

## TP 80-70/4-A-F-A-BAQE 1X230 50HZ

Grundfos pump 96384300



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<https://www.lenntech.com/grundfos/TP000/96384300/TP-80-70-4-A-F-A-BAQE.html>

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

tel. +31 152 610 900

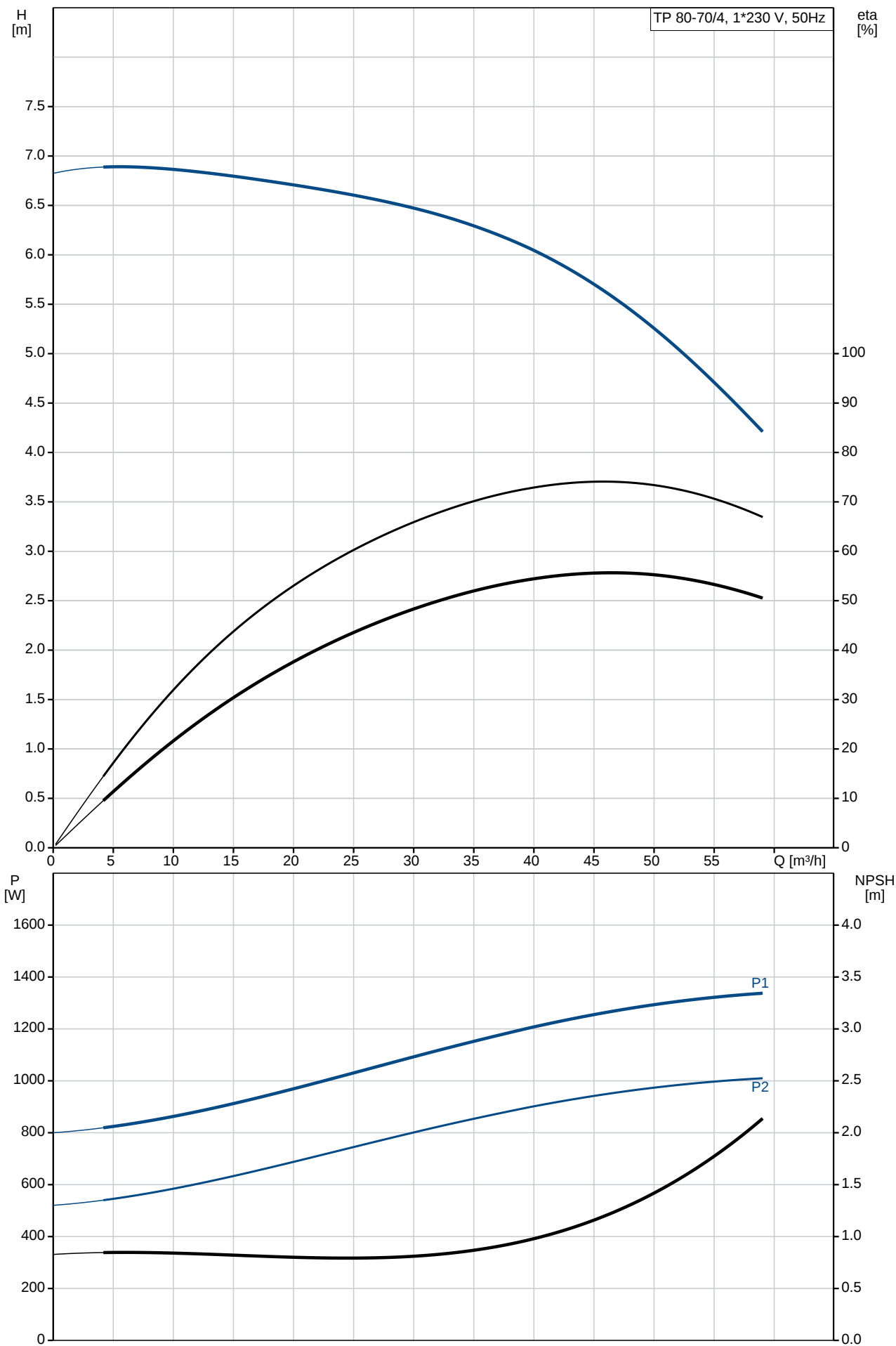
fax. +31 152 616 289

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|          | 1    | <p><b>TP 80-70/4 A-F-A-BAQE</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 16 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><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: Stub shaft</li> <li>4: Pump head/motor stool</li> <li>5: Wear rings</li> </ol> <p>The pump housing is provided with a replaceable brass neck ring to reduce the amount of liquid running from the outlet side of the impeller to the inlet side. The impeller is secured to the shaft with a 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: carbon graphite, metal-impregnated</li> <li>• Stationary seat material: silicon carbide (SiC)</li> </ul> <p>This material pairing has a very good corrosion resistance and is especially suitable for water up to 120 °C. However, seal life will be reduced at temperatures above 90 °C. The material pairing is not recommended for liquids containing particles as this will result in heavy wear on the SiC face.</p> <p>Secondary seal material: EPDM (ethylene-propylene rubber)</p> <p>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> |

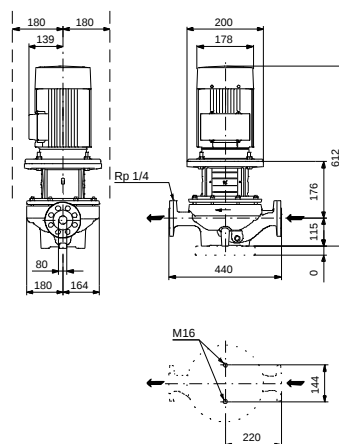
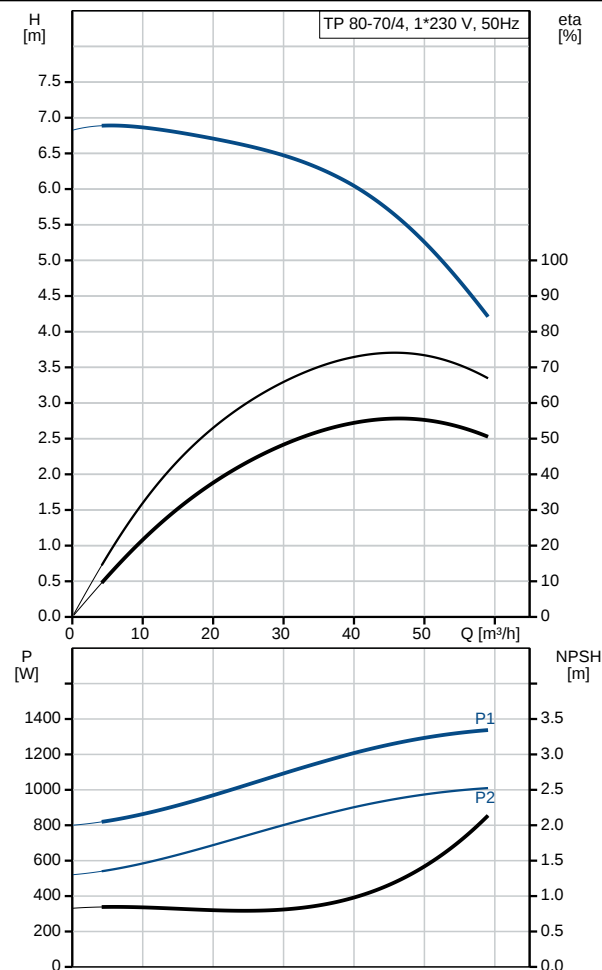
| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>The flanges have tappings 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. The pump shaft is fastened directly on the motor shaft with key and set screws.</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 free-hole flange (FF).</p> <p>Motor-mounting designation in accordance with IEC 60034-7: IM B 5, IM V 1 (Code I) / IM 3001, IM 3011 (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 .. 120 °C</p> <p>Liquid temperature during operation: 20 °C</p> <p>Density: 998.2 kg/m<sup>3</sup></p> <p><b>Technical:</b></p> <p>Rated flow: 45.8 m<sup>3</sup>/h</p> <p>Rated head: 5.9 m</p> <p>Actual impeller diameter: 149 mm</p> <p>Primary shaft seal: BAQE</p> <p>Curve tolerance: ISO9906:2012 3B</p> <p><b>Materials:</b></p> <p>Pump housing: Cast iron<br/>EN-JL1040<br/>ASTM A48-40 B</p> <p>Impeller: Cast iron<br/>EN-JL1030<br/>ASTM A48-30 B</p> <p><b>Installation:</b></p> <p>Range of ambient temperature: -30 .. 40 °C</p> <p>Maximum operating pressure: 16 bar</p> <p>Flange standard: DIN</p> <p>Pipe connection: DN 80</p> <p>Pump inlet: DN 80</p> <p>Pump outlet: DN 80</p> <p>Pressure rating: PN 16</p> <p>(@): 440 mm</p> <p>Flange size for motor: FF165</p> <p><b>Electrical data:</b></p> <p>Motor type: 90LB</p> <p>Rated power - P2: 1.1 kW</p> <p>Power (P2) required by pump: 1.1 kW</p> <p>Mains frequency: 50 Hz</p> <p>Rated voltage: 1 x 220-230 V</p> <p>Rated current: 7 A</p> <p>Starting current: 390 %</p> <p>Cos phi - power factor: 0.96</p> |

| Position | Qty. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          |      | <p>Rated speed: 1420-1430 rpm</p> <p>Motor efficiency at full load: 75-76 %</p> <p>Number of poles: 4</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 ≥: 0.68</p> <p>ErP status: EuP Standalone/Prod.</p> <p>Net weight: 70 kg</p> <p>Gross weight: 84 kg</p> <p>Shipping volume: 0.39 m<sup>3</sup></p> <p>Danish VVS No.: 382975074</p> |

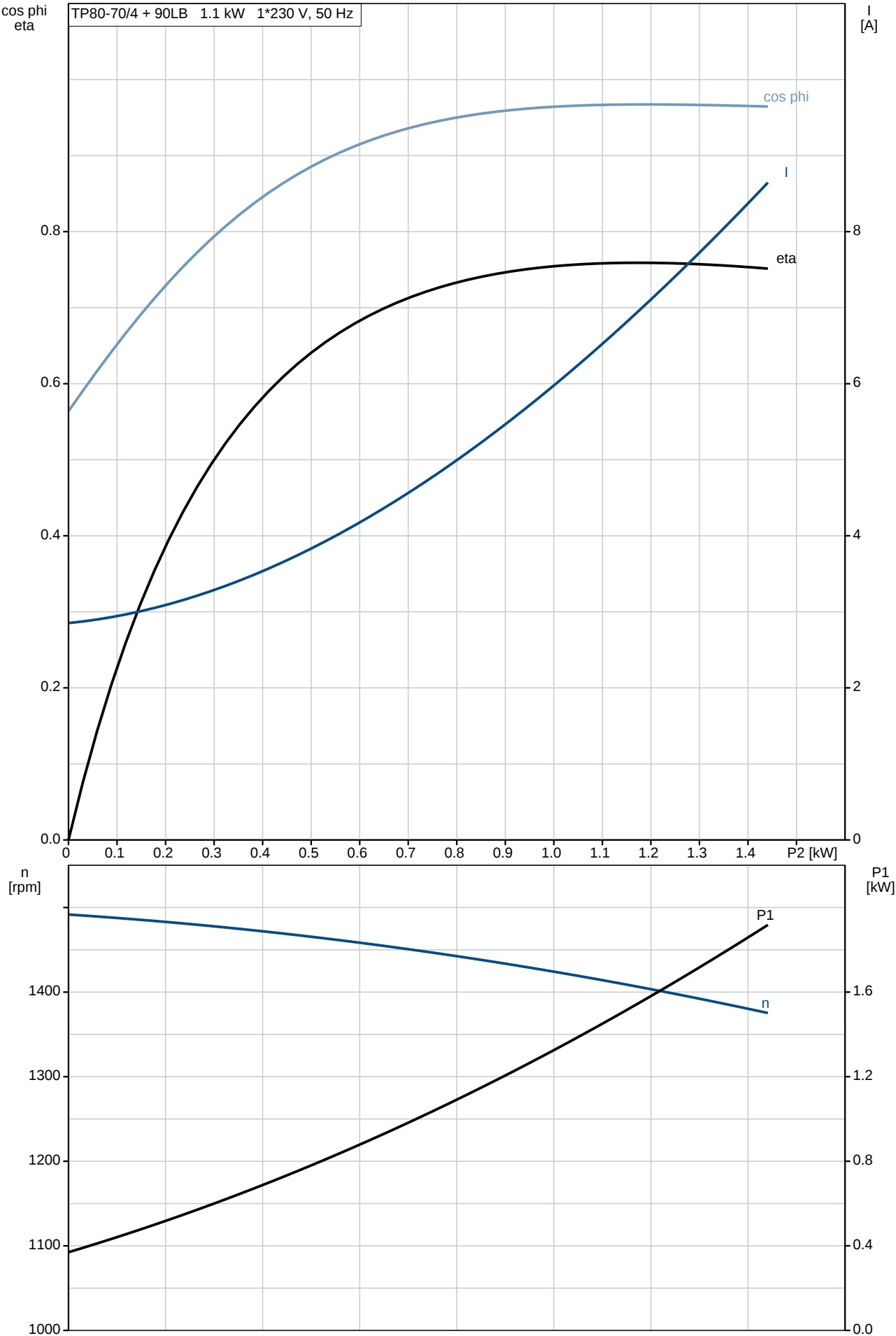
On request TP 80-70/4 A-F-A-BAQE 50 Hz



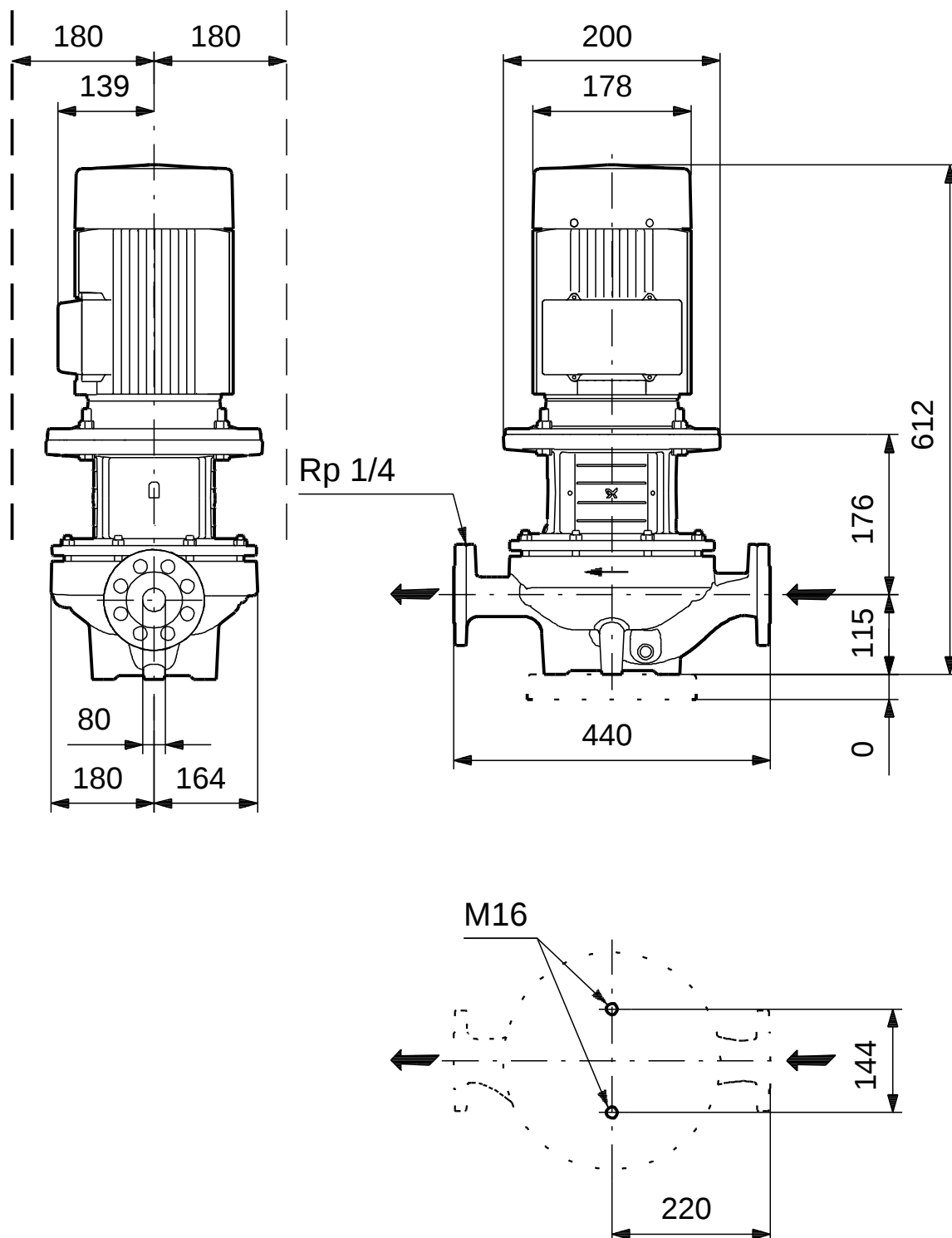
| Description                          | Value                 |
|--------------------------------------|-----------------------|
| <b>General information:</b>          |                       |
| Product name:                        | TP 80-70/4 A-F-A-BAQE |
| Product No:                          | On request            |
| EAN number:                          | On request            |
| <b>Technical:</b>                    |                       |
| Rated flow:                          | 45.8 m³/h             |
| Rated head:                          | 5.9 m                 |
| Head max:                            | 70 dm                 |
| Actual impeller diameter:            | 149 mm                |
| Primary shaft seal:                  | BAQE                  |
| Curve tolerance:                     | ISO9906:2012 3B       |
| Pump version:                        | A                     |
| Model:                               | A                     |
| <b>Materials:</b>                    |                       |
| Pump housing:                        | Cast iron             |
|                                      | EN-JL1040             |
|                                      | ASTM A48-40 B         |
| Impeller:                            | Cast iron             |
|                                      | EN-JL1030             |
|                                      | ASTM A48-30 B         |
| Material code:                       | A                     |
| <b>Installation:</b>                 |                       |
| Range of ambient temperature:        | -30 .. 40 °C          |
| Maximum operating pressure:          | 16 bar                |
| Flange standard:                     | DIN                   |
| Pipe connection:                     | DN 80                 |
| Pump inlet:                          | DN 80                 |
| Pump outlet:                         | DN 80                 |
| Pressure rating:                     | PN 16                 |
| (@)                                  | 440 mm                |
| Flange size for motor:               | FF165                 |
| Connect code:                        | F                     |
| <b>Liquid:</b>                       |                       |
| Pumped liquid:                       | Water                 |
| Liquid temperature range:            | 0 .. 120 °C           |
| Liquid temperature during operation: | 20 °C                 |
| Density:                             | 998.2 kg/m³           |
| <b>Electrical data:</b>              |                       |
| Motor type:                          | 90LB                  |
| Rated power - P2:                    | 1.1 kW                |
| Power (P2) required by pump:         | 1.1 kW                |
| Mains frequency:                     | 50 Hz                 |
| Rated voltage:                       | 1 x 220-230 V         |
| Rated current:                       | 7 A                   |
| Starting current:                    | 390 %                 |
| Cos phi - power factor:              | 0.96                  |
| Rated speed:                         | 1420-1430 rpm         |
| Motor efficiency at full load:       | 75-76 %               |
| Number of poles:                     | 4                     |
| Enclosure class (IEC 34-5):          | 55 Dust/Jetting       |
| Insulation class (IEC 85):           | F                     |
| Motor protec:                        | PTO                   |
| Motor No:                            | 87200343              |
| <b>Others:</b>                       |                       |
| Minimum efficiency index, MEI ≥:     | 0.68                  |
| ErP status:                          | EuP Standalone/Prod.  |
| Net weight:                          | 70 kg                 |
| Gross weight:                        | 84 kg                 |
| Shipping volume:                     | 0.39 m³               |
| Danish VVS No.:                      | 382975074             |



# On request TP 80-70/4 A-F-A-BAQE 50 Hz



# On request TP 80-70/4 A-F-A-BAQE 50 Hz

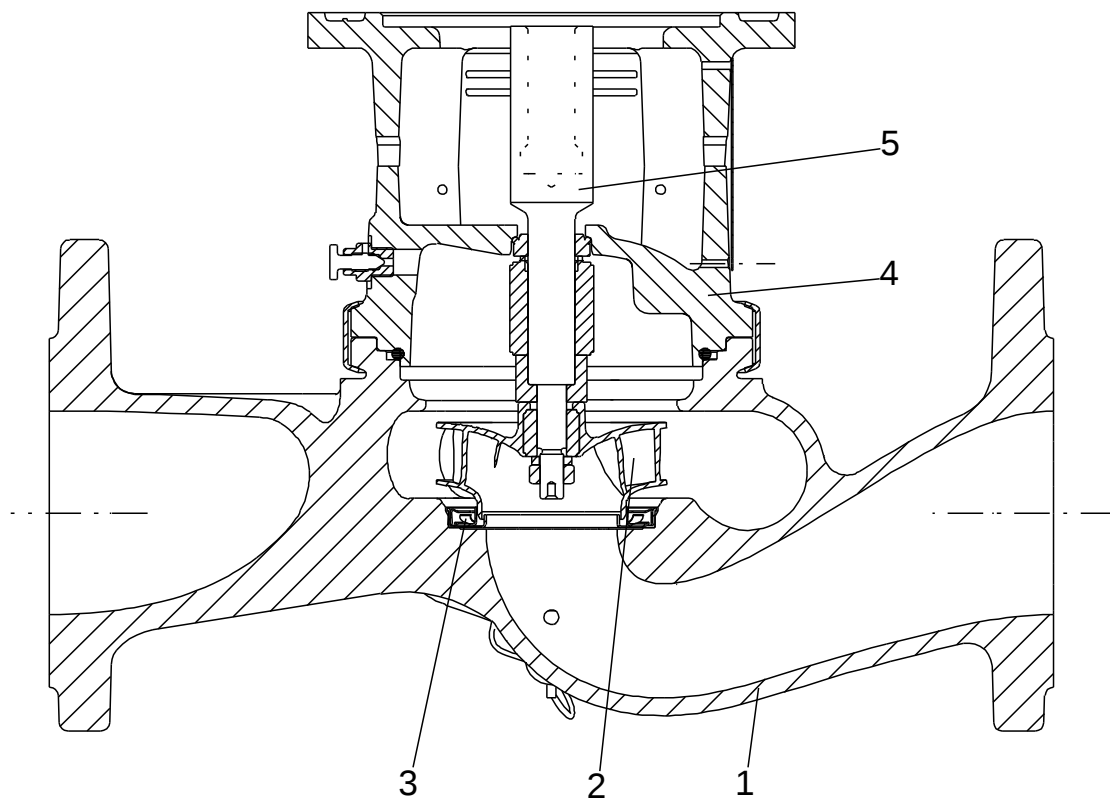


Note! All units are in [mm] unless others are stated.  
Disclaimer: This simplified dimensional drawing does not show all details.

### Exploded view



## Sectional drawing (TM058200 for TPE2,TPE3)



TM058200

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



**Parts list TP 80-70/4, Product No. On request**  
**Valid from 20.6.2010 (1024)**

| Pos | Description               | Annotation | Données de classification | Référence | Quantité | Unité |
|-----|---------------------------|------------|---------------------------|-----------|----------|-------|
| +   | Motor                     |            |                           |           | 1        | pcs   |
| -   | Nut                       |            |                           |           | 1        | pcs   |
| 66  | Washer                    |            |                           |           | 1        |       |
| 66a | Spring lock washer        |            |                           |           | 1        |       |
| 67  | Nut                       |            | Thread: M14               |           | 1        |       |
| -   | Motor stool cpl.          |            |                           |           | 1        | pcs   |
| 1a  | Motor stool               |            |                           |           | 1        |       |
| 7   | Coupling guard            |            |                           |           | 2        |       |
| 9   | Hex socket head cap screw |            | Length (mm): 30           |           | 4        |       |
|     |                           |            | Thread: M10               |           |          |       |
| 77a | Pan head screw            |            |                           |           | 4        |       |
| -   | Pump housing cpl.         |            |                           |           | 1        | pcs   |
| 6   | Pump housing              |            |                           |           | 1        |       |
| 19  | Plug                      |            |                           |           | 1        |       |
| 20  | Pipe plug                 |            | Thread: R 3/8             |           | 2        |       |
| 36  | Nut                       |            | Thread: M10               |           | 6        |       |
| -   | Shaft seal cpl.           |            |                           |           | 1        | pcs   |
| 72a | O-ring                    |            | Diameter: 177,39          |           | 1        |       |
|     |                           |            | Material type: EPDM       |           |          |       |
|     |                           |            | Thickness: 3,53           |           |          |       |
| 105 | Shaft seal                |            | Material type: BAQE       |           | 1        |       |
| -   | Stub shaft                |            |                           |           | 1        | pcs   |
| 9   | Socket set screw          |            | Length (mm): 6            |           | 2        |       |
|     |                           |            | Thread: M8                |           |          |       |
| 11  | Parallel key              |            | Dimension: 6X6X35         |           | 1        |       |
| 51  | Pump shaft                |            |                           |           | 1        |       |
| 19  | Plug                      |            |                           |           | 2        | pcs   |
| 49  | Impeller                  |            |                           |           | 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.*

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

<https://www.lenntech.com>

tel. +31 152 610 900

fax. +31 152 616 289