

## MAGNA3 50-40 F 240 1x230V PN16

Grundfos pump 97924287



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<https://www.lenntech.com/grundfos/MAGNA3/97924287/MAGNA3-50-40-F.html>

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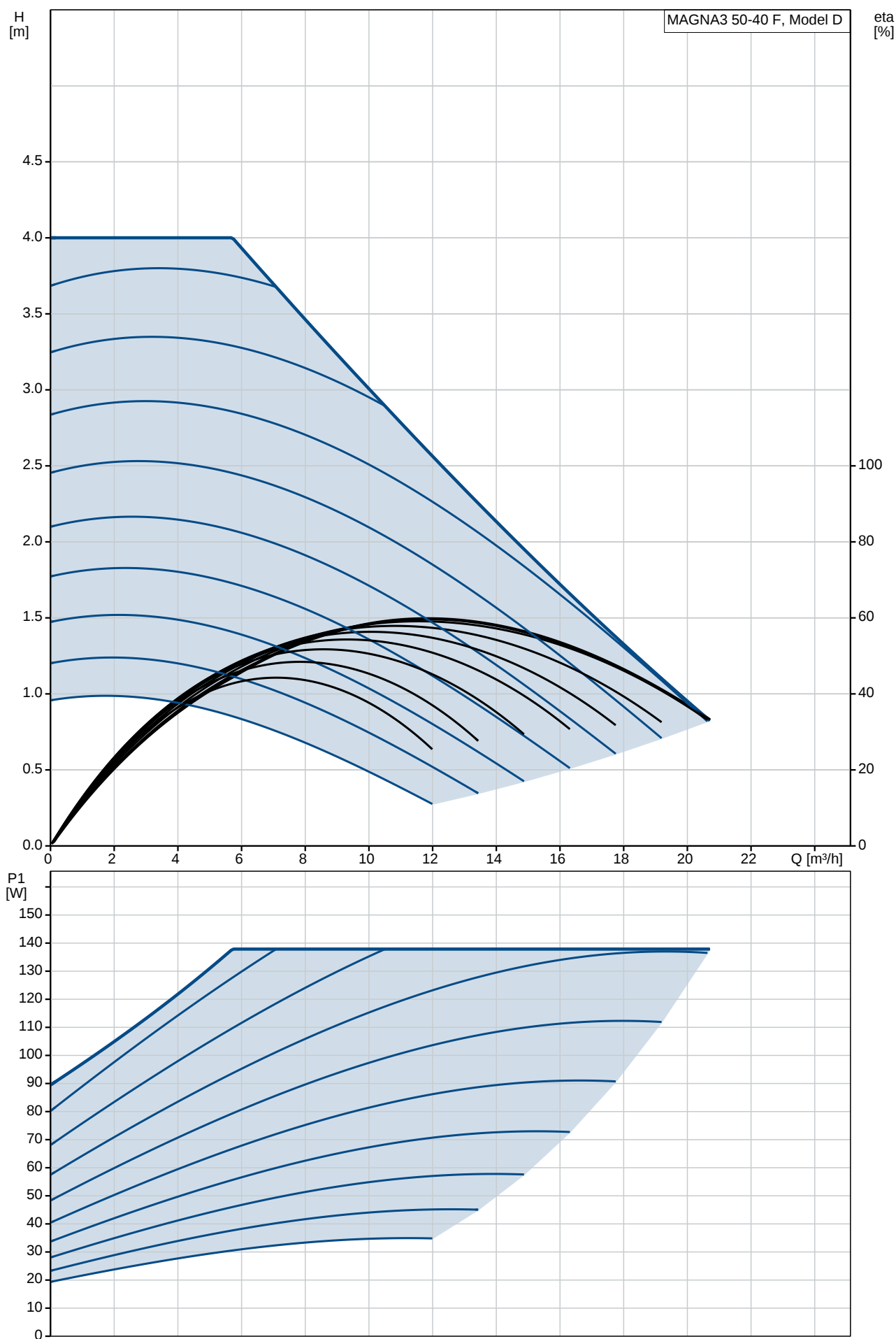
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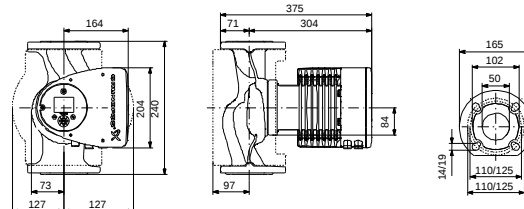
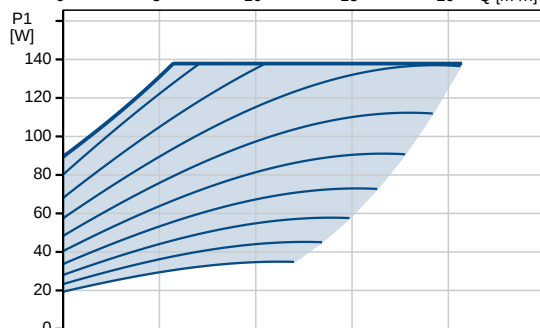
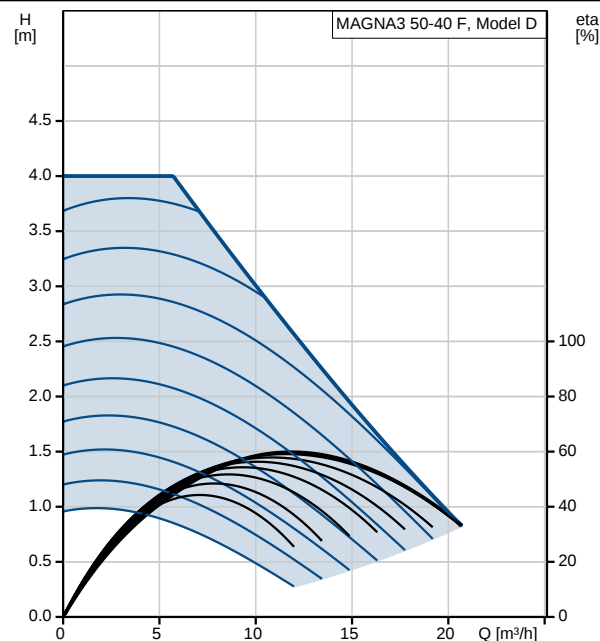
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | 1    | <p><b>MAGNA3 50-40 F</b></p>  <p>Product No.: On request</p> <p>With its unrivalled efficiency, all-encompassing range and built-in communication capabilities, the MAGNA3 is ideal for engineers and specifiers looking to create high-performance heating and cooling systems.</p> <p>MAGNA3 is the ideal choice for almost any building project – old or new.</p> <p>The pump is of the canned-rotor type, which means that pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.</p> <p>The MAGNA3 is a pump with no maintenance requirements and with extremely low life cycle cost.</p> <p><b>Characteristic features</b></p> <ul style="list-style-type: none"> <li>• AUTOADAPT</li> <li>• FLOWADAPT and FLOWLIMIT (reduces the need for pump throttling valves)</li> <li>• Proportional-pressure control</li> <li>• Constant-pressure control</li> <li>• Constant-temperature control</li> <li>• Differential temperature control (requires an additional temperature sensor)</li> <li>• Constant-curve duty</li> <li>• Maximum and minimum curve duty</li> <li>• Automatic night setback</li> <li>• Heat energy monitor</li> <li>• No external motor protection required</li> <li>• Innovative clamp ring with only one screw enabling easy repositioning of the pump head</li> <li>• Insulating shells supplied with single-head pumps for heating systems</li> <li>• Large temperature range due to air cooled electronics</li> </ul> <p><b>Communication</b></p> <ul style="list-style-type: none"> <li>• Wireless communication with the Grundfos GO Remote app</li> <li>• Fieldbus communication via CIM modules</li> <li>• Digital inputs</li> <li>• Relay outputs</li> <li>• Analog input</li> </ul> <p><b>Product details</b></p> <p>The MAGNA3 is a single-phase pump and characterised by the following</p> <ul style="list-style-type: none"> <li>• Controller integrated in the control box</li> <li>• Control panel with TFT display on the control box</li> <li>• Control box prepared for optional CIM modules</li> <li>• Built-in differential-pressure and temperature sensor</li> <li>• Cast-iron pump housing (also available in stainless steel versions)</li> <li>• Carbon-fibre-reinforced composite rotor can</li> <li>• Stainless-steel bearing plate and rotor cladding</li> <li>• Aluminium alloy stator housing</li> <li>• Air-cooled power electronics</li> </ul> <p><b>Motor and electronic controller</b></p> <p>The MAGNA3 incorporates a 4-pole synchronous, permanent-magnet motor (PM motor). This motor type is characterised by higher efficiency than a conventional asynchronous squirrel-cage motor.</p> <p>The pump speed is controlled by an integrated frequency converter.</p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: -10 .. 110 °C</p> <p>Liquid temperature during operation: 60 °C</p> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>Density: 983.2 kg/m<sup>3</sup></p> <p><b>Technical:</b></p> <p>Rated flow: 10.9 m<sup>3</sup>/h</p> <p>Rated head: 2.7 m</p> <p>TF class: 110</p> <p>Approvals on nameplate: CE,VDE,EAC,CN ROHS,WEEE</p> <p><b>Materials:</b></p> <p>Pump housing: Cast iron<br/>EN-GJL-250<br/>ASTM A48-250B</p> <p>Impeller: PES 30%GF</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: 0 .. 40 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Flange standard: DIN</p> <p>Pipe connection: DN 50</p> <p>Pressure rating: PN16</p> <p>(@): 240 mm</p> <p><b>Electrical data:</b></p> <p>Power input - P1: 20 .. 138 W</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 1 x 230 V</p> <p>Maximum current consumption: 0.22 .. 0.72 A</p> <p>Enclosure class (IEC 34-5): X4D</p> <p>Insulation class (IEC 85): F</p> <p><b>Others:</b></p> <p>Energy (EEI): 0.20</p> <p>Net weight: 17.7 kg</p> <p>Gross weight: 19.7 kg</p> <p>Shipping volume: 0.046 m<sup>3</sup></p> <p>Danish VVS No.: 380958504</p> |

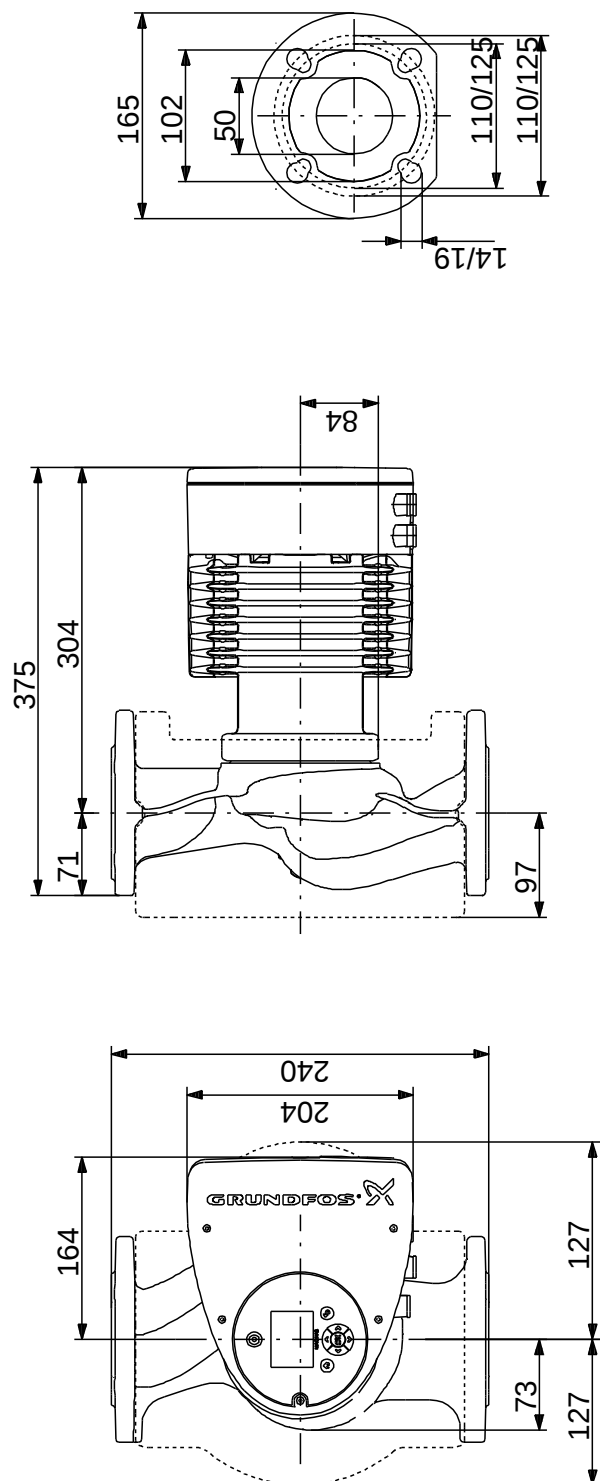
# On request MAGNA3 50-40 F 50 Hz



| Description                          | Value                                    |
|--------------------------------------|------------------------------------------|
| <b>General information:</b>          |                                          |
| Product name:                        | MAGNA3 50-40 F                           |
| Product No:                          | On request                               |
| EAN number:                          | On request                               |
| <b>Technical:</b>                    |                                          |
| Rated flow:                          | 10.9 m³/h                                |
| Rated head:                          | 2.7 m                                    |
| Head max:                            | 40 dm                                    |
| TF class:                            | 110                                      |
| Approvals on nameplate:              | CE,VDE,EAC,CN<br>ROHS,WEEE<br>D          |
| Model:                               | D                                        |
| <b>Materials:</b>                    |                                          |
| Pump housing:                        | Cast iron<br>EN-GJL-250<br>ASTM A48-250B |
| Impeller:                            | PES 30%GF                                |
| <b>Installation:</b>                 |                                          |
| Range of ambient temperature:        | 0 .. 40 °C                               |
| Maximum operating pressure:          | 16 bar                                   |
| Flange standard:                     | DIN                                      |
| Pipe connection:                     | DN 50                                    |
| Pressure rating:                     | PN16                                     |
| (@)                                  | 240 mm                                   |
| <b>Liquid:</b>                       |                                          |
| Pumped liquid:                       | Water                                    |
| Liquid temperature range:            | -10 .. 110 °C                            |
| Liquid temperature during operation: | 60 °C                                    |
| Density:                             | 983.2 kg/m³                              |
| <b>Electrical data:</b>              |                                          |
| Power input - P1:                    | 20 .. 138 W                              |
| Mains frequency:                     | 50 Hz                                    |
| Rated voltage:                       | 1 x 230 V                                |
| Maximum current consumption:         | 0.22 .. 0.72 A                           |
| Enclosure class (IEC 34-5):          | X4D                                      |
| Insulation class (IEC 85):           | F                                        |
| <b>Others:</b>                       |                                          |
| Energy (EEI):                        | 0.20                                     |
| Net weight:                          | 17.7 kg                                  |
| Gross weight:                        | 19.7 kg                                  |
| Shipping volume:                     | 0.046 m³                                 |
| Danish VVS No.:                      | 380958504                                |



# On request MAGNA3 50-40 F 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 MAGNA3 50-40 F, Product No. On request**  
**Valid from 17.5.2012 (1220)**

| Pos   | Description                   | Annotation | Données de classification | Référence | Quantité | Unité |
|-------|-------------------------------|------------|---------------------------|-----------|----------|-------|
| -     | Pump housing cpl.             |            |                           |           | 1        | pcs   |
| 6     | Pump housing                  |            |                           |           | 1        |       |
| 45    | Neck ring cpl.                |            |                           |           | 1        |       |
| 92    | Clamp cpl.                    |            |                           |           | 1        | pcs   |
| - 163 | Control box                   |            |                           |           | 1        | pcs   |
| -     | Control box                   |            |                           |           | 1        |       |
|       | Box                           |            |                           |           | 1        |       |
|       | Socket head cap screw         |            |                           |           | 12       |       |
| 166   | Powerboard, Leaded            |            |                           |           | 1        |       |
| 166c  | Socket head cap screw         |            |                           |           | 1        |       |
| 167   | Cover                         |            |                           |           | 1        |       |
| 167a  | Pan head tapping screw        |            |                           |           | 4        |       |
| 192   | Cooling paste                 |            |                           |           | 0        |       |
| -     | Control box                   |            |                           |           | 1        |       |
|       | Spacer                        |            |                           |           | 1        |       |
| 7a    | Combi Slot Torx screw         |            |                           |           | 1        |       |
| 159   | Controlboard Leaded           |            |                           |           | 1        |       |
| 159a  | Cable w/plug                  |            |                           |           | 1        |       |
| 159b  | Connector plug 3-pole         |            |                           |           | 1        |       |
| 159b  | Connector plug 3-pole         |            |                           |           | 2        |       |
| 159b  | Connector plug 4-pole         |            |                           |           | 1        |       |
| 159c  | Pan washer head screw         |            |                           |           | 1        |       |
| 159d  | Board                         |            |                           |           | 1        |       |
| 160   | Spacer                        |            |                           |           | 1        |       |
| 163b  | Compression spring            |            |                           |           | 4        |       |
| 164   | Cover                         |            |                           |           | 1        |       |
| 164a  | Screw DELTA PT                |            |                           |           | 5        |       |
| 273b  | Battery                       |            |                           |           | 1        |       |
| 501   | Displayboard cpl.             |            |                           |           | 1        |       |
| 163a  | Pan head screw                |            |                           |           | 2        | pcs   |
| 163d  | Pan head screw                |            |                           |           | 1        | pcs   |
| - 301 | Pump head                     |            |                           |           | 1        | pcs   |
| 301a  | O-ring                        |            |                           |           | 1        |       |
| 301b  | Protector                     |            |                           |           | 1        | pcs   |
| 450   | Insulation                    |            |                           |           | 1        | pcs   |
| - 531 | Sensor                        |            |                           |           | 1        | pcs   |
| 531a  | Seal cap                      |            |                           |           | 1        |       |
| 534   | Bracket                       |            |                           |           | 1        | pcs   |
| 534a  | Pan head thread forming screw |            |                           |           | 1        | pcs   |

*Disclaimer: The information about the Grundfos pump in this document may be outdated.*

*Data may be subject to alterations without further notice.*

*Please contact us to verify the data above is still accurate/up-to-date.*

*All information is copyright Grundfos.*



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