

## SP3A-12N 2.2kW 1x220V 50Hz

Grundfos pump 10202112



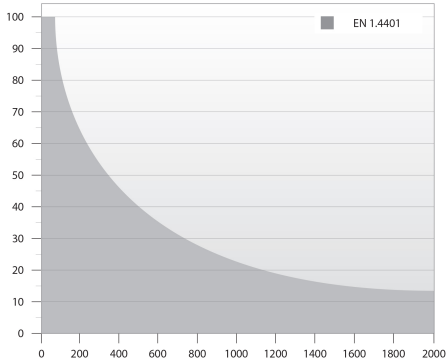
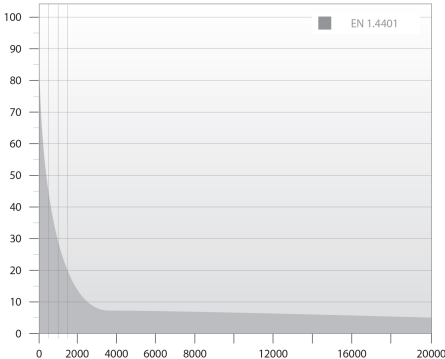
Thank you for your interest in our products. Please contact us for more information, or visit our website

<https://www.lenntech.com/grundfos/SPFAM/10202112/SP-3A-12N.html>

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

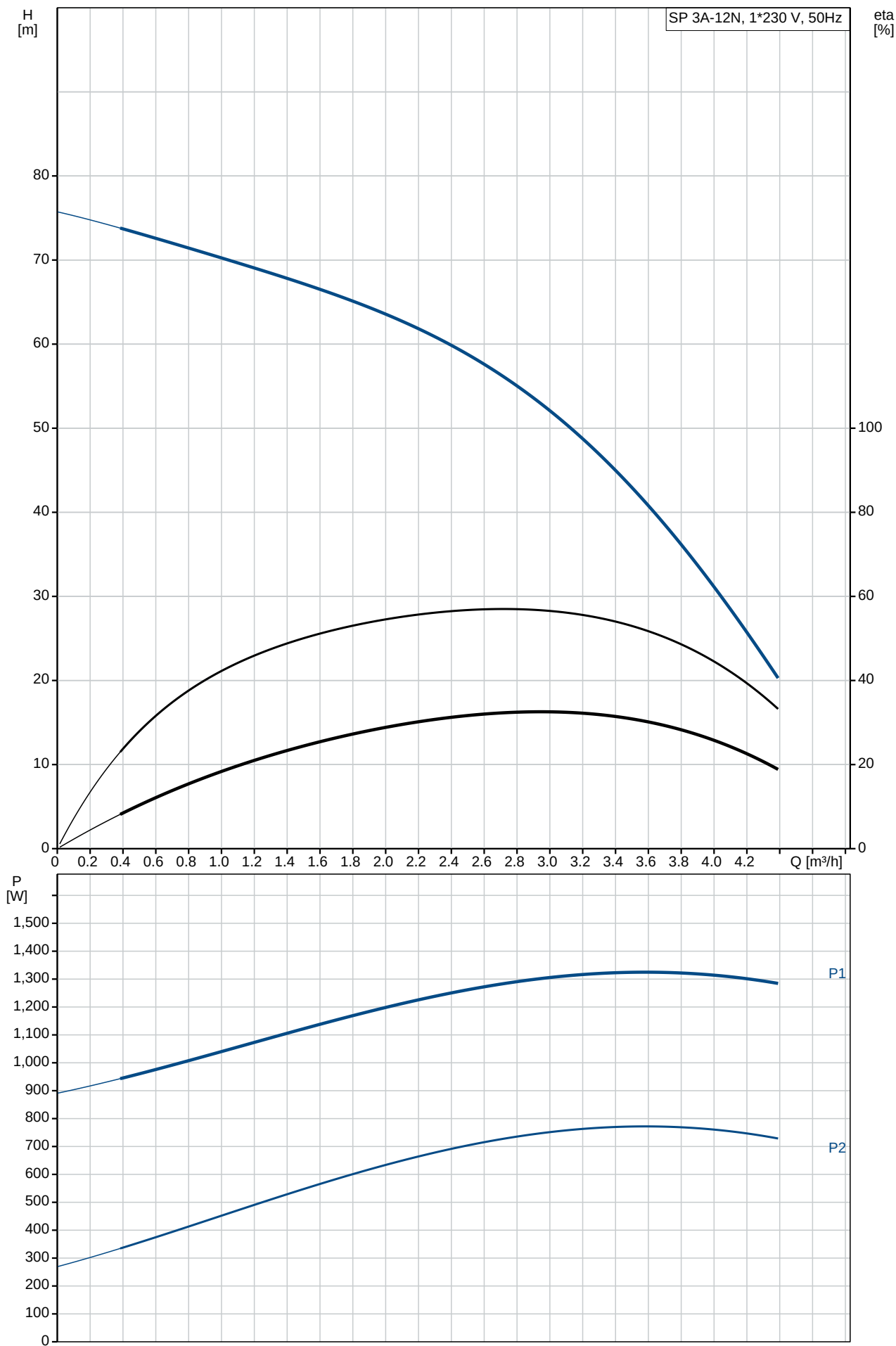
tel. +31 152 610 900

fax. +31 152 616 289

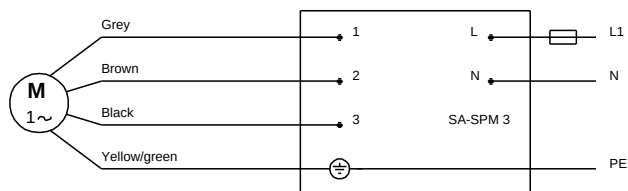
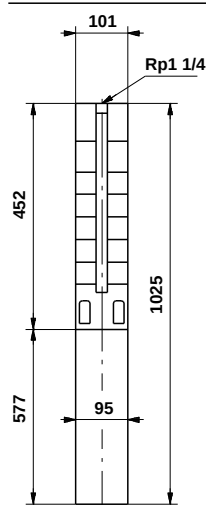
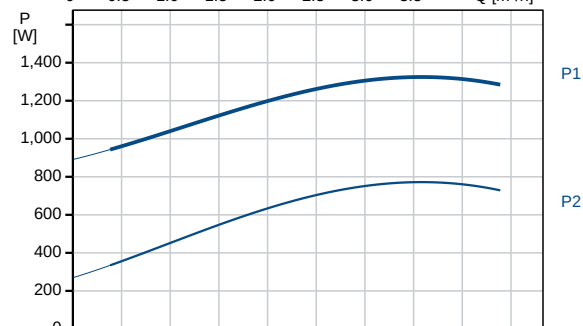
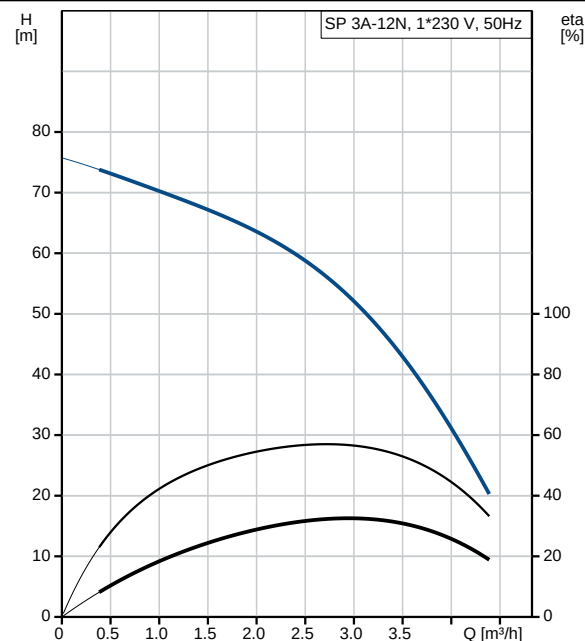
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | 1    | <p><b>SP 3A-12N</b></p>  <p><b>Note! Product picture may differ from actual product</b></p> <p>Product No.: On request</p> <p>Submersible borehole pump, suitable for pumping clean water. Can be installed vertically or horizontally. All steel components are made in stainless steel, EN 1.4401 (AISI 316), that ensures high corrosive resistance.</p> <p>The pump is fitted with a 2.2 kW MS4000 motor with sand shield, mechanical shaft seal, water-lubricated journal bearings and a volume compensating diaphragm. The motor is a canned type submersible motor offering good mechanical stability and high efficiency. Suitable for temperatures up to 40 °C.</p> <p>The motor is not fitted with a temperature sensor. If temperature monitoring is desired, a Pt1000 sensor can be fitted.</p> <p>The motor is for direct-on-line starting (DOL).</p> <p><b>Further product details</b></p> <p>The pump is suitable for applications similar to the following:</p> <ul style="list-style-type: none"> <li>- raw-water supply</li> <li>- irrigation</li> <li>- groundwater lowering</li> <li>- pressure boosting</li> <li>- fountain applications</li> <li>- mining applications</li> <li>- off-shore applications.</li> </ul> <p><b>Pump</b></p> <p>All pump surfaces that are in contact with pumped liquids are made in stainless steel which makes them corrosion- and wear-resistant. The corrosion diagram below shows the capabilities of the pump and motor in relation to the temperature in Celsius (y-axis) and the concentration of chloride in ppm (x-axis).</p> <div style="display: flex; justify-content: space-around;">   </div> <p>The elastomer parts in the pump are made of NBR (Nitrile-Butadiene Rubber) and TPU (Thermoplastic Poly-Urethane) which offers good wear resistance and long service intervals.</p> <p>The suction interconnector is fitted with a strainer to prevent large particles from entering the pump. The suction interconnector is designed to comply with NEMA standards for motor mounting/dimensions.</p> <p><b>Motor</b></p> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>The stator is hermetically encapsulated in stainless steel and the windings are embedded in polymer compound. This results in high mechanical stability, optimum cooling and reduces the risk of short circuits in the windings.</p> <p>The shaft seal faces are SiC/SiC. The material combination gives good performance when abrasive particles (sand) is present. Together with the shaft seal housing, the sand shield forms a labyrinth seal, which during normal operating conditions prevents penetration of sand particles into the shaft seal. This shaft seal is drinking water approved.</p> <p>The motor can be fitted with a Pt100 or Pt1000 sensor that together with a control unit ensures that the maximum operating temperature conditions are not exceeded.</p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Maximum liquid temperature: 40 °C</p> <p>Max liquid t at 0.15 m/sec: 40 °C</p> <p>Liquid temperature during operation: 20 °C</p> <p>Density: 998.2 kg/m³</p> <p><b>Technical:</b></p> <p>Rated flow: 3 m³/h</p> <p>Rated head: 53 m</p> <p>Shaft seal for motor: SIC/SIC</p> <p>Approvals on nameplate: CE,EAC</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p>Motor version: T40</p> <p><b>Materials:</b></p> <p>Pump: Stainless steel<br/>EN 1.4401<br/>AISI 316</p> <p>Impeller: Stainless steel<br/>EN 1.4401<br/>AISI 316</p> <p>Motor: Stainless steel<br/>DIN W.-Nr. 1.4539<br/>AISI 904 L</p> <p><b>Installation:</b></p> <p>Pump outlet: Rp1 1/4</p> <p>Motor diameter: 4 inch</p> <p><b>Electrical data:</b></p> <p>Motor type: MS4000</p> <p>Type of motor: CSCR</p> <p>Rated power - P2: 2.2 kW</p> <p>Power (P2) required by pump: 2.2 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 1 x 220-230 V</p> <p>Rated current: 14.6-14.0 A</p> <p>Starting current: 540-600 %</p> <p>Cos phi - power factor: 0.96-0.96</p> <p>Rated speed: 2850-2870 rpm</p> <p>Start. method: direct-on-line</p> <p>Enclosure class (IEC 34-5): IP68</p> <p>Insulation class (IEC 85): F</p> <p>Built-in temp. transmitter: no</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI ≥: 0.70</p> <p>ErP status: EuP Standalone/Prod.</p> <p>Net weight: 27.8 kg</p> <p>Gross weight: 29.6 kg</p> <p>Shipping volume: 16.3 m³</p> |

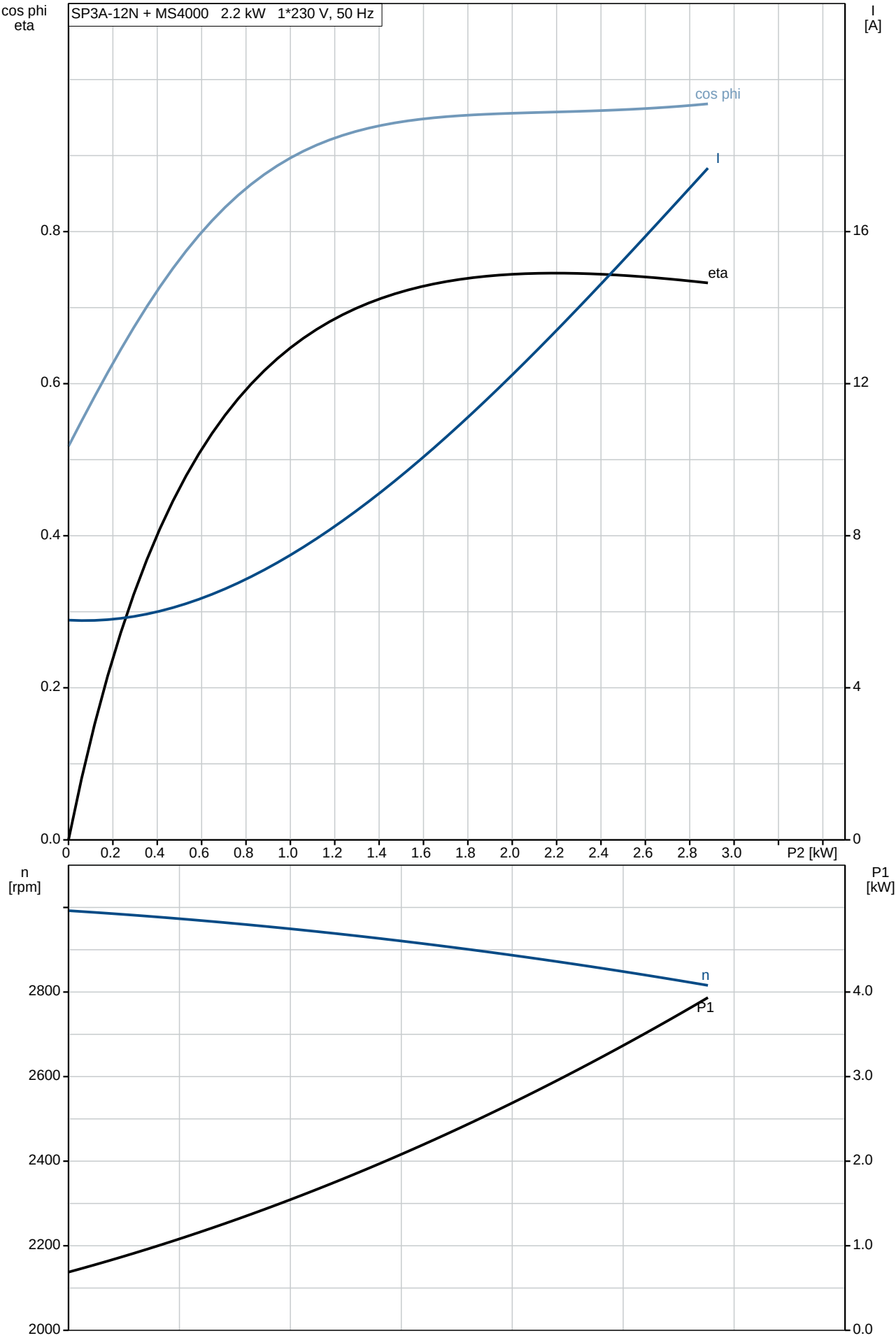
On request SP 3A-12N 50 Hz



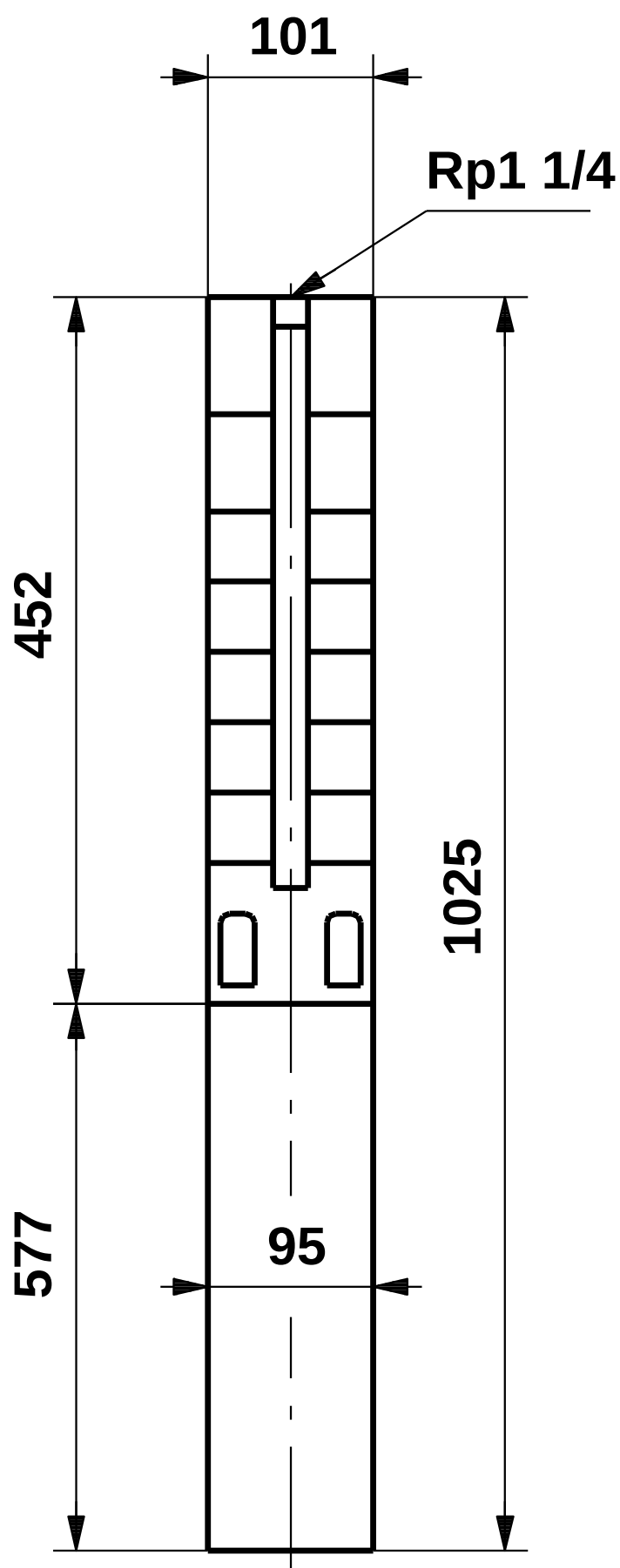
| Description                          | Value                |
|--------------------------------------|----------------------|
| <b>General information:</b>          |                      |
| Product name:                        | SP 3A-12N            |
| Product No:                          | On request           |
| EAN number:                          | On request           |
| <b>Technical:</b>                    |                      |
| Rated flow:                          | 3 m³/h               |
| Rated head:                          | 53 m                 |
| Stages:                              | 12                   |
| Impeller reduc.:                     | NONE                 |
| Shaft seal for motor:                | SIC/SIC              |
| Approvals on nameplate:              | CE,EAC               |
| Curve tolerance:                     | ISO9906:2012 3B      |
| Model:                               | A                    |
| Valve:                               | YES                  |
| Motor version:                       | T40                  |
| <b>Materials:</b>                    |                      |
| Pump:                                | Stainless steel      |
|                                      | EN 1.4401            |
|                                      | AISI 316             |
| Impeller:                            | Stainless steel      |
|                                      | EN 1.4401            |
|                                      | AISI 316             |
| Motor:                               | Stainless steel      |
|                                      | DIN W.-Nr. 1.4539    |
|                                      | AISI 904 L           |
| <b>Installation:</b>                 |                      |
| Pump outlet:                         | Rp1 1/4              |
| Motor diameter:                      | 4 inch               |
| <b>Liquid:</b>                       |                      |
| Pumped liquid:                       | Water                |
| Maximum liquid temperature:          | 40 °C                |
| Max liquid t at 0.15 m/sec:          | 40 °C                |
| Liquid temperature during operation: | 20 °C                |
| Density:                             | 998.2 kg/m³          |
| <b>Electrical data:</b>              |                      |
| Motor type:                          | MS4000               |
| Type of motor:                       | CSCR                 |
| Applic. motor:                       | GRUNDFOS             |
| Rated power - P2:                    | 2.2 kW               |
| Power (P2) required by pump:         | 2.2 kW               |
| Mains frequency:                     | 50 Hz                |
| Rated voltage:                       | 1 x 220-230 V        |
| Rated current:                       | 14.6-14.0 A          |
| Starting current:                    | 540-600 %            |
| Cos phi - power factor:              | 0.96-0.96            |
| Rated speed:                         | 2850-2870 rpm        |
| Start. method:                       | direct-on-line       |
| Enclosure class (IEC 34-5):          | IP68                 |
| Insulation class (IEC 85):           | F                    |
| Motor protec:                        | NONE                 |
| Thermal protec:                      | external             |
| Built-in temp. transmitter:          | no                   |
| Motor No:                            | 79214607             |
| <b>Others:</b>                       |                      |
| Minimum efficiency index, MEI ≥:     | 0.70                 |
| ErP status:                          | EuP Standalone/Prod. |
| Net weight:                          | 27.8 kg              |
| Gross weight:                        | 29.6 kg              |
| Shipping volume:                     | 16.3 m³              |



# On request SP 3A-12N 50 Hz

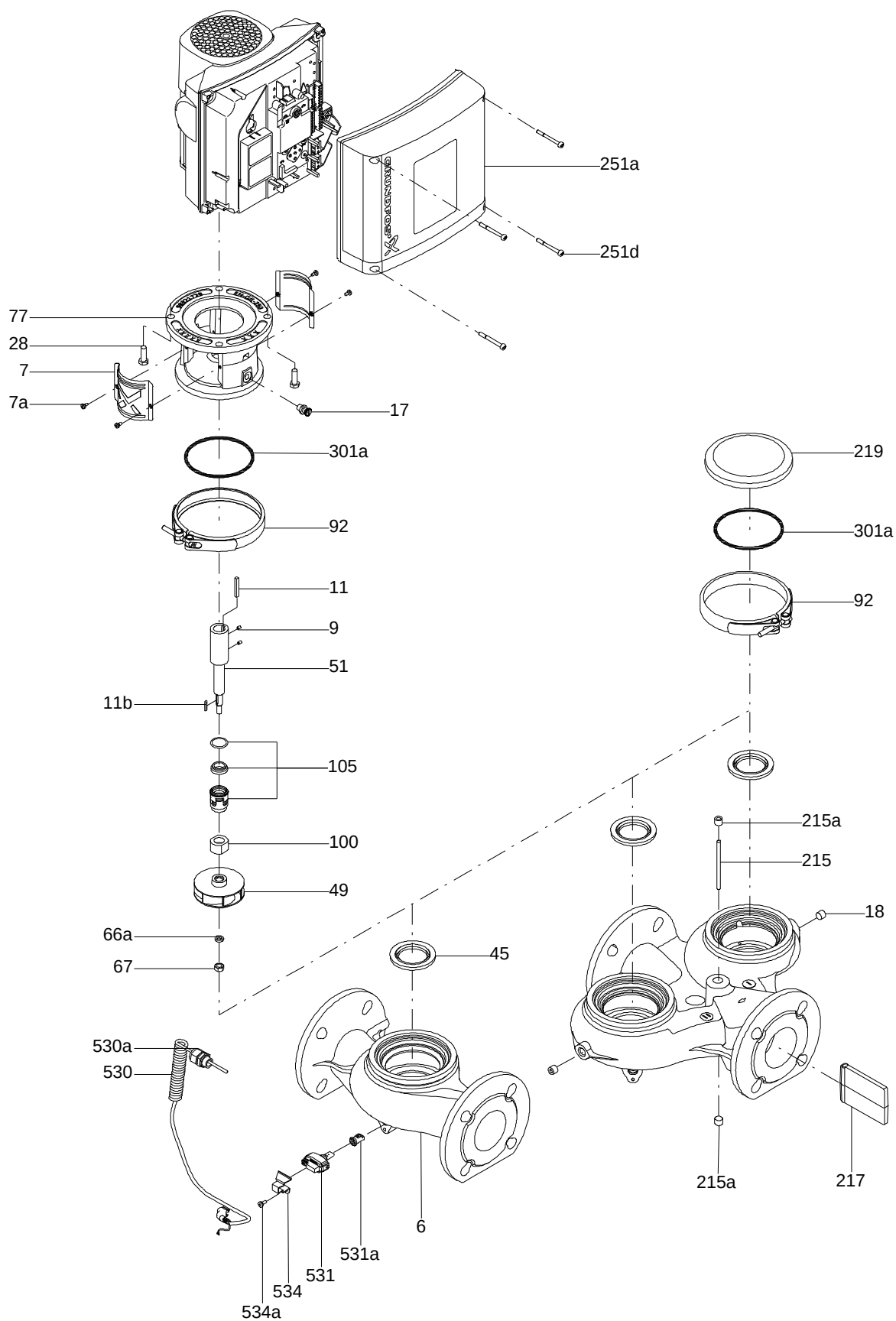


On request SP 3A-12N 50 Hz



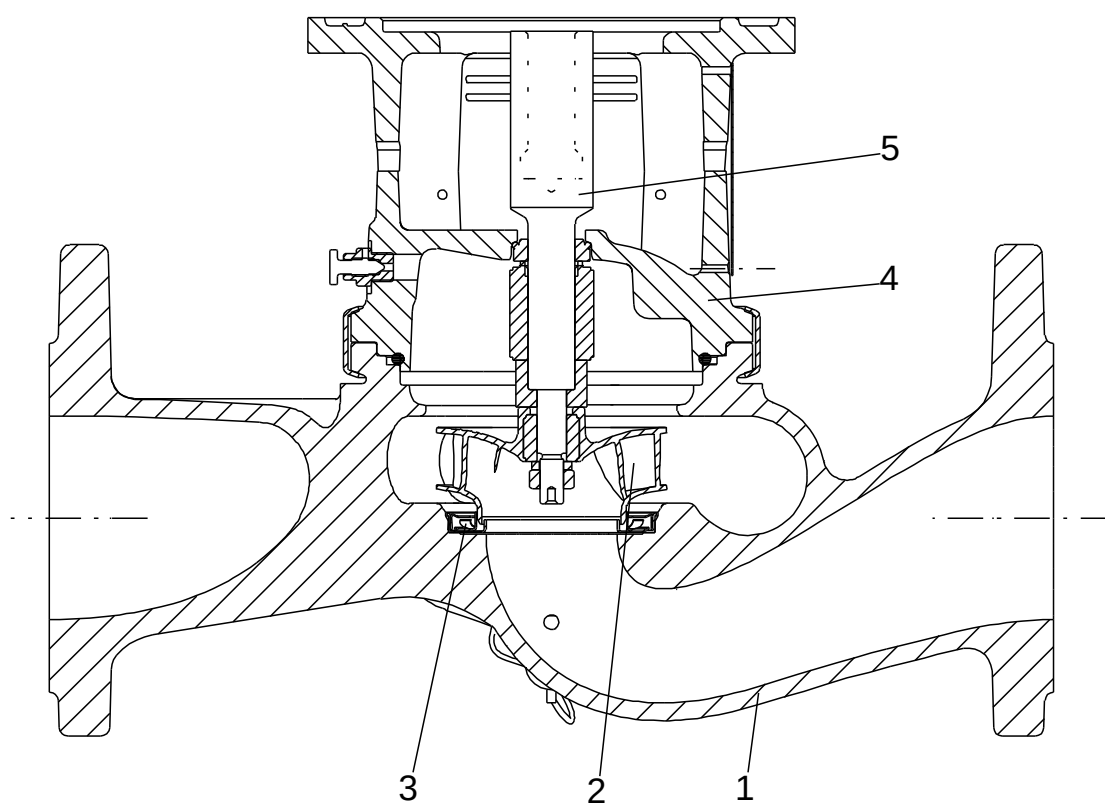
Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

# Exploded view



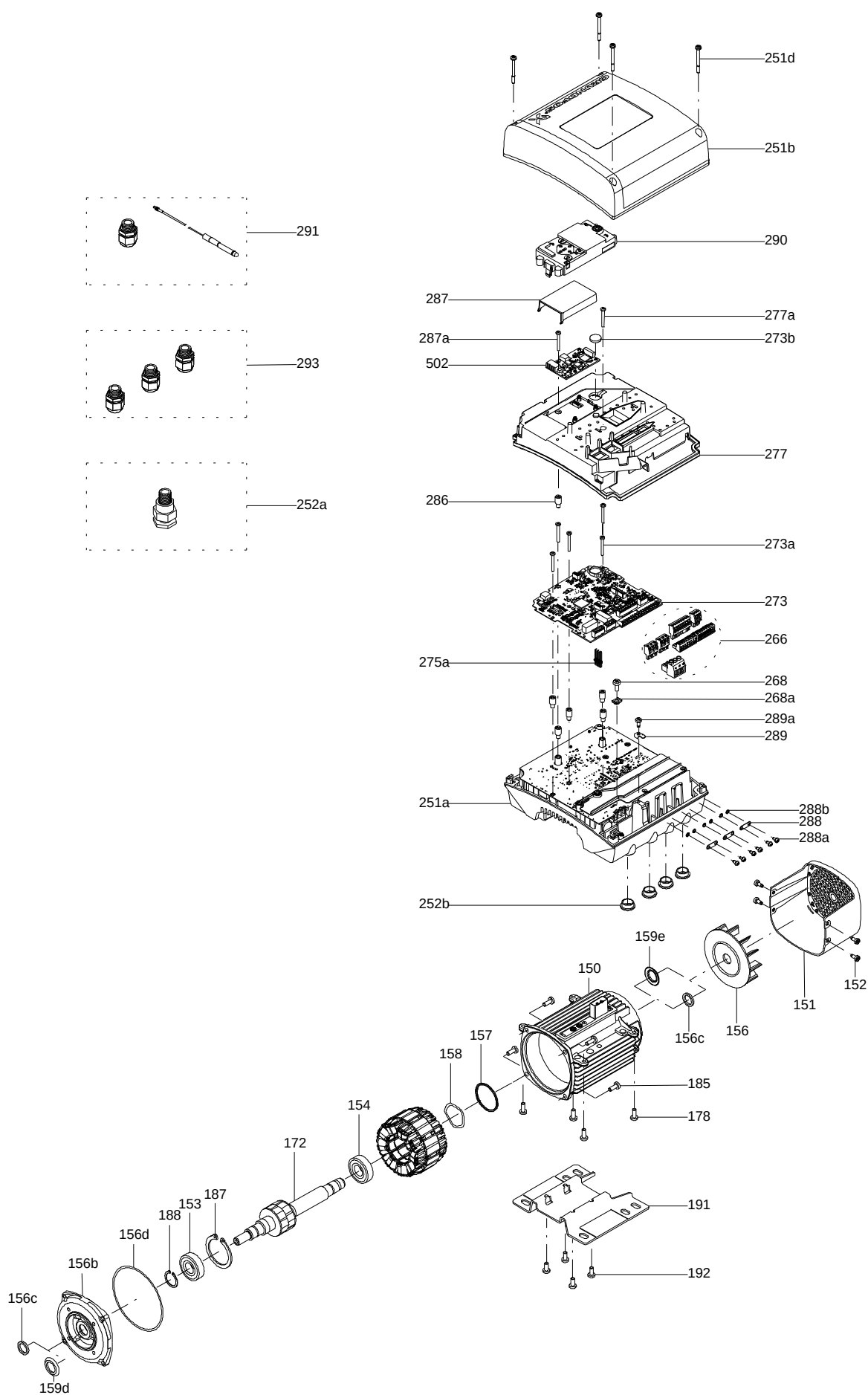


Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

# Exploded view ( TM057026 for MGE model H/I )



**Parts list SP 3A-12N, Product No. On request**  
**Valid from 1.1.1999 (9953)**

| Pos   | Description               | Annotation | Données de classification | Référence | Quantité | Unité |
|-------|---------------------------|------------|---------------------------|-----------|----------|-------|
| -     | Pump w/o motor            |            |                           |           | 1        | pcs   |
|       | Stop ring                 |            |                           |           | 2        |       |
|       | Retainer                  |            |                           |           | 1        |       |
| - 1   | Valve casing cpl.         |            |                           |           | 1        |       |
|       | Valve casing              |            |                           |           | 1        |       |
| 6     | Bearing                   |            |                           |           | 1        |       |
| - 9   | Intermediate chamber cpl. |            |                           |           | 12       |       |
|       | Chamber                   |            |                           |           | 1        |       |
| 7     | Neck ring                 |            |                           |           | 1        |       |
| - 10  | Chamber, bottom           |            |                           |           | 1        |       |
| 7     | Neck ring                 |            |                           |           | 1        |       |
| - 13a | Impeller cpl.             |            |                           |           | 12       |       |
|       | Impeller                  |            |                           |           | 1        |       |
| - 11  | Split cone nut            |            |                           |           | 1        |       |
|       | Split cone nut            |            |                           |           |          |       |
| 11a   | O-ring                    |            | Diameter: 15,00           |           |          |       |
|       |                           |            | Material type: NBR        |           |          |       |
|       |                           |            | Thickness: 70SHOR         |           |          |       |
| 12    | Split cone                |            |                           |           | 1        |       |
| 14    | Suction interconnector    |            |                           |           | 1        |       |
| 15    | Strainer                  |            |                           |           | 1        |       |
| 16    | Shaft cpl.                |            | Length (mm): 360          |           | 1        |       |
| 17    | Strap cpl.                |            | Length (mm): 380          |           | 4        |       |
|       |                           |            | Thread: M8                |           |          |       |
| 18    | Cable guard cpl.          |            |                           |           | 1        |       |
| 18d   | Hex nut                   |            |                           |           | 2        |       |
| 19    | Nut                       |            |                           |           | 4        |       |
| 78    | Nameplate                 |            |                           |           | 1        |       |
| -     | Motor                     |            |                           |           | 1        | pcs   |
| 1     | Stator w/housing          |            |                           |           | 1        |       |
| 2     | Shaft w/rotor             |            |                           |           | 1        |       |
| 3     | Thrust ring support cpl.  |            |                           |           | 1        |       |
| 4     | Radial bearing            |            |                           |           | 1        |       |
| 5     | Bearing pipe              |            |                           |           | 1        |       |
| 6     | Thrust bearing            |            |                           |           | 1        |       |
| 7     | Lock ring                 |            |                           |           | 1        |       |
| 10    | Bearing retainer          |            |                           |           | 1        |       |
| 11    | Adjusting screw           |            |                           |           | 1        |       |
| 12    | Diaphragm                 |            |                           |           | 1        |       |
| 13    | End shield                |            |                           |           | 1        |       |
| 15    | Nut                       |            |                           |           | 1        |       |
| 16    | Lock washer               |            |                           |           | 1        |       |
| 18    | Nut                       |            | Thread: M8 DIN 934        |           | 1        |       |
| 21    | Nut                       |            | Thread: M8 DIN 934        |           | 4        |       |
| 22    | Staybolt                  |            | Thread: M8 X M8           |           | 3        |       |
| 22a   | Staybolt                  |            | Thread: M8 X M8 R         |           | 1        |       |
| 22b   | Cheese head screw         |            |                           |           | 1        |       |
| 22c   | O-ring                    |            | Diameter: 4               |           | 1        |       |
|       |                           |            | Material type: NBR        |           |          |       |
|       |                           |            | Thickness: 1              |           |          |       |
| 24    | O-ring                    |            | Diameter: 40              |           | 1        |       |
|       |                           |            | Material type: NBR        |           |          |       |
|       |                           |            | Thickness: 2              |           |          |       |
| 25    | Shaft seal housing        |            |                           |           | 1        |       |
| 27    | Spline protector          |            |                           |           | 1        |       |
| 28    | Supporting ring           |            |                           |           | 1        |       |
| 29    | Sand shield               |            |                           |           | 1        |       |
| 30    | Compression spring        |            |                           |           | 1        |       |
| 31    | Supporting ring           |            |                           |           | 1        |       |

| Pos  | Description         | Annotation | Données de classification | Référence | Quantité | Unité |
|------|---------------------|------------|---------------------------|-----------|----------|-------|
| 32   | Shaft seal cpl.     |            |                           |           | 1        |       |
| - 34 | Shaft seal cpl.     |            |                           |           | 1        |       |
|      | Seal ring           |            |                           |           | 1        |       |
|      | Seal ring, rotating |            |                           |           | 1        |       |
| 33   | O-ring              |            | Diameter: 16              |           | 1        |       |
|      |                     |            | Material type: VITON      |           |          |       |
|      |                     |            | Thickness: 2.5            |           |          |       |
| 20   | Motor cable         |            | Length (M): 1,7M          |           | 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.*



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

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289