

TPE2 50-80-N-A-F-A-BUBE

Grundfos pump 98416563



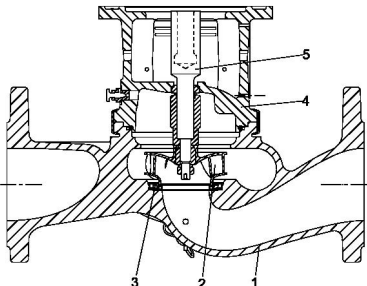
Thank you for your interest in our products. Please contact us for more information, or visit our website

<https://www.lenntech.com/grundfos/TPE00/98416563/TPE2-50-80-N-A-F-A-BUBE.html>

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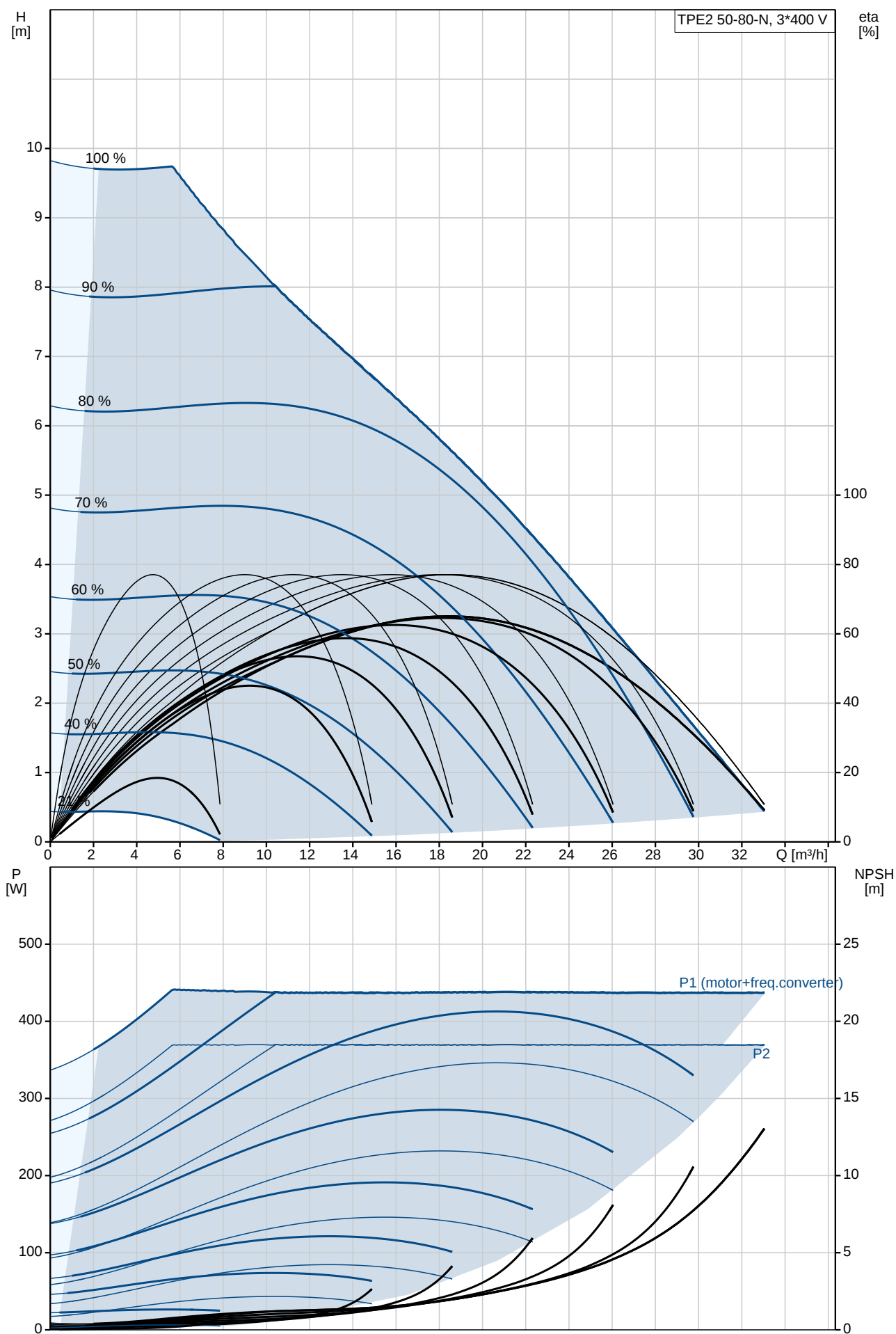
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Position	Qty.	Description
	1	TPE2 50-80-N A-F-A-BUBE  Product No.: On request Single-stage, close-coupled, volute pump with in-line suction and discharge ports of identical diameter. The pump is of the top-pull-out design, i.e. the power head (motor, pump head and impeller) can be removed for maintenance or service while the pump housing remains in the pipework. The shaft seal is according to EN 12756. Pipework connection is via PN 16 DIN flanges (EN 1092-2 and ISO 7005-2). The pump is fitted with a fan-cooled, permanent-magnet synchronous motor. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor includes a frequency converter and PI controller in the motor terminal box. This enables continuously variable control of the motor speed, which again enables adaptation of the performance to a given requirement. Further product details An operating panel on the motor terminal box enables setting of required setpoint as well as setting of pump to "Min." or "Max." operation or to "Stop". The Grundfos Eye indicator on the operating panel provides visual indication of pump status: • "Power on": Motor is running (rotating green indicator lights) or not running (permanently green indicator lights) • "Warning": Motor is still running (rotating yellow indicator lights) or has stopped (permanently yellow indicator lights) • "Alarm": Motor has stopped (flashing red indicator lights). Communication with the pump is possible by means of Grundfos GO Remote (accessory). The remote control enables further settings as well as reading out of a number of parameters such as "Actual value", "Speed", "Power input" and total "Power consumption". 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. Pump Pump housing and pump head are electrocoated to improve the corrosion resistance. Electrocoating includes: 1) Alkaline-based cleaning. 2) Pretreatment with zinc phosphate coating. 3) Cathodic electrocoating (epoxy). 4) Curing of paint film at 200-250 °C.  1: Pump housing 2: Impeller 3: Neck ring 4: Pump head/motor stool 5: Stub shaft

Position	Qty.	Description
		TWINPUMP=D}The twin-head pump is designed with two parallel power-heads. A flap valve in the common discharge port is opened by the flow of the pumped liquid and prevents backflow of liquid into the idle pump head. 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 to the shaft with a nut. 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. Primary seal: - Rotating seal ring material: tungsten carbide (WC) - Stationary seat material: carbon graphite, resin-impregnated 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. Secondary seal material: EPDM (ethylene-propylene rubber) EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils. 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. 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. Motor The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. Electrical tolerances comply with IEC 60034. The motor efficiency is classified as IE5 in accordance with IEC 60034-30-2. The motor requires no external motor protection. The motor control unit incorporates protection against slow- and quick-rising temperatures, e.g. constant overload and stalled conditions. The terminal box holds terminals for these connections: - one dedicated digital input - two analog inputs, 0(4)-20 mA, 0-5 V, 0-10 V, 0.5 - 3.5 V 5 V voltage supply to potentiometer and sensor - one configurable digital input or open-collector output - Grundfos Digital Sensor input and output 24 V voltage supply for sensors - two signal-relay outputs (potential-free contacts) - GENIbus connection - interface for Grundfos CIM fieldbus module. Technical data Liquid: Pumped liquid: Water Liquid temperature range: 0 .. 120 °C Liquid temperature during operation: 20 °C Density: 998.2 kg/m³ Technical: Rated flow: 18 m³/h Rated head: 5.8 m Actual impeller diameter: 74 mm Primary shaft seal: BUBE Curve tolerance: ISO9906:2012 3B Materials: Pump housing: Cast iron Impeller: Composite PES/PP 30% GF Installation:

Position	Qty.	Description
		Range of ambient temperature: -20 .. 50 °C Maximum operating pressure: 16 bar Flange standard: DIN Pipe connection: DN 50 Pressure rating: PN 16 (@): 280 mm Flange size for motor: 56C Electrical data: Motor type: 71A IE Efficiency class: IE5 Rated power - P2: 0.37 kW Mains frequency: 50 Hz Rated voltage: 3 x 380-500 V Rated current: 1.05-1.00 A Cos phi - power factor: 0.68-0.54 Rated speed: 360-4000 rpm Efficiency: 84.5% Motor efficiency at full load: 84.5 % Enclosure class (IEC 34-5): IP55 Insulation class (IEC 85): F Others: Minimum efficiency index, MEI ≥: 0.7 ErP status: EuP Standalone/Prod. Net weight: 26.7 kg Gross weight: 33.9 kg Shipping volume: 0.1 m³

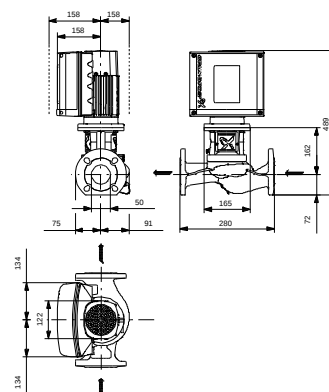
On request TPE2 50-80-N A-F-A-BUBE 50 Hz



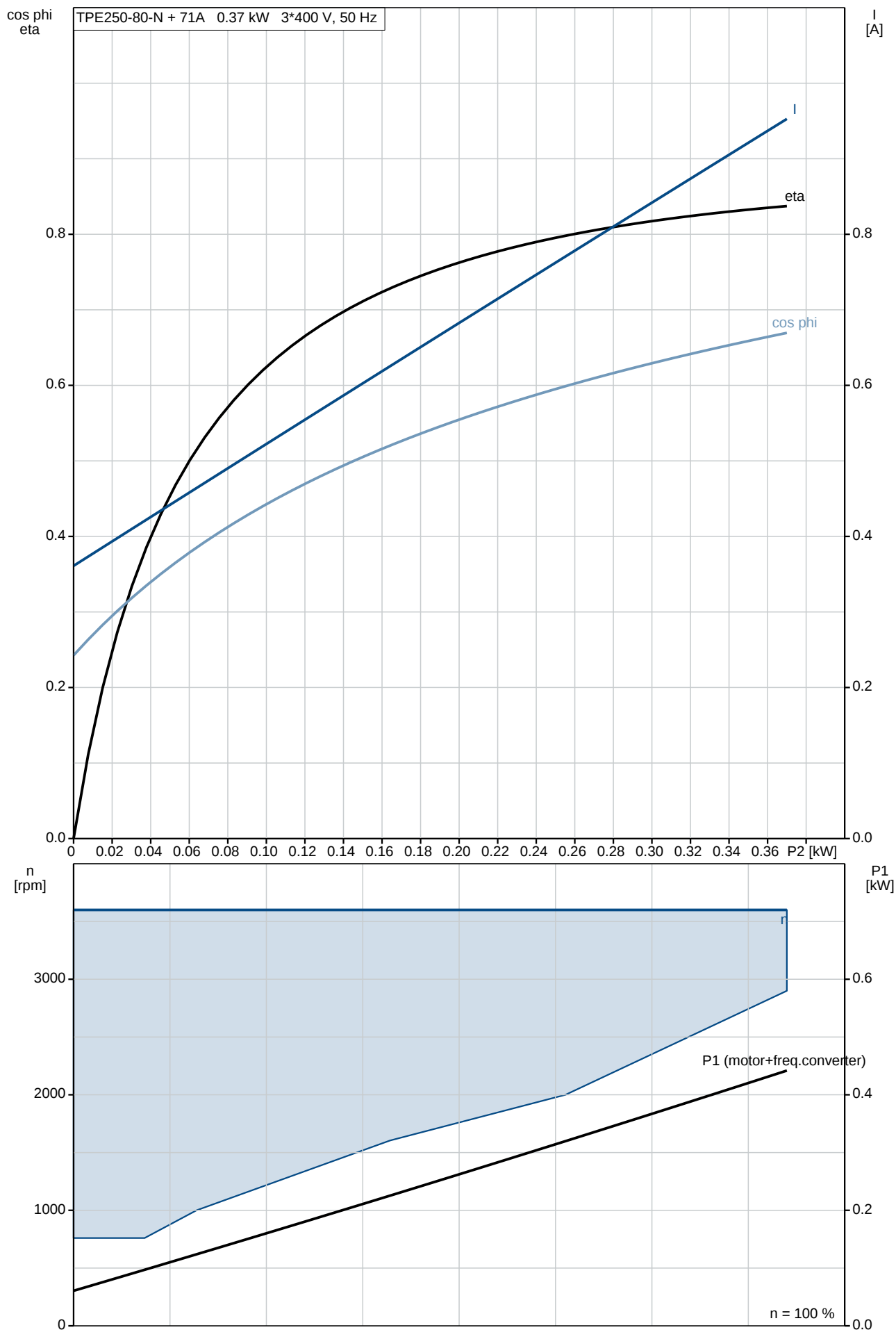
The figure consists of two vertically stacked graphs sharing a common x-axis representing flow rate Q in m^3/h , ranging from 0 to 35.

The top graph plots head H in meters (left y-axis, 0 to 10) and efficiency η in percent (right y-axis, 0 to 100). It shows a series of curves for efficiency levels of 20%, 40%, 50%, 60%, 70%, 80%, 90%, and 100%. The 100% efficiency curve starts at $H \approx 10$ m for $Q = 0$ and decreases to $H \approx 4$ m at $Q = 35$. The 20% efficiency curve starts at $H \approx 0.5$ m for $Q = 0$ and reaches a peak of $H \approx 3.5$ m at $Q \approx 15$ m³/h before dropping to zero at $Q \approx 18$ m³/h.

The bottom graph plots power P in watts (left y-axis, 0 to 500) and NPSH in meters (right y-axis, 0 to 25). It shows two sets of curves: $P1$ (motor+freq. converter) and $P2$ (pump only). The $P1$ curves are generally higher than the $P2$ curves. For example, the 100% efficiency $P1$ curve starts at $P \approx 450$ W for $Q = 0$ and remains relatively constant until $Q \approx 15$ m³/h, then decreases to $P \approx 350$ W at $Q = 35$ m³/h. The 20% efficiency $P2$ curve starts at $P \approx 0$ W for $Q = 0$ and increases to $P \approx 250$ W at $Q = 35$ m³/h.



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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)



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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