

# Series 200

UPS, UPSD circulator pumps

50/60 Hz



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**GRUNDFOS** 

|   |           |
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# 1. Product description

## Applications

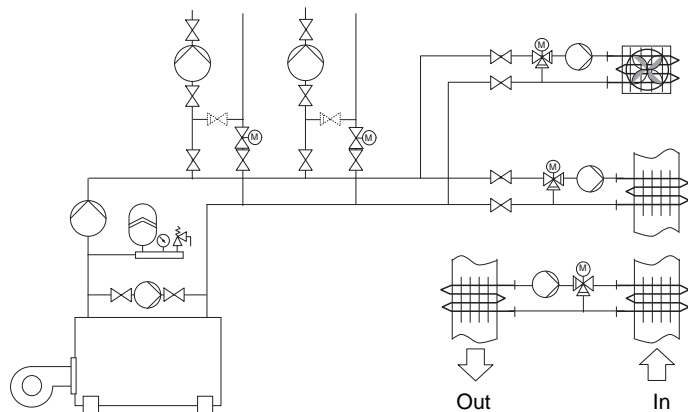
Grundfos circulator pump types UPS and UPSD are designed for the circulation of liquids in heating and air-conditioning systems. Pumps with bronze pump housings are suitable for circulation in domestic hot water systems.

UPS, UPSD are a complete line of circulator pumps with three speeds.

UPS, UPSD pumps are available as single-head or twin-head pumps.

Below you'll find general examples of systems for which UPS, UPSD pumps are suitable.

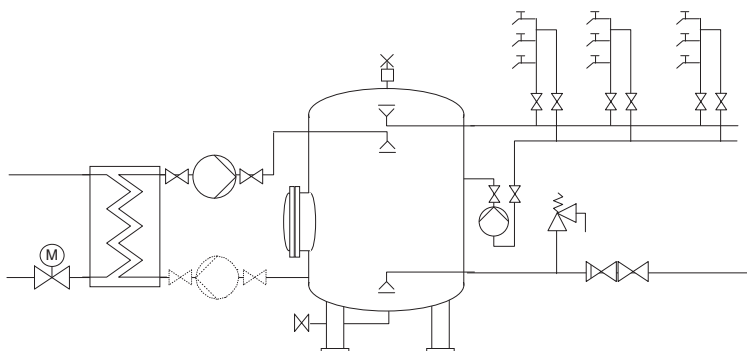
### Heating systems



- One- and two-pipe heating systems
- Main pumps
- Zone pumps
- Boiler shunt pumps
- Pumps for heating surfaces
- Calorifers
- Underfloor heating systems
- Solar heating systems
- Geothermal heating systems
- Heat recovery systems.

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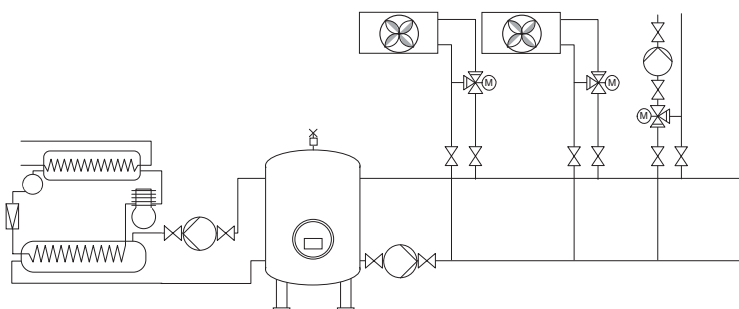
### Domestic hot water systems



- Domestic hot water systems.

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### Cooling and air-conditioning systems



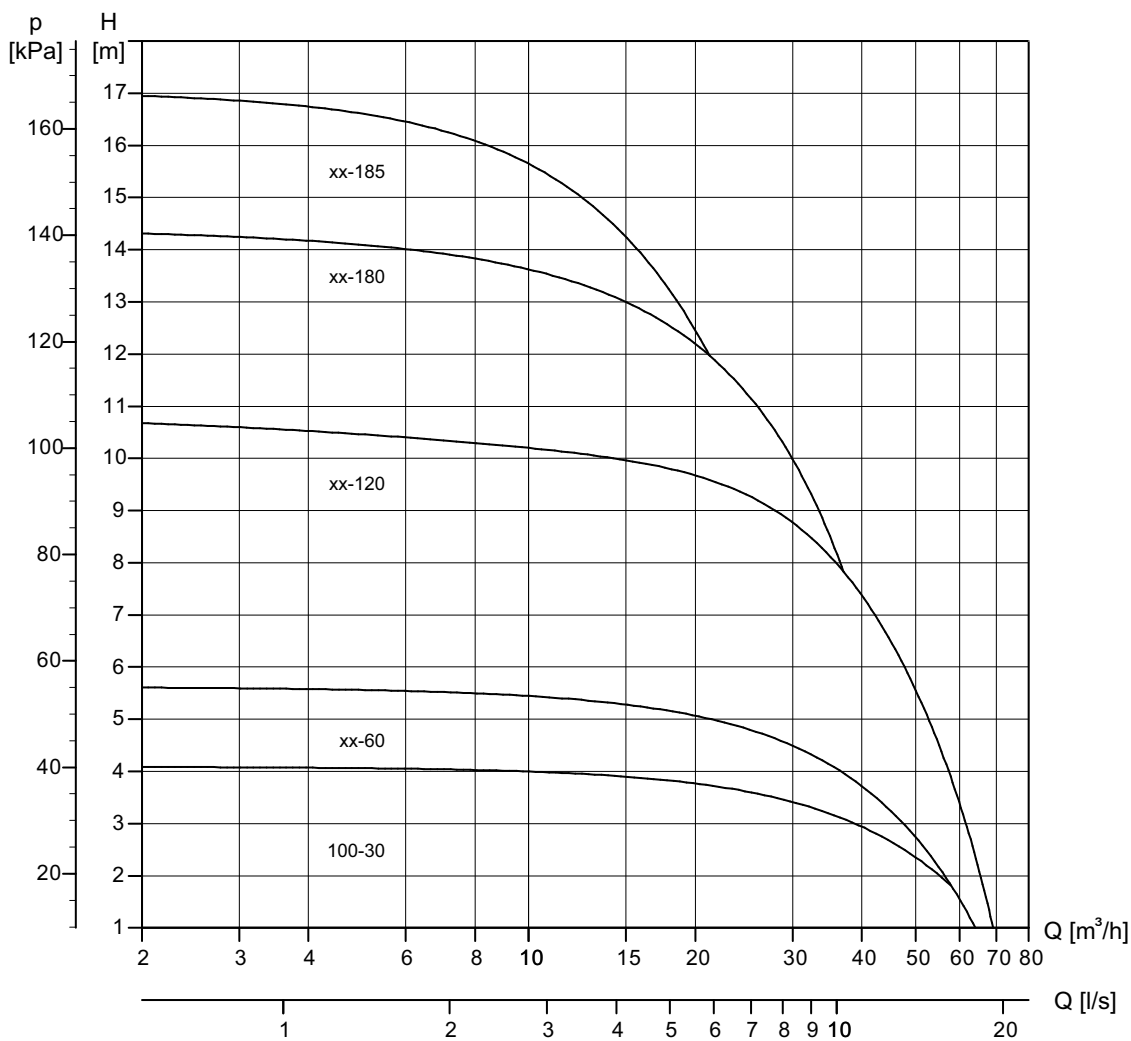
- Two-pipe air-conditioning systems
- Main pumps
- Zone pumps
- Pumps for refrigeration units
- Heat pump systems
- Geothermal heating systems
- Heat recovery systems.

TM01 0170 0697

### Type key

|   |     |     |    |     |      |      |     |
|---|-----|-----|----|-----|------|------|-----|
| <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, this circulator pump is suitable for drinking water only.) |     |     |    |     |      |      |     |
| Port-to-port length [mm]  |     |     |    |     |      |      |     |

### Performance range



TM06 4623 2615

## 2. Product range

### Pump selection

#### Single-head pumps

| Pump type         | Pressure stage |      |       |                     |             |              | Voltage [V] |             | Poles |   |
|-------------------|----------------|------|-------|---------------------|-------------|--------------|-------------|-------------|-------|---|
|                   | PN 6 / PN 10   | PN 6 | PN 10 | PN 6 / PN 10 bronze | PN 6 bronze | PN 10 bronze | 1 x 230-240 | 3 x 400-415 | 2     | 4 |
| UPS 32-60 F 220   | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 32-120 F 220  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 40-60/2 F 250 | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 40-120 F 250  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 40-180 F 250  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 40-185 F 250  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPS 50-60/2 F 280 | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 50-120 F 280  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 50-180 F 280  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 50-185 F 280  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPS 65-60/2 F 340 | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 65-120 F 340  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 65-180 F 340  | •              |      |       | •*                  |             |              | •           | •           | •     |   |
| UPS 65-185 F 340  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPS 80-60 F 360   |                | •    | •     |                     | •*          | •*           |             | •           |       | • |
| UPS 80-120 F 360  |                | •    | •     |                     | •*          | •*           |             | •           | •     |   |
| UPS 100-30 F 450  |                | •    | •     |                     | •*          | •*           |             | •           |       | • |

\* Not covered by the EuP requirements from 2013.

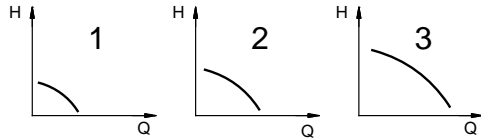
#### Twin-head pumps

| Pump type          | Pressure stage |      |       |                     |             |              | Voltage [V] |             | Poles |   |
|--------------------|----------------|------|-------|---------------------|-------------|--------------|-------------|-------------|-------|---|
|                    | PN 6 / PN 10   | PN 6 | PN 10 | PN 6 / PN 10 bronze | PN 6 bronze | PN 10 bronze | 1 x 230-240 | 3 x 400-415 | 2     | 4 |
| UPSD 32-60 F 220   | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 32-120 F 220  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 40-60 F 250   | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 40-120 F 250  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 50-60/2 F 280 | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 50-120 F 280  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 50-180 F 280  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 65-60/2 F 340 | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 65-120 F 340  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 65-180 F 340  | •              |      |       |                     |             |              | •           | •           | •     |   |
| UPSD 80-60 F 360   |                | •    | •     |                     |             |              |             | •           |       | • |
| UPSD 80-120 F 360  |                | •    | •     |                     |             |              |             | •           | •     |   |
| UPSD 100-30 F 360  |                | •    | •     |                     |             |              |             | •           |       | • |

## 3. Functions

### Speed switch

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



TM00 9247 4595

Fig. 1 Pump performance at the three speeds

The speeds of the various speed switch positions are shown in the table below:

| 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.

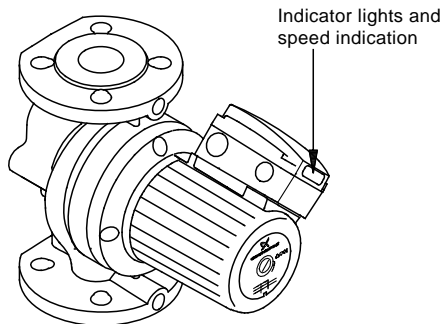


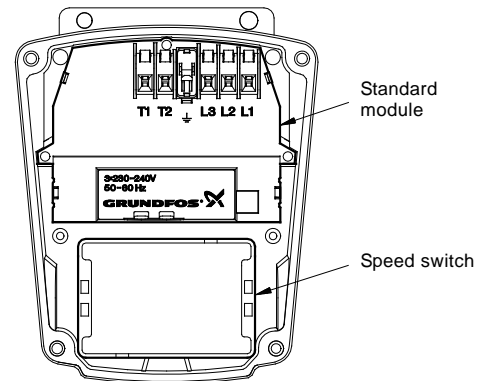
Fig. 2 Indicator lights on terminal box

TM00 9747 0602

### 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. 3 Standard module

### Standard module indicator lights

The function of the indicator lights on the terminal box is as shown in the following tables.

#### Single-phase pumps

Single-phase pumps incorporate a green indicator light only:

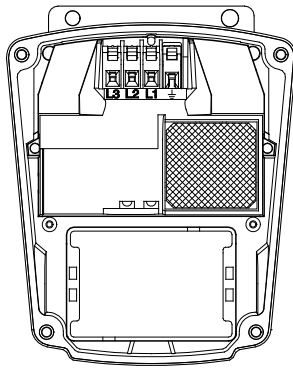
| Indicator light | Description                             |
|-----------------|---|
| On              | The power supply has been switched on.  |
| Off             | The power supply has been switched off. |

#### Three-phase pumps

Three-phase pumps incorporate 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



TM01 3879 4798

Fig. 4 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

The function of the indicator lights is shown in the table below.

| Indicator lights |     | Description  |
|------------------|-----|--|
| Green            | Red |  |
| Off              | Off | The pump has been stopped.<br>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><br>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.

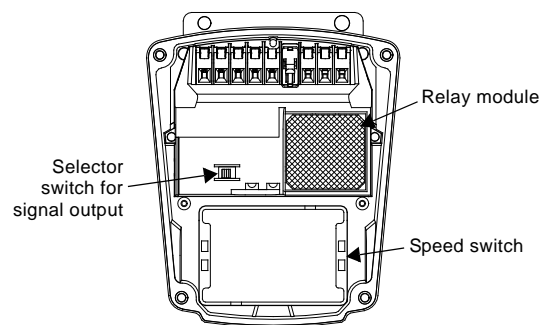
## Relay module

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.



TM00 9236 4596

Fig. 5 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.

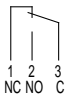
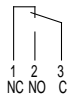
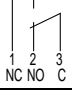
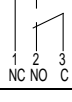
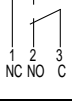
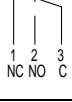

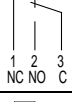
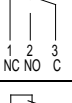
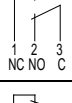


### Signal output

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.

### 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><br>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.

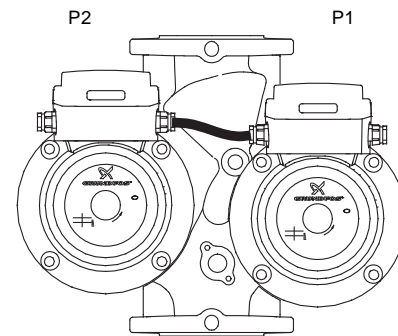


Fig. 6 Twin-head pump

TM00 9243 4101

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.



## 4. Operating conditions

### Pumped liquids

Thin, clean, non-aggressive and non-explosive liquids, not containing any solid particles, fibres or mineral oil. In domestic hot water systems, it is advisable to use bronze pumps only for water with a degree of hardness lower than approx. 14 °dH. For water with a higher degree of hardness, use a close-coupled pump type TP.

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 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

- Ambient temperature: 0 °C to 40 °C
- Liquid temperature
  - for short periods: +140 °C
  - continuously: -10 °C to +120 °C
  - domestic hot water: up to +60 °C
- Storage temperature: -30 °C to +55 °C.

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

### System and inlet pressures

Relative humidity: Max. 95 %.

Sound-pressure level: The sound-pressure level of the pump is lower than 41 dB(A) (reference: 20 mPa).

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, the following minimum pressures are required at the pump suction flange:

| Pump type     | Liquid temperature |             |             |
|---------------|--------------------|-------------|-------------|
|               | 75 °C              | 90 °C       | 120 °C      |
|               | [bar]/[MPa]        | [bar]/[MPa] | [bar]/[MPa] |
| UPS, UPSD     |                    |             |             |
| 32-60 F 220   | 0.05/0.5           | 0.20/2.0    | 1.50/15.0   |
| 32-120 F 220  | 0.40/4.0           | 0.70/7.0    | 1.95/19.5   |
| 40-60/2 F 250 | 0.15/1.5           | 0.45/4.5    | 1.75/17.5   |
| 40-120 F 250  | 0.10/1.0           | 0.40/4.0    | 1.70/17.0   |
| 40-180 F 250  | 0.40/4.0           | 0.70/7.0    | 1.95/19.5   |
| 40-185 F 250  | 0.55/5.5           | 0.90/9.0    | 1.80/18.0   |
| 50-60/2 F 280 | 0.05/0.5           | 0.35/3.5    | 1.65/16.5   |
| 50-120 F 280  | 0.40/4.0           | 0.70/7.0    | 1.95/19.5   |
| 50-180 F 280  | 0.35/3.5           | 0.65/6.5    | 1.90/19.0   |
| 50-185 F 280  | 0.85/8.5           | 1.00/10.0   | 2.15/21.5   |
| 65-60/2 F 340 | 0.45/4.5           | 0.75/7.5    | 2.00/20.0   |
| 65-120 F 340  | 0.90/9.0           | 1.20/12.0   | 2.45/24.5   |
| 65-180 F 340  | 0.70/7.0           | 1.00/10.0   | 2.25/22.5   |
| 65-185 F 340  | 0.90/9.0           | 1.30/13.0   | 2.35/23.5   |
| 80-60 F 360   | 1.20/12.0          | 1.50/15.0   | 2.75/27.5   |
| 80-120 F 360  | 1.60/16.0          | 1.90/19.0   | 3.15/31.5   |
| 100-30 F 450  | 1.05/10.5          | 1.35/13.5   | 2.60/26.0   |

## Electrical data

|                                      |   |
|--------------------------------------|---|
| Supply voltage and frequency:        | 1 x 230-240 V, 50 Hz<br>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.  |
| Back-up fuse:                        | Max. 10 A   |
| Enclosure class:                     | IPX4D   |
| Insulation class:                    | F, H  |
| Screwed cable entries:               | 1 x M20 for mains connection.<br>1 x M20 for signal output (blanked-off if pump with standard module).<br>1 x M16 for capacitor connection (only single-phase pumps). |
| EMC (electromagnetic compatibility): | EN 61 000-6-2<br>EN 61 000-6-3  |

## Thermal overload switch

|         |  |
|---------|--|
| Voltage | 250 V AC   |
| Current | cos $\varphi$ = 1.0: 2.5 A<br>cos $\varphi$ = 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

## 5. Construction

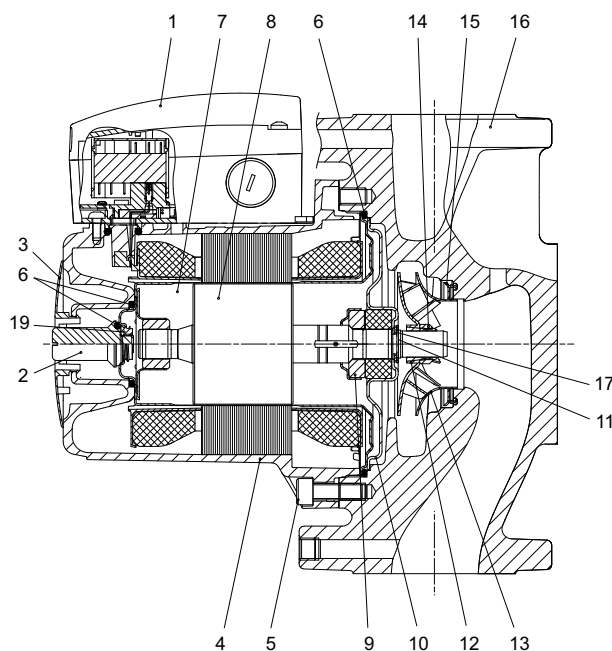
The UPS, UPSD pumps are of the canned rotor type, i.e. pump and motor form an integral unit without shaft seal and with only two gaskets for sealing. The bearings are lubricated by the pumped liquid.

Attention has been focused on using as few materials as possible, and the use of materials that might cause problems in connection with disposal have been omitted.

The pump offers these features:

- three-speed motor
- ceramic radial bearings
- carbon thrust bearing
- stainless-steel rotor can, bearing plate and rotor cladding
- aluminium-alloy stator housing
- cast iron or bronze pump housing
- stator with built-in thermal overload switch.

### Sectional drawing



TM06 4714 2815

Fig. 7 Sectional drawing

### Material specification

| Pos. | Description             | Material               | DIN/EN |
|------|-------------------------|------------------------|--------|
| 1    | Terminal box            | PA66/PC                |        |
| 2    | Inspection screw        | Brass with nickel      |        |
| 3    | Nameplate               | PA66                   |        |
|      | Stator housing          | AISI 10Cu2             |        |
| 4    | Stator windings         | Copper wire            |        |
|      | Stator caps             | PET 30 % glass         |        |
| 5    | Cheese-head screw       | Steel 8.8              |        |
| 6    | O-rings                 | EPDM or FKM rubber     |        |
| 7    | Outer bearing ring      | Aluminium oxide / SiC  |        |
|      | Rotor can               | Stainless steel        | 1.4301 |
|      | Shaft (cast iron pumps) | Stainless steel        | 1.4305 |
| 8    | Shaft (bronze pumps)    | Stainless steel        | 1.4404 |
|      | Rotor cladding          | Stainless steel        | 1.4301 |
| 9    | Thrust bearing          | CY103                  |        |
|      | Bearing plate           | Stainless steel        | 1.4301 |
| 10   | Inner bearing ring      | Aluminium oxide/SiC    |        |
| 11   | Stop ring               | Stainless steel        | 1.4435 |
| 12   | Split cone              | Stainless steel        | 1.4305 |
| 13   | Impeller                | Stainless steel        | 1.4301 |
| 14   | Nut                     | Stainless steel        | 1.4305 |
| 15   | Neck ring               | Stainless steel / PTFE | 1.4301 |

| Pos. | Description                         | Material        | DIN/EN                              |
|------|-------------------------------------|-----------------|-------------------------------------|
|      |                                     | Cast iron       | EN-JL-1040                          |
| 16   | Pump housing                        | Bronze CuSn10Pb | EN-GJL-250<br>2.1050.01<br>DIN 1705 |
| 17   | Anti-friction ring                  | PTFE            |                                     |
|      | Nonreturn flap<br>(Twin-head pumps) | EPDM rubber     |                                     |
| 19   | Splash protector                    | Stainless steel | 1.4305                              |

## 6. Installation

The pump must be installed with horizontal motor shaft.

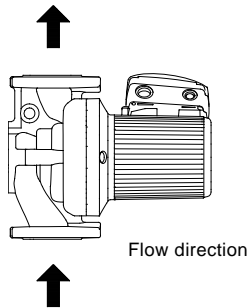


Fig. 8 Flow direction

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

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

### Terminal box positions

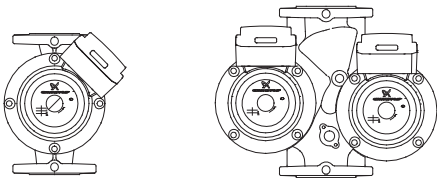


Fig. 9 Standard terminal box positions

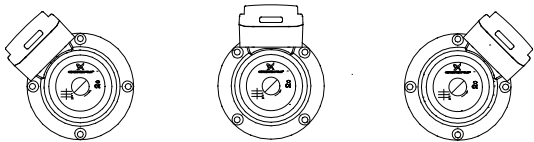


Fig. 10 Permissible terminal box positions of single-head pumps

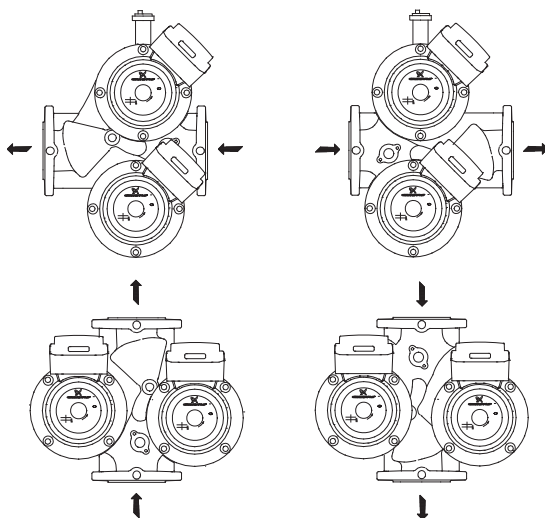


Fig. 11 Permissible terminal box positions and flow direction of twin-head pumps

### 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- 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.

### Pumps with standard module

The pump must be connected to the mains via an external contactor. The contactor is to be connected to the pump's built-in thermal overload switch at terminals T1 and T2 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

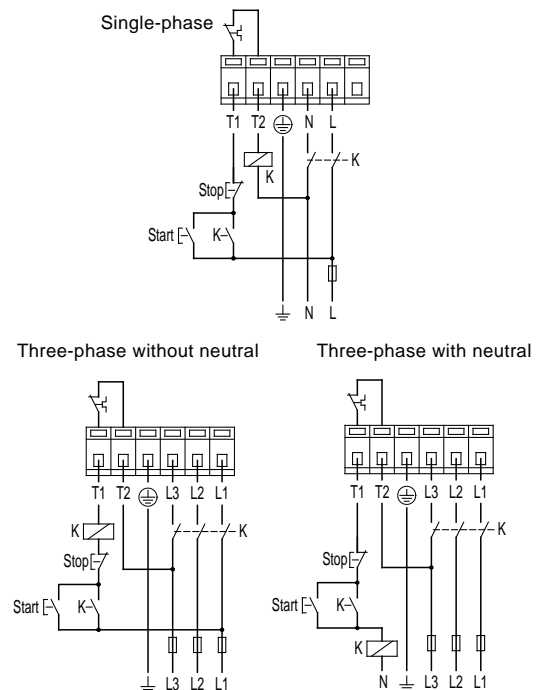
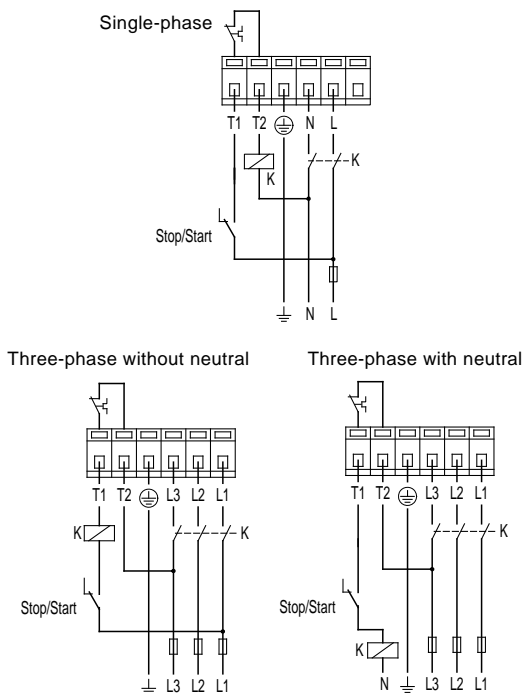


Fig. 12 External impulse switches

**External changeover switch**

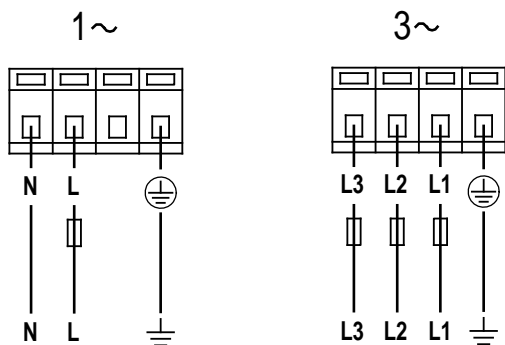


**Fig. 13** External changeover switch

**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.

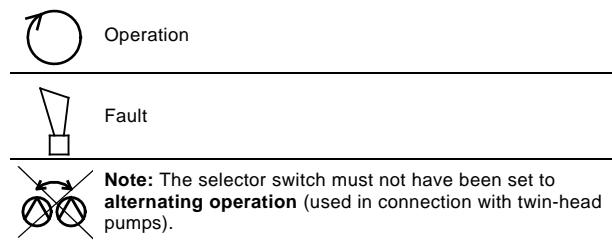


**Fig. 14** Electrical connections, protection module

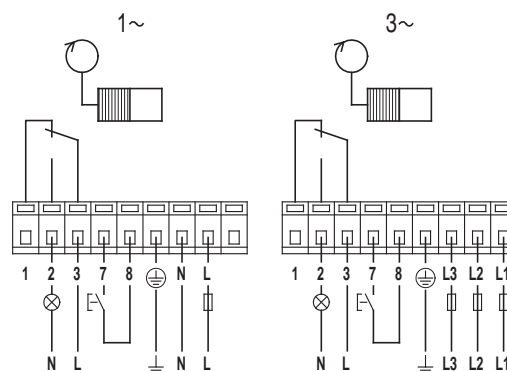
**Single-head pumps with relay module**

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:

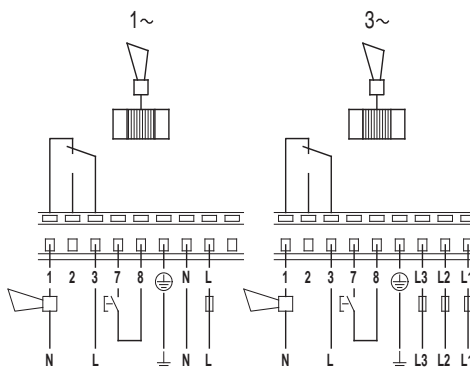


**Operating indication**



**Fig. 15** Operating indication

**Fault indication**



**Fig. 16** Fault indication

TM00 9172 0305

TM00 9174 0305

TM01 3402 0305

TM00 9175 0305

## 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 shows the electrical connections and the selector switch setting for the various operating modes.

### Alternating operation (factory setting)

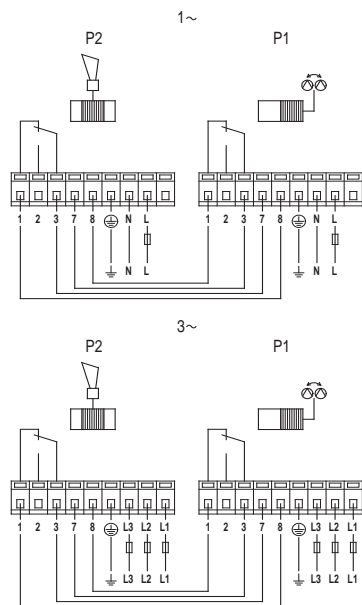


Fig. 17 Alternating operation

### 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.

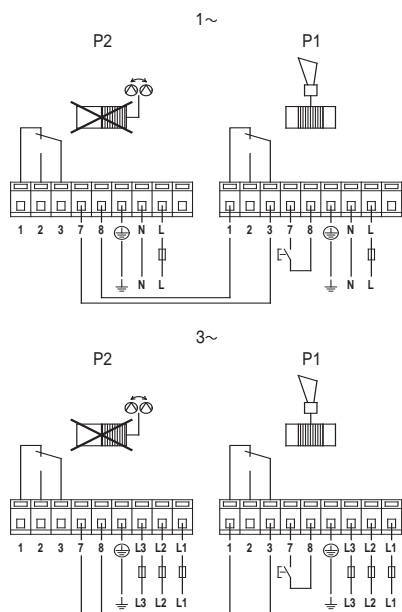


Fig. 18 Standby operation

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.

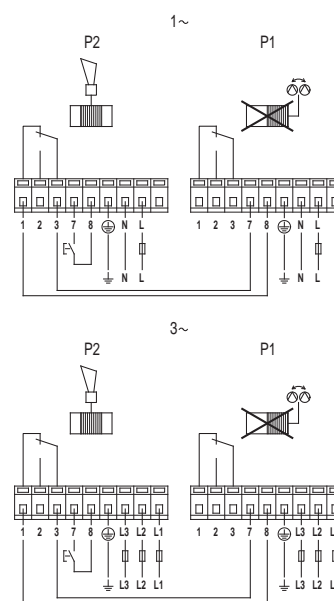


Fig. 19 Standby operation

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 13 *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.

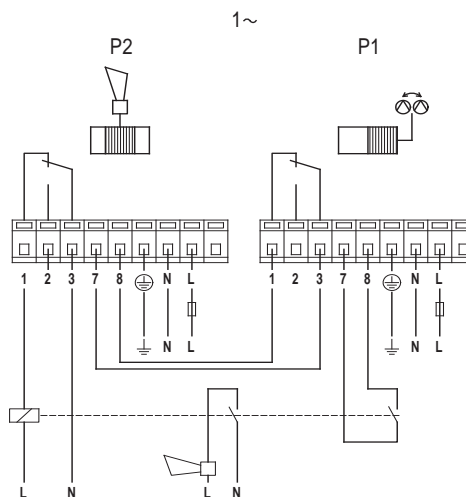


Fig. 20 Alternating operation with external fault indication

TM00 9176 0305

TM00 9178 0305

TM00 9177 0305

TM00 9179 0305

## 7. Performance curves and technical data

### Curve conditions

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

- Due to the danger of overheating the pumps must not be used at a flow below  $0.1 \times Q$  at best efficiency point.
- The bold parts of the curves show the recommended performance range.
- Test liquid: Airless water.
- The curves apply to a liquid temperature of 20 °C.
- All curves show average values and should not be used as guarantee curves. If a stated 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, e.g. hot water, the discharge pressure is proportional with the density.

Power curves, efficiency curves and electrical data for twin-head pumps apply to single-pump operation.

### Speed

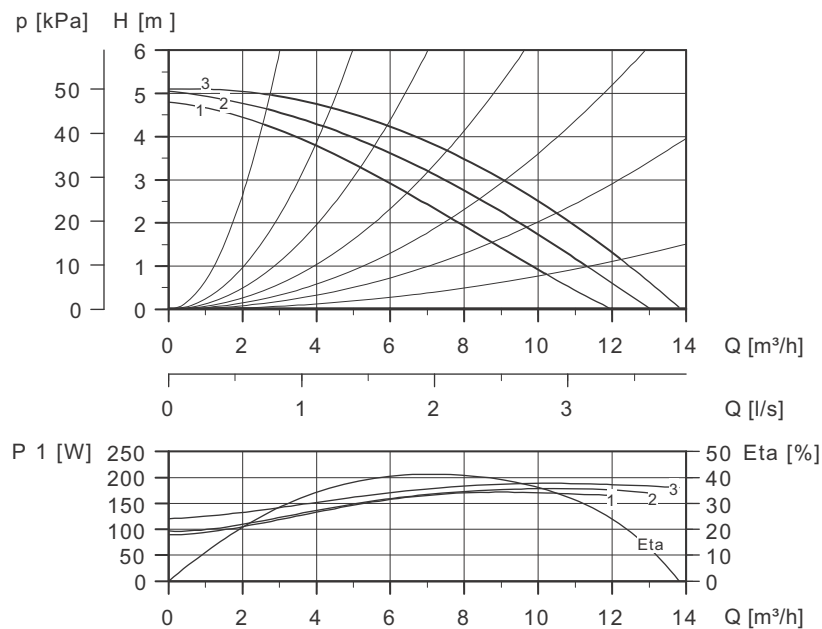
The table below shows the speed range of the various pump types and speed switch positions.

| 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)

## 8. Data sheets

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



TM00 9420 0197

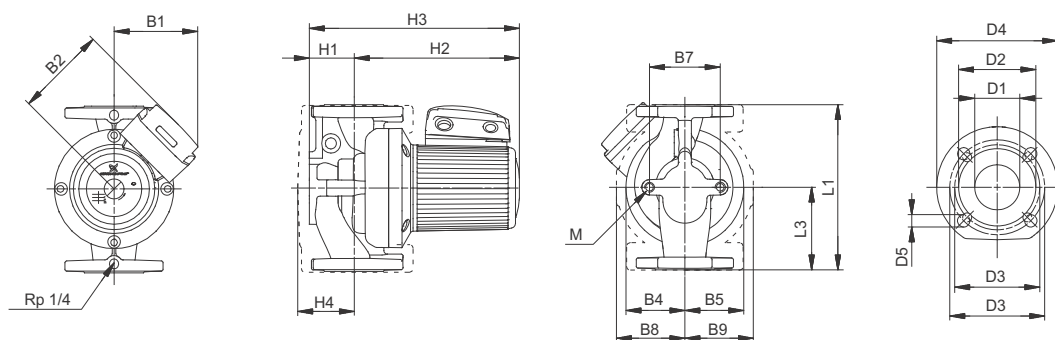
#### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |   |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|---|
| 1 x 230-240 V | Speed 1           | 170               | 90               | 0.84           | 0.88                     | 6 |
|               | Speed 2           | 180               | 95               | 0.86           | 0.91                     | 6 |
|               | Speed 3           | 190               | 120              | 0.88           | 0.94                     | 6 |

#### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>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                  |

#### Dimensional sketch



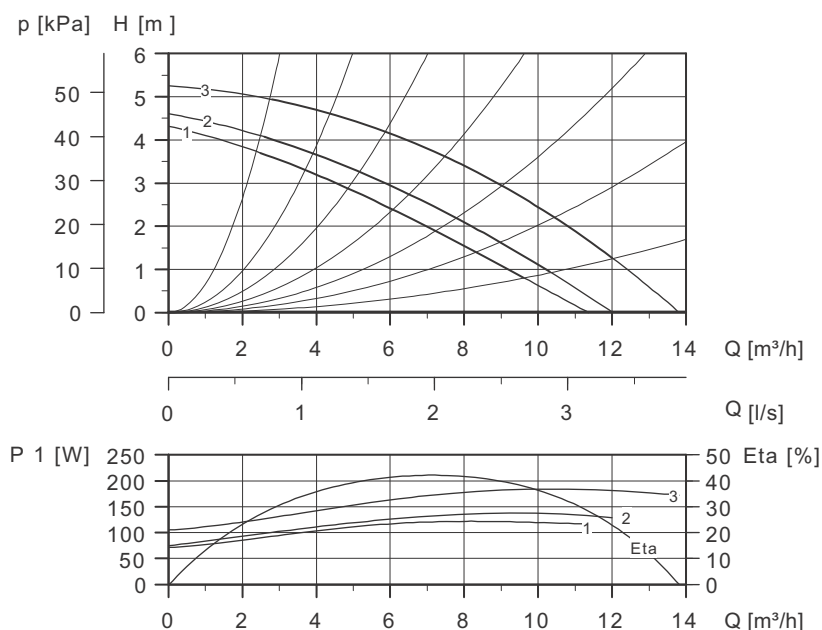
TM02 0701 3601

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



TM00 9421 0197

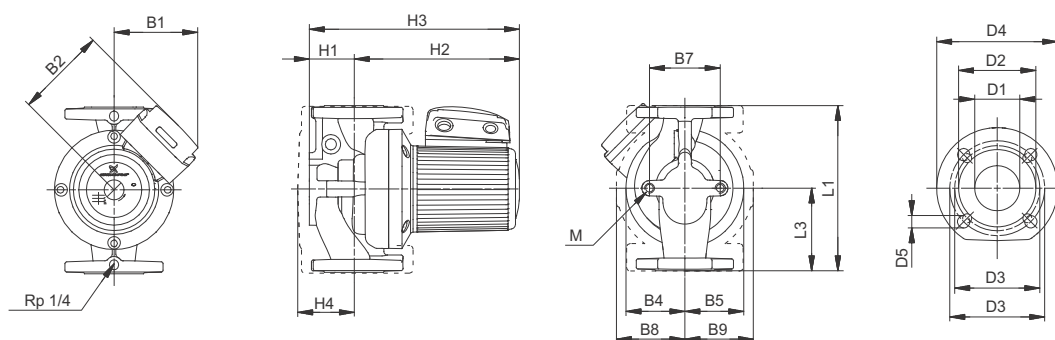
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{l1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|-----------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 120              | 70              | 0.21        | 0.82 |
|               | Speed 2          | 140              | 75              | 0.23        | 0.88 |
|               | Speed 3          | 185              | 105             | 0.39        | 0.68 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 16.1         | 17.5                   |
| Gross weight [kg]    | 17.5         | 19.0                   |
| Shipping volume [m³] | 0.026        | 0.026                  |

### Dimensional sketch

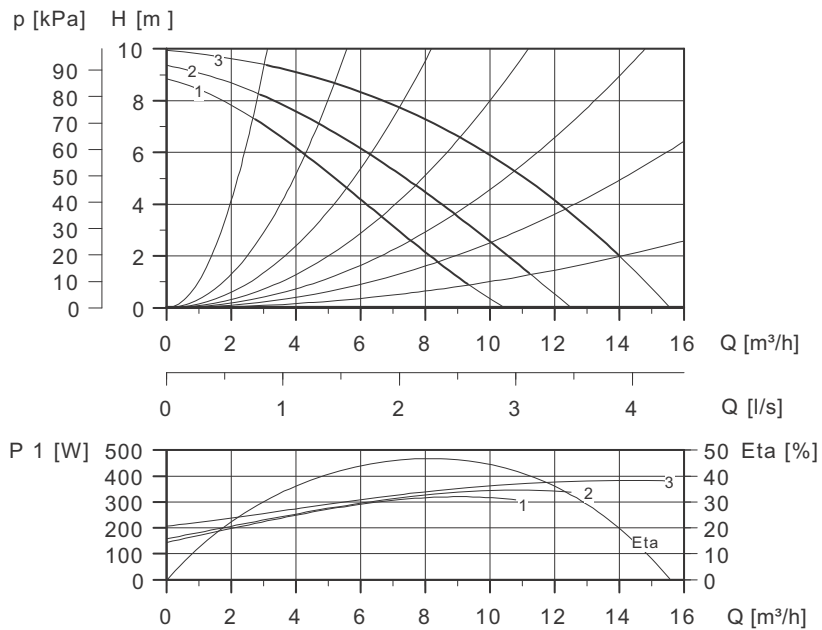


TM02 0701 3601

### 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



TM00 9422 0197

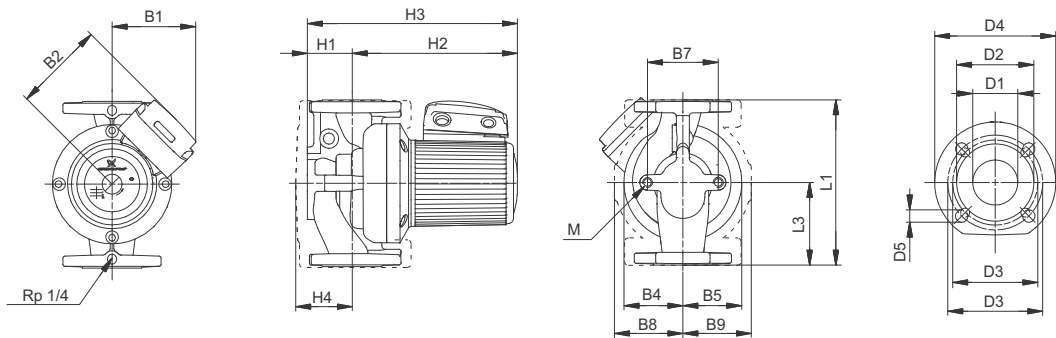
## Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[μF] |    |
|---------------|-------------------|-------------------|------------------|----------------|-------------|----|
| 1 x 230-240 V | Speed 1           | 320               | 145              | 1.55           | 0.90        | 10 |
|               | Speed 2           | 340               | 160              | 1.65           | 0.90        | 10 |
|               | Speed 3           | 380               | 210              | 1.75           | 0.94        | 10 |

## Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 16.3         | 17.7                   |
| Gross weight [kg]    | 17.6         | 19.0                   |
| Shipping volume [m³] | 0.026        | 0.026                  |

## Dimensional sketch

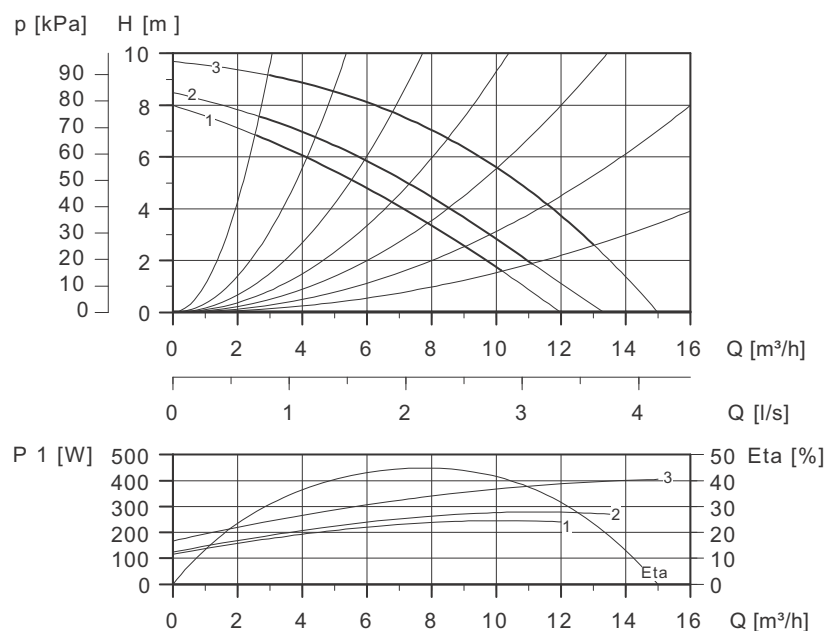


TM02 0701 3601

## 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



TM00 9423 0197

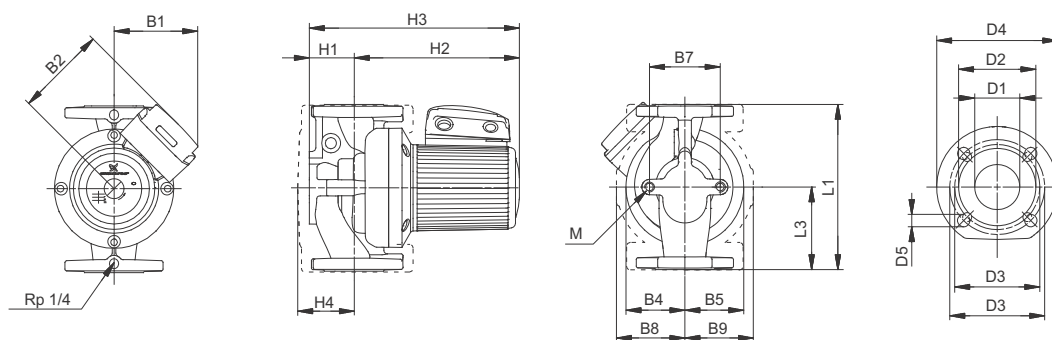
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |
|---------------|-------------------|-------------------|------------------|----------------|
| 3 x 400-415 V | Speed 1           | 245               | 120              | 0.42           |
|               | Speed 2           | 280               | 130              | 0.47           |
|               | Speed 3           | 400               | 170              | 0.78           |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 16.3         | 17.7                   |
| Gross weight [kg]    | 17.6         | 19.0                   |
| Shipping volume [m³] | 0.026        | 0.026                  |

### Dimensional sketch

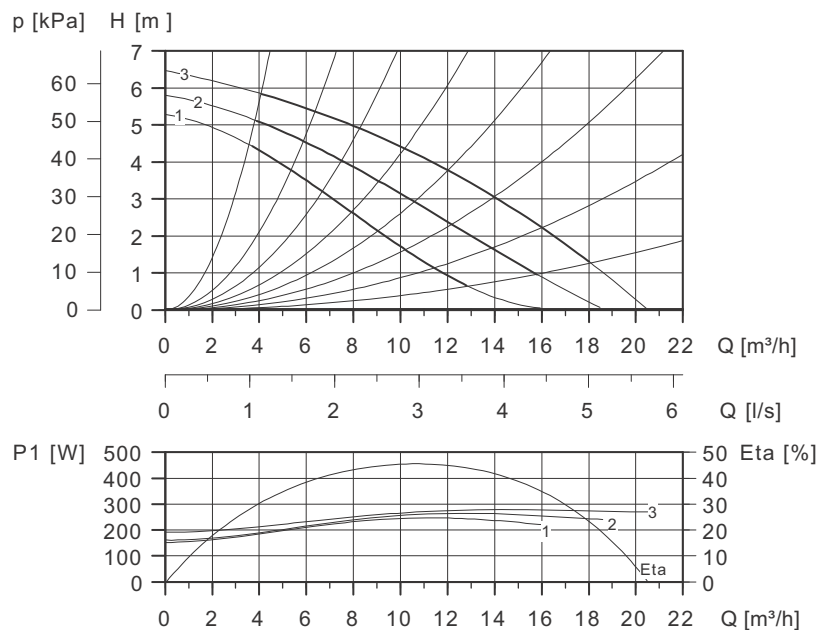


TM02 0701 3601

### 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



TM00 9428 0197

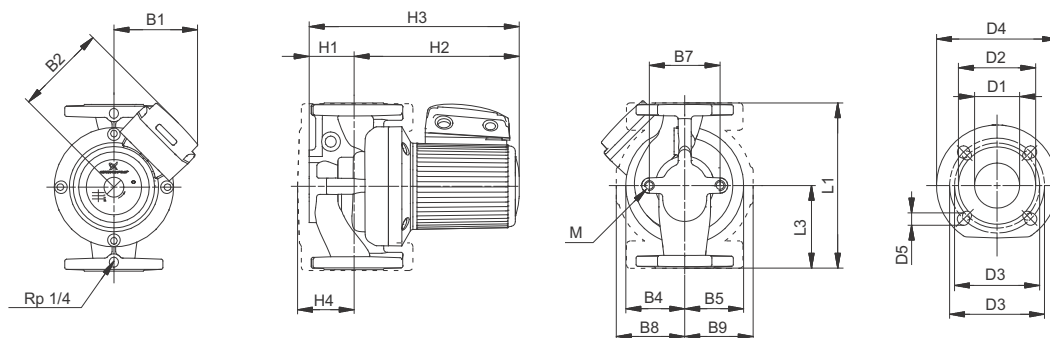
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | C<br>[ $\mu$ F] |   |
|---------------|------------------|------------------|------------------|-------------|-----------------|---|
| 1 x 230-240 V | Speed 1          | 250              | 150              | 1.25        | 0.87            | 8 |
|               | Speed 2          | 260              | 160              | 1.25        | 0.90            | 8 |
|               | Speed 3          | 280              | 190              | 1.30        | 0.94            | 8 |

### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>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                  |

### Dimensional sketch

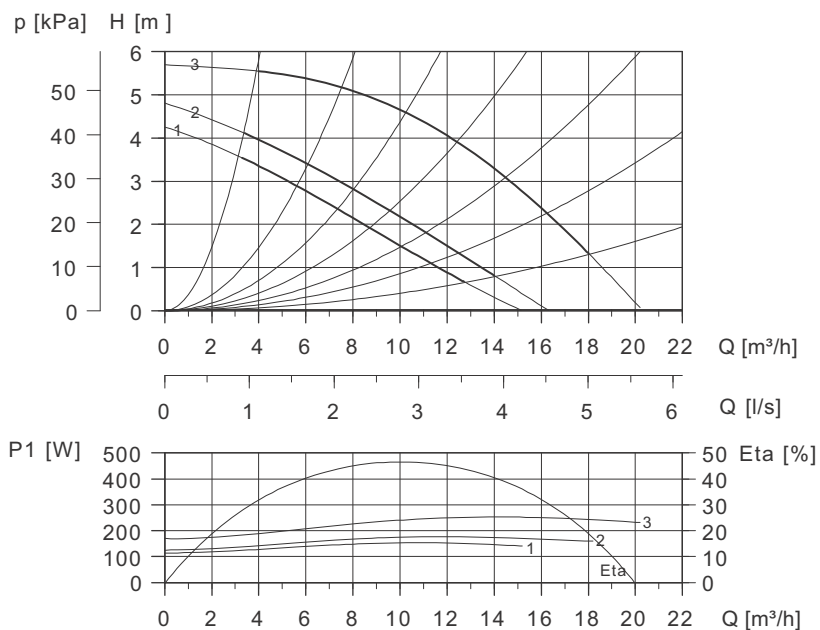


TM02 0701 3601

### 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



TM00 9429 0197

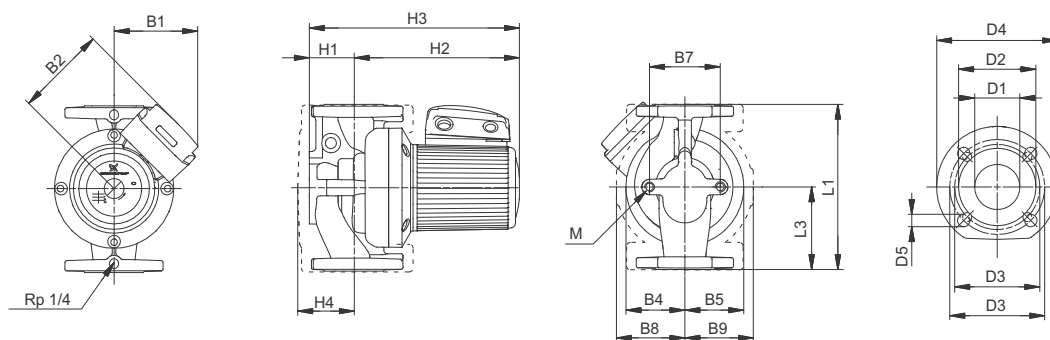
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 155               | 115              | 0.25           | 0.89 |
|               | Speed 2           | 175               | 125              | 0.29           | 0.87 |
|               | Speed 3           | 250               | 170              | 0.46           | 0.78 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 16.6         | 18.6                   |
| Gross weight [kg]    | 17.9         | 19.8                   |
| Shipping volume [m³] | 0.026        | 0.026                  |

### Dimensional sketch

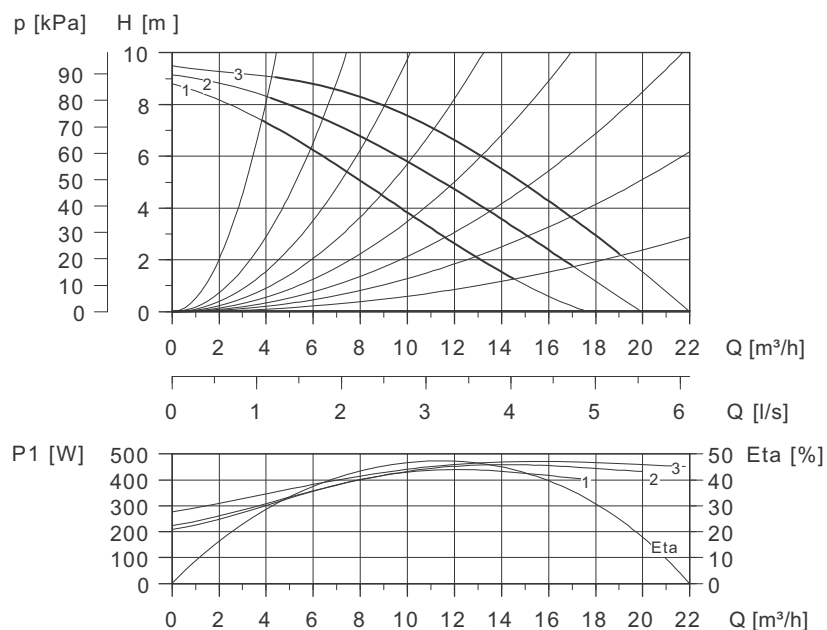


TM02 0701 3601

### 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



TM00 9430 0197

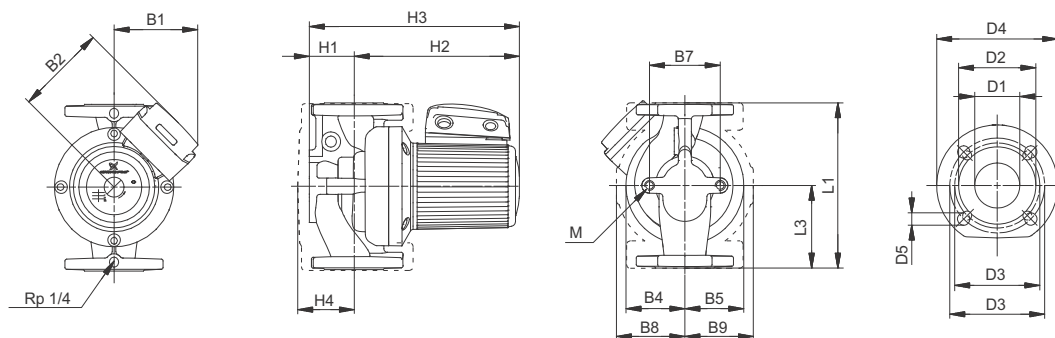
### Electrical data

|               | $P_{\max}$ [W] | $P_{\min}$ [W] | $I_{1/1}$ [A] | $\cos \varphi$ | $C$ [μF] |    |
|---------------|----------------|----------------|---------------|----------------|----------|----|
| 1 x 230-240 V | Speed 1        | 440            | 210           | 2.20           | 0.87     | 12 |
|               | Speed 2        | 460            | 225           | 2.30           | 0.87     | 12 |
|               | Speed 3        | 470            | 280           | 2.20           | 0.93     | 12 |

### Weights and volume

|                      | 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 [m³] | 0.026        | 0.026               |

### Dimensional sketch

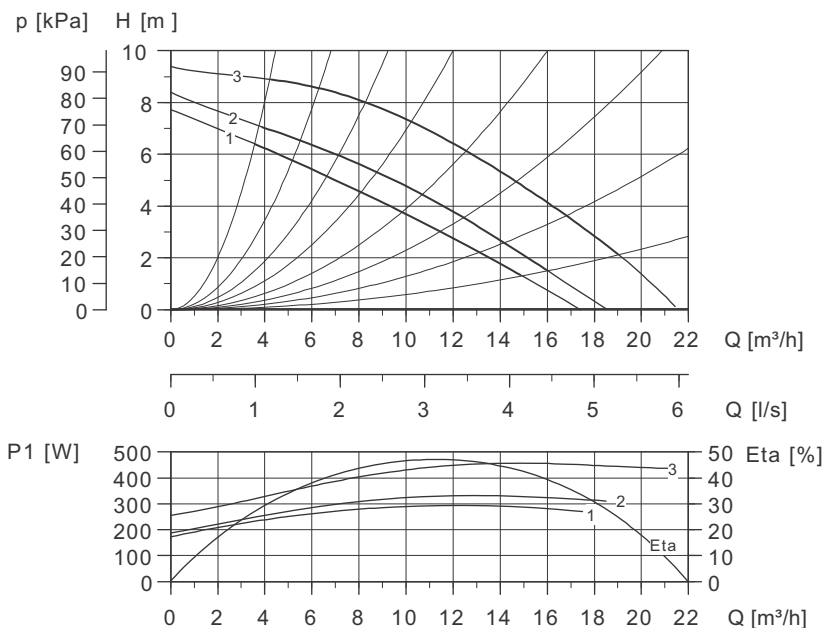


TM02 0701 3601

### 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



TM00 9431 0197

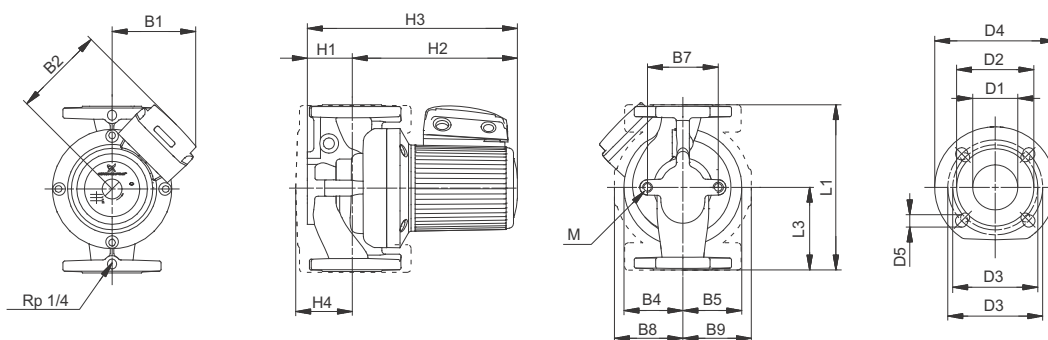
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 290               | 175              | 0.49           | 0.85 |
|               | Speed 2           | 330               | 190              | 0.56           | 0.85 |
|               | Speed 3           | 460               | 260              | 0.92           | 0.72 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 17.7         | 20.0                   |
| Gross weight [kg]    | 19.2         | 21.5                   |
| Shipping volume [m³] | 0.026        | 0.026                  |

### Dimensional sketch

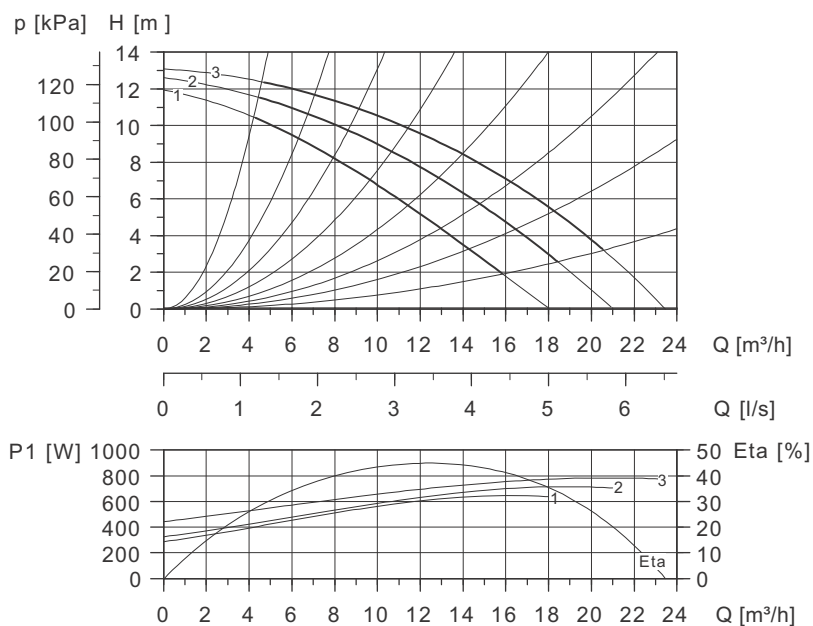


TM02 0701 3601

### 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



TM00 9432 0197

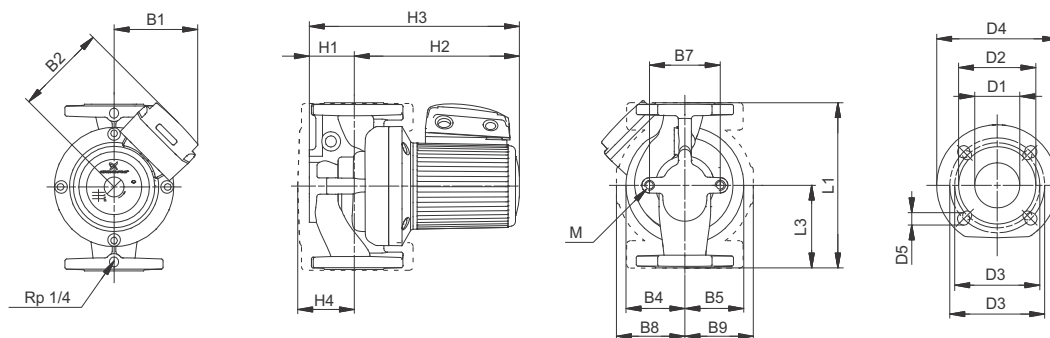
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | Speed 1           | 650               | 290              | 3.15           | 0.90                     | 25 |
|               | Speed 2           | 730               | 330              | 3.50           | 0.91                     | 25 |
|               | Speed 3           | 790               | 450              | 3.65           | 0.94                     | 25 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 23.7         | 26.5                   |
| Gross weight [kg]    | 25.3         | 28.0                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch



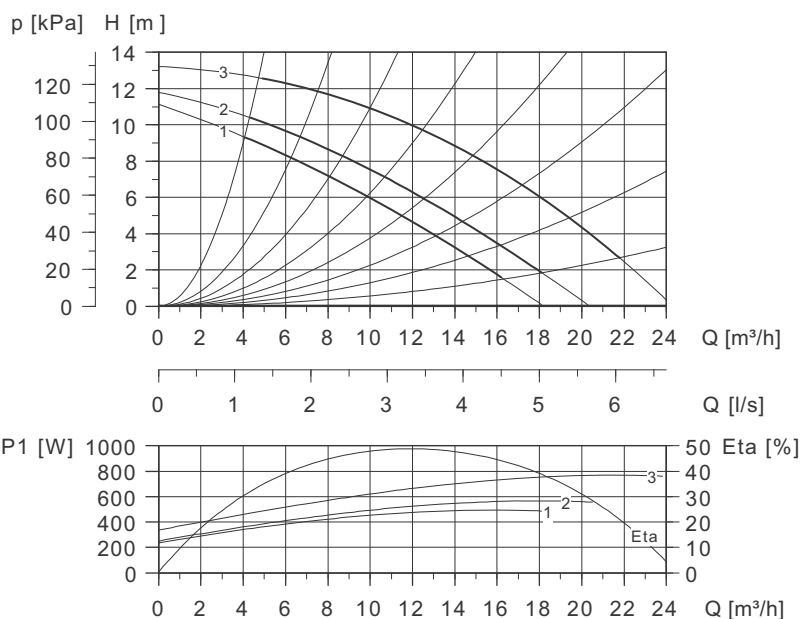
TM02 0701 3601

### 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



TM00 9433 0197

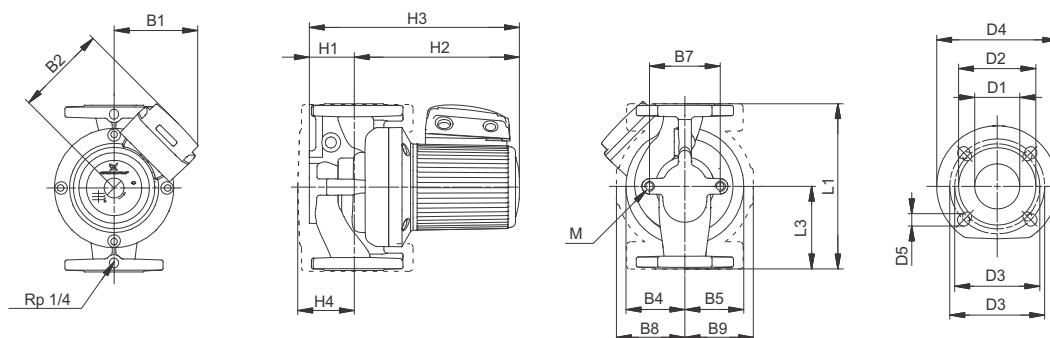
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |
|---------------|------------------|------------------|------------------|----------------|
| 3 x 400-415 V | Speed 1          | 490              | 235              | 0.82           |
|               | Speed 2          | 570              | 250              | 0.94           |
|               | Speed 3          | 770              | 350              | 1.30           |

### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>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                  |

### Dimensional sketch

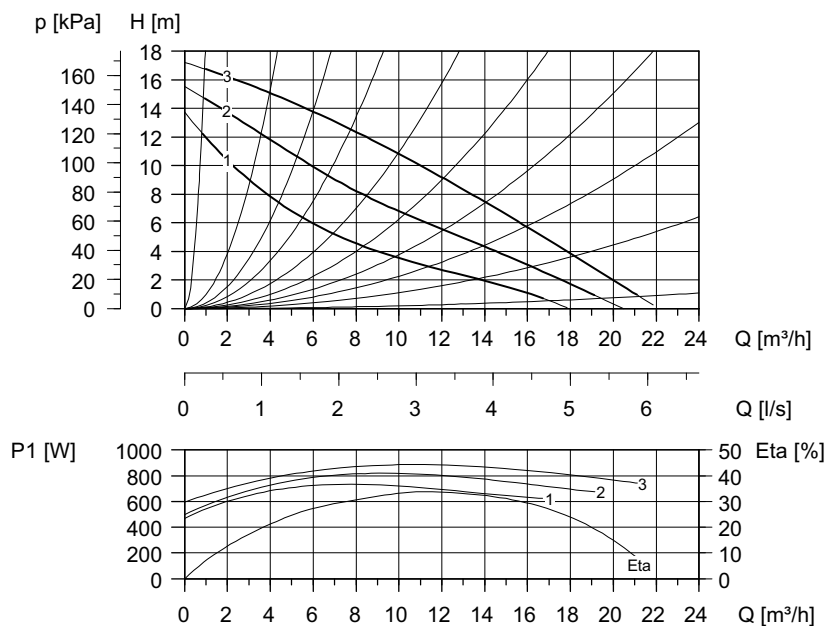


TM02 0701 3601

### 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



TM01 4940 0899

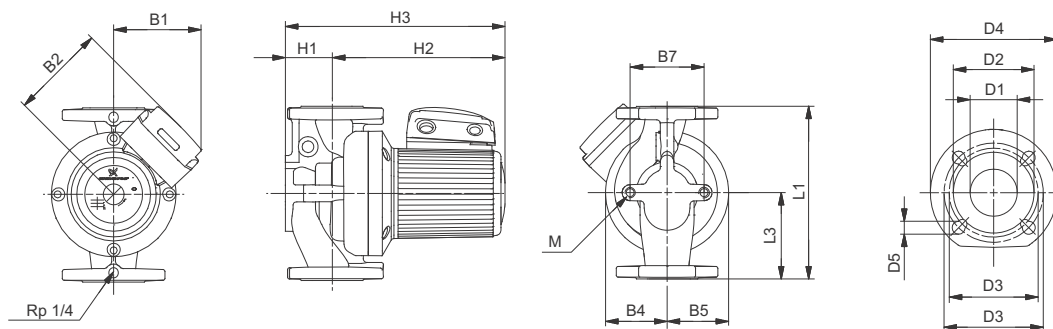
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[ $\mu$ F] |    |
|---------------|------------------|------------------|------------------|----------------|-----------------|----|
| 1 x 230-240 V | Speed 1          | 735              | 470              | 3.55           | 0.90            | 25 |
|               | Speed 2          | 825              | 490              | 3.90           | 0.92            | 25 |
|               | Speed 3          | 890              | 590              | 4.10           | 0.94            | 25 |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 21.1         |
| Gross weight [kg]                 | 22.6         |
| Shipping volume [m <sup>3</sup> ] | 0.034        |

## Dimensional sketch

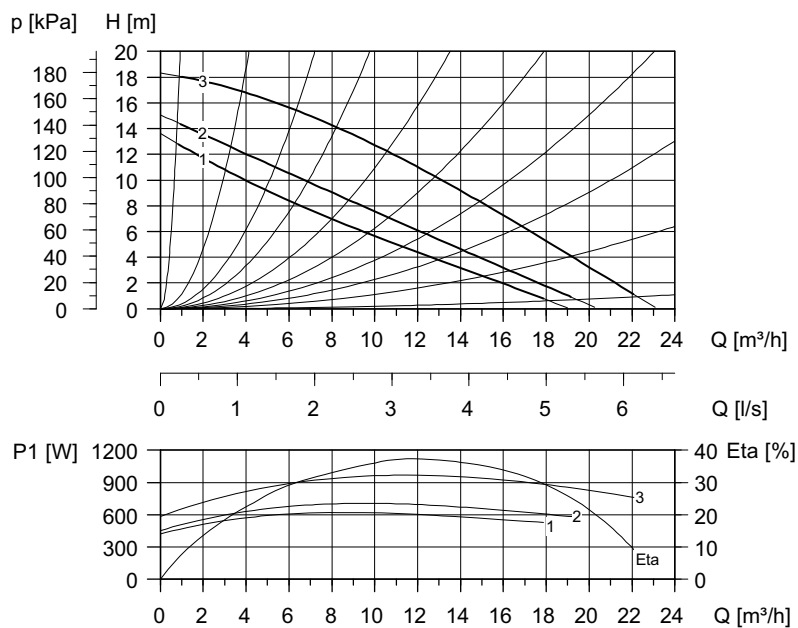


TM03 2075 3605

## 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



TM01 4941 0611

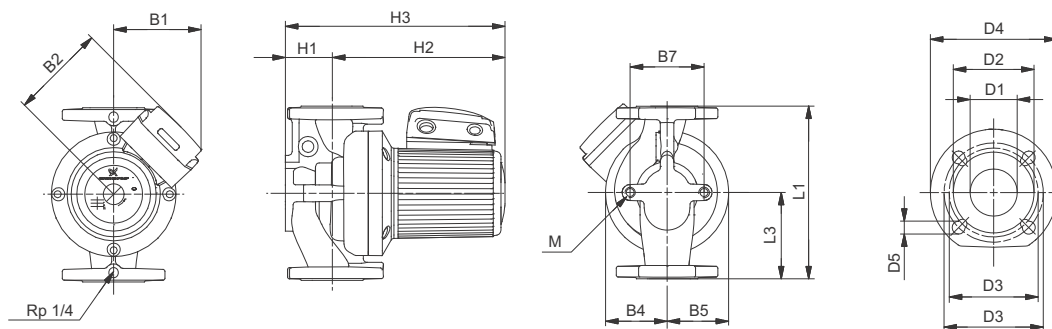
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|------------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 620              | 415              | 1.04        | 0.86 |
|               | Speed 2          | 705              | 450              | 1.18        | 0.86 |
|               | Speed 3          | 975              | 580              | 1.80        | 0.78 |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 19.7         |
| Gross weight [kg]                 | 21.4         |
| Shipping volume [m <sup>3</sup> ] | 0.034        |

## Dimensional sketch

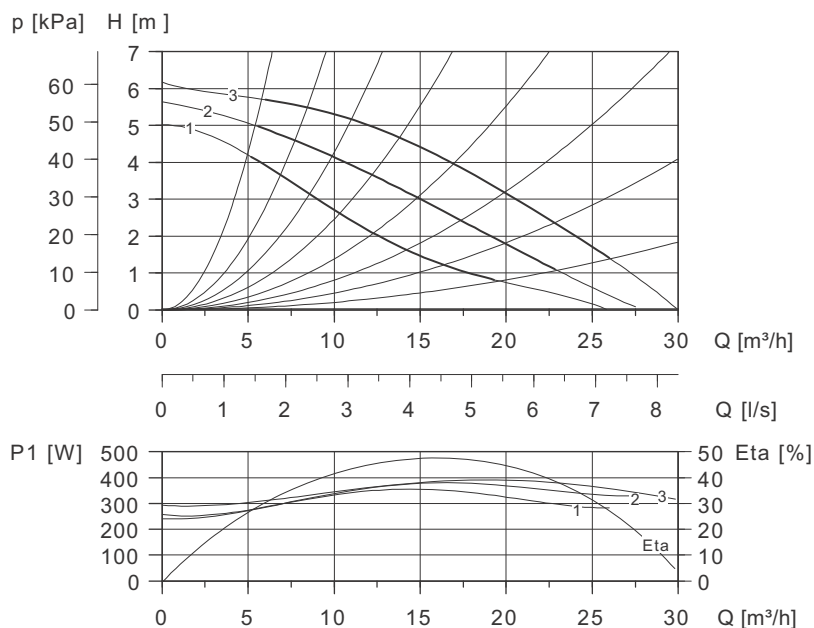


TM03 2075 3605

## 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



TM00 9436 0197

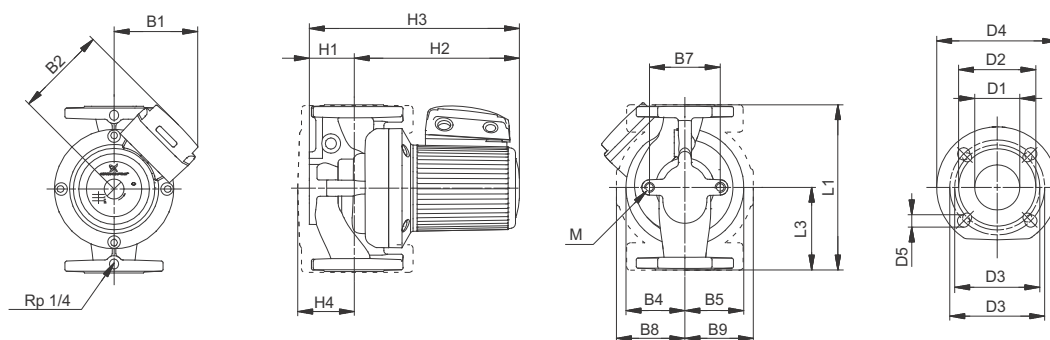
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | $C$<br>[μF] |    |
|---------------|------------------|------------------|------------------|-------------|-------------|----|
| 1 x 230-240 V | Speed 1          | 350              | 240              | 1.75        | 0.87        | 10 |
|               | Speed 2          | 380              | 250              | 1.85        | 0.89        | 10 |
|               | Speed 3          | 390              | 290              | 1.80        | 0.94        | 10 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 20.9         | 24.0                   |
| Gross weight [kg]    | 22.0         | 25.5                   |
| Shipping volume [m³] | 0.034        | 0.034                  |

### Dimensional sketch

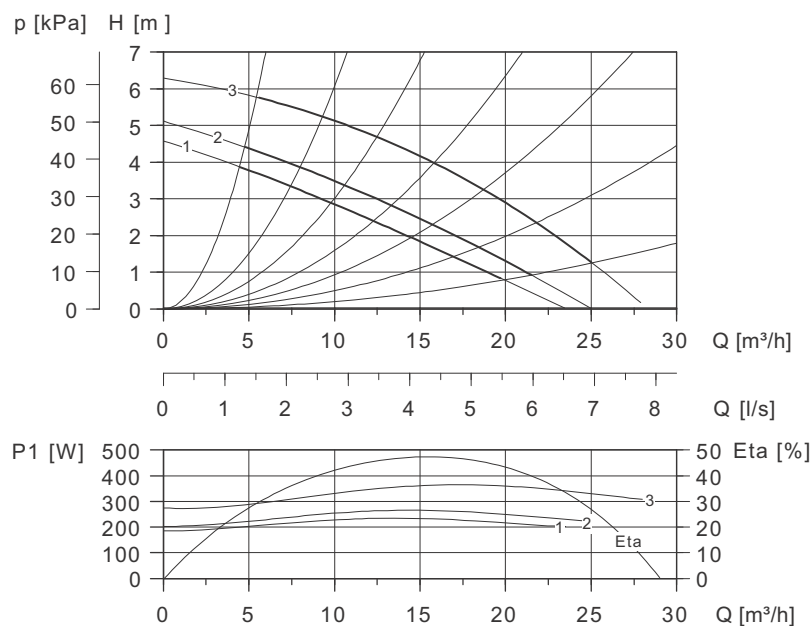


TM02 0701 3601

### 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



TM00 9437 0197

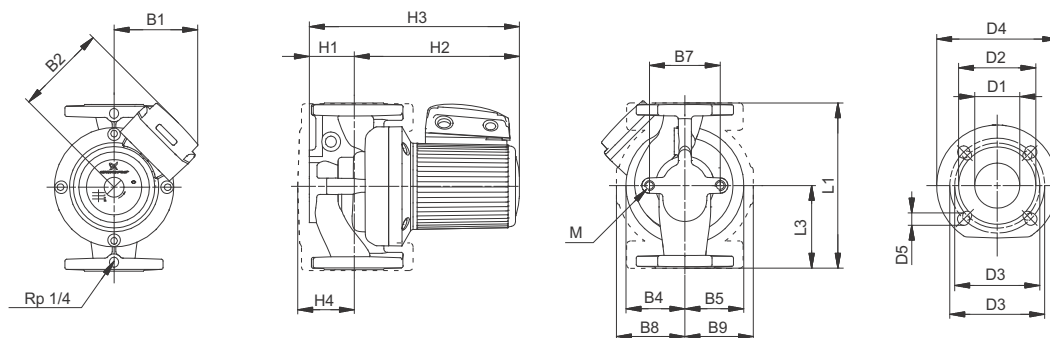
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 235               | 185              | 0.39           | 0.87 |
|               | Speed 2           | 270               | 205              | 0.45           | 0.87 |
|               | Speed 3           | 360               | 270              | 0.74           | 0.70 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 27.7         | 24.0                   |
| Gross weight [kg]    | 29.3         | 25.5                   |
| Shipping volume [m³] | 0.043        | 0.034                  |

### Dimensional sketch

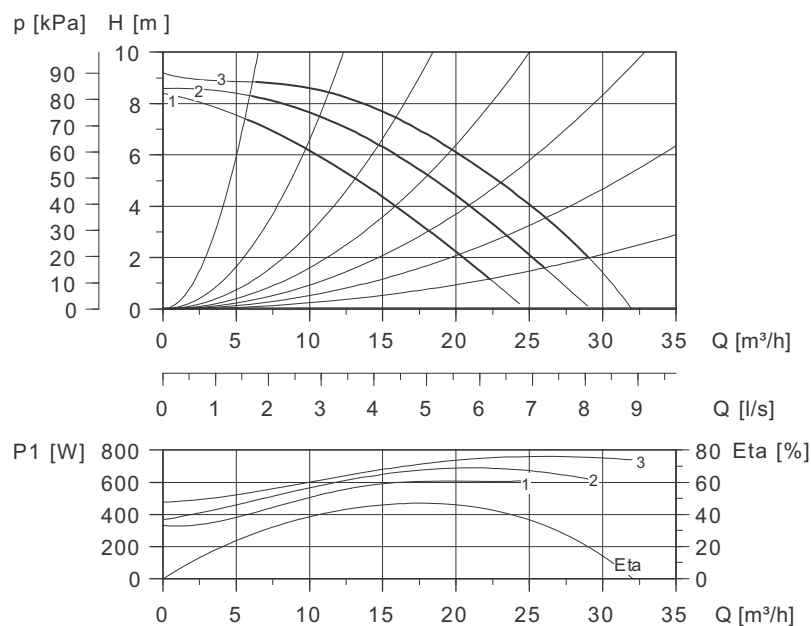


TM02 0701 3601

### 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



TM00 9438 0197

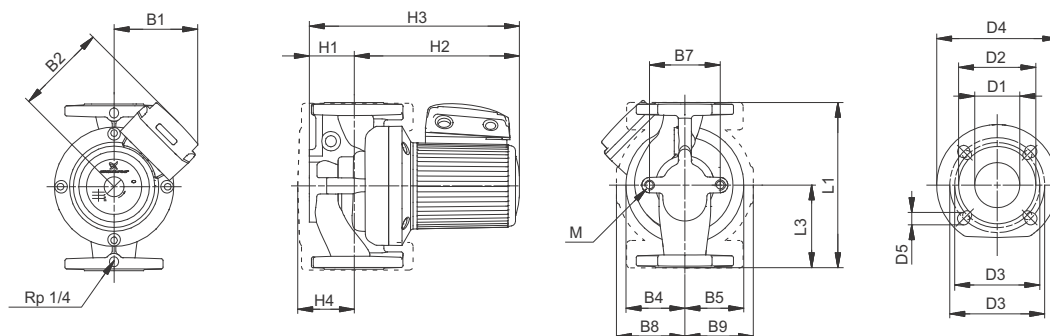
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[μF] |    |
|---------------|------------------|------------------|------------------|----------------|-----------|----|
| 1 x 230-240 V | Speed 1          | 620              | 330              | 3.05           | 0.88      | 25 |
|               | Speed 2          | 700              | 360              | 3.35           | 0.91      | 25 |
|               | Speed 3          | 760              | 480              | 3.60           | 0.92      | 25 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 26.5         | 29.0                   |
| Gross weight [kg]    | 28.0         | 30.5                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch

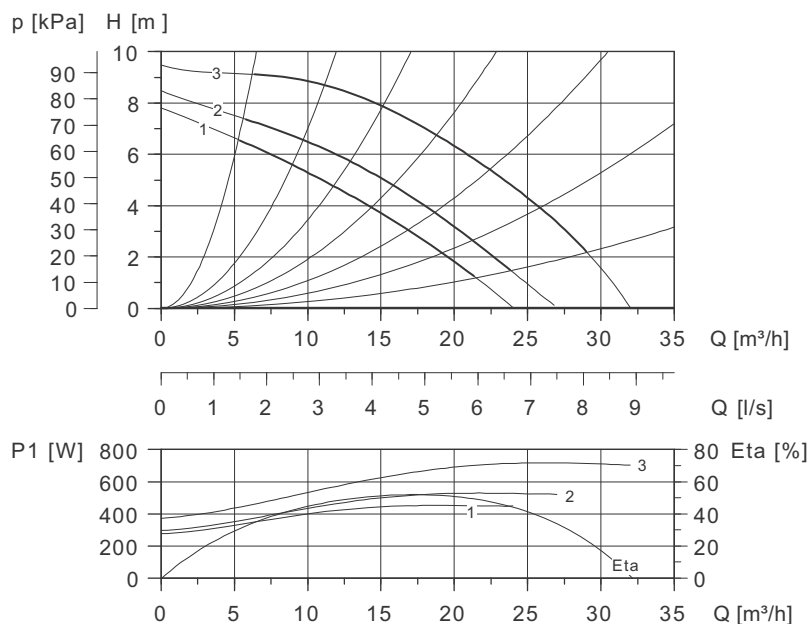


TM02 0701 3601

### 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



TM00 9439 0197

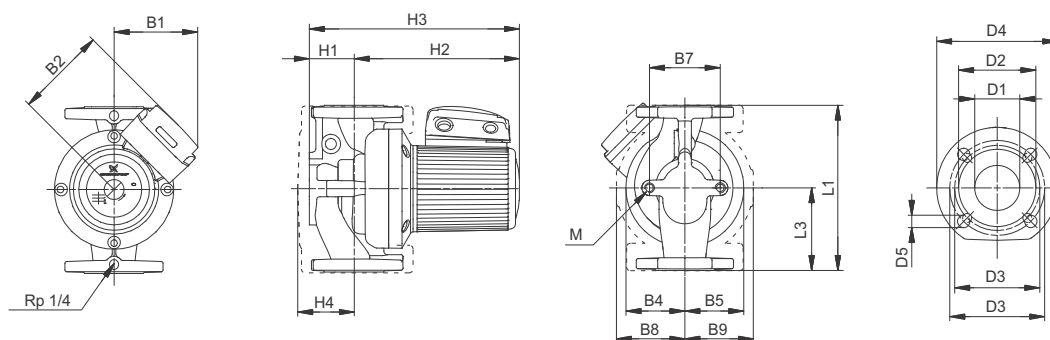
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 450               | 280              | 0.82           | 0.79 |
|               | Speed 2           | 530               | 300              | 0.94           | 0.81 |
|               | Speed 3           | 720               | 380              | 1.30           | 0.80 |

### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|-----------------------------------|--------------|------------------------|
| Net weight [kg]                   | 24.3         | 25.4                   |
| Gross weight [kg]                 | 25.8         | 27.3                   |
| Shipping volume [m <sup>3</sup> ] | 0.034        | 0.043                  |

### Dimensional sketch

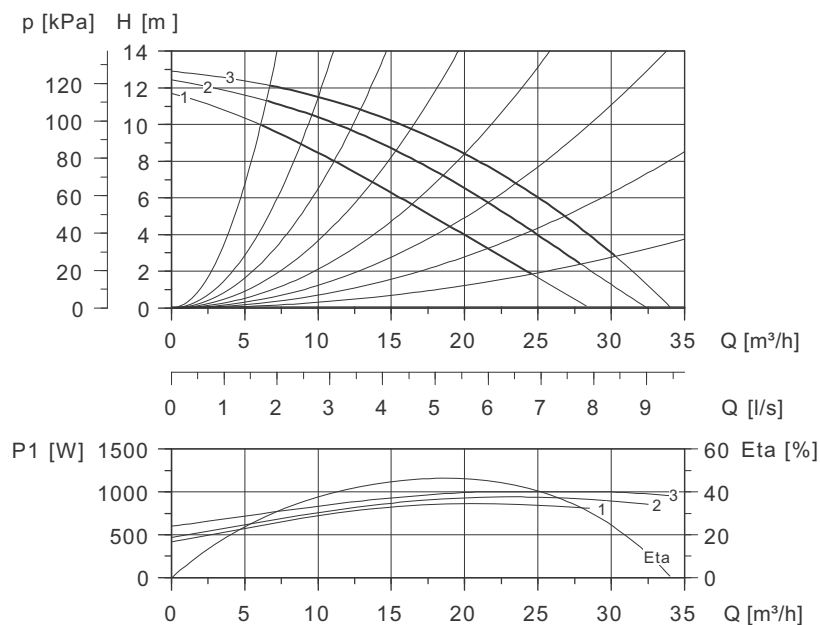


TM02 0701 3601

### 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



TM00 9440 0197

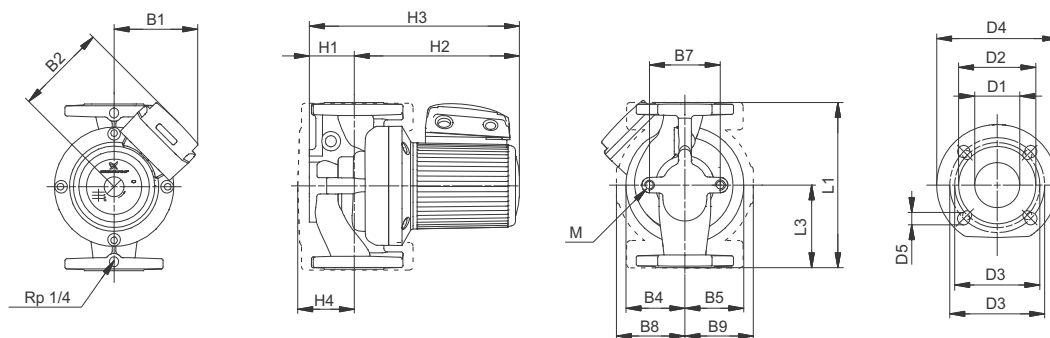
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | C<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|-------------|------------------------|----|
| 1 x 230-240 V | Speed 1           | 860               | 420              | 4.15        | 0.90                   | 30 |
|               | Speed 2           | 940               | 470              | 4.40        | 0.93                   | 30 |
|               | Speed 3           | 1000              | 600              | 4.65        | 0.94                   | 30 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 29.0         | 32.4                   |
| Gross weight [kg]    | 30.5         | 33.9                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch



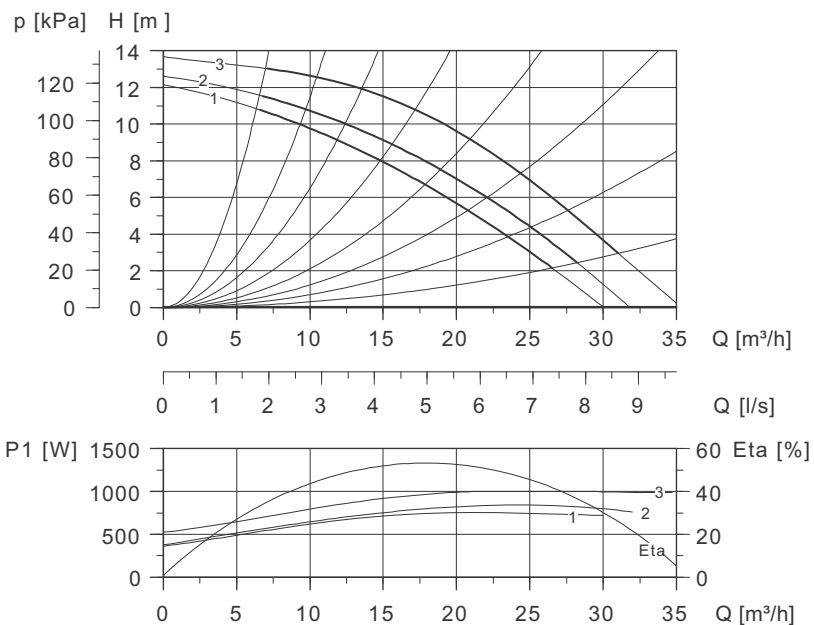
TM02 0701 3601

### 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



TM00 9441 0197

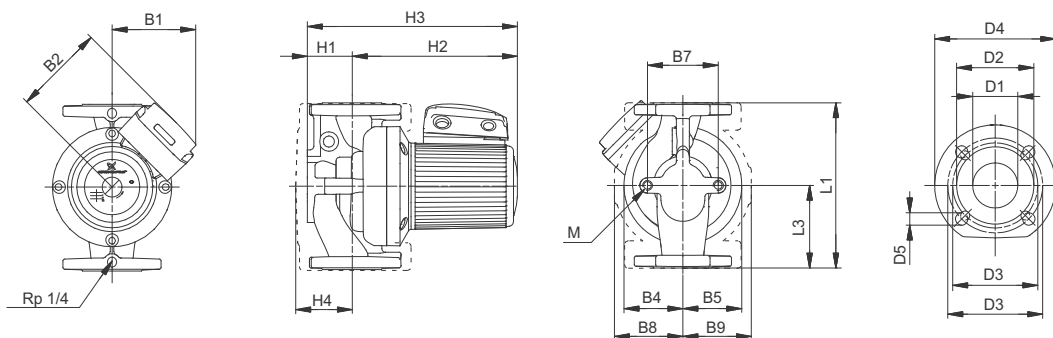
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 760               | 360              | 1.25           | 0.88 |
|               | Speed 2           | 850               | 380              | 1.40           | 0.88 |
|               | Speed 3           | 1000              | 520              | 2.00           | 0.72 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 25.6         | 28.5                   |
| Gross weight [kg]    | 26.9         | 30.5                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch

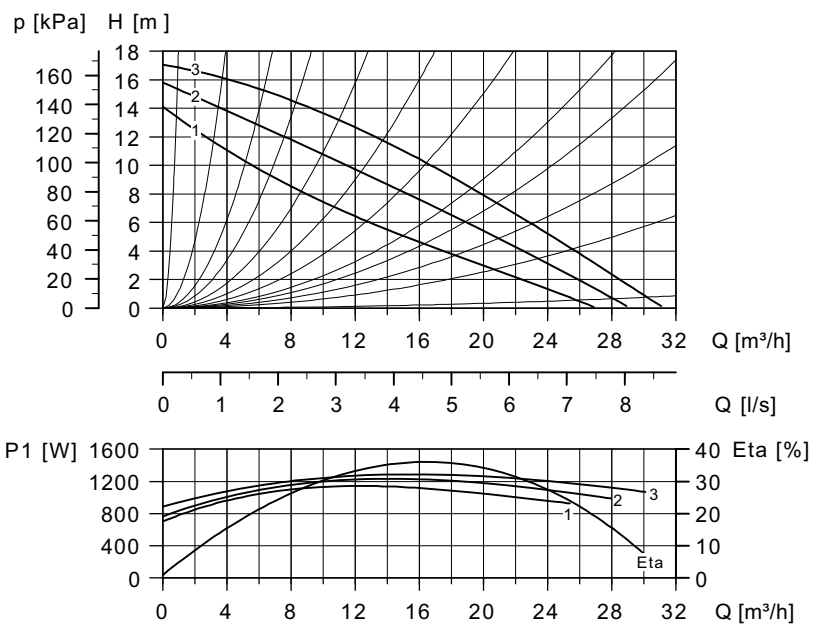


TM02 0701 3601

### 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



TM01 4942 1199

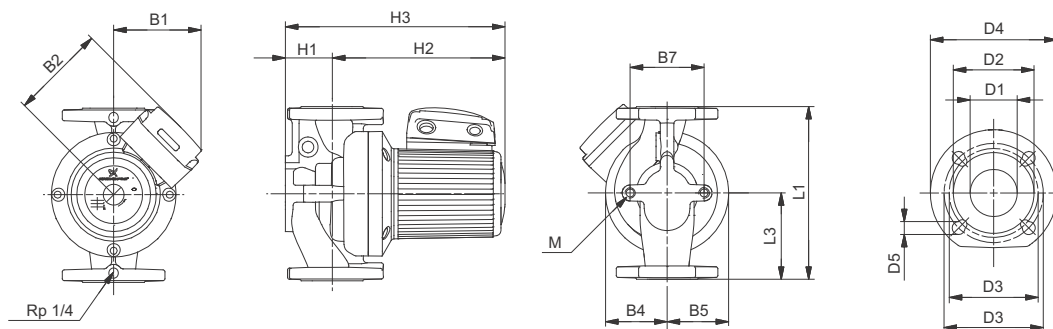
## Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | 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 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 27.4         |
| Gross weight [kg]    | 29.1         |
| Shipping volume [m³] | 0.043        |

## Dimensional sketch

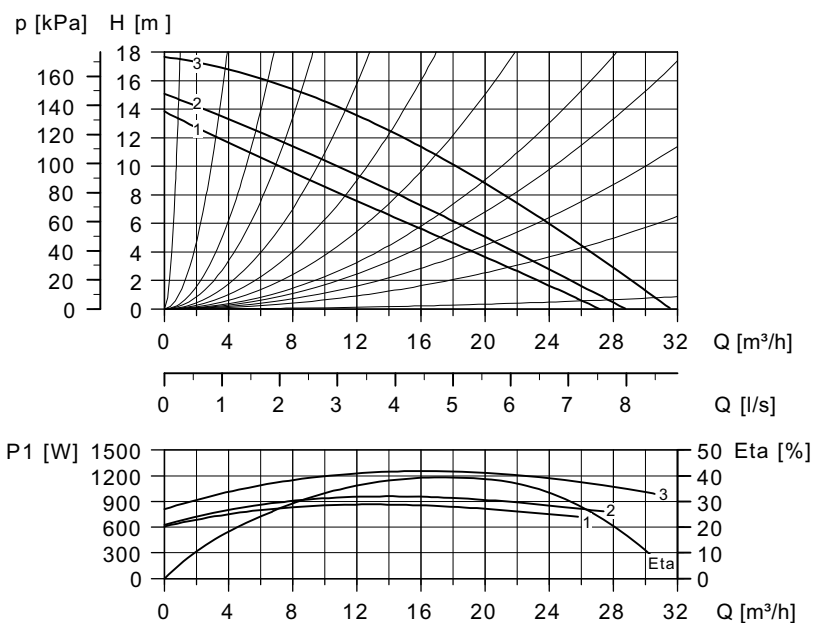


TM03 2075 3605

## 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



TM01 4943 1199

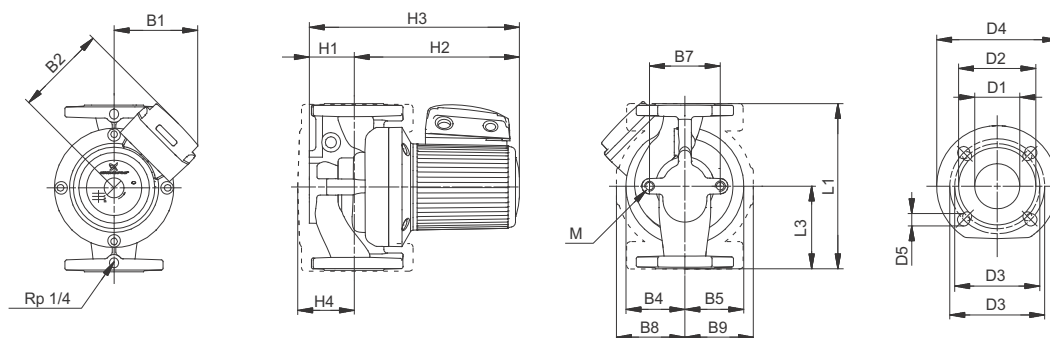
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[μF] |    |
|---------------|------------------|------------------|------------------|----------------|-----------|----|
| 3 x 400-415 V | 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 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 24.8         |
| Gross weight [kg]    | 26.5         |
| Shipping volume [m³] | 0.043        |

## Dimensional sketch

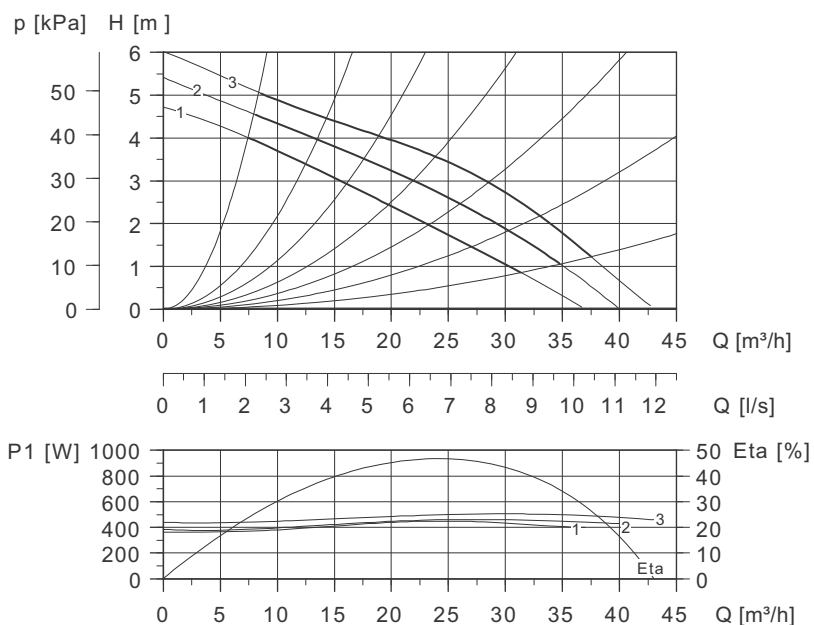


TM02 0701 3601

## 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



TM00 9446 0197

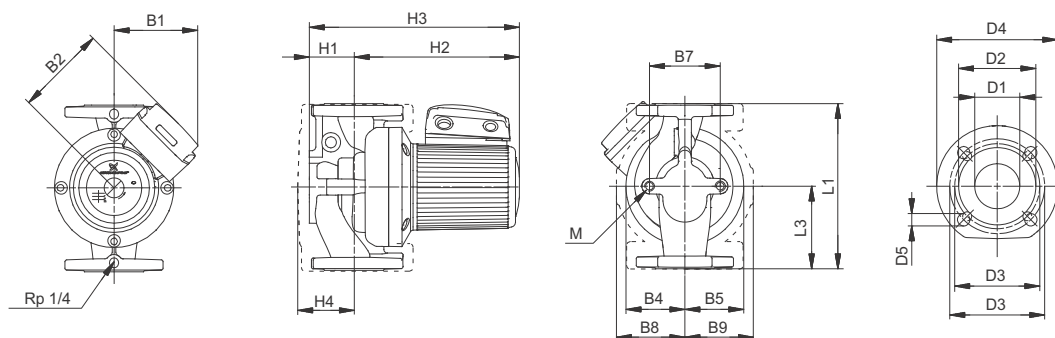
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | Speed 1           | 450               | 360              | 2.15           | 0.91                     | 16 |
|               | Speed 2           | 470               | 380              | 2.20           | 0.93                     | 16 |
|               | Speed 3           | 510               | 440              | 2.40           | 0.92                     | 16 |

### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>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                  |

### Dimensional sketch

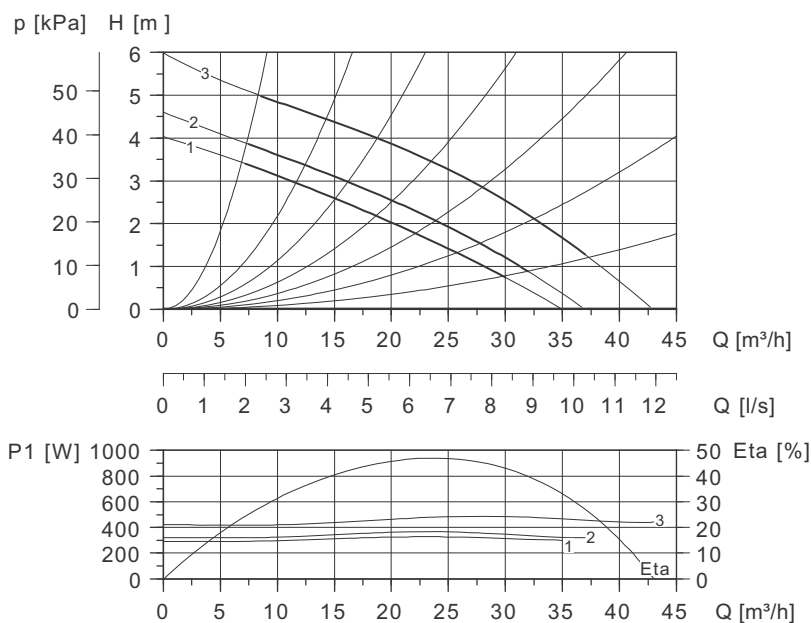


TM02 0701 3601

### 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



TM00 9447 0197

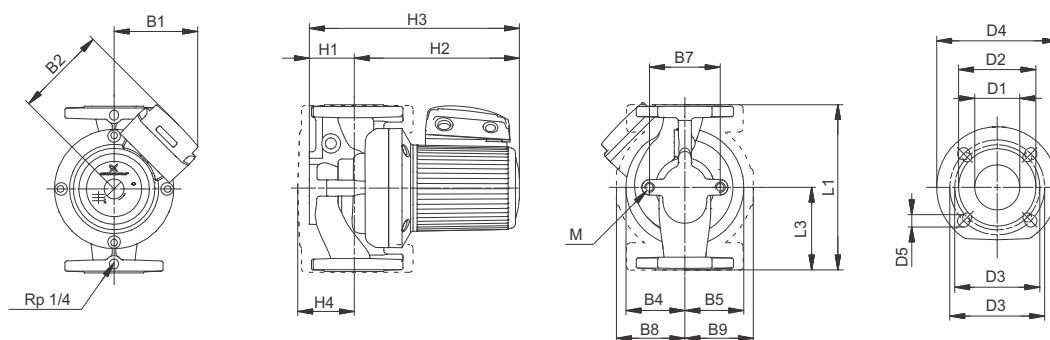
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 330               | 290              | 0.56           | 0.85 |
|               | Speed 2           | 370               | 320              | 0.64           | 0.83 |
|               | Speed 3           | 490               | 420              | 1.05           | 0.67 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 24.3         | 28.8                   |
| Gross weight [kg]    | 26.1         | 30.1                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch

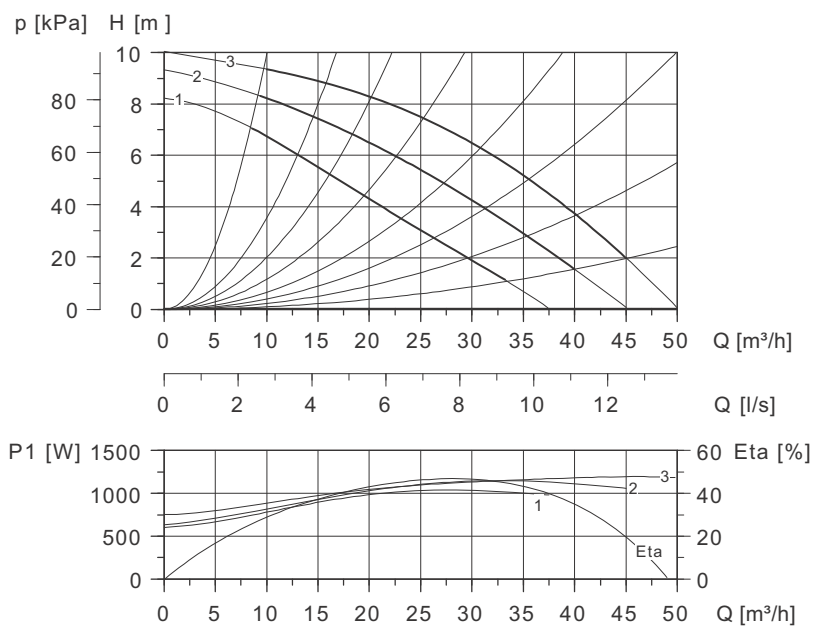


TM02 0701 3601

### 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



TM00 9448 0197

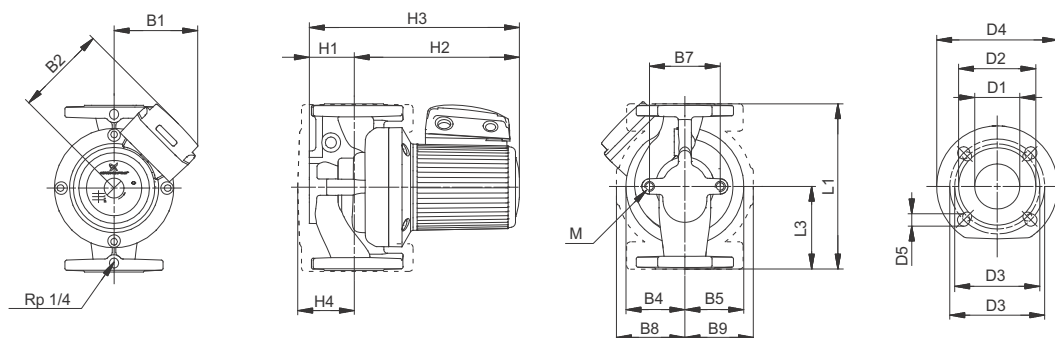
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | Speed 1           | 1050              | 600              | 5.10           | 0.90                     | 30 |
|               | Speed 2           | 1150              | 630              | 5.60           | 0.89                     | 30 |
|               | Speed 3           | 1200              | 750              | 5.50           | 0.95                     | 30 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 29.7         | 33.5                   |
| Gross weight [kg]    | 31.5         | 35.3                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch

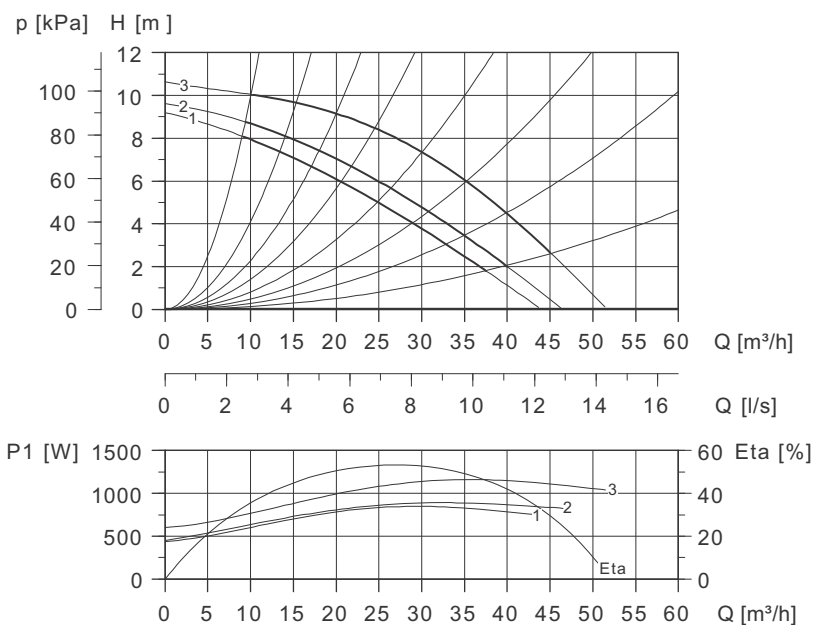


TM02 0701 3601

### 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



TM00 9449 0197

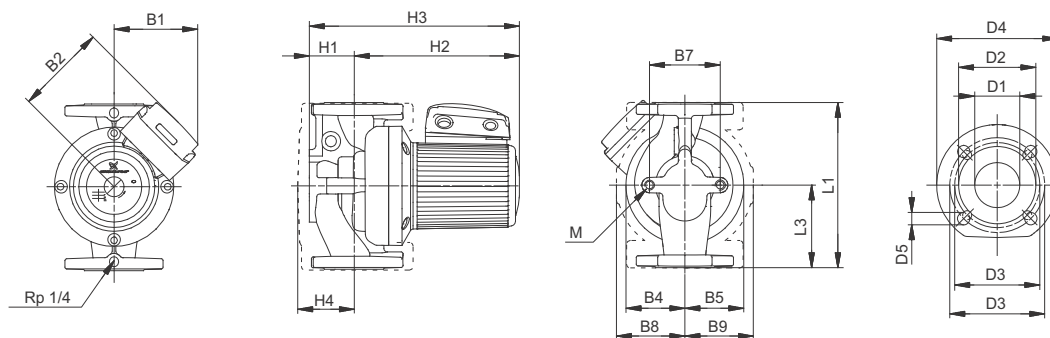
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 850               | 440              | 1.35           | 0.91 |
|               | Speed 2           | 900               | 460              | 1.45           | 0.90 |
|               | Speed 3           | 1150              | 600              | 2.15           | 0.77 |

### Weights and volume

|                      | PN 6 / PN 10 | PN 6 / PN 10<br>bronze |
|----------------------|--------------|------------------------|
| Net weight [kg]      | 27.4         | 32.5                   |
| Gross weight [kg]    | 28.8         | 34.0                   |
| Shipping volume [m³] | 0.043        | 0.043                  |

### Dimensional sketch

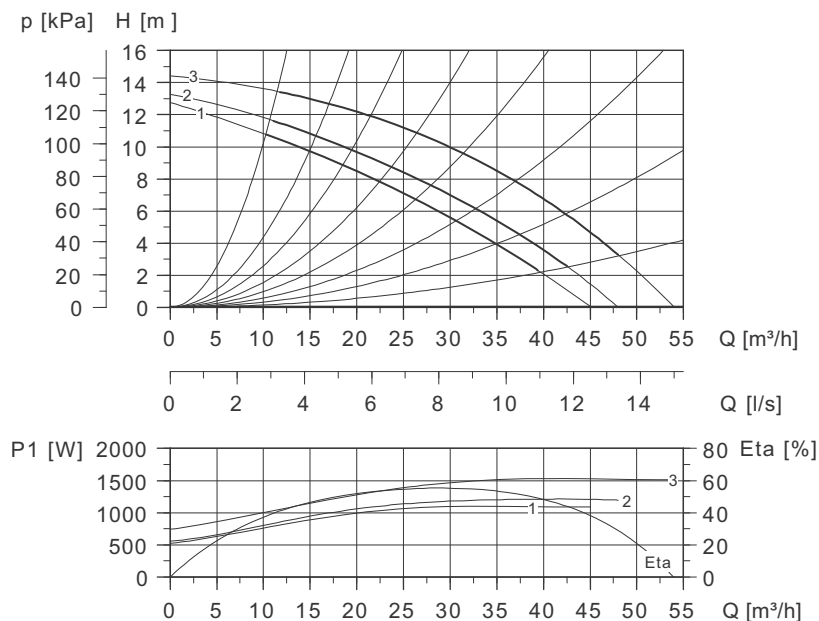


TM02 0701 3601

### 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



TM00 9450 0197

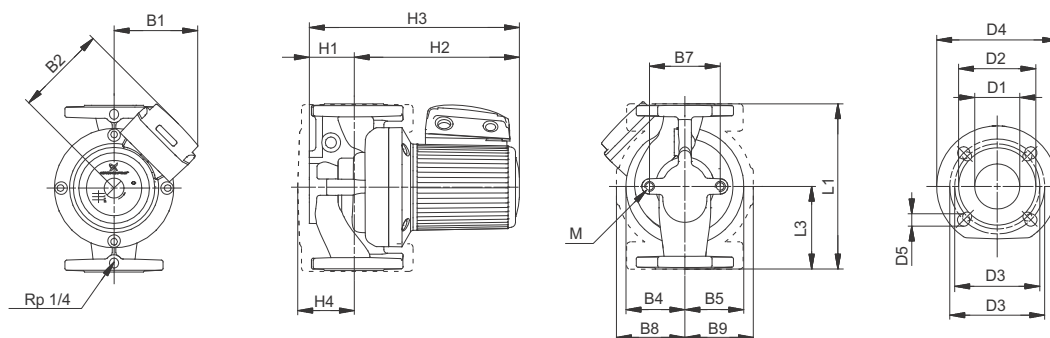
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|------------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 1100             | 520              | 1.85        | 0.86 |
|               | Speed 2          | 1200             | 560              | 2.00        | 0.87 |
|               | Speed 3          | 1550             | 740              | 2.90        | 0.77 |

### Weights and volume

|                                   | PN 6 / PN 10 | PN 6 / PN 10<br>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                  |

### Dimensional sketch



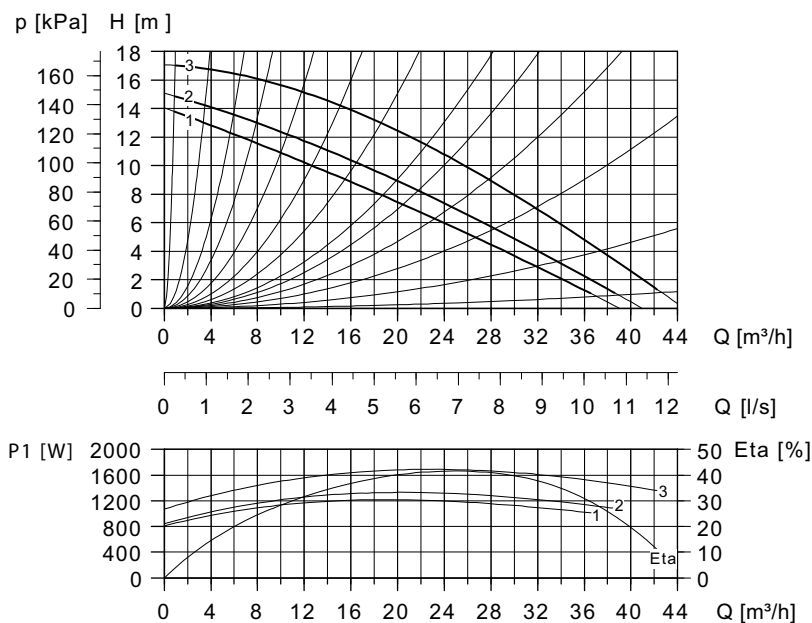
TM02 0701 3601

### 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



TM01 4944 1199

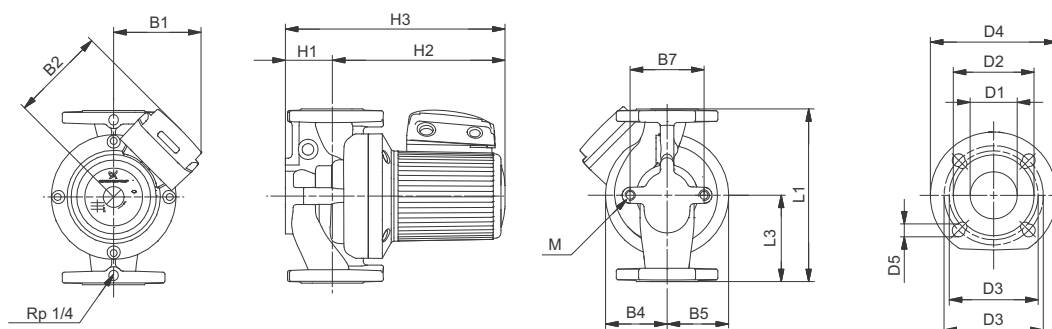
## Electrical data

|               | $P_{\max}$ [W] | $P_{\min}$ [W] | $I_{1/1}$ [A] | $\cos \phi$ |      |
|---------------|----------------|----------------|---------------|-------------|------|
| 3 x 400-415 V | Speed 1        | 1220           | 825           | 2.00        | 0.88 |
|               | Speed 2        | 1340           | 860           | 2.20        | 0.88 |
|               | Speed 3        | 1710           | 1100          | 3.25        | 0.76 |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 31.8         |
| Gross weight [kg]                 | 33.7         |
| Shipping volume [m <sup>3</sup> ] | 0.055        |

## Dimensional sketch

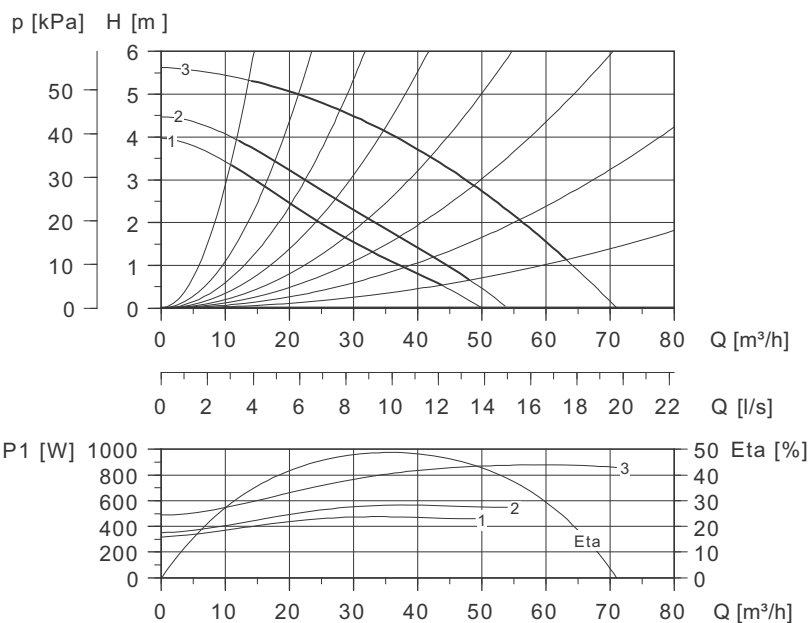


TM03 2075 3605

## 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



TM00 9452 0197

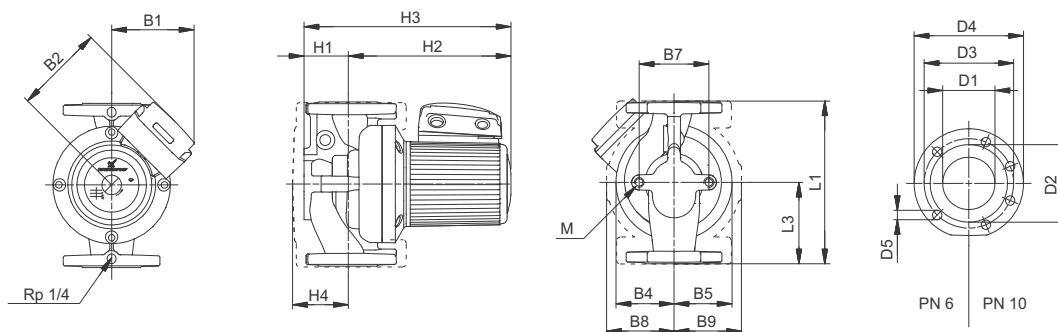
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |
|---------------|-------------------|-------------------|------------------|-------------|
| 3 x 400-415 V | Speed 1           | 470               | 320              | 0.84        |
|               | Speed 2           | 570               | 350              | 0.82        |
|               | Speed 3           | 880               | 490              | 1.80        |

### Weights and volume

|                                   | PN 6  | PN 10 | PN 6<br>bronze | PN 10<br>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           |

### Dimensional sketch

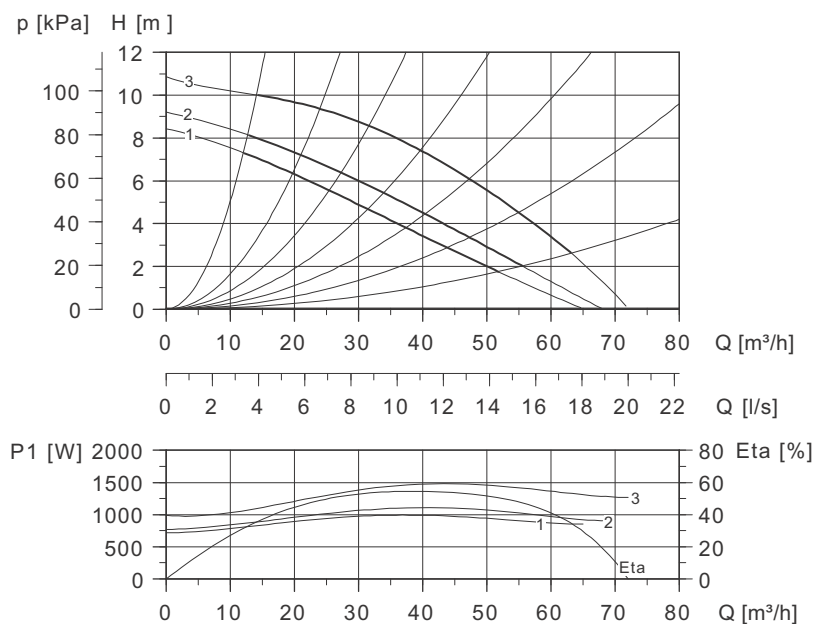


TM02 0733 5100

### 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



TM00 9453 0197

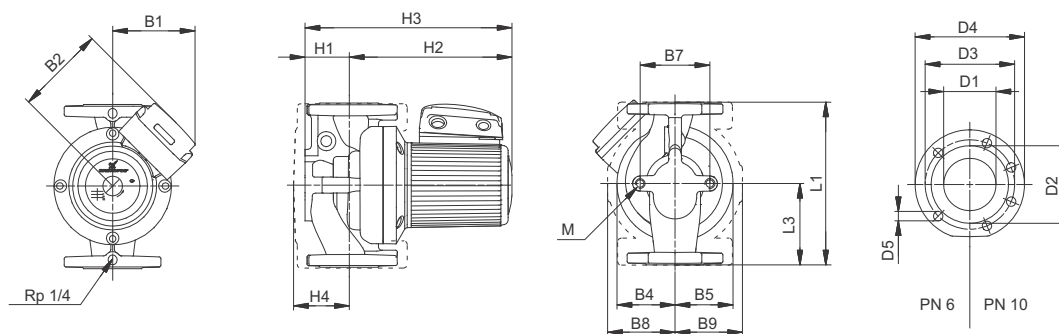
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 1000             | 710              | 1.65           | 0.87 |
|               | Speed 2          | 1100             | 760              | 1.80           | 0.88 |
|               | Speed 3          | 1500             | 960              | 2.75           | 0.79 |

### Weights and volume

|                      | PN 6  | PN 10 | PN 6<br>bronze | PN 10<br>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           |

### Dimensional sketch

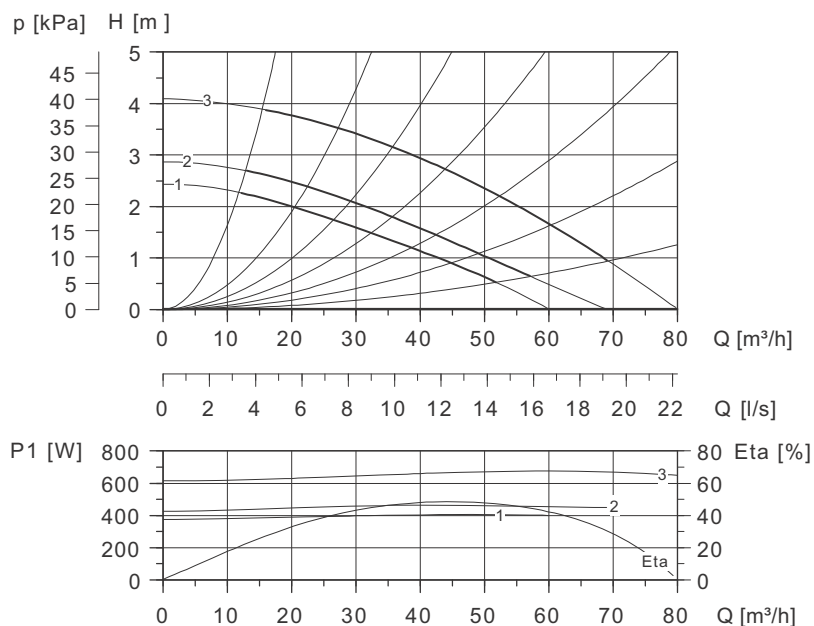


TM02 0733 5100

### 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



TM00 9454 0197

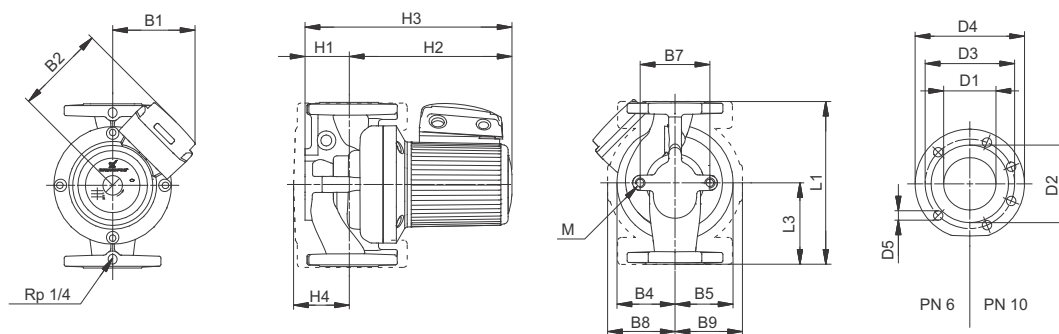
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 410              | 380              | 0.72           | 0.82 |
|               | Speed 2          | 460              | 430              | 0.84           | 0.79 |
|               | Speed 3          | 670              | 610              | 1.55           | 0.62 |

### Weights and volume

|                      | PN 6  | PN 10 | PN 6<br>bronze | PN 10<br>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 [m³] | 0.087 | 0.087 | 0.087          | 0.087           |

### Dimensional sketch

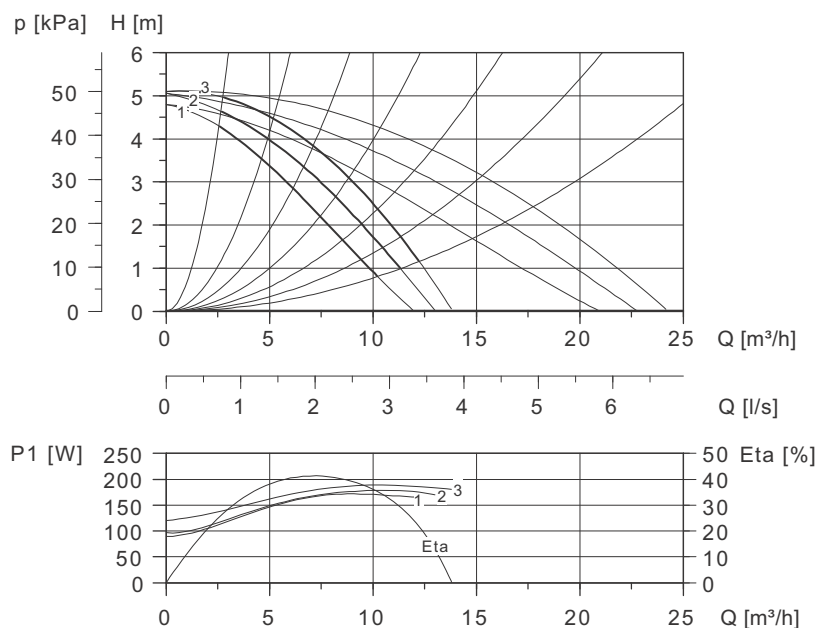


TM02 0733 5100

### 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)  | 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 |

## UPSD 32-60 F 220



TM00 9459 0197

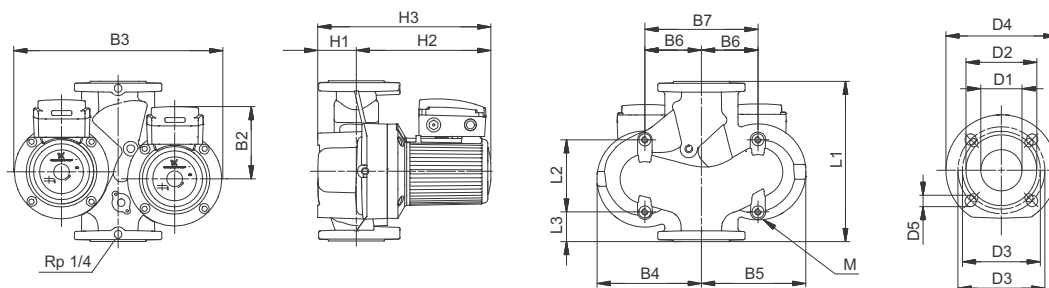
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | $C$<br>[ $\mu\text{F}$ ] |   |
|---------------|-------------------|-------------------|------------------|-------------|--------------------------|---|
| 1 x 230-240 V | Speed 1           | 170               | 90               | 0.84        | 0.88                     | 6 |
|               | Speed 2           | 180               | 95               | 0.86        | 0.91                     | 6 |
|               | Speed 3           | 190               | 120              | 0.88        | 0.94                     | 6 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 33.2         |
| Gross weight [kg]                 | 35.1         |
| Shipping volume [m <sup>3</sup> ] | 0.044        |

### Dimensional sketch

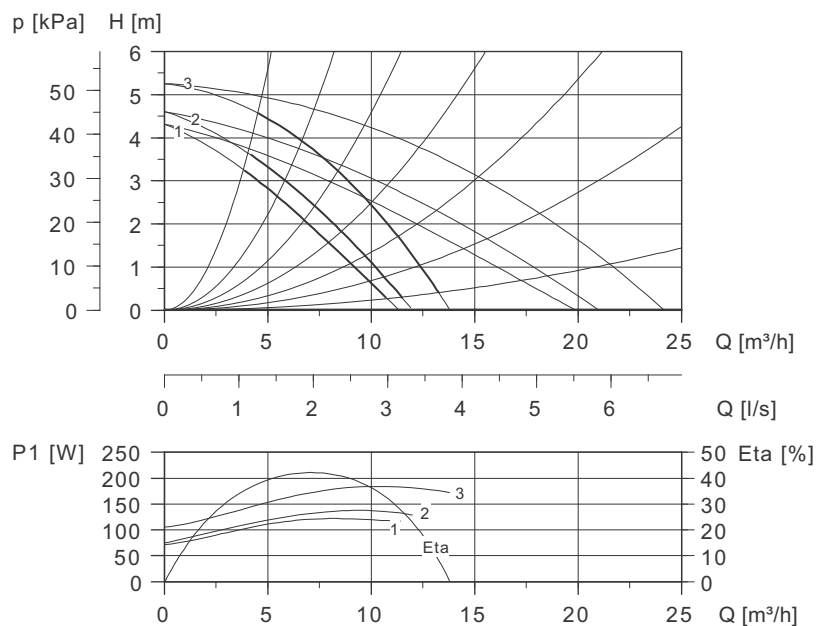


TM02 0703 3601

### 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



TM00 9460 0197

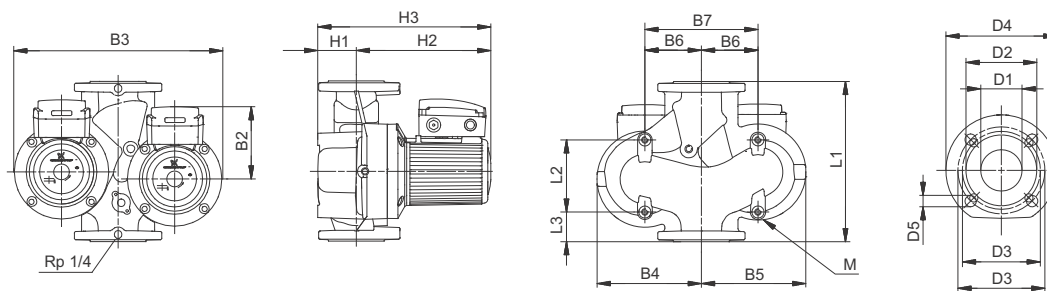
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|------------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 120              | 70               | 0.21        | 0.82 |
|               | Speed 2          | 140              | 75               | 0.23        | 0.88 |
|               | Speed 3          | 185              | 105              | 0.39        | 0.68 |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 31.6         |
| Gross weight [kg]                 | 33.3         |
| Shipping volume [m <sup>3</sup> ] | 0.044        |

## Dimensional sketch

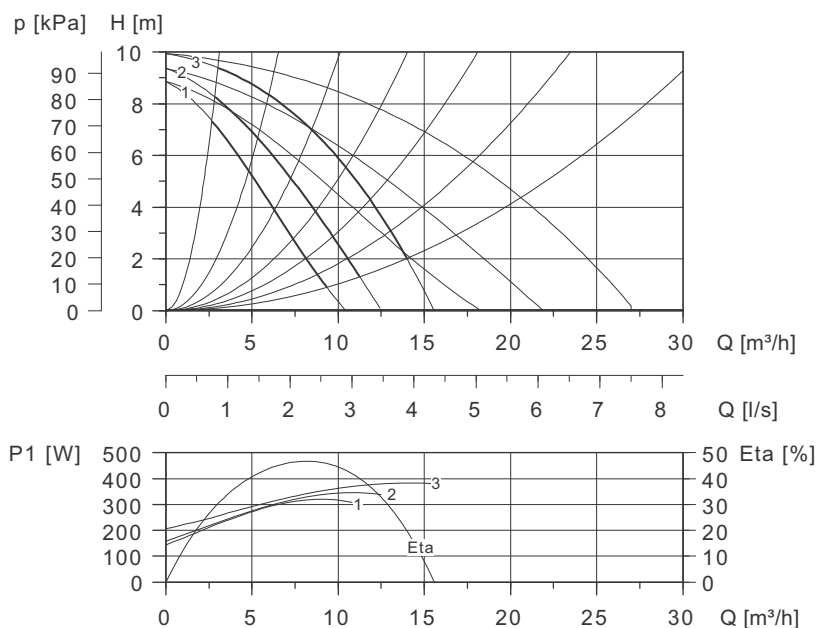


TM02 0703 3601

## 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



TM00 9461 0197

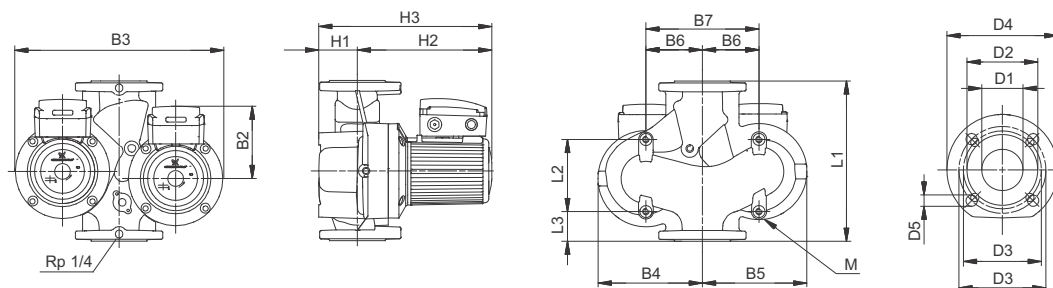
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[μF] |    |
|---------------|------------------|------------------|------------------|----------------|-----------|----|
| 1 x 230-240 V | Speed 1          | 320              | 145              | 1.55           | 0.90      | 10 |
|               | Speed 2          | 340              | 160              | 1.65           | 0.90      | 10 |
|               | Speed 3          | 380              | 210              | 1.75           | 0.94      | 10 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 32.9         |
| Gross weight [kg]    | 34.8         |
| Shipping volume [m³] | 0.044        |

## Dimensional sketch

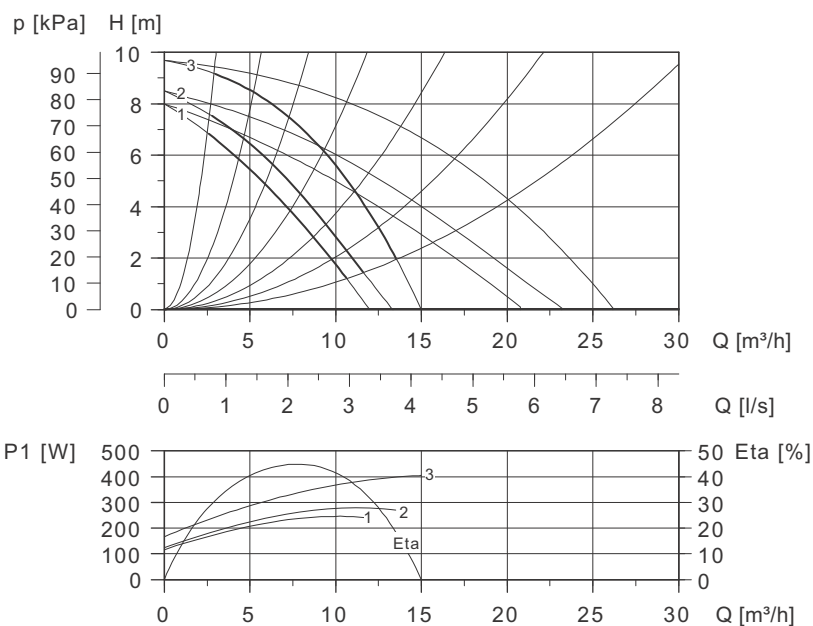


TM02 0703 3601

## 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



TM00 9462 0197

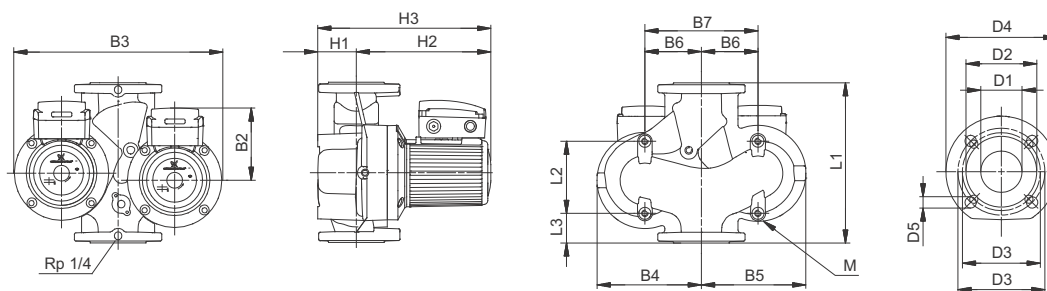
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |
|---------------|------------------|------------------|------------------|-------------|
| 3 x 400-415 V | Speed 1          | 245              | 120              | 0.42        |
|               | Speed 2          | 280              | 130              | 0.47        |
|               | Speed 3          | 400              | 170              | 0.78        |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 33.0         |
| Gross weight [kg]                 | 34.5         |
| Shipping volume [m <sup>3</sup> ] | 0.045        |

## Dimensional sketch



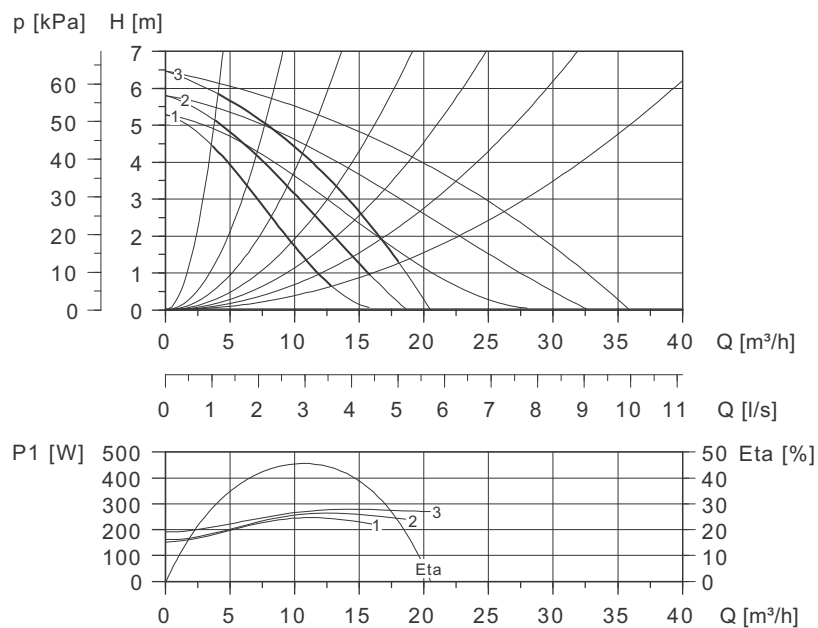
TM02 0703 3601

## 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



TM00 9465 0197

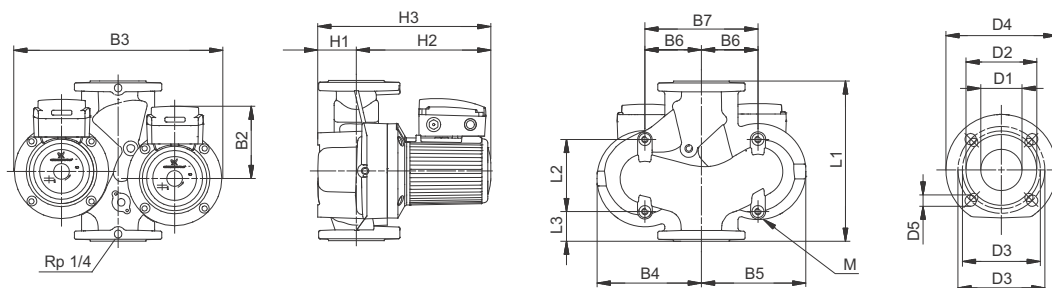
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |   |
|---------------|-------------------|-------------------|------------------|----------------|--------------------------|---|
| 1 x 230-240 V | Speed 1           | 250               | 150              | 1.25           | 0.87                     | 8 |
|               | Speed 2           | 260               | 160              | 1.25           | 0.90                     | 8 |
|               | Speed 3           | 280               | 190              | 1.30           | 0.94                     | 8 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 33.3         |
| Gross weight [kg]                 | 36.2         |
| Shipping volume [m <sup>3</sup> ] | 0.044        |

### Dimensional sketch

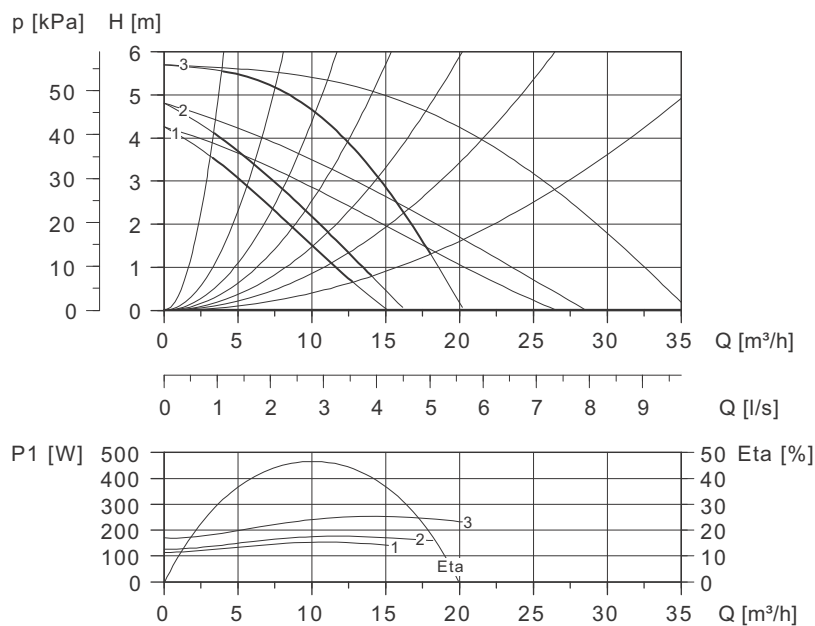


TM02 0703 3601

### 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



TM00 9466 0197

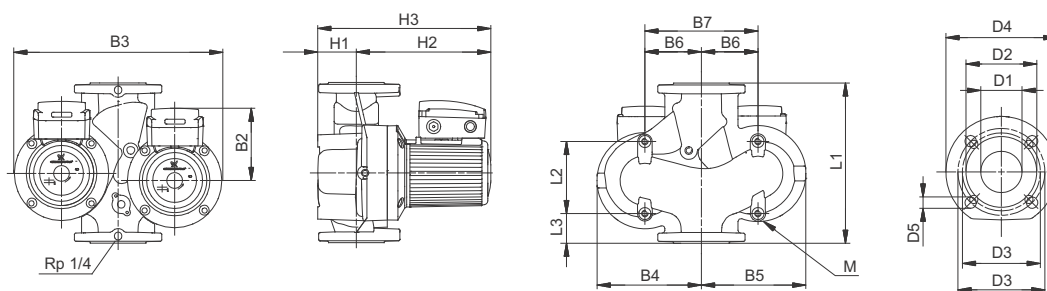
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 155               | 115              | 0.25           | 0.89 |
|               | Speed 2           | 175               | 125              | 0.29           | 0.87 |
|               | Speed 3           | 250               | 170              | 0.46           | 0.78 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 32.6         |
| Gross weight [kg]                 | 35.6         |
| Shipping volume [m <sup>3</sup> ] | 0.044        |

### Dimensional sketch

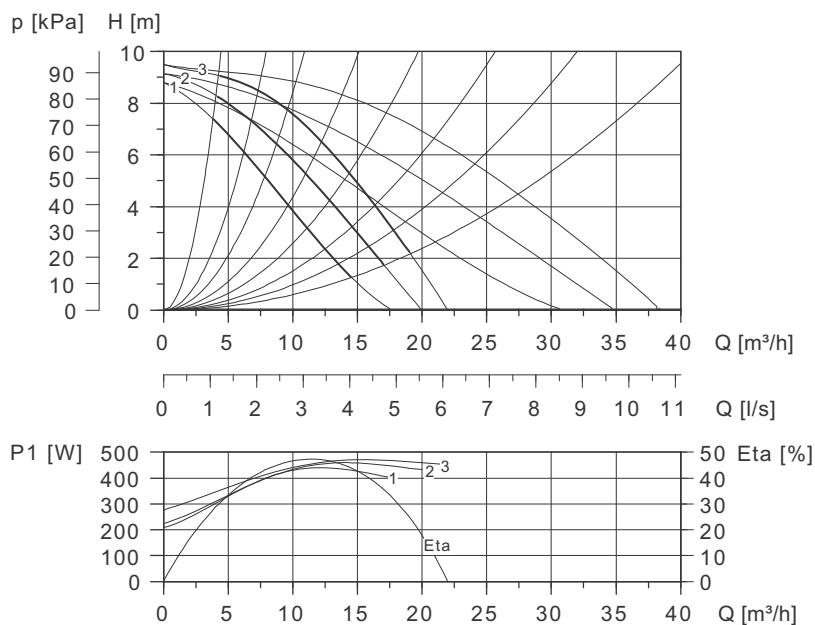


TM02 0703 3601

### 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



TM00 9467 0197

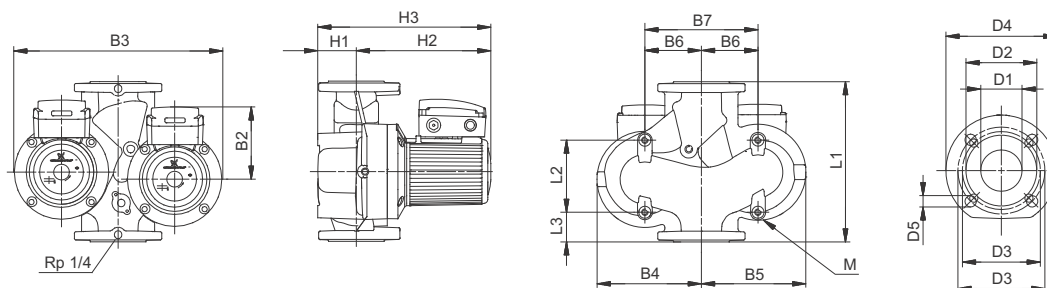
## Electrical data

|               | $P_{\text{max}}$<br>[W] | $P_{\text{min}}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------------|-------------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | Speed 1                 | 440                     | 210              | 2.20           | 0.87                     | 12 |
|               | Speed 2                 | 460                     | 225              | 2.30           | 0.87                     | 12 |
|               | Speed 3                 | 470                     | 280              | 2.20           | 0.93                     | 12 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 36.5         |
| Gross weight [kg]    | 38.5         |
| Shipping volume [m³] | 0.044        |

## Dimensional sketch

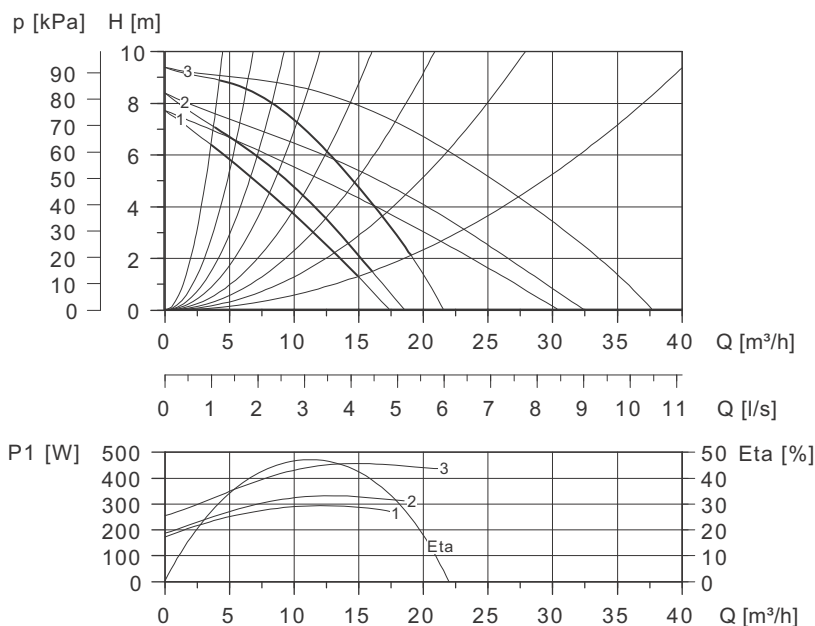


TM02 0703 3601

## 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



TM00 9468 0197

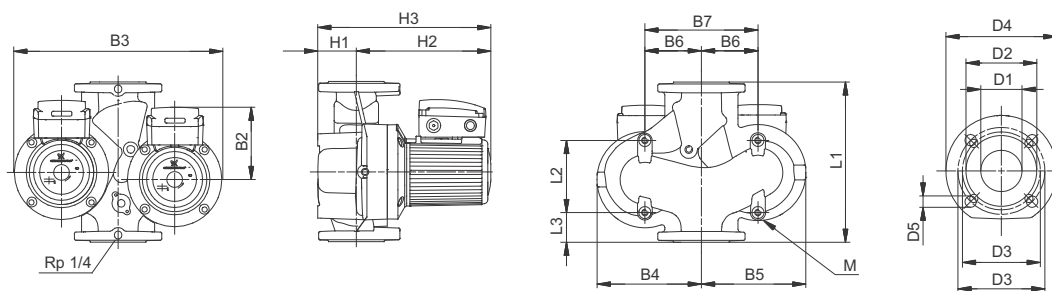
## Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 290               | 175              | 0.49           | 0.85 |
|               | Speed 2           | 330               | 190              | 0.56           | 0.85 |
|               | Speed 3           | 460               | 260              | 0.92           | 0.72 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 33.0         |
| Gross weight [kg]    | 37.7         |
| Shipping volume [m³] | 0.044        |

## Dimensional sketch

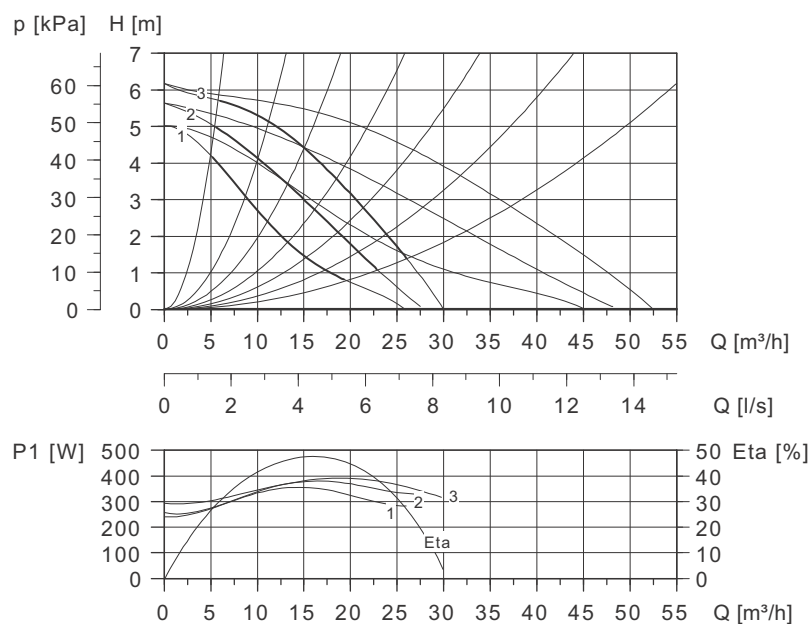


TM02 0703 3601

## 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



TM00 9473 0197

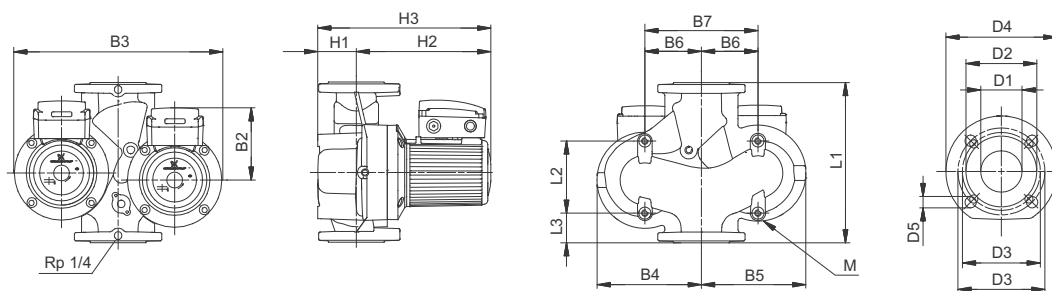
### Electrical data

|               | $P_{\text{max}}$<br>[W] | $P_{\text{min}}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------------|-------------------------|------------------|----------------|--------------------------|----|
| 1 x 230-240 V | Speed 1                 | 350                     | 240              | 1.75           | 0.87                     | 10 |
|               | Speed 2                 | 380                     | 250              | 1.85           | 0.89                     | 10 |
|               | Speed 3                 | 390                     | 290              | 1.80           | 0.94                     | 10 |

### Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 39.0         |
| Gross weight [kg]    | 42.0         |
| Shipping volume [m³] | 0.061        |

### Dimensional sketch

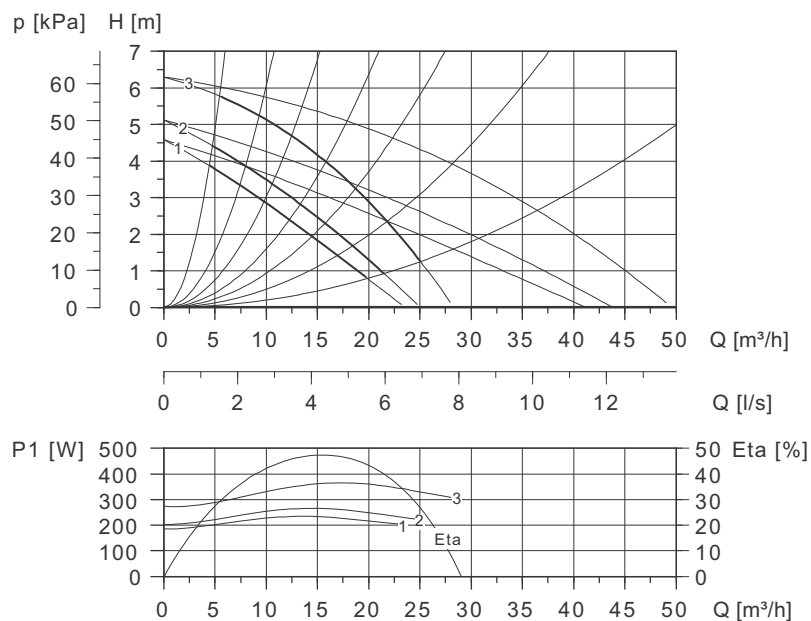


TM02 0703 3601

### 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



TM00 9474 0197

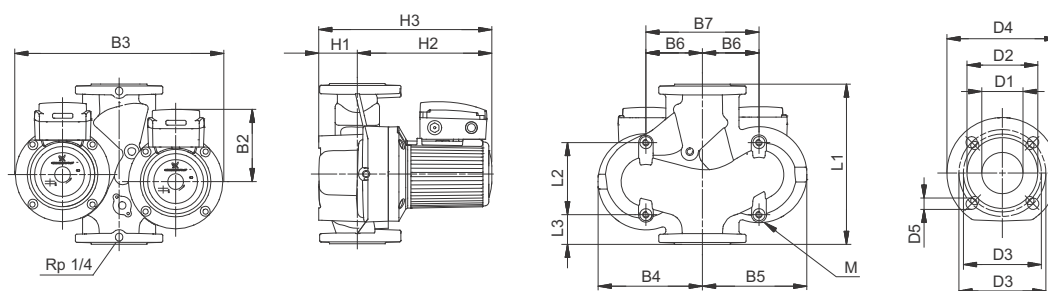
## Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 235               | 185              | 0.39           | 0.87 |
|               | Speed 2           | 270               | 205              | 0.45           | 0.87 |
|               | Speed 3           | 360               | 270              | 0.74           | 0.70 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 38.7         |
| Gross weight [kg]    | 41.1         |
| Shipping volume [m³] | 0.061        |

## Dimensional sketch

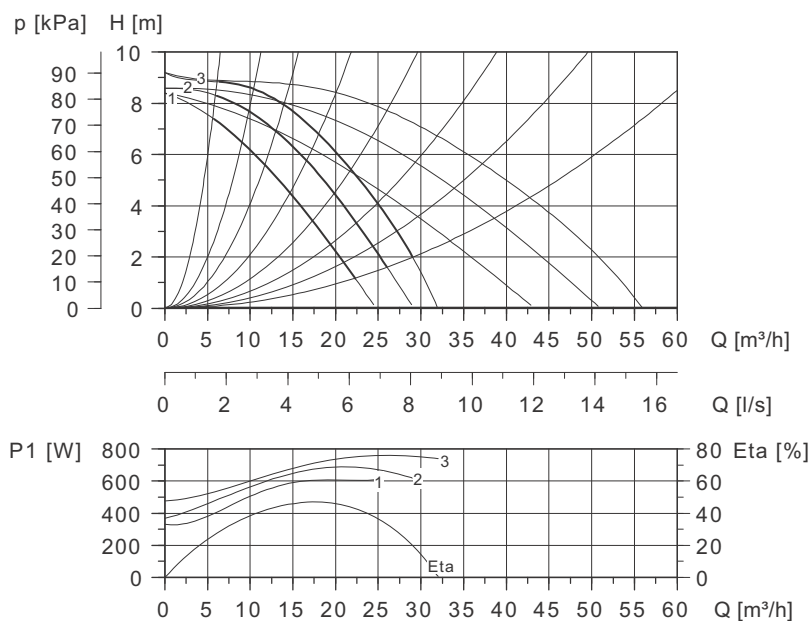


TM02 0703 3601

## 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 50-120 F 280



TM00 9475 0197

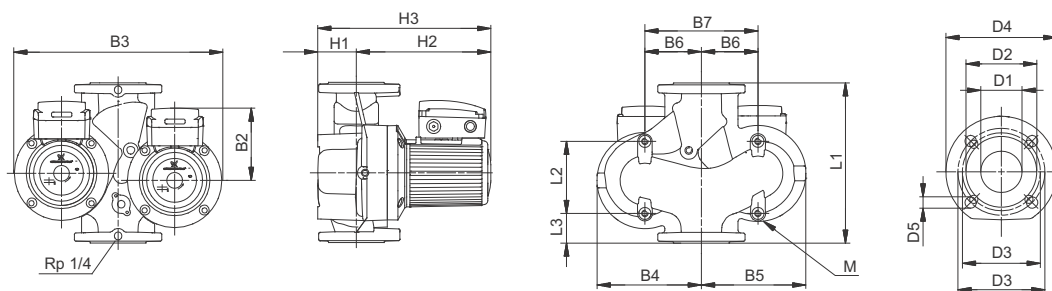
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[μF] |    |
|---------------|------------------|------------------|------------------|----------------|-----------|----|
| 1 x 230-240 V | Speed 1          | 620              | 330              | 3.05           | 0.88      | 25 |
|               | Speed 2          | 700              | 360              | 3.35           | 0.91      | 25 |
|               | Speed 3          | 760              | 480              | 3.60           | 0.92      | 25 |

### Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 56.0         |
| Gross weight [kg]    | 62.9         |
| Shipping volume [m³] | 0.125        |

### Dimensional sketch

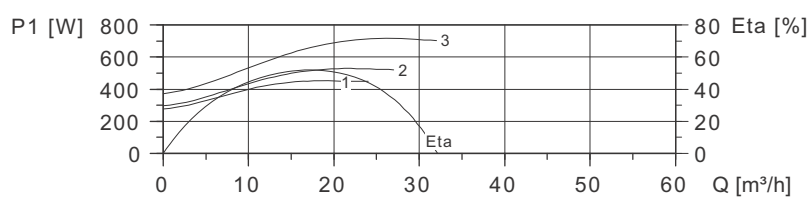
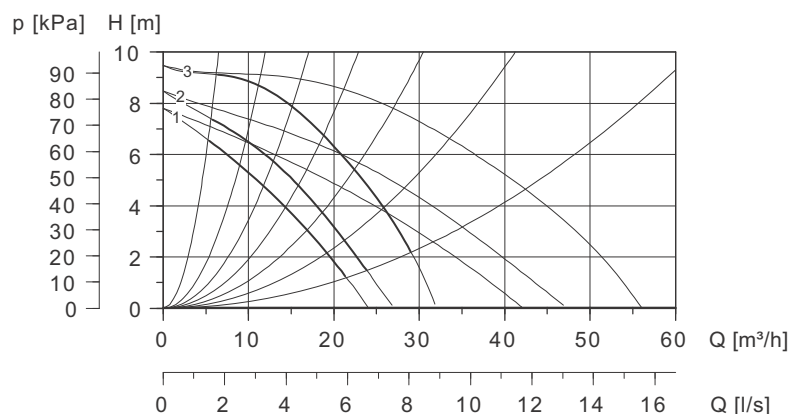


TM02 0703 3601

### 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



TM00 9476 0197

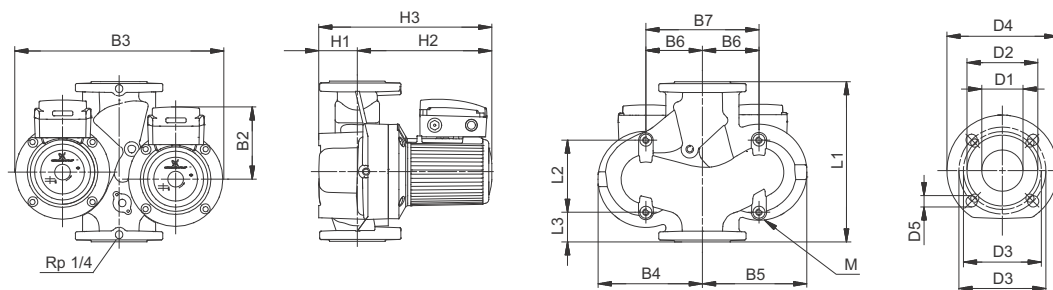
## Electrical data

|               |         | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |
|---------------|---------|------------------|------------------|------------------|----------------|
| 3 x 400-415 V | Speed 1 | 450              | 280              | 0.82             | 0.79           |
|               | Speed 2 | 530              | 300              | 0.94             | 0.81           |
|               | Speed 3 | 720              | 380              | 1.30             | 0.80           |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 46.1         |
| Gross weight [kg]                 | 48.1         |
| Shipping volume [m <sup>3</sup> ] | 0.061        |

## Dimensional sketch



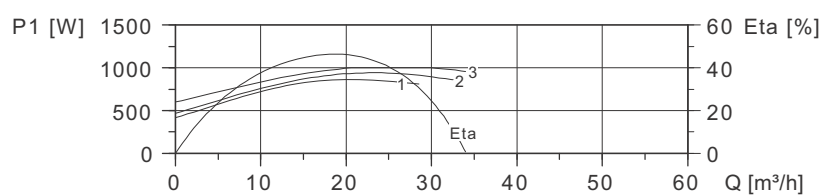
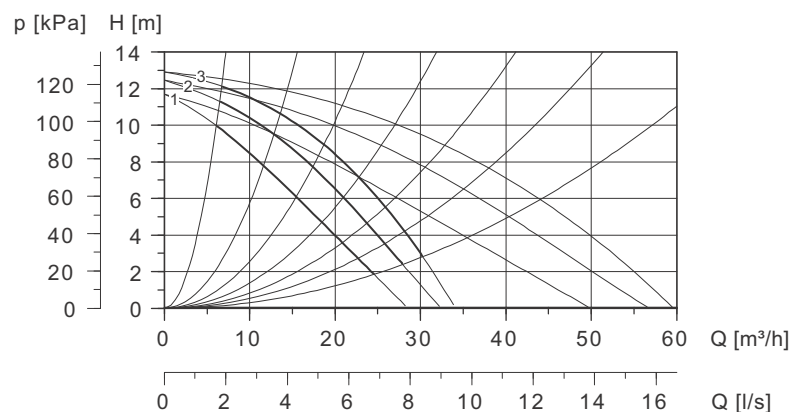
TM02 0703 3601

## 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



TM00 9477 0197

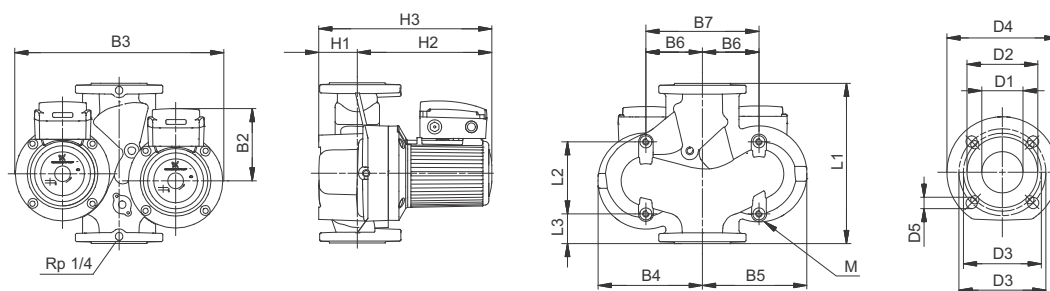
### Electrical data

|                      | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | C<br>[ $\mu$ F] |
|----------------------|------------------|------------------|------------------|-------------|-----------------|
| <b>Speed 1</b>       | 860              | 420              | 4.15             | 0.90        | 30              |
| <b>1 x 230-240 V</b> |                  |                  |                  |             |                 |
| <b>Speed 2</b>       | 940              | 470              | 4.40             | 0.93        | 30              |
| <b>Speed 3</b>       | 1000             | 600              | 4.65             | 0.94        | 30              |

### Weights and volume

|  | PN 6 / PN 10 |
|--|--------------|
| <b>Net weight [kg]</b>                 | 52.0         |
| <b>Gross weight [kg]</b>               | 58.9         |
| <b>Shipping volume [m<sup>3</sup>]</b> | 0.125        |

### Dimensional sketch

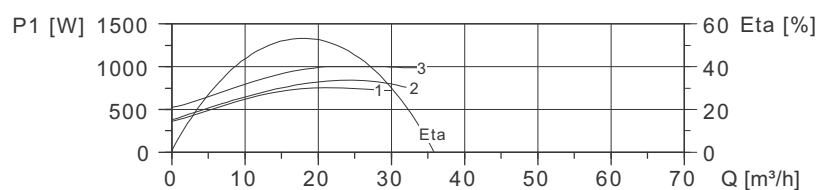
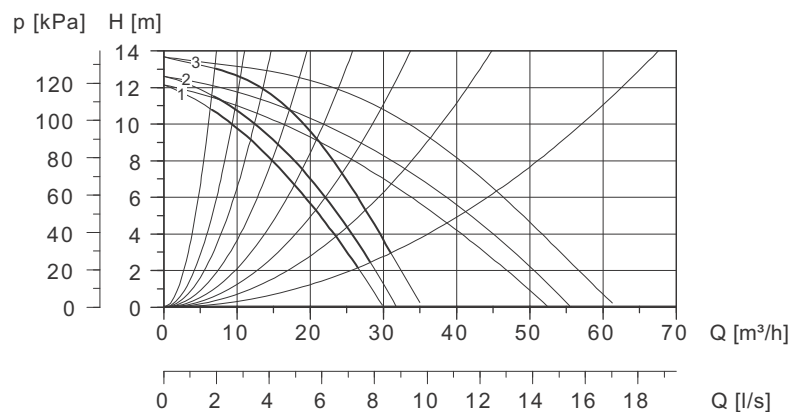


TM02 0703 3601

### Dimensions [mm]

|                     | L1  | L2  | L3 | B2  | B3  | B4  | B5  | B6  | B7  | H1 | H2  | H3  | D1 | D2 | D3      | D4  | D5    | M   |
|---------------------|-----|-----|----|-----|-----|-----|-----|-----|-----|----|-----|-----|----|----|---------|-----|-------|-----|
| <b>PN 6 / PN 10</b> | 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



TM00 9478 0197

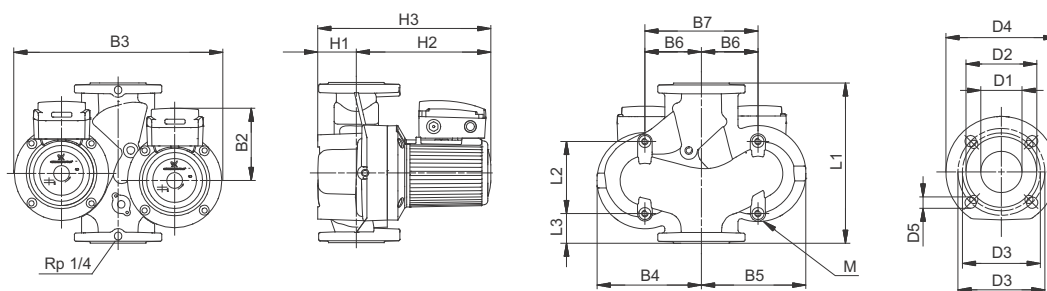
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|------------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 760              | 360              | 1.25        | 0.88 |
|               | Speed 2          | 850              | 380              | 1.40        | 0.88 |
|               | Speed 3          | 1000             | 520              | 2.00        | 0.72 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 51.5         |
| Gross weight [kg]    | 58.4         |
| Shipping volume [m³] | 0.125        |

## Dimensional sketch

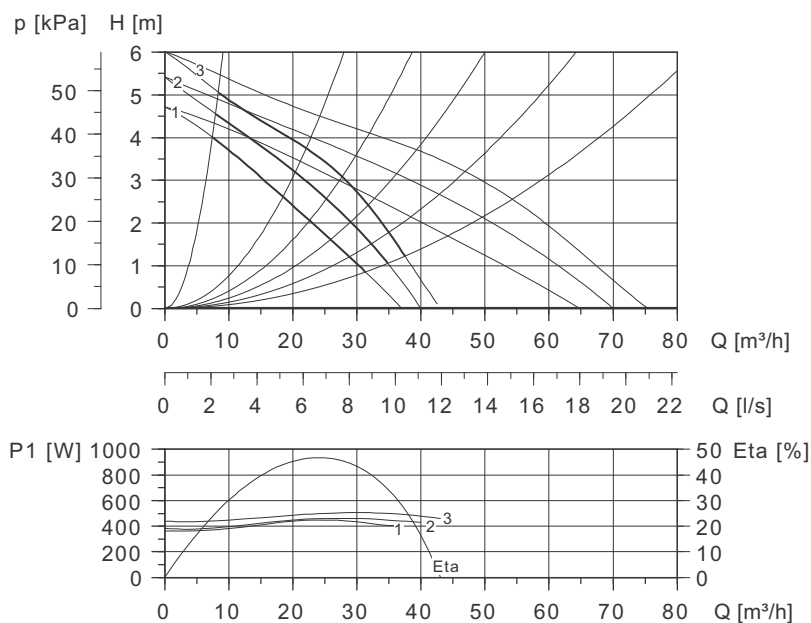


TM02 0703 3601

## 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



TM00 9483 0197

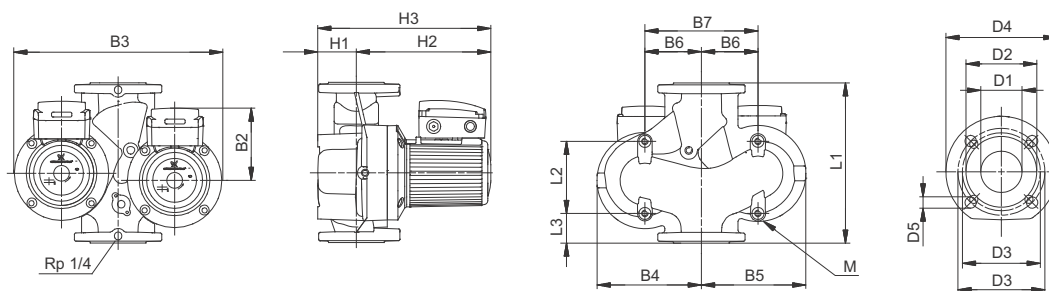
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ | C<br>[ $\mu$ F] |    |
|---------------|------------------|------------------|------------------|----------------|-----------------|----|
| 1 x 230-240 V | Speed 1          | 450              | 360              | 2.15           | 0.91            | 16 |
|               | Speed 2          | 470              | 380              | 2.20           | 0.93            | 16 |
|               | Speed 3          | 510              | 440              | 2.40           | 0.92            | 16 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 50.0         |
| Gross weight [kg]                 | 56.9         |
| Shipping volume [m <sup>3</sup> ] | 0.125        |

### Dimensional sketch

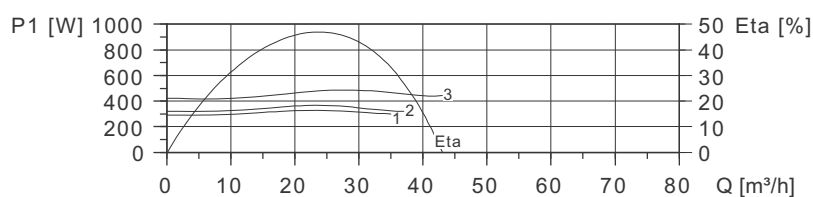
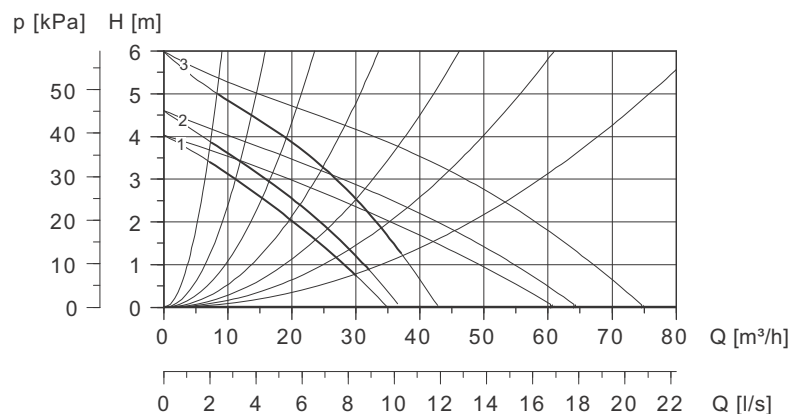


TM02 0703 3601

### 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



TM00 9484 0197

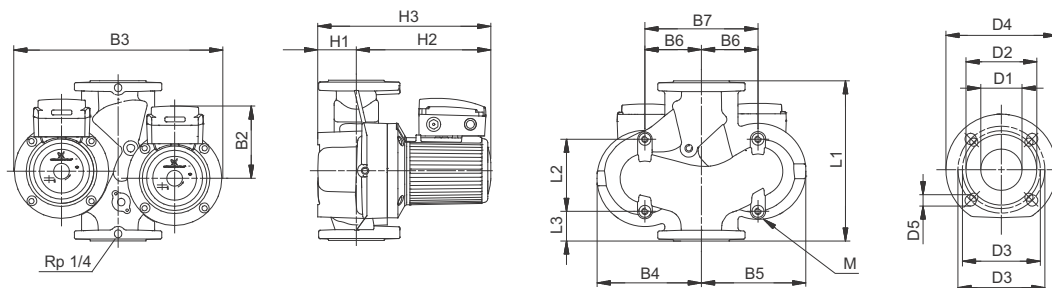
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 330              | 290              | 0.56           | 0.85 |
|               | Speed 2          | 370              | 320              | 0.64           | 0.83 |
|               | Speed 3          | 490              | 420              | 1.05           | 0.67 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 49.0         |
| Gross weight [kg]                 | 56.9         |
| Shipping volume [m <sup>3</sup> ] | 0.125        |

### Dimensional sketch

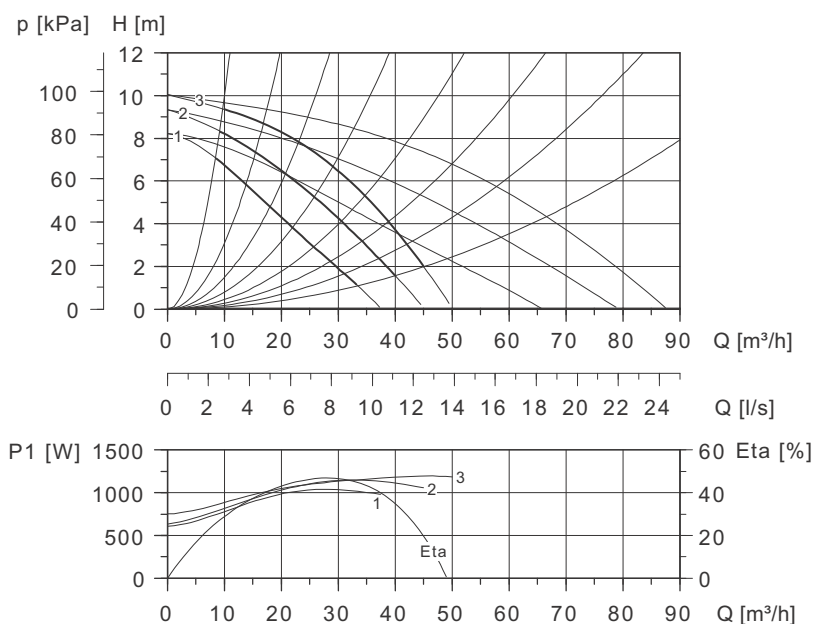


TM02 0703 3601

### 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



TM00 9485 0197

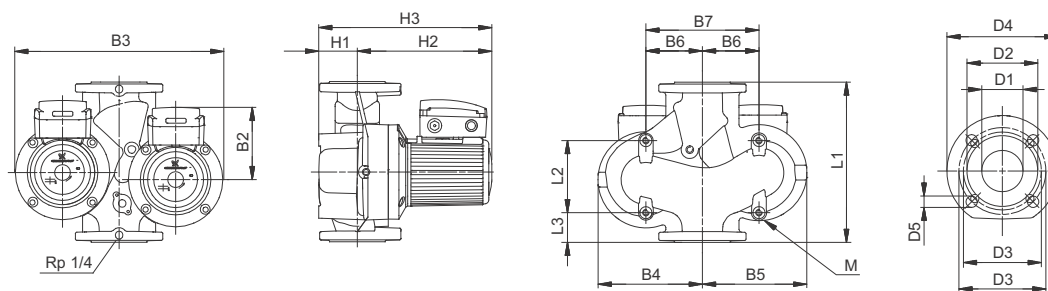
## Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ | $C$<br>[ $\mu\text{F}$ ] |    |
|---------------|-------------------|-------------------|------------------|-------------|--------------------------|----|
| 1 x 230-240 V | Speed 1           | 1050              | 600              | 5.10        | 0.90                     | 30 |
|               | Speed 2           | 1150              | 630              | 5.60        | 0.89                     | 30 |
|               | Speed 3           | 1200              | 750              | 5.50        | 0.95                     | 30 |

## Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 66.0         |
| Gross weight [kg]                 | 72.9         |
| Shipping volume [m <sup>3</sup> ] | 0.125        |

## Dimensional sketch

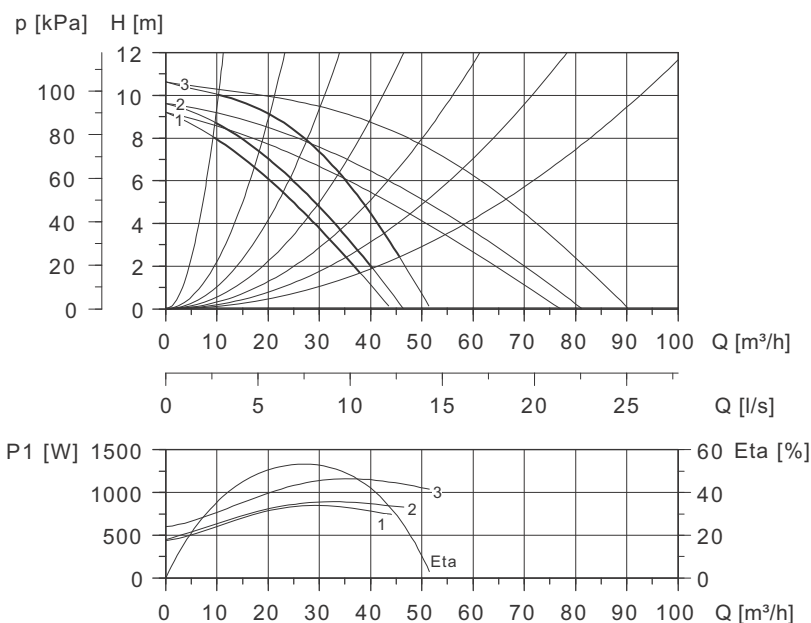


TM02 0703 3601

## 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



TM00 9486 0197

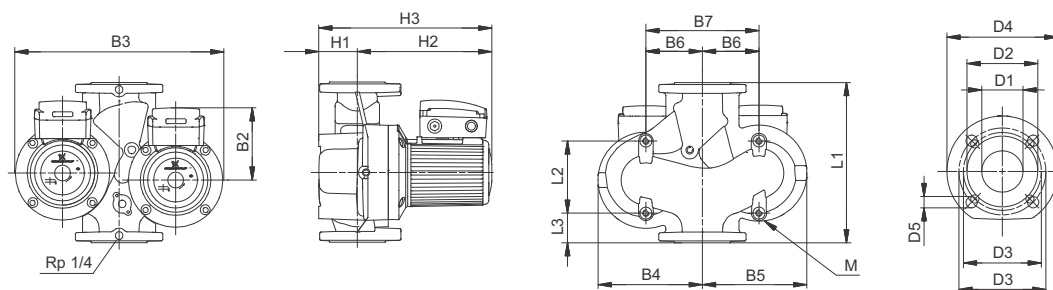
### Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 850              | 440              | 1.35           | 0.91 |
|               | Speed 2          | 900              | 460              | 1.45           | 0.90 |
|               | Speed 3          | 1150             | 600              | 2.15           | 0.77 |

### Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 53.0         |
| Gross weight [kg]    | 60.0         |
| Shipping volume [m³] | 0.125        |

### Dimensional sketch

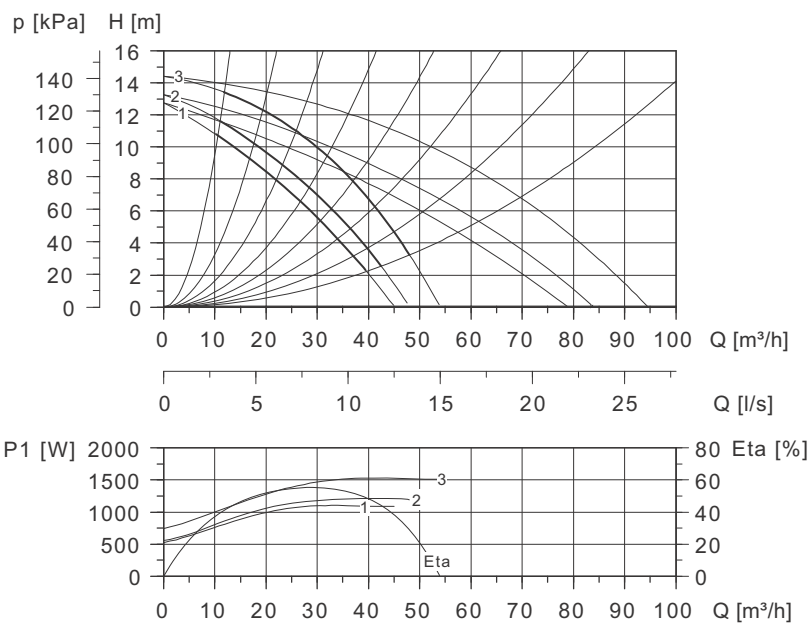


TM02 0703 3601

### 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



TM00 9487 0197

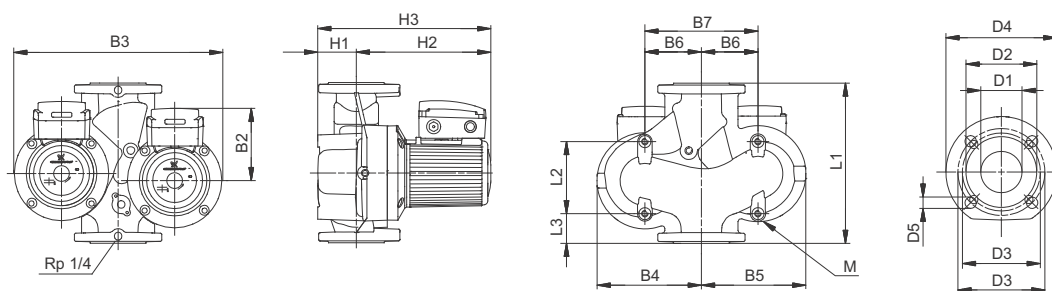
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \phi$ |      |
|---------------|------------------|------------------|------------------|-------------|------|
| 3 x 400-415 V | Speed 1          | 1100             | 520              | 1.85        | 0.86 |
|               | Speed 2          | 1200             | 560              | 2.00        | 0.87 |
|               | Speed 3          | 1550             | 740              | 2.90        | 0.77 |

## Weights and volume

|                      | PN 6 / PN 10 |
|----------------------|--------------|
| Net weight [kg]      | 70.0         |
| Gross weight [kg]    | 76.9         |
| Shipping volume [m³] | 0.125        |

## Dimensional sketch

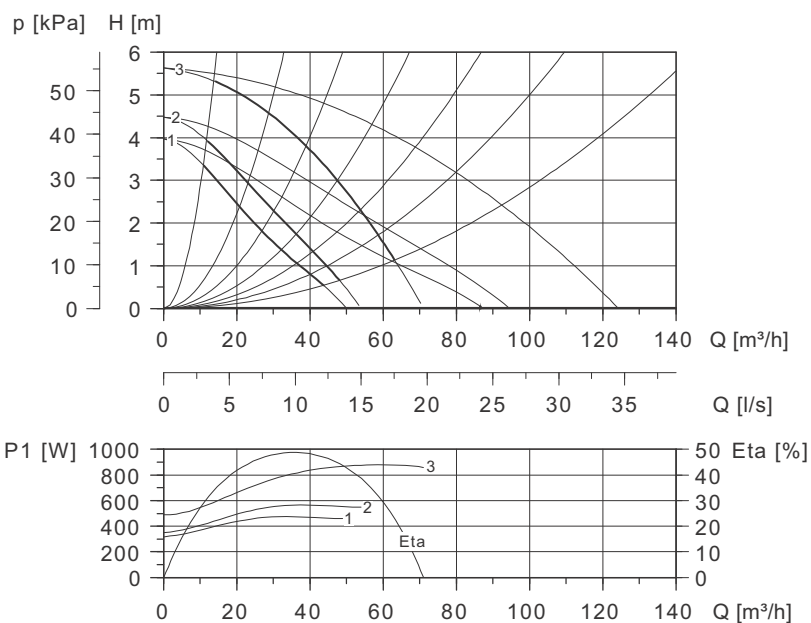


TM02 0703 3601

## 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



TM00 9489 0197

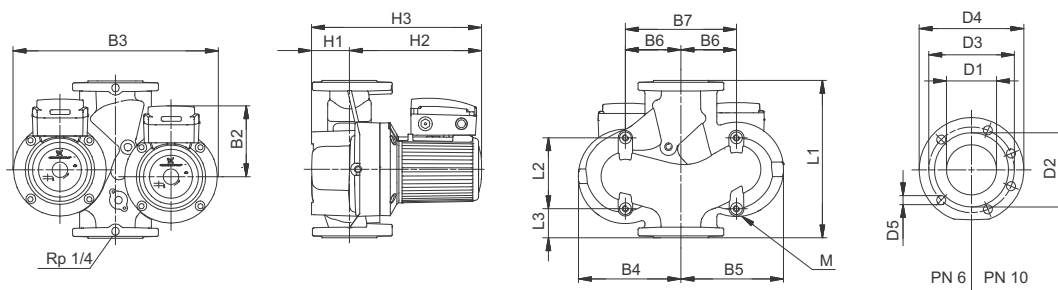
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 470              | 320              | 0.84           | 0.81 |
|               | Speed 2          | 570              | 350              | 1.00           | 0.82 |
|               | Speed 3          | 880              | 490              | 1.80           | 0.71 |

## Weights and volume

| PN 6 / PN 10         |       |
|----------------------|-------|
| Net weight [kg]      | 73.0  |
| Gross weight [kg]    | 80.7  |
| Shipping volume [m³] | 0.200 |

## Dimensional sketch



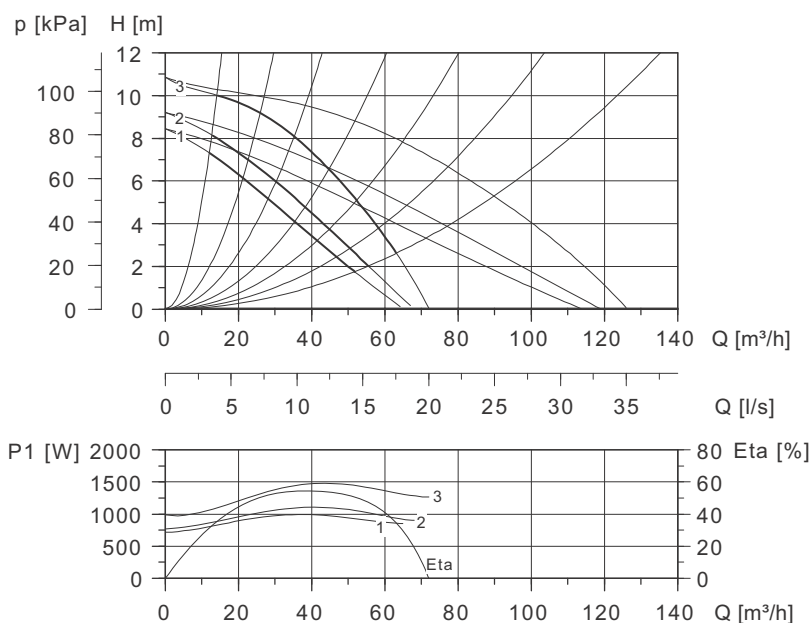
TM02 0815 3601

## 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



TM00 9490 0197

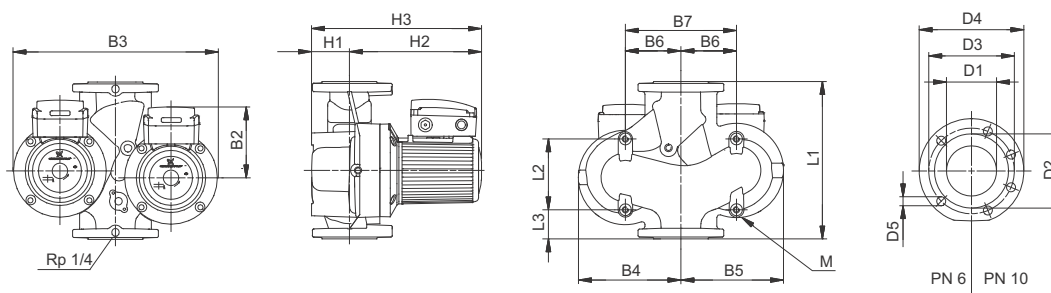
### Electrical data

|               | $P_{\max}$<br>[W] | $P_{\min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|-------------------|-------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1           | 1000              | 710              | 1.65           | 0.87 |
|               | Speed 2           | 1100              | 760              | 1.80           | 0.88 |
|               | Speed 3           | 1500              | 960              | 2.75           | 0.79 |

### Weights and volume

|                                   | PN 6 / PN 10 |
|-----------------------------------|--------------|
| Net weight [kg]                   | 75.5         |
| Gross weight [kg]                 | 83.2         |
| Shipping volume [m <sup>3</sup> ] | 0.200        |

### Dimensional sketch

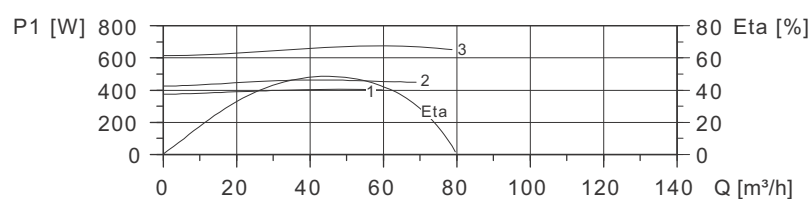
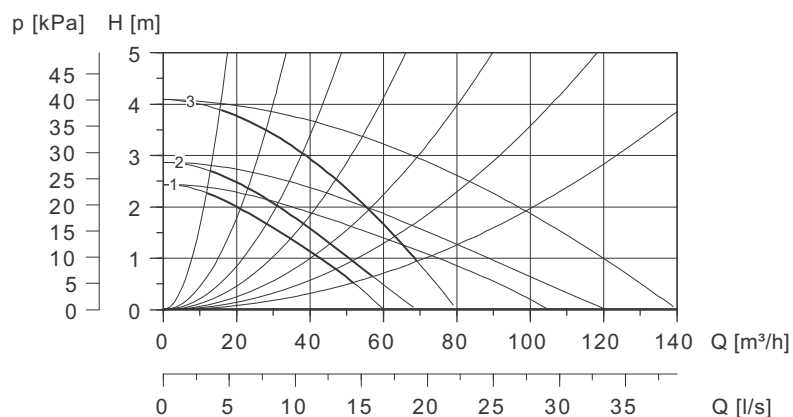


TM02 0815 3601

### 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



TM00 9491 0197

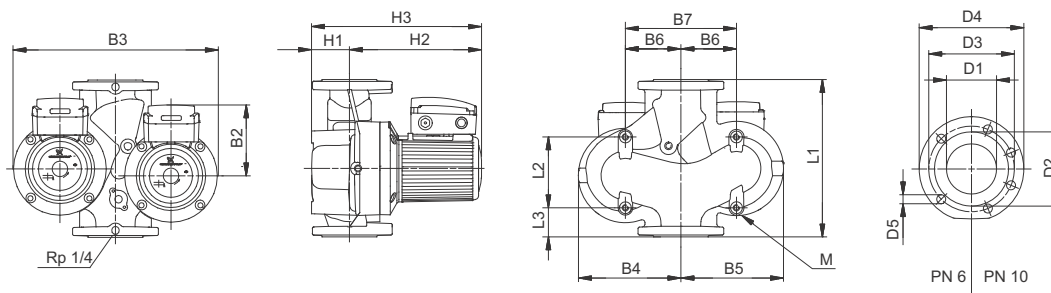
## Electrical data

|               | $P_{max}$<br>[W] | $P_{min}$<br>[W] | $I_{1/1}$<br>[A] | $\cos \varphi$ |      |
|---------------|------------------|------------------|------------------|----------------|------|
| 3 x 400-415 V | Speed 1          | 410              | 380              | 0.72           | 0.82 |
|               | Speed 2          | 460              | 430              | 0.84           | 0.79 |
|               | Speed 3          | 670              | 610              | 1.55           | 0.62 |

## Weights and volume

|                                   | 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 |

## Dimensional sketch



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

| UPS, UPSD 32<br>Connection: 32 mm (1 1/4") |                    |                |                   |                    |                |                 |
|--|--------------------|----------------|-------------------|--------------------|----------------|-----------------|
| Terminal box module                        | Material           | Pressure stage | Voltage [V]       | Pump type          | Product number | Data sheet Page |
| <b>Single-head pumps</b>                   |                    |                |                   |                    |                |                 |
| Standard module                            | Cast iron          | PN 6 / PN 10   | 1 x 230-240       | UPS 32-60 F 220    | 96401771       | 16              |
|  |                    |                |                   | UPS 32-120 F 220   | 96401837       | 18              |
|  |                    |                | 3 x 400-415       | UPS 32-60 F 220    | 96401777       | 17              |
|  | UPS 32-120 F 220   | 96401839       |                   | 19                 |                |                 |
|  | Bronze             | PN 6 / PN 10   | 1 x 230-240       | UPS 32-60 F B 220  | 96401797       | 16              |
|  |                    |                |                   | UPS 32-120 F B 220 | 96401844       | 18              |
| 3 x 400-415                                |                    |                | UPS 32-60 F B 220 | 96401808           | 17             |                 |
|  | UPS 32-120 F B 220 | 96401846       | 19                |                    |                |                 |
| <b>Twin-head pumps</b>                     |                    |                |                   |                    |                |                 |
| Standard module                            | Cast iron          | PN 6 / PN 10   | 1 x 230-240       | UPSD 32-60 F 220   | 96408898       | 45              |
|  |                    |                |                   | UPSD 32-120 F 220  | 96408893       | 47              |
|  |                    |                | 3 x 400-415       | UPSD 32-60 F 220   | 96408900       | 46              |
|  |                    |                |                   | UPSD 32-120 F 220  | 96408961       | 48              |
| Relay module                               | Cast iron          | PN 6 / PN 10   | 1 x 230-240       | UPSD 32-60 F 220   | 96401783       | 45              |
|  |                    |                |                   | UPSD 32-120 F 220  | 96401841       | 47              |
|  |                    |                | 3 x 400-415       | UPSD 32-60 F 220   | 96401792       | 46              |
|  |                    |                |                   | UPSD 32-120 F 220  | 96401843       | 48              |

| UPS, UPSD 40<br>Connection: 40 mm (1 1/2") |           |                |             |                     |                |                 |
|--|-----------|----------------|-------------|---------------------|----------------|-----------------|
| Terminal box module                        | Material  | Pressure stage | Voltage [V] | Pump type           | Product number | Data sheet Page |
| <b>Single-head pumps</b>                   |           |                |             |                     |                |                 |
| Standard module                            | Cast iron | PN 6 / PN 10   | 1 x 230-240 | UPS 40-60/2 F 250   | 96401915       | 20              |
|  |           |                |             | UPS 40-120 F 250    | 96401942       | 22              |
|  |           |                |             | UPS 40-180 F 250    | 96401977       | 24              |
|  |           |                | 3 x 400-415 | UPS 40-185 F 250    | 96430299       | 26              |
|  |           |                |             | UPS 40-60/2 F 250   | 96401917       | 21              |
|  |           |                |             | UPS 40-120 F 250    | 96401944       | 23              |
|  | Bronze    | PN 6 / PN 10   | 1 x 230-240 | UPS 40-180 F 250    | 96401979       | 25              |
|  |           |                |             | UPS 40-185 F 250    | 96430296       | 27              |
|  |           |                |             | UPS 40-60/2 F B 250 | 96401921       | 20              |
|  |           |                | 3 x 400-415 | UPS 40-120 F B 250  | 96401949       | 22              |
|  |           |                |             | UPS 40-180 F B 250  | 96401983       | 24              |
|  |           |                |             | UPS 40-60/2 F B 250 | 96401923       | 21              |
| <b>Twin-head pumps</b>                     |           |                |             |                     |                |                 |
| Standard module                            | Cast iron | PN 6 / PN 10   | 1 x 230-240 | UPSD 40-60 F 250    | 96408907       | 49              |
|  |           |                |             | UPSD 40-120 F 250   | 96408901       | 51              |
|  |           |                | 3 x 400-415 | UPSD 40-60 F 250    | 96408909       | 50              |
|  |           |                |             | UPSD 40-120 F 250   | 96408903       | 52              |
| Relay module                               | Cast iron | PN 6 / PN 10   | 1 x 230-240 | UPSD 40-60 F 250    | 96401918       | 49              |
|  |           |                |             | UPSD 40-120 F 250   | 96401946       | 51              |
|  |           |                | 3 x 400-415 | UPSD 40-60 F 250    | 96401920       | 50              |
|  |           |                |             | UPSD 40-120 F 250   | 96401948       | 52              |

| UPS 50<br>Connection: 50 mm (2")              |                   |                    |                    |                        |                |                    |
|---|-------------------|--------------------|--------------------|------------------------|----------------|--------------------|
| Terminal box module                           | Material          | Pressure stage     | Voltage [V]        | Pump type              | Product number | Data sheet Page    |
| <b>Single-head pumps</b>                      |                   |                    |                    |                        |                |                    |
| Standard module                               | Cast iron         | PN 6 / PN 10       | 1 x 230-240        | UPS 50-60/2 F 280      | 96402053       | <a href="#">28</a> |
|   |                   |                    |                    | UPS 50-120 F 280       | 96402101       | <a href="#">30</a> |
|   |                   |                    |                    | UPS 50-180 F 280       | 96402134       | <a href="#">32</a> |
|   |                   |                    | 3 x 400-415        | UPS 50-185 F 280       | 96430300       | <a href="#">34</a> |
|   |                   |                    |                    | UPS 50-60/2 F 280      | 96402055       | <a href="#">29</a> |
|   |                   |                    |                    | UPS 50-120 F 280       | 96402103       | <a href="#">31</a> |
|   | Bronze            | PN 6 / PN 10       | 1 x 230-240        | UPS 50-180 F 280       | 96402136       | <a href="#">33</a> |
|   |                   |                    |                    | UPS 50-185 F 280       | 96430297       | <a href="#">35</a> |
|   |                   |                    |                    | UPS 50-60/2 F B 280    | 96402064       | <a href="#">28</a> |
|   |                   |                    | 3 x 400-415        | UPS 50-120 F B 280     | 96402108       | <a href="#">30</a> |
|   |                   |                    |                    | UPS 50-180 F B 280     | 96402140       | <a href="#">32</a> |
|   |                   |                    |                    | UPS 50-60/2 F B 280    | 96402072       | <a href="#">29</a> |
| <b>Twin-head pumps</b>                        |                   |                    |                    |                        |                |                    |
| Standard module                               | Cast iron         | PN 6 / PN 10       | 1 x 230-240        | UPSD 50-60/2 F 280     | 96408919       | <a href="#">53</a> |
|   |                   |                    |                    | UPSD 50-120 F 280      | 96408910       | <a href="#">55</a> |
|   |                   |                    |                    | UPSD 50-180 F 280      | 96408913       | <a href="#">57</a> |
|   |                   |                    | 3 x 400-415        | UPSD 50-60/2 F 280     | 96408921       | <a href="#">54</a> |
|   |                   |                    |                    | UPSD 50-120 F 280      | 96408912       | <a href="#">56</a> |
|   |                   |                    |                    | UPSD 50-180 F 280      | 96408915       | <a href="#">58</a> |
| Relay module                                  | Cast iron         | PN 6 / PN 10       | 1 x 230-240        | UPSD 50-60/2 F 280     | 96402057       | <a href="#">53</a> |
|   |                   |                    |                    | UPSD 50-120 F 280      | 96402105       | <a href="#">55</a> |
|   |                   |                    |                    | UPSD 50-180 F 280      | 96402137       | <a href="#">57</a> |
|   |                   |                    | 3 x 400-415        | UPSD 50-60/2 F 280     | 96402060       | <a href="#">54</a> |
|   |                   |                    |                    | UPSD 50-120 F 280      | 96402107       | <a href="#">56</a> |
|   |                   |                    |                    | UPSD 50-180 F 280      | 96402139       | <a href="#">58</a> |
| <b>UPSD 65<br/>Connection: 65 mm (2 1/2")</b> |                   |                    |                    |                        |                |                    |
| Terminal box module                           | Material          | Pressure stage     | Voltage [V]        | Pump type              | Product number | Data sheet Page    |
| <b>Single-head pumps</b>                      |                   |                    |                    |                        |                |                    |
| Standard module                               | Cast iron         | PN 6 / PN 10       | 1 x 230-240        | UPS 65-60/2 F 340      | 96402258       | <a href="#">36</a> |
|   |                   |                    |                    | UPS 65-120 F 340       | 96402278       | <a href="#">38</a> |
|   |                   |                    |                    | UPS 65-60/2 F 340      | 96402260       | <a href="#">37</a> |
|   |                   |                    | 3 x 400-415        | UPS 65-120 F 340       | 96402280       | <a href="#">39</a> |
|   |                   |                    |                    | UPS 65-180 F 340       | 96402316       | <a href="#">40</a> |
|   |                   |                    |                    | UPS 65-185 F 340       | 96430298       | <a href="#">41</a> |
|   | Bronze            | PN 6 / PN 10       | 1 x 230-240        | UPS 65-60/2 F B 340    | 96402262       | <a href="#">36</a> |
|   |                   |                    |                    | UPS 65-120 F B 340     | 96402285       | <a href="#">38</a> |
|   |                   |                    |                    | UPS 65-60/2 F B 340    | 96402264       | <a href="#">37</a> |
|   |                   |                    | 3 x 400-415        | UPS 65-120 F B 340     | 96402287       | <a href="#">39</a> |
|   |                   |                    |                    | UPS 65-180 F B 340     | 96402320       | <a href="#">40</a> |
|   |                   |                    |                    | <b>Twin-head pumps</b> |                |                    |
| Standard module                               | Cast iron         | PN 6 / PN 10       | 1 x 230-240        | UPSD 65-60/2 F 340     | 96408933       | <a href="#">59</a> |
|   |                   |                    |                    | UPSD 65-120 F 340      | 96408925       | <a href="#">61</a> |
|   |                   |                    |                    | UPSD 65-60/2 F 340     | 96408935       | <a href="#">60</a> |
|   |                   |                    | 3 x 400-415        | UPSD 65-120 F 340      | 96408927       | <a href="#">62</a> |
|   |                   |                    |                    | UPSD 65-180 F 340      | 96408929       | <a href="#">63</a> |
|   |                   |                    |                    | Relay module           | Cast iron      | PN 6 / PN 10       |
| UPSD 65-120 F 340                             | 96402282          | <a href="#">61</a> |                    |                        |                |                    |
| UPSD 65-60/2 F 340                            | 96404983          | <a href="#">60</a> |                    |                        |                |                    |
| 3 x 400-415                                   | UPSD 65-120 F 340 | 96402284           | <a href="#">62</a> |                        |                |                    |
|   | UPSD 65-180 F 340 | 96402318           | <a href="#">63</a> |                        |                |                    |

**UPS, UPSD 80**  
Connection: 80 mm (3")

| Terminal box module      | Material  | Pressure stage | Voltage [V]        | Pump type          | Product number     | Data sheet Page    |
|--------------------------|-----------|----------------|--------------------|--------------------|--------------------|--------------------|
| <b>Single-head pumps</b> |           |                |                    |                    |                    |                    |
| Standard module          | Cast iron | PN 6           | 3 x 400-415        | UPS 80-60 F 360    | 96402391           | <a href="#">42</a> |
|                          |           |                |                    | UPS 80-120 F 360   | 96402440           | <a href="#">43</a> |
|                          | Cast iron | PN 10          | 3 x 400-415        | UPS 80-60 F 360    | 96402392           | <a href="#">42</a> |
|                          |           |                |                    | UPS 80-120 F 360   | 96402441           | <a href="#">43</a> |
|                          | Bronze    | PN 6           | 3 x 400-415        | UPS 80-60 F B 360  | 96404916           | <a href="#">42</a> |
|                          |           |                |                    | UPS 80-120 F B 360 | 96404924           | <a href="#">43</a> |
| Bronze                   | PN 10     | 3 x 400-415    | UPS 80-60 F B 360  | 96402401           | <a href="#">42</a> |                    |
|                          |           |                | UPS 80-120 F B 360 | 96402445           | <a href="#">43</a> |                    |
| <b>Twin-head pumps</b>   |           |                |                    |                    |                    |                    |
| Standard module          | Cast iron | PN 6           | 3 x 400-415        | UPSD 80-60 F 360   | 96408952           | <a href="#">64</a> |
|                          |           |                |                    | UPSD 80-120 F 360  | 96408944           | <a href="#">65</a> |
|                          | Cast iron | PN 10          | 3 x 400-415        | UPSD 80-60 F 360   | 96408951           | <a href="#">64</a> |
|                          |           |                |                    | UPSD 80-120 F 360  | 96408943           | <a href="#">65</a> |
| Relay module             | Cast iron | PN 6           | 3 x 400-415        | UPSD 80-60 F 360   | 96402397           | <a href="#">64</a> |
|                          |           |                |                    | UPSD 80-120 F 360  | 96403131           | <a href="#">65</a> |
|                          | Cast iron | PN 10          | 3 x 400-415        | UPSD 80-60 F 360   | 96402398           | <a href="#">64</a> |
|                          |           |                |                    | UPSD 80-120 F 360  | 96403132           | <a href="#">65</a> |

**UPS, UPSD 100**  
Connection: 100 mm (4")

| Terminal box module      | Material  | Pressure stage | Voltage [V] | Pump type          | Product number | Data sheet Page    |
|--------------------------|-----------|----------------|-------------|--------------------|----------------|--------------------|
| <b>Single-head pumps</b> |           |                |             |                    |                |                    |
| Standard module          | Cast iron | PN 6           | 3 x 400-415 | UPS 100-30 F 450   | 96402503       | <a href="#">44</a> |
|                          |           |                |             | UPS 100-30 F 450   | 96402508       | <a href="#">44</a> |
|                          | Bronze    | PN 6           | 3 x 400-415 | UPS 100-30 F B 450 | 96404933       | <a href="#">44</a> |
|                          |           |                |             | UPS 100-30 F B 450 | 96402527       | <a href="#">44</a> |
| <b>Twin-head pumps</b>   |           |                |             |                    |                |                    |
| Standard module          | Cast iron | PN 6           | 3 x 400-415 | UPSD 100-30 F 450  | 96408892       | <a href="#">66</a> |
|                          | Cast iron | PN 10          | 3 x 400-415 | UPSD 100-30 F 450  | 96408891       | <a href="#">66</a> |
| Relay module             | Cast iron | PN 6           | 3 x 400-415 | UPSD 100-30 F 450  | 96402523       | <a href="#">66</a> |
|                          | Cast iron | PN 10          | 3 x 400-415 | UPSD 100-30 F 450  | 96402524       | <a href="#">66</a> |

## 10. Accessories

The following accessories are available for UPS, UPSD pumps:

- protection module
- relay module for single-head pumps
- relay module kit for twin-head pumps
- counter flanges (standard on pumps for the UK)
- insulation kit (only single-head pumps)
- base plate (only single-head pumps)
- blanking flanges (only twin-head pumps).

### Counter flanges

A counter flange kit includes these parts:

- two flanges with internal thread (ISO seal thread) or two flanges for welding/soldering
- two gaskets
- bolts.

#### 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         |
| UPS/UPSD 80  | PN 6           | Rp 3     | 569902         |
|              |                | 80 mm    | 569901         |
|              | PN 10          | Rp 3     | 569802         |
|              |                | 80 mm    | 569801         |
| UPS/UPSD 100 | PN 6           | Rp 4     | 579901         |
|              |                | 100 mm   | 579902         |
|              | PN 10          | Rp 4     | 579801         |
|              |                | 100 mm   | 579802         |

#### Pumps with bronze pump housing

| Pump type | Pressure stage | Size     | Product number |
|-----------|----------------|----------|----------------|
| 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         |
|           |                | 80 mm    | 569811         |
| UPS 100   | PN 6           | Rp 4     | 96405737       |
|           | PN 10          | Rp 4     | 96405738       |

Rp: Flange with internal thread (ISO seal thread).

mm: Flange for welding/soldering.

### Protection modules

| Voltage [V] | Product number |
|-------------|----------------|
| 1 x 230-240 | 96422219       |
| 3 x 400-415 | 96422221       |

### Relay module

Relay modules for single-head pumps.

| Voltage [V] | Product number |
|-------------|----------------|
| 1 x 230-240 | 96406611       |
| 3 x 400-415 | 96406609       |

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 kits

Single-head pumps can be fitted with an insulation covering made of expanded polypropylene, EPP.

The insulation kit, which is tailored to the individual pump type, has an insulating thickness corresponding to the nominal diameter of the pump.

The thermal conductivity of EPP is very low (0.04 W/m °C), i.e. the insulating property is very good.

The insulation kit encloses the entire pump housing. It consists of two or three parts which are easily fitted around the pump.

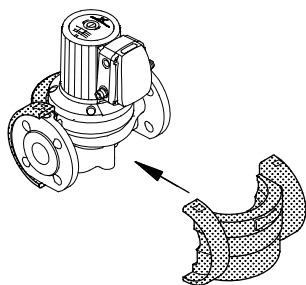


Fig. 21 Insulation kit

| Pump type         | Product number |
|-------------------|----------------|
| UPS 32-60 F 220   | 96405873       |
| UPS 32-120 F 220  | 96405873       |
| UPS 40-60/2 F 250 | 96405877       |
| UPS 40-120 F 250  | 96405877       |
| UPS 40-180 F 250  | 96405878       |
| UPS 50-60/2 F 280 | 96405881       |
| UPS 50-120 F 280  | 96405882       |
| UPS 50-180 F 280  | 96405883       |
| UPS 65-60/2 F 340 | 96405886       |
| UPS 65-120 F 340  | 96405887       |
| UPS 65-180 F 340  | 96405888       |
| UPS 80-60 F 360   | 96405890       |
| UPS 80-120 F 360  | 96405891       |
| UPS 100-30 F 450  | 96405892       |

TM02 14 06 0702

## Base plate

Base plates are available for single-head pumps only. Each base plates includes two bolts.

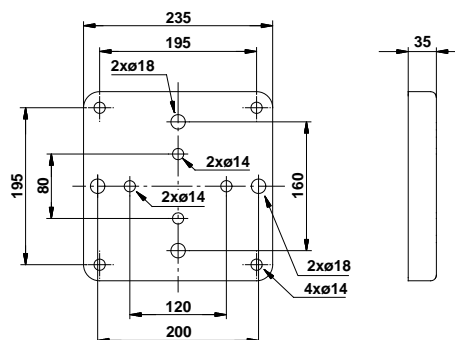


Fig. 22 Base plate

TM00 9835 0197

| 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 |                |
| UPS 80-30, -60, -120    | 96405914       |
| UPS 100-30              |                |
| UPS 40-185              |                |
| UPS 50-185              | 495035         |
| UPS 65-185              |                |

## Blanking flanges

For twin-head pumps a blanking flange with pump housing seal is available as an optional extra. The blanking 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  |                |

# 11. Grundfos Product Center

Online search and sizing tool to help you make the right choice.



**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)\* and Head (H)\*) and 'Select what to size by' (Size by application, Size by pump design, Size by pump family). A 'START SIZING' button is located to the right of the 'QUICK SIZING' section. At the bottom of the 'QUICK SIZING' section, there are links for 'ADVANCED SIZING' with options for 'Advanced sizing by application' and 'Guided selection'.

**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.

**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.

Subject to alterations.





|               |
|---------------|
| V7124415 0915 |
| ECM: 1160663  |