,</li> <li>- vertical connecting piece DN75 for venting with flex. connection piece and clamps</li> <li>- two horizontal connecting pieces DN40 with one connection piece and clamps for manually diaphragm pump (accessory).</li> </ul> <p>The tank is designed with an inner patented chamfer and suction bends to avoid sedimentation and to reduce residual water. In case of additional collecting tank 4 connection sockets DN150 are placed at the sides.</p> <p>Horizontal sewage pumps provides single channel impeller or vortex impeller for every request</p> <ul style="list-style-type: none"> <li>- free passage up to 80mm for reliable and blockage free operation,</li> <li>-a unique clamp system to dismantle hydraulic and motor within a minute,</li> <li>-a watertight stainless steel cable plug for easy maintenance and service,</li> <li>-double shaft seal cartridge for easy maintenance and service,- motor with thermal switches inside the winding</li> <li>-patented cooling system for continuous duty at SE range <ul style="list-style-type: none"> <li>- motor with thermal switches inside the winding</li> </ul> </li> </ul> <p>Isolating valves, non-return valves, discharge pipes, a manually operated diaphragm pump, bolts and gaskets as well as a third 450-litre tank are available as accessories.</p> <p>An LC221 controller with microprocessor is equipped with display for full monitoring possibilities. The pump and sensor are connected to the controller with 4m or 10m cable and tube length. The power supply cable is 1,5m with plug (incl. phase inverter for 3 phase motor)</p> <p>Contactless, piezo resistive pressure sensor pluggable inside the cabinet, monitored by controller, accurate to the millimetre shown on display. Blockage free pressure tube inside the tank without movable parts inside wastewater.</p> <p>The controller offer thermal motor protection and monitoring of pump operation. The thermal motor protection consists of thermal switches in the winding.</p> <p>Controller functions:</p> <ul style="list-style-type: none"> <li>• start/delta operation for pumps &gt;5kW</li> <li>• on/off, regular and failure changeover of two wastewater pumps based on a continuous signal from a piezo-resistive sensor</li> <li>• motor protection via motor-protective circuit breaker and/or current measurement as well as connection of thermal switches.</li> <li>• dry running motor protection via run-time limitation with a following emergency operation</li> <li>• 24h automatic test runs during long periods of</li> </ul> |

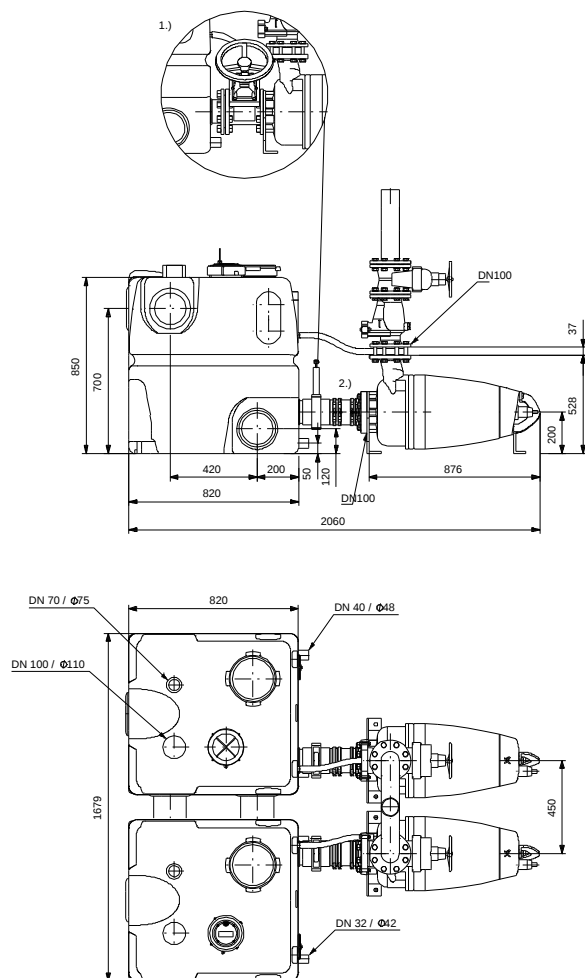
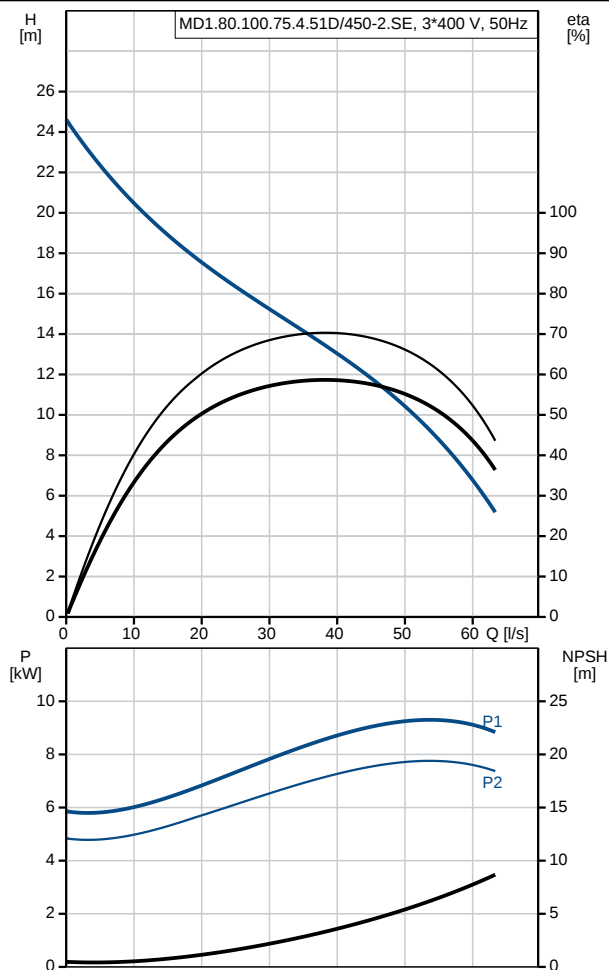
| Position                     | Qty.                        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
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|                              |                             | <p>inactivity</p> <ul style="list-style-type: none"><li>• setting of delay times:<ul style="list-style-type: none"><li>- stopping delay (time from the stop level is reached till the pumped is stopped)</li><li>- starting delay (time from the start level is reached till the pumped is started)</li><li>- alarm delay (time from a fault appears till an alarm is indicated) to prevents short-time high-level alarm in case of temporary high inflow to the tank.</li></ul></li><li>• automatic current measurement for alarm indications</li><li>• operating indication of:<ul style="list-style-type: none"><li>- operating mode (auto, manual)</li><li>- operating hours</li><li>- impulses (number of starts)</li><li>- highest measured motor current</li></ul></li><li>• alarm indication of:<ul style="list-style-type: none"><li>- pump status (running, fault)</li><li>- phase-sequence fault and missing phase</li><li>- thermal-switch failure</li><li>- high-water alarm</li><li>- time for service/maintenance (selectable).</li></ul></li><li>• selection of automatic alarm resetting</li><li>• fault log of up to 20 alarms</li><li>• selection between different start levels</li><li>• selection of connected sensor type</li><li>• calibration of sensor (preset)</li><li>• selection of maintenance interval (0, 3, 6 or 12 months).</li></ul> <p>As standard, the LC 221 has<br/>6 potential-free outputs for:</p> <ul style="list-style-type: none"><li>– pump running</li><li>– pump failure</li><li>– high water-level alarm</li><li>– common fault.</li></ul> <p>6 digital inputs for the following functions:</p> <ul style="list-style-type: none"><li>– connecting a pressure sensor board (pre-assembled)</li><li>– connecting an analogue sensor (4-20mA or 0-5V)</li><li>– connecting up to four level switches or pressure switches instead of analogue sensor</li><li>– connecting a separate level switch to be used for flood detection outside the Multilift. Lifting stations are often installed in a sump inside the basement - the lowest point in the building. In case of e.g. groundwater inflow or water pipe burst, an alarm will be indicated by the controller.</li><li>– connecting an external alarm reset</li><li>– connecting the thermal switch of the motor.</li></ul> <p>The Multilift range is designed due to the standard EN12050-1, approved and monitored by external institute LGA. Further approvals are VDE, GHOST, CB, EMV</p> <p><b>Technical:</b></p> <table><tr><td>Type of impeller:</td><td>SINGLE CHANNEL</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>70 %</td></tr><tr><td>Approvals on nameplate:</td><td>EN 12050-1</td></tr></table> <p><b>Materials:</b></p> <table><tr><td>Pump housing:</td><td>Cast iron GG20<br/>EN-JL1030</td></tr><tr><td>Impeller:</td><td>Cast iron GG20<br/>EN-JL1030</td></tr><tr><td>Tank:</td><td>Polyethylene</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>10 bar</td></tr><tr><td>Flange standard:</td><td>DIN</td></tr><tr><td>Pump outlet:</td><td>100</td></tr></table> | Type of impeller: | SINGLE CHANNEL | Maximum particle size: | 80 mm | Primary shaft seal: | SIC/SIC | Secondary shaft seal: | CARBON/CERAMICS | Max. hydraulic efficiency: | 70 % | Approvals on nameplate: | EN 12050-1 | Pump housing: | Cast iron GG20<br>EN-JL1030 | Impeller: | Cast iron GG20<br>EN-JL1030 | Tank: | Polyethylene | Maximum ambient temperature: | 40 °C | Maximum operating pressure: | 10 bar | Flange standard: | DIN | Pump outlet: | 100 |
| Type of impeller:            | SINGLE CHANNEL              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Maximum particle size:       | 80 mm                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Primary shaft seal:          | SIC/SIC                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Secondary shaft seal:        | CARBON/CERAMICS             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Max. hydraulic efficiency:   | 70 %                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Approvals on nameplate:      | EN 12050-1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Pump housing:                | Cast iron GG20<br>EN-JL1030 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Impeller:                    | Cast iron GG20<br>EN-JL1030 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Tank:                        | Polyethylene                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Maximum ambient temperature: | 40 °C                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Maximum operating pressure:  | 10 bar                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Flange standard:             | DIN                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |
| Pump outlet:                 | 100                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                   |                |                        |       |                     |         |                       |                 |                            |      |                         |            |               |                             |           |                             |       |              |                              |       |                             |        |                  |     |              |     |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | Pressure rating: PN 10<br>Maximum installation depth: 2 m<br><br><b>Liquid:</b><br>Maximum liquid temperature: 40 °C<br>Density: 998.2 kg/m³<br><br><b>Electrical data:</b><br>Power input - P1: 2 x 9 kW<br>Rated power - P2: 2 x 7.5 kW<br>Mains frequency: 50 Hz<br>Rated voltage: 3 x 380-415 V<br>Voltage tolerance: +6/-10 %<br>Max starts per. hour: 60<br>Rated current: 17.7-17.5 A<br>Rated current at 3/4 load: 13.4 A<br>Rated current at 1/2 load: 10.9 A<br>Starting current: 107 A<br>Rated current at no load: 7.4 A<br>Cos phi - p.f. at no load: 0.12<br>Cos phi - p.f. at 3/4 load: 0.72<br>Cos phi - p.f. at 1/2 load: 0.61<br>Rated speed: 1455 rpm<br>Locked-rotor torque: 91 Nm<br>Breakdown torque: 141 Nm<br>Moment of inertia: 0.1618 kg m²<br>Motor efficiency at full load: 83.4 %<br>Motor efficiency at 3/4 load: 83.5 %<br>Motor efficiency at 1/2 load: 81.3 %<br>Number of poles: 4<br>Start. method: star/delta<br>Enclosure class (IEC 34-5): IP68<br>Insulation class (IEC 85): F<br>Length of cable: 10 m<br>Cable type: H07RN-F<br><br><b>Controls:</b><br>Moisture sensor: without moisture sensors<br>Water-in-oil sensor: without water-in-oil sensor<br><br><b>Tank:</b><br>Total volume of tank(s): 900 l<br>Total effective volume of collecting tank at 180 mm inlet: 120 l<br>Total effective volume of collecting tank at 250 mm inlet: 240 l |

# On request MD1.80.100.75.4.51D/450-2.SE 50 Hz

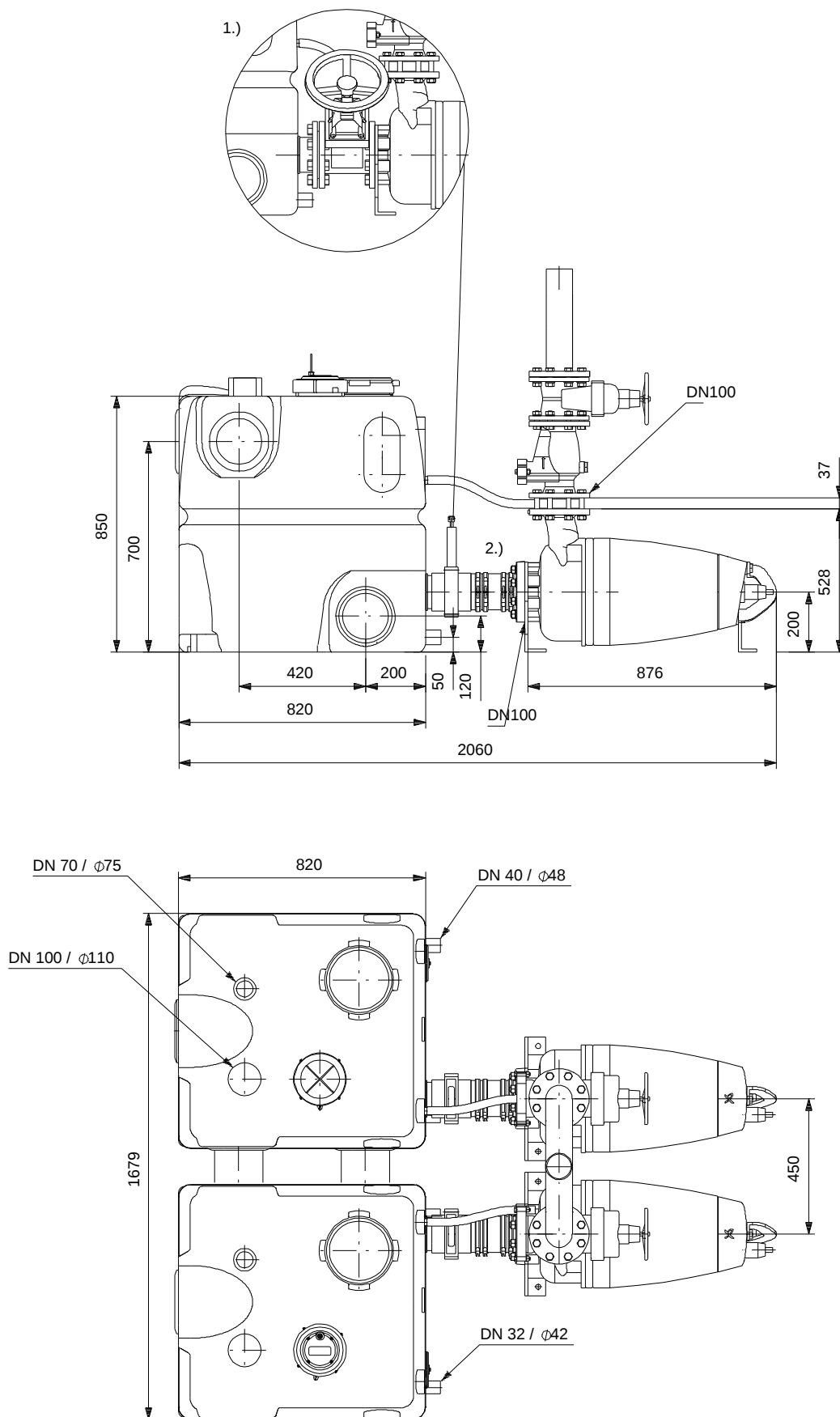


| Description                    | Value                        |
|--------------------------------|------------------------------|
| <b>General information:</b>    |                              |
| Product name:                  | MD1.80.100.75.4.51D/450-2.SE |
| Product No:                    | On request                   |
| EAN number:                    | On request                   |
| <b>Technical:</b>              |                              |
| Max flow:                      | 63.3 l/s                     |
| Head max:                      | 24.6 m                       |
| Type of impeller:              | SINGLE CHANNEL               |
| Maximum particle size:         | 80 mm                        |
| Primary shaft seal:            | SIC/SIC                      |
| Secondary shaft seal:          | CARBON/CERAMICS              |
| Max. hydraulic efficiency:     | 70 %                         |
| Approvals on nameplate:        | EN 12050-1                   |
| <b>Materials:</b>              |                              |
| Pump housing:                  | Cast iron GG20<br>EN-JL1030  |
| Impeller:                      | Cast iron GG20<br>EN-JL1030  |
| Tank:                          | Polyethylene                 |
| <b>Installation:</b>           |                              |
| Maximum ambient temperature:   | 40 °C                        |
| Maximum operating pressure:    | 10 bar                       |
| Flange standard:               | DIN                          |
| Pump outlet:                   | 100                          |
| Pressure rating:               | PN 10                        |
| Maximum installation depth:    | 2 m                          |
| <b>Liquid:</b>                 |                              |
| Maximum liquid temperature:    | 40 °C                        |
| Density:                       | 998.2 kg/m <sup>3</sup>      |
| <b>Electrical data:</b>        |                              |
| Power input - P1:              | 2 x 9 kW                     |
| Rated power - P2:              | 2 x 7.5 kW                   |
| Mains frequency:               | 50 Hz                        |
| Rated voltage:                 | 3 x 380-415 V                |
| Voltage tolerance:             | +6/-10 %                     |
| Max starts per. hour:          | 60                           |
| Rated current:                 | 17.7-17.5 A                  |
| Rated current at 3/4 load:     | 13.4 A                       |
| Rated current at 1/2 load:     | 10.9 A                       |
| Starting current:              | 107 A                        |
| Rated current at no load:      | 7.4 A                        |
| Cos phi - p.f. at no load:     | 0.12                         |
| Cos phi - p.f. at 3/4 load:    | 0.72                         |
| Cos phi - p.f. at 1/2 load:    | 0.61                         |
| Rated speed:                   | 1455 rpm                     |
| Locked-rotor torque:           | 91 Nm                        |
| Breakdown torque:              | 141 Nm                       |
| Moment of inertia:             | 0.1618 kg m <sup>2</sup>     |
| Motor efficiency at full load: | 83.4 %                       |
| Motor efficiency at 3/4 load:  | 83.5 %                       |
| Motor efficiency at 1/2 load:  | 81.3 %                       |
| Number of poles:               | 4                            |
| Start. method:                 | star/delta                   |
| Enclosure class (IEC 34-5):    | IP68                         |
| Insulation class (IEC 85):     | F                            |
| Motor protec:                  | THERMAL SWITCH               |
| Thermal protec:                | internal                     |
| Length of cable:               | 10 m                         |
| Cable type:                    | H07RN-F                      |
| <b>Controls:</b>               |                              |
| Moisture sensor:               | without moisture sensors     |
| Water-in-oil sensor:           | without water-in-oil sensor  |
| Operation mode:                | S1/S3 50%,1MIN.              |
| <b>Tank:</b>                   |                              |



| Description                                                   | Value |
|---------------------------------------------------------------|-------|
| Total volume of tank(s):                                      | 900 l |
| Total effective volume of<br>collecting tank at 180 mm inlet: | 120 l |
| Total effective volume of<br>collecting tank at 250 mm inlet: | 240 l |

# On request MD1.80.100.75.4.51D/450-2.SE 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 MD1.80.100.75.4.51D/450-2.SE, Product No. On request**  
**Valid from 1.1.2007 (0701)**

| Pos   | Description                 | Annotation | Données de classification   | Référence | Quantité | Unité |
|-------|-----------------------------|------------|-----------------------------|-----------|----------|-------|
| - 301 | Pump                        |            |                             |           | 1        | pcs   |
|       | Clamp                       |            |                             |           | 2        |       |
|       | Earth connector             |            |                             |           | 1        |       |
|       | Thermotransfer foil         |            |                             |           | 0        |       |
|       | Thermotransfer foil         |            |                             |           | 0        |       |
| 6a    | Pin                         |            |                             |           | 3        |       |
| 7a    | Rivet                       |            |                             |           | 4        |       |
| 9a    | Parallel key                |            | Dimension: 8X7X28           |           | 1        |       |
| 37    | O-ring                      |            | Diameter: 330               |           | 1        |       |
|       |                             |            | Material type: NBR70        |           |          |       |
|       |                             |            | Thickness: 4                |           |          |       |
| 37a   | O-ring                      |            | Diameter: 346               |           | 2        |       |
|       |                             |            | Material type: NBR70        |           |          |       |
|       |                             |            | Thickness: 4                |           |          |       |
| 37b   | O-ring                      |            | Diameter: 250               |           | 1        |       |
|       |                             |            | Material type: NBR70        |           |          |       |
|       |                             |            | Thickness: 4                |           |          |       |
| + 46  | Seal ring                   |            |                             |           | 1        |       |
| 48    | Stator                      |            |                             |           | 1        |       |
| 49    | Impeller                    |            |                             |           | 1        |       |
| 49c   | Wear ring                   |            |                             |           | 1        |       |
| 50    | Pump housing                |            |                             |           | 1        |       |
| 55    | Stator housing              |            |                             |           | 1        |       |
| 58    | Cover                       |            |                             |           | 1        |       |
| 59    | Bearing cover               |            |                             |           | 1        |       |
| 60    | Bearing retainer            |            |                             |           | 1        |       |
| 61    | Bearing retainer            |            |                             |           | 1        |       |
| 66    | Washer                      |            | Internal diameter: 12.5     |           | 1        |       |
|       |                             |            | Outer diameter: 31          |           |          |       |
|       |                             |            | Thickness: 5                |           |          |       |
| 76    | Nameplate                   |            |                             |           | 1        |       |
| + 92  | Strap cpl.                  |            |                             |           | 1        |       |
| - 105 | Shaft seal                  |            |                             |           | 1        |       |
|       | Shaft seal                  |            |                             |           | 1        |       |
|       | 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        |       |
|       |                             |            | Material type: NBR70        |           |          |       |
|       |                             |            | Thickness: 3                |           |          |       |
| 108   | O-ring                      |            | Diameter: 120               |           | 1        |       |
|       |                             |            | Material type: NBR70        |           |          |       |
|       |                             |            | Thickness: 3                |           |          |       |
| 109   | O-ring                      |            | Diameter: 100               |           | 1        |       |
|       |                             |            | Material type: NBR          |           |          |       |
|       |                             |            | Thickness: 3                |           |          |       |
| 150   | Motor sleeve                |            |                             |           | 1        |       |
| 151   | Motor cover                 |            |                             |           | 1        |       |
| 153   | Ball bearing                |            | Designation: 6306.2Z.C4.SYN |           | 1        |       |
| 153b  | O-ring                      |            | Diameter: 28                |           | 1        |       |
|       |                             |            | Material type: NBR          |           |          |       |
|       |                             |            | Thickness: 2                |           |          |       |

| Pos   | Description               | Annotation | Données de classification | Référence | Quantité | Unité |
|-------|---------------------------|------------|---------------------------|-----------|----------|-------|
| 153b  | Circlip                   |            |                           |           | 1        |       |
| 154   | Ball bearing              |            |                           |           | 1        |       |
| 155   | Flange                    |            |                           |           | 1        |       |
| 157   | Waved washer              |            |                           |           | 1        |       |
| 158   | Waved washer              |            |                           |           | 1        |       |
| 159   | O-ring                    |            | Diameter: 41              |           | 1        |       |
|       |                           |            | Material type: NBR        |           |          |       |
|       |                           |            | Thickness: 4              |           |          |       |
| 172   | Shaft w/rotor             |            |                           |           | 1        |       |
| 174a  | Lock washer               |            |                           |           | 1        |       |
| 176   | Plug                      |            |                           |           | 1        |       |
| 177   | Plug protector            |            |                           |           | 1        |       |
| 177   | Hex socket head cap screw |            |                           |           | 1        |       |
| - 181 | Cable cpl.                |            |                           |           | 1        |       |
| 198   | O-ring                    |            |                           |           | 1        |       |
| 183   | Hex socket head cap screw |            | Length (mm): 50           |           | 1        |       |
|       |                           |            | Thread: M30               |           |          |       |
| 184   | Hex socket head cap screw |            | Designation: DIN 912      |           | 6        |       |
|       |                           |            | Length (mm): 40           |           |          |       |
|       |                           |            | Thread: M10               |           |          |       |
| 184a  | Washer                    |            | Internal diameter: 10.5   |           | 6        |       |
|       |                           |            | Outer diameter: 18        |           |          |       |
|       |                           |            | Thickness: 1.6            |           |          |       |
| 186   | Hex socket head cap screw |            |                           |           | 2        |       |
| 187   | Hex socket head cap screw |            |                           |           | 4        |       |
| 188   | Hex socket head cap screw |            |                           |           | 4        |       |
| 188a  | Hex socket head cap screw |            | Length (mm): 35           |           | 1        |       |
|       |                           |            | Thread: M12               |           |          |       |
| 190   | Lifting bracket           |            |                           |           | 1        |       |
| 190a  | Rubber bush               |            |                           |           | 2        |       |
| 192   | Cooling paste             |            |                           |           | 12       |       |
| 193   | Hex socket head cap screw |            | Designation: A2-70        |           | 2        |       |
|       |                           |            | Length (mm): 20           |           |          |       |
|       |                           |            | Thread: M12               |           |          |       |
| 193a  | Oil                       |            |                           |           | 0        |       |
| 194   | Washer                    |            | Internal diameter: 19     |           | 2        |       |
|       |                           |            | Outer diameter: 12.2      |           |          |       |
|       |                           |            | Thickness: 4.4            |           |          |       |
| 1031  | Connector pin             |            |                           |           | 9        |       |

*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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