

# UP, UPS, UPSD

Circulator pumps

50/60 Hz



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**GRUNDFOS** 

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## 1. Product description

Grundfos small, medium and large UP circulator pumps are of the canned-rotor type. 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.

The ports of small and medium UP pumps have flanges and threads, the ports of large UP pumps have flanges. Small, medium and large UP pumps are available as single-head and twin-head pump types.

### Applications

Grundfos small and medium UP circulator pumps are mainly used in small buildings like one or two family houses. These circulator pumps are specifically designed for heating systems, but also suitable for the circulation of domestic hot water or liquid in cooling and air-conditioning systems.

Grundfos large UP circulator pumps are mainly used in large buildings, such as schools, hospitals, hotels. These circulator pumps are designed for the circulation of liquids in heating and air-conditioning systems. Large UP pumps with bronze pump housings are suitable for the circulation of domestic hot water.

### Small and medium UP circulator pumps

#### Heating systems

UPS pump types can be operated at three different speeds and are used for central and district heating systems. Primarily used in one-pipe and two-pipe heating systems, UPS pump types are also suitable for mixing loops in large systems.

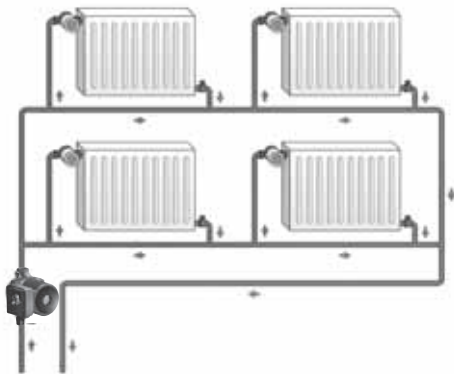


Fig. 1 One-pipe heating system

TM06 9145 1717

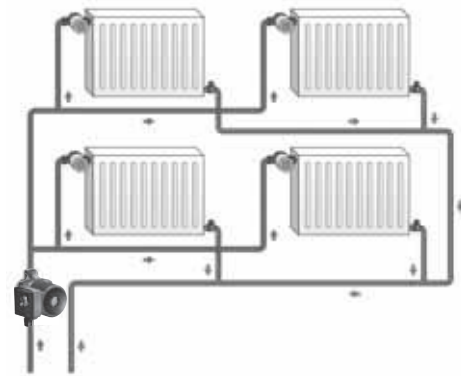


Fig. 2 Two-pipe heating system

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For underfloor heating systems, we recommend to use UP(S) N pump types with stainless-steel pump housing. Air in the pumped liquid can cause corrosion in ordinary cast-iron pump housings.

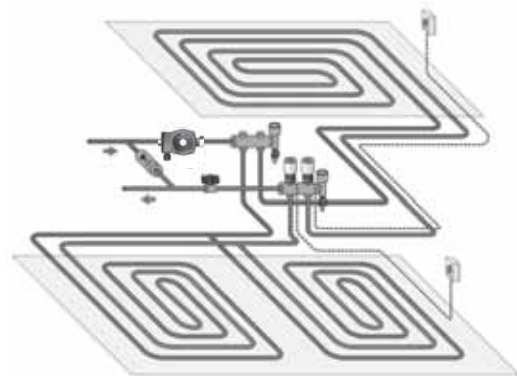


Fig. 3 Underfloor heating system

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#### Domestic hot-water systems

For circulation in domestic hot-water systems, we recommend to use UP N pump types with stainless-steel pump housing.

UP N can be connected to a time switch to save energy by limiting the pump operation to periods when hot water is usually required.

#### Cooling and air-conditioning systems

For cooling and air-conditioning systems, we recommend to use standard UPS pumps or the special versions, UPS K and UP KU.

Temperature ranges: -25 to +95 °C  
-25 to +110 °C.

These pump types are suitable for circulation of both cold and hot water.

## Large UP circulator pumps

### Heating systems

UPS pump types can be operated at three different speeds and are used for central and district heating systems. They can be used as main pumps, zone pumps, boiler shunt pumps, pumps for heating surfaces in the following systems:

- One- and two-pipe heating systems
- Calorifers
- Underfloor heating systems
- Solar heating systems
- Geothermal heating systems
- Heat recovery systems.

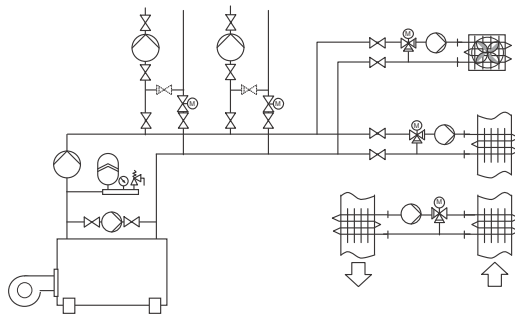


Fig. 4 Heating system

### Domestic hot water systems

UPS and UPSD pump types with bronze pump housings are suitable for the circulation of domestic hot water.

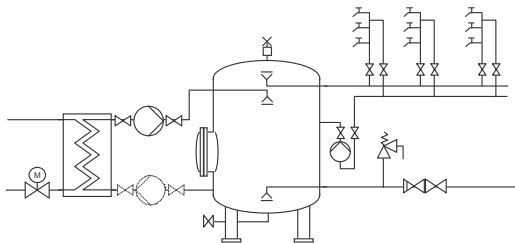


Fig. 5 Domestic hot water system

### Cooling and air-conditioning systems

UPS and UPSD pump types are suitable for heating systems. They can be used as main pumps, zone pumps, pumps for refrigeration units in the following systems:

- Two-pipe air-conditioning systems
- Heat pump systems
- Geothermal heating systems
- Heat recovery systems.

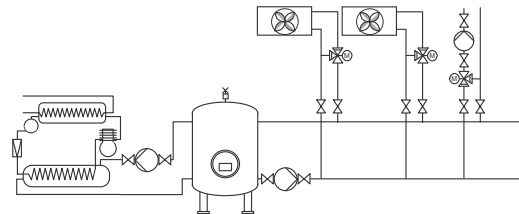


Fig. 6 Cooling and air-conditioning systems

## Type key

### Small and medium UP circulator pumps

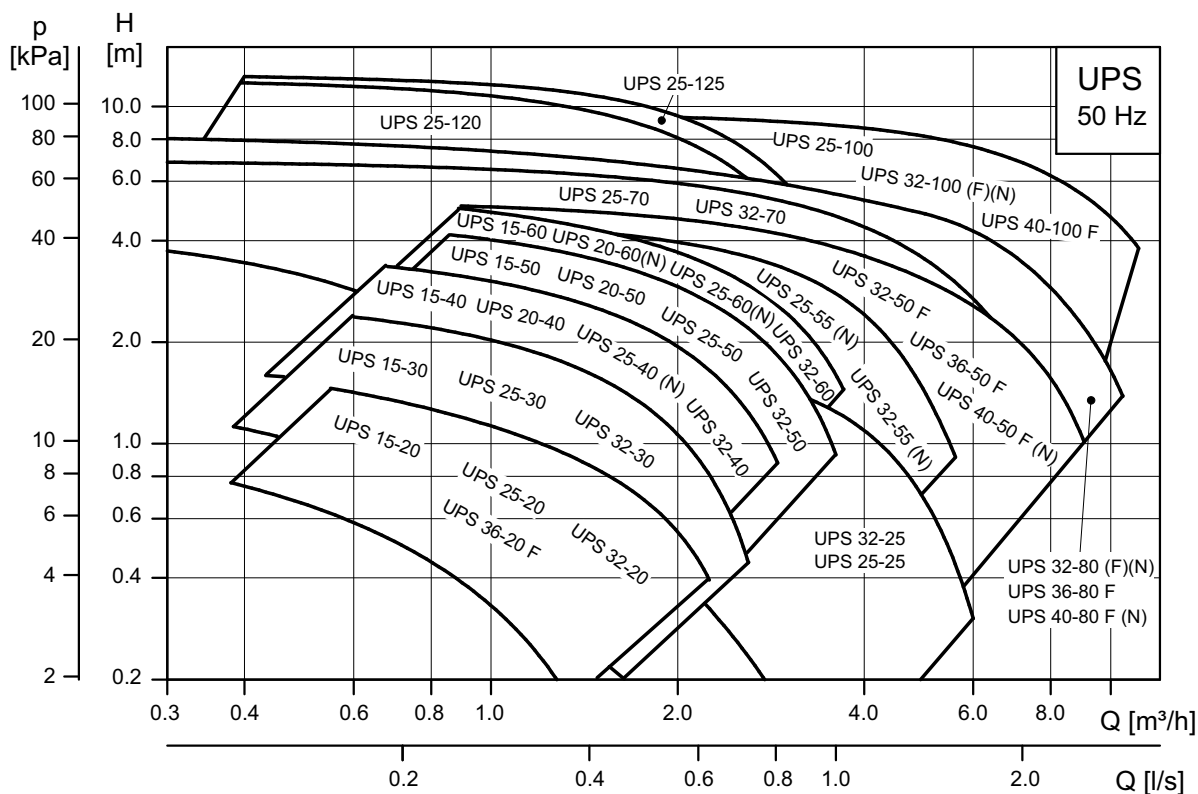
<b>Example</b>	UP	S	D	40	-50	F
Type range						
S = electric speed control						
Twin-head pump						
Nominal diameter (DN) of suction and discharge ports [mm]						
Maximum head [dm]						
Pipe connection: (no letter) = pipe thread F = flange						
Pump housing: (no letter) = cast iron N = stainless steel A = pump housing with air separator, upward water flow K = cold-water version KU = cold-water version (foam-filled terminal box and stator)						

### Large UP circulator pumps

<b>Example</b>	UPS	D	65	-60	(/2)	F(-)	280
Type range							
Twin-head pump							
Nominal flange diameter [mm]							
Max. head [dm]							
Number of motor poles (stated if available both as 2- and 4-pole motor)							
F - Pump with flanges B - Pump with bronze housing (EuP, suitable for drinking water)							
Port-to-port length [mm]							

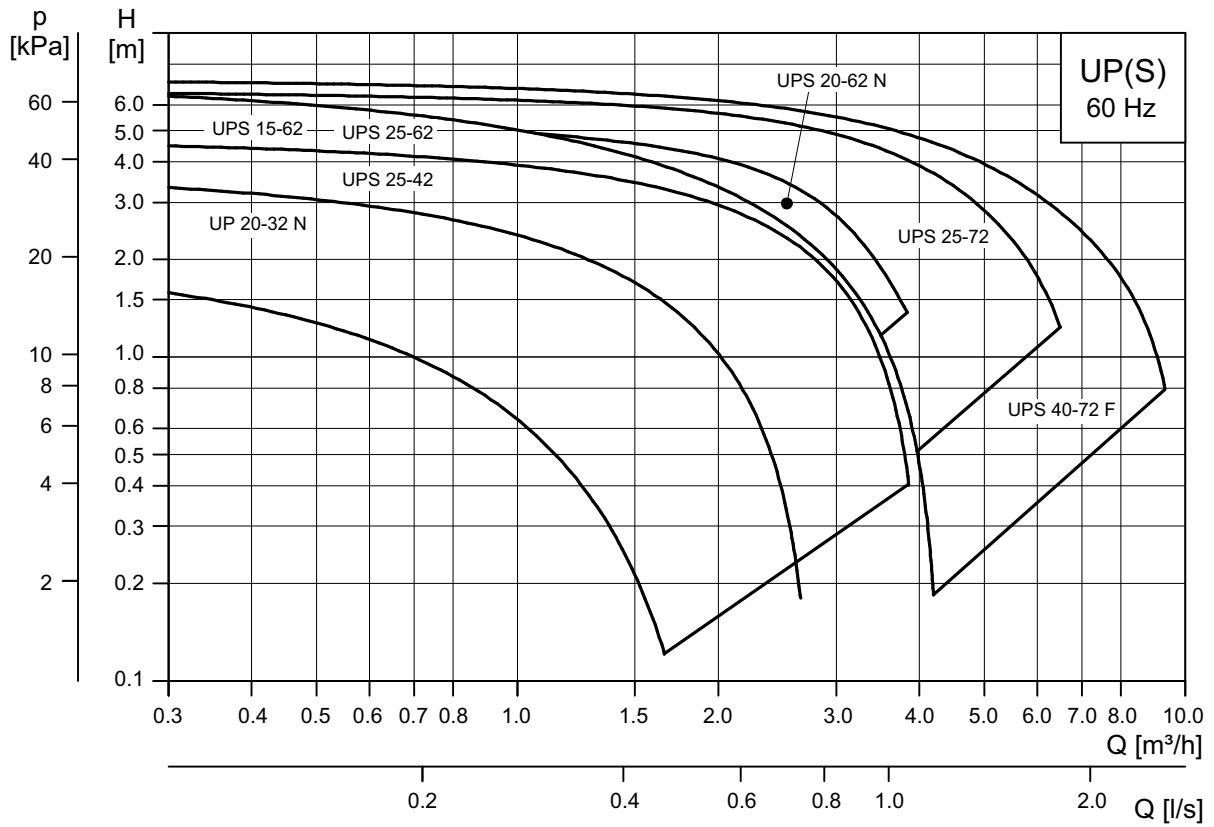
## Performance ranges

### Small and medium UP circulator pumps for heating systems, 50 Hz



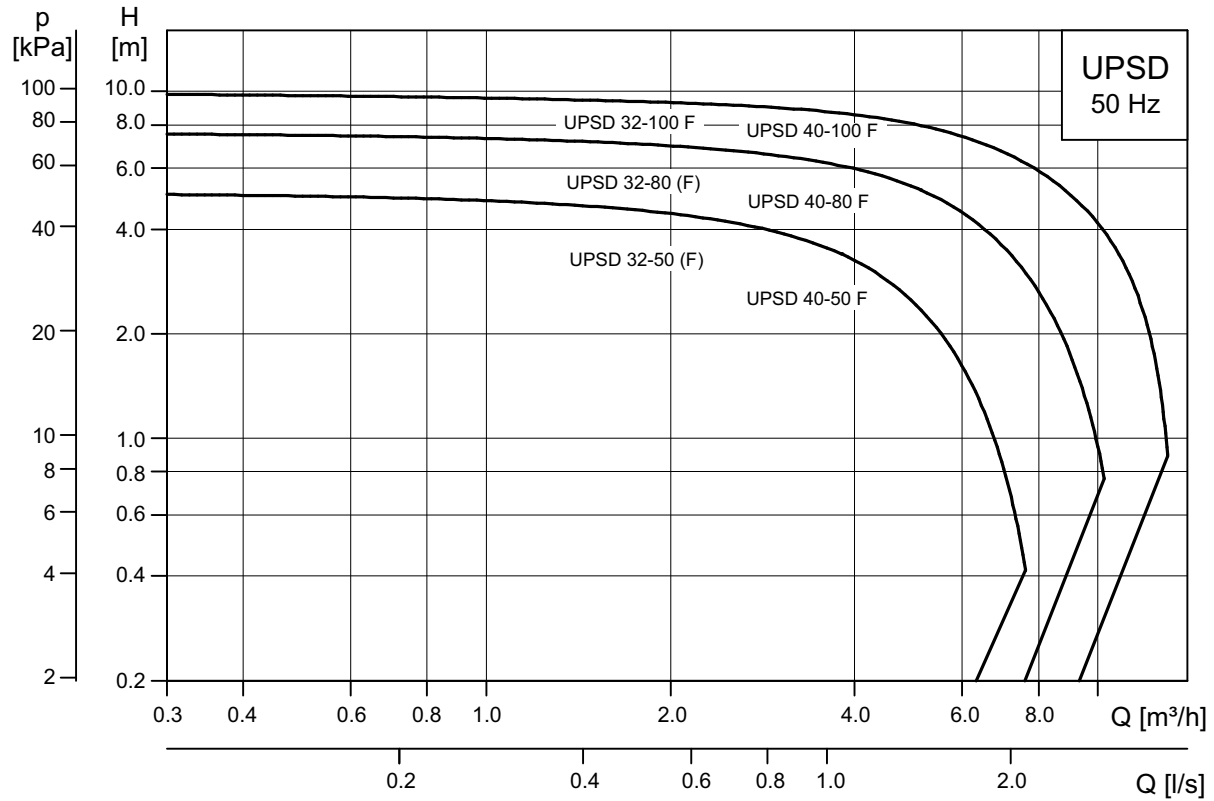
TM00 9602 1709

Small and medium UP circulator pumps for heating systems, 60 Hz



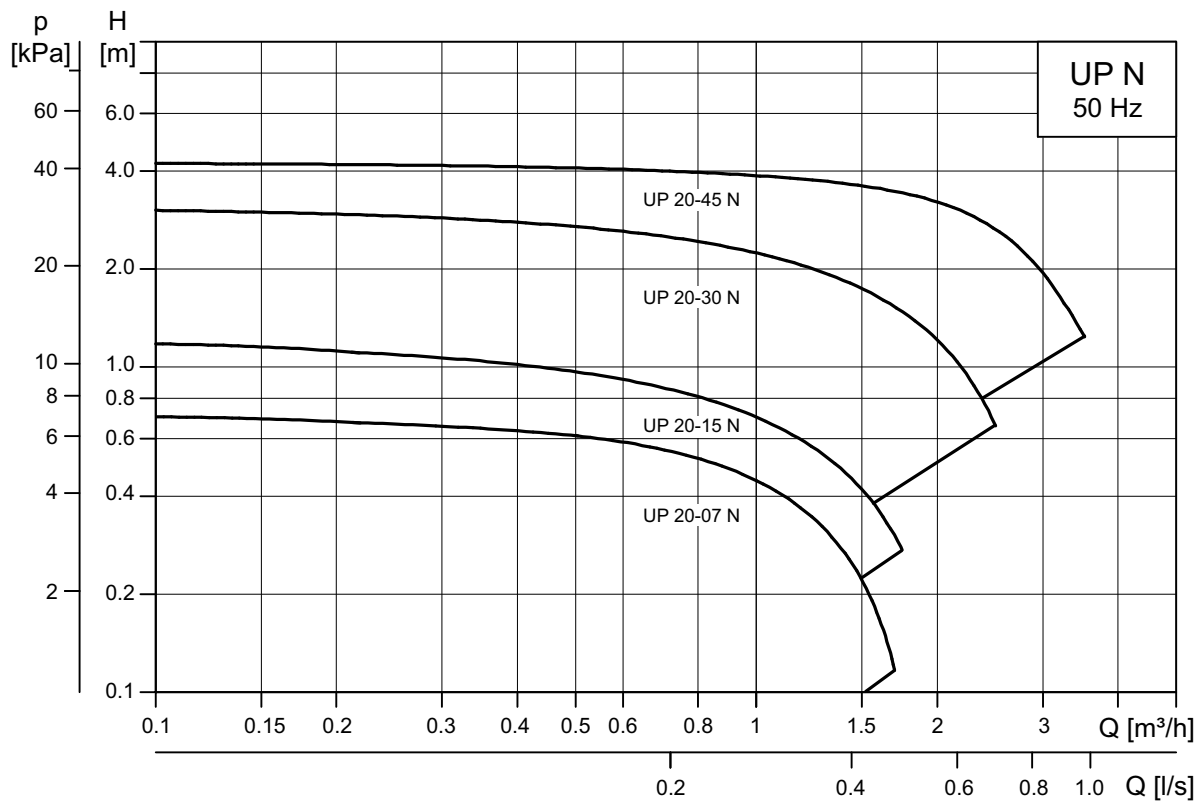
TM04 4621 1809

Medium UP twin-head circulator pumps for heating systems, 50 Hz



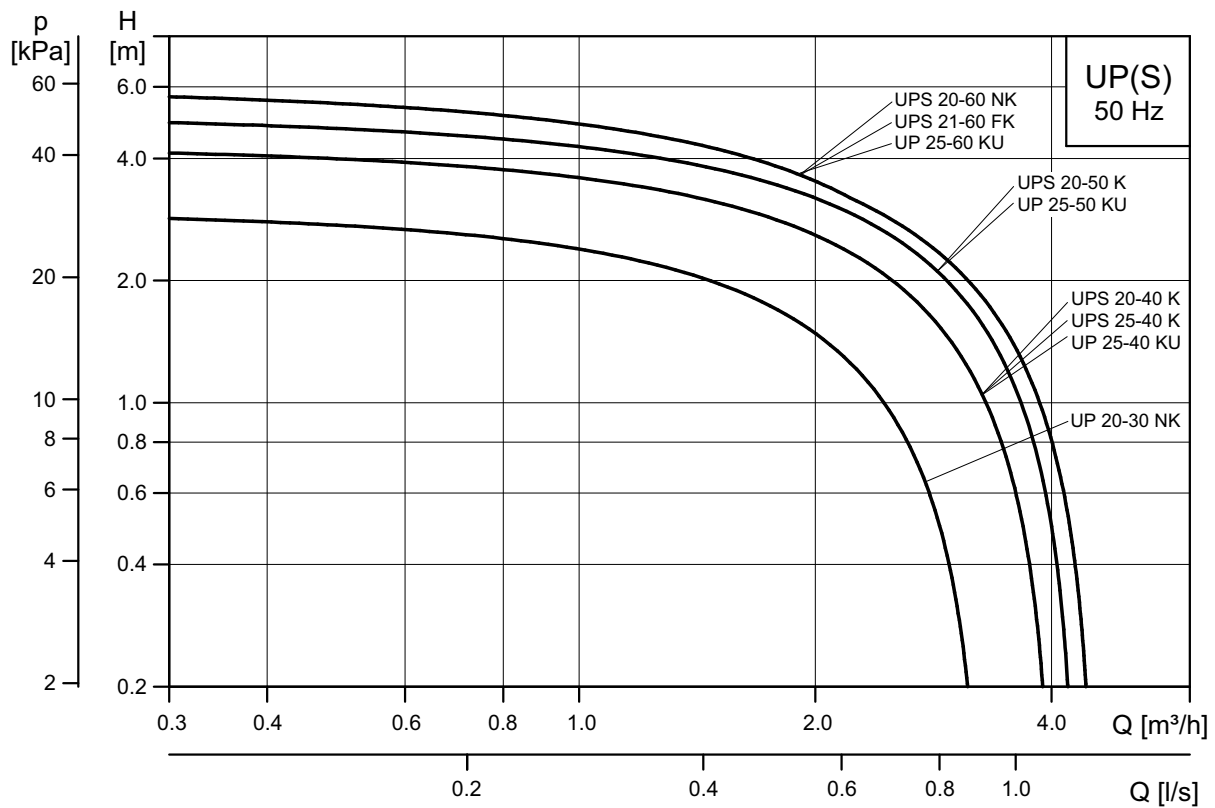
TM04 4619 1809

**Small and medium UP circulator pumps for domestic hot-water systems, 50 Hz**



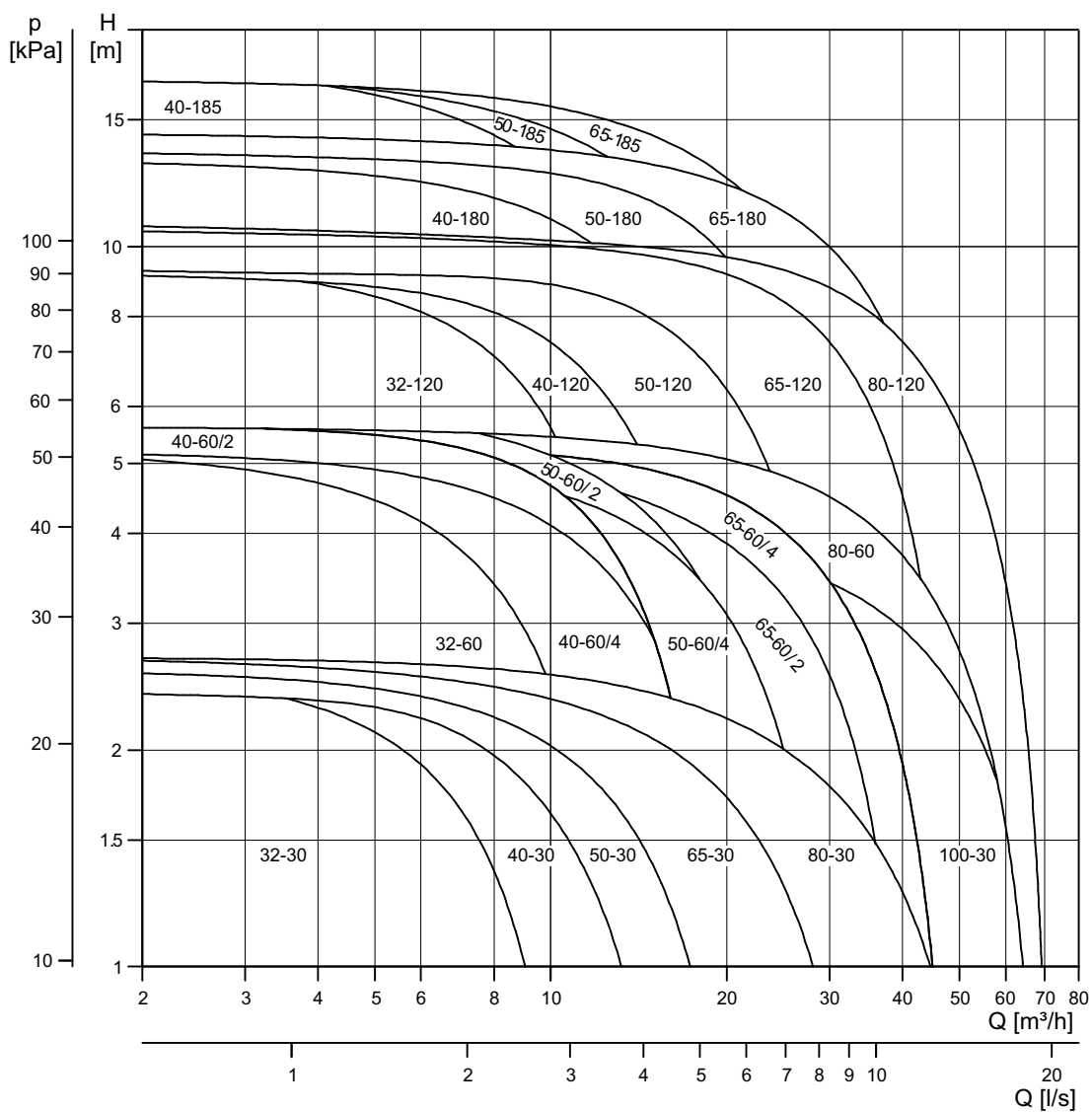
TM06 2847 4714

**Small UP circulator pumps for cooling and air-conditioning systems, 50 Hz**



TM06 5180 4015

Large UP circulator pumps, 50 Hz



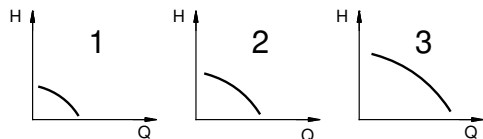
TM00 9492 4503



## 2. Functions of large UP circulator pumps

### Speed switch

The pump offers three speeds for adjustment of pump performance to the system in question.



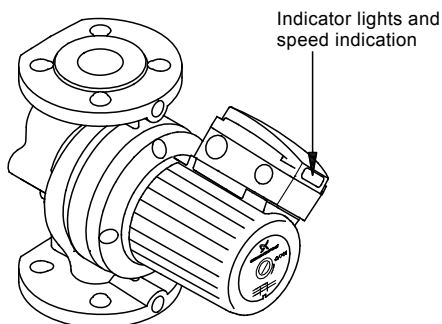
TM00 9247 4595

Fig. 7 Pump performance at the three speeds

The speeds of the various speed switch positions are shown in the table below. The values are approximate, depending on loads.

Switch position	Speed in % of maximum speed	
	Single-phase pumps	Three-phase pumps
1	approx. 60 %	approx. 70 %
2	approx. 80 %	approx. 85 %
3	100 %	100 %

Change to a lower speed enables reduction in energy consumption and less noise in the system.



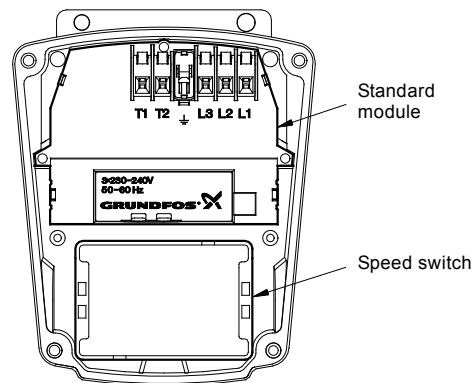
TM00 9747 0602

Fig. 8 Indicator lights on terminal box

### Standard module

The module is standard in single-head pumps and is also available for twin-head pumps.

Connect the pump to the mains via an external contactor. Connect the contactor to the pump's built-in thermal overload switch to protect the pump against overload at all three speeds.



TM00 9237 0602

Fig. 9 Standard module

### Standard module indicator lights

Function of the indicator lights on the terminal box:

#### Single-phase pumps

Single-phase pumps have a green indicator light.

Indicator light Green	Description
On	The power supply has been switched on.
Off	The power supply has been switched off.

#### Three-phase pumps

Three-phase pumps have a green and a red indicator light.

Indicator lights		Description
Green	Red	
Off	Off	The power supply has been switched off.
On	Off	The power supply has been switched on.
On	On	The power supply has been switched on. The direction of rotation is wrong.

## Protection module

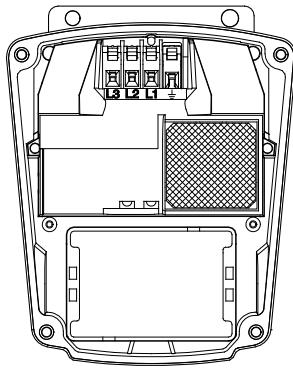


Fig. 10 Protection module

The protection module is supplied as an accessory for single-head and twin-head pumps.

When fitted with a protection module, the pump can be connected to an external switch directly, as the built-in protection against overheating protects the pump at all three speeds. Furthermore, the module has two indicator lights.

### Protection module indicator lights

Function of the indicator lights on the protection module:

Indicator lights		Description
Green	Red	
Off	Off	The pump has been stopped. The power supply has been switched off, thermally cut out or a phase is failing.
On	Off	The pump is operating.
On	On	<b>Three-phase pumps only:</b> The pump is operating, but the direction of rotation is not correct.
Off	On	The pump has been cut out by the thermal switch.

**Note:** Pumps with protection module must not be connected to a frequency converter.

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## Relay module

The relay module is standard in twin-head pumps and an optional extra for single-head pumps.

The module enables direct connection of the pump to an external mains switch and an external operating or fault indication device. The signal output for an external signal device can be set to activation during operation or fault by means of the selector switch.

As standard, the signal outputs of relay modules in twin-head pumps are interconnected so that the pumps are operating alternately as duty pump and standby pump.

The pump is connected directly to the mains as the pump incorporates overload protection at all three speeds. If the pump has been cut out by the thermal overload switch, it will restart automatically when it has cooled to normal temperature, provided the external on/ off contact is closed.

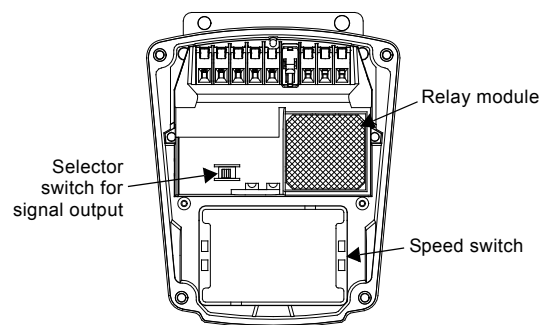


Fig. 11 Relay module

### Relay module indicator lights

The indicator lights on pumps with relay module have more detailed operating and fault indications.

All pumps with relay module have a green and a red indicator light. Their functions are as shown in the table below.

### Signal output

The relay module has a signal output for external operating or fault indication.

By means of the selector switch, the output can be used as:

- Operation signal output between terminals 2 and 3 or
- Fault signal output between terminals 1 and 3.

TM00 9236 4596

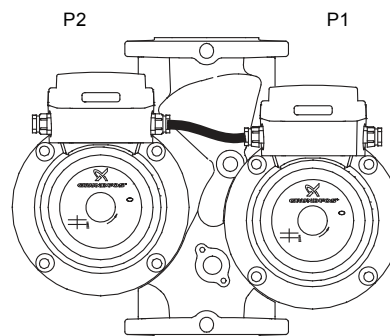
Functions of indicator lights and signal output

Indicator lights		Signal output		Description
Green	Red	Operation	Fault	
Off	Off			The pump has been stopped. The power supply has been switched off or a phase is failing.
Permanently on	Off			The pump is running.
Permanently on	Permanently on			<b>Only three-phase pumps:</b> The pump is running, but with wrong direction of rotation.
Off	Permanently on			The pump has been cut out by the thermal overload switch.
Flashes	Off			The pump has been stopped by an external on/off switch.
Flashes	Permanently on			The pump is or has been cut out by the thermal overload switch and it has been stopped by an external on/off switch.

**Note:** Pumps with relay module must not be connected to a frequency converter.

Operating modes of twin-head pumps

Twin-head pumps have a relay module in both terminal boxes, which are interconnected by a 4-core cable.



TM00 9243 4101

Fig. 12 Twin-head pump

In addition to the signal functions, the signal output of the relay module for twin-head pumps can be used for controlling the operating mode of pump 1 and 2.

It is possible to choose between three operating modes:

- **Alternating operation (factory setting)**  
The pumps operate alternately as duty and standby pump, respectively. Changeover takes place every 24 hours. If the duty pump is cut out due to a fault, the standby pump will automatically start. During changeover both pumps will be running for a short period to ensure a low-noise changeover.
- **Standby operation**  
The pumps operate continuously as duty and standby pump, respectively. If the duty pump is cut out due to a fault, the standby pump will automatically start at a signal from the output of the duty pump. The sequence can be changed to make the standby pump operate as duty pump.
- **Single-pump operation**  
The pumps run independently without communicating with each other.

## 3. Operating conditions

### Pumped liquids

Grundfos circulator pumps are suitable for the following liquids:

- clean, thin, non-aggressive and non-explosive liquids without solid particles or fibres
- cooling liquids, not containing mineral oil
- domestic hot water, max. 14 °dH, max. 65 °C, peak max. 70 °C
- softened water.

The kinematic viscosity of water is  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt) at 20 °C. If the pump is used for a liquid with a higher viscosity, the hydraulic performance of the pump will be reduced.

**Example:** 50 % glycol at 20 °C means a viscosity of approx. 10 mm<sup>2</sup>/s (10 cSt) and a reduction of pump performance by approx. 15 %.

Do not pump liquids containing additives that can disturb the functionality of the pump.

When selecting a pump, the viscosity of the pumped liquid must be taken into consideration.

If the pump is installed in a heating system, the water should meet the requirements of accepted standards on water quality in heating systems, e.g. the German standard VDI 2035.

The pumps must not be used for the transfer of inflammable liquids such as diesel oil and petrol.

UPS and UPSD Large pumps can be used for pumping water/glycol mixtures up to 50 %. The maximum viscosity of a 50 % glycol mixture at -10 °C is approx. 32 cSt.

**Note:** When pumping glycol mixtures, the pump performance will be reduced.

To prevent the glycol mixture from degrading, avoid temperatures exceeding the rated liquid temperature and minimise the operating time at high temperatures. It is important to clean and flush the system before the glycol mixture is added.

To prevent corrosion or precipitation, the glycol mixture should be checked and maintained regularly. If further dilution of the supplied glycol is required, follow the glycol supplier's instructions.

### Temperature limits

#### Liquid temperature

For permissible liquid temperatures of each individual pump type see the respective data sheet.

#### Small and medium UP pumps

Standard version:

- Short periods (max. 30 min.): +120 °C
- Continuously: +2 °C to +110 °C; -25 °C to +110 °C
- Domestic hot water: +2 °C to +110 °C

Cold-water version:

- -25 °C to +95 °C
- -25 °C to +110 °C

#### Large UP pumps

- Short periods (max. 5 min.): +140 °C
- Continuously: -10 °C to +120 °C
- Domestic hot water: up to +60 °C

Depending on the cast-iron version and the pump application, the maximum liquid temperature may be limited by local regulations and laws.

#### Ambient temperature

- Ambient temperature: 0 °C to 40 °C

The ambient temperature for standard pumps with a permissible minimum liquid temperature of +2 °C should always be lower than the liquid temperature, as condensation may otherwise form in the stator housing.

#### Storage temperature

- Storage temperature: -30 °C to +55 °C.

### System pressure

#### Small and medium UP pumps

- Pump with unions (PN 10): 1.0 MPa (10 bar)
- Flanged pump (PN 6/10): 0.6/1.0 MPa (6/10 bar)
- Pump with Grundfos flanges: 1.0 MPa (10 bar)

#### Large UP pumps

Test pressure:

- PN 6: 10 bar ~ 1.0 MPa
- PN 10: 15 bar ~ 1.5 MPa
- PN 6/10: 15 bar ~ 1.5 MPa.

Test liquid: +20 °C water containing corrosion inhibitor.

## Inlet pressure

To avoid cavitation noise and damage to the pump bearings, the listed minimum pressures are required at the pump suction port.

### Small and medium UP pumps

Pump type	Liquid temperature		
	85 °C	90 °C	110 °C
UP, UPS, UPSD	[MPa (bar)]	[MPa (bar)]	[MPa (bar)]
	0.5 (0.049)	2.8 (0.27)	11 (1.08)

### Large UP pumps

Pump type	Liquid temperature		
	75 °C	90 °C	120 °C
UPS, UPSD	[MPa (bar)]	[MPa (bar)]	[MPa (bar)]
32-60 F 220	0.005 (0.05)	0.02 (0.2)	0.15 (1.5)
32-120 F 220	0.04 (0.4)	0.07 (0.7)	0.195 (1.95)
40-60/2 F 250	0.015 (0.15)	0.045 (0.45)	0.175 (1.75)
40-120 F 250	0.01 (0.1)	0.04 (0.4)	0.17 (1.7)
40-180 F 250	0.04 (0.4)	0.07 (0.7)	0.195 (1.95)
40-185 F 250	0.055 (0.55)	0.09 (0.9)	0.18 (1.8)
50-60/2 F 280	0.005 (0.05)	0.035 (0.35)	0.165 (1.65)
50-120 F 280	0.04 (0.4)	0.07 (0.7)	0.195 (1.95)
50-180 F 280	0.035 (0.35)	0.065 (0.65)	0.19 (1.9)
50-185 F 280	0.085 (0.85)	0.1 (1)	0.215 (2.15)
65-60/2 F 340	0.045 (0.45)	0.075 (0.75)	0.2 (2)
65-120 F 340	0.09 (0.9)	0.12 (1.2)	0.245 (2.45)
65-180 F 340	0.07 (0.7)	0.1 (1)	0.225 (2.25)
65-185 F 340	0.09 (0.9)	0.13 (1.3)	0.235 (2.35)
80-60 F 360	0.12 (1.2)	0.15 (1.5)	0.275 (2.75)
80-120 F 360	0.16 (1.6)	0.19 (1.9)	0.315 (3.15)
100-30 F 450	0.105 (1.05)	0.135 (1.35)	0.26 (2.6)

## Electrical data

### Small and medium UP

Supply voltage and frequency:	1 x 220 V, 50 Hz 1 x 230 V, 50 Hz 1 x 240 V, 50 Hz 3 x 230 V, 50 Hz 3 x 220 V, 50 Hz 3 x 400 V, 50 Hz 1 x 220 V, 60 Hz
Motor protection:	The pump requires no external motor protection, if the motor is fitted with a protection module.
Enclosure class:	IP 42, IP 44, IP54, IPX2D, IPX4D
Insulation class:	155/180 °C, F/H
Terminal box:	Cable connection: Pg 11 (cable diameter: 5.6 mm to 10.0 mm)

### Large UP

Supply voltage and frequency:	1 x 230-240 V, 50 Hz 3 x 400-415 V, 50 Hz
Motor protection:	The pump requires no external motor protection, if the motor is fitted with a protection module.
Enclosure class:	IPX4D
Insulation class:	155/180 °C, F/H
Screwed cable entries:	1 x M20 for mains connection. 1 x M20 for signal output (blanked-off if pump with standard module). 1 x M16 for capacitor connection (only single-phase pumps).
EMC (electromagnetic compatibility):	EN 61 000-6-2 EN 61 000-6-3

## Thermal overload switch of large UP

Voltage	250 V AC
Current	cos φ = 1.0: 2.5 A cos φ = 0.6: 1.6 A

## Relay module

### Start/stop input

External potential-free contact

- Maximum load: 250 V, 1.5 mA
- Minimum load: 100 V, 0.5 mA

### Operating/fault signal output

Internal potential-free changeover contact

- Maximum load: 250 V, 2 A, AC
- Minimum load: 5 V, 100 mA, DC

## Other data

Relative humidity: Max. 95 %.

Sound-pressure level of UPS: below 43 dB(A)

## 4. Construction

The UPS, UPSD pumps are of the canned rotor type, i.e. 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.

The pump offers these features:

- three-speed motor (UPS)
- ceramic or stainless-steel shaft
- ceramic radial bearings
- carbon or ceramic thrust bearing
- stainless-steel rotor can, bearing plate and rotor cladding
- aluminium-alloy stator housing
- cast iron or bronze or stainless-steel pump housing
- stator with built-in thermal overload switch (medium and large UP)
- impeller of corrosion-resistant material
- impedance-protected motor (small UP)

### Exploded views

#### Small UP

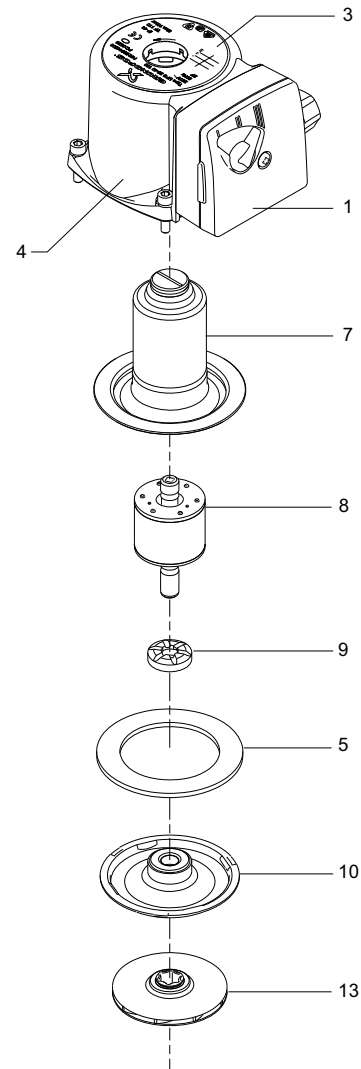


Fig. 13 Small UP

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Medium UP

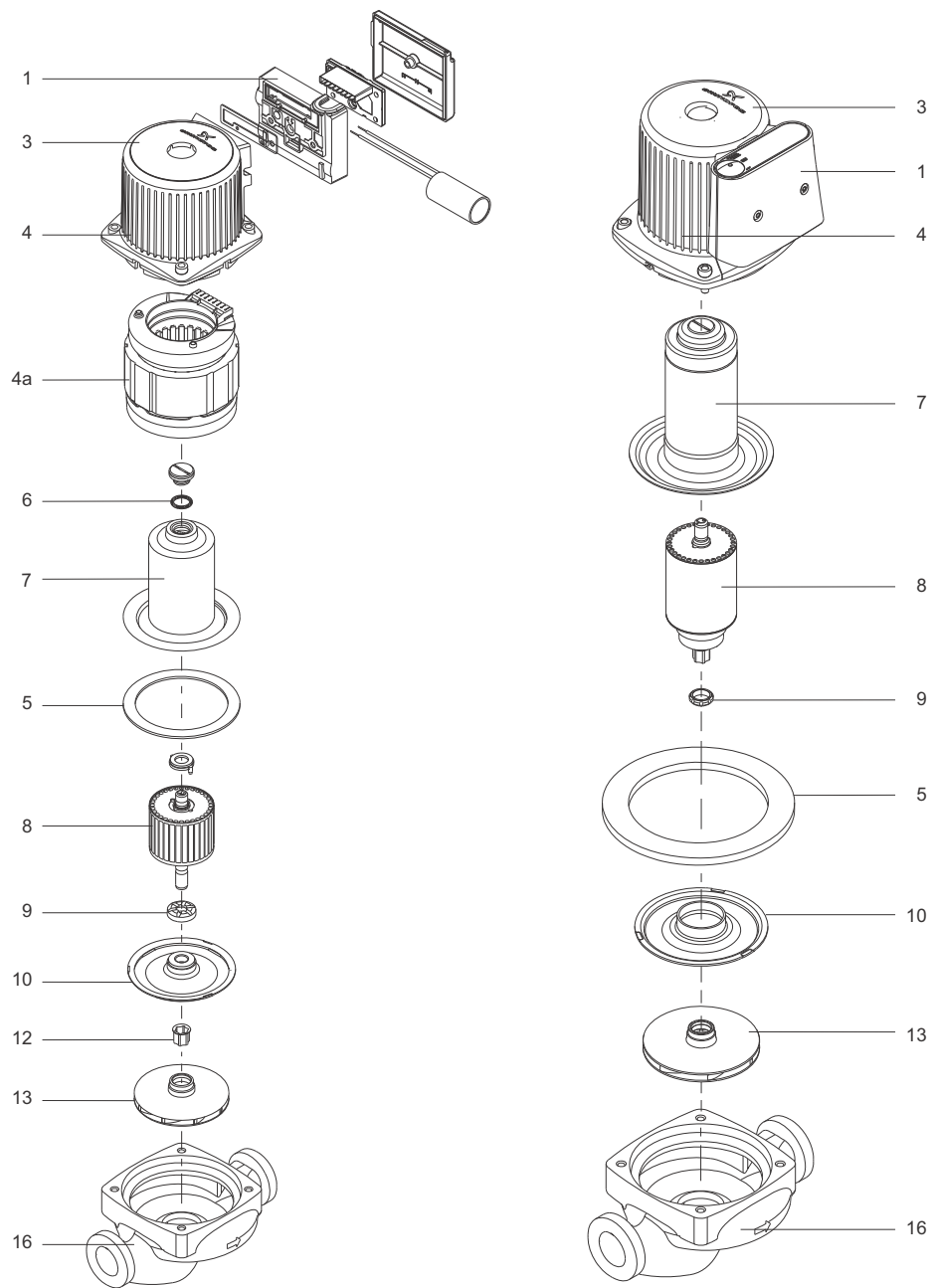


Fig. 14 Medium UP

TM06 9162 1717

Large UP

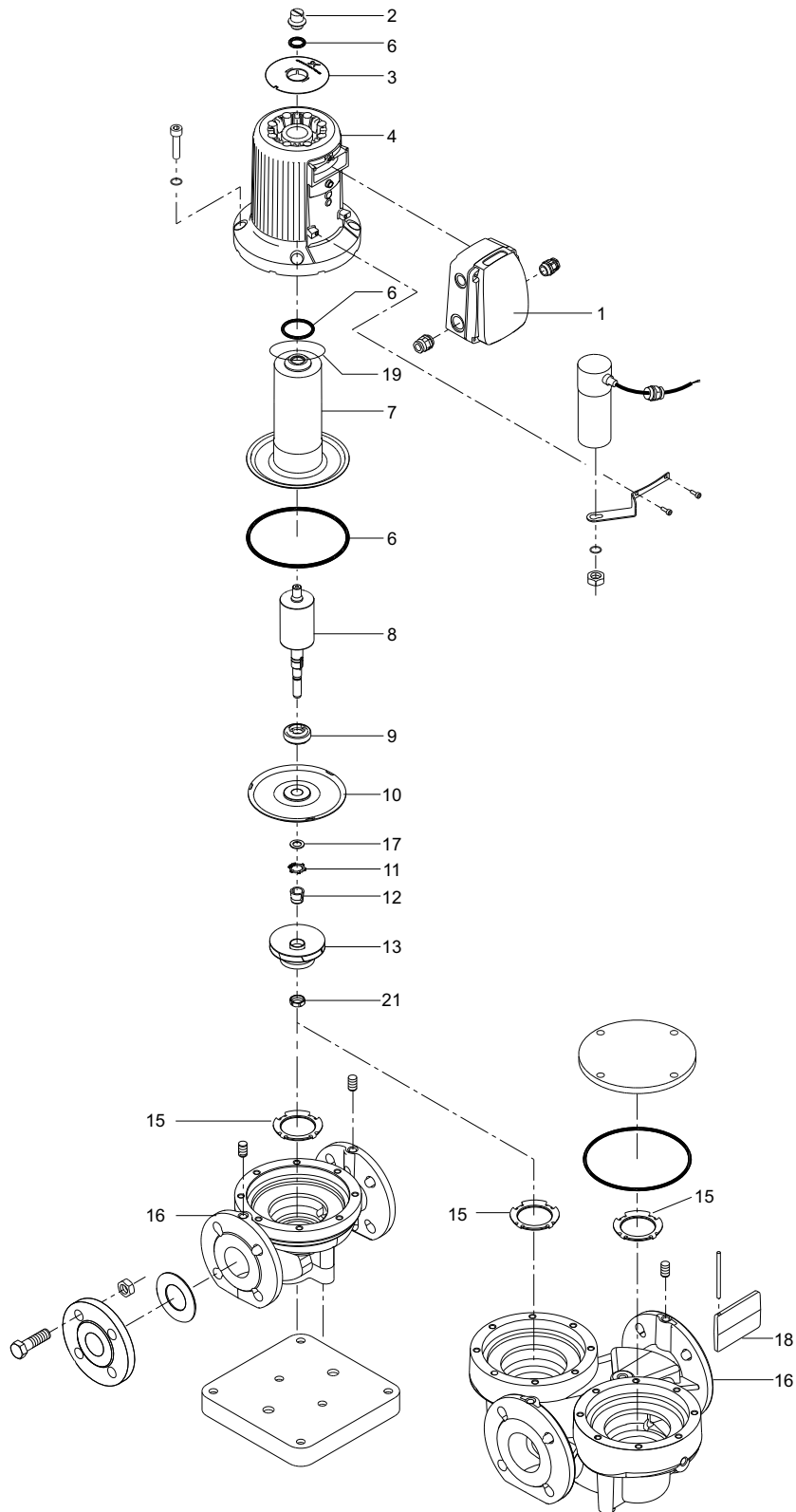


Fig. 15 Large UP

TM06 9163 1717



## Sectional drawings

### Small UP

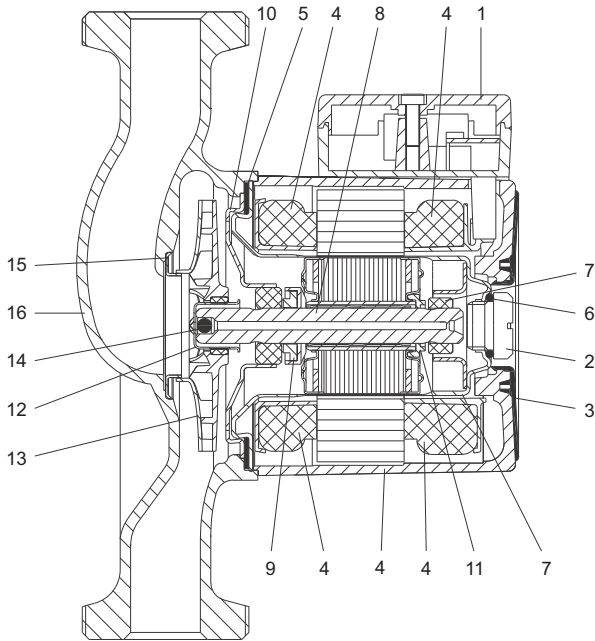


Fig. 16 Small UP, three-phase

TM06 9166 1717

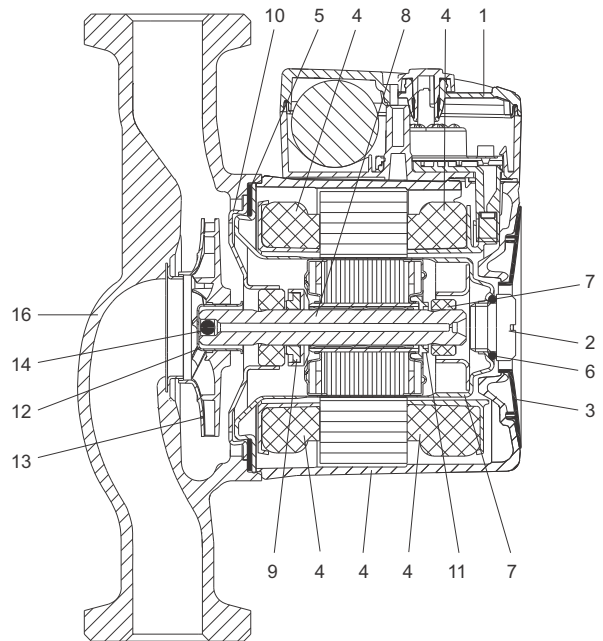


Fig. 17 Small UP, single-phase

TM06 9167 1717

### Medium UP

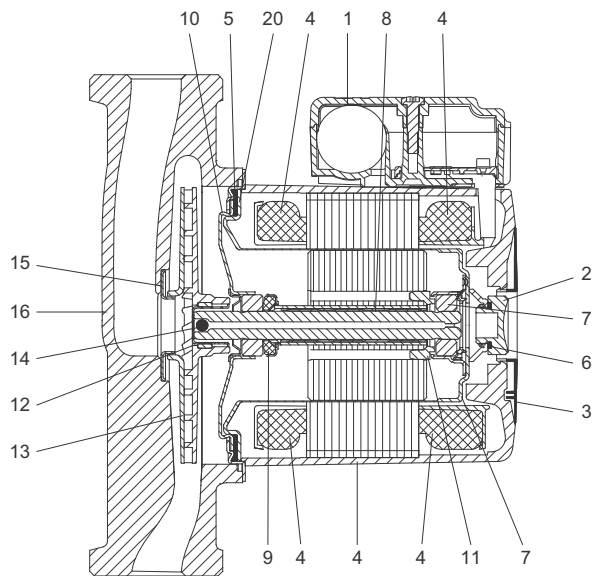


Fig. 18 Medium UP 25-120/125, single-phase

TM06 9168 1717

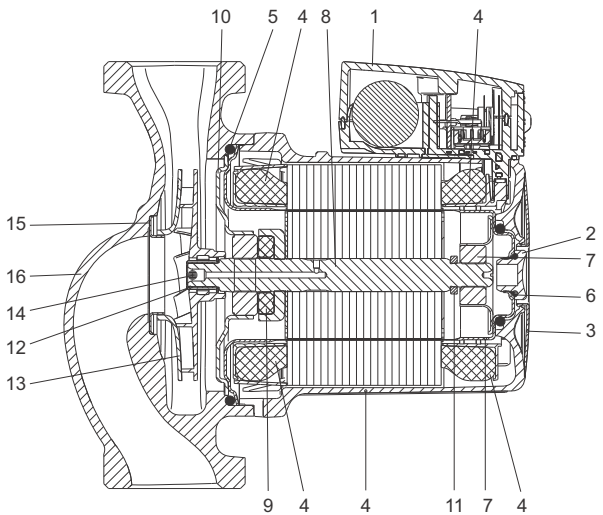
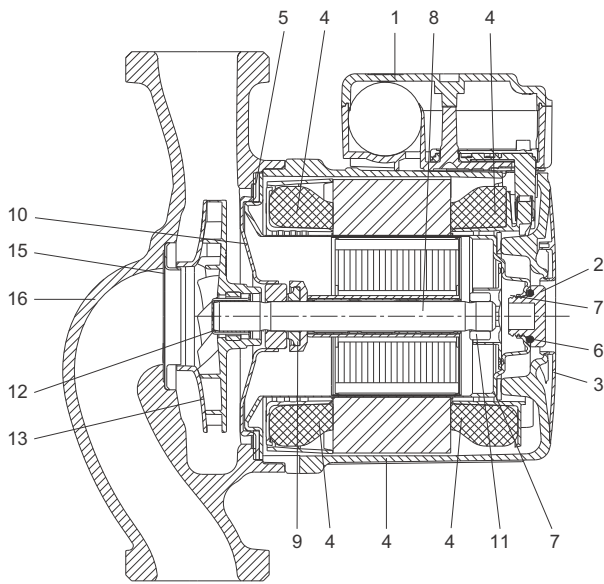


Fig. 19 Medium UP xx-100

TM06 9169 1717

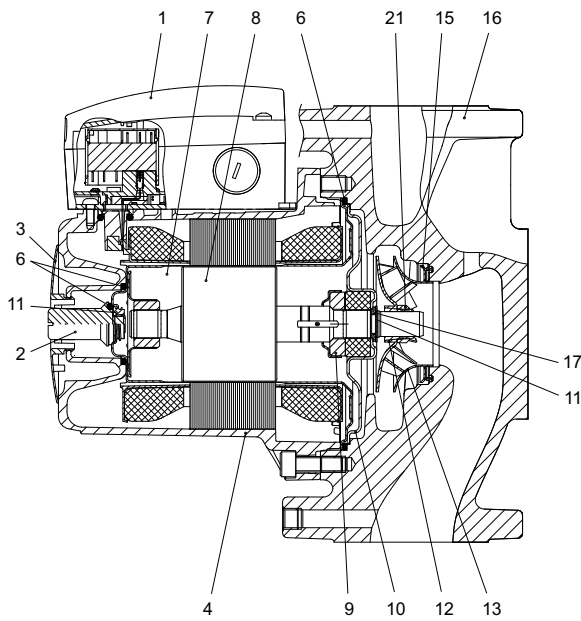
**Medium UP**



TM06 9170 1717

**Fig. 20** Medium UP, single-phase

**Large UP**



TM06 9171 1717

**Fig. 21** Large UP

## Material specification

Pos.	Component	Material Small/Medium UP	Material Large UP	EN	AISI
1	Terminal box	Composite, PPE/PS	Composite, PA66/PC	-	-
	• Terminal box cover	Composite, PPE/PS	-	-	-
	• Electric unit (single-phase only)	Composite, PET	-	-	-
2	Air vent screw	Brass, nickel-plated, CW614N	Brass, nickel-plated, CW614N	2.0401.30	-
3	Nameplate	Composite, PA66	Composite, PA66	-	-
4	Stator housing	Aluminium, AISi10Cu <sub>2</sub>	Aluminium, AISi10Cu <sub>2</sub>	-	-
	• Stator caps	Composite, PET	Composite, PET	-	-
	• Stator windings	Copper	Copper	-	-
5	Gaskets	EPDM rubber	EPDM rubber	-	-
6	O-rings	EPDM	EPDM or FKM rubber	-	-
7	Rotor can	Stainless steel	Stainless steel	1.4301/1.4521	304/316Ti
	• Radial bearing	Ceramics	Aluminium oxide / SiC	-	-
8	Shaft	Ceramics	Stainless steel (cast iron pumps)	1.4305	303
		Stainless steel (UPS xx-100)	Stainless steel (bronze pumps)	1.4404	316L
	• Rotor cladding	Stainless steel	Stainless steel	1.4301	304
9	Thrust bearing	Carbon	CY103	-	-
	• Thrust bearing retainer	EPDM rubber	Stainless steel	-	-
10	Bearing plate	Stainless steel	Stainless steel	1.4301	304
11	Stop ring	Composite, PES	Stainless steel	1.4435	316L
12	Split cone	Stainless steel	Stainless steel	1.4301/1.4305	304/303
13	Impeller	Composite, PES/PP 30 % GF	Stainless steel	1.4301	304
14	Ball (non-return valve)	EPDM rubber	-	-	-
15	Neck ring	Stainless steel	Stainless steel / PTFE	1.4301	304
		Cast iron	Cast iron	EN-JL1020 EN-JL1030 EN-JL-1040 EN-GJL-250	A48-25B A48-30B A35-40B
		Stainless steel	-	1.4301	304
17	Anti-friction ring	-	Bronze CuSn10Pb	2.1050.01	-
		-	PTFE	-	-
18	Non-return valve casing (twin-head pump)	Composite	EPDM rubber	-	-
	• Valve flap (twin-head pump)	EPDM rubber	EPDM rubber	-	-
19	Splash protector	-	Stainless steel	1.4305	303
20	Intermediate ring	Stainless steel	-	1.4301	304
21	Nut	Stainless steel	Stainless steel	1.4305	303

## Motor

The motor is a 2- or 4-pole, asynchronous, squirrel-cage motor in conformity with the EMC directive.

The terminal box and the motor-pump unit have been wet-tested according to the Low Voltage Directive.

The terminal box is easily accessible and has functional cable connecting terminals. The cable entry is tight and incorporates cable relief.

The cable entry of single-phase motors can be pushed out of its guide to facilitate correct fitting of the cable.

Most of the motors are impedance-protected and consequently short-circuit-proof. These motors require no motor protection.

Many pumps have motors with a built-in thermal switch, and therefore no additional motor protection is required.

## Stator housing

The die-cast aluminium stator housing can be turned to change the position of the terminal box. Small (K-variant), medium and large UP stator housings have drain holes for condensed water and a vent hole under the terminal box.

## Rotor can

The rotor can is made of stainless steel and has an inspection screw fitted directly at the top (except for the small UP N). The radial bearing is incorporated in the top of the rotor can.

## Shaft with rotor

The shaft is made of stainless steel or ceramics, and has two bearings and a hole for lubrication. The rotor is attached to the shaft, encapsulated in a stainless-steel cladding.

## Bearing plate

The bearing plate is made of stainless steel. Due to the relatively large surface of the bearing plate the motor heat is carried away by the pumped liquid.

## Impeller

The radial impeller is made of composite or stainless steel, and has curved blades. The impeller is secured to the shaft by a split cone.

## Pump housing

### Small and medium UP pumps

#### Standard pump housing

The standard cast-iron pump housing has a pressed-in neck ring that guides the liquid to the impeller. The standard stainless-steel pump housing has a pressed-in neck ring that guides the liquid to the impeller. Standard pump housings are available in variants with different port-to-port lengths for union or flange connection.

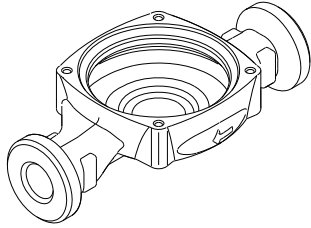


Fig. 22 Standard pump housing

TM03 0595 0405

#### Welded stainless-steel plate pump housing

The pump housing of the welded N-version pumps is made of stainless steel and requires no neck ring.

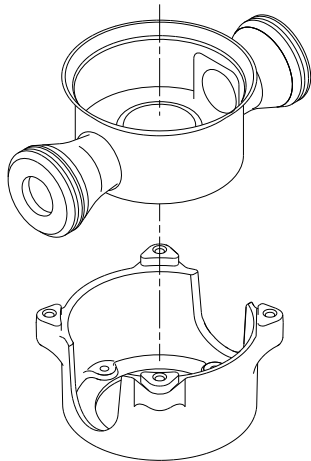


Fig. 23 N-version pump housing with cover

TM03 0594 0405

#### Twin-head pump housing

Twin-head pumps are installed where duty and standby operation is required to obtain extra reliability. The two power heads can operate in parallel.

A flap valve built into the discharge port of the pump housing separates the two power heads hydraulically.

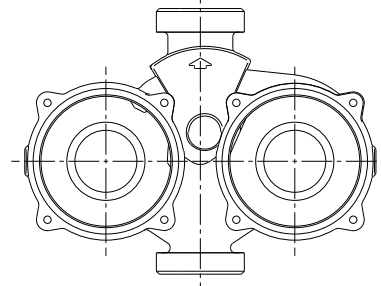


Fig. 24 Twin-head pump housing

TM01 6545 0305

#### High-head pump housing

High-head pump housings have a stainless-steel intermediate ring.

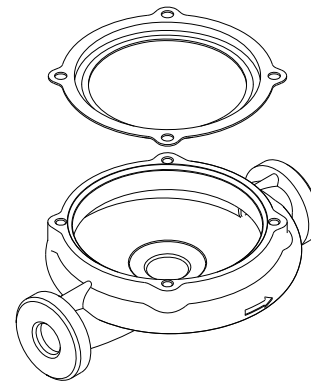


Fig. 25 High-head pump housing

TM02 1327 0901

### Pump housing with air separator

The pump housing with air separator is installed in systems where the liquid contains so much air that a conventional circulator pump cannot start or keep up a continuous circulation.

The pump housing is made of cast iron with a stainless-steel neck ring. It is available for upward water flows.

The air-containing liquid is guided from the suction port to the narrow entrance to the air-separating chamber. When pressed through the narrow passage, the liquid starts to circulate considerably in the relatively large chamber, thus creating a low pressure at the top of the chamber. The low pressure combined with the low velocity of the liquid separates the air from the liquid. Due to its lower density, the air escapes through an automatic air vent fitted to the air-separating chamber. The pump housing has an Rp 3/8 thread for the air vent. The air vent is not supplied with the pump.

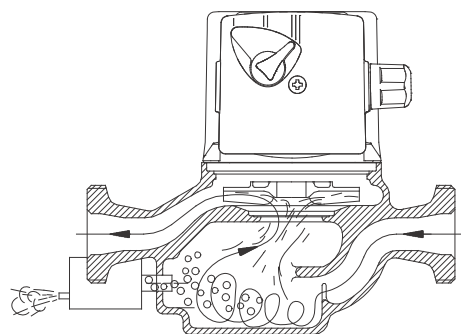


Fig. 26 Air separation in an air-separator pump

## Large UP pumps

### Standard pump housing

The pump housing of Large UP single-head pumps is available in cast iron or bronze. The pump housing of Large UP twin-head pumps is available in cast iron. Thanks to the stainless-steel/PTFE neck ring, the amount of liquid running from the discharge side of the impeller to the suction side is reduced to a minimum. Twin-head pump housings have a non-return flap on the discharge side to prevent the pumped liquid from running back to the suction side.

### Terminal box of large UP pumps

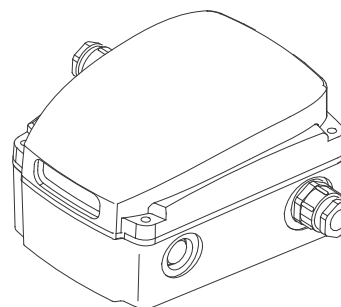


Fig. 27 Terminal box

The terminal box with cover is made of black composite.

The terminal box incorporates the following:

- 1 x M20 screwed cable entry for mains connection
- 1 x M20 screwed cable entry for signal output (blanked-off if standard module)
- 1 x M16 screwed cable entry for capacitor connection (only single-phase pumps)
- 2 x indicator lights (single-phase pumps with standard module have just one)
- window for indication of speed.

The terminal box is fastened to the stator housing with screws and connected to the stator by a terminal plug.

### Terminal box modules

The terminal box of single-head and twin-head pumps contains, as standard, the following modules:

- speed switch
- standard module
- relay module (twin-head pumps).

The following modules are available as optional extras for single-head and twin-head pumps:

- relay module (single-head pumps)
- protection module.

## 5. Installation

The pump must be installed with horizontal motor shaft.

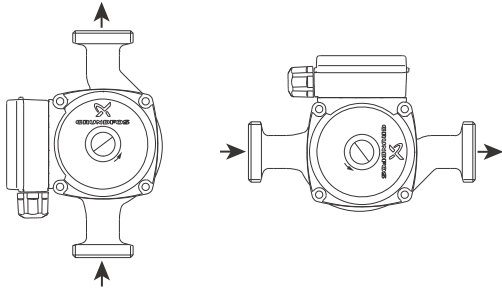


Fig. 28 Installation of Medium/Small UP pumps

TM06 6940 2716

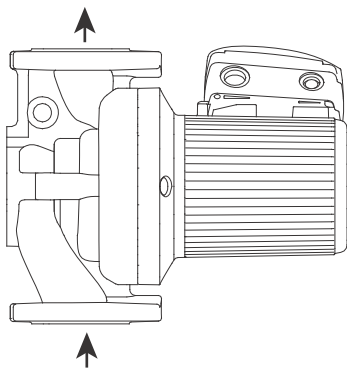


Fig. 29 Installation of Large UP pumps

TM02 1404 1101

**Note:** Twin-head Large UP pumps in vertical pipes with downward liquid flow or in horizontal pipes must always run at maximum speed.

Twin-head Large UP pumps mounted in horizontal pipes must be fitted with an automatic air vent in the upper part of the pump housing.

### Terminal box positions

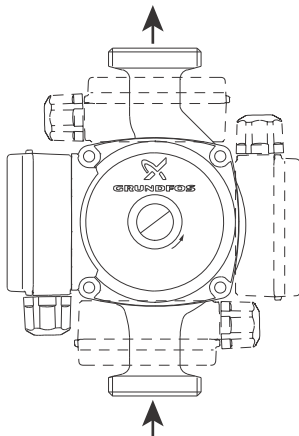


Fig. 30 Permissible terminal box positions of Small and Medium UP pumps

TM06 6936 2716

All Small and Medium UP pumps are supplied with the terminal box in position 9 h. For exceptions, see *Small and medium UP: UPS circulator pumps, 50 Hz* on page 197 and *Small and medium UP: Stainless-steel circulator pumps, 50 Hz* on page 198.

All Small and Medium UPSD (twin head) pumps are supplied with the terminal box in position 12 h.

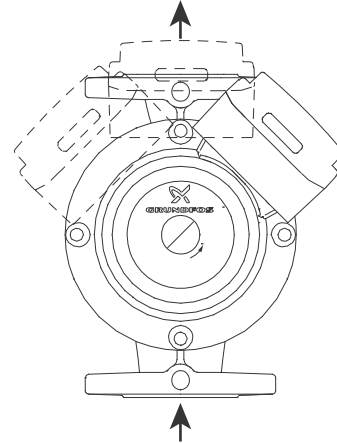


Fig. 31 Permissible terminal box positions of Large UP pumps

TM06 6939 2716

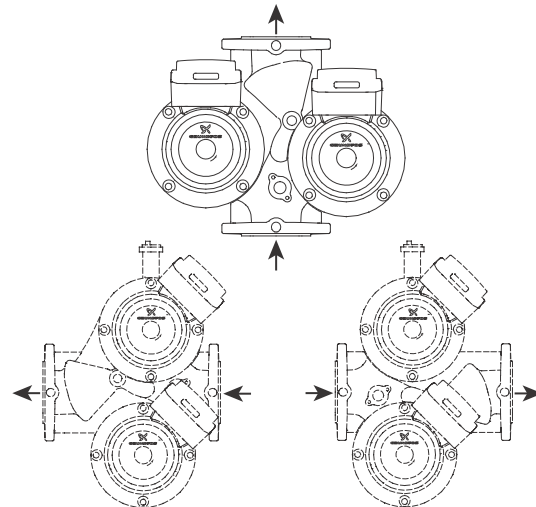


Fig. 32 Permissible terminal box positions of Large UP twin-head pumps

TM06 6937 2716

All Large UP pumps are supplied with the terminal box in position 1:30 h.

All Large UPSD (twin head) pumps are supplied with the terminal box in position 12 h.

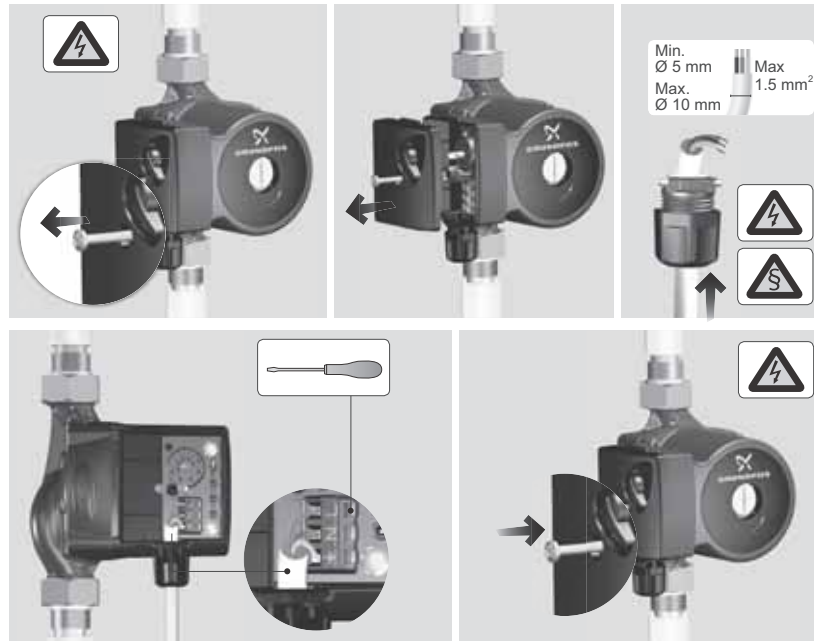
See also section 9. *Product numbers*.

## Electrical connection

The electrical connection and protection should be carried out in accordance with local regulations. Earthing or neutralization can be used for protection against indirect contact. A current-operated or voltage-operated earth-leakage circuit breaker can be used as extra protection.

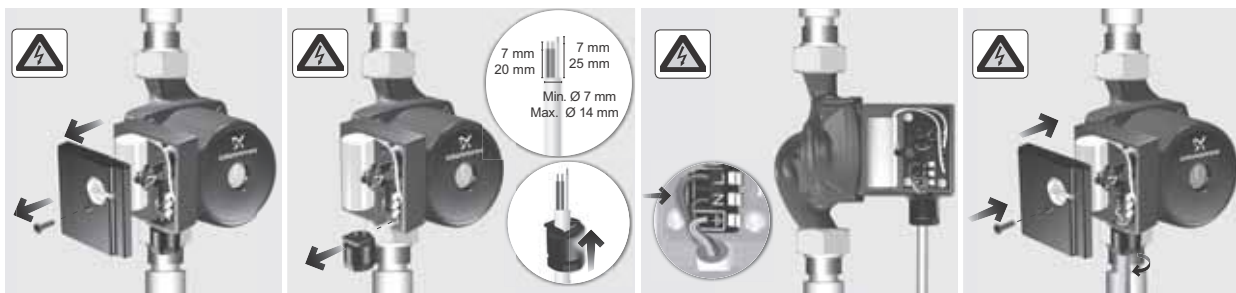
Never make any connections in the pump terminal box unless the power supply has been switched off. The pump must be earthed and connected to an external mains switch. The operating voltage and frequency are marked on the pump nameplate. Make sure that the motor is suitable for the power supply on which it will be used.

### Small UP pumps

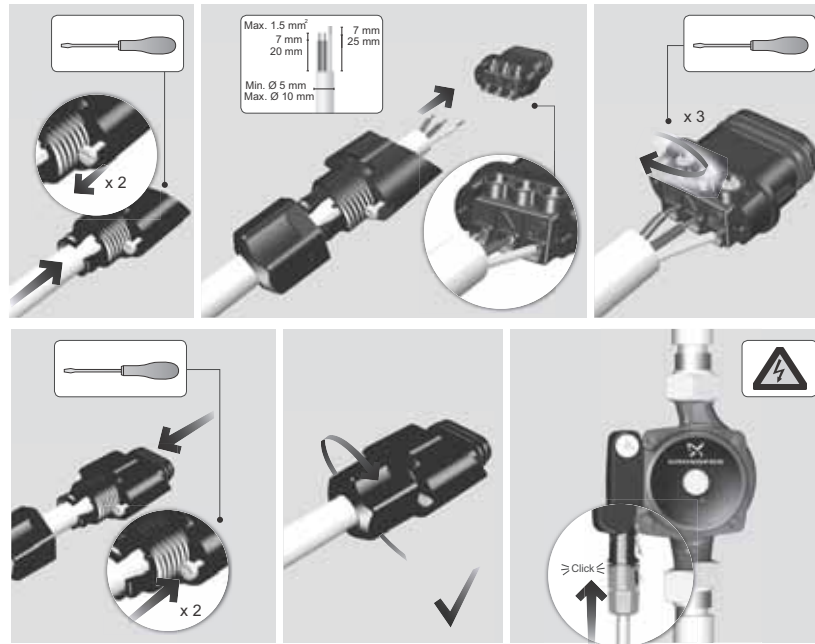


### Medium UP pumps

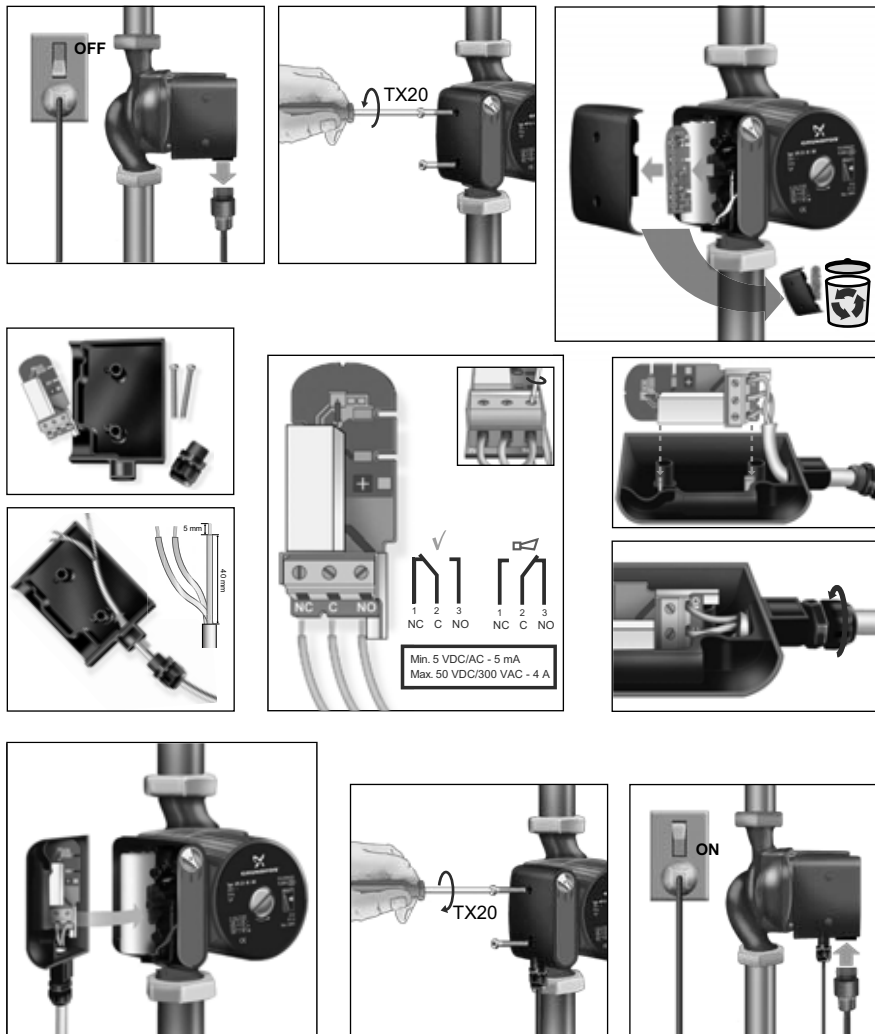
#### Medium UP



Medium UP 10 m



Medium UP alarm module





## Large UP pumps

### Pumps with standard module

The pump must be connected to the mains via an external contactor. The contactor must be connected with terminals T1 and T2 of the built-in thermal overload switch to protect the pump against overheating at all three speeds.

**Note:** If the pump is also protected by means of a motor starter, the starter must be set to the current consumption of the pump at the chosen speed. The motor starter setting must be changed every time the pump speed is changed. The current consumption at the various speeds is stated on the pump nameplate.

### External impulse switches

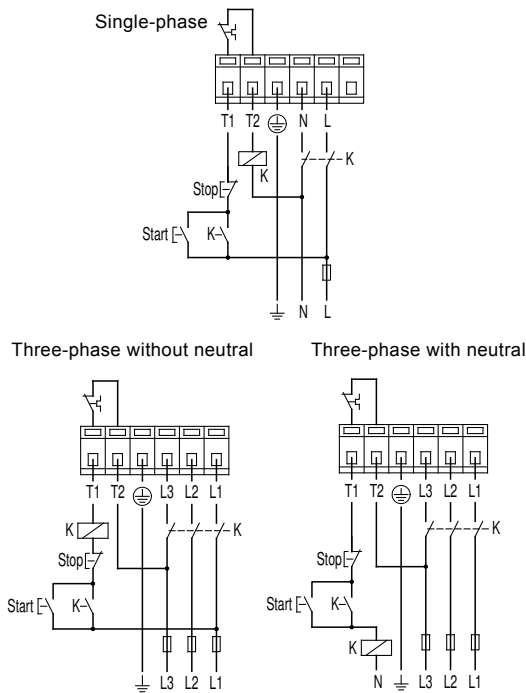


Fig. 33 External impulse switches

TM00 9173 0305

### External changeover switch

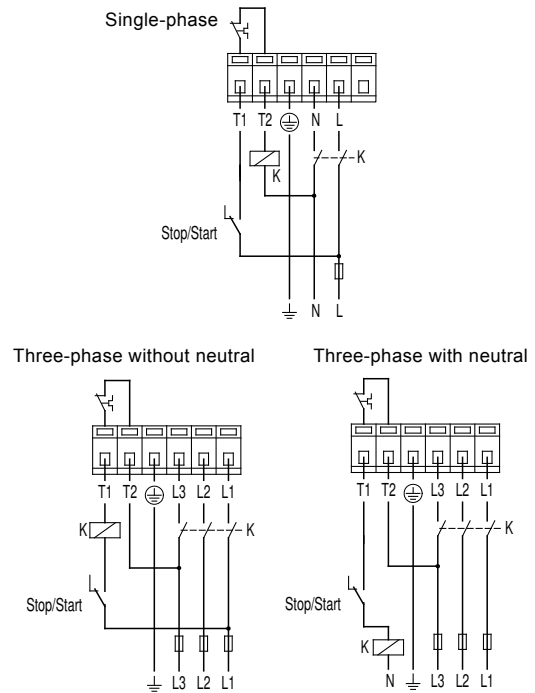


Fig. 34 External changeover switch

TM00 9172 0305

### Single-head pumps with protection module

The pump can be connected directly to the mains as the pump features built-in protection against overheating at all three speeds.

The figure below shows the electrical connection of single-phase and three-phase pumps.

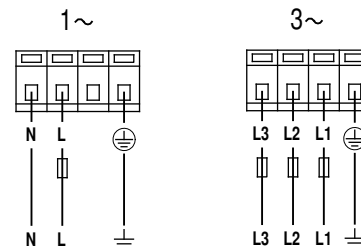


Fig. 35 Electrical connections, protection module

TM01 3402 0305

### Single-head pumps with relay module

The pump can be connected directly to the mains as it incorporates protection against overheating at all three speeds.

The relay module has a signal output for an external operating or fault signal device. By means of the selector switch the signal output can be used as operation or fault signal output:



Operation



Fault



**Note:** The selector switch must not have been set to **alternating operation** (used in connection with twin-head pumps).

### Operating indication

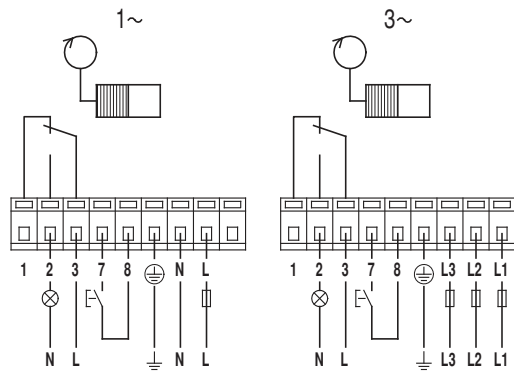


Fig. 36 Operating indication

### Fault indication

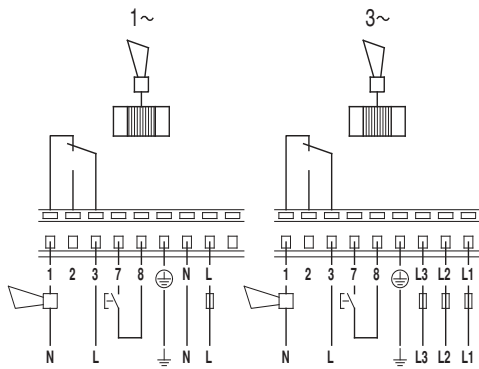


Fig. 37 Fault indication

### Twin-head pumps with relay module

The pumps are interconnected by a 4-core cable and factory-set to operating alternately as duty and standby pump. Changeover takes place every 24 hours. The following figures show the electrical connections and the selector switch setting for the various operating modes.

### Alternating operation (factory setting)

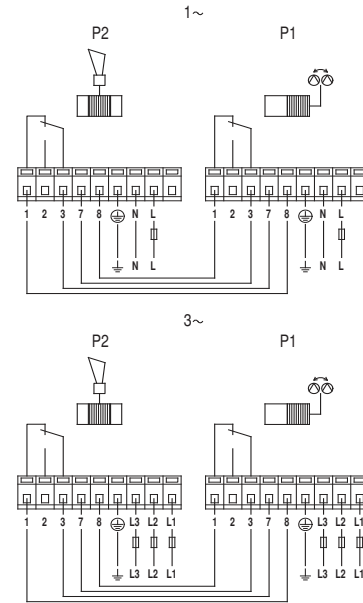


Fig. 38 Alternating operation

### Standby operation

Standby operation with pump 1 as duty pump and pump 2 as standby pump.

**Note:** In this operating mode the selector switch of pump 2 must not have been set to alternating operation.

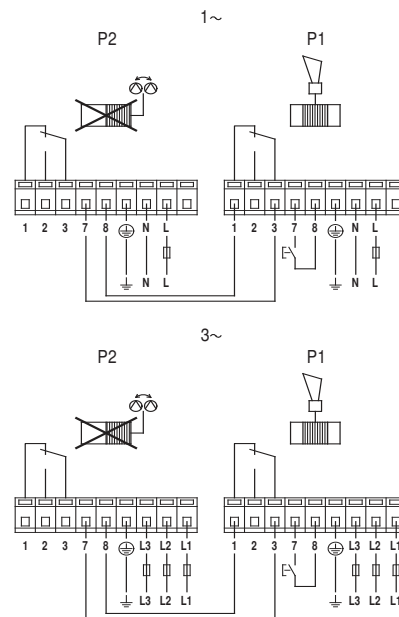


Fig. 39 Standby operation

TM00 9176 0305

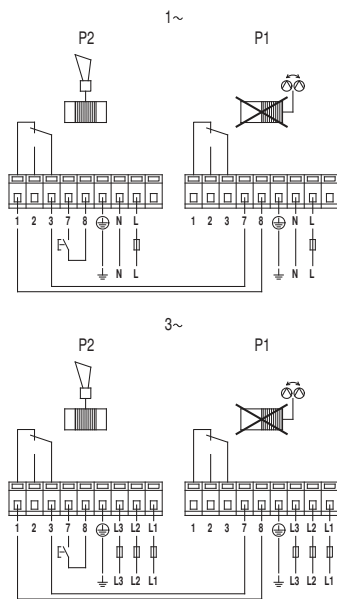
TM00 9174 0305

TM00 9175 0305

TM00 9177 0305

**Standby operation** with pump 2 as duty pump and pump 1 as standby pump.

**Note:** In this operating mode the selector switch of pump 1 must not have been set to alternating operation.



**Fig. 40** Standby operation

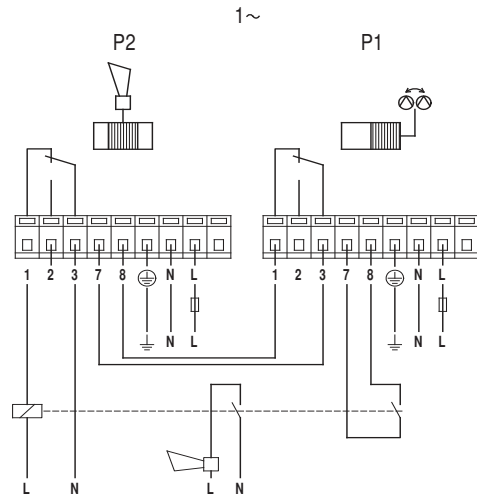
In the case of single-pump operation the cable between the pumps must be removed. The pumps must be set individually and connected separately to mains, see page 26 *Single-head pumps with relay module*.

**Signal output of twin-head pumps**

The signal output of twin-head pumps can be used directly, provided it is not already being used for communication between the pumps.

If an output that is used for communication between the pumps is to be used as signal output, an intermediate relay is required. See example below.

The example shows a single-phase pump in alternating operation with external fault indication in case of fault on pump 2 or both pumps.



**Fig. 41** Alternating operation with external fault indication

TM00 9178 0305

TM00 9179 0305

## 6. Performance curves and technical data

### Curve conditions

The guidelines below apply to the performance curves in the following data sheets:

- The measurements have been made at a water temperature of 20 °C.
  - Test liquid: airless water.
  - The curves apply to a kinematic viscosity of  $\nu = 1 \text{ mm}^2/\text{s}$  (1 cSt).

- All curves show average values and should not be used as guarantee curves. If a specific minimum performance is required, individual measurements must be made.
- The conversion between head  $H$  [m] and pressure  $p$  [kPa] has been made for water with a density of  $\rho = 1000 \text{ kg/m}^3$ . For liquids with other densities, for example hot water, the discharge pressure is proportional with the density.

### Speed

#### Small and medium UP

On request.

#### Large UP

The table below shows the speed range of the various Large UP pump types and speed switch positions.

Pump type	Speed [ $\text{min}^{-1}$ ]											
	Test voltage 1 x 230 V						Test voltage 3 x 400 V					
	Voltage range 1 x 230-240 V						Voltage range 3 x 400-415 V					
	Speed 1		Speed 2		Speed 3		Speed 1		Speed 2		Speed 3	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
32-60 F 220	2340	2780	2600	2850	2800	2910	2240	2630	2410	2720	2790	2900
32-120 F 220	2040	2770	2390	2840	2730	2920	2090	2660	2280	2740	2700	2910
40-60/2 F 250	2080	2630	2470	2760	2760	2870	2030	2350	2210	2500	2700	2820
40-120 F 250	2200	2770	2510	2840	2790	2920	2200	2590	2370	2690	2770	2890
40-180 F 250	2050	2750	2400	2840	2670	2890	2040	2660	2260	2750	2750	2910
40-185 F 250*	1920	2370	2300	2590	2530	2730	2130	2500	2300	2610	2750	2870
50-60/2 F 280	2180	2520	2510	2690	2790	2850	2230	2380	2400	2520	2790	2830
50-120 F 280	2050	2700	2460	2800	2690	2870	2020	2540	2240	2660	2720	2880
50-180 F 280	2200	2730	2490	2820	2690	2880	2450	2780	2590	2830	2860	2940
50-185 F 280*	2110	2620	2490	2750	2670	2860	2280	2540	2430	2650	2800	2860
65-60/2 F 340	2340	2520	2590	2690	2810	2840	2390	2440	2520	2570	2800	2830
65-120 F 340	2010	2590	2410	2750	2700	2850	2380	2730	2540	2790	2840	2930
65-180 F 340	-	-	-	-	-	-	2330	2750	2490	2810	2830	2930
65-185 F 340*	-	-	-	-	-	-	2400	2630	2530	2720	2830	2900
80-60 F 360	-	-	-	-	-	-	900	1190	1010	1270	1320	1420
80-120 F 360	-	-	-	-	-	-	2310	2530	2460	2640	2820	2880
100-30 F 450	-	-	-	-	-	-	1050	1360	1100	1140	1360	1370

\* Only available as single-head pump (UPS)

## Markings and approvals

The following marks are available after positive testing of the pump:

Mark	Description
	The EC marking is based on the declaration of conformity issued by the manufacturer who certifies that the product meets all the appropriate provisions of the relevant legislation implementing certain European Directives.
	Technical working equipment and commodities ready for use, in the sense of ProdSG according to German VDE/EN/IEC standards, other technical specifications as well as possible provisions of law with respect to safety and health requirements.
	Mark of Conformity in the Russia, Kazakhstan and Belarus Customs Union for imports of Machinery and Industrial Equipment
	The product complies with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations/Scottish Water Byelaws. Applies to the stainless-steel version only.
	Czech Republic Potable Water Contact Approval
	PZH (Polish National Institute of Hygiene) hygienic certificate
	Serbian quality certificate by the joint-stock company for quality testing "KVALITET" Nis: Product fulfils the requirements of the 'Rulebook on Electromagnetic compatibility' (Official Gazette RS 13/2010)

## Pump selection

### Pump size

Select the pump size based on the following:

- required maximum flow
- maximum pressure loss in the system

Refer to the system characteristics to determine the duty point.

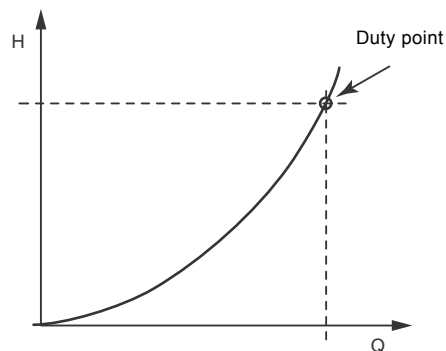


Fig. 42 System characteristic

### Operating conditions

Check the following operating conditions:

- Liquid quality and temperature
- Ambient conditions
- Minimum inlet pressure
- Maximum operating pressure

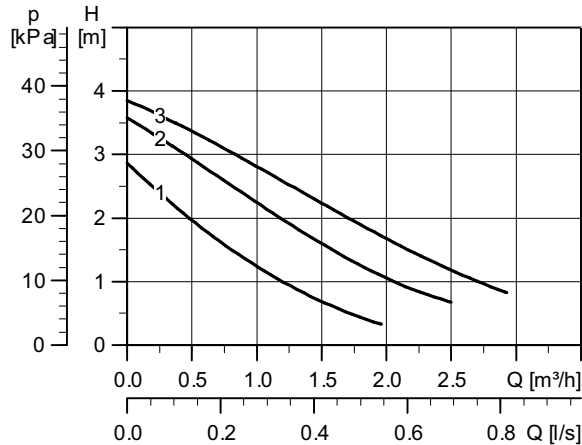
TM06 6900 2616

## 7. Data sheets Small UP and Medium UP

### UPS 21-40 F - 120 PN 10

1 x 230 V, 50 Hz

#### Performance curves



#### Approvals



TM00 9749 4708

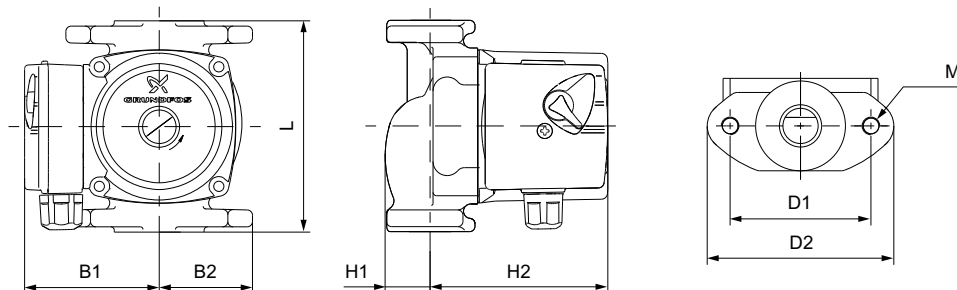
#### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

#### Technical data

Net weight [kg]	2.9
Gross weight [kg]	3.1
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

#### Dimensions



TM06 7056 2916

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	M
PN 10	120	75	53	32	102	80	106	M10

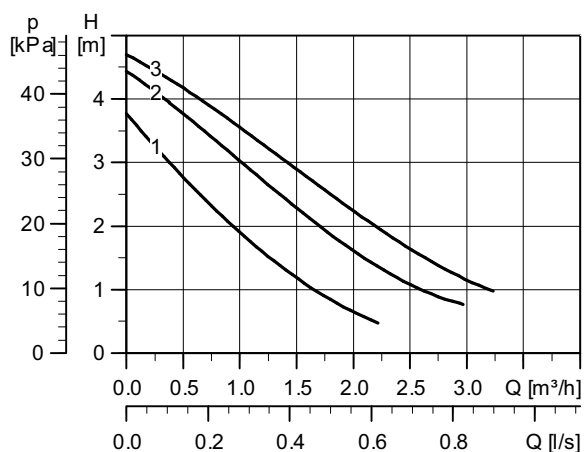
#### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 21-50 F - 120 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 4708

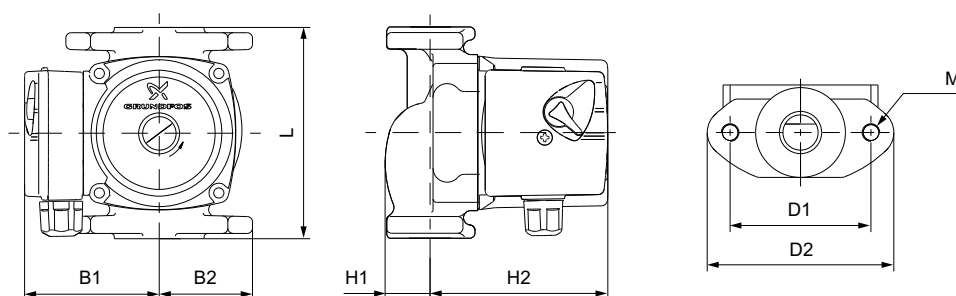
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.9
Gross weight [kg]	3.1
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM06 7056 2916

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	M
PN 10	120	75	53	32	102	80	106	M10

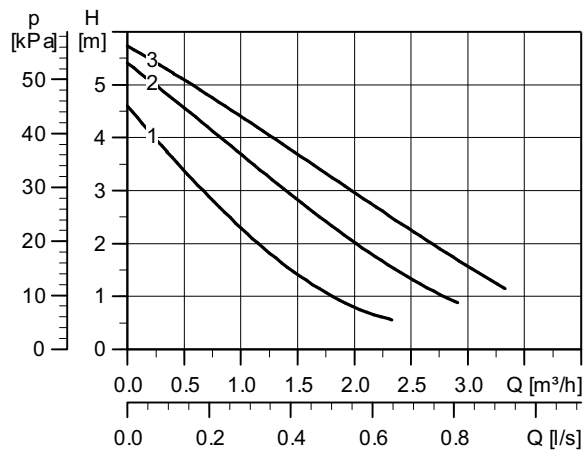
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 21-60 F - 120 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9751 4708

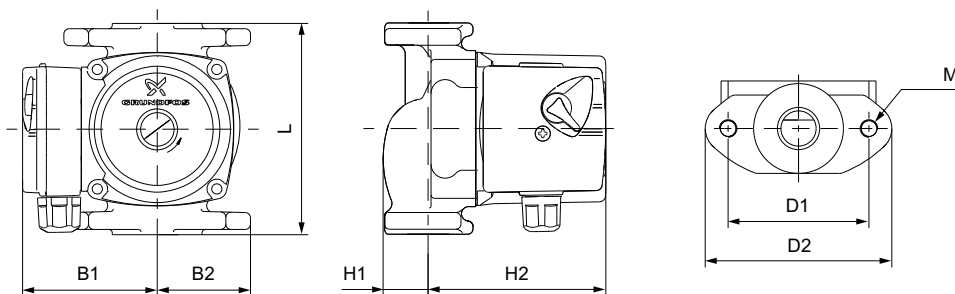
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.22	on request
Speed 2	60	0.27	on request
Speed 3	70	0.30	on request

### Technical data

Net weight [kg]	2.9
Gross weight [kg]	3.1
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM06 7056 2916

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	M
PN 10	120	75	53	32	102	80	106	M10

### Motor protection

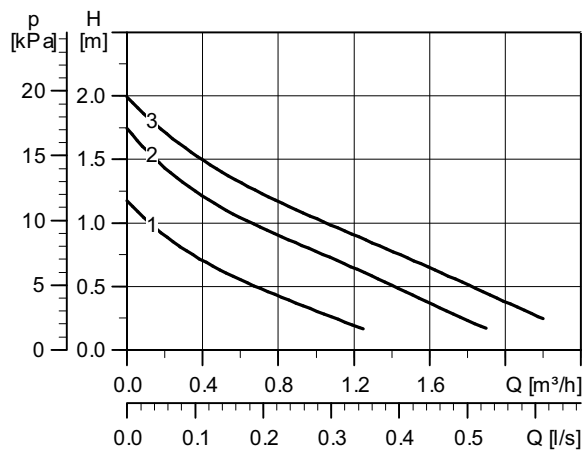
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 15-20 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9756 4708

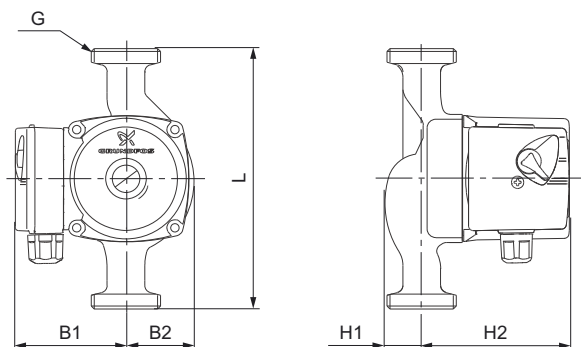
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m³]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1

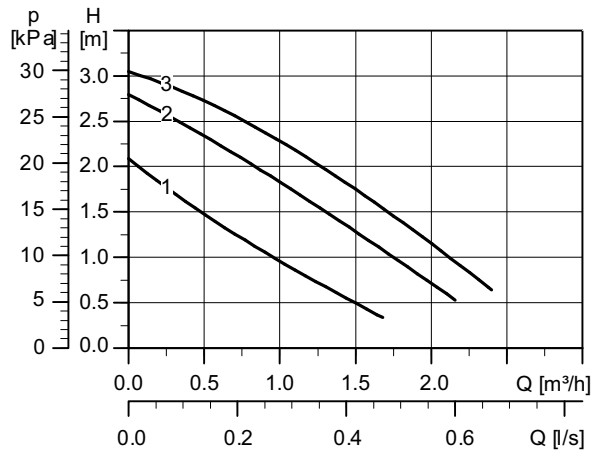
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 15-30 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5836 4009

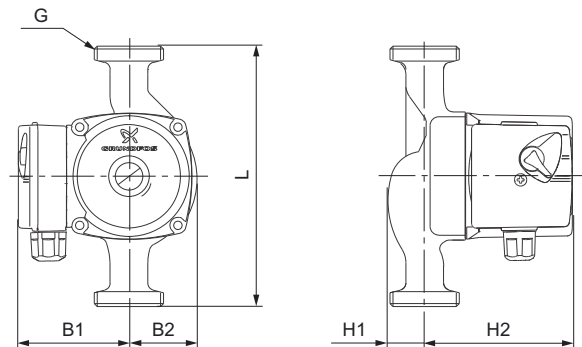
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	35	0.17	on request
Speed 3	55	0.24	on request

### Technical data

Net weight [kg]	2.3
Gross weight [kg]	2.5
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1

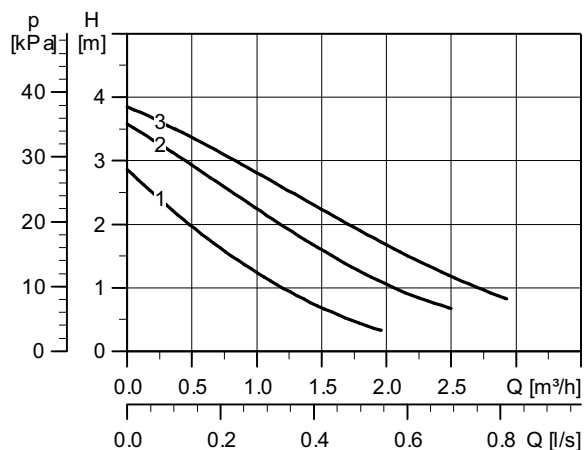
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 15-40 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749 4708

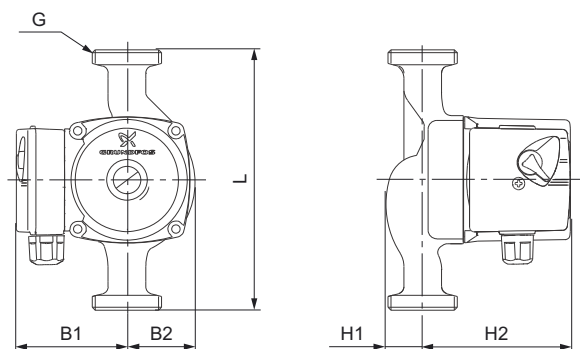
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.3
Gross weight [kg]	2.5
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1

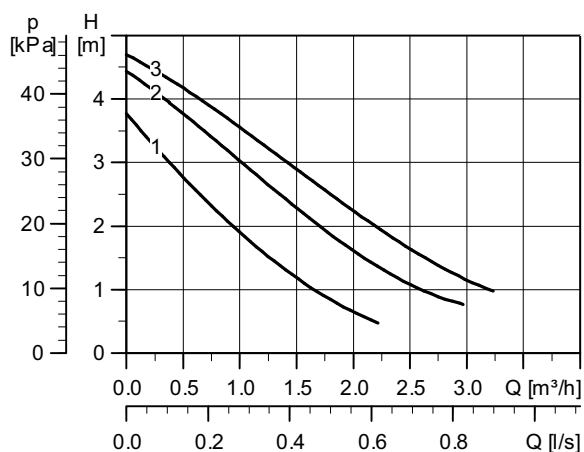
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 15-50 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 2105

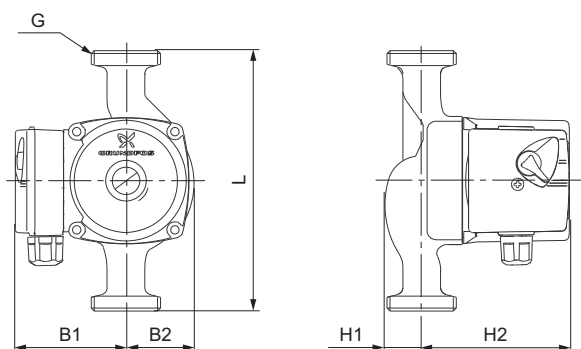
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.5
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1

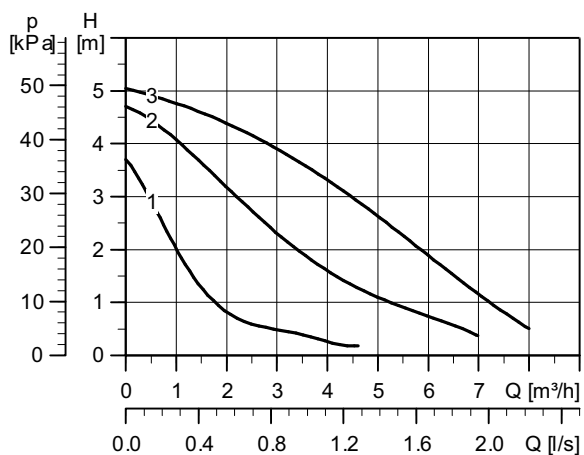
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 15-60 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3760 2409

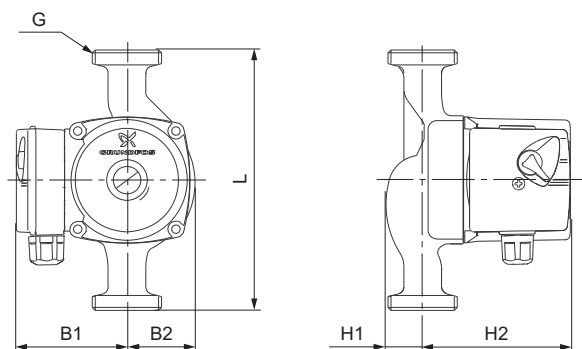
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.30	on request
Speed 2	60	0.27	on request
Speed 3	70	0.22	on request

### Technical data

Net weight [kg]	2.3
Gross weight [kg]	2.5
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1

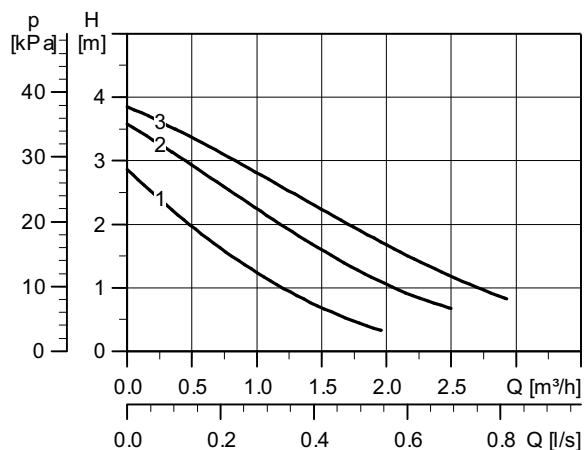
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-40 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749 4708

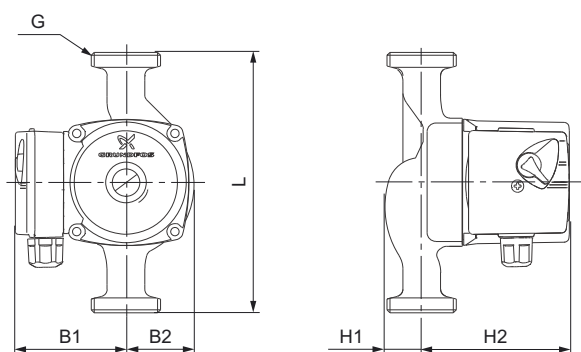
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1 1/4

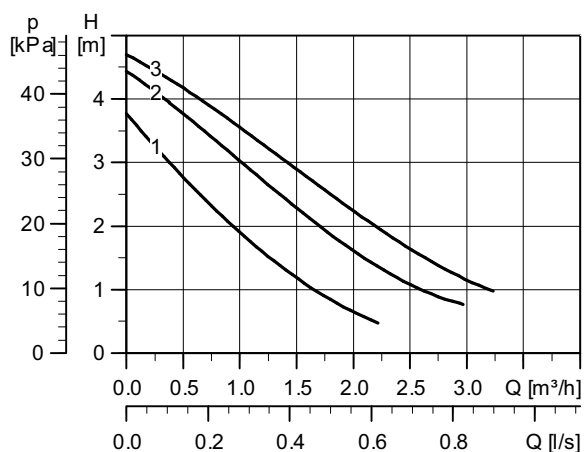
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-50 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 2105

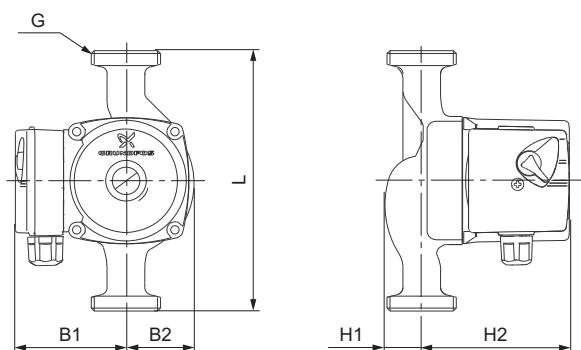
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1 1/4

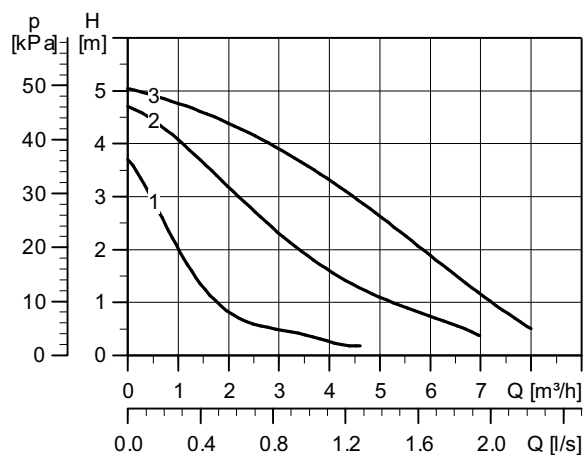
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-60 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3760 2409

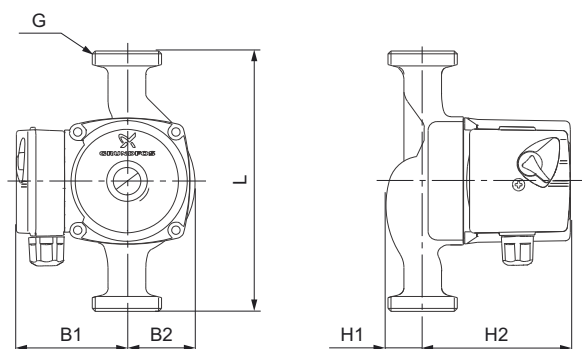
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.30	on request
Speed 2	60	0.27	on request
Speed 3	70	0.22	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1 1/4

### Motor protection

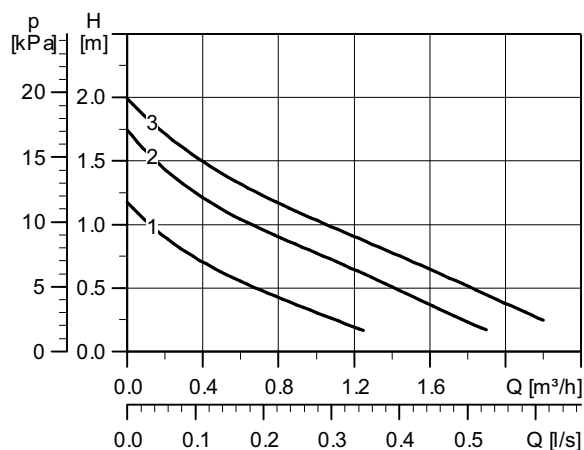
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 25-20 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9756 4708

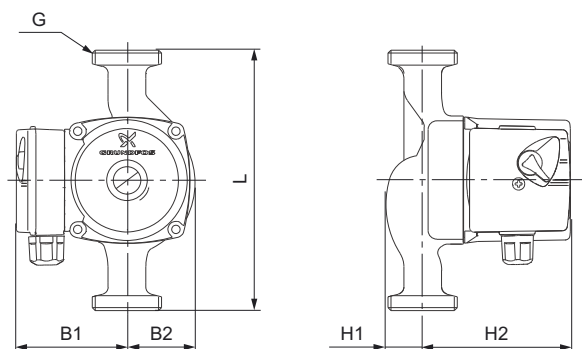
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1 1/2

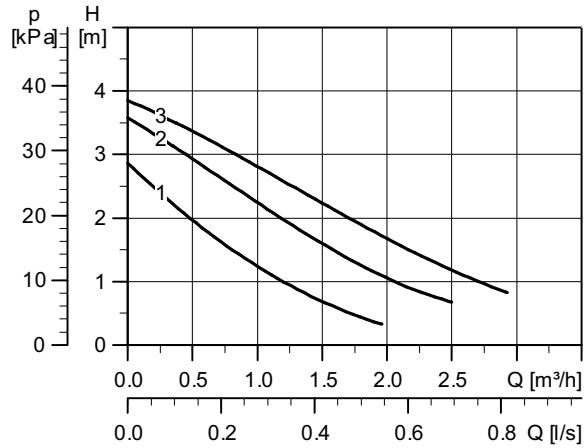
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749-4708

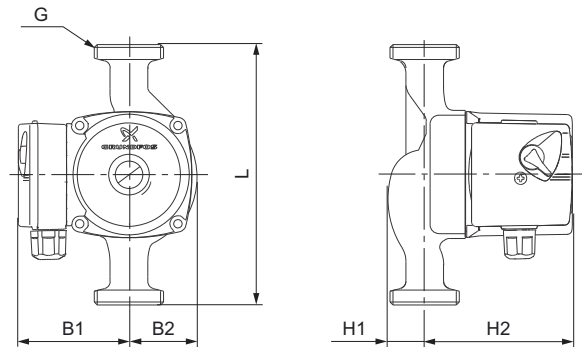
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386-4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1 1/2

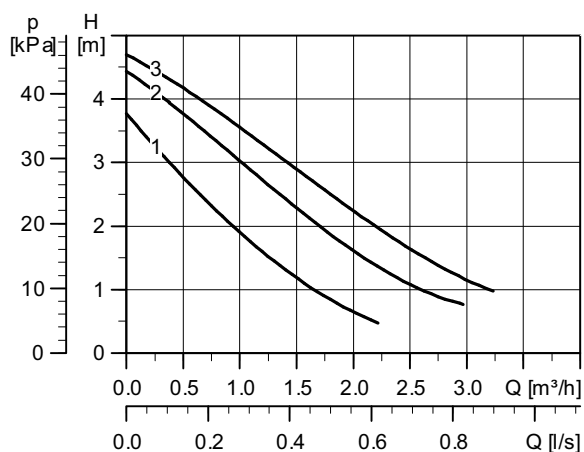
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-50 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 4708

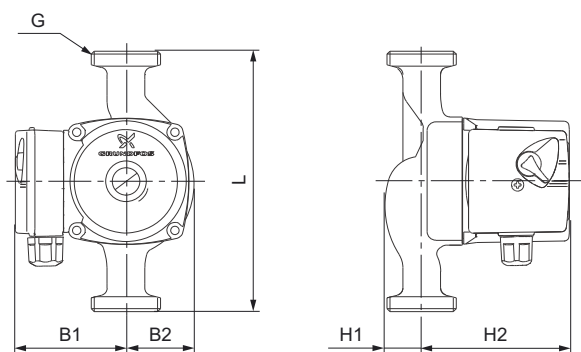
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1 1/2

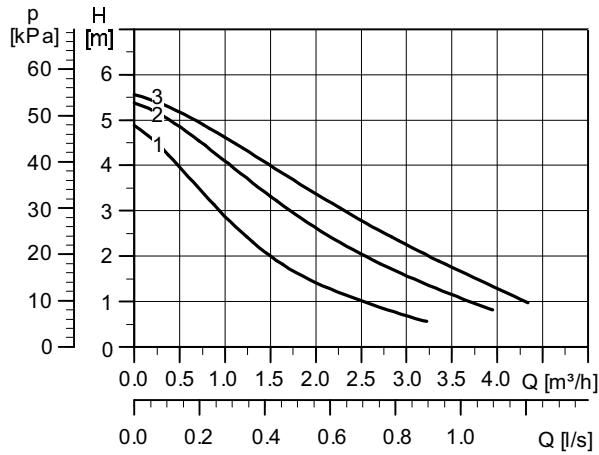
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-60 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5012 2409

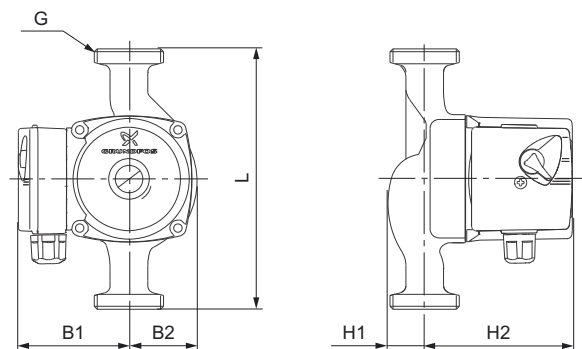
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.22	on request
Speed 2	60	0.27	on request
Speed 3	70	0.30	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1 1/2

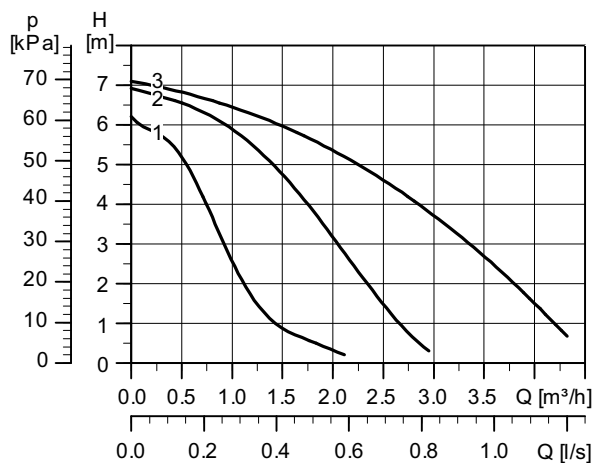
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-70 - 130 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5007 2409

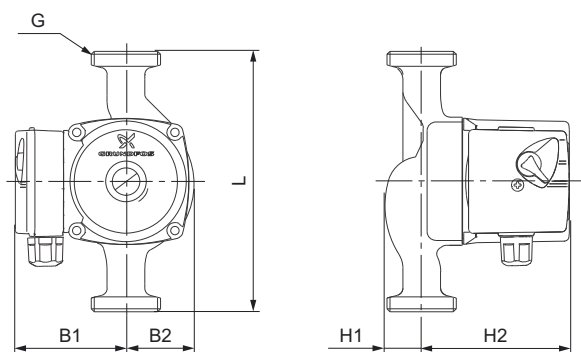
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	95	0.45	on request
Speed 2	120	0.56	on request
Speed 3	140	0.62	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	32	102	-	-	1 1/2

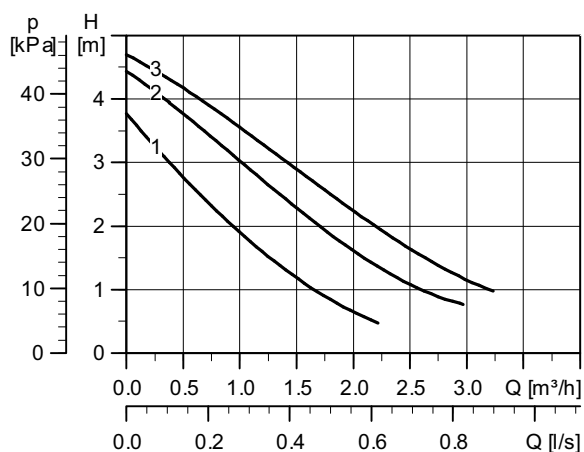
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-50 - 160 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 4708

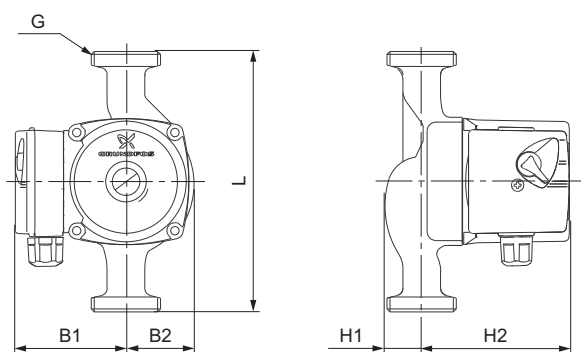
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	160	75	47	32	102	-	-	1 1/2

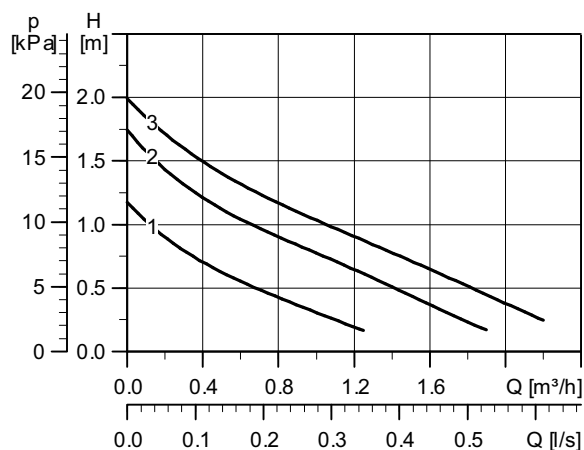
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-20 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9756 4708

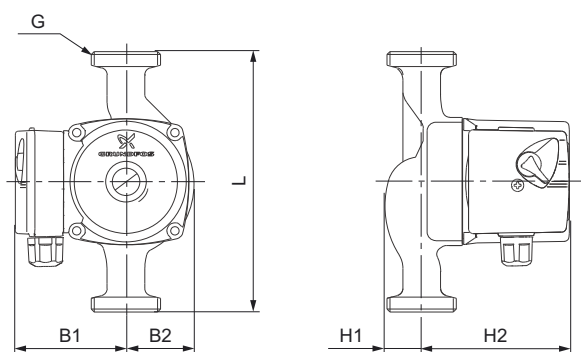
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

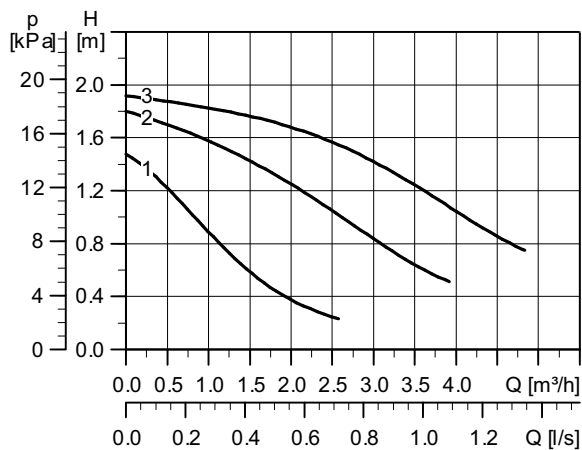
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-25 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3750 2409

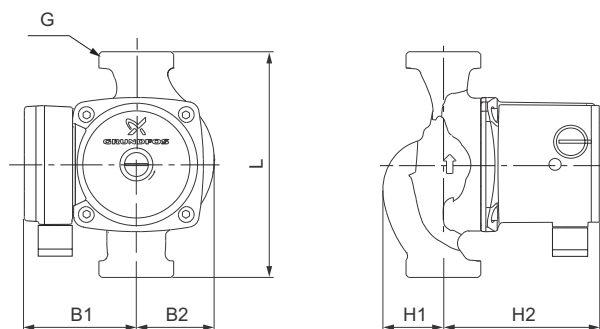
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	40	0.18	on request
Speed 3	50	0.22	on request

### Technical data

Net weight [kg]	4.4
Gross weight [kg]	4.6
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

### Motor protection

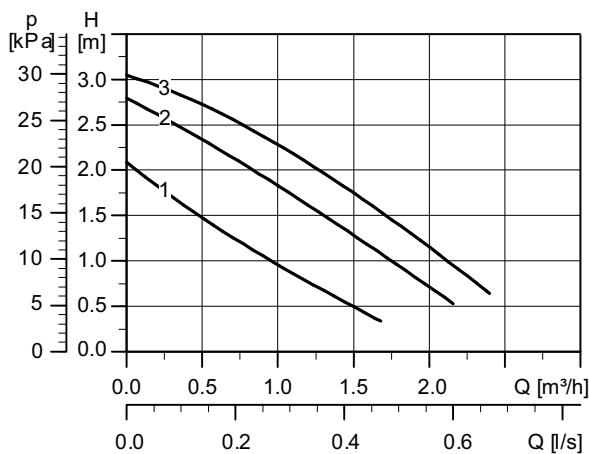
The pump has a built-in thermal switch and requires no additional motor protection.



## UPS 25-30 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5836 4009

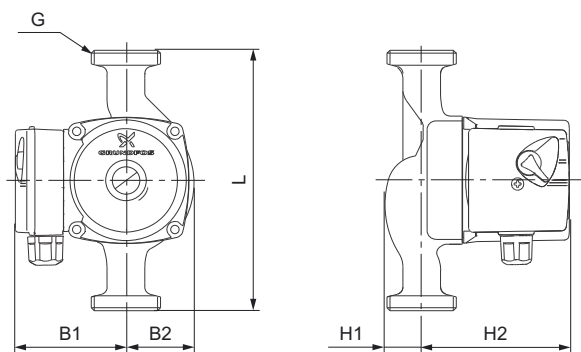
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	35	0.17	on request
Speed 3	55	0.24	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

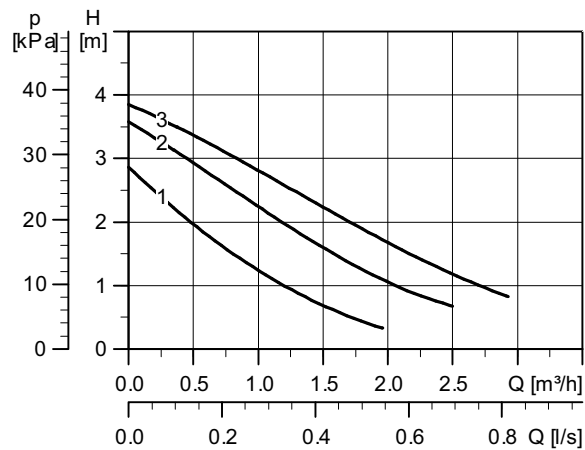
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749 4708

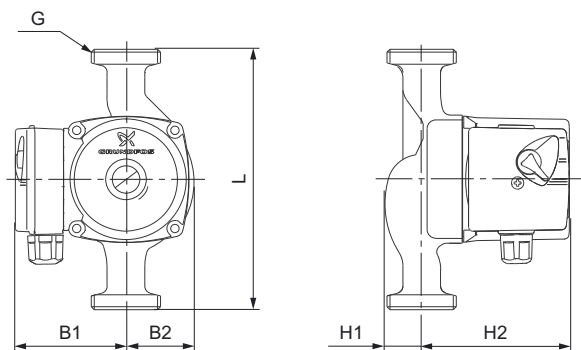
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

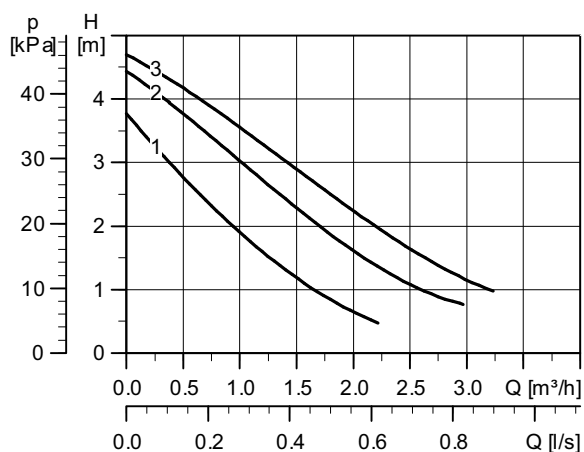
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-50 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 4708

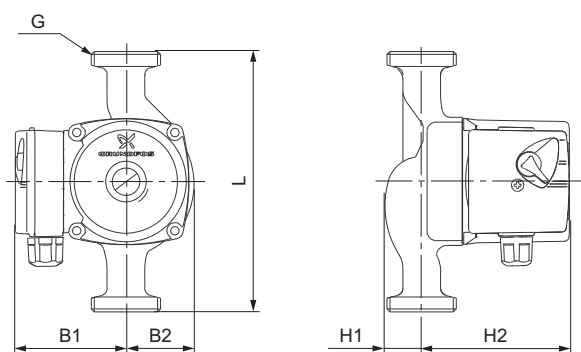
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

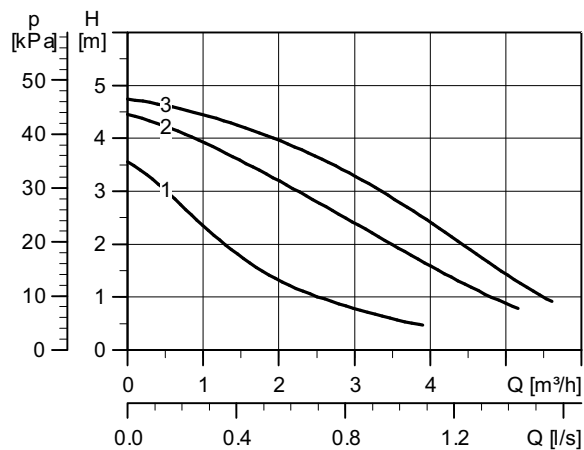
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-55 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3751 2409

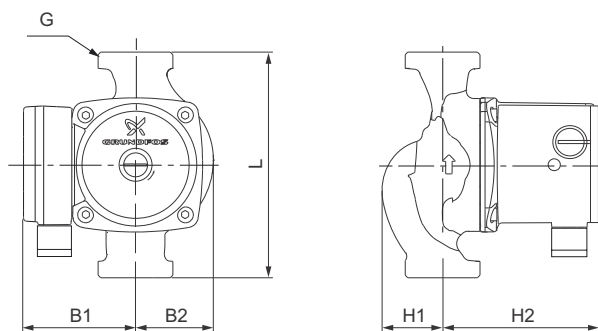
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	65	0.30	on request
Speed 2	80	0.36	on request
Speed 3	85	0.38	on request

### Technical data

Net weight [kg]	4.7
Gross weight [kg]	5.4
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

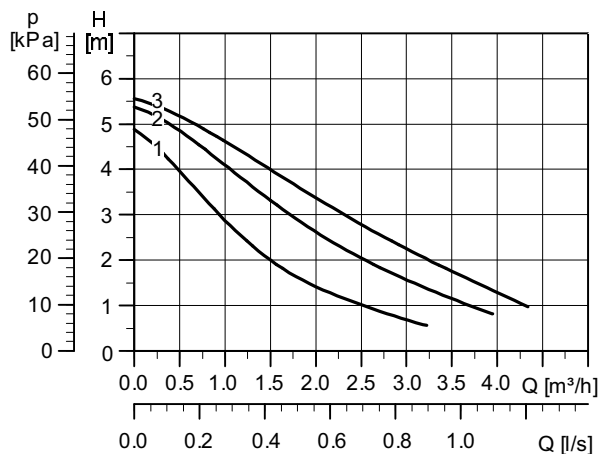
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-60 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5012 2409

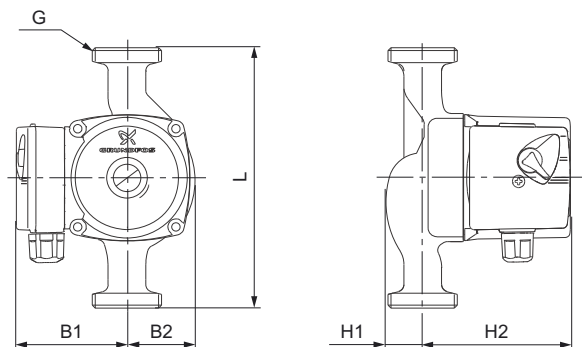
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.21	on request
Speed 2	55	0.25	on request
Speed 3	60	0.28	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	50	38	96	-	-	1 1/2

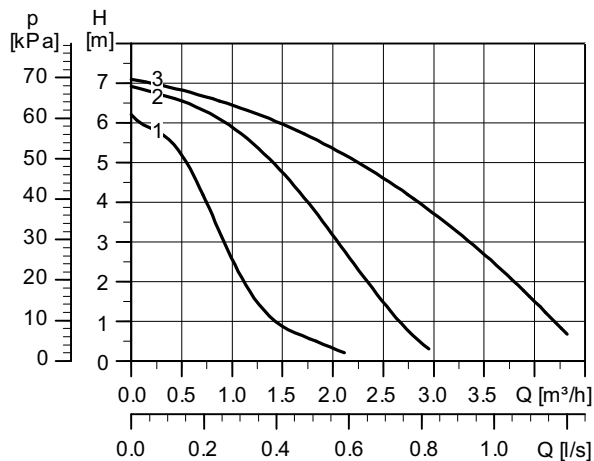
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-70 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5007 2409

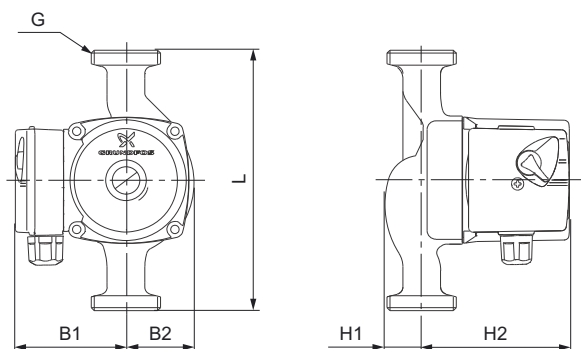
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	95	0.45	on request
Speed 2	120	0.56	on request
Speed 3	140	0.62	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.6
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

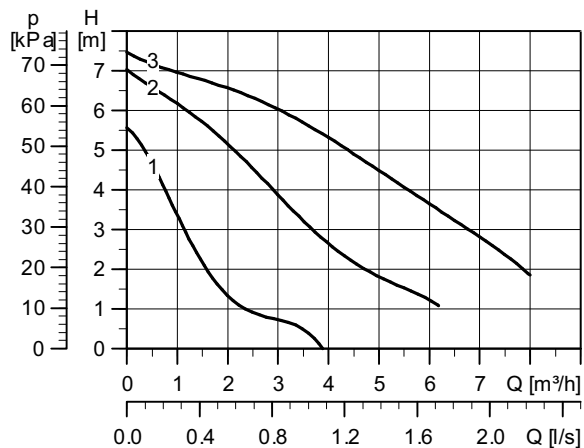
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-80 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3754 2409

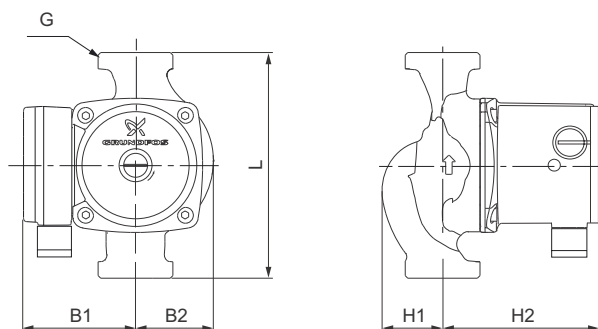
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.50	on request
Speed 2	155	0.70	on request
Speed 3	165	0.70	on request

### Technical data

Net weight [kg]	4.4
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

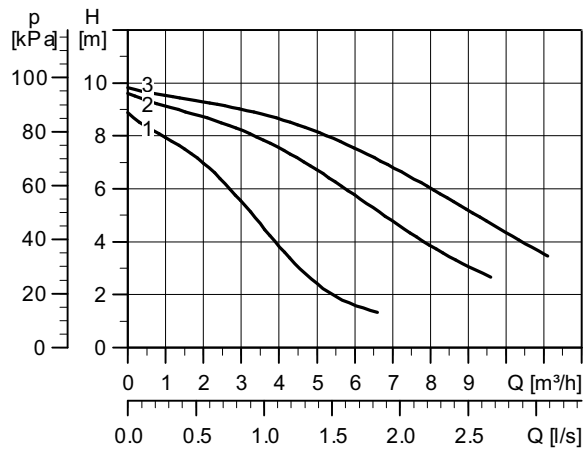
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-100 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3614 4708

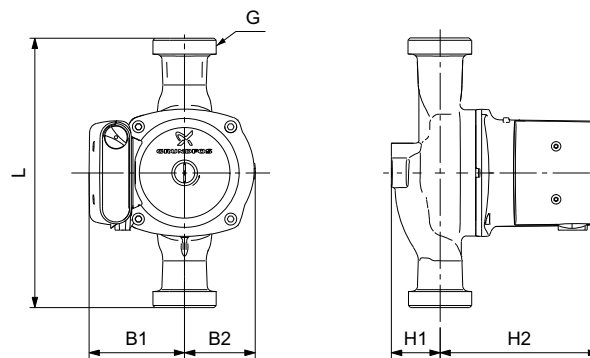
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	6.3
Gross weight [kg]	6.9
Shipping volume [m <sup>3</sup> ]	0.012
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 2809 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	90	68	47	150	-	-	1 1/2

### Motor protection

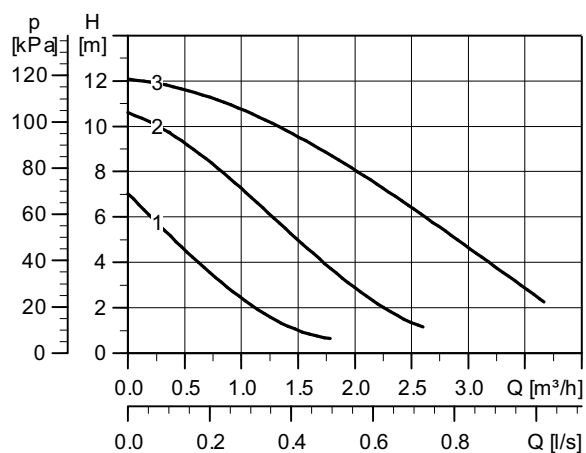
The pump has a built-in thermal switch and requires no additional motor protection.



## UPS 25-120 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM02 2205 4708

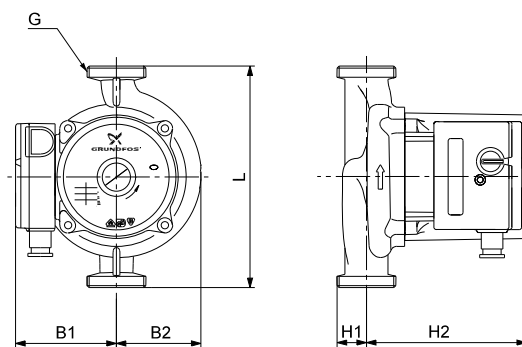
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	120	0.53	on request
Speed 2	180	0.78	on request
Speed 3	235	1.02	on request

### Technical data

Net weight [kg]	4.4
Gross weight [kg]	4.6
Shipping volume [m <sup>3</sup> ]	0.006
Liquid temperature [°C]	-25 °C to +95 °C (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM02 1329 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	69	32	130	-	-	1 1/2

### Motor protection

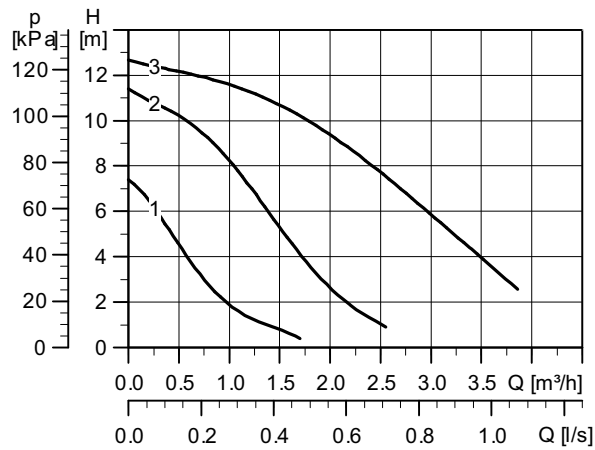
The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-125 - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM02 2204 4708

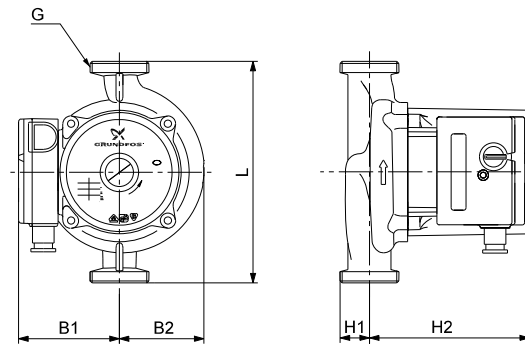
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.61	on request
Speed 2	210	0.93	on request
Speed 3	270	1.18	on request

### Technical data

Net weight [kg]	4.4
Gross weight [kg]	4.6
Shipping volume [m <sup>3</sup> ]	0.006
Liquid temperature [°C]	-25 °C to +60 °C (TF 60)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM02 1329 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	69	32	130	-	-	1 1/2

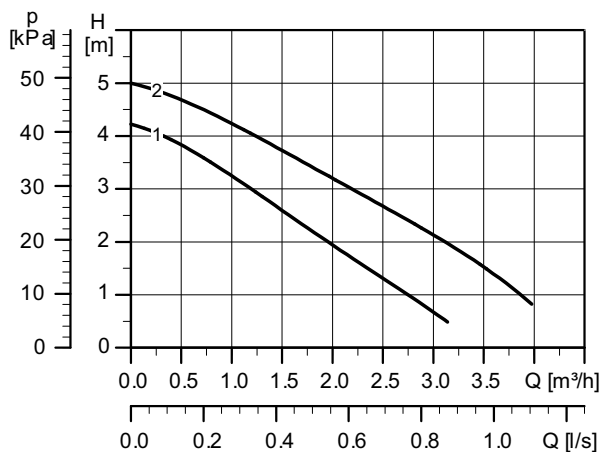
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-50 - 180 PN 10

3 x 220 V, 50 Hz

### Performance curves



### Approvals



TM05 1719 3611

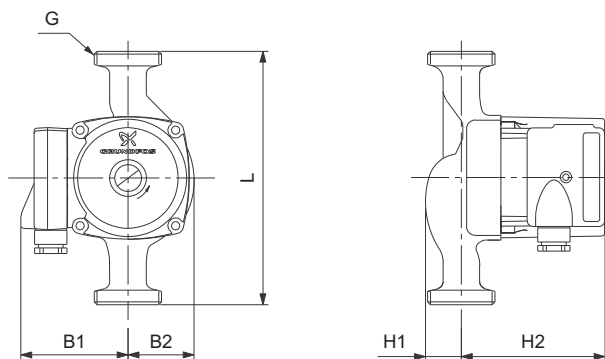
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	115	0.37	on request
Speed 2	110	0.37	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

### Motor protection

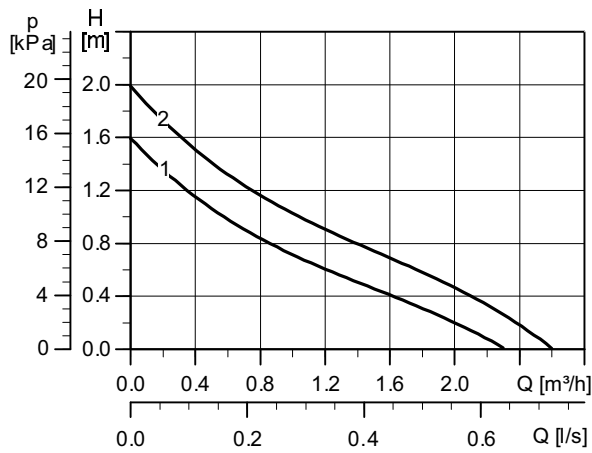
Impedance protected. Short-circuit-proof. No external motor protection required.

## UPS 25-20 - 180 PN 10

3 x 400 V, 50 Hz

Performance curves

Approvals



EAC

TM04 5009 2409

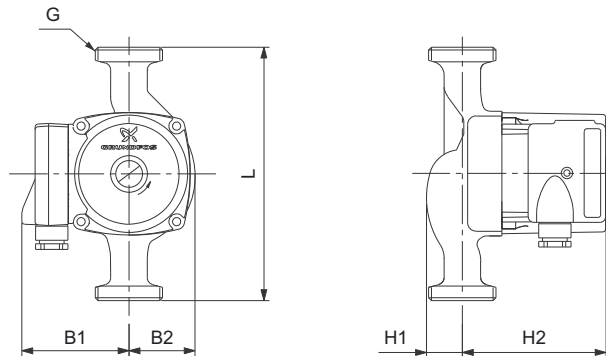
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	85	0.16	on request
Speed 2	60	0.15	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

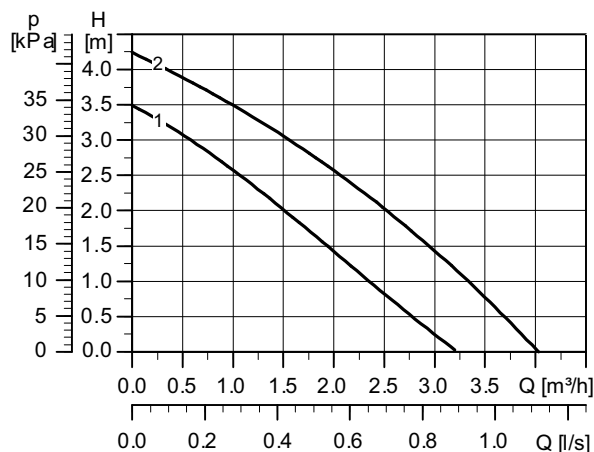
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 - 130 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 5010 2409

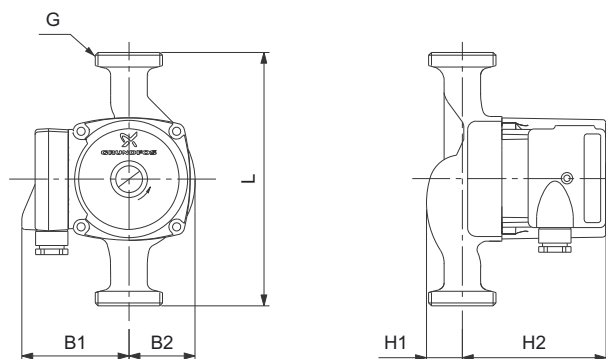
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.20	on request
Speed 2	95	0.18	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	73	47	32	102	-	-	1 1/2

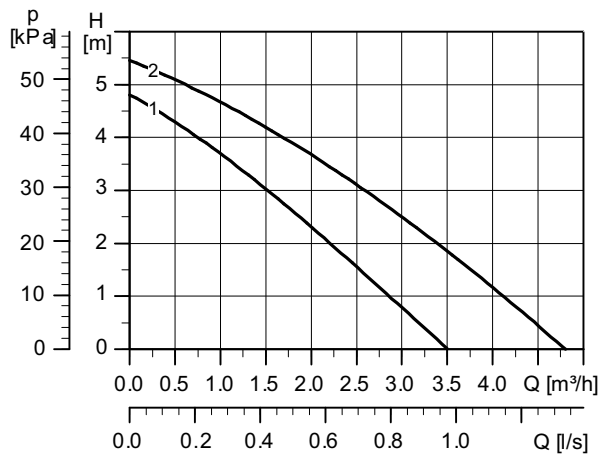
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-50 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 5011 2409

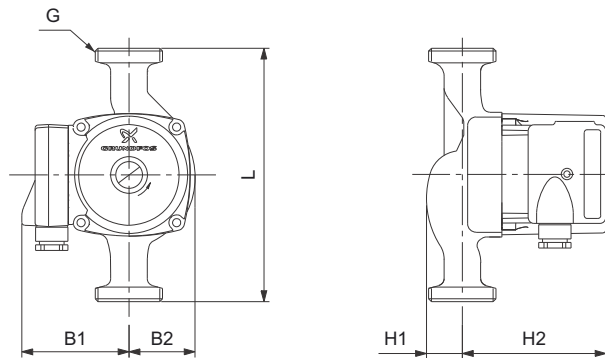
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	130	0.22	on request
Speed 2	115	0.20	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	32	102	-	-	1 1/2

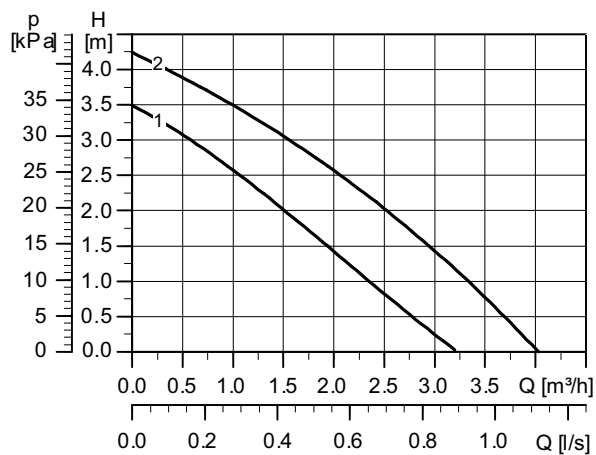
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 5010 2409

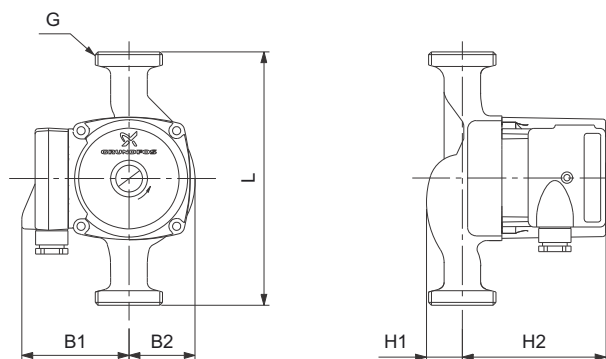
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.20	on request
Speed 2	95	0.18	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	32	102	-	-	1 1/2

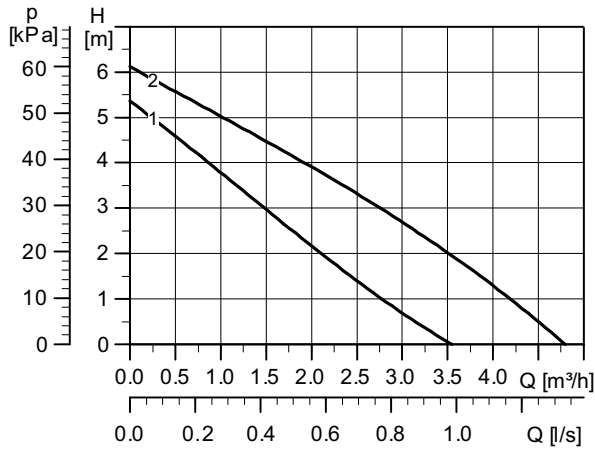
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-60 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 8116 3110

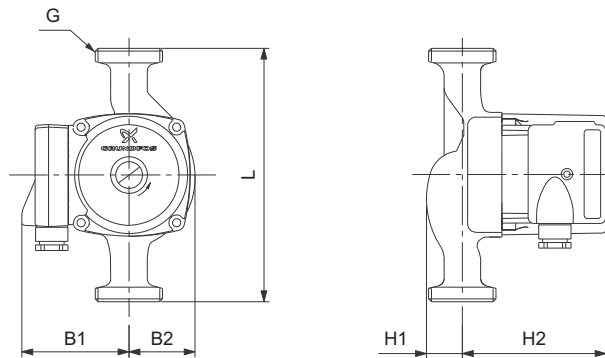
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	140	0.24	on request
Speed 2	130	0.21	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	32	102	-	-	1 1/2

### Motor protection

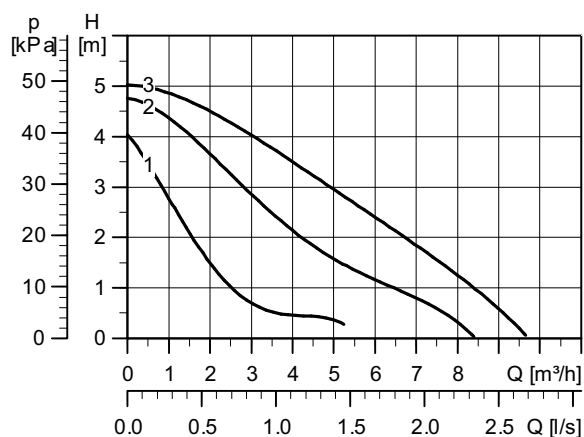
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 32-20 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9755 4708

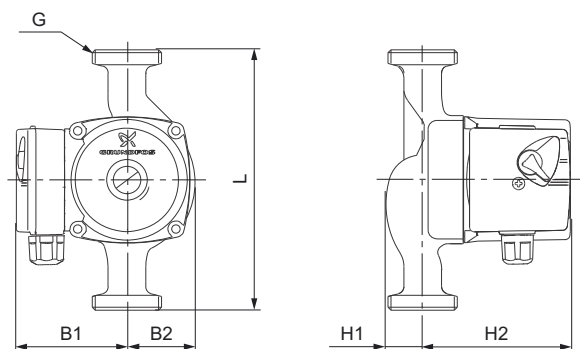
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	39	102	-	-	2

### Motor protection

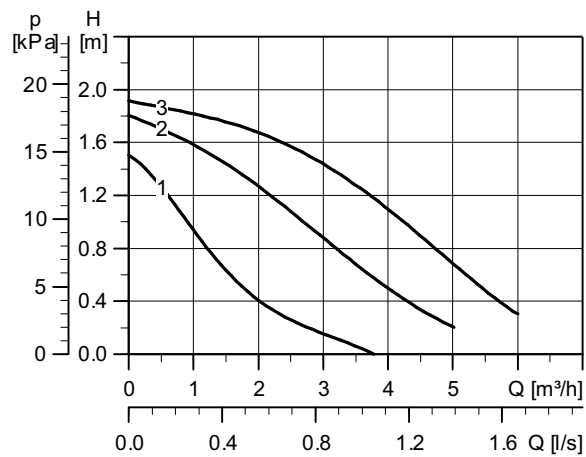
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-25 - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM04 3759 2409

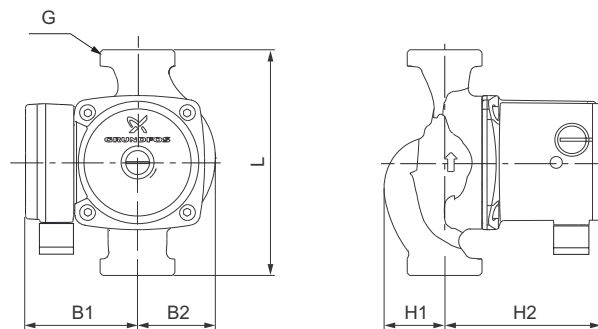
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	40	0.18	on request
Speed 3	50	0.22	on request

### Technical data

Net weight [kg]	4.5
Gross weight [kg]	4.8
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 45 15

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

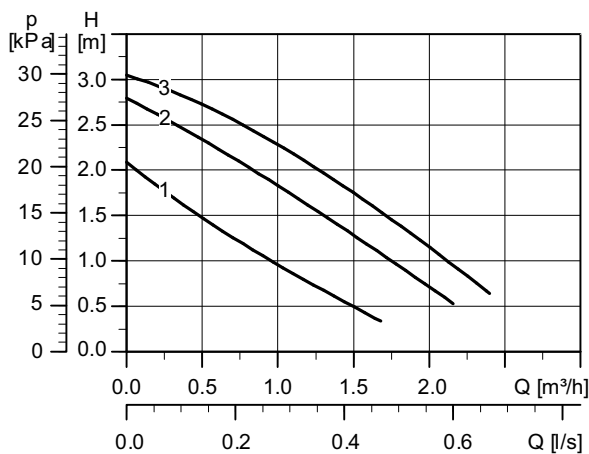
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-30 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5836 4009

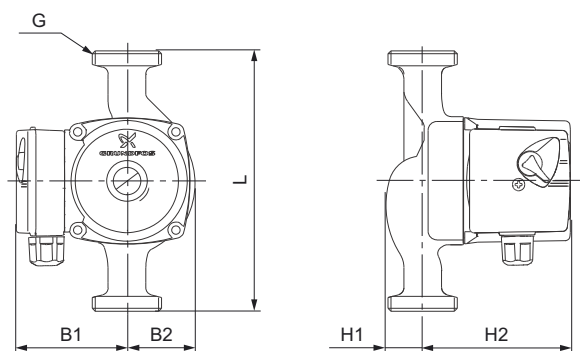
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	35	0.17	on request
Speed 3	55	0.24	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	39	102	-	-	2

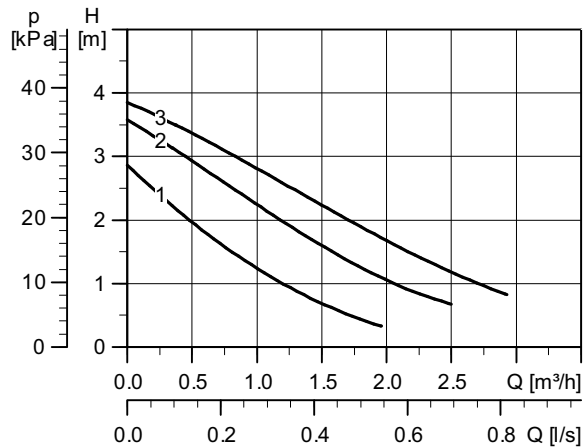
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-40 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749-4708

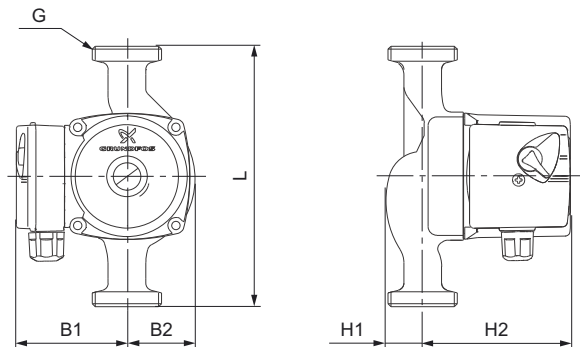
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386-4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	39	102	-	-	2

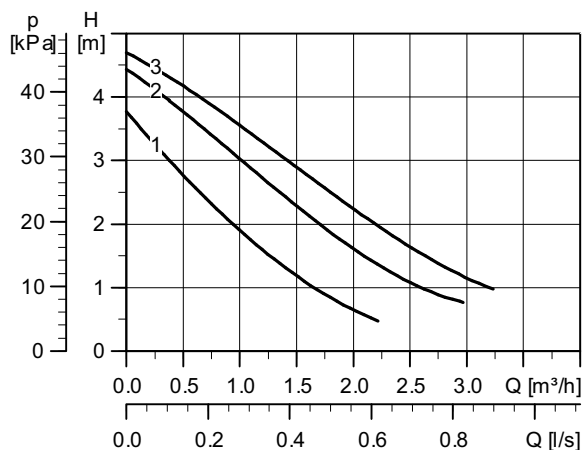
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-50 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9750 4708

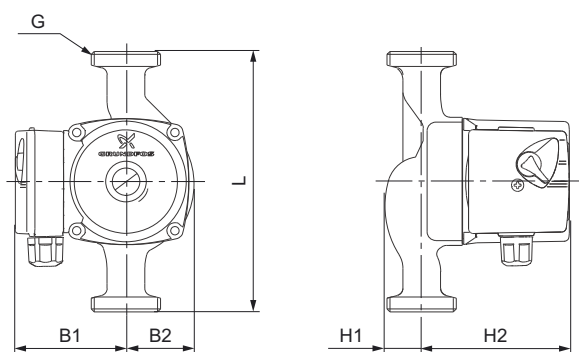
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	39	102	-	-	2

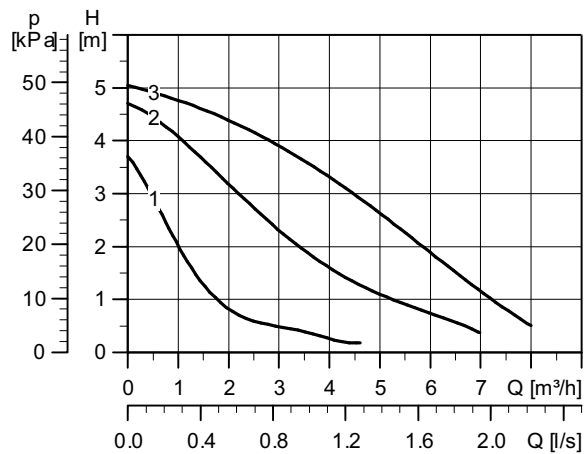
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-55 - 180 PN 10

1 x 230 V, 50 Hz

Performance curves



Approvals



TM04 3760 2409

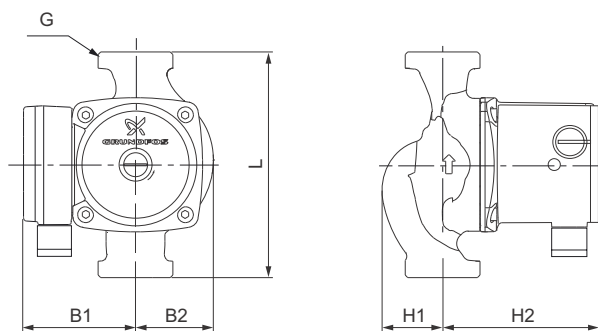
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	4.6
Gross weight [kg]	4.9
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

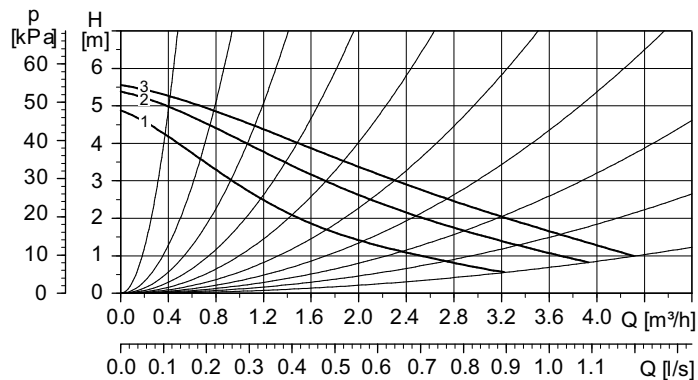
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-60 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3589 4608

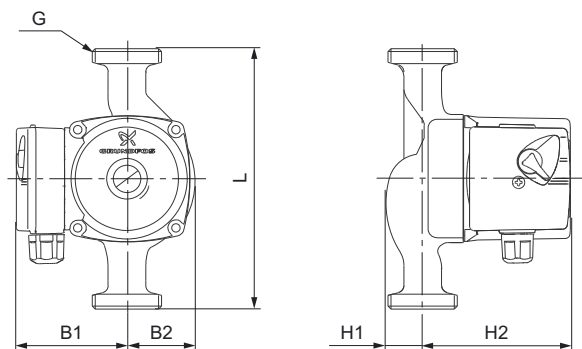
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.21	on request
Speed 2	55	0.25	on request
Speed 3	60	0.28	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	50	38	96	-	-	2

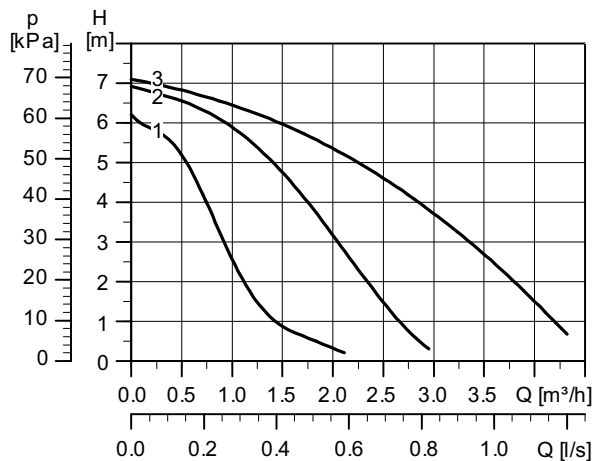
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-70 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5007 2409

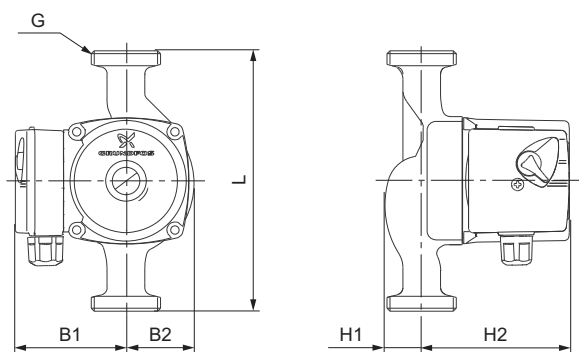
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	95	0.45	on request
Speed 2	120	0.56	on request
Speed 3	140	0.62	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 45 12

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	2

### Motor protection

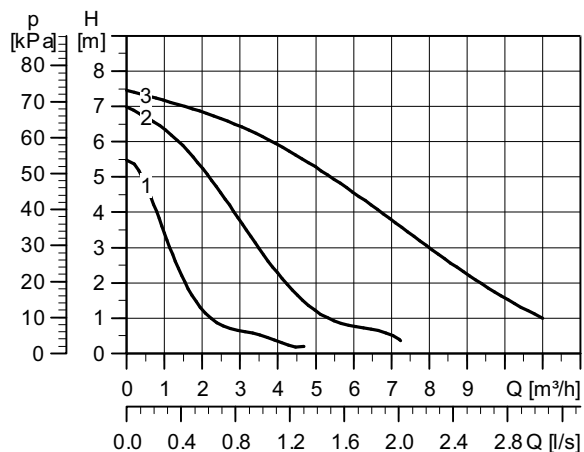
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 32-80 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3761 2409

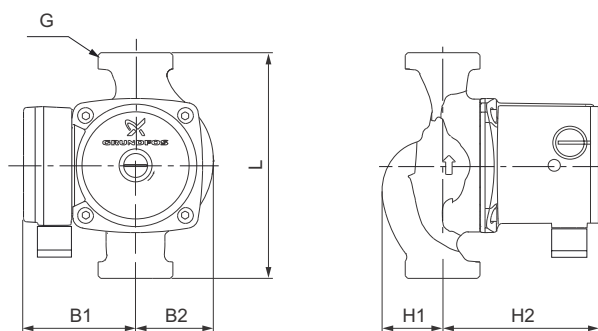
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	4.6
Gross weight [kg]	5
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

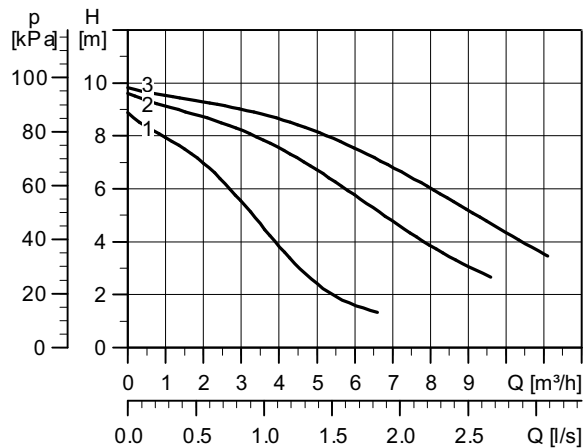
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-100 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3614 4708

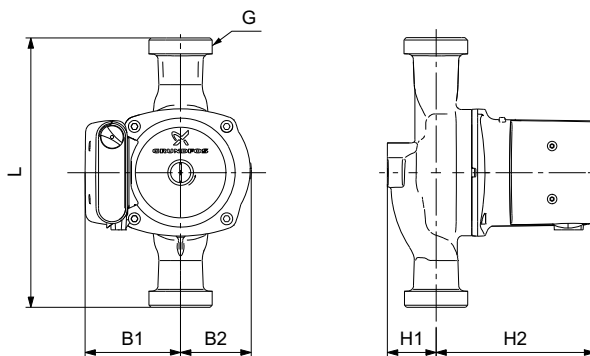
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	6.4
Gross weight [kg]	7.0
Shipping volume [m <sup>3</sup> ]	0.012
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 2809 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	90	68	47	150	-	-	2

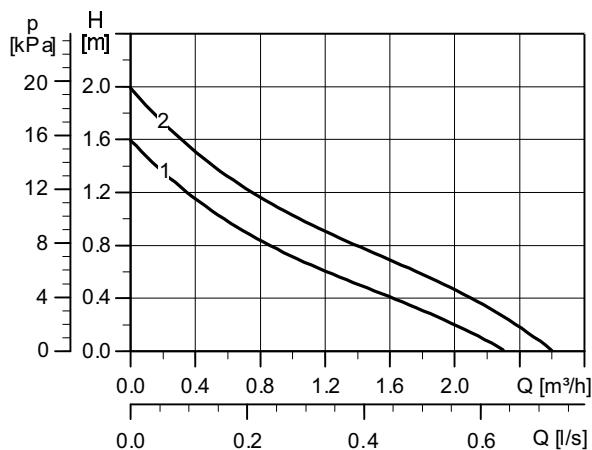
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-20 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals

TM04 5009 2409

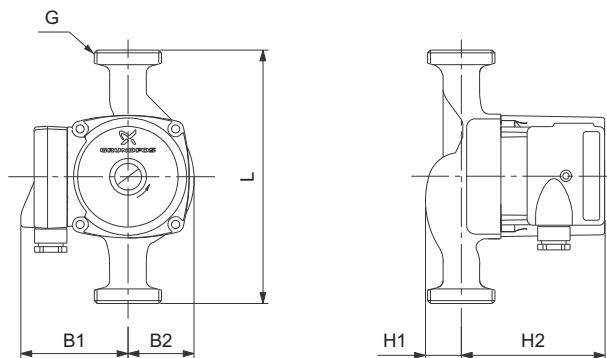
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	85	0.16	on request
Speed 2	60	0.15	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	39	102	-	-	2

### Motor protection

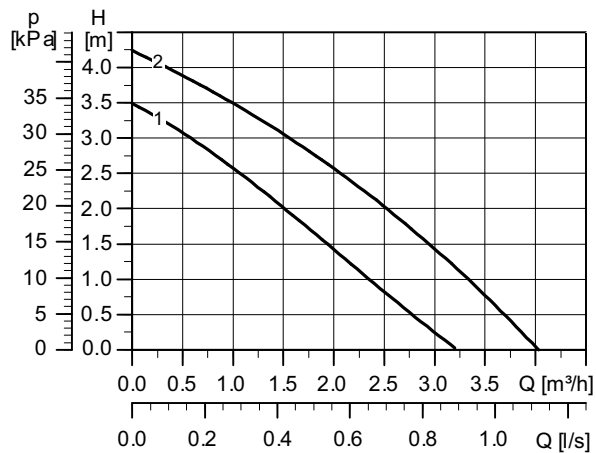
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-40 - 180 PN 10

3 x 400 V, 50 Hz

Performance curves

Approvals



TM04 5010 2409

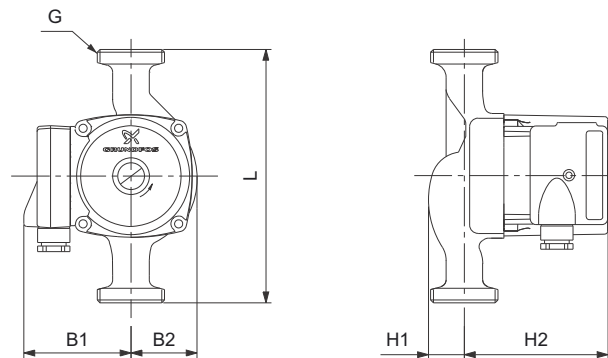
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.20	on request
Speed 2	95	0.18	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	39	102	-	-	2

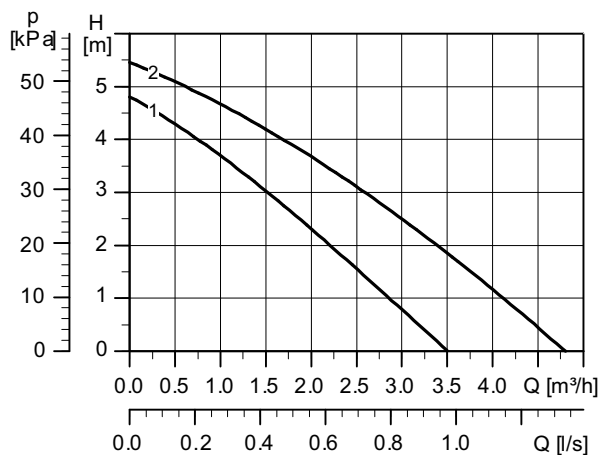
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-50 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals

TM04 5011 2409

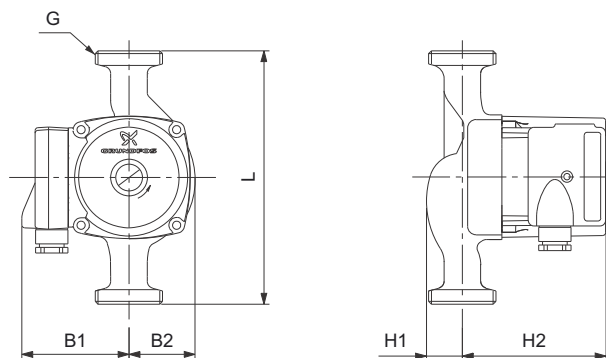
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	130	0.22	on request
Speed 2	115	0.20	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	39	102	-	-	2

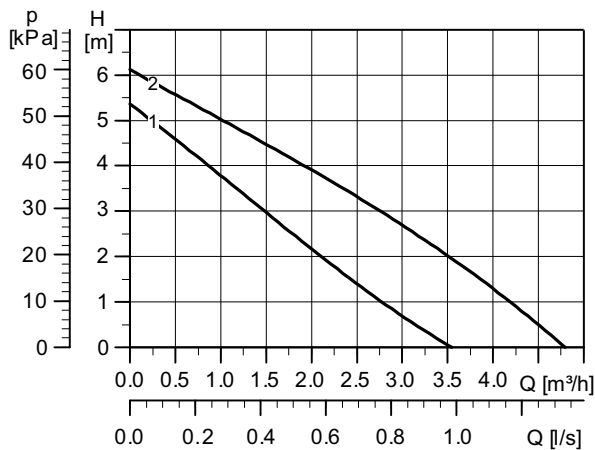
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-60 - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 8116 3110

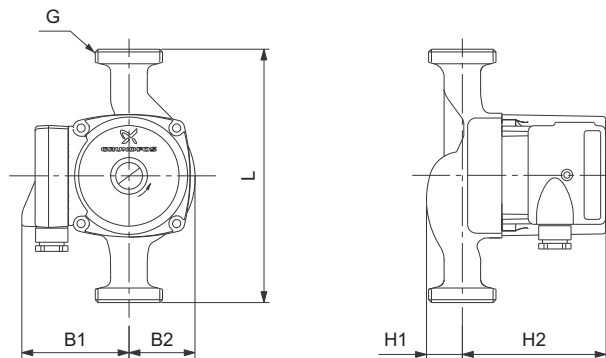
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	140	0.24	on request
Speed 2	130	0.21	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	47	39	102	-	-	2

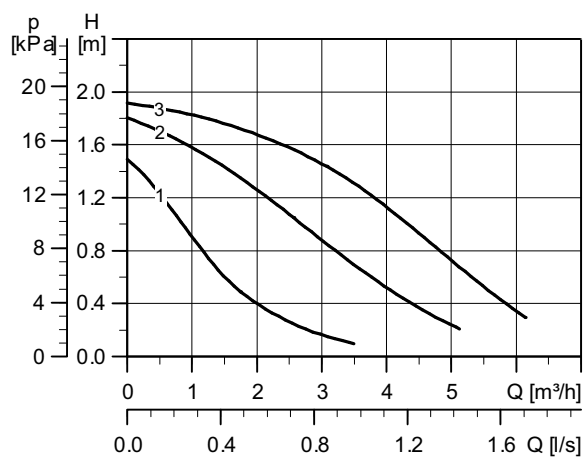
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 36-20 F - 200 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3811 2409

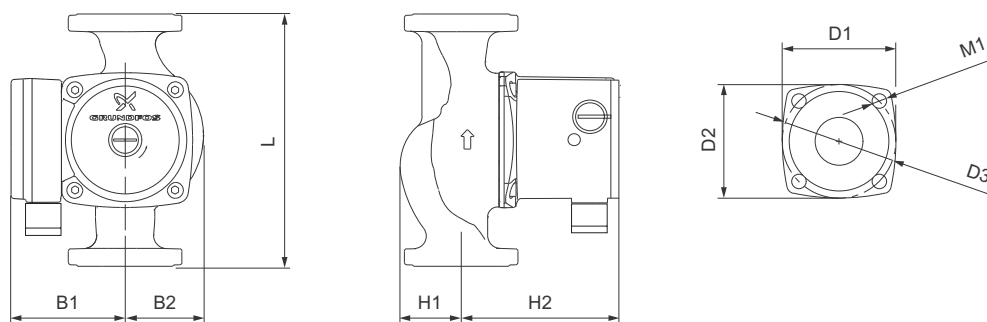
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	40	0.18	on request
Speed 3	50	0.22	on request

### Technical data

Net weight [kg]	5.6
Gross weight [kg]	5.9
Shipping volume [m <sup>3</sup> ]	0.010
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5382 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1
PN 10	200	82	62	48	121	90	90	90	∅11.5

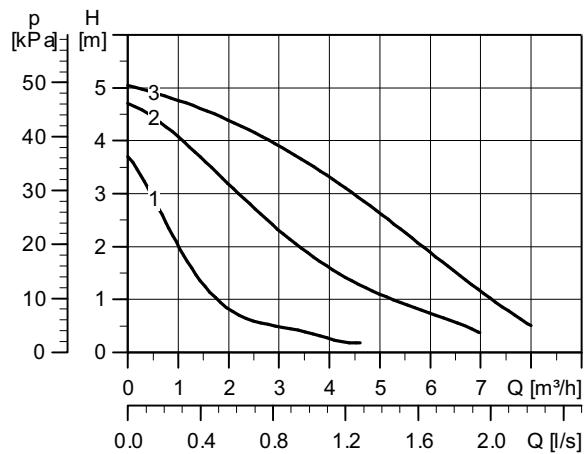
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 36-50 F- 200 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3760 2409

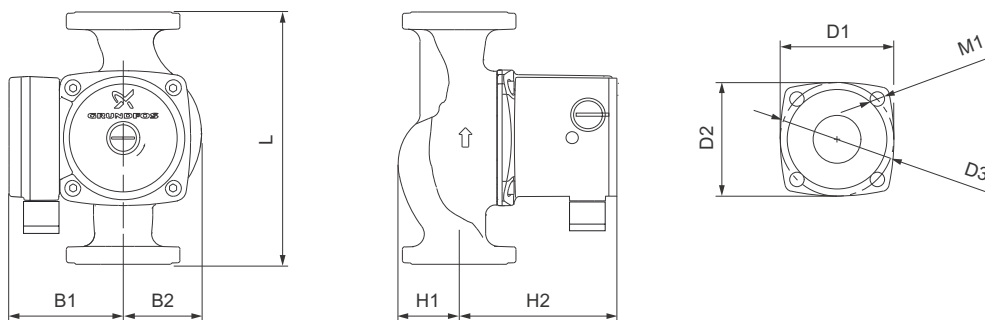
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	5.7
Gross weight [kg]	6.3
Shipping volume [m <sup>3</sup> ]	0.010
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5382 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1
PN 10	200	82	62	48	121	90	90	90	∅11.5

### Motor protection

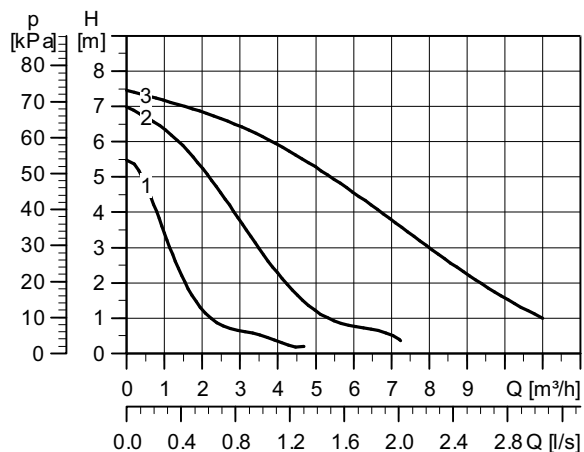
The pump has a built-in thermal switch and requires no additional motor protection.



## UPS 36-80 F - 200 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3761 2409

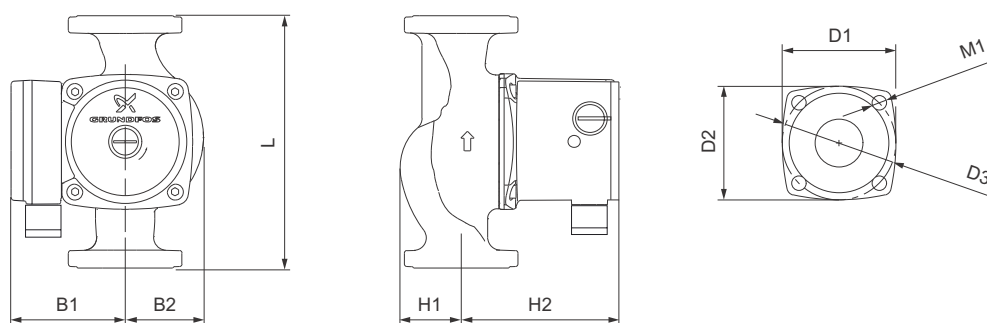
### Electrical data

	P1 [W]	$I_{1/1}$ [A]	cos $\varphi$
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	5.7
Gross weight [kg]	6.1
Shipping volume [m <sup>3</sup> ]	0.010
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5382 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1
PN 10	200	82	62	48	121	90	90	90	Ø11.5

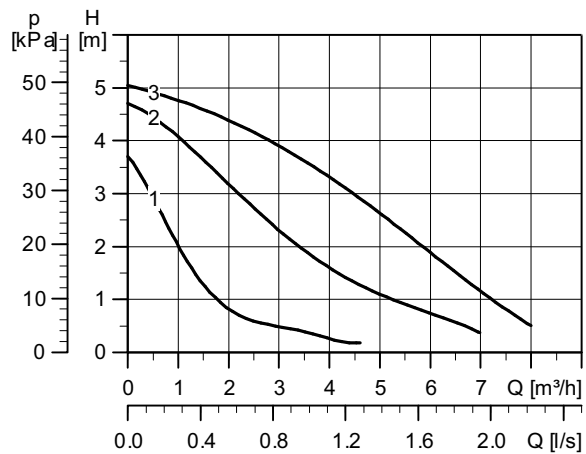
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-50 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3760 2409

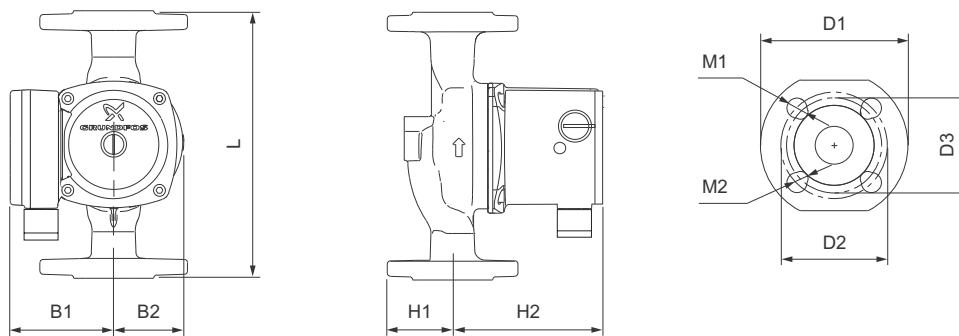
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	7.4
Gross weight [kg]	7.7
Shipping volume [m <sup>3</sup> ]	0.010
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5384 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	82	62	62	121	140	100	90	∅19	∅14

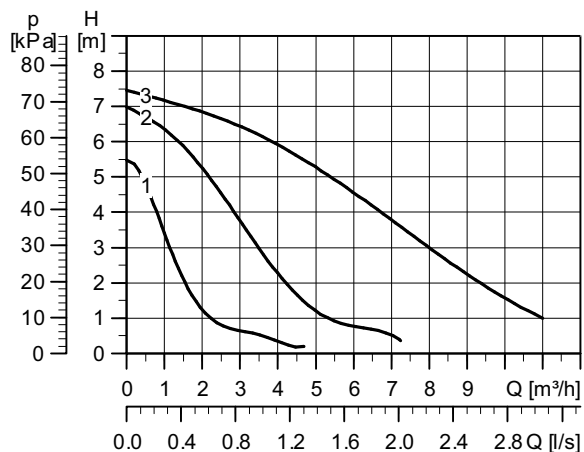
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-80 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3761 2409

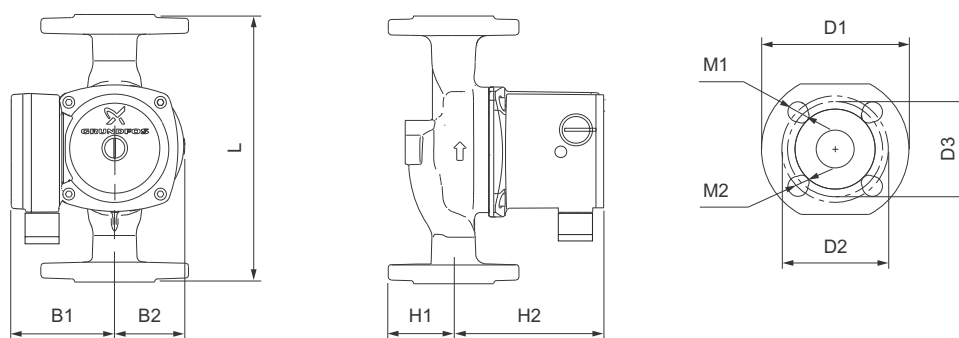
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	7.5
Gross weight [kg]	7.9
Shipping volume [m <sup>3</sup> ]	0.010
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5384 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	82	62	62	121	140	100	90	∅19	∅14

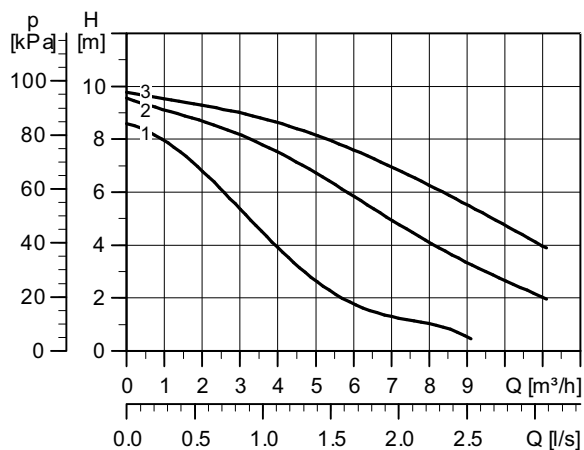
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-100 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3616 4708

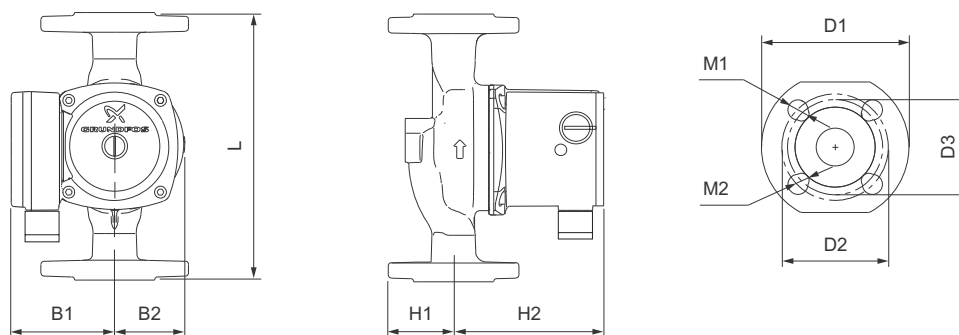
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	9.0
Gross weight [kg]	9.8
Shipping volume [m <sup>3</sup> ]	0.016
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM06 5384 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	90	68	62	150	140	100	90	∅19	∅14

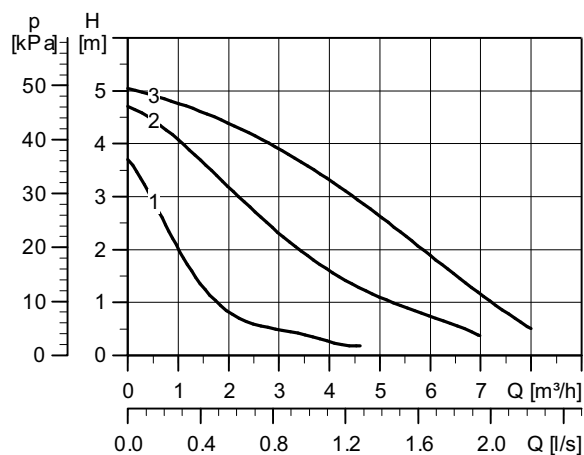
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-50 F - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3760 2409

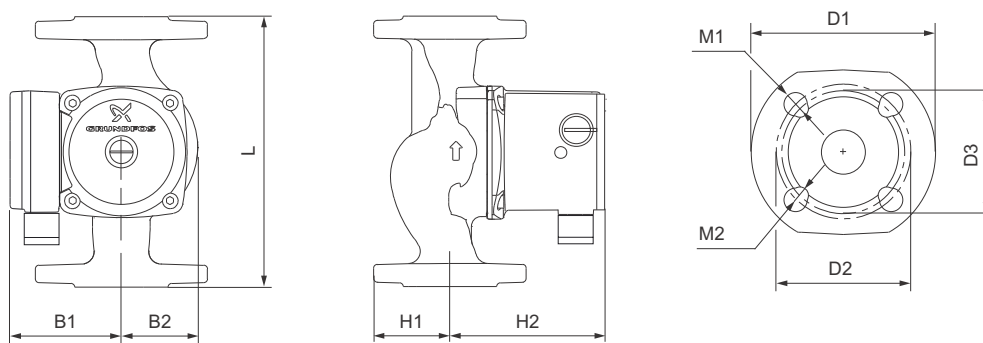
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	7.8
Gross weight [kg]	8.5
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	∅19	∅14

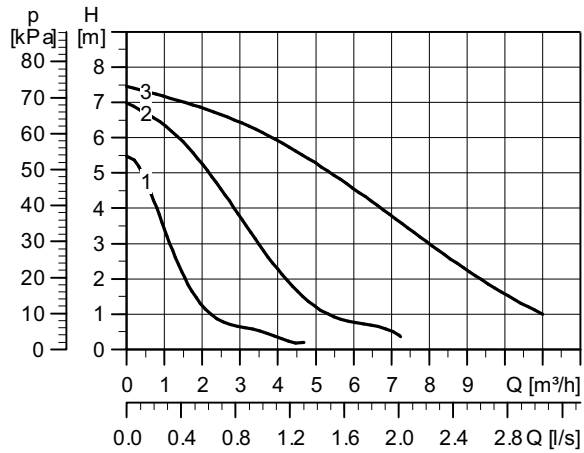
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-80 F - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3761 2409

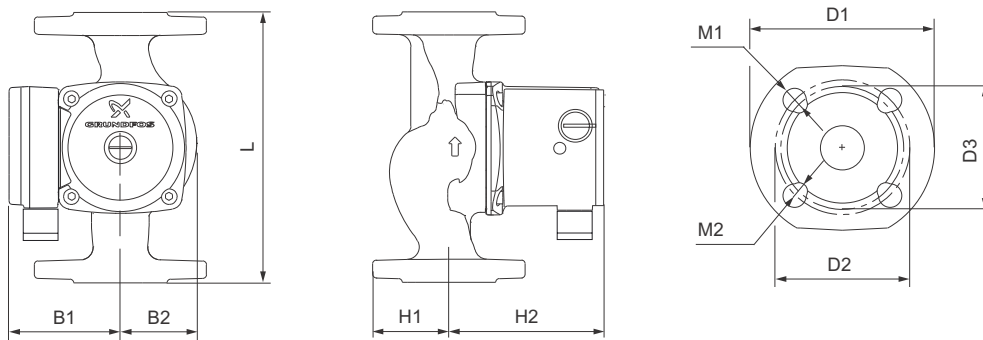
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	8.1
Gross weight [kg]	8.6
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	Ø19	Ø14

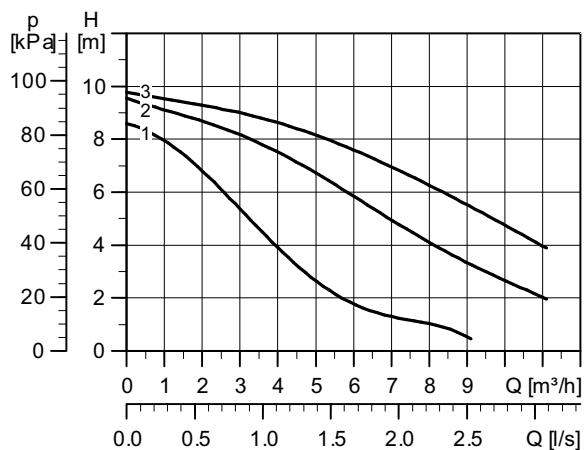
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-100 F - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3616 4708

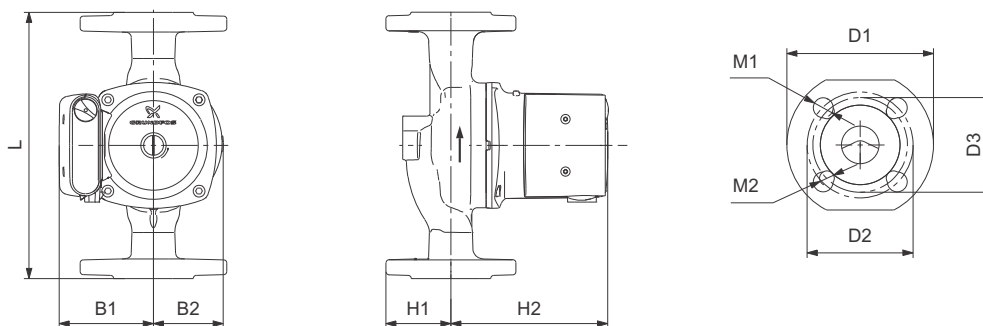
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	9.6
Gross weight [kg]	10.4
Shipping volume [m <sup>3</sup> ]	0.016
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 3427 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	90	68	62	150	150	110	100	∅19	∅14

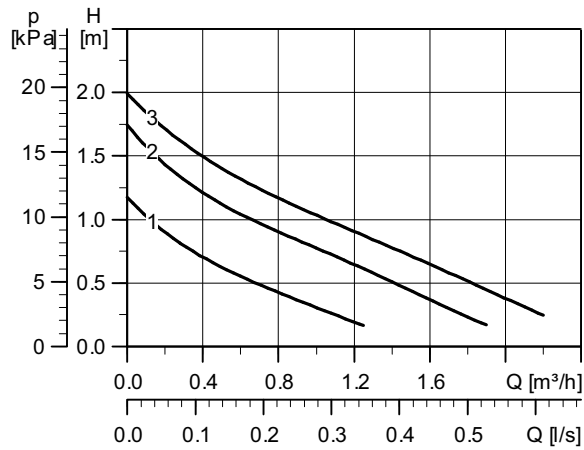
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-20 A - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9756 4708

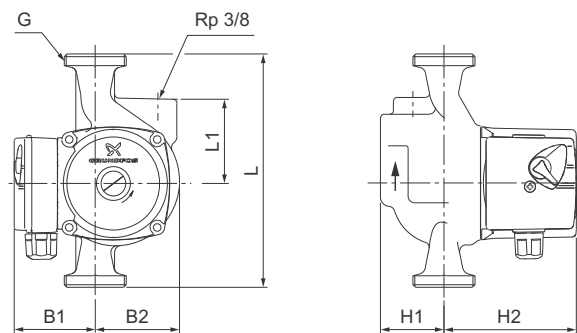
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	3.5
Gross weight [kg]	3.7
Shipping volume [m <sup>3</sup> ]	0.0053
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8931 4512

Dimensions [mm]	L	L1	B1	B2	H1	H2	D1	D2	G
PN 10	180	65	61	65	49	112	-	-	1 1/2

### Motor protection

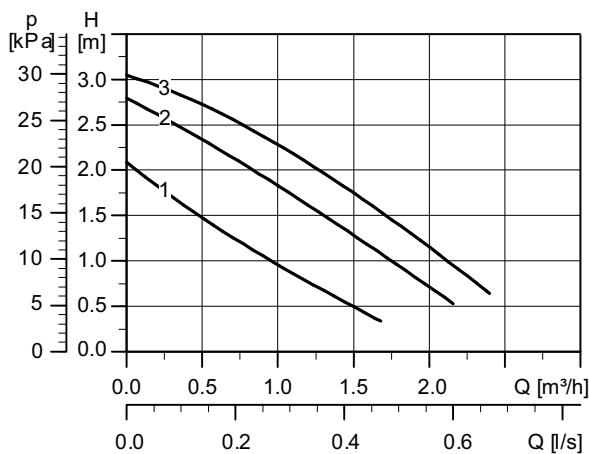
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 25-30 A - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5636 4009

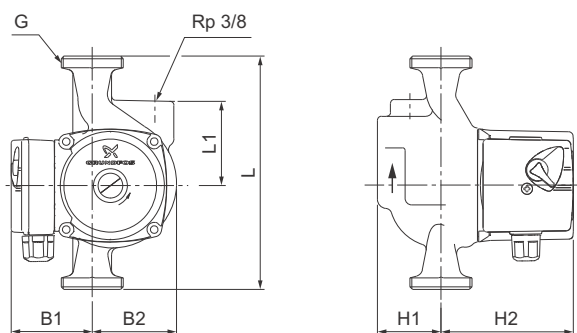
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	35	0.17	on request
Speed 3	55	0.24	on request

### Technical data

Net weight [kg]	3.5
Gross weight [kg]	3.7
Shipping volume [m <sup>3</sup> ]	0.0053
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8931 4512

Dimensions [mm]	L	L1	B1	B2	H1	H2	D1	D2	G
PN 10	180	65	61	65	49	112	-	-	1 1/2

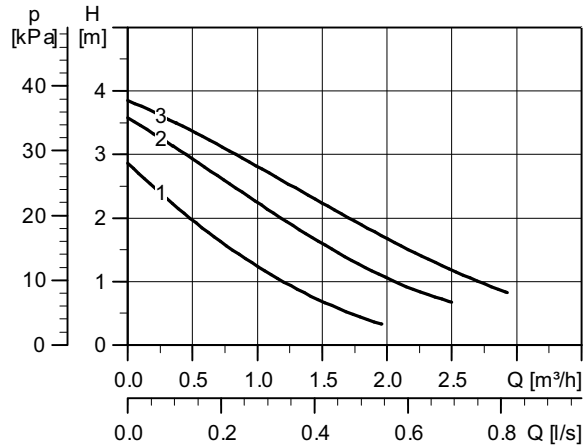
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 A - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749-4708

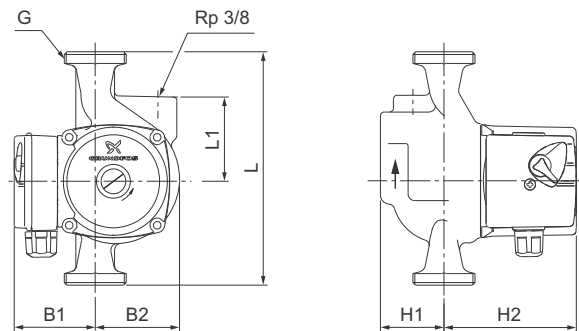
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	3.5
Gross weight [kg]	3.7
Shipping volume [m <sup>3</sup> ]	0.0053
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8931-4512

Dimensions [mm]	L	L1	B1	B2	H1	H2	D1	D2	G
PN 10	180	65	61	65	49	112	-	-	1 1/2

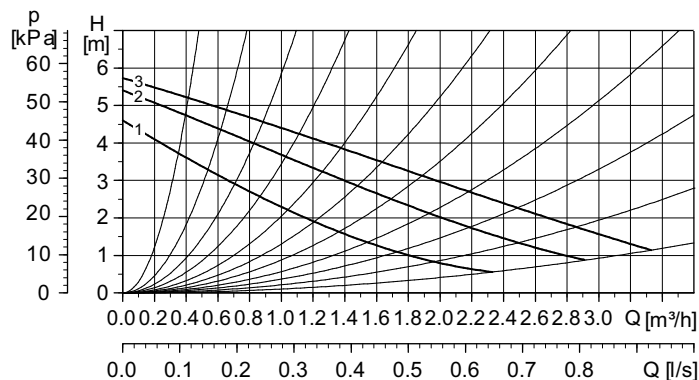
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-60 A - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM03 1062 1005

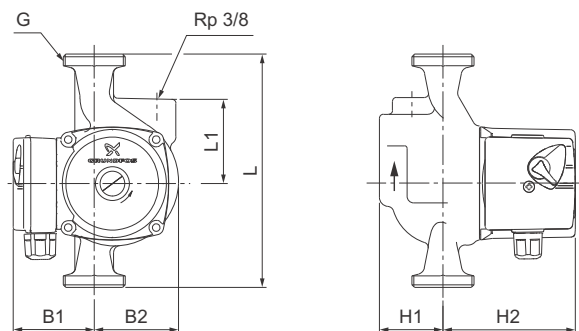
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.22	on request
Speed 2	60	0.27	on request
Speed 3	70	0.30	on request

### Technical data

Net weight [kg]	3.5
Gross weight [kg]	3.7
Shipping volume [m <sup>3</sup> ]	0.0053
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8931 4512

Dimensions [mm]	L	L1	B1	B2	H1	H2	D1	D2	G
PN 10	180	65	61	65	49	112	-	-	1 1/2

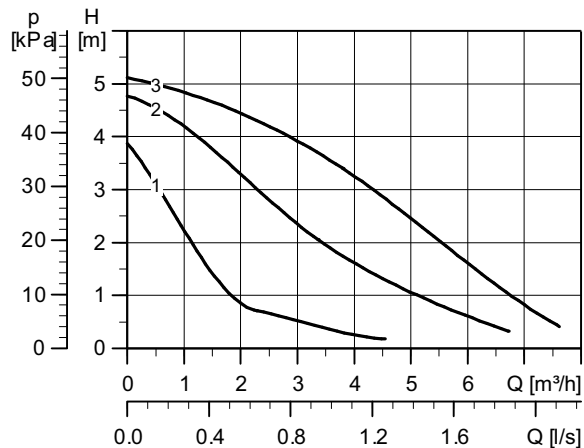
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPSD 32-50 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3793 0000

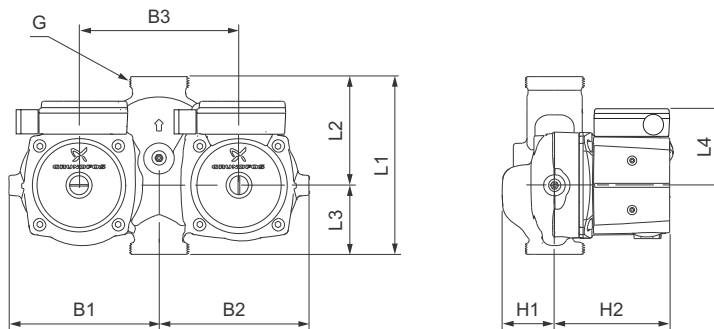
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	10.7
Gross weight [kg]	11.2
Shipping volume [m <sup>3</sup> ]	0.018
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 6390 4515

Dimensions [mm]	L1	L2	L3	L4	H1	H2	B1	B2	B3	G
PN 10	180	110	70	82	53	121	166	152	162	2

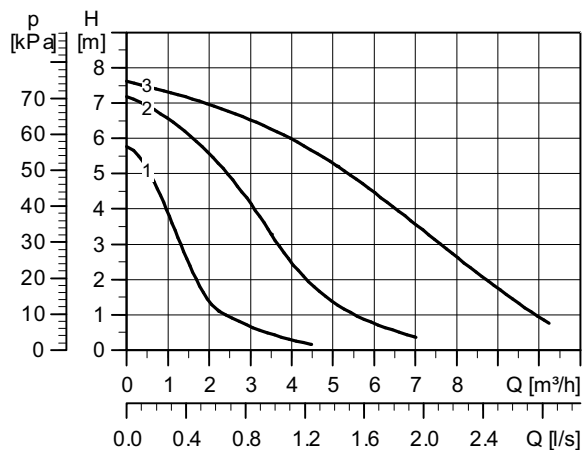
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 32-80 - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3794 0000

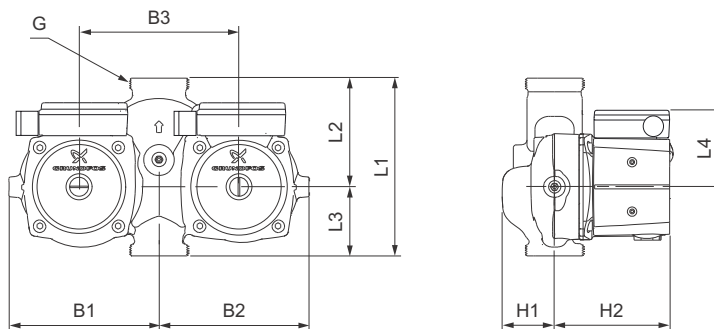
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.98	on request
Speed 2	200	0.90	on request
Speed 3	220	0.60	on request

### Technical data

Net weight [kg]	10.8
Gross weight [kg]	11.4
Shipping volume [m <sup>3</sup> ]	0.015
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5390 4515

Dimensions [mm]	L1	L2	L3	L4	H1	H2	B1	B2	B3	G
PN 10	180	110	70	82	53	121	166	152	162	2

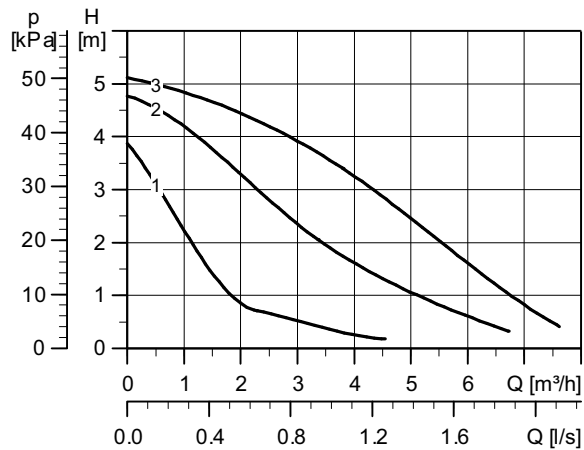
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 32-50 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3793 0000

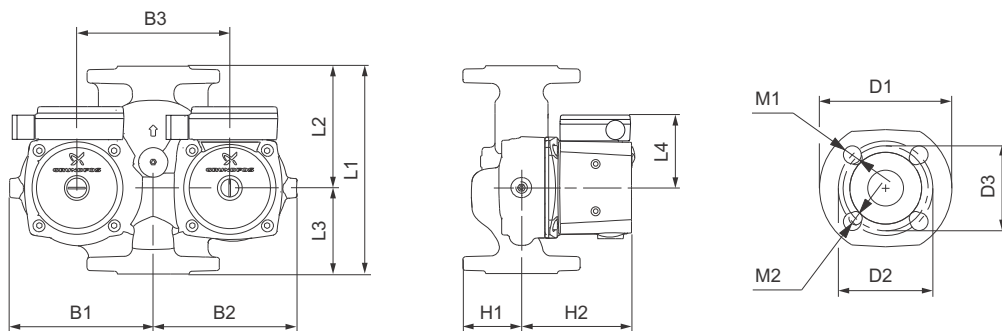
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	13.6
Gross weight [kg]	14.2
Shipping volume [m <sup>3</sup> ]	0.018
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5388 4515

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	129	91	82	166	152	162	62	121	140	100	90	∅19	∅14

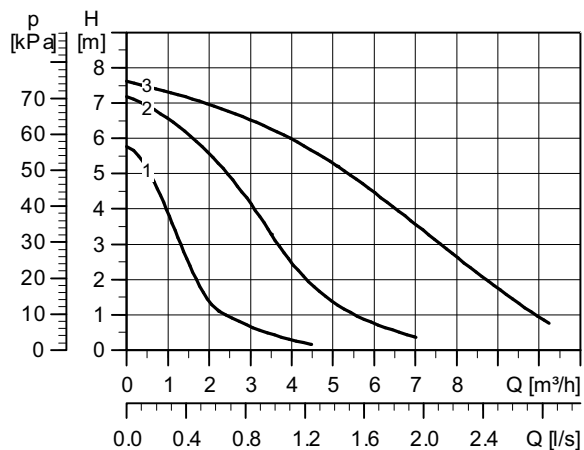
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 32-80 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3794 0000

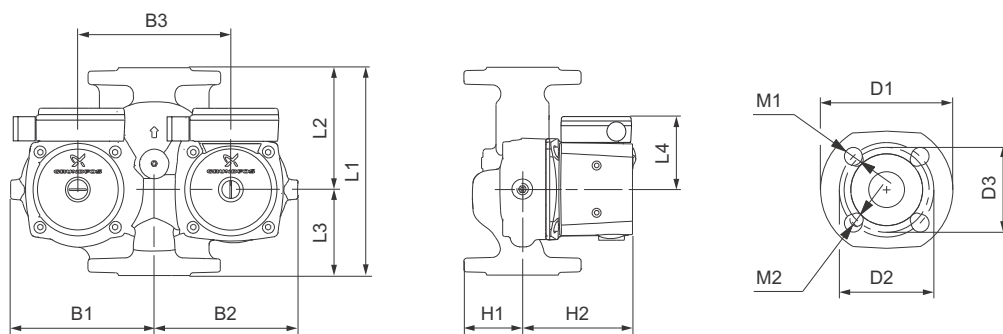
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.98	on request
Speed 2	200	0.90	on request
Speed 3	220	0.60	on request

### Technical data

Net weight [kg]	13.6
Gross weight [kg]	14.3
Shipping volume [m <sup>3</sup> ]	0.018
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 6386 4515

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	129	91	82	166	152	162	62	121	140	100	90	∅19	∅14

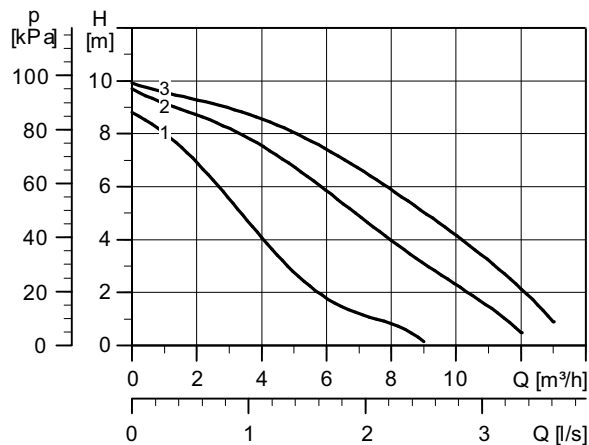
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 32-100 F - 220 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3620 4708

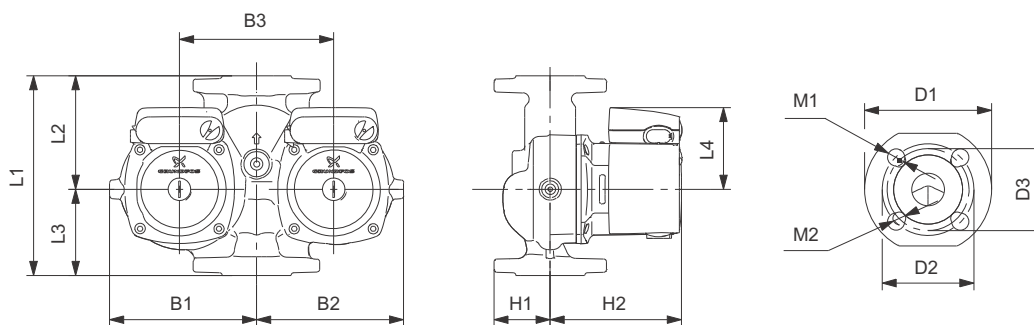
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	17.5
Gross weight [kg]	18.4
Shipping volume [m <sup>3</sup> ]	0.03
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 2811 4512

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	220	125	95	90	175	162	170	62	145	140	100	90	∅19	∅14

### Motor protection

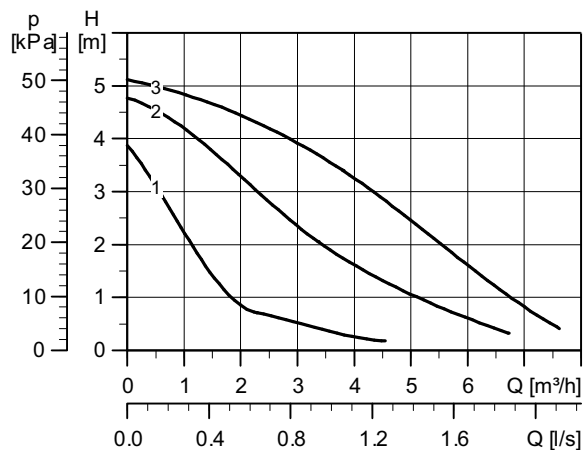
The pump has a built-in thermal switch and requires no additional motor protection.



## UPSD 40-50 F - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3793 0000

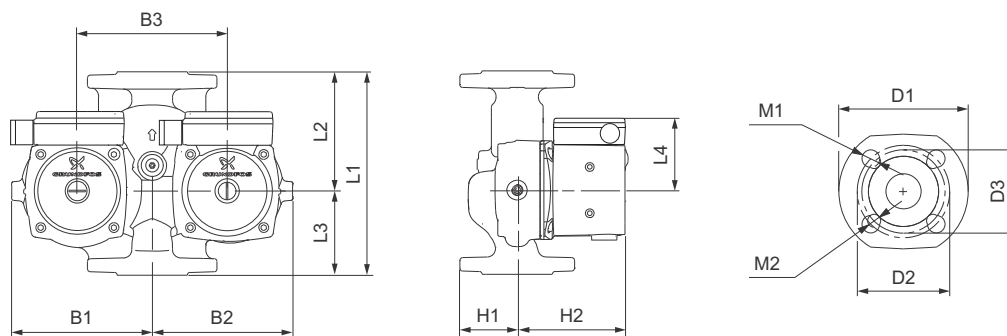
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	14.1
Gross weight [kg]	14.8
Shipping volume [m <sup>3</sup> ]	0.021
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5389 4515

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	129	121	82	166	152	162	67	121	150	110	100	∅19	∅14

### Motor protection

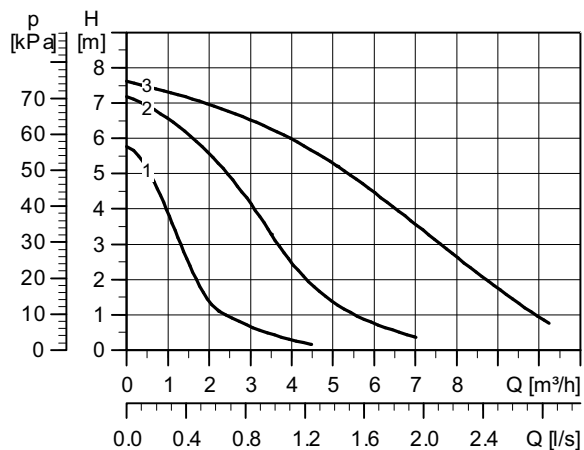
The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 40-80 F - 250 PN 6/10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM04 3794 000

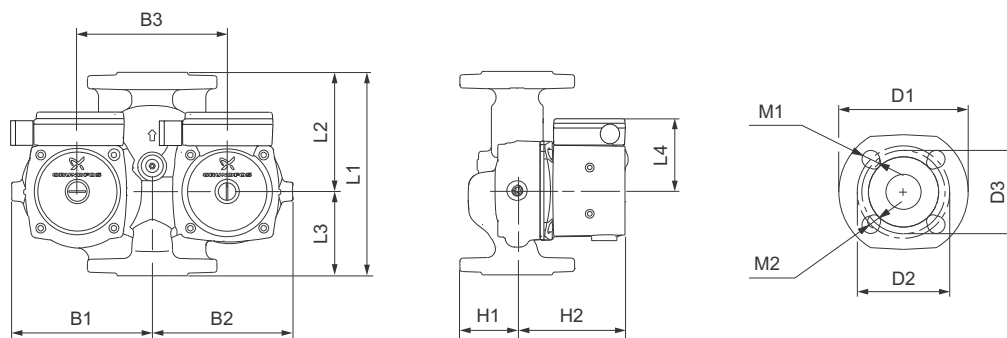
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.98	on request
Speed 2	200	0.90	on request
Speed 3	220	0.60	on request

### Technical data

Net weight [kg]	14.2
Gross weight [kg]	11.8
Shipping volume [m <sup>3</sup> ]	0.021
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5389 4515

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	129	121	82	166	152	162	67	121	150	110	100	∅19	∅14

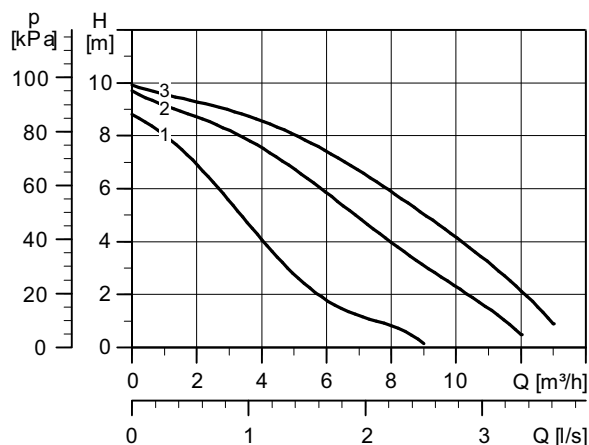
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPSD 40-100 F - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3620 4708

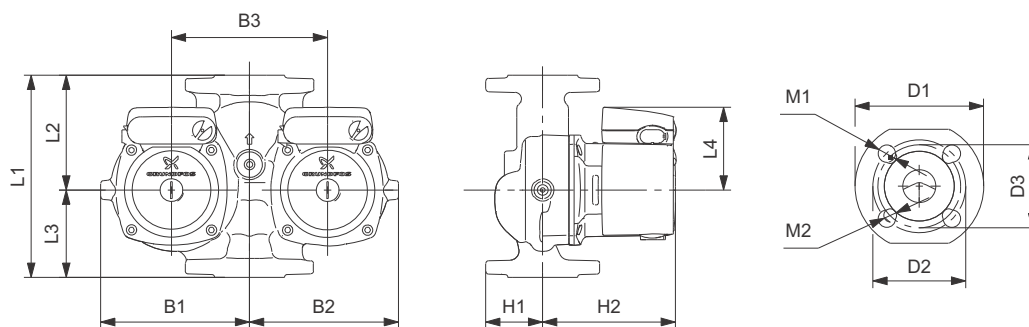
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	18.3
Gross weight [kg]	19.3
Shipping volume [m <sup>3</sup> ]	0.03
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 3428 4512

Dimensions [mm]	L1	L2	L3	L4	B1	B2	B3	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	140	110	90	175	162	170	67	145	150	110	100	∅19	∅14

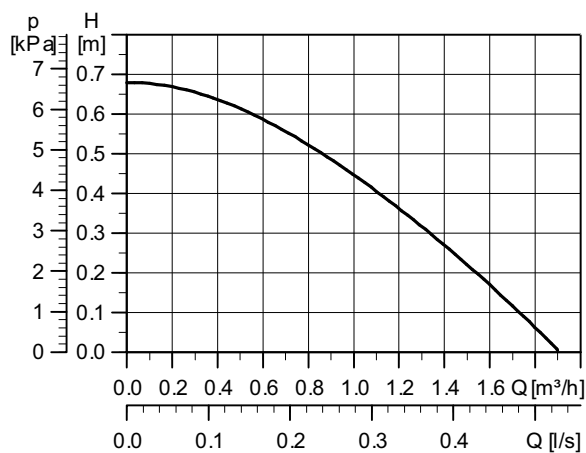
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UP 20-07 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



EAC

TM00 9760 4708

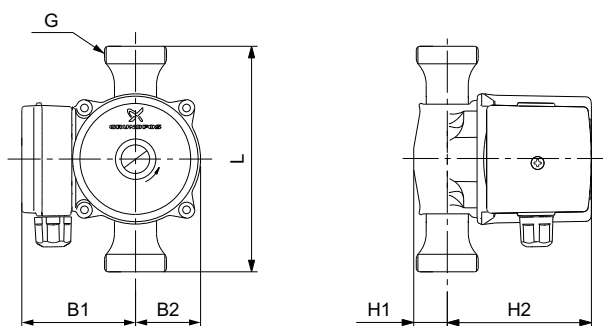
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.24	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	26	100	-	-	1 1/4

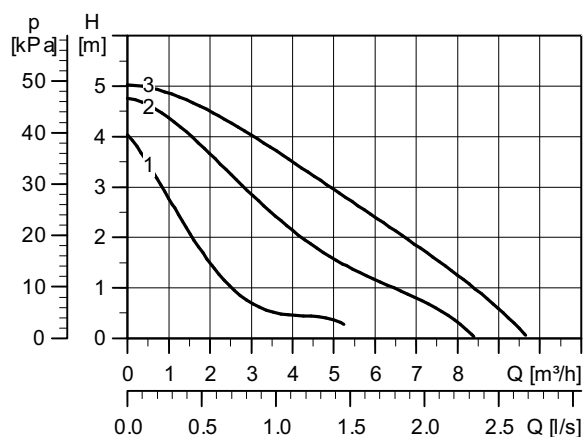
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-15 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9755 4708

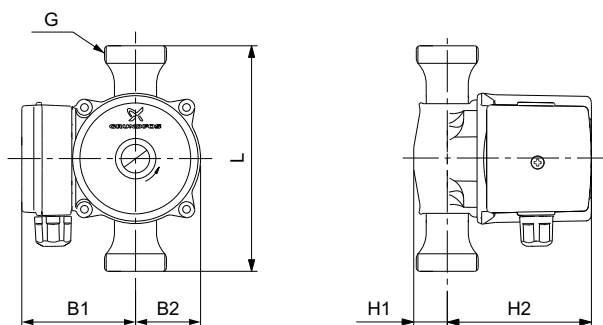
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.11	on request
Speed 2	40	0.18	on request
Speed 3	65	0.26	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

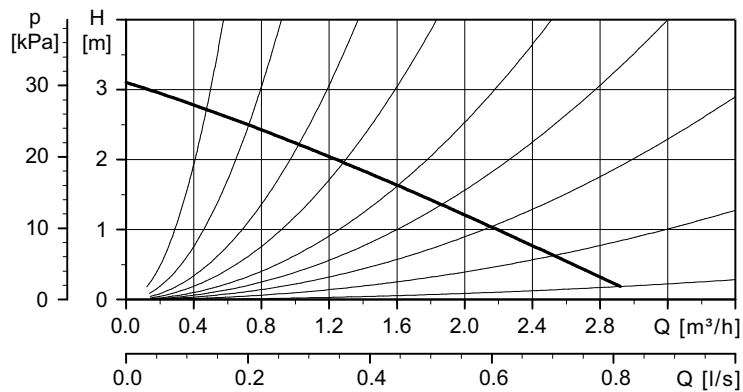
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-30 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 8531 3196

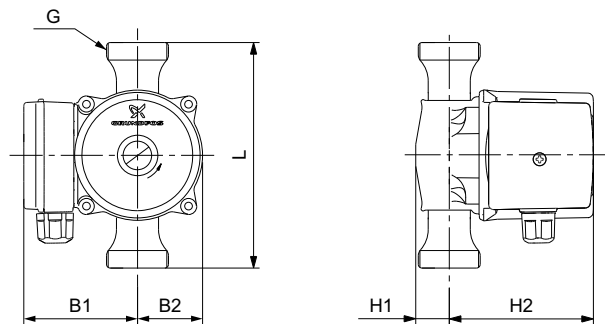
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.31	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

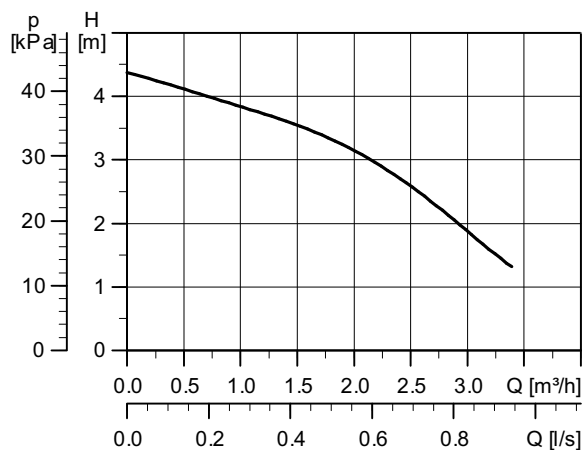
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-45 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3749 2409

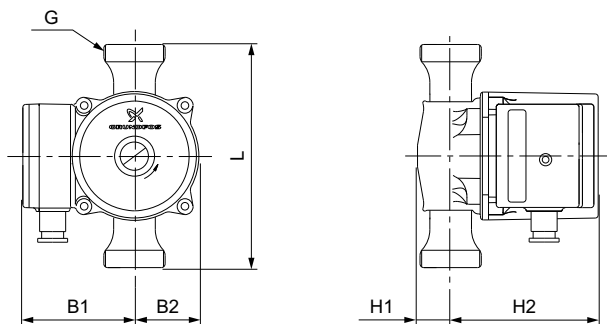
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.5	on request

### Technical data

Net weight [kg]	3.6
Gross weight [kg]	3.8
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9388 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	85	53.5	25	126	-	-	1 1/4

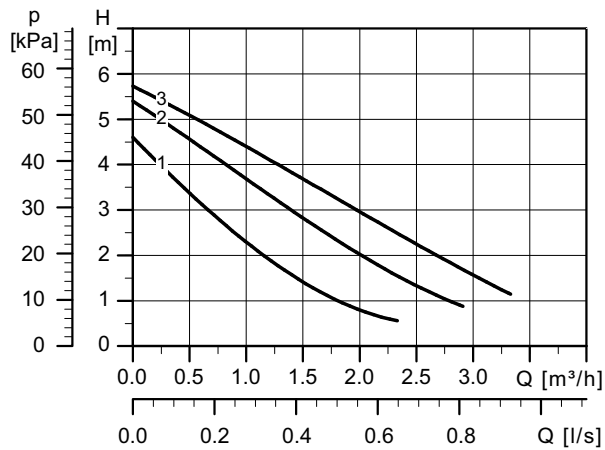
### Motor protection

Impedance-protected. Short-circuit-prof. No external motor protection required.

## UPS 20-60 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM05 1720 3611

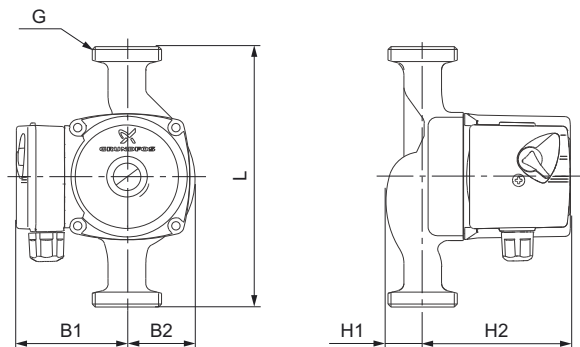
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.22	on request
Speed 2	60	0.27	on request
Speed 3	70	0.30	on request

### Technical data

Net weight [kg]	3.5
Gross weight [kg]	3.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	47	28	102	-	-	1 1/4

### Motor protection

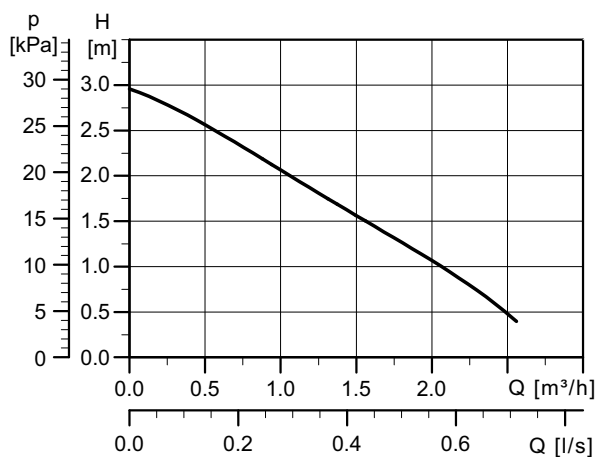
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UP 20-30 N - 150 PN 10

1 x 240 V, 50 Hz

### Performance curves



### Approvals

TM05 1721 3611

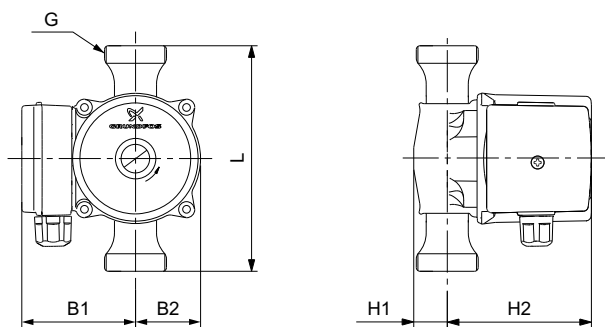
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	80	0.33	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8832 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

### Motor protection

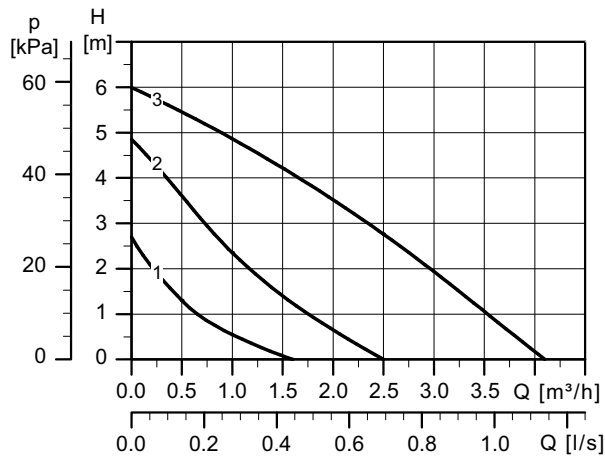
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-60 N - 150 PN 10

1 x 240 V, 50 Hz

### Performance curves

### Approvals



TM05 1756 3611

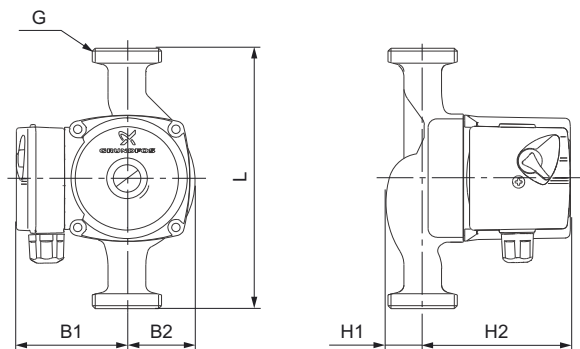
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.15	on request
Speed 2	60	0.25	on request
Speed 3	90	0.37	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	51	28	102	-	-	1 1/4

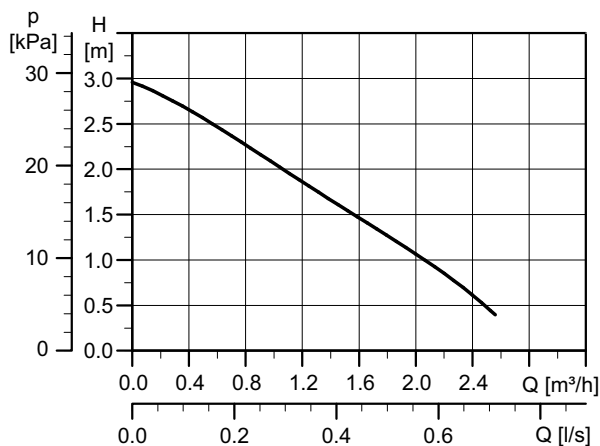
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-30 N - 150 PN 10

3 x 220 V, 50 Hz

### Performance curves



### Approvals

TM05 1757 3611

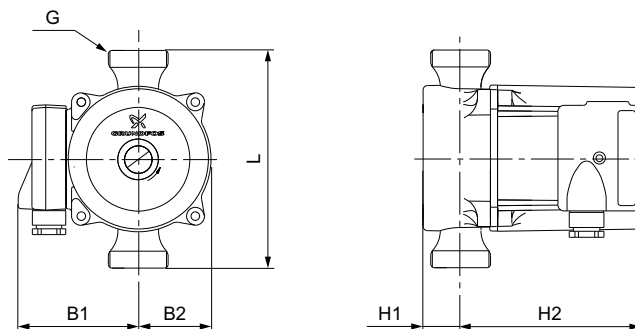
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	115	0.38	on request

### Technical data

Net weight [kg]	4.0
Gross weight [kg]	4.3
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions

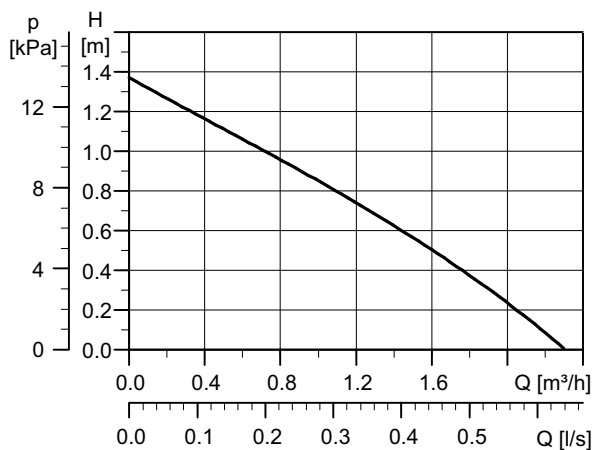


TM00 8964 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	80	51	26	123	-	-	1 1/4

### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

**UP 20-15 N - 150 PN 10****3 x 400 V, 50 Hz****Performance curves****Approvals**

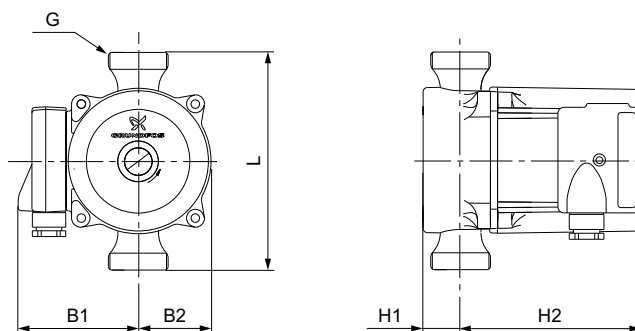
TM04 5561 3409

**Electrical data**

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.19	on request

**Technical data**

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m³]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

**Dimensions**

TM00 8964 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	73	43	28	100	-	-	1 1/4

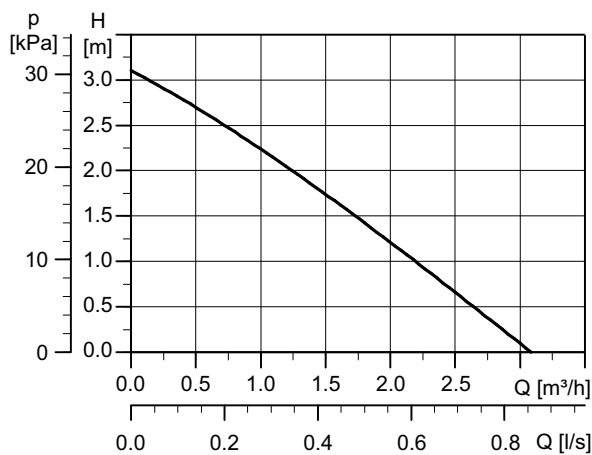
**Motor protection**

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-30 N - 150 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals



TM04 5562 3409

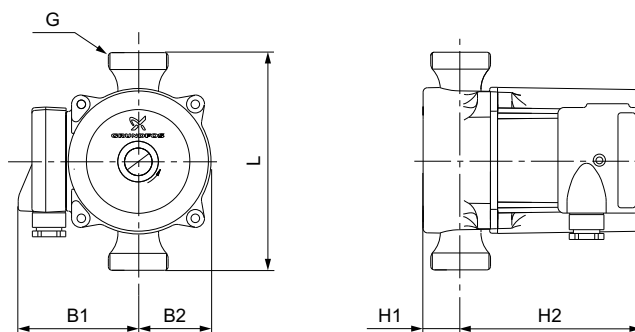
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	100	0.18	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m³]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8964 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	73	43	28	100	-	-	1 1/4

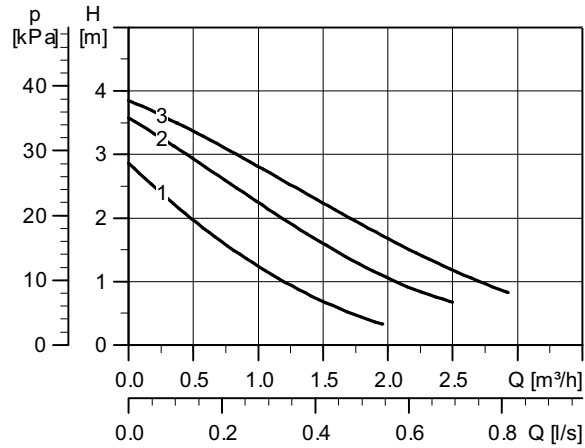
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9749-4708

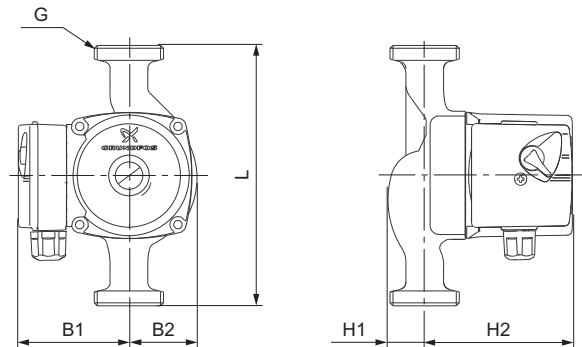
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	25	0.12	on request
Speed 2	35	0.16	on request
Speed 3	45	0.20	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	51	32	102	-	-	1 1/2

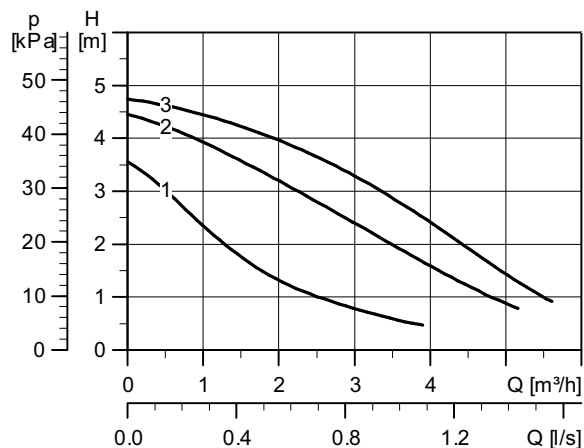
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-55 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3751 2409

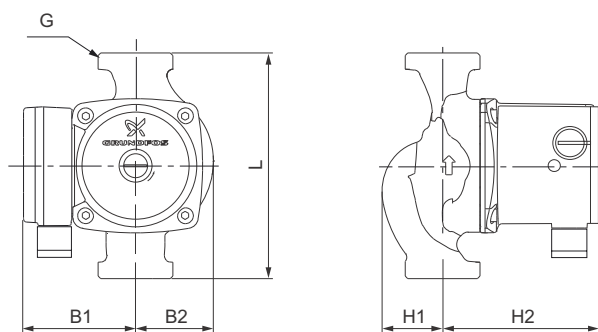
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	65	0.30	on request
Speed 2	80	0.36	on request
Speed 3	85	0.38	on request

### Technical data

Net weight [kg]	4.7
Gross weight [kg]	5.4
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

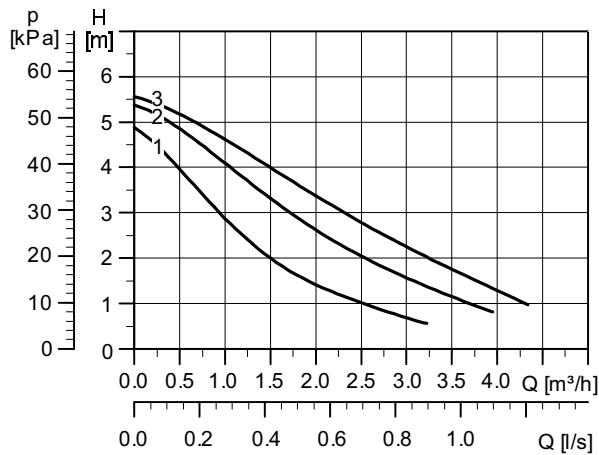
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-60 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 5012 2409

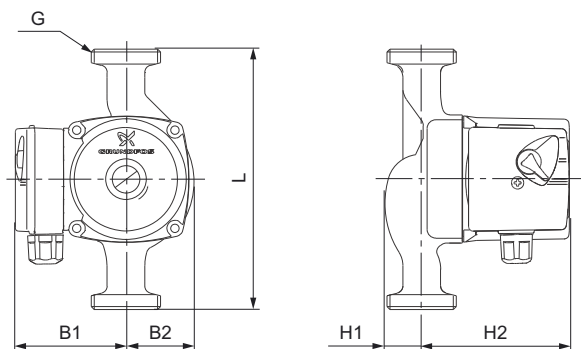
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.21	on request
Speed 2	55	0.25	on request
Speed 3	60	0.28	on request

### Technical data

Net weight [kg]	2.0
Gross weight [kg]	3.0
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	51	39	96	-	-	1 1/2

### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

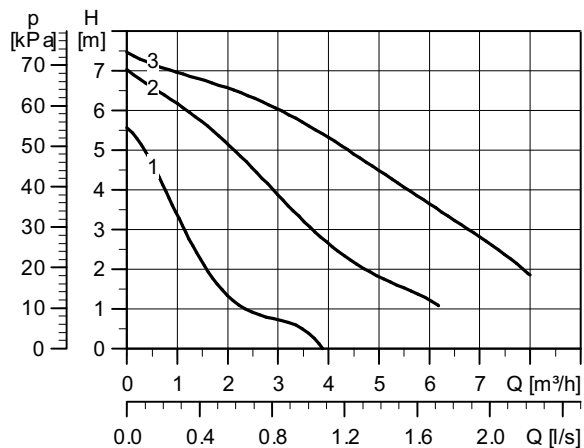


## UPS 25-80 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves

### Approvals



TM04 3754 2409

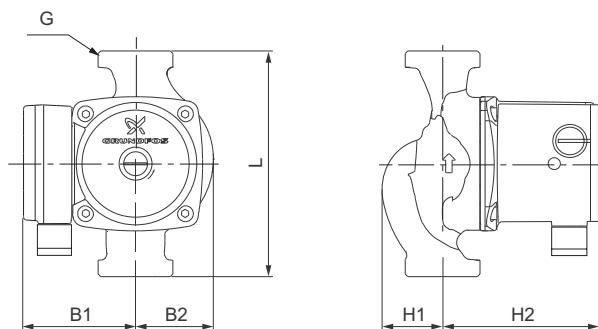
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.50	on request
Speed 2	155	0.70	on request
Speed 3	165	0.70	on request

### Technical data

Net weight [kg]	4.4
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

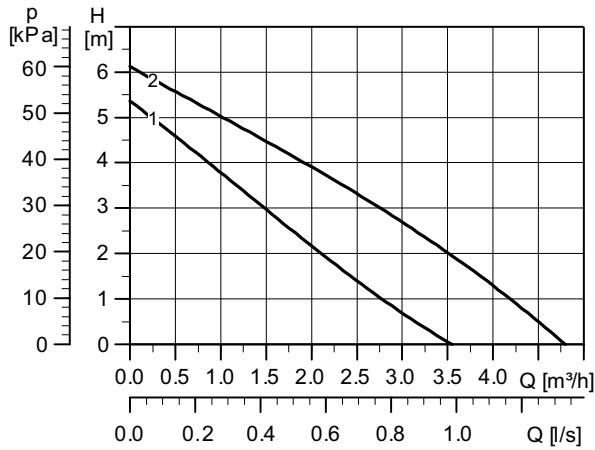
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-60 N - 180 PN 10

3 x 400 V, 50 Hz

### Performance curves



### Approvals

TM04 8116 3110

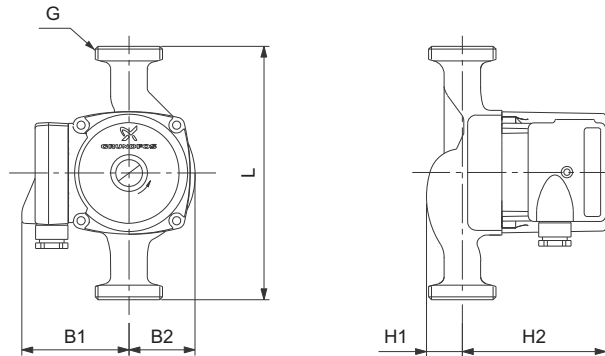
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	140	0.24	on request
Speed 2	130	0.21	on request

### Technical data

Net weight [kg]	2.5
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 8960 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	73	51	32	102	-	-	1 1/2

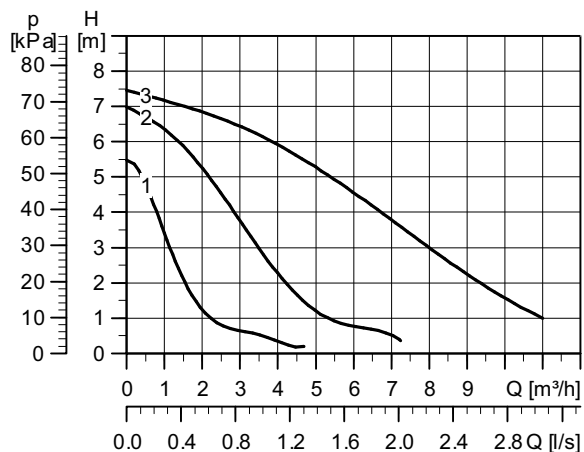
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 32-80 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3761 2409

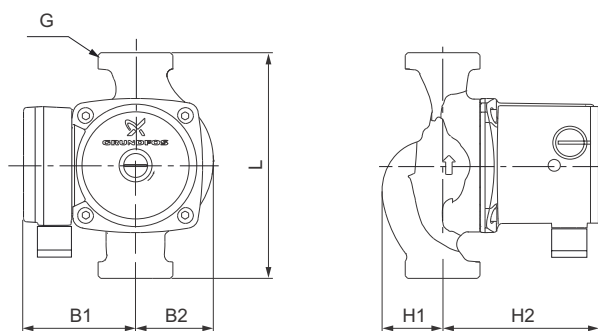
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	4.9
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

### Motor protection

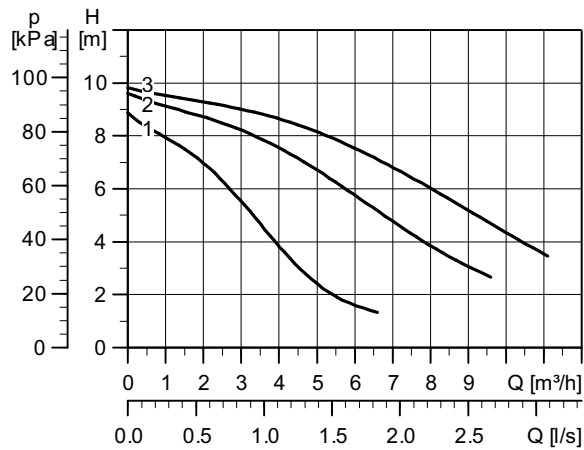
The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-100 N - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM04 3614 4708

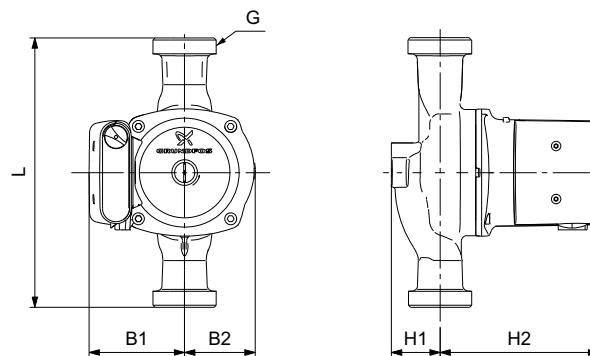
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	280	1.30	on request
Speed 2	340	1.50	on request
Speed 3	345	1.52	on request

### Technical data

Net weight [kg]	6.4
Gross weight [kg]	7.0
Shipping volume [m <sup>3</sup> ]	0.012
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX4D

### Dimensions



TM04 2809 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	90	68	47	150	-	-	2

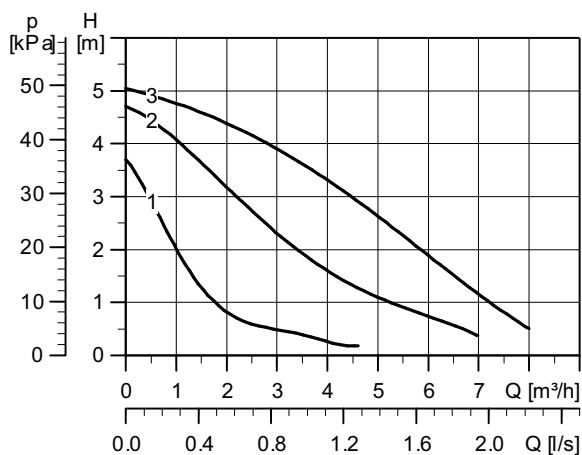
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-50 FN - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3760 2409

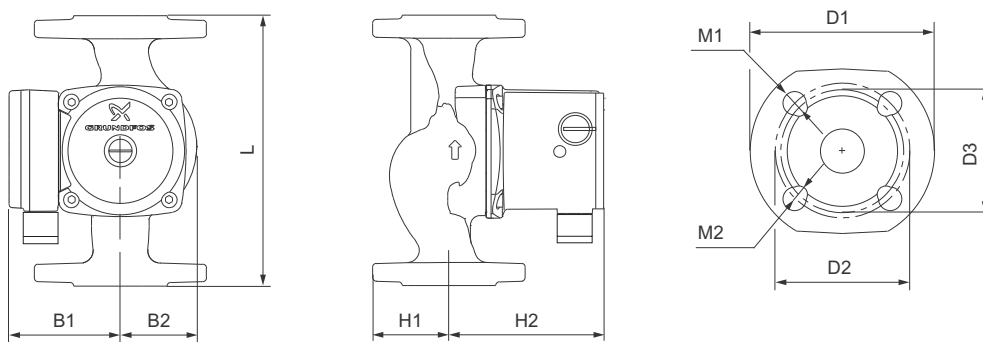
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	8.4
Gross weight [kg]	8.9
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	∅19	∅14

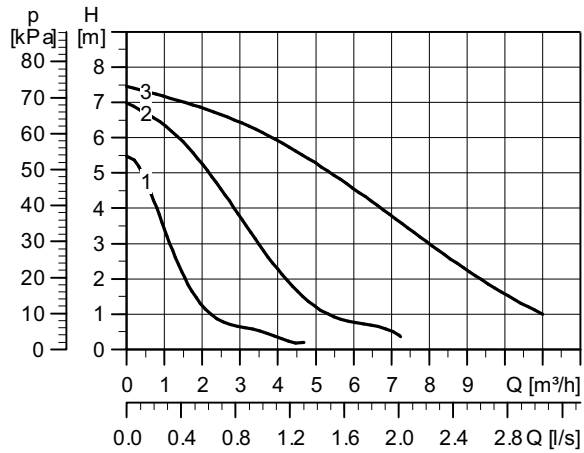
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-80 FN - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3761 2409

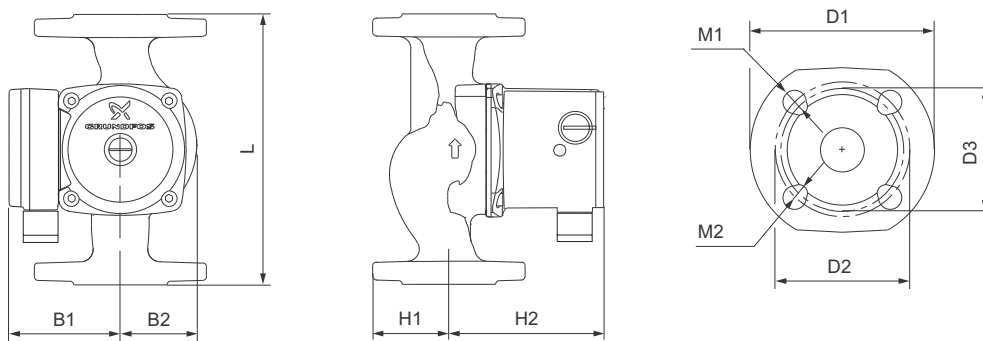
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	8.5
Gross weight [kg]	8.9
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	∅19	∅14

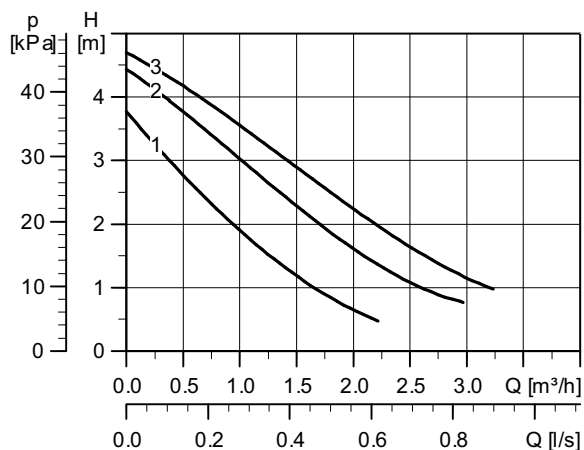
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 15-50 N - 130 PN 10

1 x 230 V, 50 Hz

Performance curves



Approvals

**WRAS**  
APPROVED  
PRODUCT

TM00 9750 4708

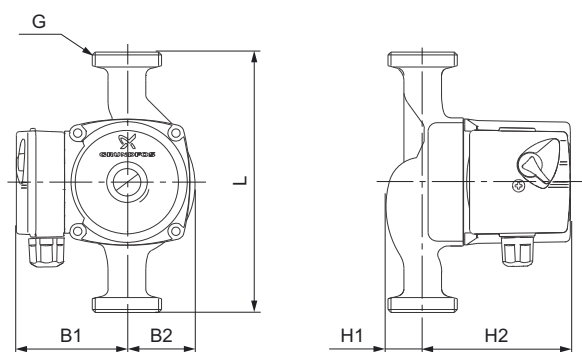
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	45	0.20	on request
Speed 3	50	0.23	on request

### Technical data

Net weight [kg]	1.9
Gross weight [kg]	2.4
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	51	28	102	-	-	1

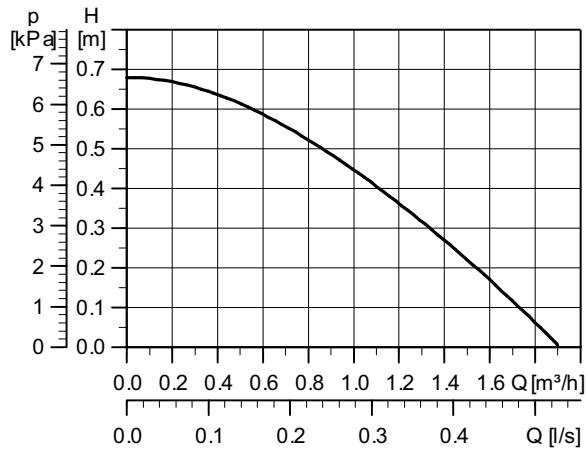
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-07 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9760 4708

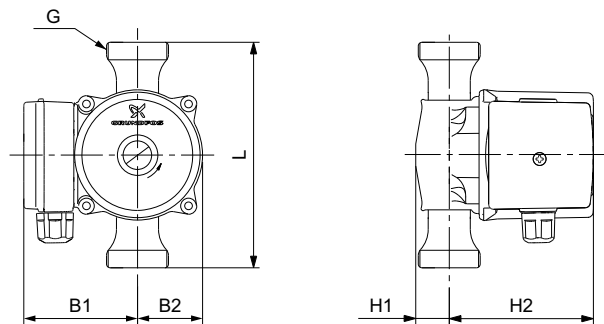
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	50	0.24	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	26	100	-	-	1 1/4

### Motor protection

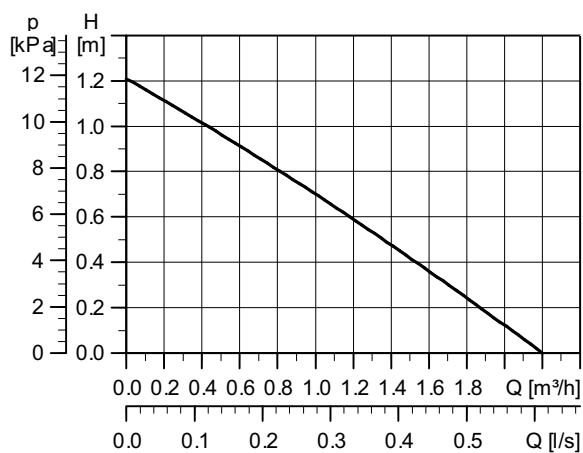
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UP 20-15 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

**WRAS**  
APPROVED  
PRODUCT

TM00 9765 4705

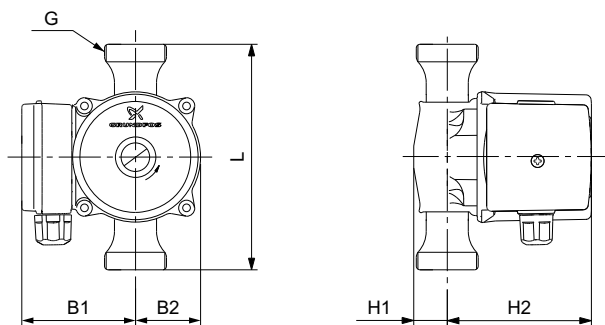
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	65	0.28	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

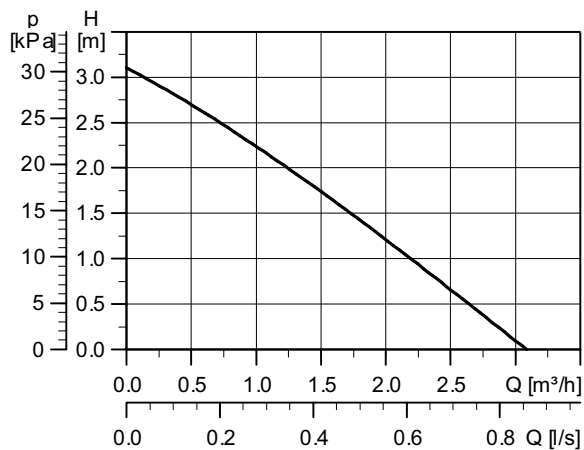
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-30 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM00 9752 4708

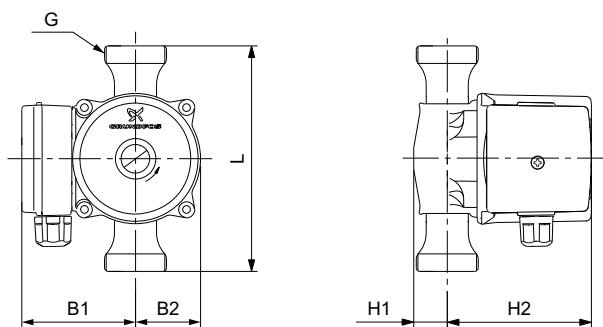
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.31	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

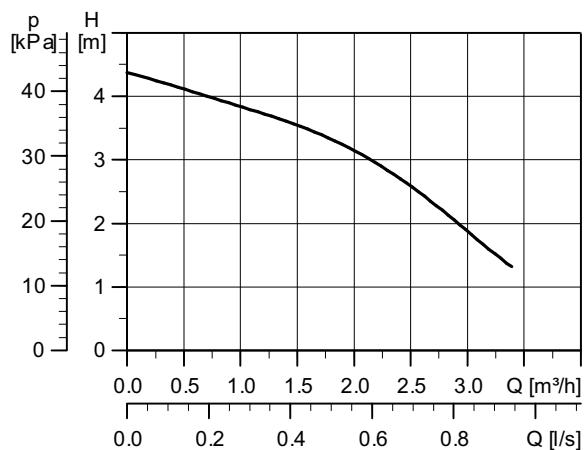
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-45 N - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3749 2409

### Electrical data

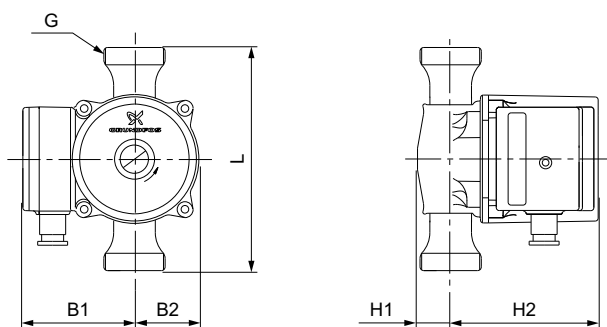
	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.5	on request

### Technical data

Net weight [kg]	3.6
Gross weight [kg]	3.8*
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

\* Product No 95906475: 4.2 kg

### Dimensions



TM00 9388 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	85	53.5	25	126	-	-	1 1/4

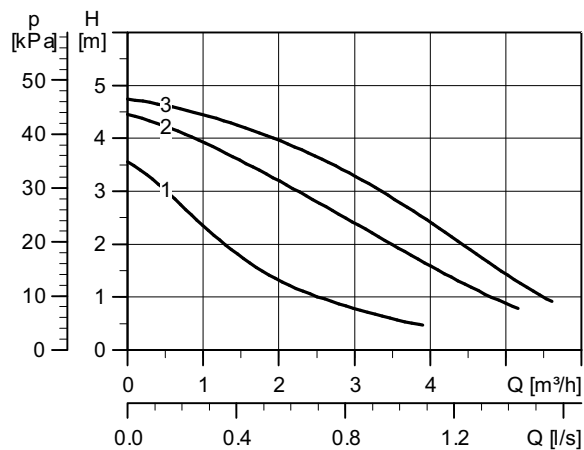
### Motor protection

Impedance-protected. Short-circuit-prof. No external motor protection required.

## UPS 25-55 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

**WRAS**  
APPROVED  
PRODUCT

TM04 3751 2409

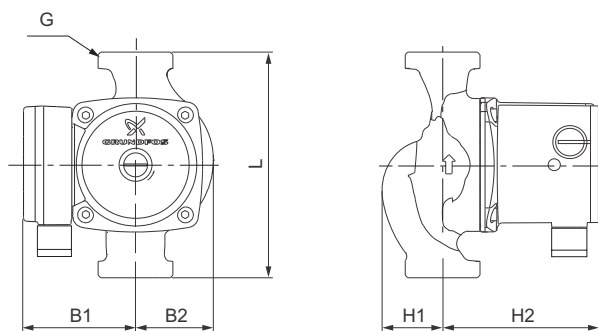
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	65	0.30	on request
Speed 2	80	0.36	on request
Speed 3	85	0.38	on request

### Technical data

Net weight [kg]	4.7
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

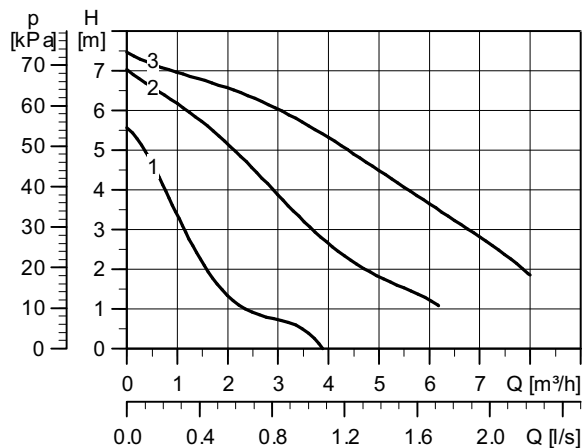
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 25-80 N - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM04 3754 2409

### Electrical data

	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	110	0.50	on request
Speed 2	155	0.70	on request
Speed 3	165	0.70	on request

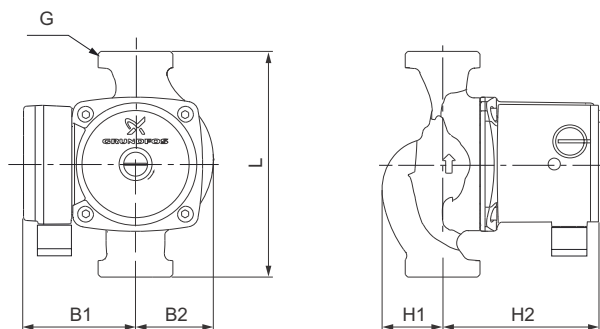
### Technical data

Net weight [kg]	4.4
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Electrical data 1 x 230 V, 50 Hz

Speed	P <sub>1</sub> [W]	I <sub>1/1</sub> [A]
3	165	0.70
2	155	0.70
1	110	0.50

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

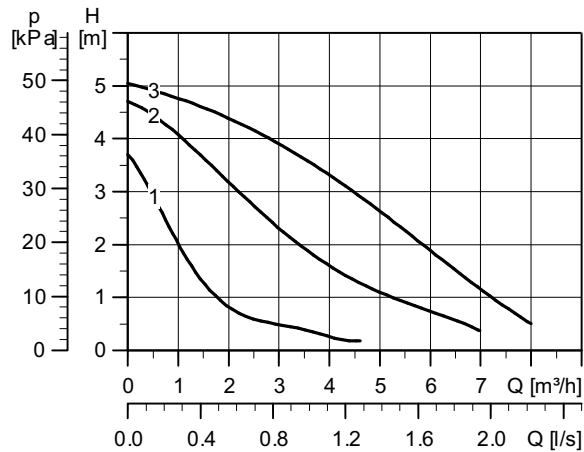
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-55 N - 180 PN 10

1 x 230 V, 50 Hz

Performance curves



Approvals

**WRAS**  
APPROVED  
PRODUCT

TM04 3760 2409

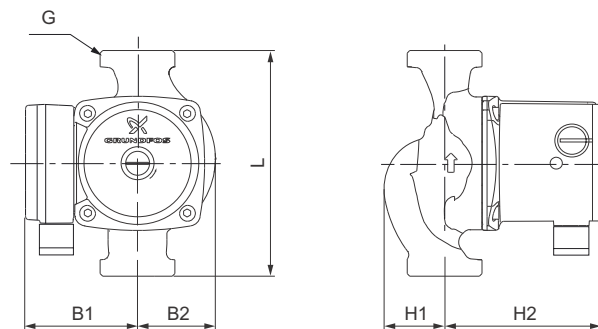
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	4.9
Gross weight [kg]	5.4
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 6360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

### Motor protection

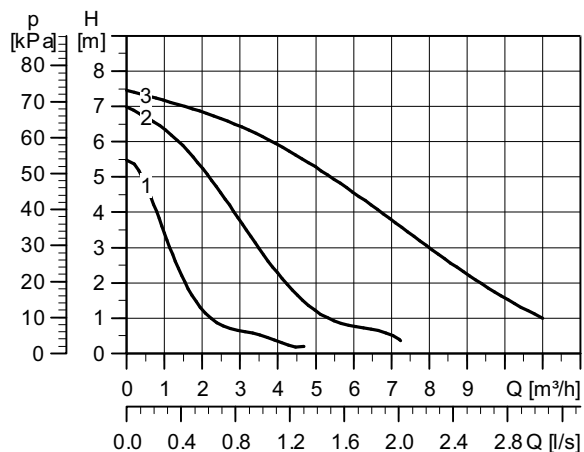
The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 32-80 N - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM04 3761 2409

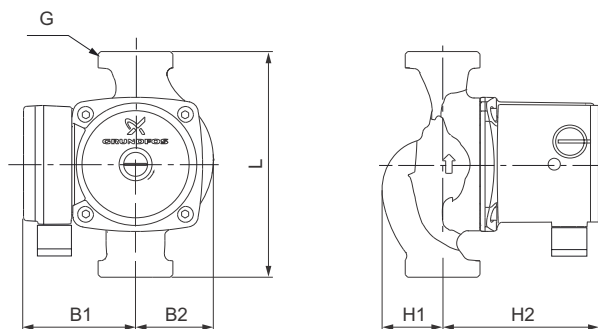
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	4.6
Gross weight [kg]	5.2
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	48	121	-	-	2

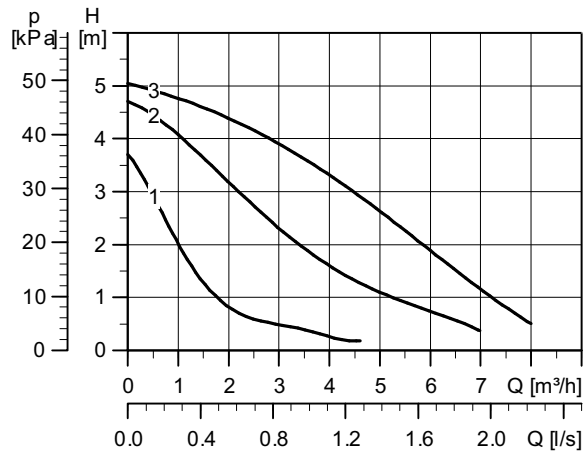
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 40-50 FN - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals



TM04 3760 2409

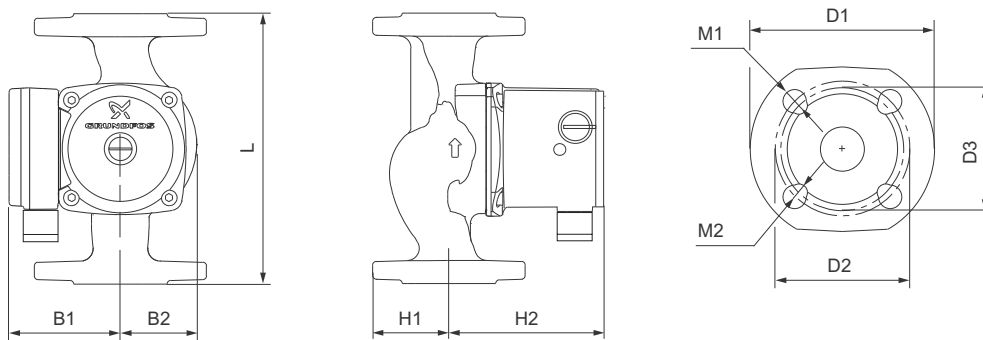
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.32	on request
Speed 2	100	0.44	on request
Speed 3	105	0.46	on request

### Technical data

Net weight [kg]	8.4
Gross weight [kg]	8.8
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	Ø19	Ø14

### Motor protection

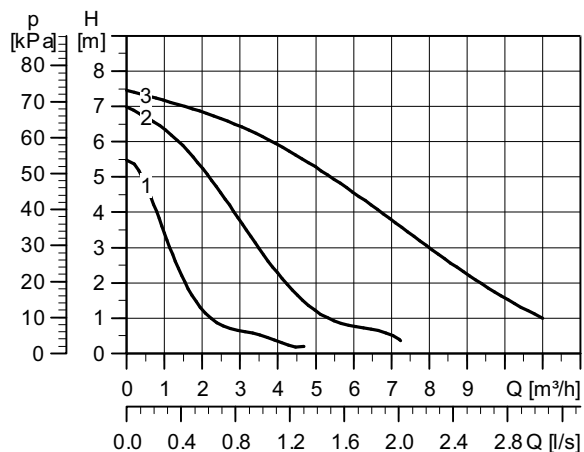
The pump has a built-in thermal switch and requires no additional motor protection.



## UPS 40-80 FN - 250 PN 6/10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

**WRAS**  
APPROVED  
PRODUCT

TM04 3761 2409

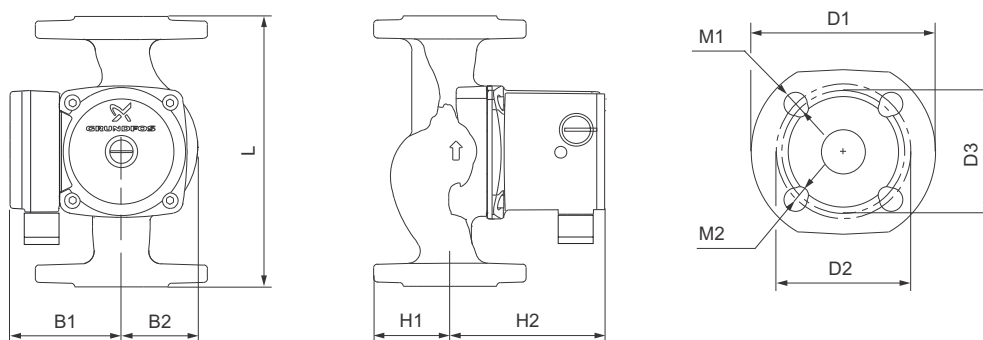
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	135	0.60	on request
Speed 2	200	0.90	on request
Speed 3	220	0.98	on request

### Technical data

Net weight [kg]	8.5
Gross weight [kg]	8.9
Shipping volume [m <sup>3</sup> ]	0.011
Liquid temperature [°C]	-25 °C to +110 °C (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 6383 45 15

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	∅19	∅14

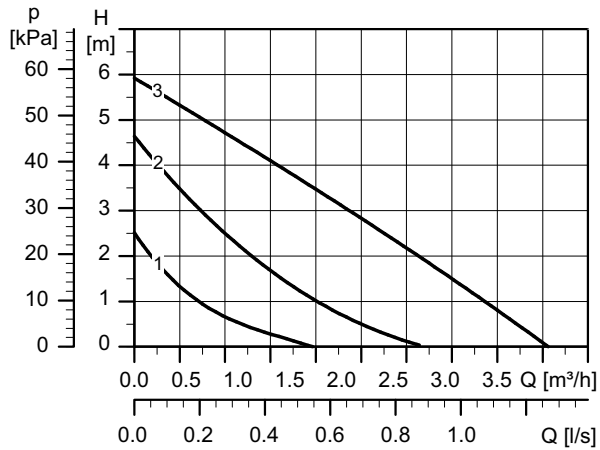
### Motor protection

The pump has a built-in thermal switch and requires no additional motor protection.

## UPS 21-60 FK - 120 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM05 5342 3612

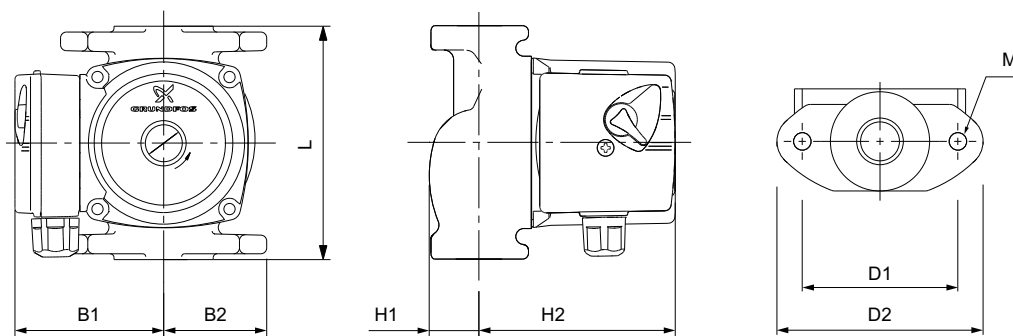
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	45	0.20	on request
Speed 2	70	0.31	on request
Speed 3	95	0.41	on request

### Technical data

Net weight [kg]	2.9
Gross weight [kg]	3.1
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 8929 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	M
PN 10	120	75	53	32	102	80	106	10

### Motor protection

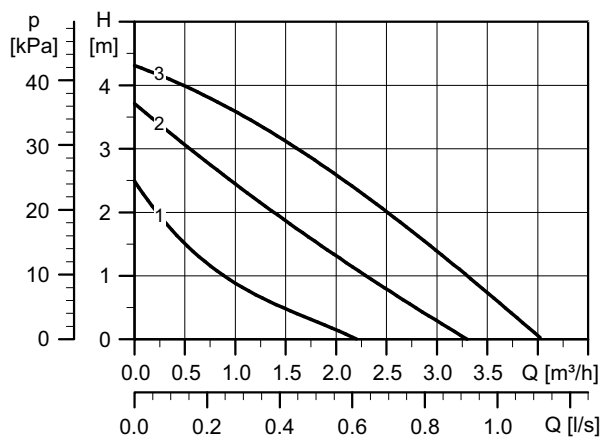
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-40 K - 130 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM05 5343 3612

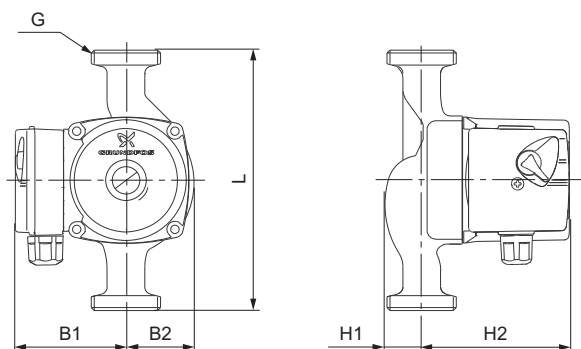
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	55	0.25	on request
Speed 3	75	0.32	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	130	75	47	28	102	-	-	1 1/4

### Motor protection

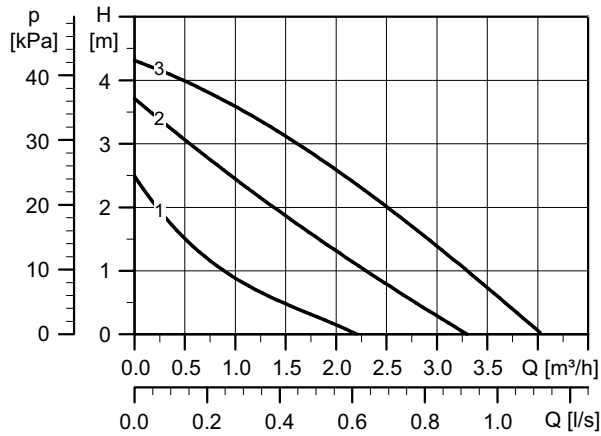
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-40 K - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM05 5343 3612

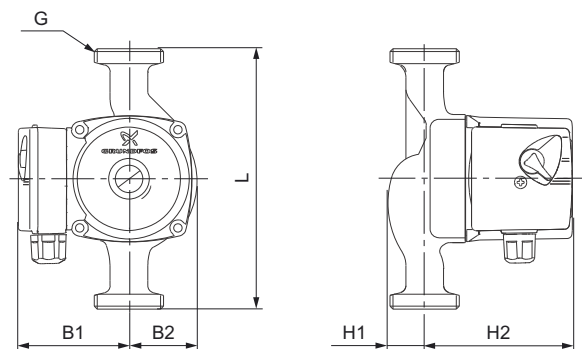
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.16	on request
Speed 2	55	0.25	on request
Speed 3	75	0.32	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	28	102	-	-	1 1/4

### Motor protection

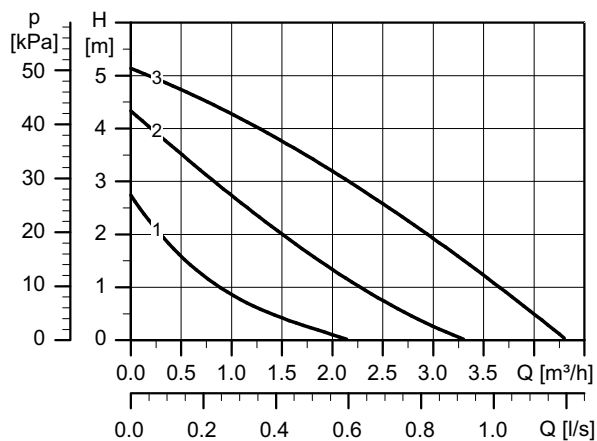
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-50 K - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM05 5344 3612

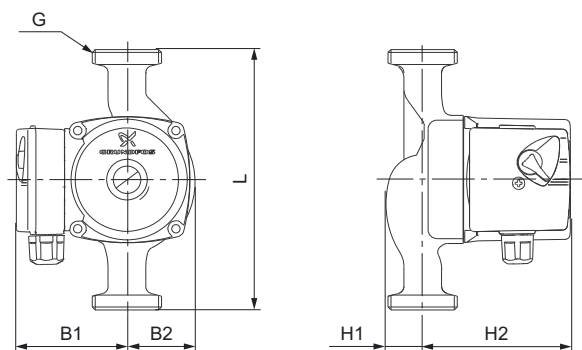
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	40	0.18	on request
Speed 2	65	0.29	on request
Speed 3	85	0.36	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

### Motor protection

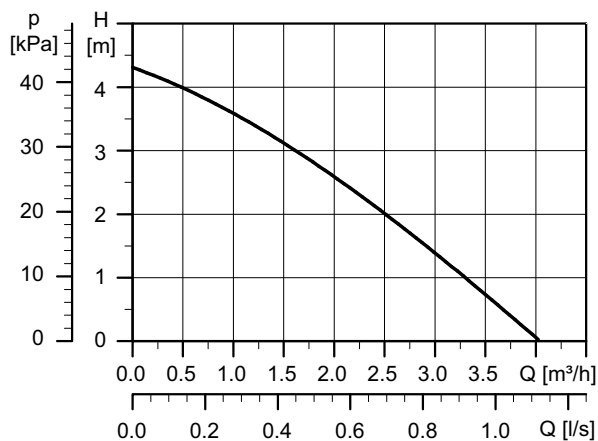
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 25-40 KU - 180 PN 10

1 x 230 V, 50 Hz

Performance curves

Approvals



TM05 5345 3612

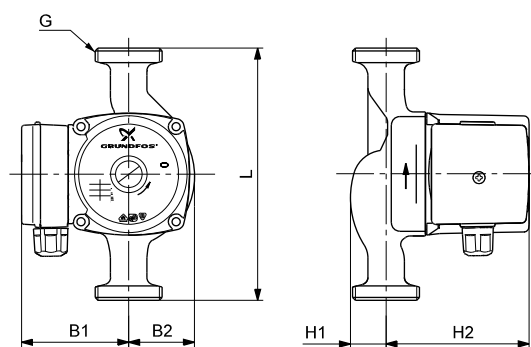
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	60	0.26	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m³]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP54

### Dimensions



TM00 8933 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

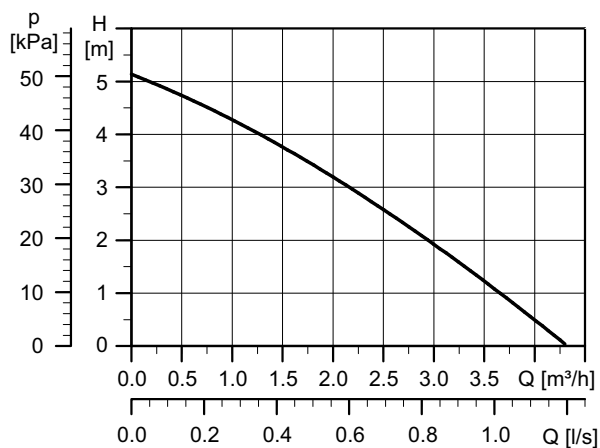
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 25-50 KU - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM05 5346 3612

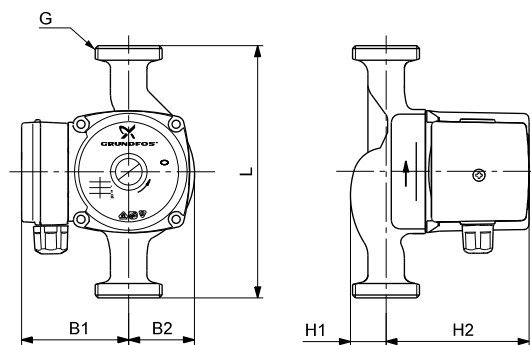
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	80	0.34	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m³]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP54

### Dimensions



TM00 8933 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

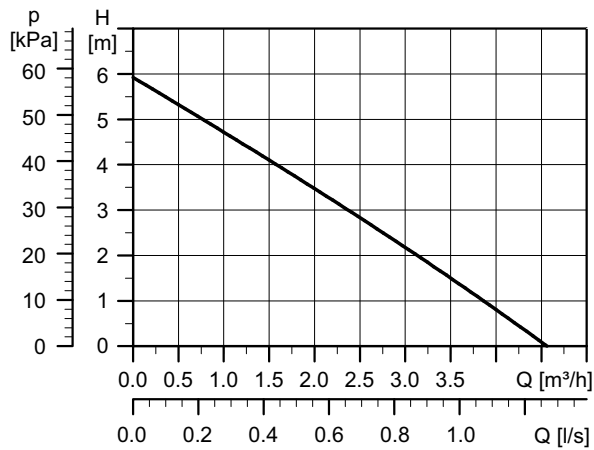
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 25-60 KU - 180 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM05 5347 3612

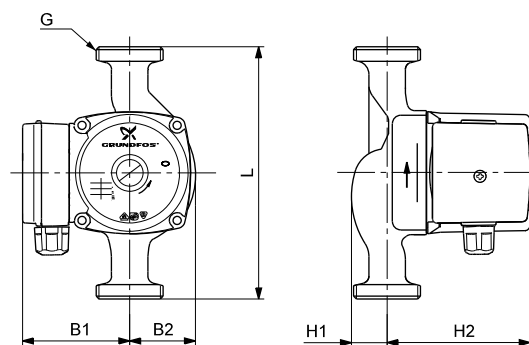
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	90	0.40	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IP54

### Dimensions



TM00 8933 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

### Motor protection

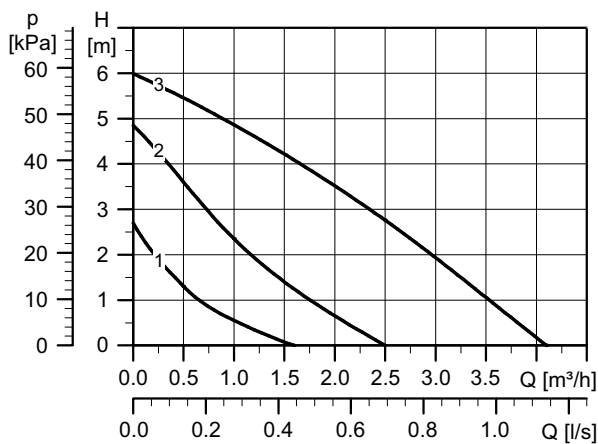
Impedance-protected. Short-circuit-proof. No external motor protection required.



## UPS 20-60 NK - 150 PN 10

1 x 240 V, 50 Hz

### Performance curves



### Approvals

TM05 6348 3612

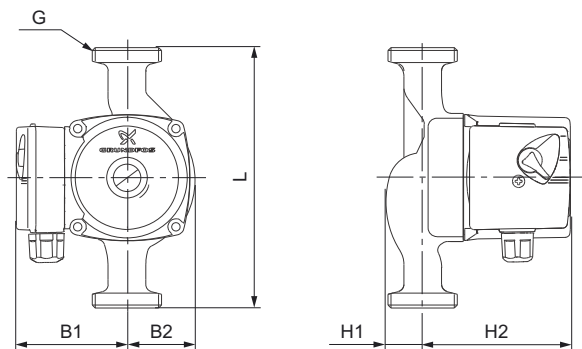
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.15	on request
Speed 2	60	0.25	on request
Speed 3	90	0.37	on request

### Technical data

Net weight [kg]	2.4
Gross weight [kg]	2.7
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	51	28	102	-	-	1 1/4

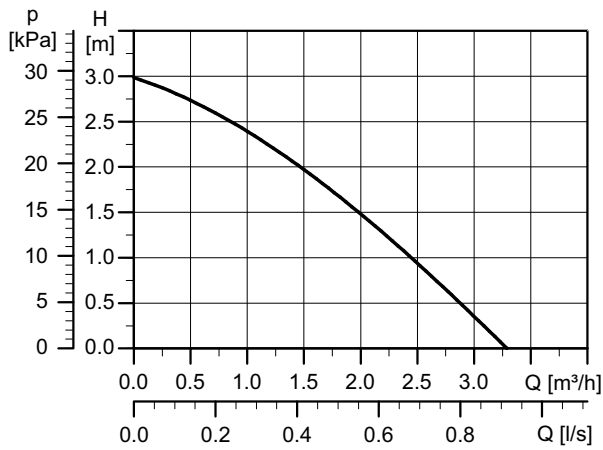
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UP 20-30 NK - 150 PN 10

1 x 230 V, 50 Hz

### Performance curves



### Approvals

TM05 5349 3612

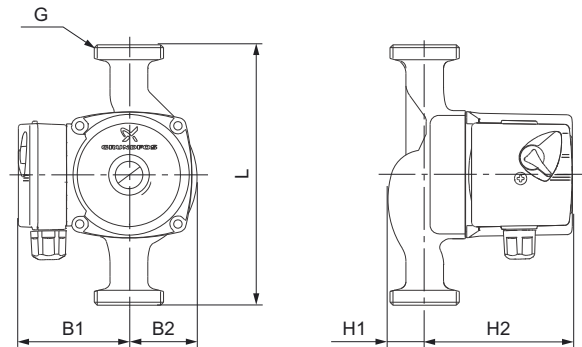
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	75	0.33	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +95 (TF 95)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	51	28	100	-	-	1 1/4

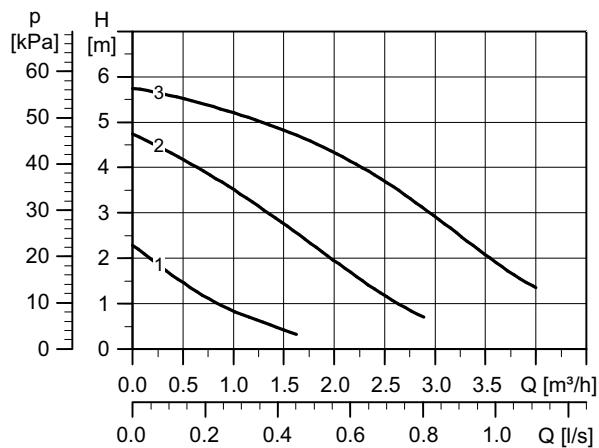
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 20-62 N - 150 PN 10

1 x 220 V, 60 Hz

### Performance curves



### Approvals

TM04 5563 4009

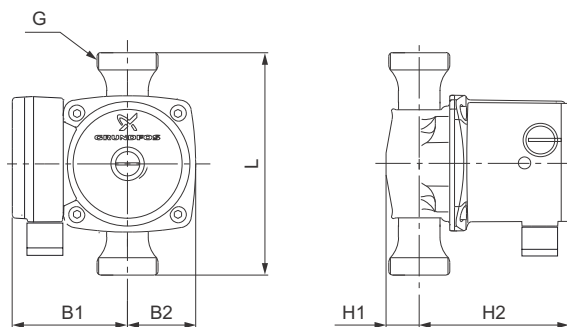
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	90	0.44	on request
Speed 2	135	0.64	on request
Speed 3	150	0.68	on request

### Technical data

Net weight [kg]	3.0
Gross weight [kg]	3.8
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 9445 2317

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	82	53.5	25	121	-	-	1 1/4

### Motor protection

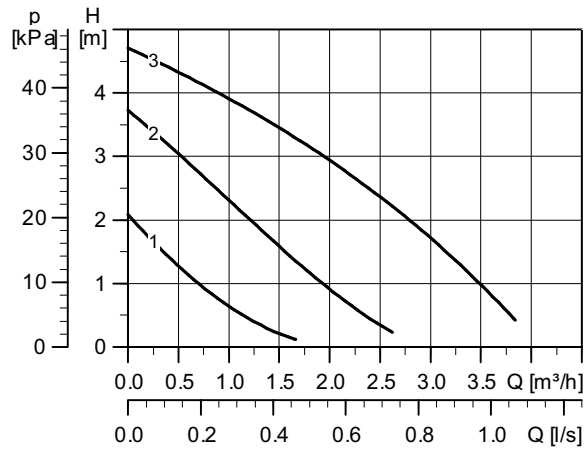
Motor protection required.

## UPS 25-42 - 180 PN 10

1 x 220 V, 60 Hz

Performance curves

Approvals



TM01 0152 4708

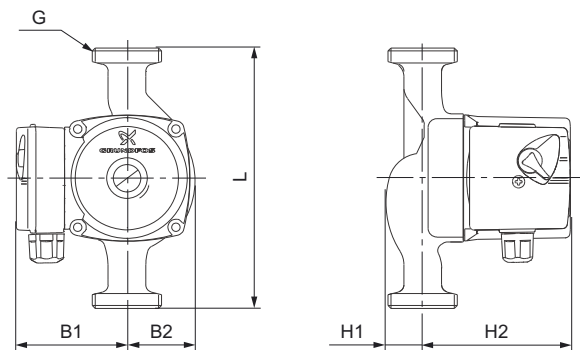
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	30	0.15	on request
Speed 2	50	0.26	on request
Speed 3	85	0.40	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP42

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

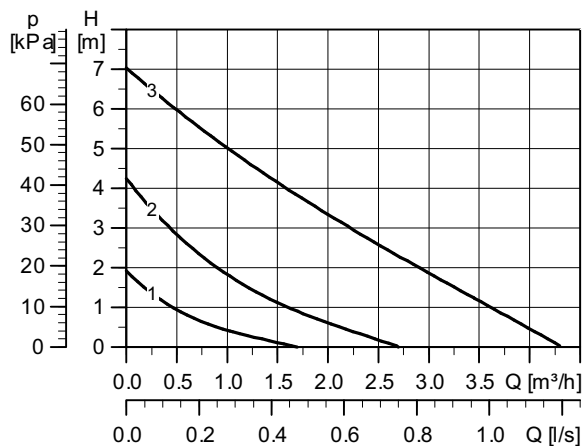
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-62 - 180 PN 10

1 x 220 V, 60 Hz

### Performance curves



### Approvals

TM01 0153 4708

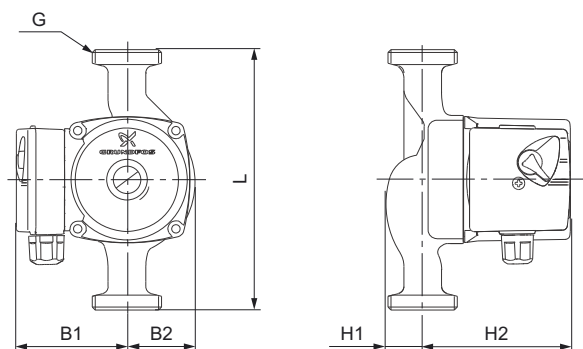
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.17	on request
Speed 2	65	0.30	on request
Speed 3	115	0.51	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

### Motor protection

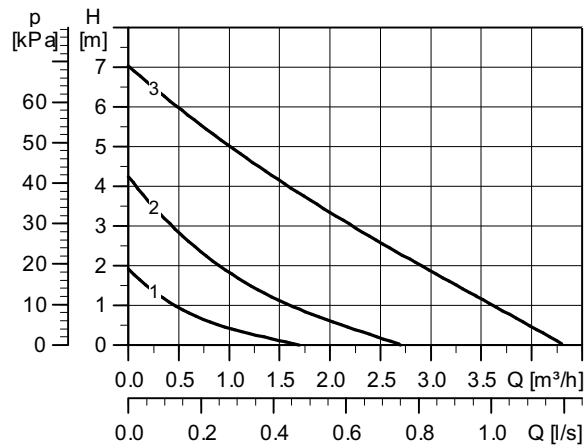
Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-62 K - 180 PN 10

1 x 220 V, 60 Hz

Performance curves

Approvals



TM01 0153 4708

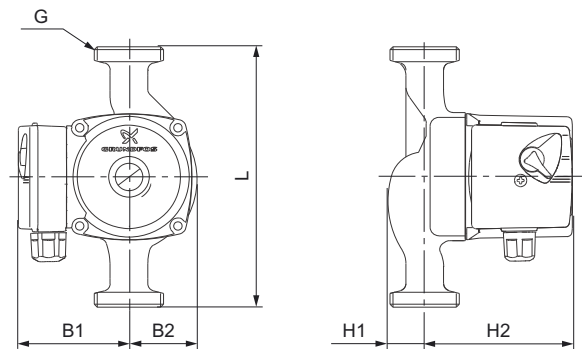
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	35	0.17	on request
Speed 2	65	0.30	on request
Speed 3	115	0.51	on request

### Technical data

Net weight [kg]	2.6
Gross weight [kg]	2.8
Shipping volume [m <sup>3</sup> ]	0.004
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM00 9386 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	75	47	32	102	-	-	1 1/2

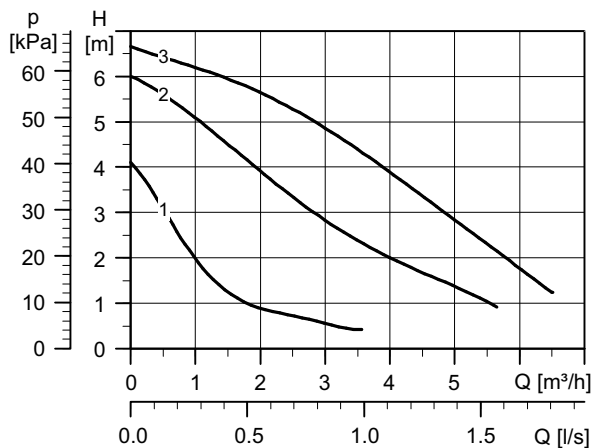
### Motor protection

Impedance-protected. Short-circuit-proof. No external motor protection required.

## UPS 25-72 - 180 PN 10

1 x 220 V, 60 Hz

### Performance curves



### Approvals

TM04 5564 3409

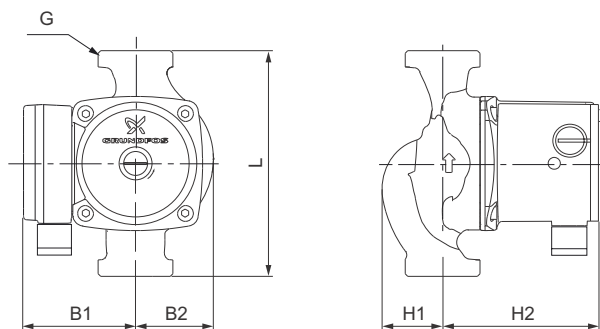
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	90	0.44	on request
Speed 2	125	0.58	on request
Speed 3	135	0.60	on request

### Technical data

Net weight [kg]	4.0
Gross weight [kg]	4.7
Shipping volume [m <sup>3</sup> ]	0.008
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5360 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	180	82	62	46	121	-	-	1 1/2

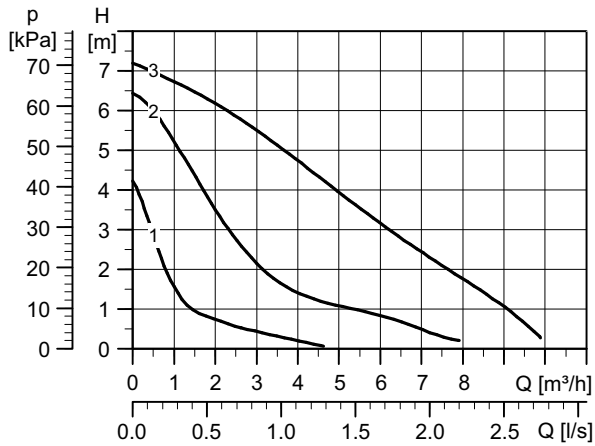
### Motor protection

Motor protection required.

## UPS 40-72 F - 250 PN 6/10

1 x 220 V, 60 Hz

### Performance curves



### Approvals

TM04 5565 3409

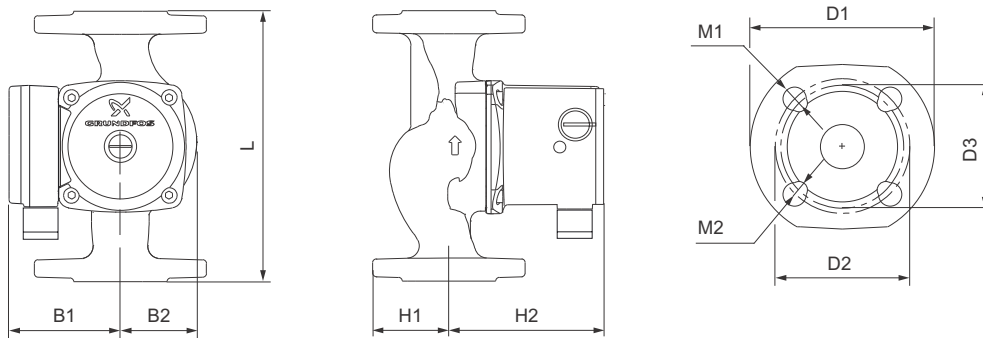
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	90	0.44	on request
Speed 2	140	0.68	on request
Speed 3	160	0.72	on request

### Technical data

Net weight [kg]	7.4
Gross weight [kg]	9.7
Shipping volume [m <sup>3</sup> ]	0.013
Liquid temperature [°C]	-25 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IPX2D

### Dimensions



TM06 5383 4515

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	D3	M1	M2
PN 6/10	250	82	62	67	121	150	110	100	∅19	∅14

### Motor protection

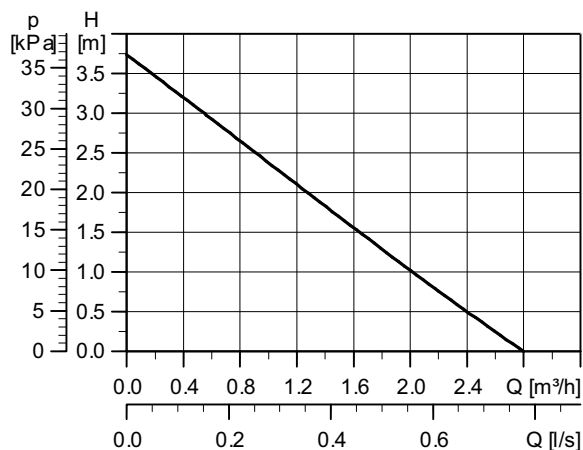
Motor protection required.



## UP 20-32 N - 150 PN 10

1 x 220 V, 60 Hz

### Performance curves



### Approvals

TM01 0154 4708

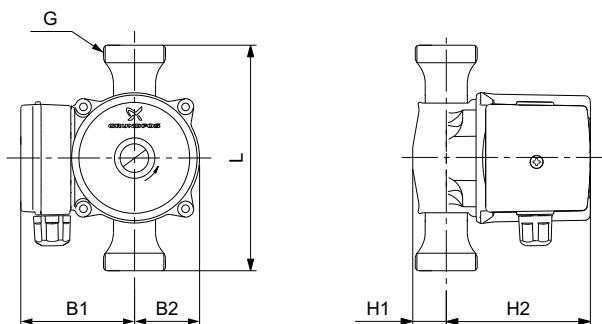
### Electrical data

	P1 [W]	I <sub>1/1</sub> [A]	cos φ
Speed 1	95	0.43	on request

### Technical data

Net weight [kg]	2.1
Gross weight [kg]	2.3
Shipping volume [m³]	0.004
Liquid temperature [°C]	+2 to +110 (TF 110)
System pressure [bar]	Max. 10 bar
IP class	IP44

### Dimensions



TM00 8932 4512

Dimensions [mm]	L	B1	B2	H1	H2	D1	D2	G
PN 10	150	75	43	28	100	-	-	1 1/4

### Motor protection

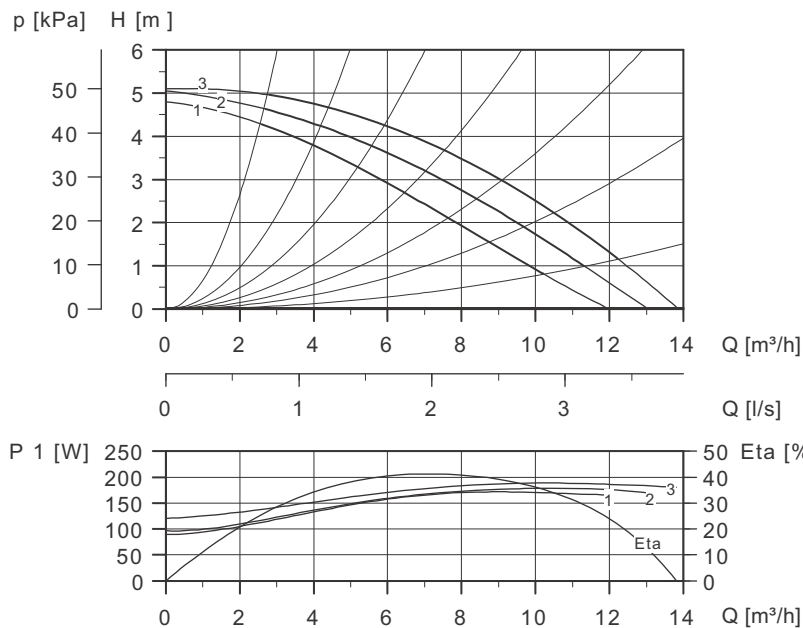
Impedance-protected. Short-circuit-proof. No external motor protection required.

## 8. Data sheets Large UP

### UPS 32-60 F 220, UPS 32-60 F B 220

1 x 230-240 V, 50 Hz

#### Performance curves



#### Approvals



TM00 9420 0197 - TM06 5344 4415 - A-A-A

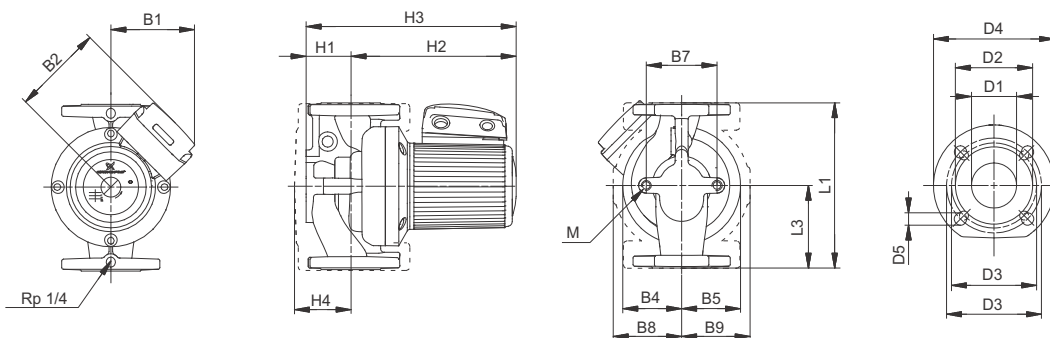
#### Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu\text{F}$ ]
1	170	90	0.84	0.88	6
2	180	95	0.86	0.91	6
3	190	120	0.88	0.94	6

#### Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.1	18.0
Gross weight [kg]	17.5	19.5
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

#### Dimensions



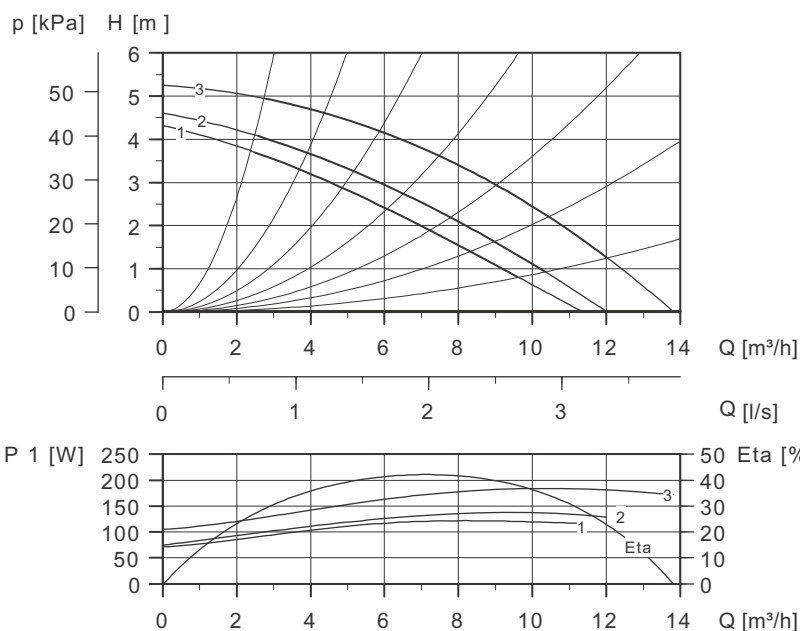
TM02 07.01.3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	220		110	135	141	75	75	80	110	110	68	242	310	103	32	76	90/100	140	14/19	M12

# UPS 32-60 F 220, UPS 32-60 F B 220

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9421 0197 - TM06 5344 4415 - A-A-A

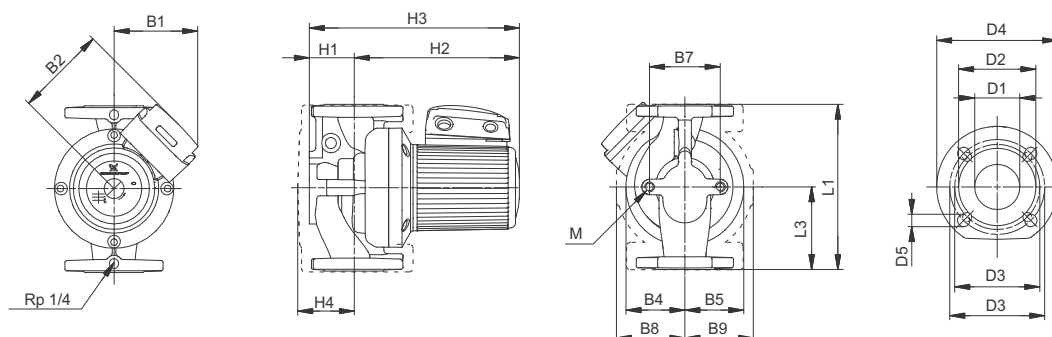
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	120	70	0.21	0.82
2	140	75	0.23	0.88
3	185	105	0.39	0.68

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.1	17.5
Gross weight [kg]	17.5	19.0
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



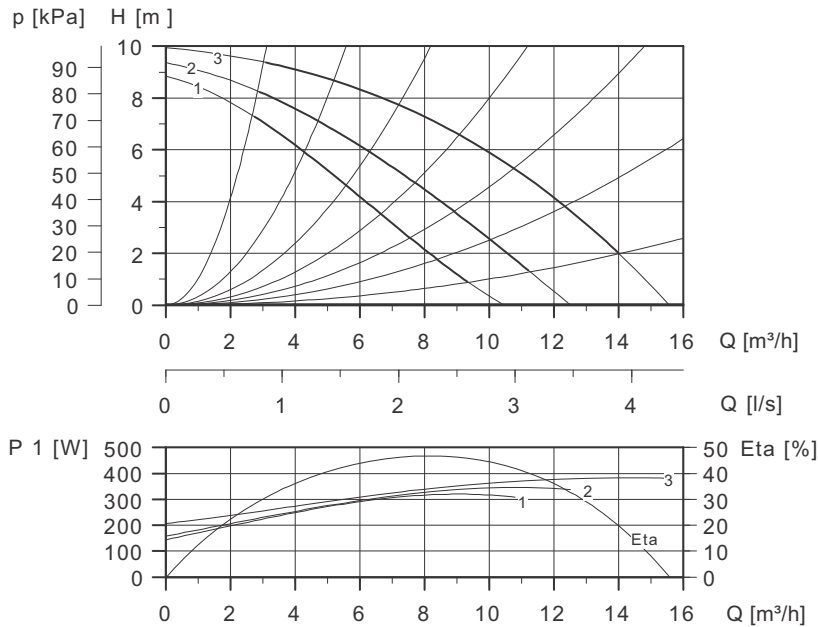
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	220		110	135	141	75	75	80	110	110	68	242	310	103	32	76	90/100	140	14/19	M12

# UPS 32-120 F 220, UPS 32-120 F B 220

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9422 0197 - TM06 5344 4415 - A-A-A

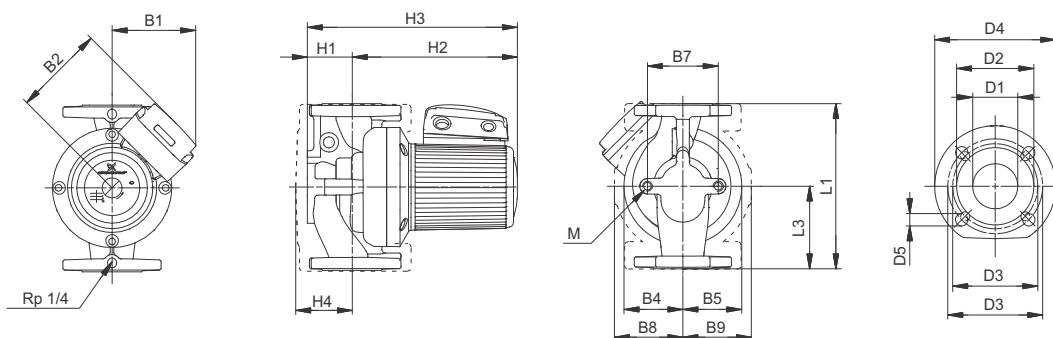
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu$ F]
1	320	145	1.55	0.90	10
2	340	160	1.65	0.90	10
3	380	210	1.75	0.94	10

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.3	17.7
Gross weight [kg]	17.6	19.0
Shipping volume [m³]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



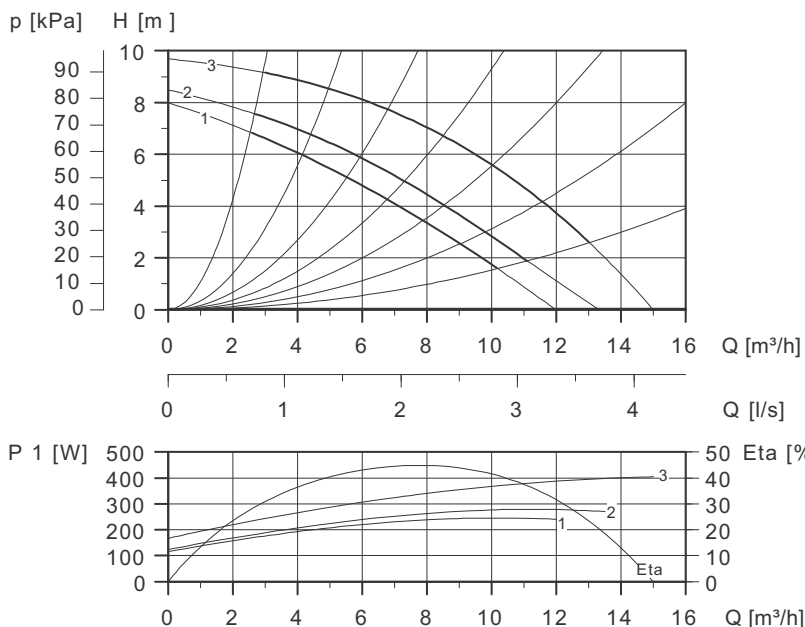
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	220		110	135	141	75	75	80	110	110	68	242	310	103	32	76	90/100	140	14/19	M12

# UPS 32-120 F 220, UPS 32-120 F B 220

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9423 0197 - TM06 5344 4415 - A-A-A

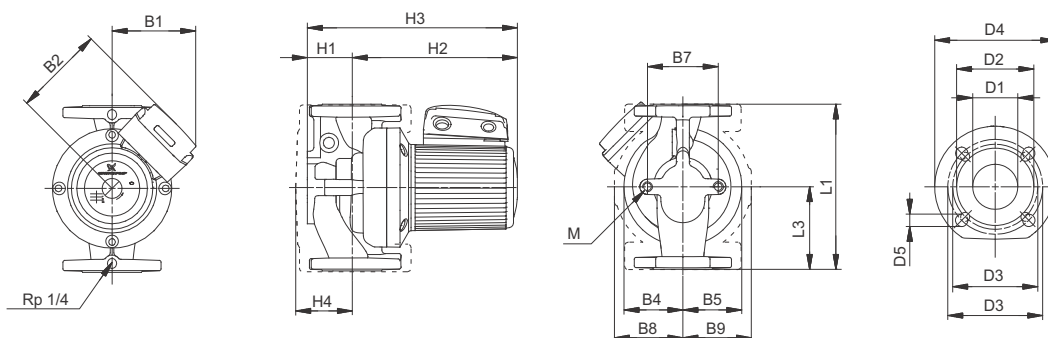
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	245	120	0.42	0.84
2	280	130	0.47	0.86
3	400	170	0.78	0.74

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.3	17.7
Gross weight [kg]	17.6	19.0
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



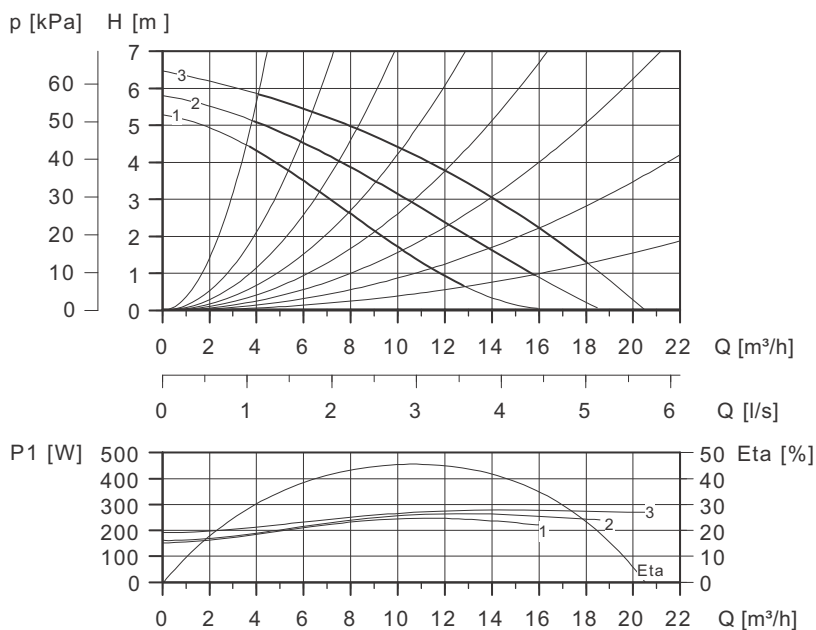
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	220		110	135	141	75	75	80	110	110	68	242	310	103	32	76	90/100	140	14/19	M12

# UPS 40-60/2 F 250, UPS 40-60/2 F B 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9428 0197 - TM06 5344 4415 - A-A-A

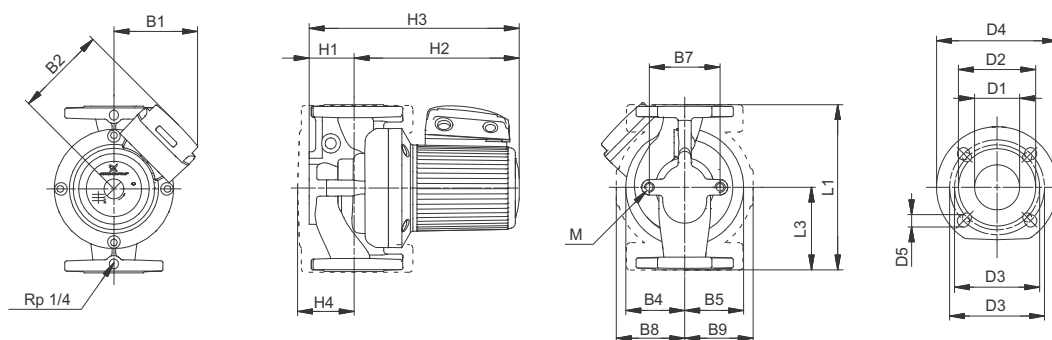
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	250	150	1.25	0.87	8
2	260	160	1.25	0.90	8
3	280	190	1.30	0.94	8

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.6	18.6
Gross weight [kg]	17.9	19.90
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



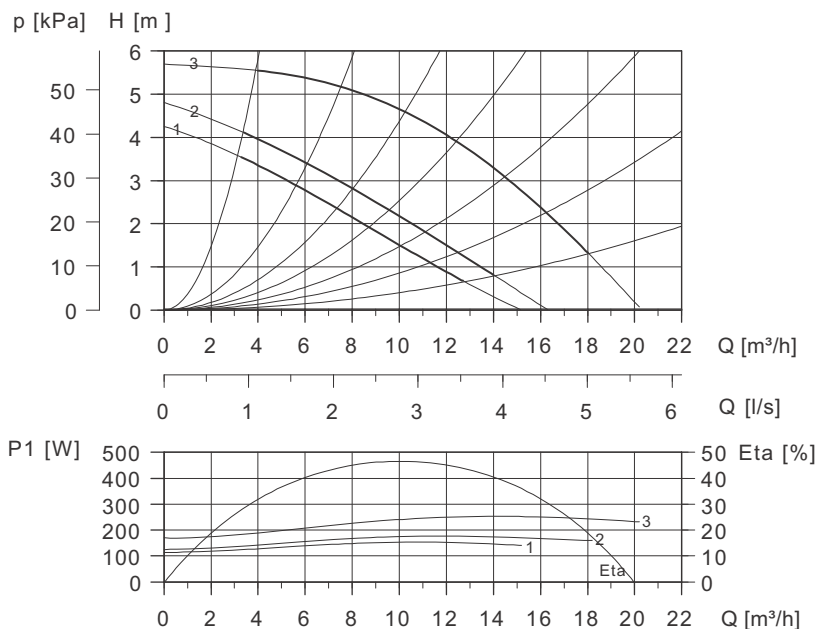
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	135	141	75	75	80	110	110	68	248	316	103	40	84	100/110	150	14/19	M12

# UPS 40-60/2 F 250, UPS 40-60/2 F B 250

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9429 0197 - TM06 5344 4415 - A-A-A

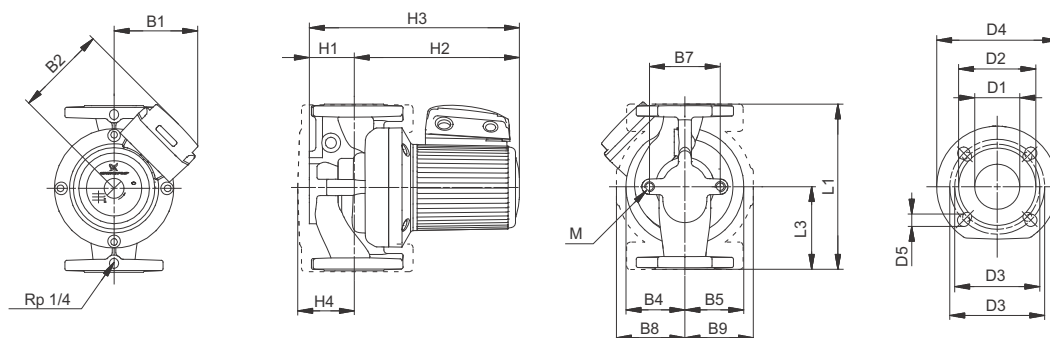
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	155	115	0.25	0.89
2	175	125	0.29	0.87
3	250	170	0.46	0.78

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	16.6	18.6
Gross weight [kg]	17.9	19.8
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



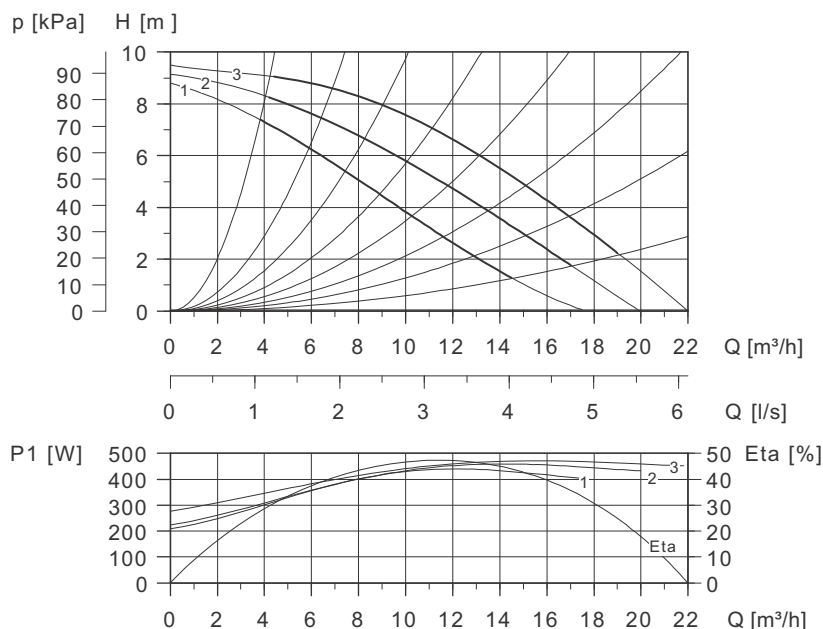
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	135	141	75	75	80	110	110	68	248	316	103	40	84	100/110	150	14/19	M12

# UPS 40-120 F 250, UPS 40-120 F B 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9430 0197 - TM06 5344 4415 - A-A-A

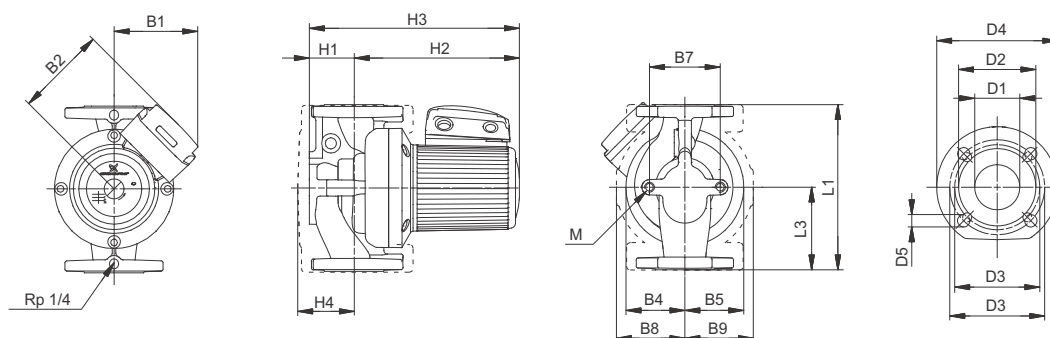
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	440	210	2.20	0.87	12
2	460	225	2.30	0.87	12
3	470	280	2.20	0.93	12

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	18.3	20.2
Gross weight [kg]	19.6	21.5
Shipping volume [m <sup>3</sup> ]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



TM02 0701 3601

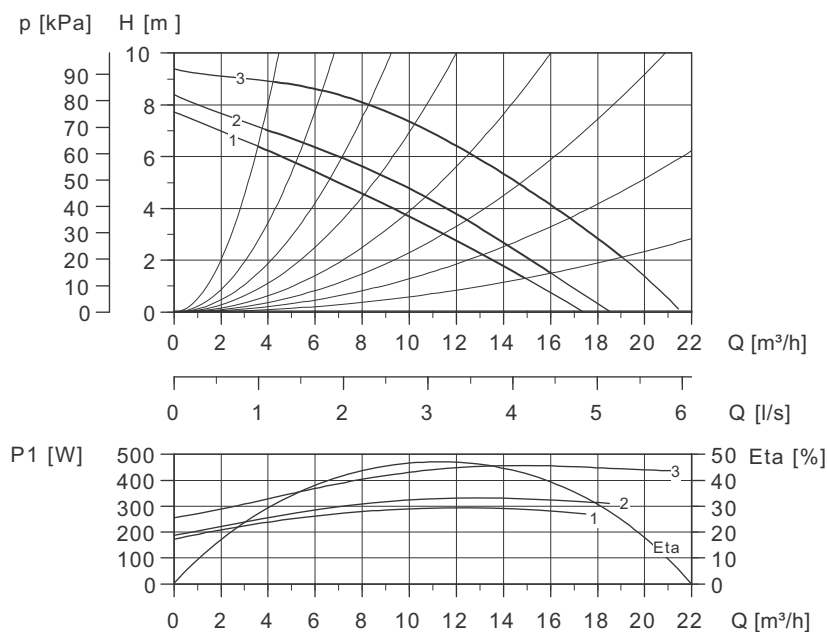
Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	135	141	75	75	80	110	110	81	246	314	103	40	84	100/110	150	14/19	M12



# UPS 40-120 F 250, UPS 40-120 F B 250

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9431 0197 - TM06 5344 4415 - A-A-A

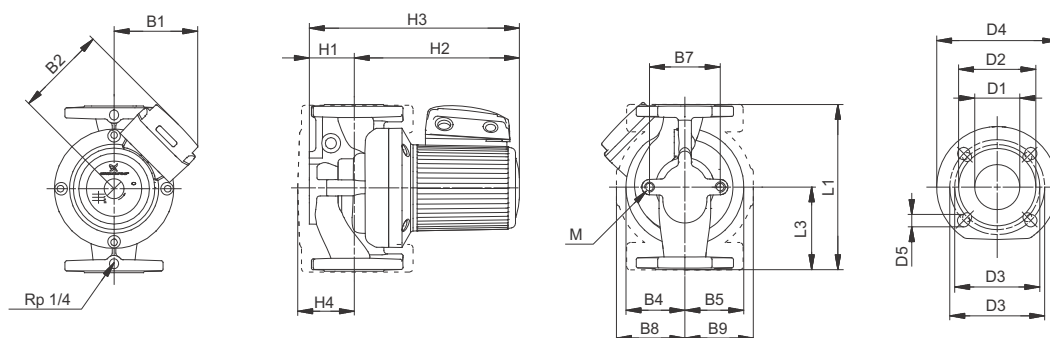
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	290	175	0.49	0.85
2	330	190	0.56	0.85
3	460	260	0.92	0.72

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	17.7	20.0
Gross weight [kg]	19.2	21.5
Shipping volume [m³]	0.026	0.026
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



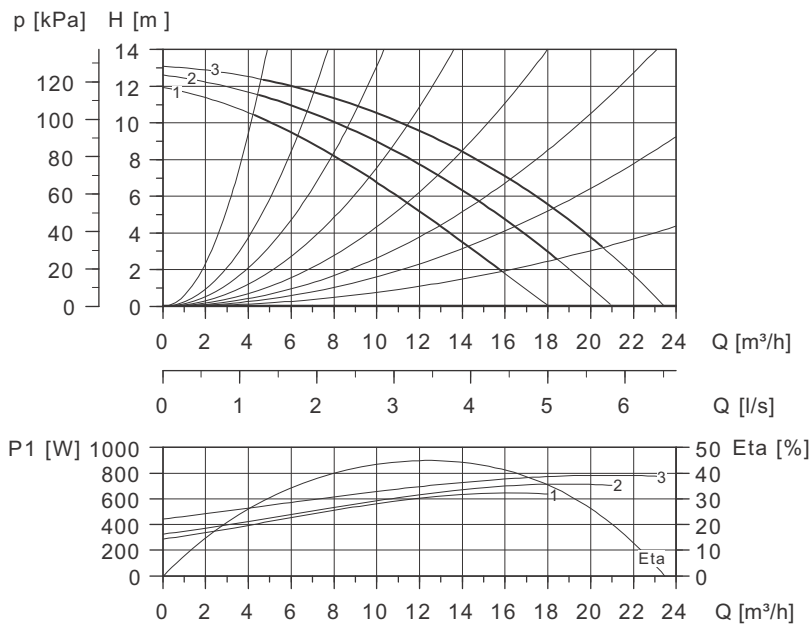
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	135	141	75	75	80	110	110	81	246	314	103	40	84	100/110	150	14/19	M12

# UPS 40-180 F 250, UPS 40-180 F B 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9432 0197 - TM06 5344 4415 - A-A-A

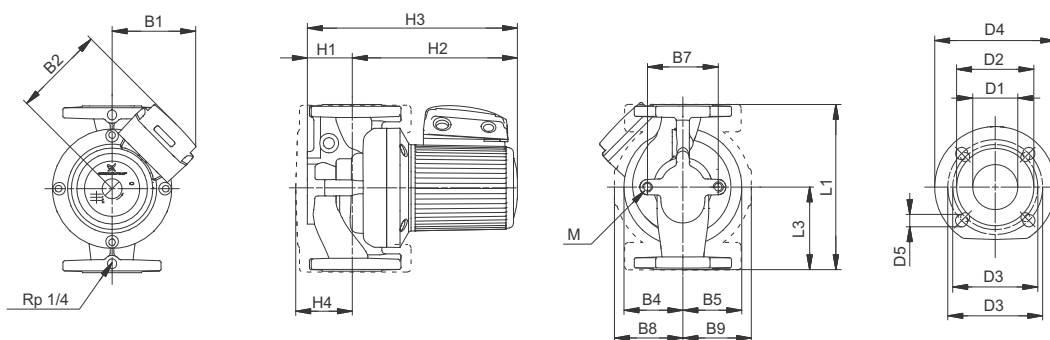
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	$C$ [ $\mu F$ ]
1	650	290	3.15	0.90	25
2	730	330	3.50	0.91	25
3	790	450	3.65	0.94	25

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	23.7	26.5
Gross weight [kg]	25.3	28.0
Shipping volume [ $m^3$ ]	0.043	0.043
Liquid temperature [ $^{\circ}C$ ]	-10 $^{\circ}C$ to +120 $^{\circ}C$	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



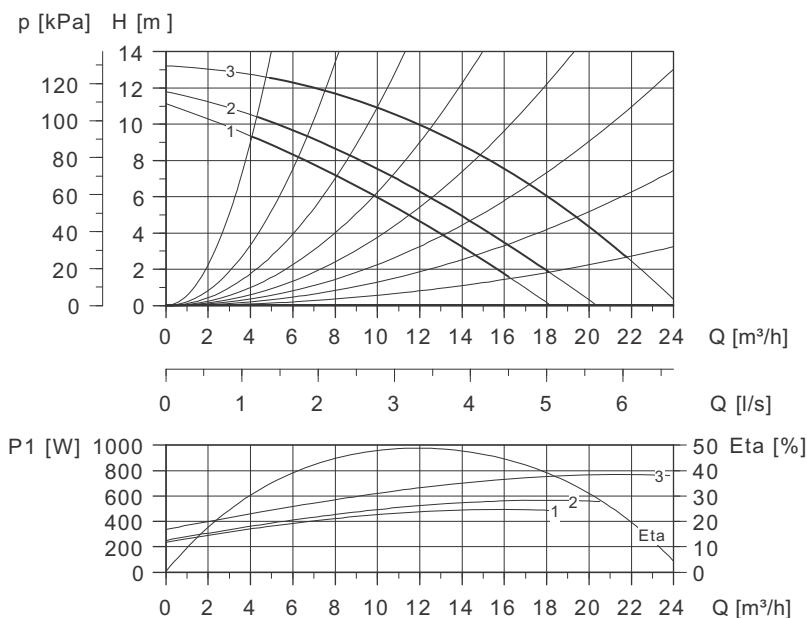
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	145	156	100	100	80	134	134	68	240	352	106	40	84	100/110	150	14/19	M12

# UPS 40-180 F 250, UPS 40-180 F B 250

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9433 0197 - TM06 5344 4415 - A-A-A

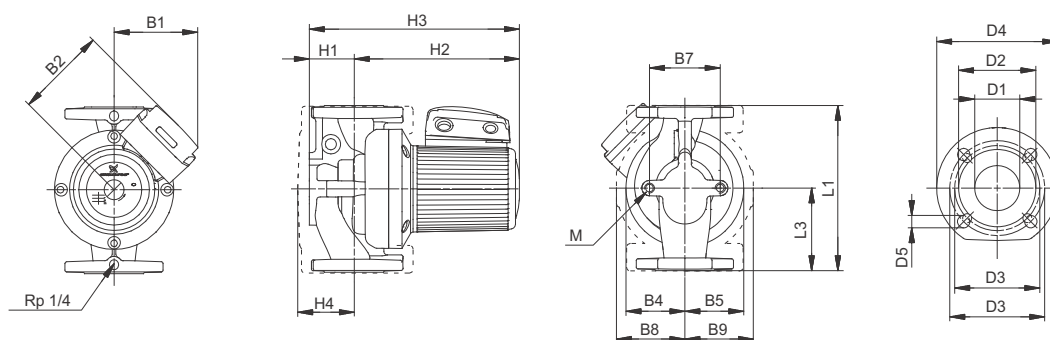
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	490	235	0.82	0.86
2	570	250	0.94	0.86
3	770	350	1.30	0.85

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	21.4	24.5
Gross weight [kg]	22.8	26.0
Shipping volume [m <sup>3</sup> ]	0.034	0.034
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



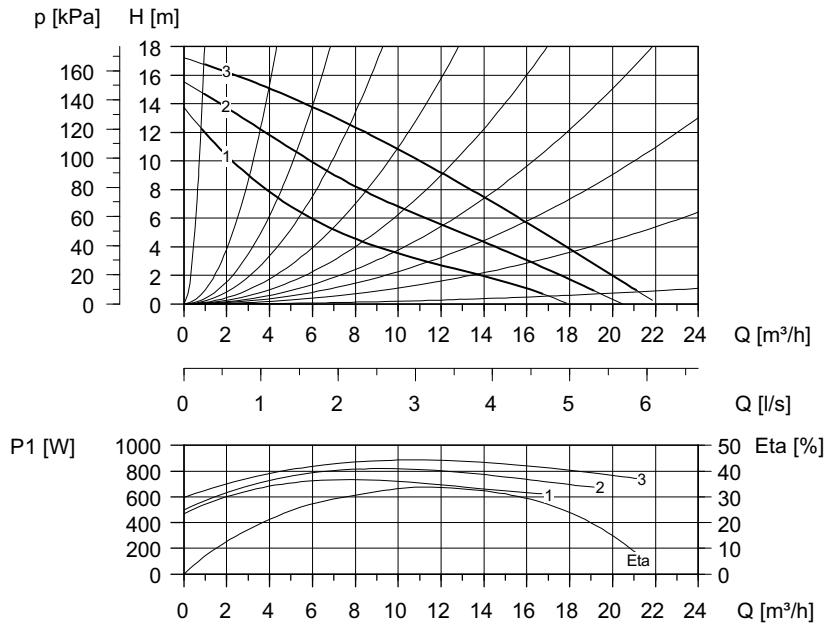
TM02.0701.3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	250		125	145	155	100	100	80	134	134	68	240	308	106	40	84	100/110	150	14/19	M12

# UPS 40-185 F 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM01 4940 0899 - TM06 5344 4415 - A-A-A

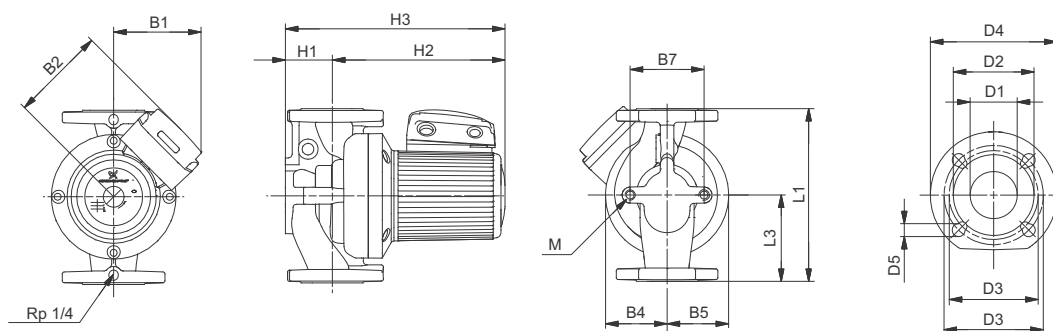
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu$ F]
1	735	470	3.55	0.90	25
2	825	490	3.90	0.92	25
3	890	590	4.10	0.94	25

## Technical data

	PN 6 / PN 10
Net weight [kg]	21.1
Gross weight [kg]	22.6
Shipping volume [m³]	0.034
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



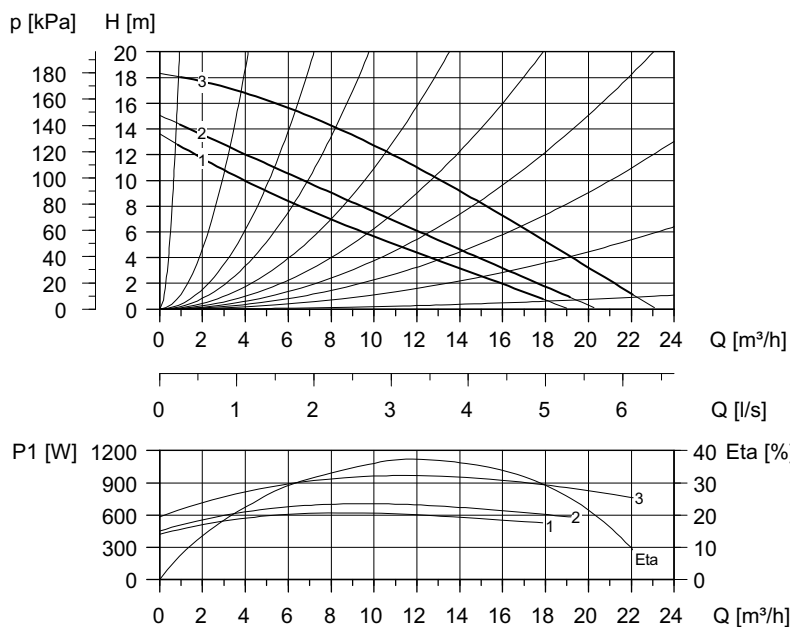
TM03 2075 3605

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250		125	145	155	102	100	96			67	243	296		40	88	100/110	150	14/19	M12

# UPS 40-185 F 250

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM01 4941 0611 - TM06 6344 4415 - A-A-A

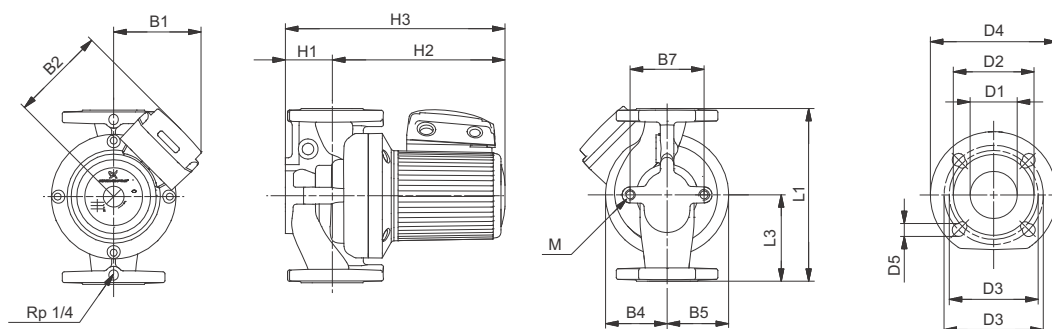
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	620	415	1.04	0.86
2	705	450	1.18	0.86
3	975	580	1.80	0.78

## Technical data

	PN 6 / PN 10
Net weight [kg]	19.7
Gross weight [kg]	21.4
Shipping volume [m <sup>3</sup> ]	0.034
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



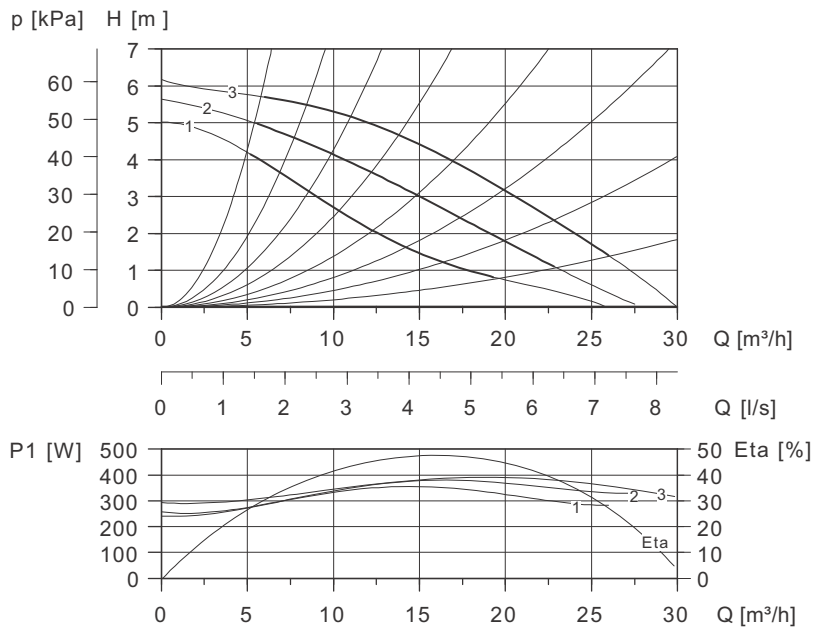
TM03 2075 3605

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250		125	145	155	102	100	96			67	243	296		40	88	100/110	150	14/19	M12

# UPS 50-60/2 F 280, UPS 50-60/2 F B 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9436 0197 - TM06 6344 4415 - A-A-A

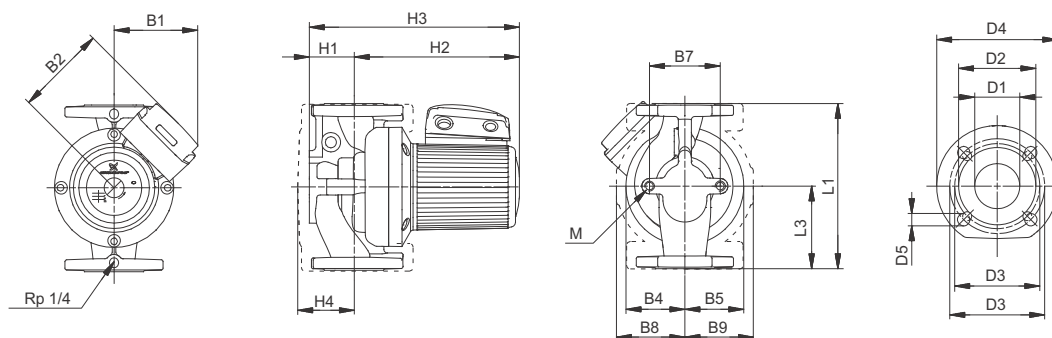
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	$C$ [ $\mu\text{F}$ ]
1	350	240	1.75	0.87	10
2	380	250	1.85	0.89	10
3	390	290	1.80	0.94	10

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	20.9	24.0
Gross weight [kg]	22.0	25.5
Shipping volume [m³]	0.034	0.034
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



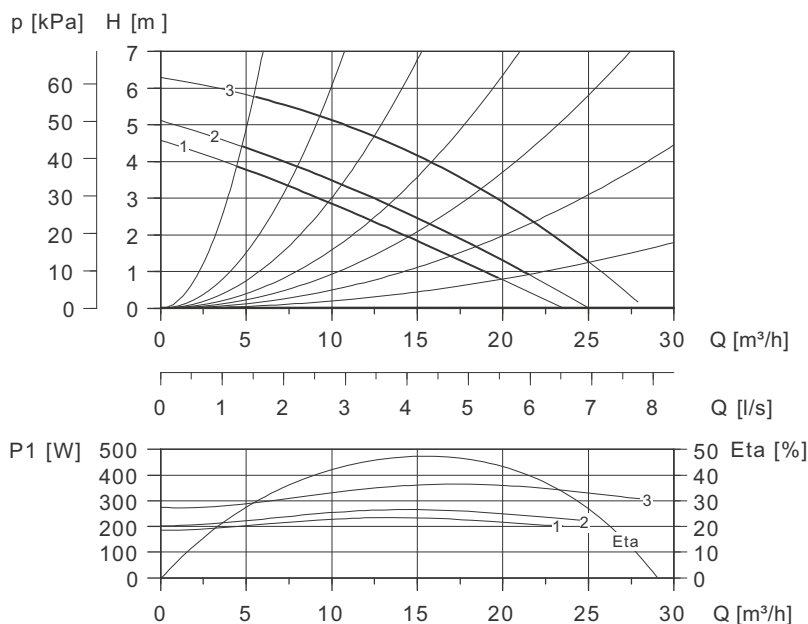
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	135	141	90	75	120	122	111	75	253	328	123	50	99	110/125	165	14/19	M12

# UPS 50-60/2 F 280, UPS 50-60/2 F B 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9437 0197 - TM06 5344 44 15 - A-A-A

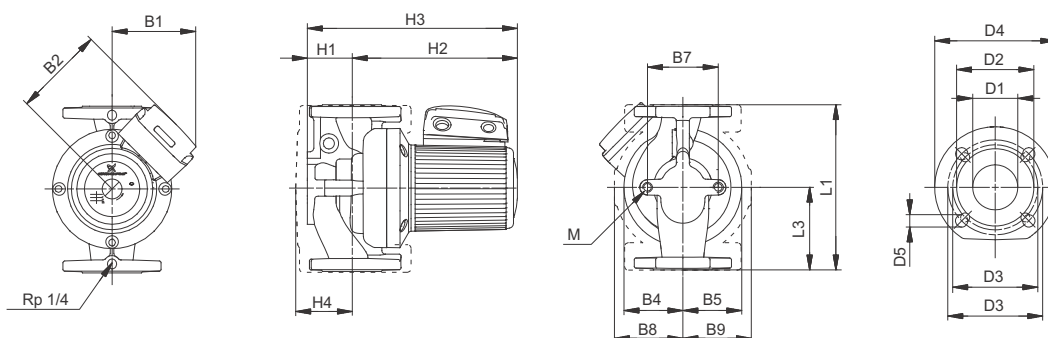
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	235	185	0.39	0.87
2	270	205	0.45	0.87
3	360	270	0.74	0.70

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	27.7	24.0
Gross weight [kg]	29.3	25.5
Shipping volume [m <sup>3</sup> ]	0.043	0.034
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



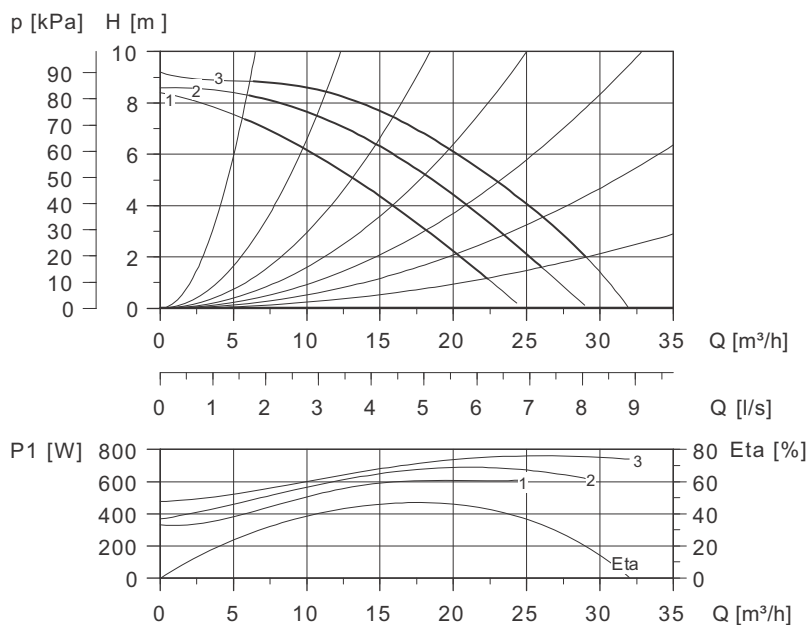
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	135	141	90	75	120	122	111	75	253	328	123	50	99	110/125	165	14/19	M12

# UPS 50-120 F 280, UPS 50-120 F B 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9438 0197 - TM06 5344 4415 - A-A-A

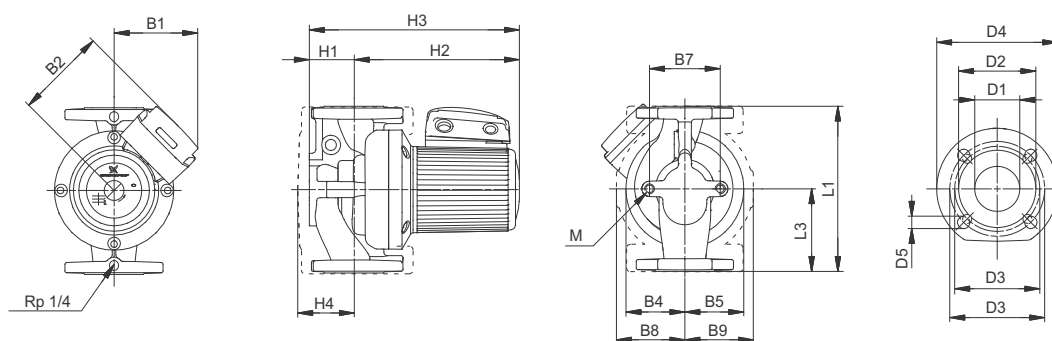
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	$C$ [ $\mu\text{F}$ ]
1	620	330	3.05	0.88	25
2	700	360	3.35	0.91	25
3	760	480	3.60	0.92	25

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	26.5	29.0
Gross weight [kg]	28.0	30.5
Shipping volume [m³]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



TM02 0701 3601

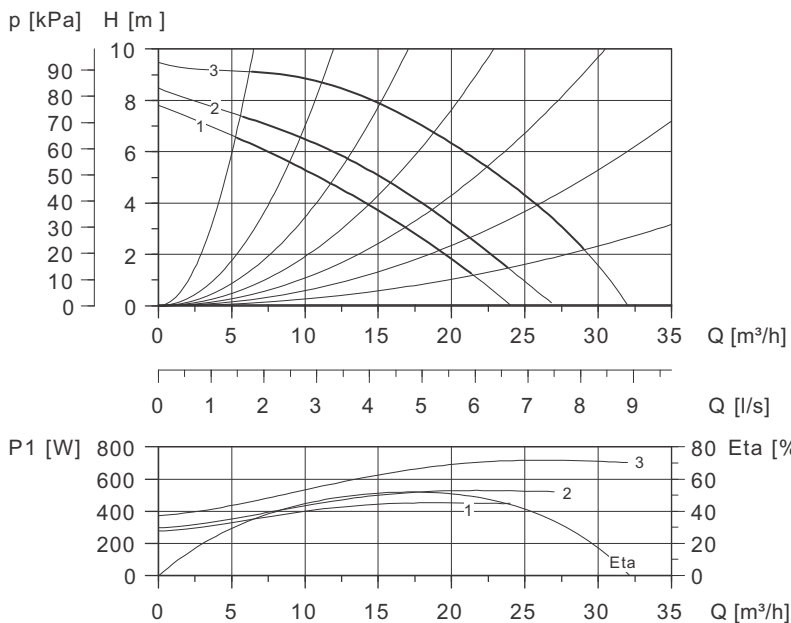
Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	145	155	100	100	120	135	135	75	276	351	116	50	99	110/125	165	14/19	M12



# UPS 50-120 F 280, UPS 50-120 F B 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9439 0197 - TM06 5344 4415 - A-A-A

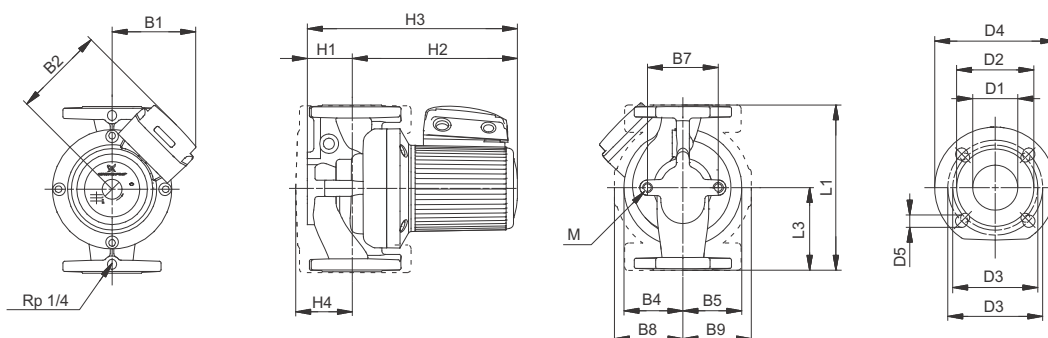
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	450	280	0.82	0.79
2	530	300	0.94	0.81
3	720	380	1.30	0.80

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	24.3	25.4
Gross weight [kg]	25.8	27.3
Shipping volume [m³]	0.034	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



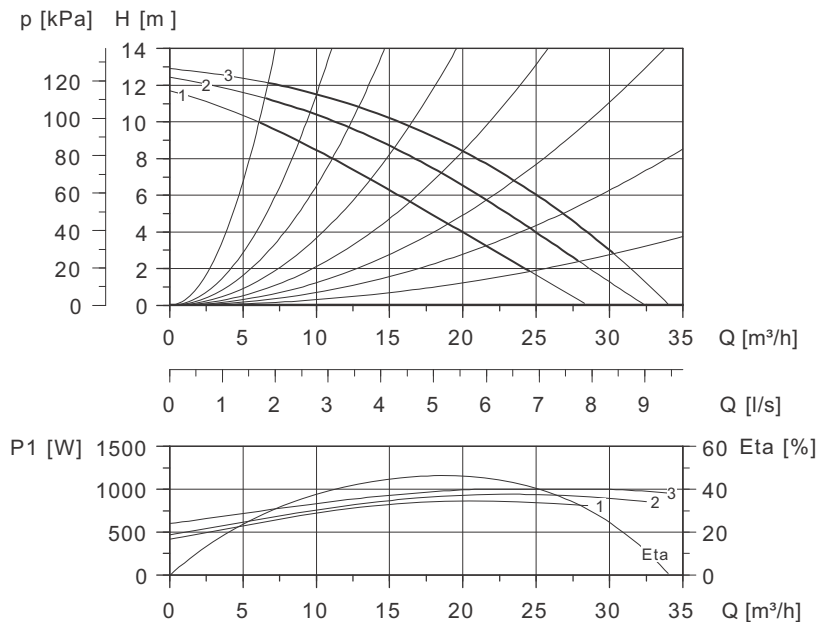
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	145	155	100	100	120	135	135	75	232	307	116	50	99	110/125	165	14/19	M12

# UPS 50-180 F 280, UPS 50-180 F B 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9440 0197 - TM06 5344 4415 - A-A-A

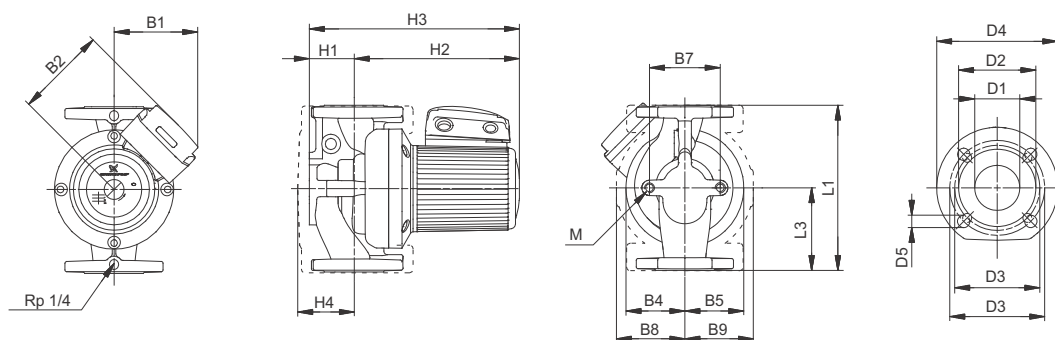
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	$C$ [ $\mu\text{F}$ ]
1	860	420	4.15	0.90	30
2	940	470	4.40	0.93	30
3	1000	600	4.65	0.94	30

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	29.0	32.4
Gross weight [kg]	30.5	33.9
Shipping volume [m³]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



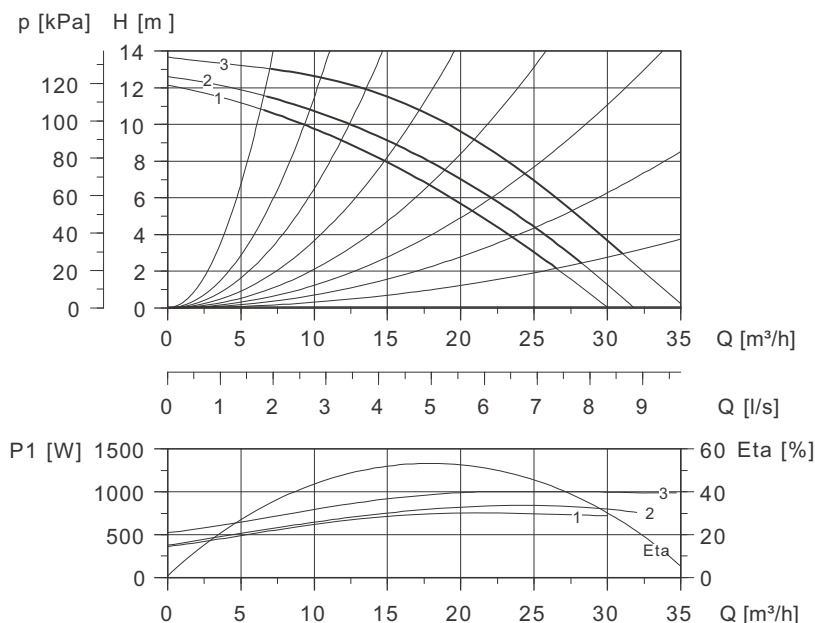
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	155	169	100	100	120	135	135	75	276	351	116	50	99	110/100	165	14/19	M12

# UPS 50-180 F 280, UPS 50-180 F B 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9441 0197 - TM06 6344 4415 - A-A-A

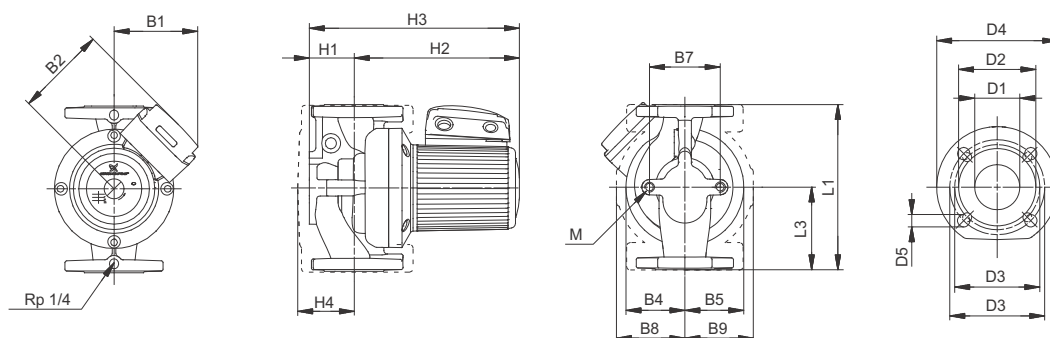
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	760	360	1.25	0.88
2	850	380	1.40	0.88
3	1000	520	2.00	0.72

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	25.6	28.5
Gross weight [kg]	26.9	30.5
Shipping volume [m <sup>3</sup> ]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



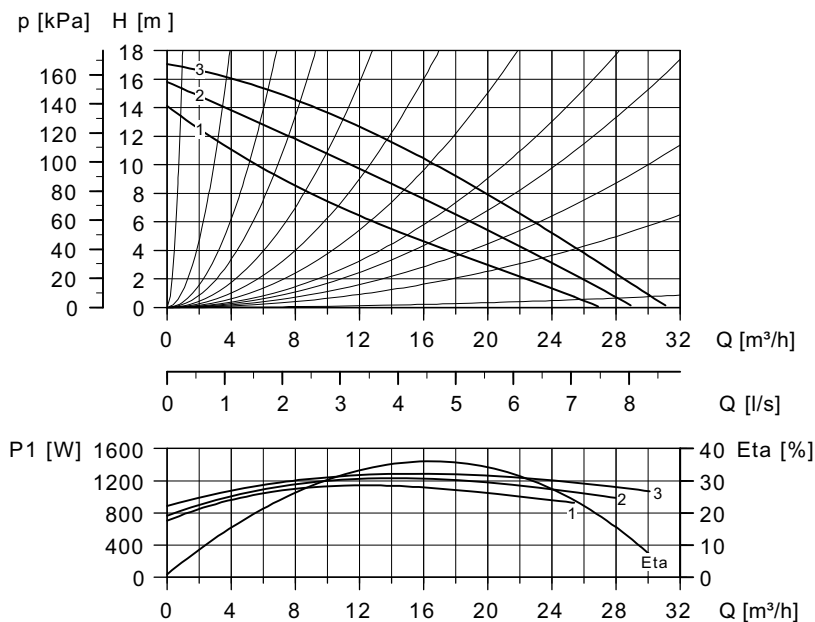
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	280		140	145	155	100	100	120	135	135	75	276	351	116	50	99	110/100	165	14/19	M12

# UPS 50-185 F 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM01 4942 1199 - TM06 5344 4415 - A-A-A

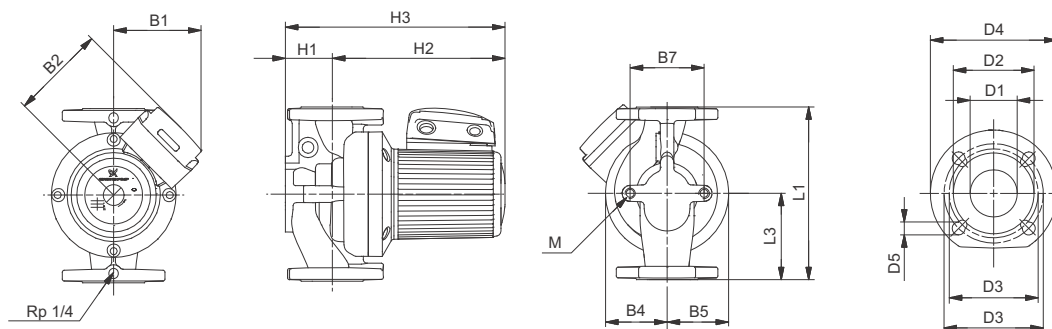
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	$C$ [ $\mu\text{F}$ ]
1	1150	710	5.60	0.89	30
2	1240	770	6.05	0.89	30
3	1290	810	6.00	0.93	30

## Technical data

	PN 6 / PN 10
Net weight [kg]	27.4
Gross weight [kg]	29.1
Shipping volume [m³]	0.043
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



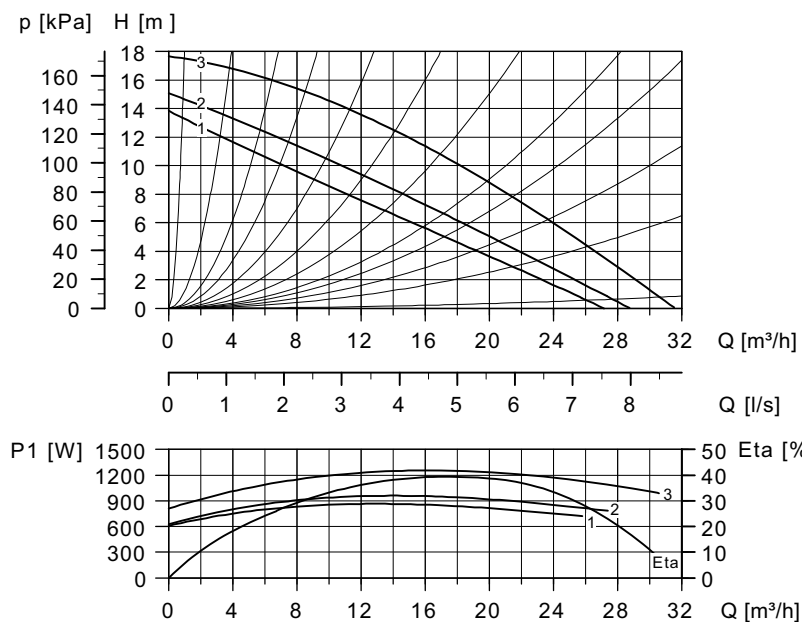
TM03 2075 3605

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280		140	145	155	104	100	96			75	274	349		50	99	110/125	165	14/19	M12

# UPS 50-185 F 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM01 4943 1199 - TM06 5344 4415 - A-A-A

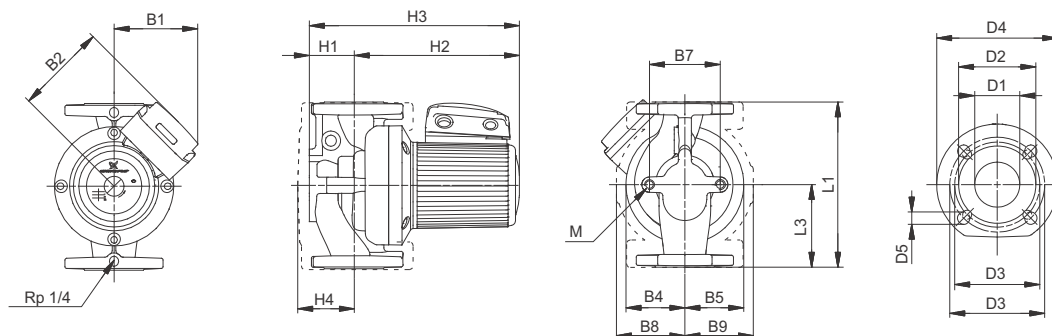
## Electrical data

	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
Speed 1	1150	710	5.60	0.89	30
Speed 2	1240	770	6.05	0.89	30
Speed 3	1290	810	6.00	0.93	30

## Technical data

	PN 6 / PN 10
Net weight [kg]	24.8
Gross weight [kg]	26.5
Shipping volume [m <sup>3</sup> ]	0.043
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



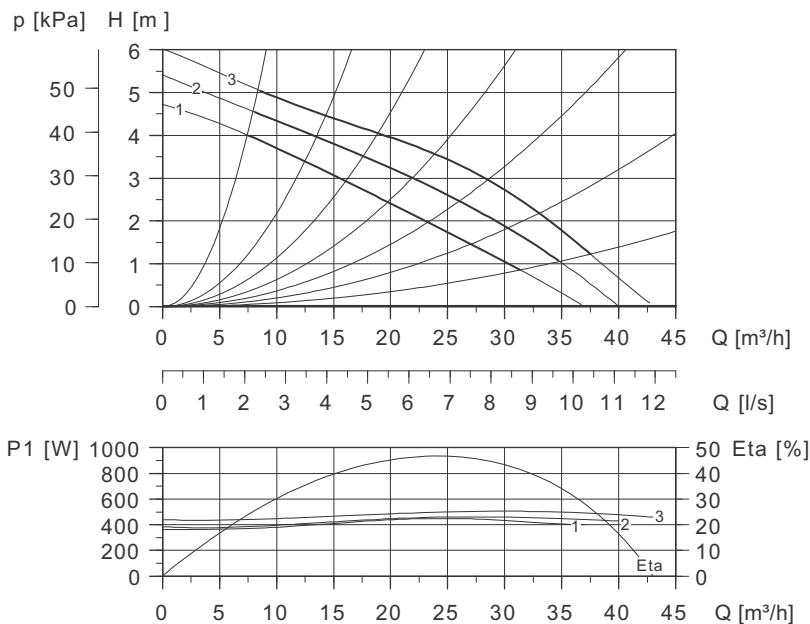
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280		140	145	155	104	100	96			75	274	349		50	102	110/125	165	14/19	M12

# UPS 65-60/2 F 340, UPS 65-60/2 F B 340

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9446 0197 - TM06 5344 4415 - A-A-A

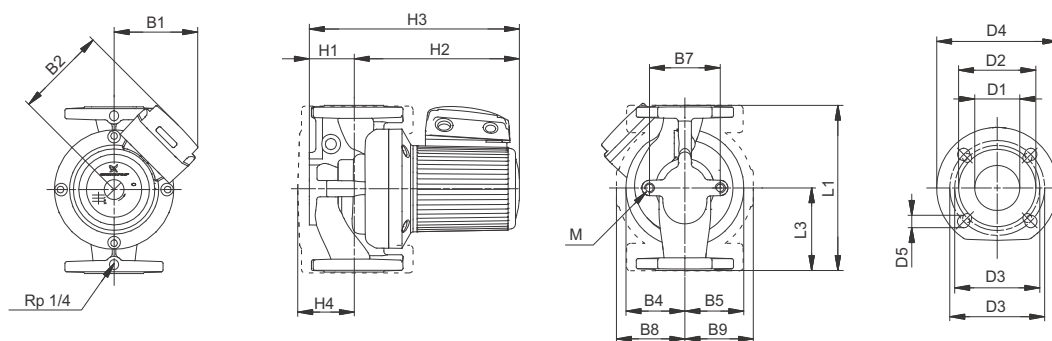
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu$ F]
1	450	360	2.15	0.91	16
2	470	380	2.20	0.93	16
3	510	440	2.40	0.92	16

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	24.5	29.0
Gross weight [kg]	26.3	30.8
Shipping volume [m <sup>3</sup> ]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



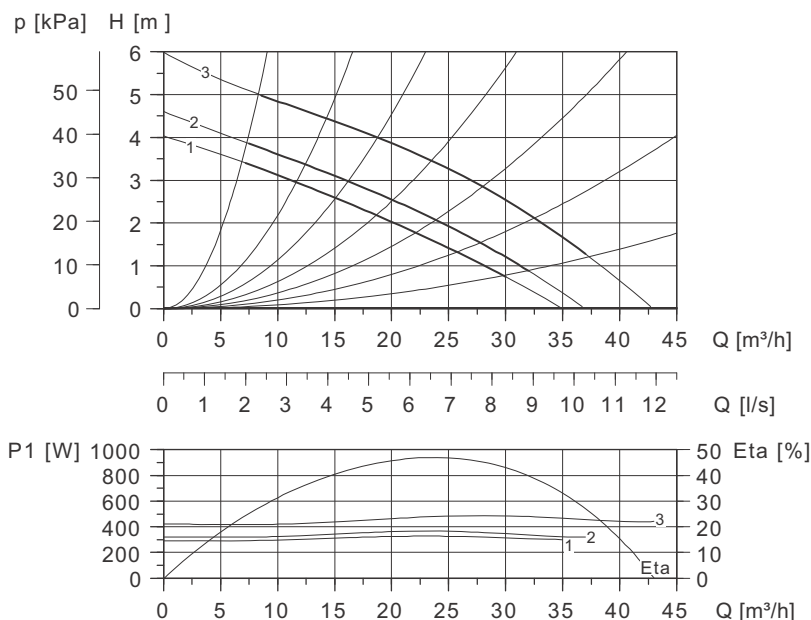
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	340		170	135	141	95	75	120	126	126	82	262	344	128	65	118	130/145	185	14/19	M12

# UPS 65-60/2 F 340, UPS 65-60/2 F B 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9447 0197 - TM06 5344 4415 - A-A-A

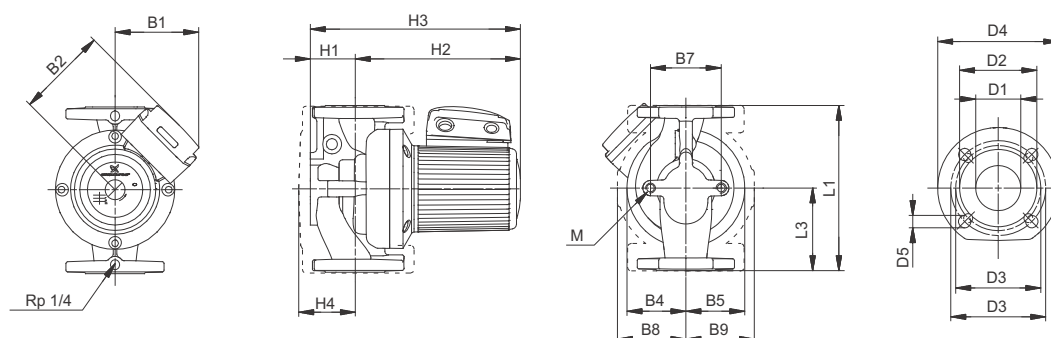
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	330	290	0.56	0.85
2	370	320	0.64	0.83
3	490	420	1.05	0.67

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	24.3	28.8
Gross weight [kg]	26.1	30.1
Shipping volume [m <sup>3</sup> ]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



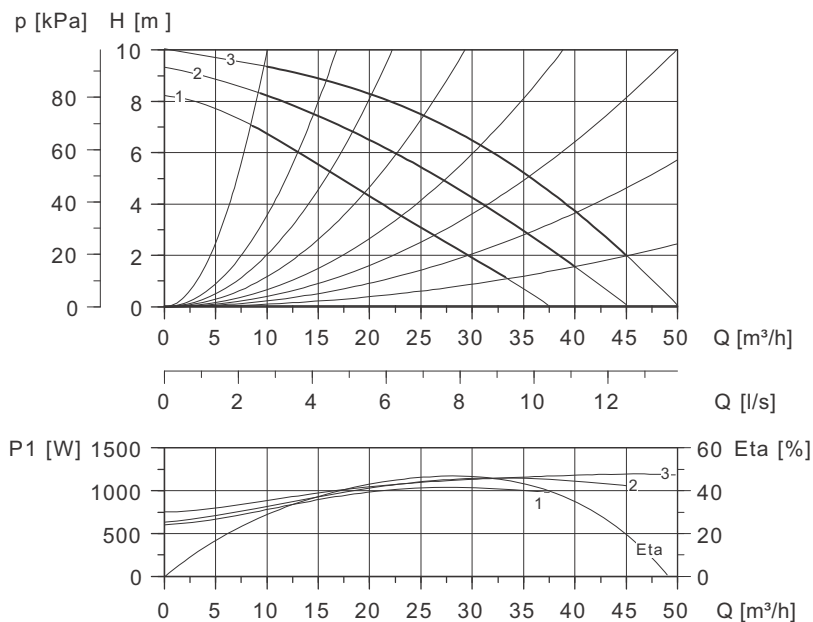
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	340		170	135	141	95	75	120	126	126	82	262	344	128	65	118	130/145	185	14/19	M12

# UPS 65-120 F 340, UPS 65-120 F B 340

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9448 0197 - TM06 5344 4415 - A-A-A

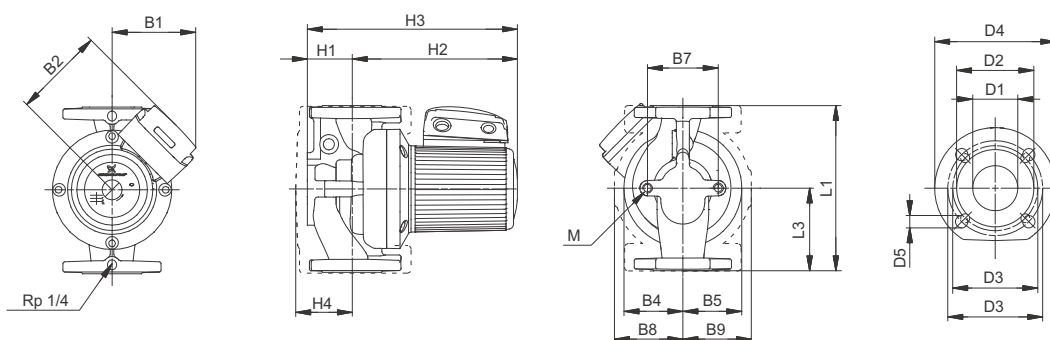
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu\text{F}$ ]
1	1050	600	5.10	0.90	30
2	1150	630	5.60	0.89	30
3	1200	750	5.50	0.95	30

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	29.7	33.5
Gross weight [kg]	31.5	35.3
Shipping volume [m³]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



TM02.0701.3601

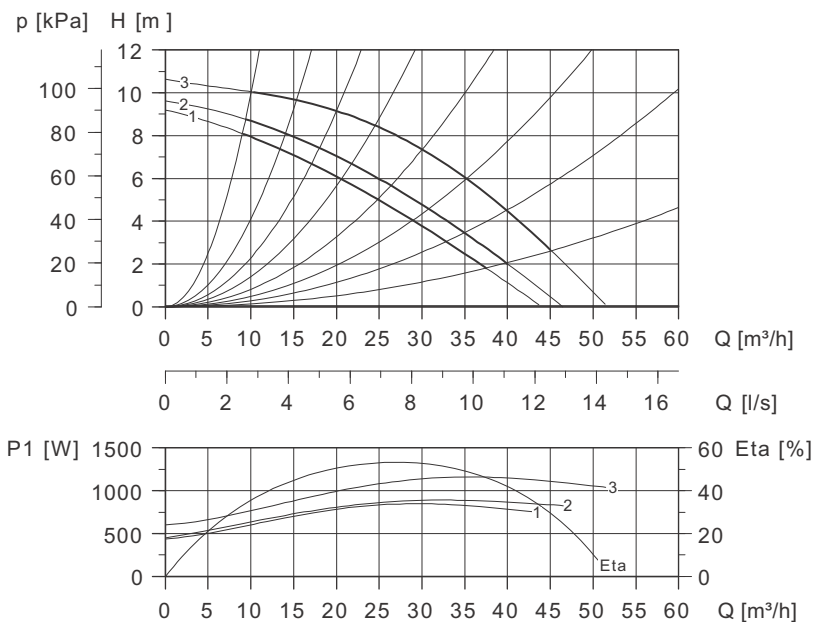
Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	340		170	145	155	100	100	120	140	140	82	285	367	127	65	118	130/145	185	14/19	M12



# UPS 65-120 F 340, UPS 65-120 F B 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9449 0197 - TM06 5344 4415 - A-A-A

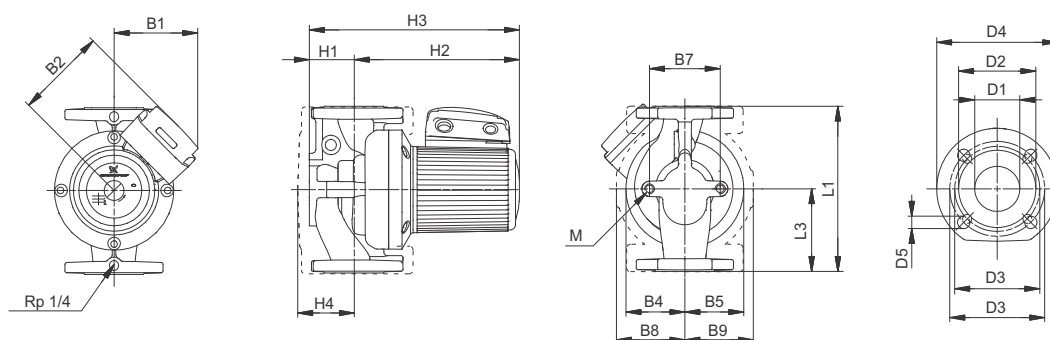
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	850	440	1.35	0.91
2	900	460	1.45	0.90
3	1150	600	2.15	0.77

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	27.4	32.5
Gross weight [kg]	28.8	34.0
Shipping volume [m <sup>3</sup> ]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



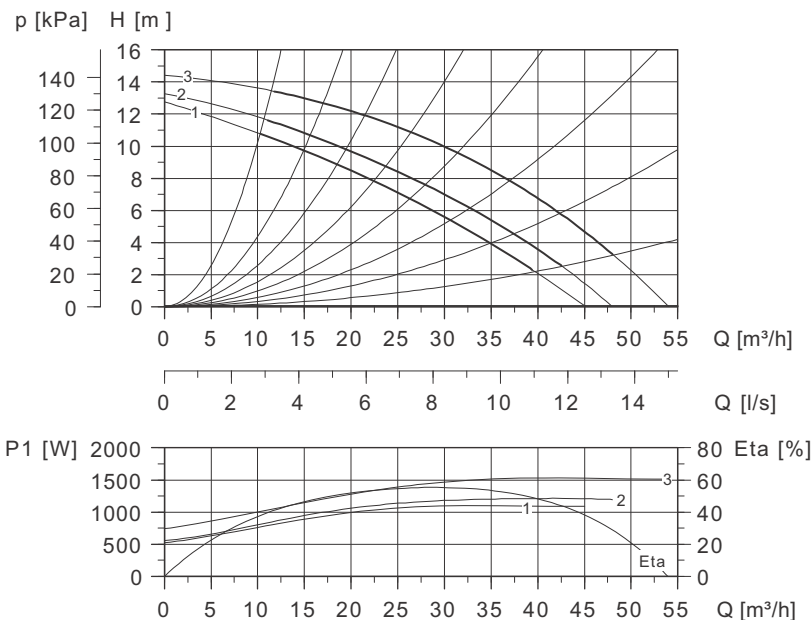
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	340		170	145	155	100	100	120	140	140	82	285	367	127	65	118	130/145	185	14/19	M12

# UPS 65-180 F 340, UPS 65-180 F B 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9450 0197 - TM06 5344 4415 - A-A-A

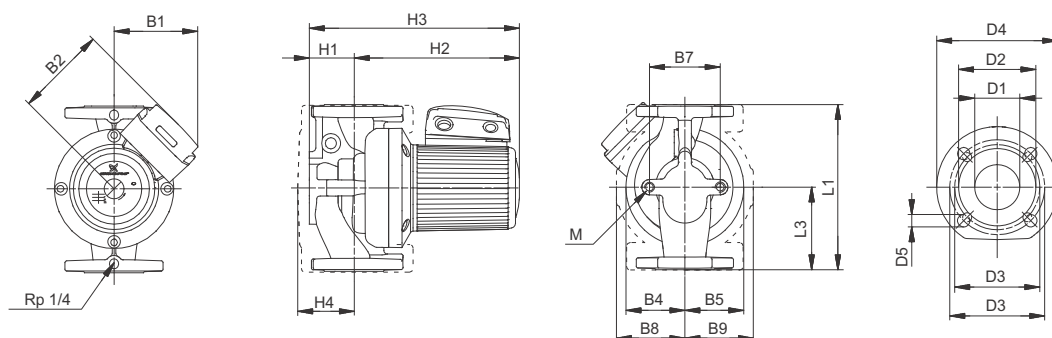
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	1100	520	1.85	0.86
2	1200	560	2.00	0.87
3	1550	740	2.90	0.77

## Technical data

	PN 6 / PN 10	PN 6 / PN 10 bronze
Net weight [kg]	29.3	35.0
Gross weight [kg]	33.1	36.5
Shipping volume [m <sup>3</sup> ]	0.043	0.043
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar	
IP class	IPX4D	

## Dimensions



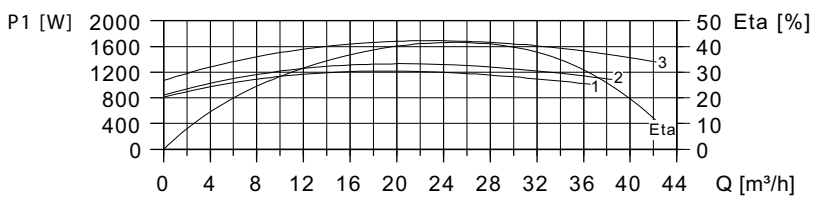
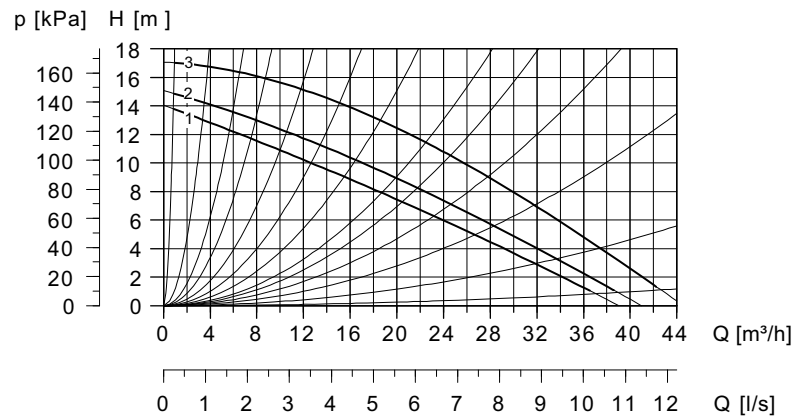
TM02 0701 3601

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10 (bronze)	340		170	145	155	100	100	120	140	140	116	285	367	127	65	118	130/145	185	14/19	M12

# UPS 65-185 F 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM01 4944 1199 - TM06 5344 4415 - A-A-A

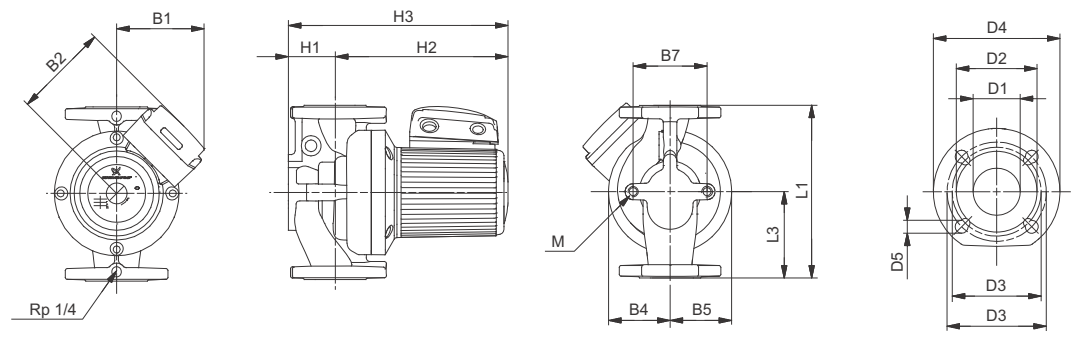
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	1220	825	2.00	0.88
2	1340	860	2.20	0.88
3	1710	1100	3.25	0.76

## Technical data

	PN 6 / PN 10
Net weight [kg]	31.8
Gross weight [kg]	33.7
Shipping volume [m <sup>3</sup> ]	0.055
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



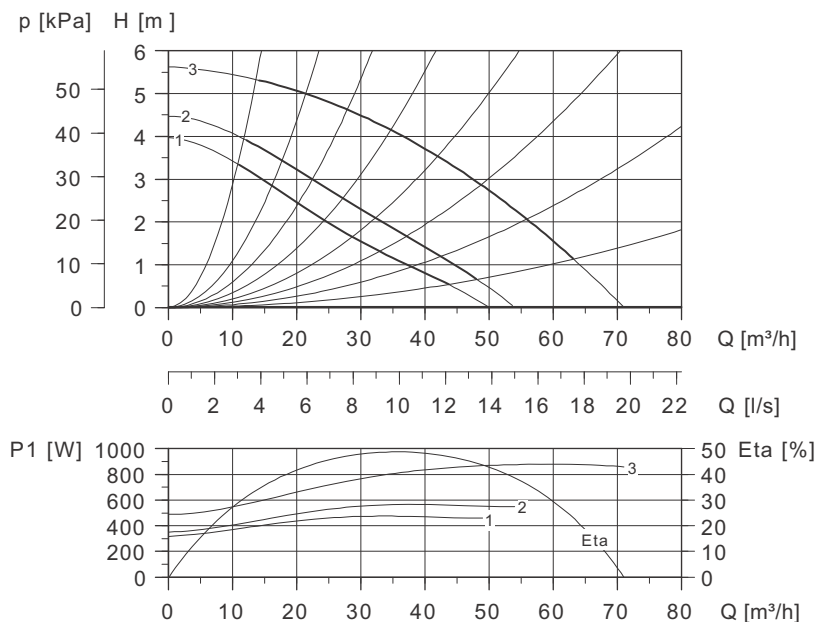
TM03 2075 3605

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340		170	145	155	128	100	96			116	282	364	65	118	130/145	185		14/19	M12

# UPS 80-60 F 360, UPS 80-60 F B 360

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9452 0197 - TM06 5344 4415 - A-A-A

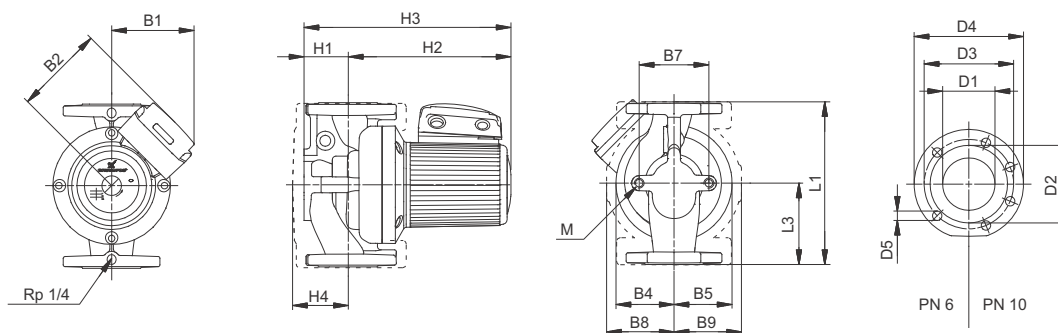
## Electrical data

	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
Speed 1	470	320	0.84	0.81
Speed 2	570	350	1.00	0.82
Speed 3	880	490	1.80	0.71

## Technical data

	PN 6	PN 10	PN 6 bronze	PN 10 bronze
Net weight [kg]	37.3	37.0	43.0	42.4
Gross weight [kg]	39.2	39.0	44.9	44.3
Shipping volume [m <sup>3</sup> ]	0.055	0.055	0.055	0.055
Liquid temperature [°C]	-10 °C to +120 °C			
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar			
IP class	IPX4D			

## Dimensions



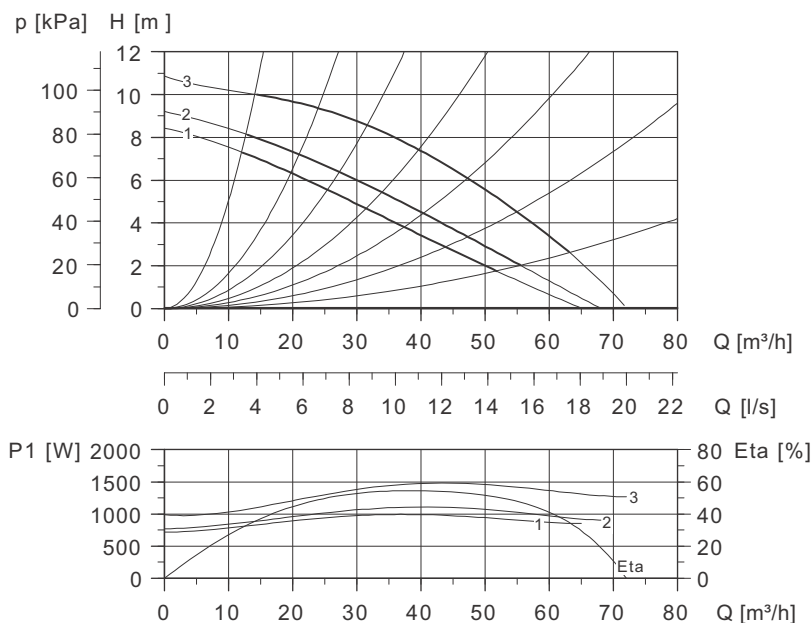
TM02 0733 5100

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 (bronze)	360		180	145	155	135	100	160	165	145	107	295	402	160	80	132	150	200	4x19	M12
PN 10 (bronze)	360		180	145	155	135	100	160	165	145	107	295	402	160	80	132	160	200	8x19	M12

# UPS 80-120 F 360, UPS 80-120 F B 360

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9453 0197 - TM06 5344 4415 - A-A-A

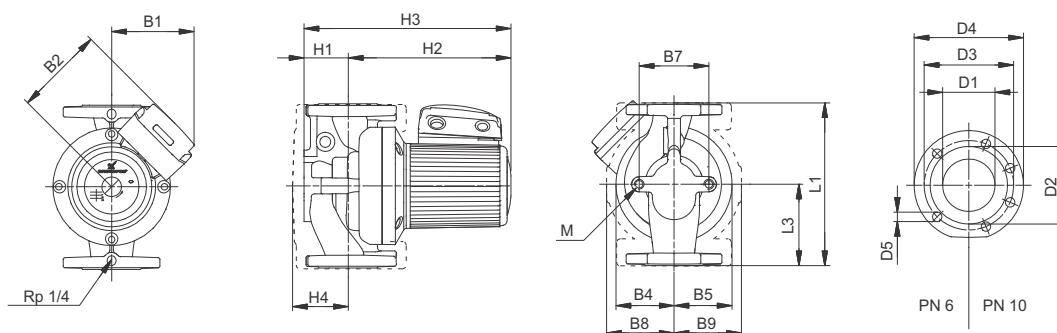
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	1000	710	1.65	0.87
2	1100	760	1.80	0.88
3	1500	960	2.75	0.79

## Technical data

	PN 6	PN 10	PN 6 bronze	PN 10 bronze
Net weight [kg]	36.7	36.7	43.0	43.0
Gross weight [kg]	38.6	38.6	45.0	45.0
Shipping volume [m³]	0.055	0.055	0.055	0.055
Liquid temperature [°C]	-10 °C to +120 °C			
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar			
IP class	IPX4D			

## Dimensions



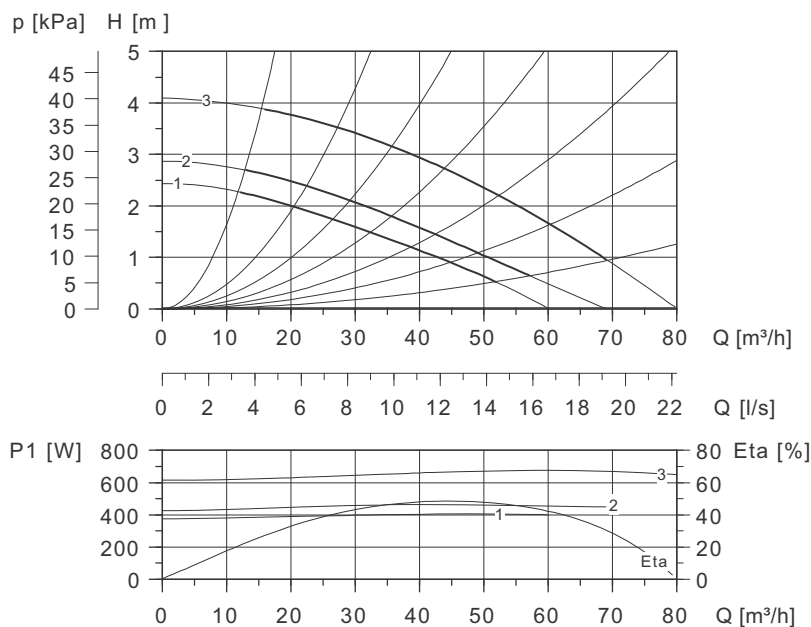
TM02 0733 5100

Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 (bronze)	360		180	145	155	125	100	160	165	145	97	297	394	160	80	132	150	200	4x19	M12
PN 10 (bronze)	360		180	145	155	125	100	160	165	145	97	297	394	160	80	132	160	200	8x19	M12

# UPS 100-30 F 450, UPS 100-30 F B 450

## 3 x 400-415 V, 50 Hz

### Performance curves



### Approvals



TM00 9454 0197 - TM06 5344 4415 - A-A-A

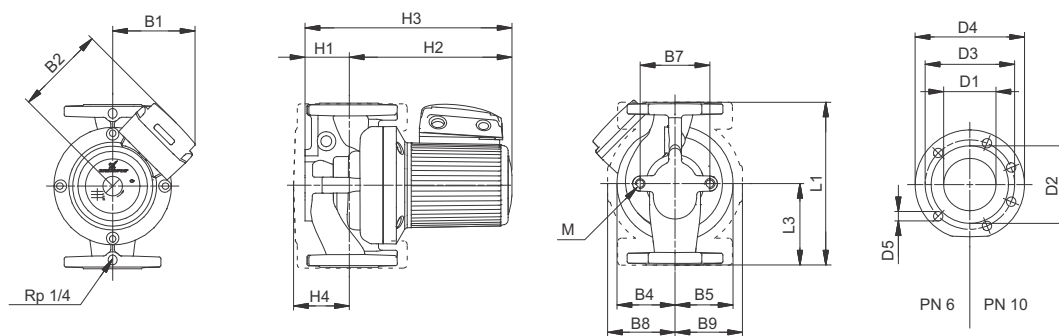
### Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	410	380	0.72	0.82
2	460	430	0.84	0.79
3	670	610	1.55	0.62

### Technical data

	PN 6	PN 10	PN 6 bronze	PN 10 bronze
Net weight [kg]	46.5	46.5	53.1	55.6
Gross weight [kg]	49.0	49.0	55.6	56.2
Shipping volume [m <sup>3</sup> ]	0.087	0.087	0.087	0.087
Liquid temperature [°C]	-10 °C to +120 °C			
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar			
IP class	IPX4D			

### Dimensions



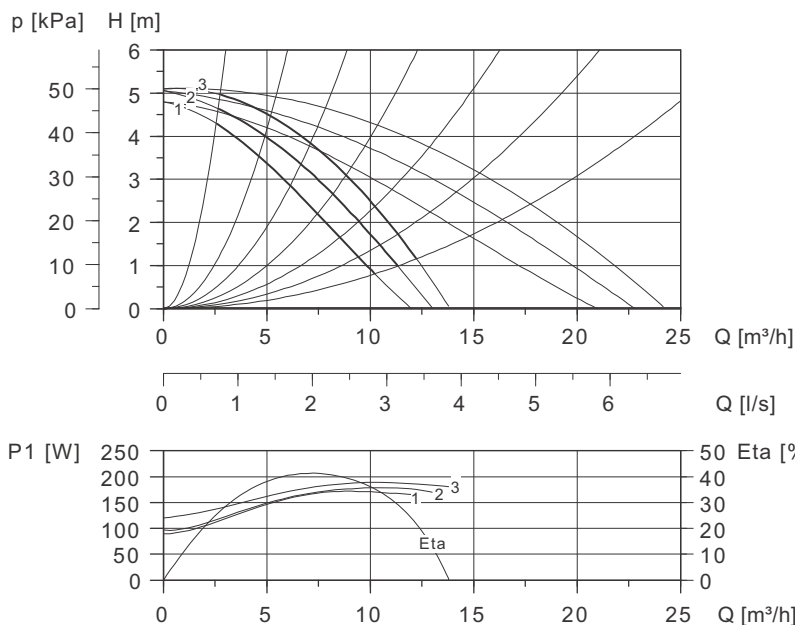
Dimensions [mm]	L1	L2	L3	B1	B2	B4	B5	B7	B8	B9	H1	H2	H3	H4	D1	D2	D3	D4	D5	M
PN 6 (bronze)	450		225	145	155	175	120	200	226	174	122	316	438	186	100	156	170	220	4x19	M12
PN 10 (bronze)	450		225	145	155	175	120	200	226	174	122	316	438	186	100	156	180	220	8x19	M12

TM02 0733 5100

# UPSD 32-60 F 220

230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9459 0197 - TM06 6344 44 15 - A-A-A

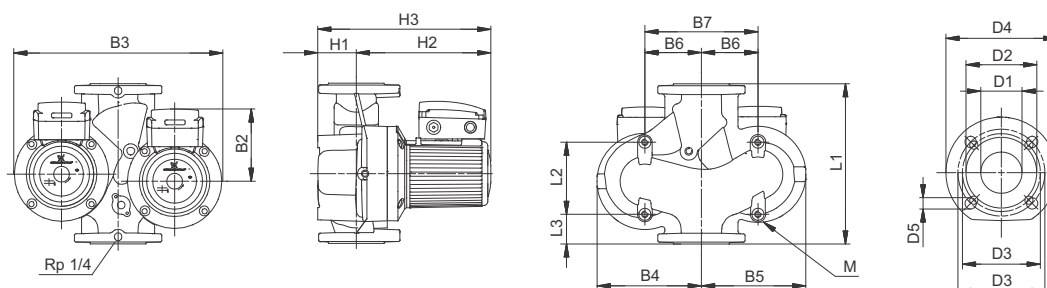
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	C [μF]
1	170	90	0.84	0.88	6
2	180	95	0.86	0.91	6
3	190	120	0.88	0.94	6

## Technical data

	PN 6 / PN 10
Net weight [kg]	33.2
Gross weight [kg]	35.1
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



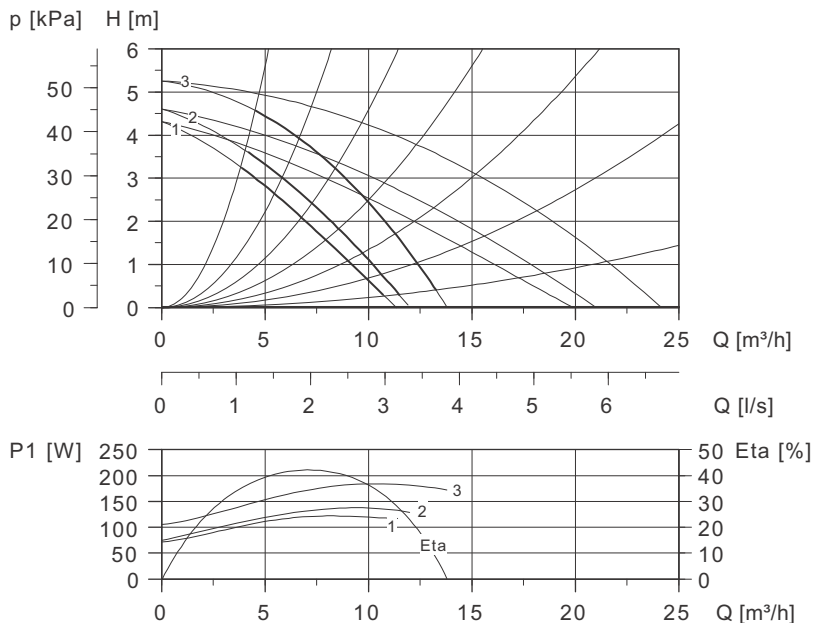
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	220	103	52	141	360	180	180	100	200	68	242	310	32	76	90/100	140	14/19	M12

# UPSD 32-60 F 220

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9460 0197 - TM06 5344 44 15 - A-A-A

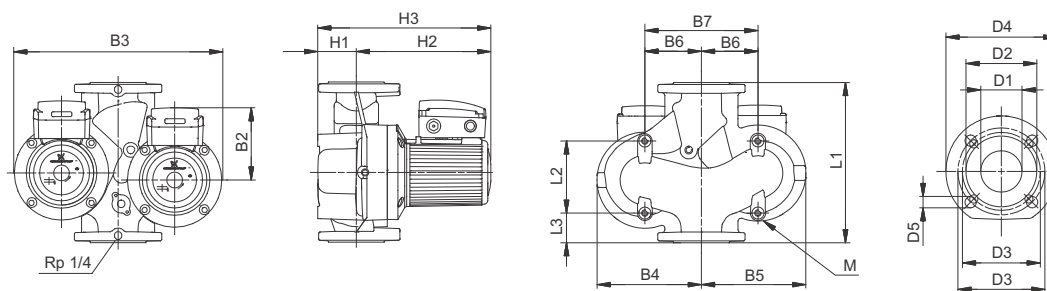
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	120	70	0.21	0.82
2	140	75	0.23	0.88
3	185	105	0.39	0.68

## Technical data

	PN 6 / PN 10
Net weight [kg]	31.6
Gross weight [kg]	33.3
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



TM02 0703 3601

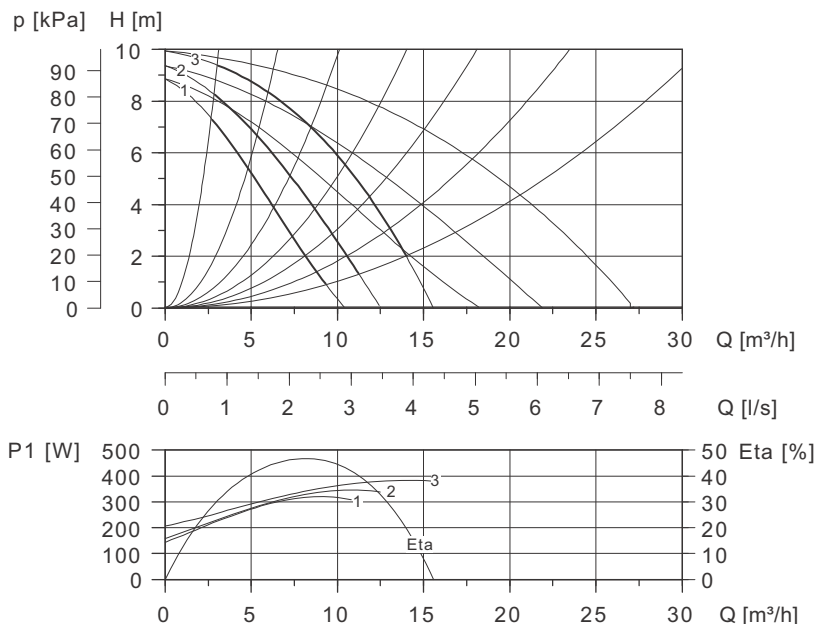
Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	220	103	52	141	360	180	180	100	200	68	242	310	32	76	90/100	140	14/19	M12



# UPSD 32-120 F 220

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9461 0197 - TM06 5344 4415 - A-A-A

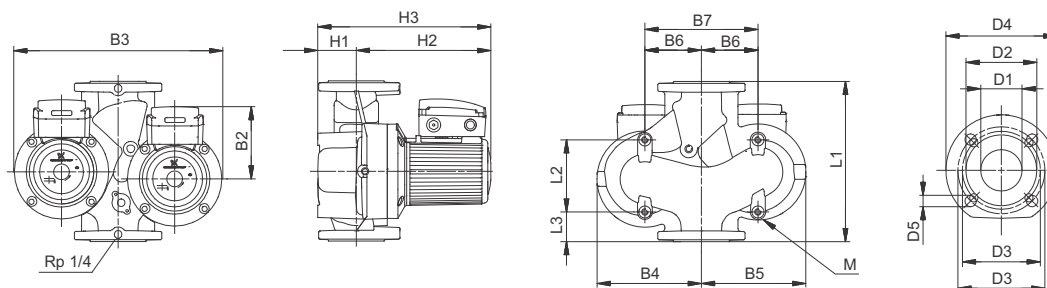
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	320	145	1.55	0.90	10
2	340	160	1.65	0.90	10
3	380	210	1.75	0.94	10

## Technical data

	PN 6 / PN 10
Net weight [kg]	32.9
Gross weight [kg]	34.8
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



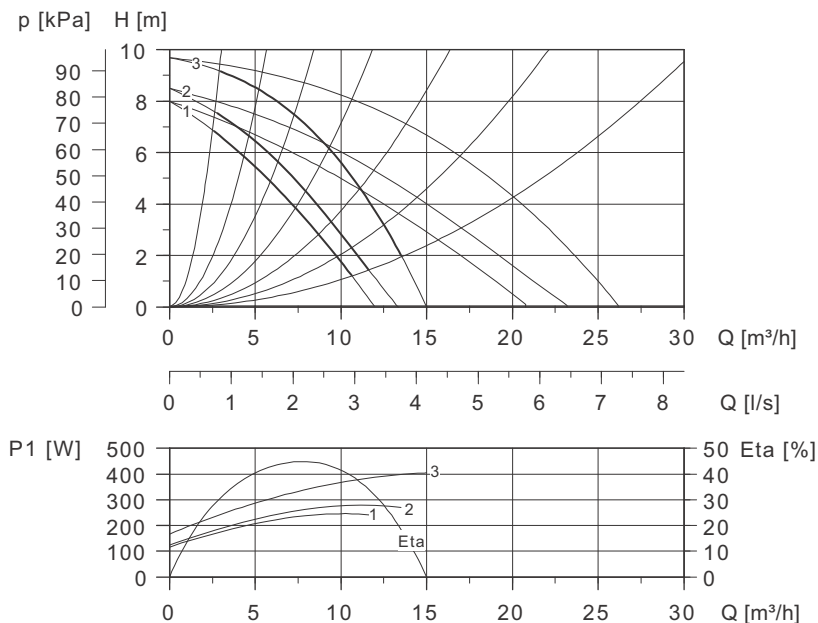
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	220	103	52	141	360	180	180	100	200	68	243	311	32	76	90/100	140	14/19	M12

# UPSD 32-120 F 220

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9462 0197 - TM06 5344 4415 - A-A-A

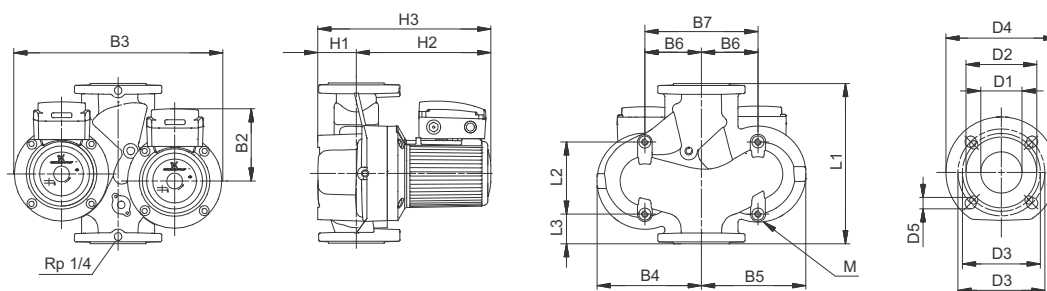
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	245	120	0.42	0.84
2	280	130	0.47	0.86
3	400	170	0.78	0.74

## Technical data

	PN 6 / PN 10
Net weight [kg]	33.0
Gross weight [kg]	34.5
Shipping volume [m <sup>3</sup> ]	0.045
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



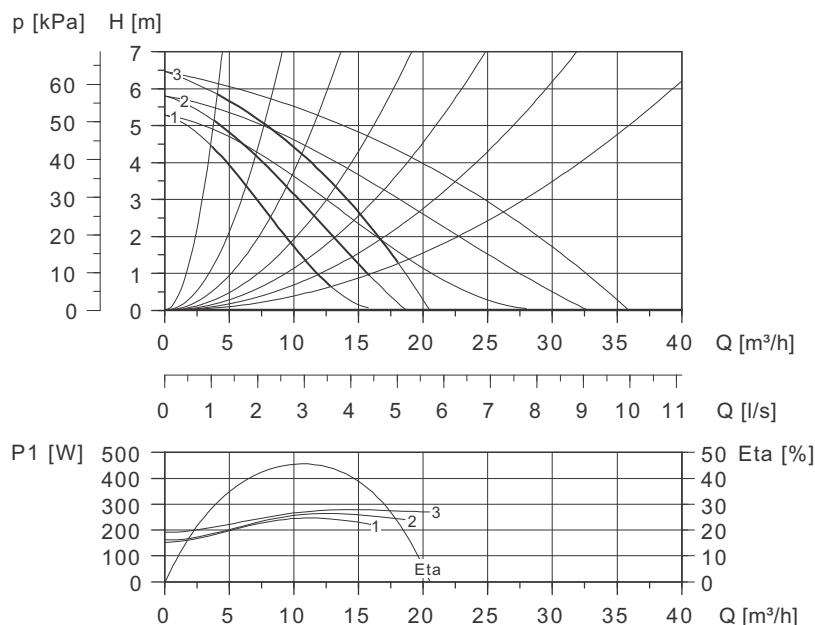
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	220	103	52	141	360	180	180	100	200	68	243	311	32	76	90/100	140	14/19	M12

# UPSD 40-60 F 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9465 0197 - TM06 5344 4415 - A-A-A

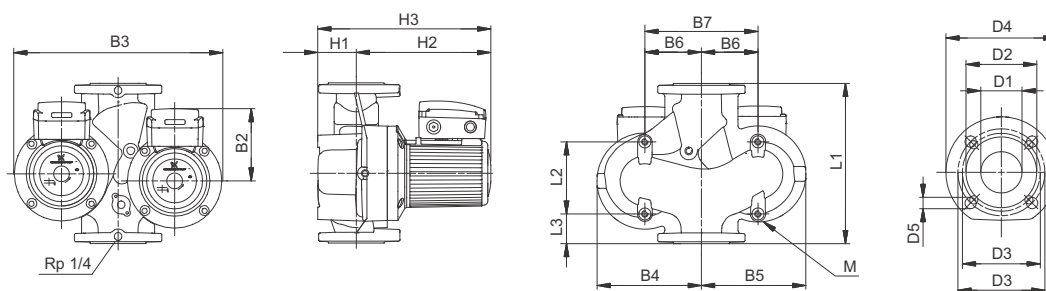
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	$C$ [ $\mu$ F]
1	250	150	1.25	0.87	8
2	260	160	1.25	0.90	8
3	280	190	1.30	0.94	8

## Technical data

	PN 6 / PN 10
Net weight [kg]	33.3
Gross weight [kg]	36.2
Shipping volume [m³]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



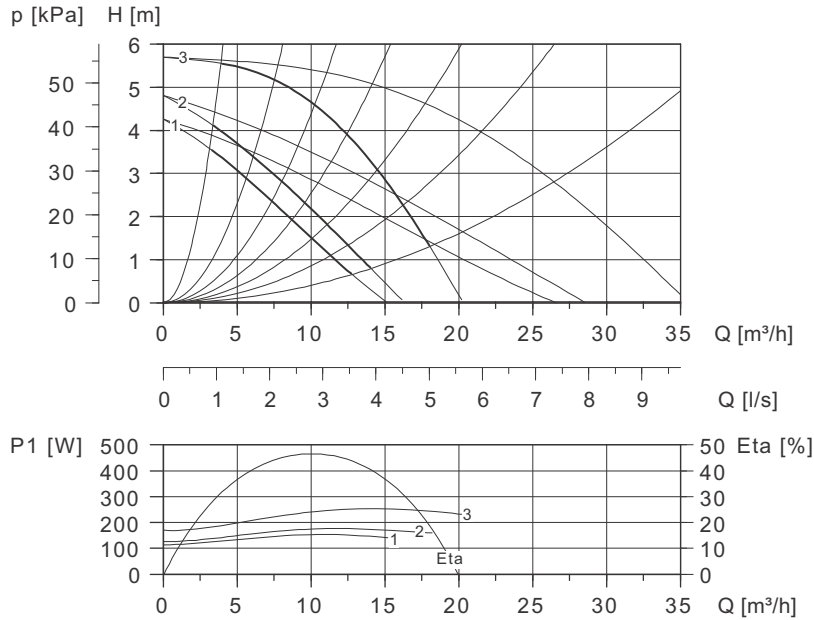
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250	125	45	141	360	180	180	100	200	68	246	314	40	84	100/110	150	14/19	M12

# UPSD 40-60 F 250

## 3 x 400-415 V, 50 Hz

### Performance curves



### Approvals



TM00 9466 0197 - TM06 5344 4415 - A-A-A

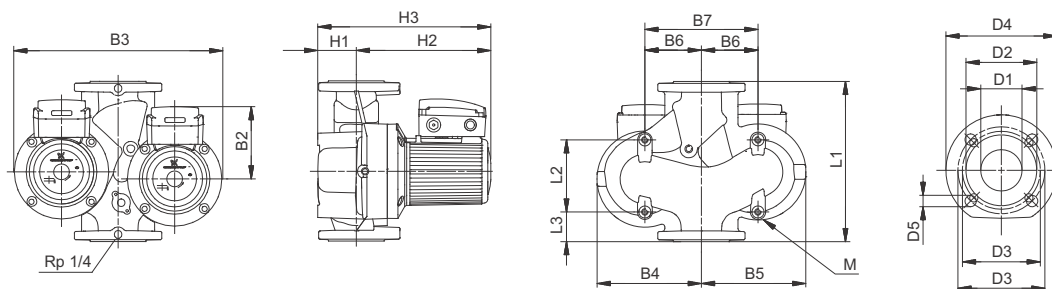
### Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	155	115	0.25	0.89
2	175	125	0.29	0.87
3	250	170	0.46	0.78

### Technical data

	PN 6 / PN 10
Net weight [kg]	32.6
Gross weight [kg]	35.6
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

### Dimensions



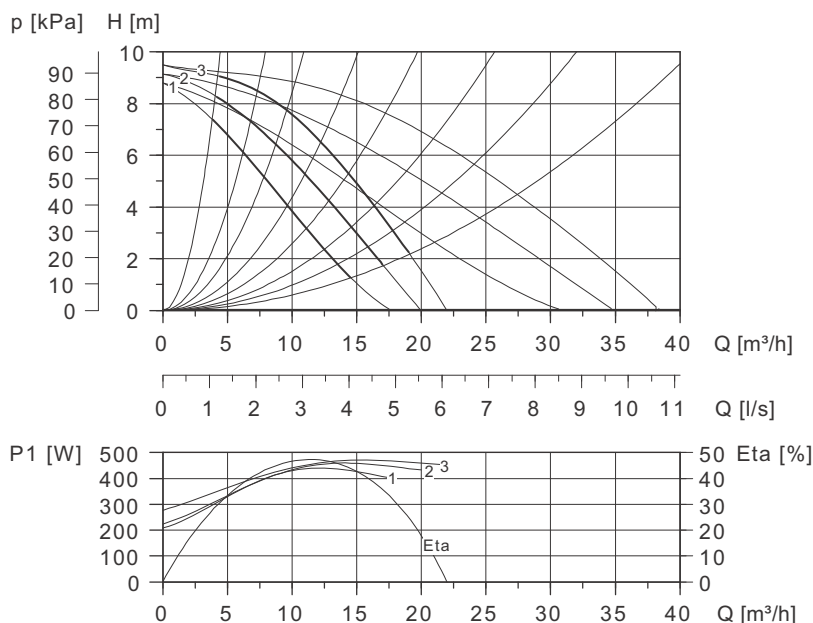
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250	125	45	141	360	180	180	100	200	68	246	314	40	84	100/110	150	14/19	M12

# UPSD 40-120 F 250

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9467 0197 - TM06 5344 4415 - A-A-A

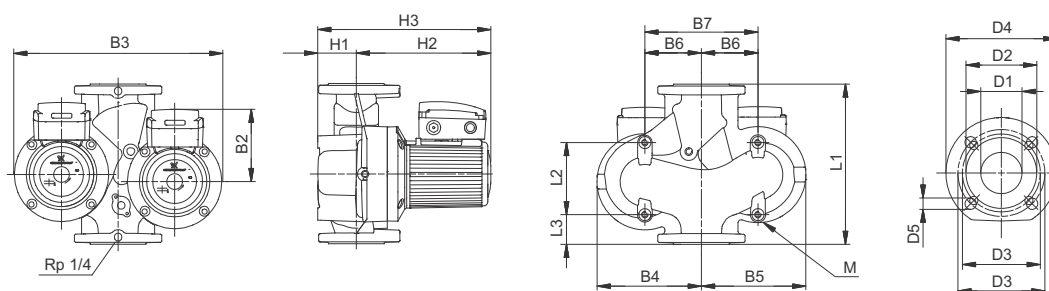
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	C [ $\mu$ F]
1	440	210	2.20	0.87	12
2	460	225	2.30	0.87	12
3	470	280	2.20	0.93	12

## Technical data

	PN 6 / PN 10
Net weight [kg]	36.5
Gross weight [kg]	38.5
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



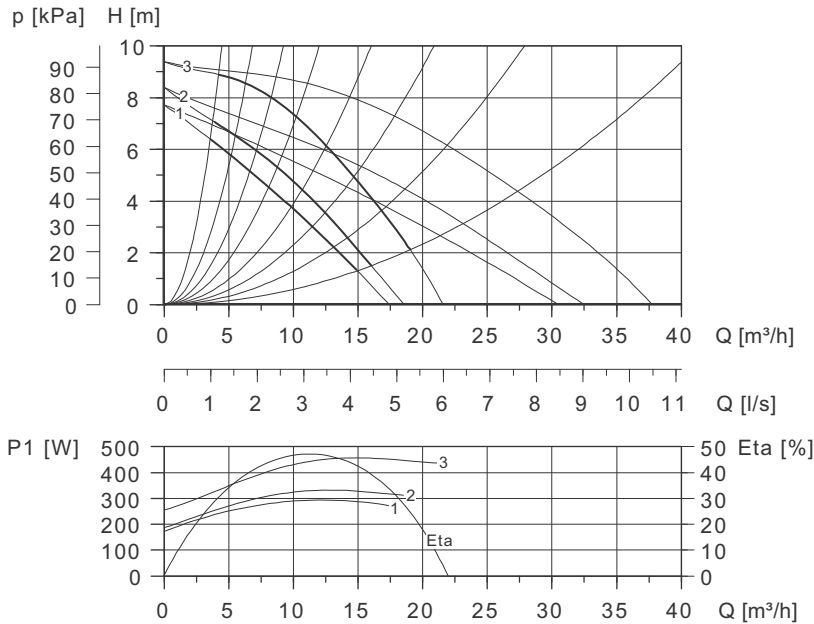
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250	125	45	141	360	180	180	100	200	68	248	316	40	84	100/110	150	14/19	M12

# UPSD 40-120 F 250

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9468 0197 - TM06 5344 4415 - A-A-A

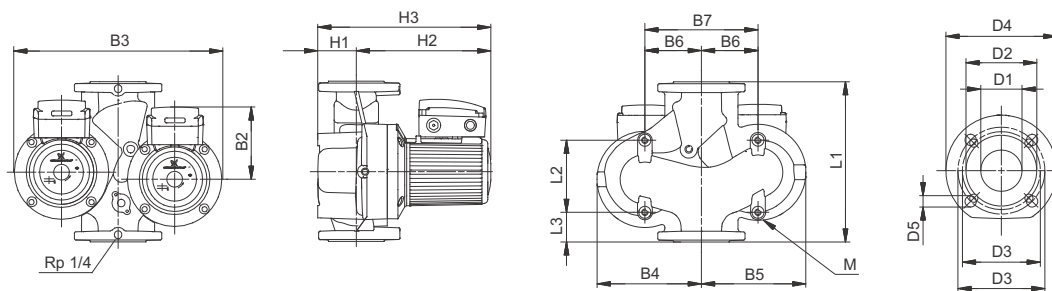
## Electrical data

Speed	$P_{\max}$ [W]	$P_{\min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	290	175	0.49	0.85
2	330	190	0.56	0.85
3	460	260	0.92	0.72

## Technical data

	PN 6 / PN 10
Net weight [kg]	33.0
Gross weight [kg]	37.7
Shipping volume [m <sup>3</sup> ]	0.044
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



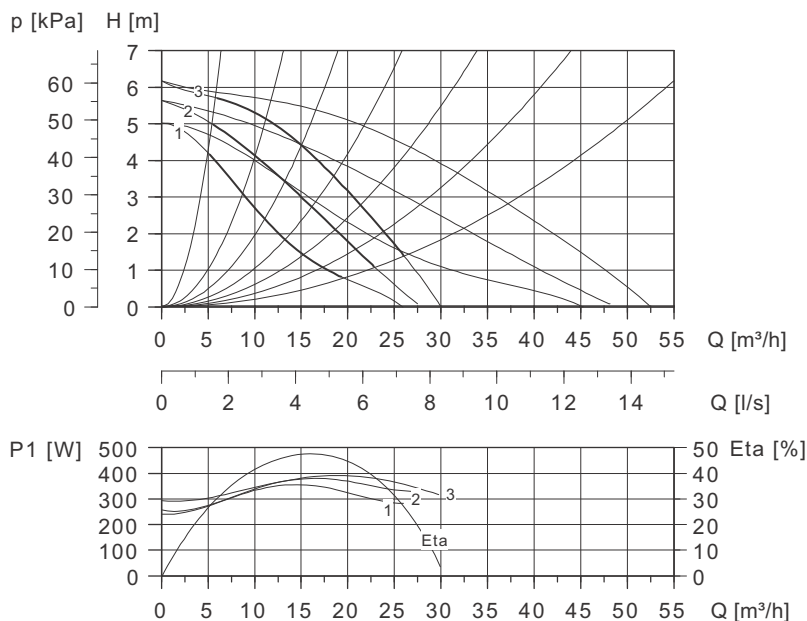
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	250	125	45	141	360	180	180	100	200	68	245	313	40	84	100/110	150	14/19	M12

# UPSD 50-60/2 F 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9473 0197 - TM06 5344 4415 - A-A-A

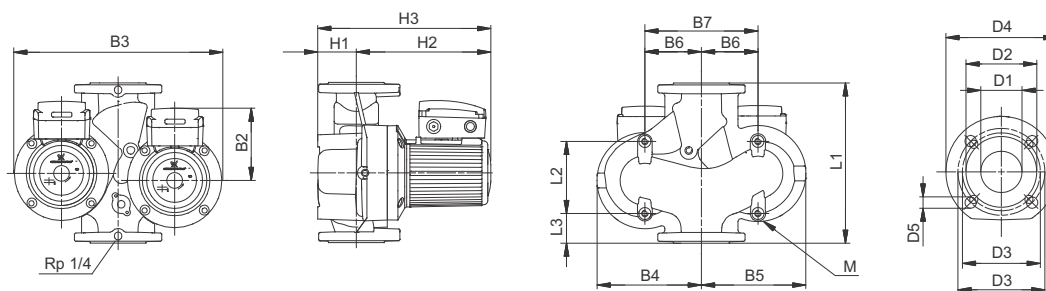
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	350	240	1.75	0.87	10
2	380	250	1.85	0.89	10
3	390	290	1.80	0.94	10

## Technical data

	PN 6 / PN 10
Net weight [kg]	39.0
Gross weight [kg]	42.0
Shipping volume [m <sup>3</sup> ]	0.061
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



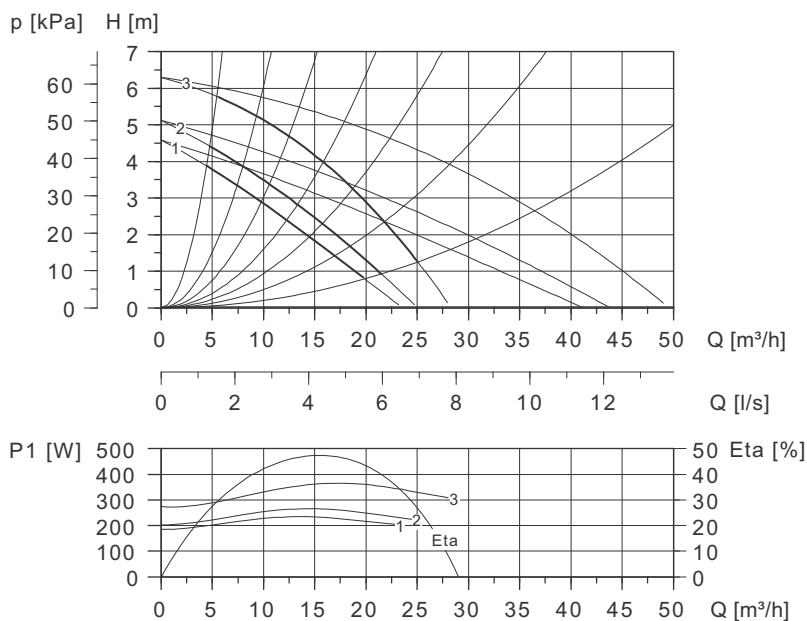
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	125	60	141	370	190	180	100	200	75	254	329	50	99	110/125	165	14/19	M12

# UPSD 50-60/2 F 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9474 0197 - TM06 5344 4415 - A-A-A

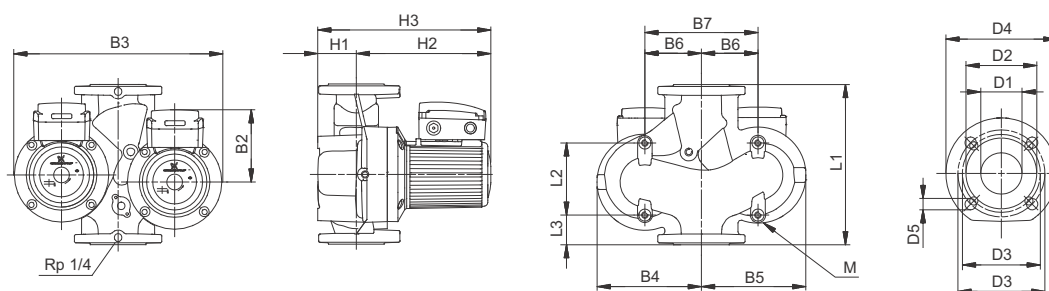
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	235	185	0.39	0.87
2	270	205	0.45	0.87
3	360	270	0.74	0.70

## Technical data

	PN 6 / PN 10
Net weight [kg]	38.7
Gross weight [kg]	41.1
Shipping volume [m <sup>3</sup> ]	0.061
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	125	60	141	370	190	180	100	200	75	254	329	50	99	110/125	165	14/19	M12

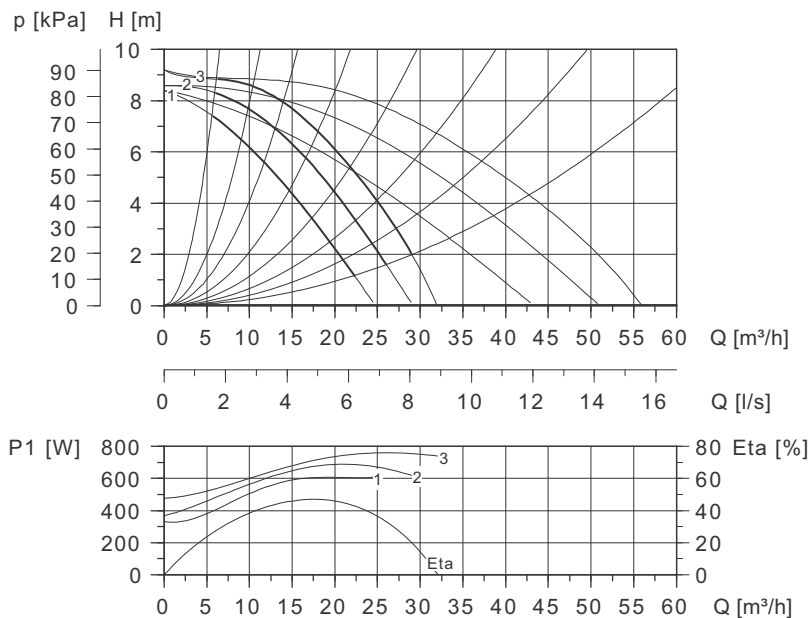
TM02 0703 3601



# UPSD 50-120 F 280

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9475 0197 - TM06 5344 4415 - A-A-A

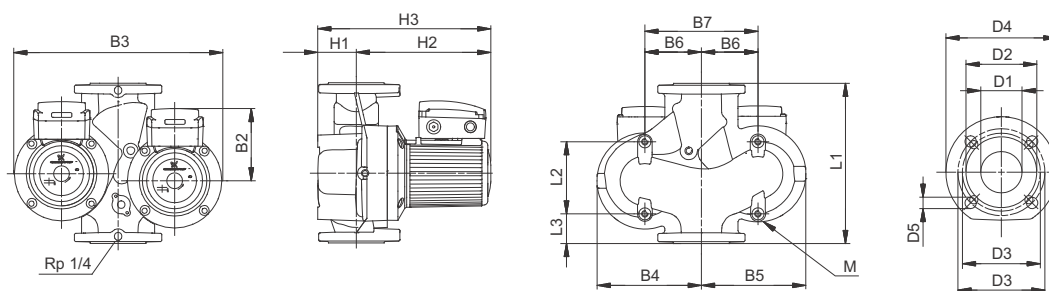
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$	C [ $\mu$ F]
1	620	330	3.05	0.88	25
2	700	360	3.35	0.91	25
3	760	480	3.60	0.92	25

## Technical data

	PN 6 / PN 10
Net weight [kg]	56.0
Gross weight [kg]	62.9
Shipping volume [m <sup>3</sup> ]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



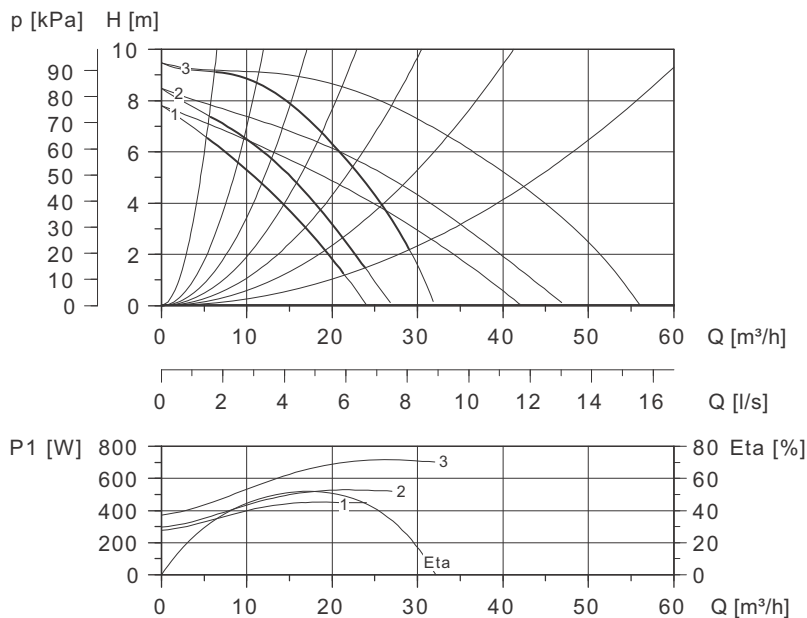
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	126	60	169	450	225	225	120	240	75	276	351	50	99	110/125	165	14/19	M12

# UPSD 50-120 F 280

## 3 x 400-415 V, 50 Hz

### Performance curves



### Approvals



TM00 9476 0197 - TM06 5344 4415 - A-A-A

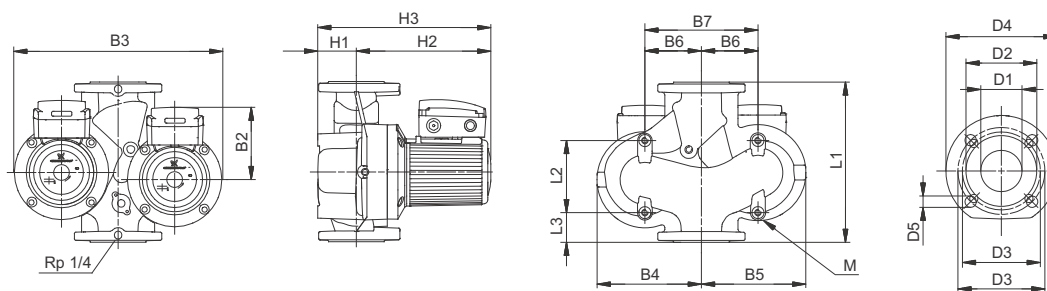
### Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	450	280	0.82	0.79
2	530	300	0.94	0.81
3	720	380	1.30	0.80

### Technical data

	PN 6 / PN 10
Net weight [kg]	46.1
Gross weight [kg]	48.1
Shipping volume [m <sup>3</sup> ]	0.061
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

### Dimensions

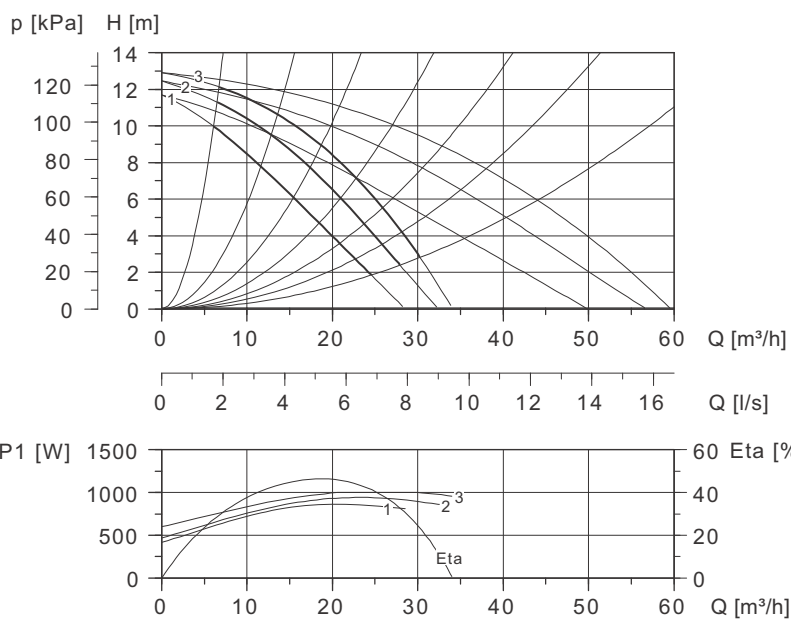


TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	126	60	169	450	225	225	120	240	75	231	306	50	99	110/125	165	14/19	M12

# UPSD 50-180 F 280

1 x 230-240 V, 50 Hz



TM00 9477 0197 - TM06 5344 4415 - A-A-A

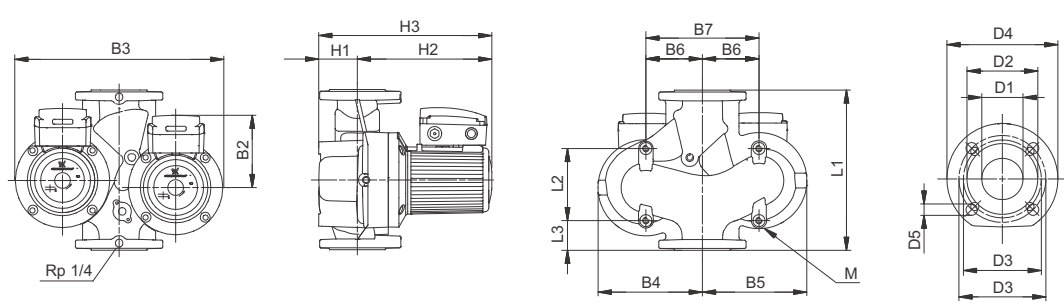
### Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	860	420	4.15	0.90	30
2	940	470	4.40	0.93	30
3	1000	600	4.65	0.94	30

### Technical data

	PN 6 / PN 10
Net weight [kg]	52.0
Gross weight [kg]	58.9
Shipping volume [m <sup>3</sup> ]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

### Dimensions



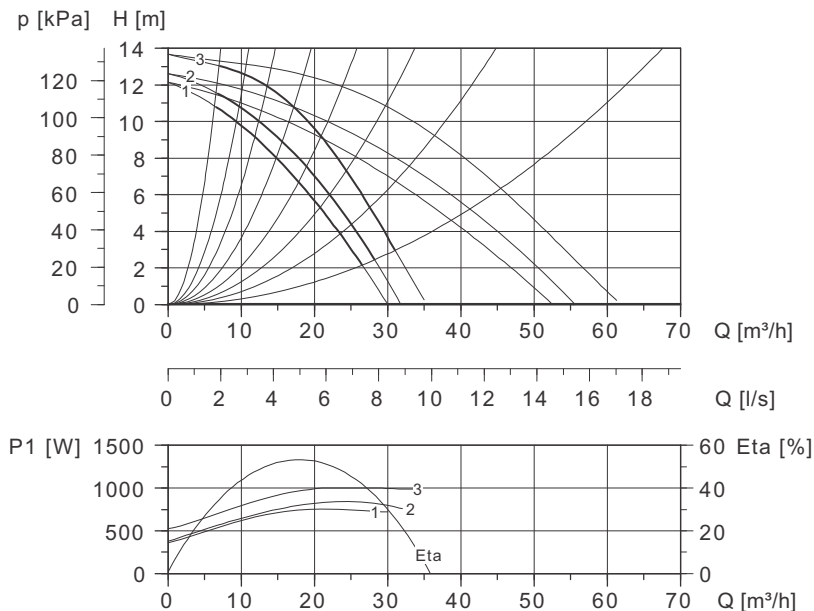
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	126	60	169	450	225	225	120	240	75	276	351	50	99	110/125	165	14/19	M12

# UPSD 50-180 F 280

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9478 0197 - TM06 5344 4415 - A-A-A

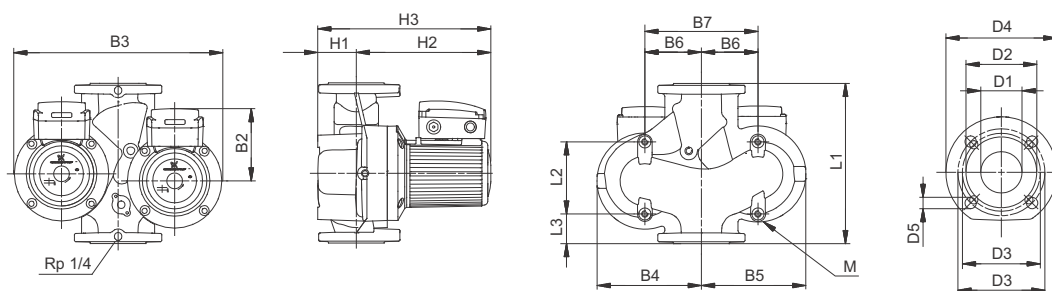
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$
1	760	360	1.25	0.88
2	850	380	1.40	0.88
3	1000	520	2.00	0.72

## Technical data

	PN 6 / PN 10
Net weight [kg]	51.5
Gross weight [kg]	58.4
Shipping volume [m <sup>3</sup> ]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



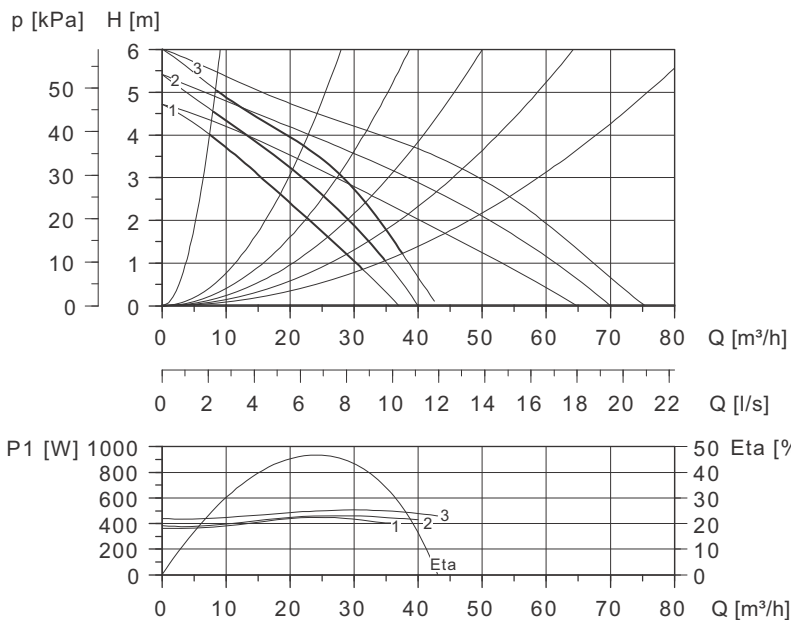
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	280	126	60	169	450	225	225	120	240	75	276	351	50	99	110/125	165	14/19	M12

# UPSD 65-60/2 F 340

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9483 0197 - TM06 5344 4415 - A-A-A

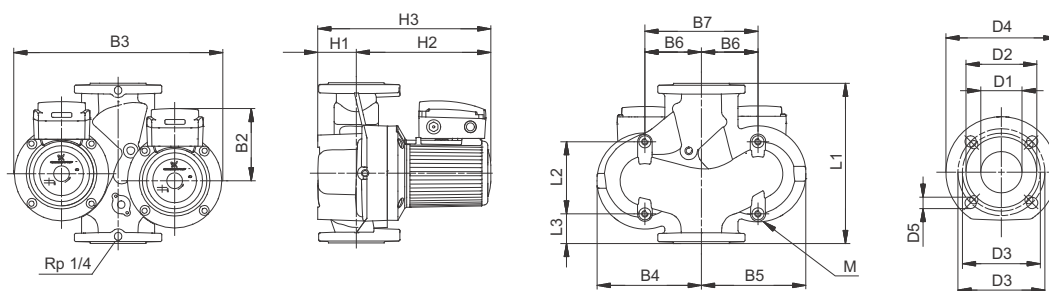
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ	C [μF]
1	450	360	2.15	0.91	16
2	470	380	2.20	0.93	16
3	510	440	2.40	0.92	16

## Technical data

	PN 6 / PN 10
Net weight [kg]	50.0
Gross weight [kg]	56.9
Shipping volume [m <sup>3</sup> ]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



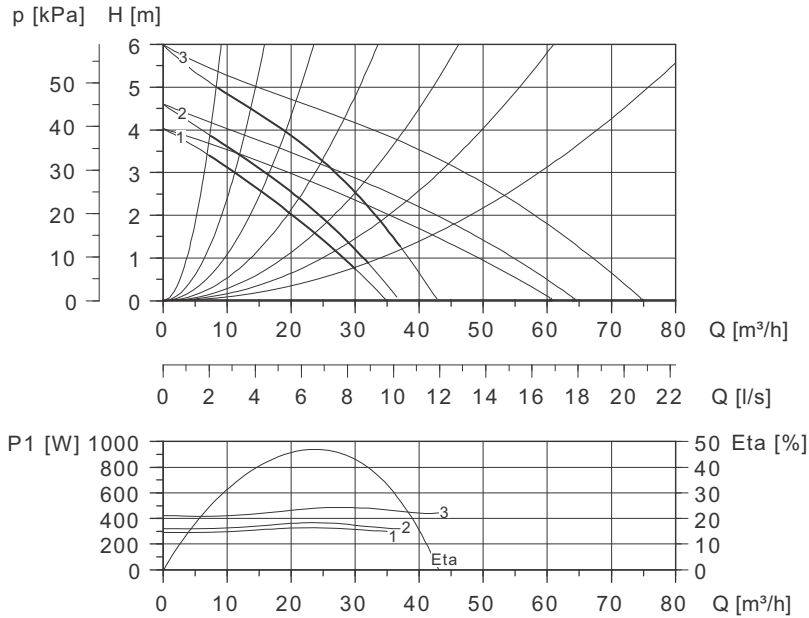
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340	153	63	141	405	210	195	120	240	82	262	344	65	118	130/145	185	14/19	M12

# UPSD 65-60/2 F 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9484 0197 - TM06 5344 44 15 - A-A-A

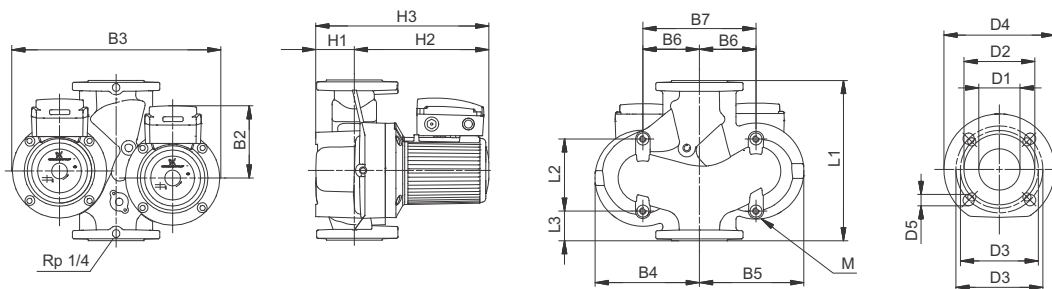
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	330	290	0.56	0.85
2	370	320	0.64	0.83
3	490	420	1.05	0.67

## Technical data

	PN 6 / PN 10
Net weight [kg]	49.0
Gross weight [kg]	56.9
Shipping volume [ $m^3$ ]	0.125
Liquid temperature [ $^{\circ}C$ ]	-10 $^{\circ}C$ to +120 $^{\circ}C$
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



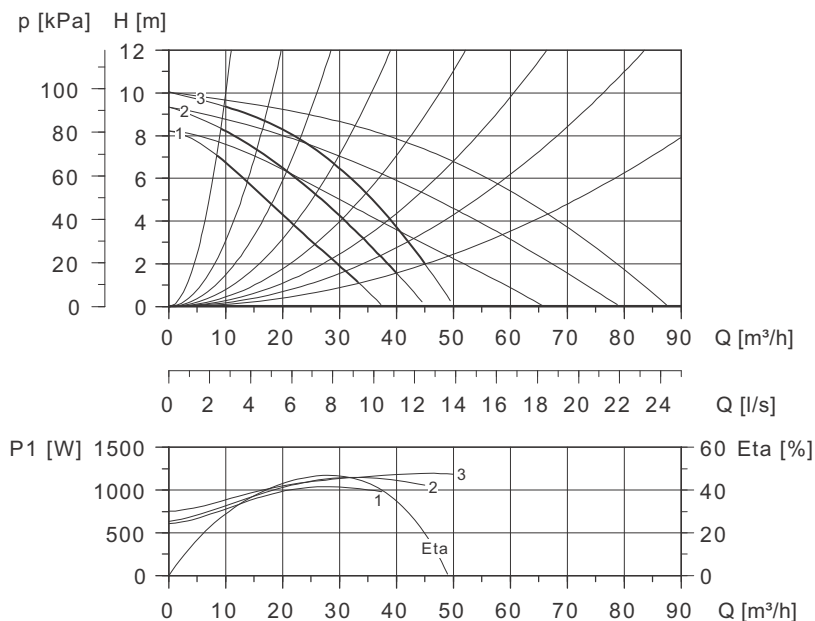
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340	153	63	141	405	210	195	120	240	82	262	344	65	118	130/145	185	14/19	M12

# UPSD 65-120 F 340

1 x 230-240 V, 50 Hz

## Performance curves



## Approvals



TM00 9485 0197 - TM06 5344 4415 - A-A-A

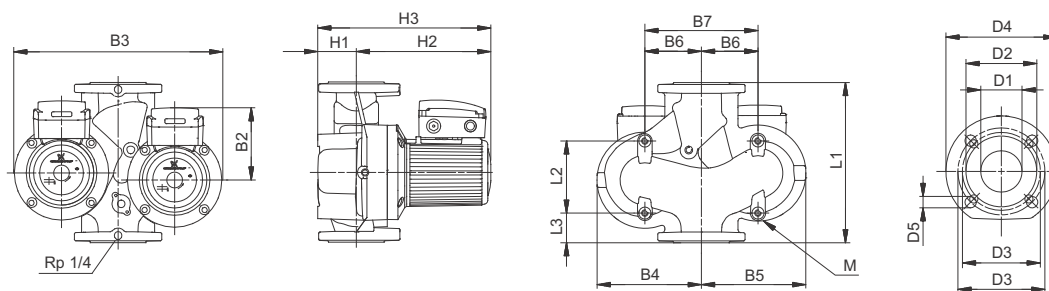
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \varphi$	C [μF]
1	1050	600	5.10	0.90	30
2	1150	630	5.60	0.89	30
3	1200	750	5.50	0.95	30

## Technical data

	PN 6 / PN 10
Net weight [kg]	66.0
Gross weight [kg]	72.9
Shipping volume [m³]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



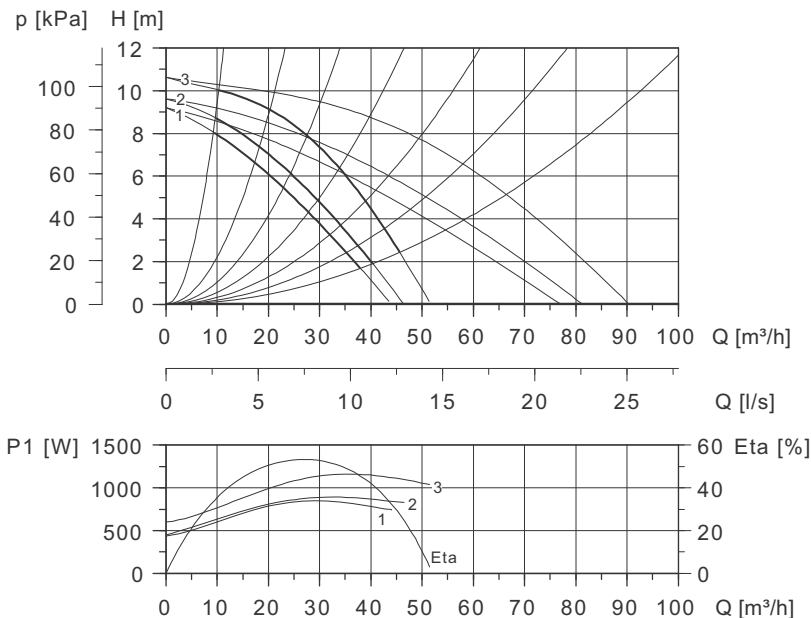
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340	153	63	169	450	225	225	120	240	82	286	368	65	118	130/145	185	14/19	M12

# UPSD 65-120 F 340

## 3 x 400-415 V, 50 Hz

### Performance curves



### Approvals



TM00 9486 0197 - TM06 5344 4415 - A-A-A

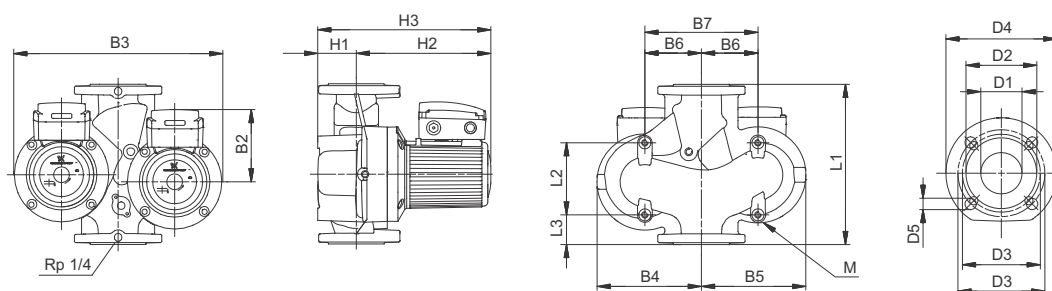
### Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	850	440	1.35	0.91
2	900	460	1.45	0.90
3	1150	600	2.15	0.77

### Technical data

	PN 6 / PN 10
Net weight [kg]	53.0
Gross weight [kg]	60.0
Shipping volume [m³]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

### Dimensions



TM02 0703 3601

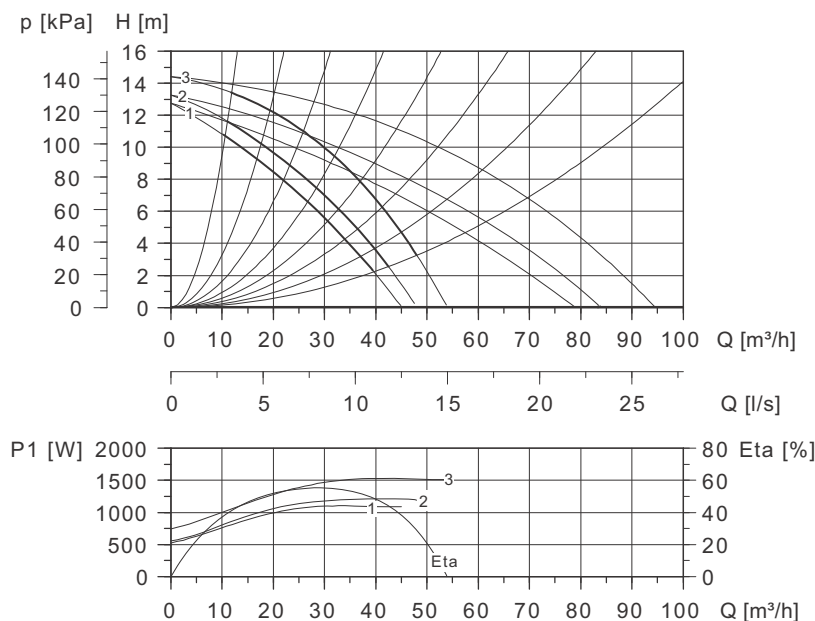
Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340	153	63	169	450	225	225	120	240	82	286	368	65	118	130/145	185	14/19	M12



# UPSD 65-180 F 340

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



H005 13

TM00 9487 0197 - TM06 5344 4415 - A-A-A

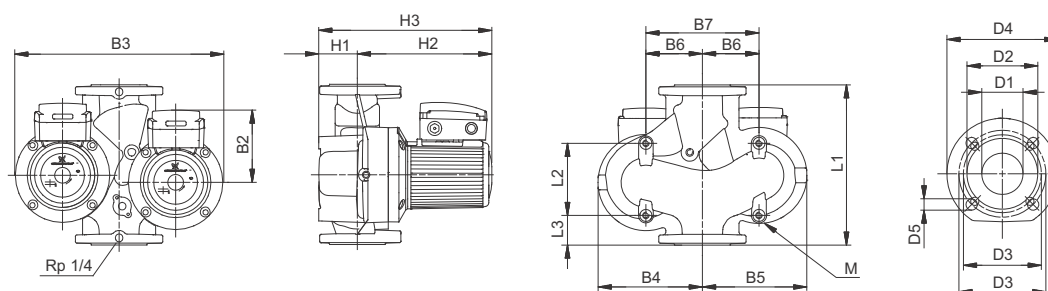
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	1100	520	1.85	0.86
2	1200	560	2.00	0.87
3	1550	740	2.90	0.77

## Technical data

	PN 6 / PN 10
Net weight [kg]	70.0
Gross weight [kg]	76.9
Shipping volume [m <sup>3</sup> ]	0.125
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



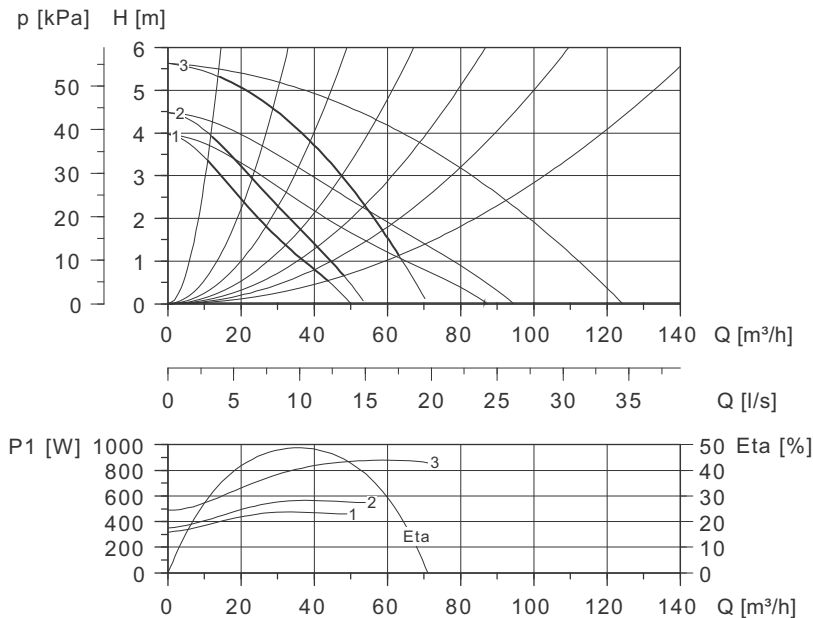
TM02 0703 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6 / PN 10	340	153	63	169	450	225	225	120	240	82	286	368	65	118	130/145	185	14/19	M12

# UPSD 80-60 F 360

## 3 x 400-415 V, 50 Hz

### Performance curves



### Approvals



TM00 9489 0197 - TM06 5344 4415 - A-A-A

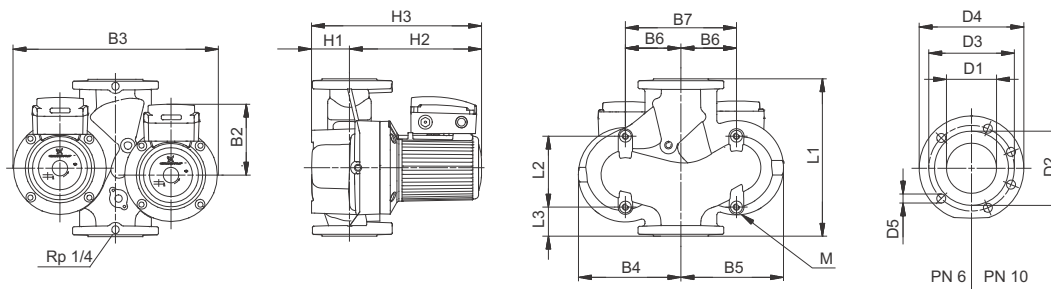
### Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	470	320	0.84	0.81
2	570	350	1.00	0.82
3	880	490	1.80	0.71

### Technical data

	PN 6 / PN 10
Net weight [kg]	73.0
Gross weight [kg]	80.7
Shipping volume [m <sup>3</sup> ]	0.200
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

### Dimensions



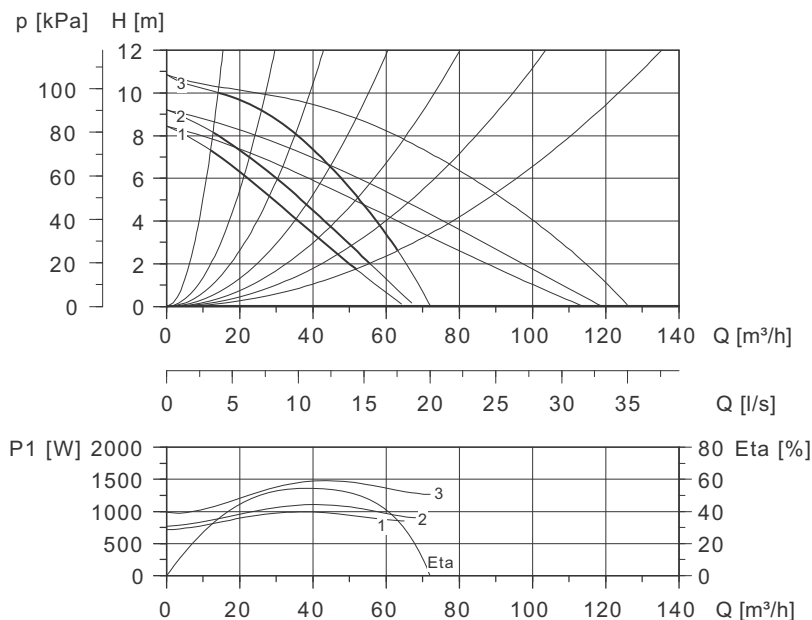
TM02 0815 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6	360	173	53	169	490	250	240	120	240	107	294	401	80	132	150	200	4x19	M12
PN 10	360	173	53	169	490	250	240	120	240	107	294	401	80	132	160	200	8x19	M12

# UPSD 80-120 F 360

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9490 0197 - TM06 5344 4415 - A-A-A

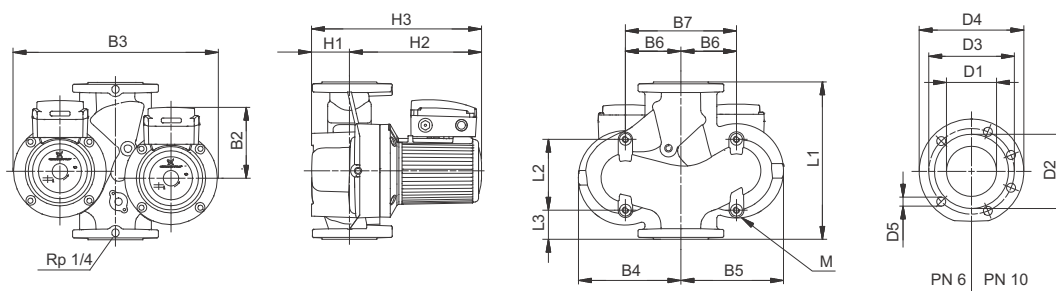
## Electrical data

Speed	P <sub>max</sub> [W]	P <sub>min</sub> [W]	I <sub>1/1</sub> [A]	cos φ
1	1000	710	1.65	0.87
2	1100	760	1.80	0.88
3	1500	960	2.75	0.79

## Technical data

PN 6 / PN 10	
Net weight [kg]	75.5
Gross weight [kg]	83.2
Shipping volume [m <sup>3</sup> ]	0.200
Liquid temperature [°C]	-10 °C to +120 °C
System pressure [bar]	PN 6: 10 bar / PN 10: 15 bar
IP class	IPX4D

## Dimensions



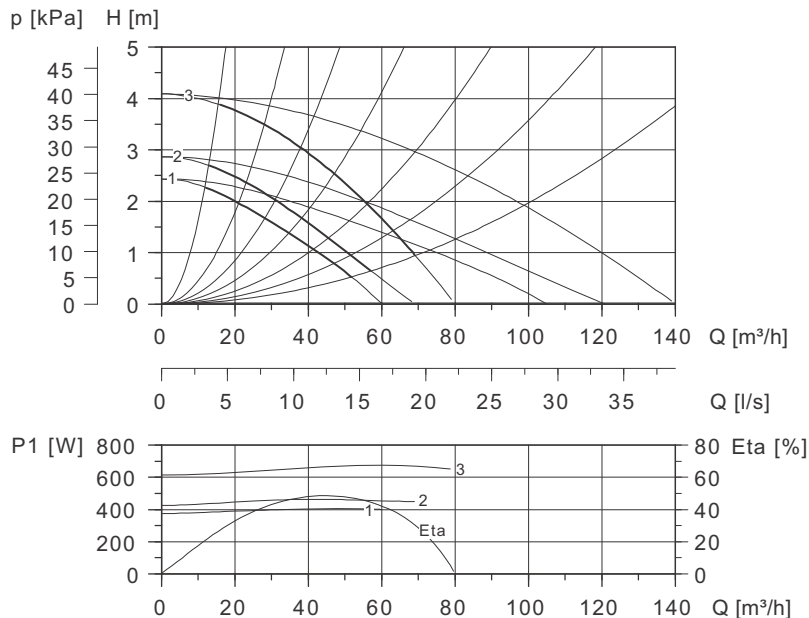
TM02 0815 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6	360	173	53	169	460	235	225	120	240	97	294	391	80	132	150	200	4x19	M12
PN 10	360	173	53	169	460	235	225	120	240	97	294	391	80	132	160	200	8x19	M12

# UPSD 100-30 F 450

3 x 400-415 V, 50 Hz

## Performance curves



## Approvals



TM00 9491 0197 - TM06 5344 4415 - A-A-A

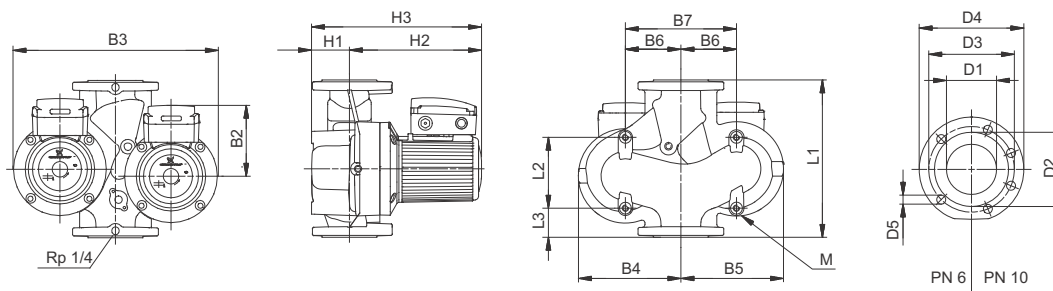
## Electrical data

Speed	$P_{max}$ [W]	$P_{min}$ [W]	$I_{1/1}$ [A]	$\cos \phi$
1	410	380	0.72	0.82
2	460	430	0.84	0.79
3	670	610	1.55	0.62

## Technical data

	PN 6	PN 10
Net weight [kg]	97.4	97.4
Gross weight [kg]	105.1	105.1
Shipping volume [m <sup>3</sup> ]	0.200	0.200
Liquid temperature [°C]	-10 °C to +120 °C	
System pressure [bar]	10 bar	15 bar
IP class	IPX4D	

## Dimensions



TM02 0815 3601

Dimensions [mm]	L1	L2	L3	B2	B3	B4	B5	B6	B7	H1	H2	H3	D1	D2	D3	D4	D5	M
PN 6	450	221	83	169	595	315	280	140	280	122	316	438	100	156	170	220	4x19	M16
PN 10	450	221	83	169	595	315	280	140	280	122	316	438	100	156	180	220	8x19	M16

## 9. Product numbers

### Small and medium UP: UPS circulator pumps, 50 Hz

Terminal box position: 9 h

★ Terminal box position: 3 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page	
Oval flange "21"	Cast iron	PN 10	1 x 230	120	UPS 21-40 F	96281386	30	
	Cast iron	PN 10	1 x 230	120	UPS 21-50 F	96281434	31	
	Cast iron	PN 10	1 x 230	120	UPS 21-60 F	96281490	32	
G 1	Cast iron	PN 10	1 x 230	130	UPS 15-20	59502503	33	
	Cast iron	PN 10	1 x 230	130	UPS 15-30	59503000	34	
	Cast iron	PN 10	1 x 230	130	UPS 15-40	96281368	35	
	Cast iron	PN 10	1 x 230	130	UPS 15-50	96281418	36	
	Cast iron	PN 10	1 x 230	130	UPS 15-60	96281471	37	
	Cast iron	PN 10	1 x 230	130	UPS 20-40	96281371	38	
	Cast iron	PN 10	1 x 230	130	UPS 20-50	96281420	39	
G 1 1/4	Cast iron	PN 10	1 x 230	130	UPS 20-60	96281472	40	
	Cast iron	PN 10	1 x 230	130	UPS 25-20	59522500	41	
	Cast iron	PN 10	1 x 230	130	UPS 25-40	96281376	42	
G 1 1/2	Cast iron	PN 10	1 x 230	130	UPS 25-50	96281424	43	
	Cast iron	PN 10	1 x 230	130	UPS 25-60	96281476	44	
	Cast iron	PN 10	1 x 230	130	UPS 25-70	96621356	45	
	Cast iron	PN 10	1 x 230	160	UPS 25-50	96281430	46	
	Cast iron	PN 10	1 x 230	180	UPS 25-20	59542500	47	
G 1 1/2	Cast iron	PN 10	1 x 230	180	UPS 25-25	95906400	48	
	Cast iron	PN 10	1 x 230	180	UPS 25-30	59543000	49	
	Cast iron	PN 10	1 x 230	180	UPS 25-40	96281384	50	
	Cast iron	PN 10	1 x 230	180	UPS 25-50	96281432	51	
	Cast iron	PN 10	1 x 230	180	UPS 25-55	95906404	52	
	Cast iron	PN 10	1 x 230	180	UPS 25-60	96281483	53	
	Cast iron	PN 10	1 x 230	180	UPS 25-60 ★	96281485 ★	53	
	Cast iron	PN 10	1 x 230	180	UPS 25-70	96621354	54	
	Cast iron	PN 10	1 x 230	180	UPS 25-80	95906429	55	
	Cast iron	PN 10	1 x 230	180	UPS 25-100	95906480	56	
	Cast iron	PN 10	1 x 230	180	UPS 25-120 High head	52588336	57	
	Cast iron	PN 10	1 x 230	180	UPS 25-125 High head	52588344	58	
	Cast iron	PN 10	3 x 220	180	UPS 25-50	59545701	59	
	Cast iron	PN 10	3 x 400	180	UPS 25-20	59542800	60	
	Cast iron	PN 10	3 x 400	130	UPS 25-40	59524802	61	
	Cast iron	PN 10	3 x 400	180	UPS 25-40	59544800	63	
	Cast iron	PN 10	3 x 400	180	UPS 25-50	59545800	62	
	Cast iron	PN 10	3 x 400	180	UPS 25-60	59546800	64	
	G 2	Cast iron	PN 10	1 x 230	180	UPS 32-20	59582500	65
		Cast iron	PN 10	1 x 230	180	UPS 32-25	95906401	66
Cast iron		PN 10	1 x 230	180	UPS 32-30	59583000	67	
Cast iron		PN 10	1 x 230	180	UPS 32-40	96281390	68	
Cast iron		PN 10	1 x 230	180	UPS 32-50	96281435	69	
Cast iron		PN 10	1 x 230	180	UPS 32-55	95906409	70	
Cast iron		PN 10	1 x 230	180	UPS 32-60	96281494	71	
Cast iron		PN 10	1 x 230	180	UPS 32-70	96621355	72	
Cast iron		PN 10	1 x 230	180	UPS 32-80	95906442	73	
Cast iron		PN 10	1 x 230	180	UPS 32-100	95906500	74	
Cast iron		PN 10	3 x 400	180	UPS 32-20	59582800	75	
Cast iron		PN 10	3 x 400	180	UPS 32-40	59584800	76	
Cast iron		PN 10	3 x 400	180	UPS 32-50	59585800	77	
Cast iron		PN 10	3 x 400	180	UPS 32-60	59586800	78	
Flange DN 36		Cast iron	PN 10	1 x 230	200	UPS 36-20 F	95906402	79
		Cast iron	PN 10	1 x 230	200	UPS 36-50 F	95906417	80
		Cast iron	PN 10	1 x 230	200	UPS 36-80 F	95906461	81
Flange DN 32		Cast iron	PN 6/10	1 x 230	220	UPS 32-50 F	95906415	82
		Cast iron	PN 6/10	1 x 230	220	UPS 32-80 F	95906458	83
Flange DN 40		Cast iron	PN 6/10	1 x 230	220	UPS 32-100 F	95906483	84
	Cast iron	PN 6/10	1 x 230	250	UPS 40-50 F	95906420	85	
	Cast iron	PN 6/10	1 x 230	250	UPS 40-80 F	95906462	86	
	Cast iron	PN 6/10	1 x 230	250	UPS 40-100 F	95906486	87	

## Small and medium UP: Air separator pumps, 50 Hz

Terminal box position: 9 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
G 1 1/2	Cast iron	PN 10	1 x 230	180	UPS 25-20 A	59562502	88
	Cast iron	PN 10	1 x 230	180	UPS 25-30 A	59563000	89
	Cast iron	PN 10	1 x 230	180	UPS 25-40 A	96281387	90
	Cast iron	PN 10	1 x 230	180	UPS 25-60 A	96281491	91

## Small and medium UP: Twin-head circulator pumps, 50 Hz

Terminal box position: 12 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
G 2	Cast iron	PN 10	1 x 230	180	UPSD 32-50	95906413	92
	Cast iron	PN 10	1 x 230	180	UPSD 32-80	95906455	93
Flange DN 32	Cast iron	PN 6/10	1 x 230	220	UPSD 32-50 F	95906416	94
	Cast iron	PN 6/10	1 x 230	220	UPSD 32-80 F	95906459	95
	Cast iron	PN 6/10	1 x 230	220	UPSD 32-100 F	95906484	96
Flange DN 40	Cast iron	PN 6/10	1 x 230	250	UPSD 40-50 F	95906423	97
	Cast iron	PN 6/10	1 x 230	250	UPSD 40-80 F	95906465	98
	Cast iron	PN 6/10	1 x 230	250	UPSD 40-100 F	95906487	99

## Small and medium UP: Stainless-steel circulator pumps, 50 Hz

Terminal box position: 9 h

★ Terminal box position: 6 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
G 1 1/4	Stainless steel	PN 10	1 x 230	150	UP 20-07 N	59640506	100
	Stainless steel	PN 10	1 x 230	150	UP 20-15 N	59641500	101
	Stainless steel	PN 10	1 x 230	150	UP 20-30 N	59643500	102
	Stainless steel	PN 10	1 x 230	150	UP 20-45 N	95906472	103
	Stainless steel	PN 10	1 x 230	150	UPS 20-60 N	96913106	104
	Stainless steel	PN 10	1 x 240	150	UP 20-30 N	59643600	105
	Stainless steel	PN 10	1 x 240	150	UPS 20-60 N	96913096	106
	Stainless steel	PN 10	3 x 220	150	UP 20-30 N	59643701	107
	Stainless steel	PN 10	3 x 400	150	UP 20-15 N	59641800	108
	Stainless steel	PN 10	3 x 400	150	UP 20-30 N	59643800	109
G 1 1/2	Stainless steel	PN 10	1 x 230	180	UPS 25-40 N	96913060	110
	Stainless steel	PN 10	1 x 230	180	UPS 25-55 N	95906408	111
	Stainless steel	PN 10	1 x 230	180	UPS 25-60 N★	96913090★	112
	Stainless steel	PN 10	1 x 230	180	UPS 25-60 N	96913085	112
	Stainless steel	PN 10	1 x 230	180	UPS 25-80 N	95906439	113
	Stainless steel	PN 10	3 x 400	180	UPS 25-60 N	96913058	114
G 2	Stainless steel	PN 10	1 x 230	180	UPS 32-80 N★	95906450★	115
	Stainless steel	PN 10	1 x 230	180	UPS 32-80 N	95906448	115
	Stainless steel	PN 10	1 x 230	180	UPS 32-100 N	95906489	116
Flange DN 40	Stainless steel	PN 6/10	1 x 230	250	UPS 40-50 FN	95906422	117
	Stainless steel	PN 6/10	1 x 230	250	UPS 40-80 FN	95906753	118

## Small and medium UP: Stainless-steel circulator pumps, 50 Hz, only for the GB market

Terminal box position: 9 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
G 1 1/2	Stainless steel	PN 10	1 x 230	130	UPS 15-50 N	97549426	119
G 1 1/4	Stainless steel	PN 10	1 x 230	150	UP 20-07 N	98057201	120
	Stainless steel	PN 10	1 x 230	150	UP 20-15 N	98057205	121
	Stainless steel	PN 10	1 x 230	150	UP 20-30 N	98057221	122
G 1 1/2	Stainless steel	PN 10	1 x 230	150	UP 20-45 N	98057222	123
	Stainless steel	PN 10	1 x 230	180	UPS 25-55 N	95906772	124
G 2	Stainless steel	PN 10	1 x 230	180	UPS 25-80 N	98057227	125
	Stainless steel	PN 10	1 x 230	180	UPS 32-55 N	95906773	126
Flange DN 40	Stainless steel	PN 10	1 x 230	180	UPS 32-80 N	98057247	127
	Stainless steel	PN 6/10	1 x 230	250	UPS 40-50 FN	98057242	128
	Stainless steel	PN 6/10	1 x 230	250	UPS 40-80 FN	95906774	129

**Small and medium UP: Cold-water circulator pumps, 50 Hz**

Terminal box position: 9 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
Oval flange "21"	Cast iron	PN 10	1 x 230	120	UPS 21-60 FK	59556502	130
G 1 1/4	Cast iron	PN 10	1 x 230	130	UPS 20-40 K	59514517	131
G 1 1/2	Cast iron	PN 10	1 x 230	180	UPS 25-40 K	59544505	132
	Cast iron	PN 10	1 x 230	180	UPS 25-50 K	59545502	133
G 1 1/4	Cast iron, including cable 1145 mm	PN 10	1 x 230	180	UP 25-40 KU	59544524	134
		PN 10	1 x 230	180	UP 25-50 KU	59545520	135
		PN 10	1 x 230	180	UP 25-60 KU	59546510	136
G 1 1/2	Stainless steel	PN 10	1 x 240	150	UPS 20-60 NK	96913097	137
G 1 1/4	Stainless steel	PN 10	1 x 230	150	UP 20-30 NK	59643501	138

**Small and medium UP: Standard circulator pumps, 60 Hz**

Terminal box position: 9 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet page
G 1 1/4	Stainless steel	PN 10	1 x 220	150	UPS 20-62 N	95906736	139
G 1 1/2	Cast iron	PN 10	1 x 220	180	UPS 25-42	59544561	140
G 1 1/2	Cast iron	PN 10	1 x 220	180	UPS 25-62	59546515	141
G 1 1/2	Cast iron	PN 10	1 x 220	180	UPS 25-62 K	59546499	142
G 1 1/2	Cast iron	PN 10	1 x 220	180	UPS 25-72	95906739	143
Flange DN 40	Cast iron	PN 6/10	1 x 220	250	UPS 40-72 F	95906741	144
G 1 1/4	Stainless steel	PN 10	1 x 220	150	UP 20-32 N	59643502	145

**Large UP: Single-head circulator pumps, standard module**

Terminal box position: 1:30 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet Page
Flange DN 32 32 mm (1 1/4")	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPS 32-60 F 220	96401771	146
	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPS 32-120 F 220	96401837	148
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPS 32-60 F 220	96401777	147
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPS 32-120 F 220	96401839	149
	Bronze	PN 6 / PN 10	1 x 230-240	220	UPS 32-60 F B 220	96401797	146
	Bronze	PN 6 / PN 10	1 x 230-240	220	UPS 32-120 F B 220	96401844	148
	Bronze	PN 6 / PN 10	3 x 400-415	220	UPS 32-60 F B 220	96401808	147
	Bronze	PN 6 / PN 10	3 x 400-415	220	UPS 32-120 F B 220	96401846	149
Flange DN 40 40 mm (1 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPS 40-60/2 F 250	96401915	150
	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPS 40-120 F 250	96401942	152
	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPS 40-180 F 250	96401977	154
	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPS 40-185 F 250	96430299	156
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPS 40-60/2 F 250	96401917	151
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPS 40-120 F 250	96401944	153
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPS 40-180 F 250	96401979	155
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPS 40-185 F 250	96430296	157
	Bronze	PN 6 / PN 10	1 x 230-240	250	UPS 40-60/2 F B 250	96401921	150
	Bronze	PN 6 / PN 10	1 x 230-240	250	UPS 40-120 F B 250	96401949	152
	Bronze	PN 6 / PN 10	1 x 230-240	250	UPS 40-180 F B 250	96401983	154
	Bronze	PN 6 / PN 10	3 x 400-415	250	UPS 40-60/2 F B 250	96401923	151
	Bronze	PN 6 / PN 10	3 x 400-415	250	UPS 40-120 F B 250	96401951	153
	Bronze	PN 6 / PN 10	3 x 400-415	250	UPS 40-180 F B 250	96401985	155
	Bronze	PN 6 / PN 10	3 x 400-415	250	UPS 40-185 F B 250	96402053	158
	Flange DN 50 50 mm (2")	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPS 50-120 F 280	96402101
Cast iron		PN 6 / PN 10	1 x 230-240	280	UPS 50-180 F 280	96402134	162
Cast iron		PN 6 / PN 10	1 x 230-240	280	UPS 50-185 F 280	96430300	164
Cast iron		PN 6 / PN 10	3 x 400-415	280	UPS 50-60/2 F 280	96402055	159
Cast iron		PN 6 / PN 10	3 x 400-415	280	UPS 50-120 F 280	96402103	161
Cast iron		PN 6 / PN 10	3 x 400-415	280	UPS 50-180 F 280	96402136	163
Cast iron		PN 6 / PN 10	3 x 400-415	280	UPS 50-185 F 280	96430297	165
Bronze		PN 6 / PN 10	1 x 230-240	280	UPS 50-60/2 F B 280	96402064	158
Bronze		PN 6 / PN 10	1 x 230-240	280	UPS 50-120 F B 280	96402108	160
Bronze		PN 6 / PN 10	1 x 230-240	280	UPS 50-180 F B 280	96402140	162
Bronze		PN 6 / PN 10	3 x 400-415	280	UPS 50-60/2 F B 280	96402072	159
Bronze		PN 6 / PN 10	3 x 400-415	280	UPS 50-120 F B 280	96402110	161
Bronze		PN 6 / PN 10	3 x 400-415	280	UPS 50-180 F B 280	96402142	163

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet Page
Flange DN 65 65 mm (2 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPS 65-60/2 F 340	96402258	166
	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPS 65-120 F 340	96402278	168
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPS 65-60/2 F 340	96402260	167
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPS 65-120 F 340	96402280	169
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPS 65-180 F 340	96402316	170
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPS 65-185 F 340	96430298	171
	Bronze	PN 6 / PN 10	1 x 230-240	340	UPS 65-60/2 F B 340	96402262	166
	Bronze	PN 6 / PN 10	1 x 230-240	340	UPS 65-120 F B 340	96402285	168
	Bronze	PN 6 / PN 10	3 x 400-415	340	UPS 65-60/2 F B 340	96402264	167
	Bronze	PN 6 / PN 10	3 x 400-415	340	UPS 65-120 F B 340	96402287	169
	Bronze	PN 6 / PN 10	3 x 400-415	340	UPS 65-180 F B 340	96402320	170
	Flange DN 80 80 mm (3")	Cast iron	PN 6	3 x 400-415	360	UPS 80-60 F 360	96402391
Cast iron		PN 6	3 x 400-415	360	UPS 80-120 F 360	96402440	173
Cast iron		PN 10	3 x 400-415	360	UPS 80-60 F 360	96402392	172
Cast iron		PN 10	3 x 400-415	360	UPS 80-120 F 360	96402441	173
Bronze		PN 6	3 x 400-415	360	UPS 80-60 F B 360	96404916	172
Bronze		PN 6	3 x 400-415	360	UPS 80-120 F B 360	96404924	173
Bronze		PN 10	3 x 400-415	360	UPS 80-60 F B 360	96402401	172
Bronze		PN 10	3 x 400-415	360	UPS 80-120 F B 360	96402445	173
Flange DN 100 100 mm (4")	Cast iron	PN 6	3 x 400-415	450	UPS 100-30 F 450	96402503	174
	Cast iron	PN 10	3 x 400-415	450	UPS 100-30 F 450	96402508	174
	Bronze	PN 6	3 x 400-415	450	UPS 100-30 F B 450	96404933	174
	Bronze	PN 10	3 x 400-415	450	UPS 100-30 F B 450	96402527	174

## Large UP: Twin-head circulator pumps, standard module

Terminal box position: 12 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet Page
Flange DN 32 32 mm (1 1/4")	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPSD 32-60 F 220	96408898	175
	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPSD 32-120 F 220	96408893	177
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPSD 32-60 F 220	96408900	176
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPSD 32-120 F 220	96408961	178
Flange DN 40 40 mm (1 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPSD 40-60 F 250	96408907	179
	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPSD 40-120 F 250	96408901	181
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPSD 40-60 F 250	96408909	180
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPSD 40-120 F 250	96408903	182
	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-60/2 F 280	96408919	183
Flange DN 50 50 mm (2")	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-120 F 280	96408910	185
	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-180 F 280	96408913	187
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-60/2 F 280	96408921	184
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-120 F 280	96408912	186
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-180 F 280	96408915	188
	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPSD 65-60/2 F 340	96408933	189
Flange DN 65 65 mm (2 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPSD 65-120 F 340	96408925	191
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-60/2 F 340	96408935	190
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-120 F 340	96408927	192
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-180 F 340	96408929	193
Flange DN 80 80 mm (3")	Cast iron	PN 6	3 x 400-415	360	UPSD 80-60 F 360	96408952	194
	Cast iron	PN 6	3 x 400-415	360	UPSD 80-120 F 360	96408944	195
	Cast iron	PN 10	3 x 400-415	360	UPSD 80-60 F 360	96408951	194
	Cast iron	PN 10	3 x 400-415	360	UPSD 80-120 F 360	96408943	195
Flange DN 100 100 mm (4")	Cast iron	PN 6	3 x 400-415	450	UPSD 100-30 F 450	96408892	196
	Cast iron	PN 10	3 x 400-415	450	UPSD 100-30 F 450	96408891	196



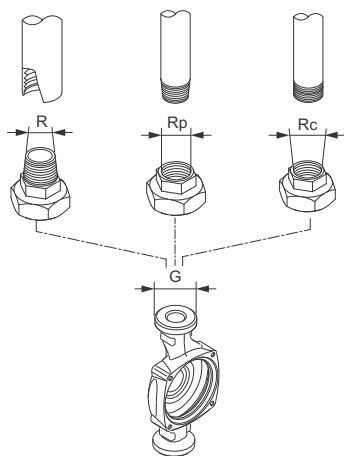
**Large UP: Twin-head circulator pumps, relay module**

Terminal box position: 12 h

Connection	Material	Pressure stage	Voltage [V]	Port-to-port length [mm]	Pump type	Product number	Data sheet Page
Flange DN 32 32 mm (1 1/4")	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPSD 32-60 F 220	96401783	175
	Cast iron	PN 6 / PN 10	1 x 230-240	220	UPSD 32-120 F 220	96401841	177
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPSD 32-60 F 220	96401792	176
	Cast iron	PN 6 / PN 10	3 x 400-415	220	UPSD 32-120 F 220	96401843	178
	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPSD 40-60 F 250	96401918	179
Flange DN 40 40 mm (1 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	250	UPSD 40-120 F 250	96401946	181
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPSD 40-60 F 250	96401920	180
	Cast iron	PN 6 / PN 10	3 x 400-415	250	UPSD 40-120 F 250	96401948	182
Flange DN 50 50 mm (2")	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-60/2 F 280	96402057	183
	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-120 F 280	96402105	185
	Cast iron	PN 6 / PN 10	1 x 230-240	280	UPSD 50-180 F 280	96402137	187
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-60/2 F 280	96402060	184
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-120 F 280	96402107	186
	Cast iron	PN 6 / PN 10	3 x 400-415	280	UPSD 50-180 F 280	96402139	188
Flange DN 65 65 mm (2 1/2")	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPSD 65-60/2 F 340	96404981	189
	Cast iron	PN 6 / PN 10	1 x 230-240	340	UPSD 65-120 F 340	96402282	191
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-60/2 F 340	96404983	190
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-120 F 340	96402284	192
	Cast iron	PN 6 / PN 10	3 x 400-415	340	UPSD 65-180 F 340	96402318	193
Flange DN 80 80 mm (3")	Cast iron	PN 6	3 x 400-415	360	UPSD 80-60 F 360	96402397	194
	Cast iron	PN 6	3 x 400-415	360	UPSD 80-120 F 360	96403131	195
	Cast iron	PN 10	3 x 400-415	360	UPSD 80-60 F 360	96402398	194
	Cast iron	PN 10	3 x 400-415	360	UPSD 80-120 F 360	96403132	195
Flange DN 100 100 mm (4")	Cast iron	PN 6	3 x 400-415	450	UPSD 100-30 F 450	96402523	196
	Cast iron	PN 10	3 x 400-415	450	UPSD 100-30 F 450	96402524	196

## 10. Accessories


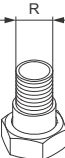
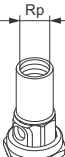
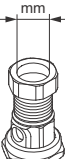
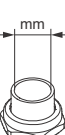
### Pipe connections for small and medium UP pumps



TM06 7897 4116

Fig. 43 G-thread and R-thread

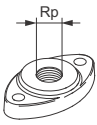
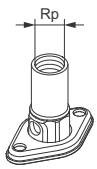
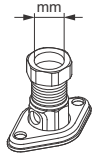
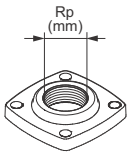
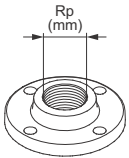
#### Product numbers, unions

Pump type		20-xx	20-xx N	25-xx	25-xx N	32-xx	32-xx N
Connection		G 1 1/4		G 1 1/2		G 2	
	3/4	529932 <sup>1)</sup>	529982 <sup>2)</sup>	529921 <sup>1)</sup>	529971 <sup>2)</sup>	-	-
	1	-	-	529922 <sup>1)</sup>	529972 <sup>2)</sup>	509921 <sup>1)</sup>	-
	1 1/4	-	-	529821 <sup>1)</sup>	-	509922 <sup>1)</sup>	509971 <sup>2)</sup>
	1	-	529983 <sup>2)</sup>	529925 <sup>1)</sup>	-	-	-
	1 1/4	-	-	529924 <sup>1)</sup>	-	-	-
	3/4	-	519802 <sup>2)</sup>	-	519805 <sup>2)</sup>	-	-
	1	-	-	-	519806 <sup>2)</sup>	-	-
	1 1/4	-	-	-	519807 <sup>2)</sup>	-	-
	Ø22	-	519801 <sup>2)</sup>	-	519808 <sup>2)</sup>	-	-
	Ø28	-	-	-	519809 <sup>2)</sup>	-	-
	Ø15	-	529986 <sup>2)</sup>	-	-	-	-
	Ø18	-	529987 <sup>2)</sup>	-	529977 <sup>2)</sup>	-	-
	Ø22	-	529988 <sup>2)</sup>	-	529978 <sup>2)</sup>	-	-
	Ø28	-	529989 <sup>2)</sup>	-	529979 <sup>2)</sup>	-	-
	Ø42	-	-	-	-	-	529995 <sup>2)</sup>

1) Cast iron.

2) Brass/bronze.

## Product numbers, flanges

Pump type		21-xx F	36-xx F	32-xx F		40-xx F	
Connection		Oval	Square	PN 6	PN 10	PN 6	PN 10
	3/4	529607 <sup>1)</sup>	-	-	-	-	-
	1	529604 <sup>1)</sup>	-	-	-	-	-
	1 1/4	529605 <sup>1)</sup>	-	-	-	-	-
	1 1/2	529606 <sup>1)</sup>	-	-	-	-	-
	3/4	519705 <sup>2)</sup>	-	-	-	-	-
	1	519706 <sup>2)</sup>	-	-	-	-	-
	1 1/4	519707 <sup>2)</sup>	-	-	-	-	-
	Ø22	519708 <sup>2)</sup>	-	-	-	-	-
	Ø28	519709 <sup>2)</sup>	-	-	-	-	-
	3/4	-	509901 <sup>1)</sup>	-	-	-	-
	1	-	509902 <sup>1)</sup>	-	-	-	-
	1 1/4	-	509903 <sup>1)</sup>	-	-	-	-
	1 1/2	-	509904 <sup>1)</sup>	-	-	-	-
	2	-	509905 <sup>1)</sup>	-	-	-	-
	Ø32	-	509908 <sup>1)</sup>	-	-	-	-
	Ø40	-	509909 <sup>1)</sup>	-	-	-	-
	Ø50	-	509910 <sup>1)</sup>	-	-	-	-
	1 1/4	-	-	539903 <sup>1)</sup>	539703 <sup>1)</sup> 96427029 <sup>2)</sup>	-	-
	1 1/2	-	-	-	-	539901 <sup>1)</sup> 539911 <sup>2)</sup>	539701 <sup>1)</sup> 539711 <sup>2)</sup>
	Ø32	-	-	539904 <sup>1)</sup>	539704 <sup>1)</sup> 96427030 <sup>2)</sup>	-	-
	Ø40	-	-	-	-	539902 <sup>1)</sup> 539912 <sup>2)</sup>	539702 <sup>1)</sup> 539712 <sup>2)</sup>

1) Cast iron.

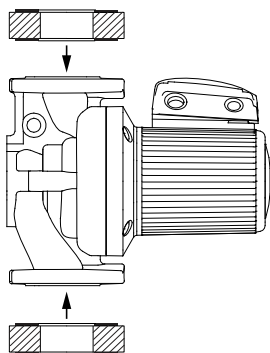
2) Brass/bronze.

## Flange-flange adapters for large UP pumps

A flange-flange adapter kit includes:

- two flanges with internal thread (ISO seal thread) or two flanges for welding/soldering
- two gaskets
- bolts.

Flange-flange adapters are mounted on pumps for the UK as a standard.



TM06 7898 4116

Fig. 44 Example of flange-flange adapters

Pumps with cast iron pump housing			
Pump type	Pressure stage	Size	Product number
UPS/UPSD 32	PN 10	Rp 1 1/4	539703
		32 mm	539704
UPS/UPSD 40	PN 10	Rp 1 1/2	539701
		40 mm	539702
UPS/UPSD 50	PN 10	Rp 2	549801
		50 mm	549802
UPS/UPSD 65	PN 10	Rp 2 1/2	559801
		65 mm	559802
		Rp 3	569902
UPS/UPSD 80	PN 6	80 mm	569901
		Rp 3	569802
	PN 10	80 mm	569801
UPS/UPSD 100	PN 6	Rp 4	579901
		100 mm	579902
	PN 10	Rp 4	579801
UPS 32	PN 10	Rp 1 1/4	96427029
		32 mm	96427030
UPS 40	PN 10	Rp 1 1/2	539711
		40 mm	539712
UPS 50	PN 10	Rp 2	549811
		50 mm	549812
UPS 65	PN 10	Rp 2 1/2	559811
		65 mm	559812
UPS 80	PN 6	Rp 3	96405735
		80 mm	569911
	PN 10	Rp 3	569812
UPS 100	PN 6	80 mm	569811
		PN 10	Rp 4
	PN 10	Rp 4	96405738

Rp: flange with internal thread (ISO seal thread).  
mm: flange for welding/soldering.

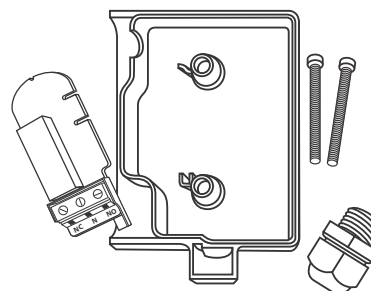
## Blank flanges for large UP twin-head pumps

For twin-head Large UP pumps, a blank flange with pump housing seal is available as an option. The blank flange is used when servicing one of the power heads to enable uninterrupted operation of the other.

Pump type	Product number
UPSD 32-60 F 220	
UPSD 32-120 F 220	
UPSD 40-60 F 250	
UPSD 40-60/2 F 250	545048
UPSD 40-120 F 250	
UPSD 50-60/2 F 280	
UPSD 50-120 F 280	
UPSD 50-180 F 280	565055
UPSD 65-60/2 F 340	545048
UPSD 65-120 F 340	
UPSD 65-180 F 340	
UPSD 80-60 F 360	565055
UPSD 80-120 F 360	
UPSD 100-30 F 450	

## Alarm module for small and medium UP pumps

The alarm module offers the possibility of monitoring failures of the pump via external equipment. The module has two galvanically separated outputs: one NC (normally closed), one NO (normally open). The alarm output is activated either when the power supply fails or when the thermistor has cut out the motor.



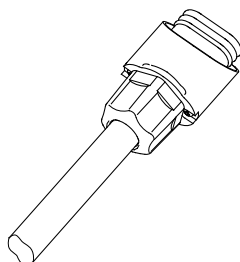
TM04 3958 0509

Fig. 45 Alarm module

Description	Product number
Alarm module, UPS(D) xx-100 (F)	95906254

## Connector for small and medium UPS pumps

The connector incorporates cable relief and a locking function for securing the connection of the supply cable.



TM01 9911 3400

Fig. 46 Connector UPS

Description	Product number
Connector for UPS(D) xx-100 (F)	595562

## Protection module for large UP pumps

The protection module protects the pump against overload and overheating at all three speeds. The protection module is an accessory for single-head and twin-head pumps.

Voltage [V]	Product number
1 x 230-240	96422219
3 x 400-415	96422221

## Relay module for large UP pumps

The relay module enables direct connection of the pump to an external switch and an external operating or fault indication device.

### Single-head pumps

Voltage [V]	Product number
1 x 230-240	96406611
3 x 400-415	96406609

### Twin-head pumps

A relay module kit for twin-head pumps includes these parts:

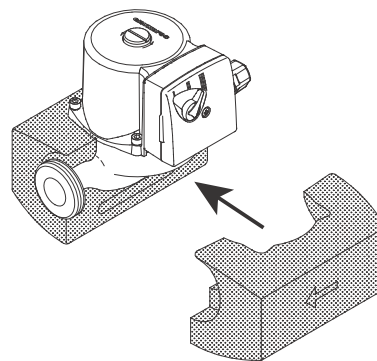
- two relay modules with screws and screwdriver
- two screwed cable entries
- one intermediate cable
- two wiring diagrams for terminal box covers.

Voltage [V]	Product number
1 x 230-240	96409231
3 x 400-415	96409229

## Insulation kit for small and medium UP pumps

Small and medium UP circulator pumps can be fitted with two insulating shells. The thickness of the insulating shells corresponds to the nominal diameter of the pump.

The insulation kit, which is tailored to the individual pump type, encloses the entire pump housing. The two shells can easily be fitted around the pump.



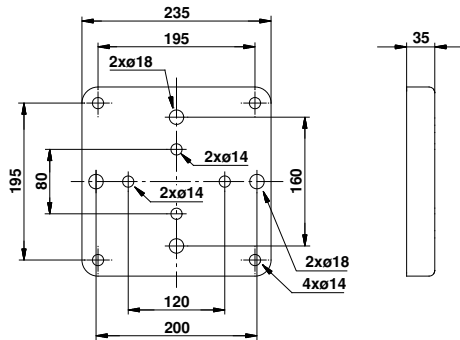
TM00 9687 5196

Fig. 47 Insulating shells

Insulation kit for pump type	Product number
UPS 25-20	505821
UPS 32-20	505821
UPS 25-25	95906655
UPS 25-30	505821
UPS 32-25	95906655
UPS 32-30	505821
UPS 25-40	505821
UPS 32-40	505821
UPS 25-55	95906655
UPS 25-60	505821
UPS 32-55	95906655
UPS 32-60	505821
UPS 25-80	95906655
UPS 25-100	95906653
UPS 32-100	95906653
UPS 25-20 A	505822
UPS 25-30 A	505822
UPS 25-40 A	505822
UPS 25-60 A	505822
UPS 40-50 F	95906655
UPS 40-80 F	95906655

## Base plate for large UP single-head pumps

Each base plates includes two bolts.



TM00 9835 0197

Fig. 48 Base plate

Pump type	Product number
UPS 32-60, -120	
UPS 40-60/2, -120, -180	96405915
UPS 50-60/2, -120, -180	
UPS 65-60/2, -120, -180	

## Plug-in timer for small and medium UP pumps

The plug-in timer is suitable for 50 Hz household power and only counts time when it is connected to a power source. There is no battery in the timer.

You can find the plug-in timer for your country-specific power outlet in the table below.



TM05 8845 2813

Country	Product number
Italy	98465219
Switzerland	98465222
France, Belgium	98465224
UK	98465225
Denmark	98465226
Germany	98465228

# 11. Grundfos Product Center

Online search and sizing tool to help you make the right choice.

<http://product-selection.grundfos.com>



**SIZING** enables you to size a pump based on entered data and selection choices.

**REPLACEMENT** enables you to find a replacement product. Search results will include information on

- the lowest purchase price
- the lowest energy consumption
- the lowest total life cycle cost.

The screenshot shows the Grundfos Product Center website. At the top, there is a navigation bar with the logo and menu items: HOME, FIND PRODUCT, COMPARE, YOUR PROJECTS, SAVED ITEMS, HELP. Below the navigation bar is a search bar with a 'SEARCH' button. The main content area features four large buttons: SIZING (Enter pump sizing), CATALOGUE (Products and services), REPLACEMENT (Replace an old pump with a new), and LIQUIDS (Find pump by liquid). Below these buttons is a 'QUICK SIZING' section with input fields for 'Enter duty point' (Flow (Q)\* in m³/h and Head (H)\* in m) and 'Select what to size by' (Size by application, Size by pump design, Size by pump family). A 'START SIZING' button is also present. At the bottom of the quick sizing section, there are options for 'ADVANCED SIZING' (Advanced sizing by application, Guided selection).

**CATALOGUE** gives you access to the Grundfos product catalogue.

**LIQUIDS** enables you to find pumps designed for aggressive, flammable or other special liquids.

## All the information you need in one place

Performance curves, technical specifications, pictures, dimensional drawings, motor curves, wiring diagrams, spare parts, service kits, 3D drawings, documents, system parts. The Product Center displays any recent and saved items - including complete projects - right on the main page.

## Downloads

On the product pages, you can download installation and operating instructions, data booklets, service instructions, etc. in PDF format.

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