

## TP 40-180/2-A-F-Z-BUBE 1X230 50HZ

Grundfos pump 96401998



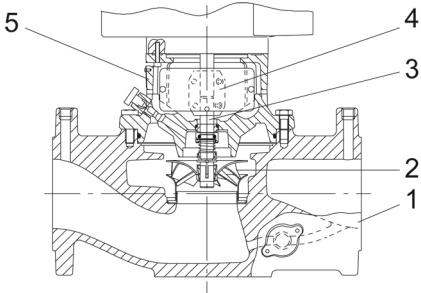
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<https://www.lenntech.com/grundfos/TPB00/96401998/TP-40-180-2-B-A-F-Z-BUBE.html>

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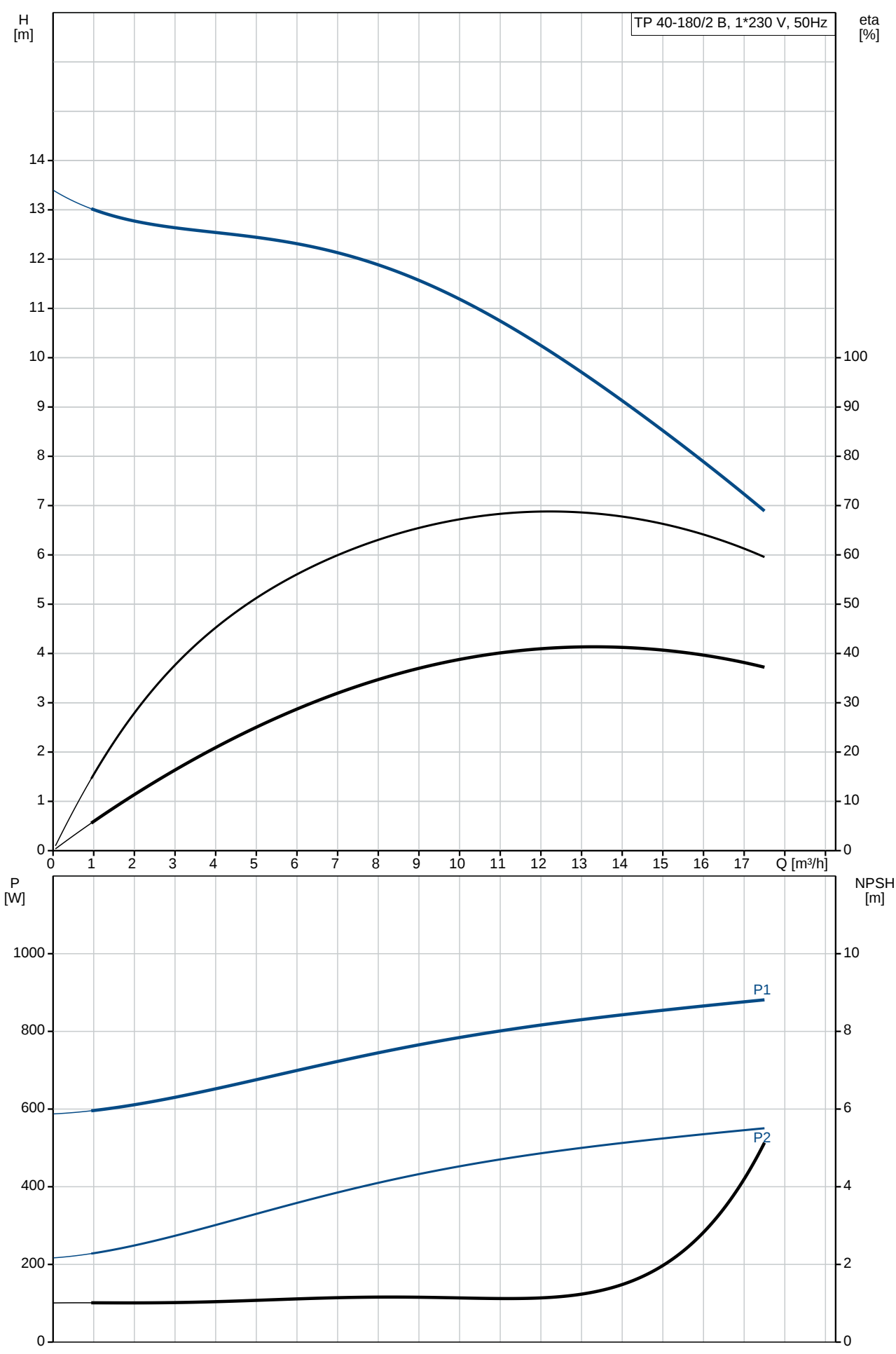
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| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|          | 1    | <p><b>TP 40-180/2 B A-F-Z-BUBE</b></p>  <p>Product No.: On request</p> <p>Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework.</p> <p>The pump is fitted with an unbalanced rubber bellows seal. The shaft seal is according to EN 12756. Pipework connection is via PN 6/10 DIN flanges (EN 1092-2 and ISO 7005-2).</p> <p>The pump is fitted with a fan-cooled asynchronous motor.</p> <p><b>Further product details</b></p> <p>The bronze pump housing and stainless-steel impeller make the pump suitable for circulation of hot water.</p> <p>The product's minimum efficiency index (MEI) is greater or equal to 0.70. This is by the Commission Regulation (EU) considered as an indicative benchmark for best-performing water pump available on the market as from 1 January 2013.</p> <p><b>Pump</b></p> <p>Pump housing and pump head are electrocoated to improve the corrosion resistance.</p> <p>Electrocoating includes:</p> <ol style="list-style-type: none"> <li>1) Alkaline-based cleaning.</li> <li>2) Pretreatment with zinc phosphate coating.</li> <li>3) Cathodic electrocoating (epoxy).</li> <li>4) Curing of paint film at 200-250 °C.</li> </ol>  <ol style="list-style-type: none"> <li>1: Pump housing</li> <li>2: Impeller</li> <li>3: Shaft</li> <li>4: Coupling</li> <li>5: Pump head</li> </ol> <p>The pump housing is provided with a replaceable stainless steel/PTFE neck ring to reduce the amount of liquid running from the discharge side of the impeller to the suction side. The impeller is secured with a split cone with nut.</p> <p>The pump is fitted with an unbalanced rubber bellows seal with torque transmission across the spring and around the bellows. Due to the bellows, the seal does not wear the shaft, and the axial movement is not prevented by deposits on the shaft.</p> <p>Primary seal:</p> <ul style="list-style-type: none"> <li>• Rotating seal ring material: tungsten carbide (WC)</li> <li>• Stationary seat material: carbon graphite, resin-impregnated</li> </ul> <p>This is a widely used material pairing. If the pumped liquid contains particles, wear on the seal faces must be expected. Due to the favourable lubricating properties of carbon graphite, the seal is suitable for use even under poor lubricating conditions, such as hot water. However, under such conditions, wear on the carbon graphite face reduces seal life.</p> |

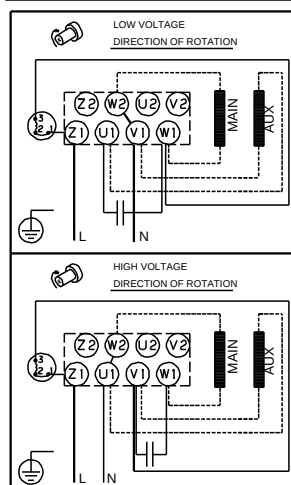
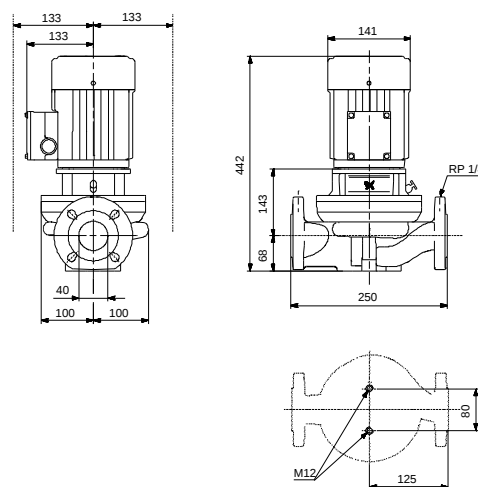
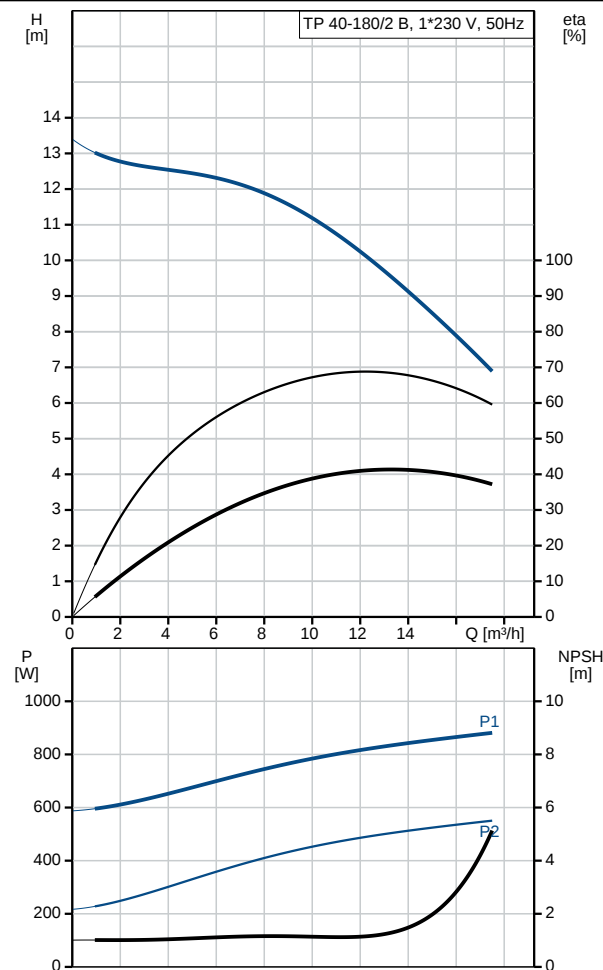
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>Secondary seal material: EPDM (ethylene-propylene rubber)<br/>EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.</p> <p>A circulation of liquid through the duct of the air vent screw ensures lubrication and cooling of the shaft seal.</p> <p>The flanges have tapplings for mounting of pressure gauges.</p> <p>The motor stool forms connection between the pump housing and the motor, and is equipped with a manual air vent screw for venting of the pump housing and the shaft seal chamber. The sealing between motor stool and pump housing is an O-ring.</p> <p>The central part of the motor stool is provided with guards for protection against the shaft and coupling. Motor and pump shaft are connected via a shell coupling.</p> <p><b>Motor</b></p> <p>The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034.</p> <p>The motor is flange-mounted with tapped-hole flange (FT).</p> <p>Motor-mounting designation in accordance with IEC 60034-7: IM B 14, IM V 18 (Code I) / IM 3601, IM 3611 (Code II).</p> <p>The motor has built-in thermal protection (PTO current and temperature sensors) in accordance with IEC 60034-11 and requires no further motor protection. The protection reacts to both slow- and quick-rising temperatures, e.g. constant overload and stalled conditions.</p> <p>As the thermal protection incorporates automatic reset, the motor must be connected in a way which ensures that the automatic reset cannot cause accidents.</p> <p><b>Technical data</b></p> <p><b>Liquid:</b></p> <p>Pumped liquid: Water</p> <p>Liquid temperature range: 0 .. 140 °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: 12.5 m³/h</p> <p>Rated head: 10 m</p> <p>Primary shaft seal: BUBE</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b></p> <p>Pump housing: Bronze<br/>DIN W.-Nr. 2.1050<br/>ASTM B505-C90700</p> <p>Impeller: Stainless steel<br/>DIN W.-Nr. 1.4301<br/>AISI 304</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: -30 .. 40 °C</p> <p>Maximum operating pressure: 10 bar</p> <p>Flange standard: DIN</p> <p>Pipe connection: DN 40</p> <p>Pressure rating: PN 6/10</p> <p>(@): 250 mm</p> <p>Flange size for motor: FT100</p> <p><b>Electrical data:</b></p> <p>Motor type: 80A</p> <p>Rated power - P2: 0.55 kW</p> <p>Power (P2) required by pump: 0.55 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 1 x 220-230/240 V</p> <p>Rated current: 4.00/3.65 A</p> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>Starting current: 280 %</p> <p>Cos phi - power factor: 0.99</p> <p>Rated speed: 2750 rpm</p> <p>Motor efficiency at full load: 66-64 %</p> <p>Number of poles: 2</p> <p>Enclosure class (IEC 34-5): 55 Dust/Jetting</p> <p>Insulation class (IEC 85): F</p> <p><b>Others:</b></p> <p>Minimum efficiency index, MEI ≥: 0.70</p> <p>ErP status: EuP Standalone/Prod.</p> <p>Net weight: 31 kg</p> <p>Gross weight: 35.2 kg</p> <p>Shipping volume: 0.12 m³</p> |

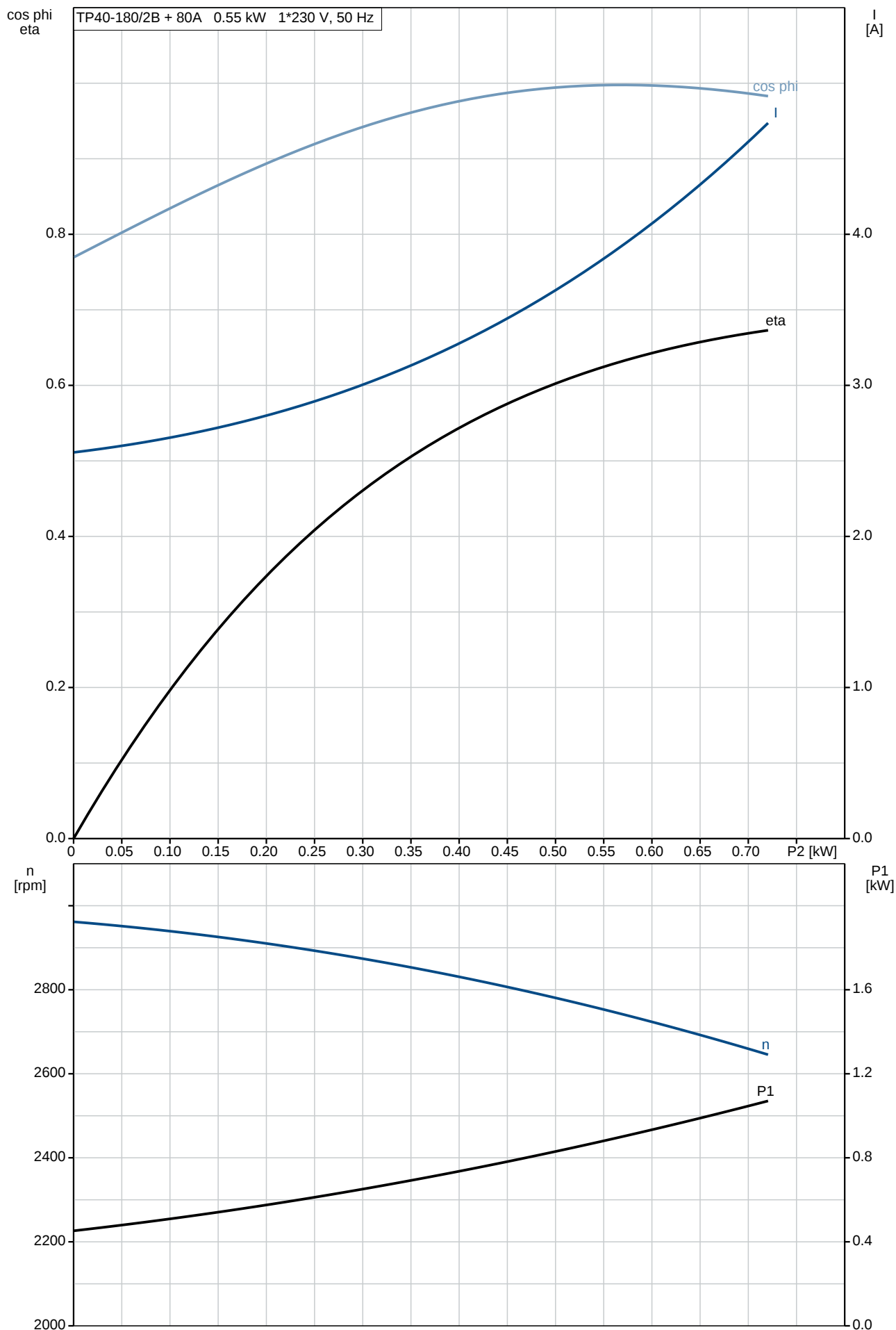
On request TP 40-180/2 B A-F-Z-BUBE 50 Hz



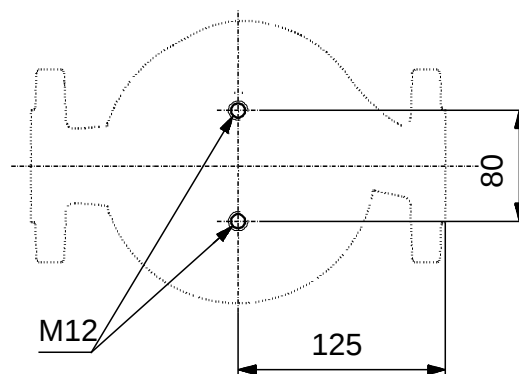
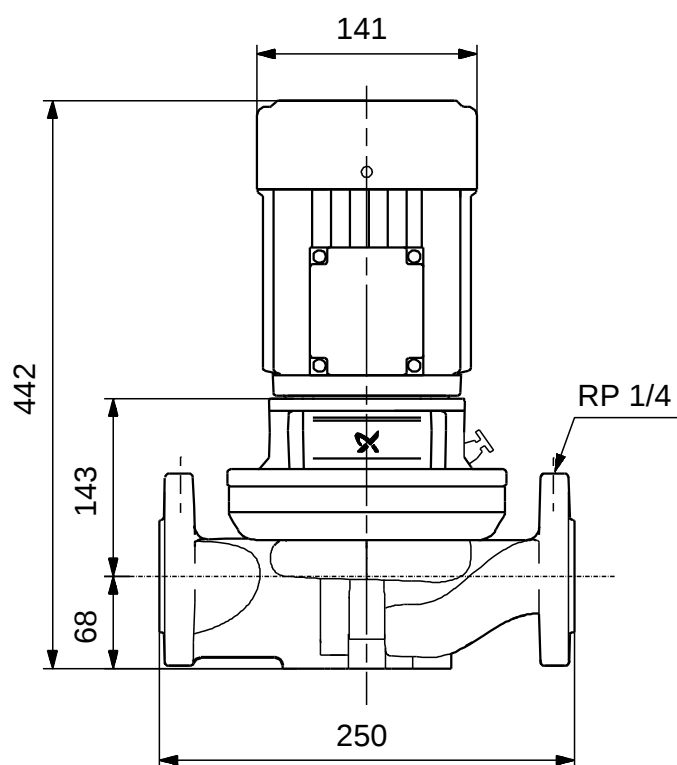
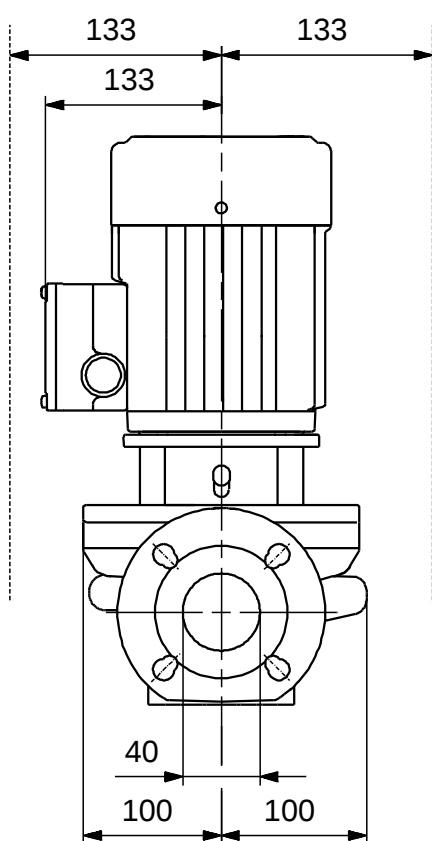
| Description                          | Value                    |
|--------------------------------------|--------------------------|
| <b>General information:</b>          |                          |
| Product name:                        | TP 40-180/2 B A-F-Z-BUBE |
| Product No:                          | On request               |
| EAN number:                          | On request               |
| <b>Technical:</b>                    |                          |
| Rated flow:                          | 12.5 m³/h                |
| Rated head:                          | 10 m                     |
| Head max:                            | 180 dm                   |
| Primary shaft seal:                  | BUBE                     |
| Curve tolerance:                     | ISO9906:2012 3B          |
| Pump version:                        | A                        |
| Model:                               | A                        |
| <b>Materials:</b>                    |                          |
| Pump housing:                        | Bronze                   |
|                                      | DIN W.-Nr. 2.1050        |
|                                      | ASTM B505-C90700         |
| Impeller:                            | Stainless steel          |
|                                      | DIN W.-Nr. 1.4301        |
|                                      | AISI 304                 |
| Material code:                       | Z                        |
| <b>Installation:</b>                 |                          |
| Range of ambient temperature:        | -30 .. 40 °C             |
| Maximum operating pressure:          | 10 bar                   |
| Flange standard:                     | DIN                      |
| Pipe connection:                     | DN 40                    |
| Pressure rating:                     | PN 6/10                  |
| (@)                                  | 250 mm                   |
| Flange size for motor:               | FT100                    |
| Connect code:                        | F                        |
| <b>Liquid:</b>                       |                          |
| Pumped liquid:                       | Water                    |
| Liquid temperature range:            | 0 .. 140 °C              |
| Liquid temperature during operation: | 20 °C                    |
| Density:                             | 998.2 kg/m³              |
| <b>Electrical data:</b>              |                          |
| Motor type:                          | 80A                      |
| Rated power - P2:                    | 0.55 kW                  |
| Power (P2) required by pump:         | 0.55 kW                  |
| Mains frequency:                     | 50 Hz                    |
| Rated voltage:                       | 1 x 220-230/240 V        |
| Rated current:                       | 4.00/3.65 A              |
| Starting current:                    | 280 %                    |
| Cos phi - power factor:              | 0.99                     |
| Rated speed:                         | 2750 rpm                 |
| Motor efficiency at full load:       | 66-64 %                  |
| Number of poles:                     | 2                        |
| Enclosure class (IEC 34-5):          | 55 Dust/Jetting          |
| Insulation class (IEC 85):           | F                        |
| Motor protec:                        | PTO                      |
| Motor No:                            | 85215103                 |
| <b>Others:</b>                       |                          |
| Minimum efficiency index, MEI ≥:     | 0.70                     |
| ErP status:                          | EuP Standalone/Prod.     |
| Net weight:                          | 31 kg                    |
| Gross weight:                        | 35.2 kg                  |
| Shipping volume:                     | 0.12 m³                  |



# On request TP 40-180/2 B A-F-Z-BUBE 50 Hz



# On request TP 40-180/2 B A-F-Z-BUBE 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 TP 40-180/2 B, Product No. On request**  
**Valid from 20.6.2010 (1024)**

| Pos | Description               | Annotation | Données de classification | Référence | Quantité | Unité |
|-----|---------------------------|------------|---------------------------|-----------|----------|-------|
| +   | Motor                     |            |                           |           | 1        | pcs   |
| -   | Coupling cpl.             |            |                           |           | 1        | pcs   |
| 9   | Hex socket head cap screw |            | Designation: DIN 912      |           | 4        |       |
|     |                           |            | Length (mm): 20           |           |          |       |
|     |                           |            | Thread: M6                |           |          |       |
| 10  | Shaft pin                 |            | Diameter: 5               |           | 1        |       |
|     |                           |            | Length (mm): 26           |           |          |       |
| 10a | Coupling half             |            |                           |           | 2        |       |
| -   | Motor stool cpl.          |            |                           |           | 1        | pcs   |
| 2   | Motor stool               |            |                           |           | 1        |       |
| 26  | Hex head screw            |            | Length (mm): 28           |           | 8        |       |
|     |                           |            | Thread: M10               |           |          |       |
| 28  | Hex head screw            |            | Length (mm): 20           |           | 4        |       |
|     |                           |            | Thread: M6                |           |          |       |
| -   | Pump housing cpl.         |            |                           |           | 1        | pcs   |
| 6   | Pump housing cpl.         |            |                           |           | 1        |       |
| 65  | Retainer for neck ring    |            |                           |           | 1        |       |
| -   | Coupling guard cpl.       |            |                           |           | 1        | pcs   |
| 7   | Coupling guard            |            |                           |           | 2        |       |
| 7a  | Pan head screw            |            |                           |           | 4        |       |
| -   | Shaft w/impeller cpl.     |            |                           |           | 1        | pcs   |
| 49  | Impeller cpl.             |            |                           |           | 1        |       |
| 49b | Split cone                |            |                           |           | 1        |       |
| 49b | Split cone nut            |            |                           |           | 1        |       |
| 51  | Pump shaft                |            |                           |           | 1        |       |
| 18  | Air vent screw            |            | Thread: 1/4"              |           | 1        | pcs   |
| 19  | Pipe plug                 |            | Thread: R 1/4             |           | 2        | pcs   |
| 72a | O-ring                    |            | Diameter: 154             |           | 1        | pcs   |
|     |                           |            | Material type: EPDM       |           |          |       |
|     |                           |            | Thickness: 4              |           |          |       |
| 105 | Shaft seal                |            | Material type: EPDM       |           | 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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