# Grundfos Home Booster

UPA 15-90, UPA 15-120, UPA 120
50/60 Hz


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# 1. Product introduction

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are designed for pressure boosting of domestic water supplied from an external source in residential homes. UPA 15-90, UPA 15-120 and UPA 120 circulator pumps increase the pressure in order to make the required pressure available at showers, taps and other tapping points of domestic water.

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are used in open systems and can also be connected directly to the water main.

A flow switch starts or stops the pump when a tapping point is turned on or off. UPA 15-90 pumps have an integrated flow switch. UPA 15-120 pumps for China and Europe have an integrated flow switch. All other UPA 15-120 pumps and all UPA 120 pumps are supplied with an external flow switch, which has to be placed after the outlet of the pump.

All UPA circulator pumps are supplied with a cable and plug as required, and with fittings.

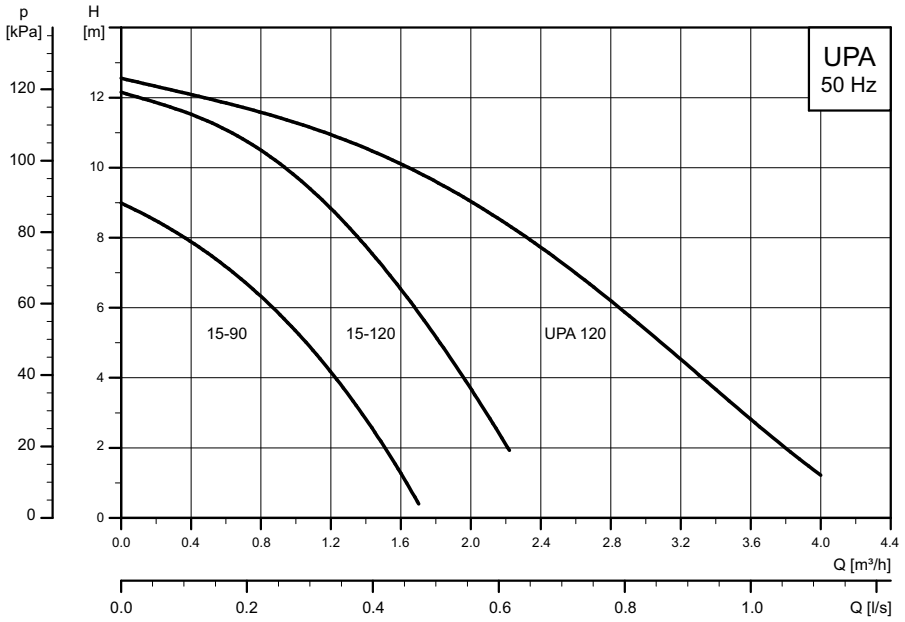
UPA 15-90, UPA 15-120 and UPA 120 circulator pumps offer a host of advantages:

- **Flexibility:** Suitable for installation in existing systems.
- **Comfort:** Low-noise operation.
- **User friendliness:** Plug and play.
- **Reliability:** Well known Grundfos quality.

## Type key

| **Example:** | **UP** | **A** | **15** | **-90** | **N** | **160** |
|---|---|---|---|---|---|---|
| **Circulator pump** | | | | | | |
| **Automatic start/stop** | | | | | | |
| **Type range** | | | | | | |
| **Maximum head** | | | | | | |
| **Pump housing** | | | | | | |
| Cast iron | | | | | | |
| N Stainless steel | | | | | | |
| **Port-to port length [mm]** | | | | | | |

## Performance range




TM06 2280 3914

**Fig. 1** Performance range UPA 15-90, UPA 15-120, UPA 120 (230 V, 50 Hz)

# 2. Applications

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are designed for pressure boosting of domestic water from an external source in residential homes.

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps supply the required pressure for showers, taps and other tapping points for domestic water.

UPA pumps are used in open systems and can also be connected directly to the water main.

## Pumped liquids

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are suitable for the these liquids:

- Fresh water
- Potable water without chemical additives
- Chlorinated potable water.

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are not suitable for the transfer of flammable liquids such as diesel oil and petrol.

# 3. Construction

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps for pressure boosting are of the canned-rotor type, i.e. pump and motor form an integral unit without shaft seal. Only two gaskets are required for sealing. The bearings are lubricated by the pumped liquid.

UPA 15-90, UPA 15-120 and UPA 120 circulator pumps are supplied with cable and plug.

Characteristic materials:

- Shaft: aluminium oxide or ceramic
- Radial bearing: ceramic
- Thrust bearing: carbon
- Rotor can and bearing plate: stainless steel
- Impeller: corrosion-resistant material
- Pump housing: cast iron or stainless steel.

## Sectional drawing UPA 15-90 and UPA 15-120

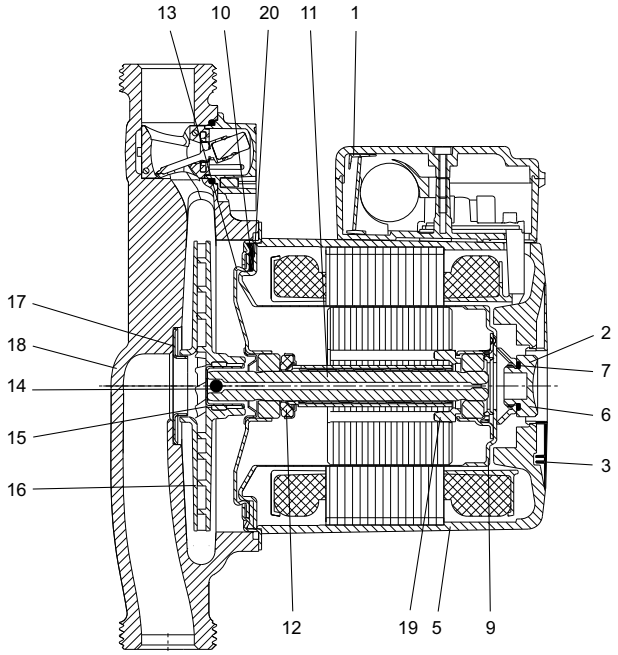



**Fig. 2** Sectional drawing UPA 15-90 and UPA 15-120

## Material specification UPA 15-90 and UPA 15-120

| Pos. | Description | Material | Material number EN | AISI |
|---|---|---|---|---|
| 1 | Terminal box | Composite PPE/PS | | |
| | Terminal box cover | Composite PPE/PS | | |
| | Electric unit | Composite PET | | |
| 2 | Radial bearing | Ceramic | | |
| 3 | Nameplate | Composite PA66 | | |
| 5 | Stator housing | AlSi 10Cu2 | | |
| | Stator winding cap | Composite PET | | |
| 6 | Air vent screw | Brass, nickelled, Ms58 | 2.0401.30 | |
| 7, 10 | Gaskets | EPDM rubber | | |
| 9 | Rotor can | Stainless steel | 1.4301 | 304 |
| 11 | Shaft | UPA 15-90: Aluminium oxide<br>UPA 15-120: Ceramic | | |
| 12 | Thrust bearing | Carbon | | |
| | Thrust bearing retainer | EPDM rubber | | |
| 13 | Bearing plate | Stainless steel | 1.4301 | 304 |
| 14 | Ball (non-return valve) | EPDM rubber | | |
| 15 | Split cone | Stainless steel | 1.4301 | 304 |
| 16 | Impeller | UPA 15-90: Composite PP 30 % GF<br>UPA 15-120: Composite PSP/PP 30 % GF | | |
| 17 | Neck ring | Stainless steel | 1.4301 | 304 |
| 18 | Pump housing | UPA 15-90 and UPA 120: Cast iron<br>UPA 15-90: Stainless steel | EN 1561 EN-GJL-150<br>1.4308 | ASTM 30 B<br>304 C15 |
| 19 | Stop ring | Composite PES | | |
| 20 | Intermediate ring | Stainless steel | | |

## Sectional drawing UPA 120

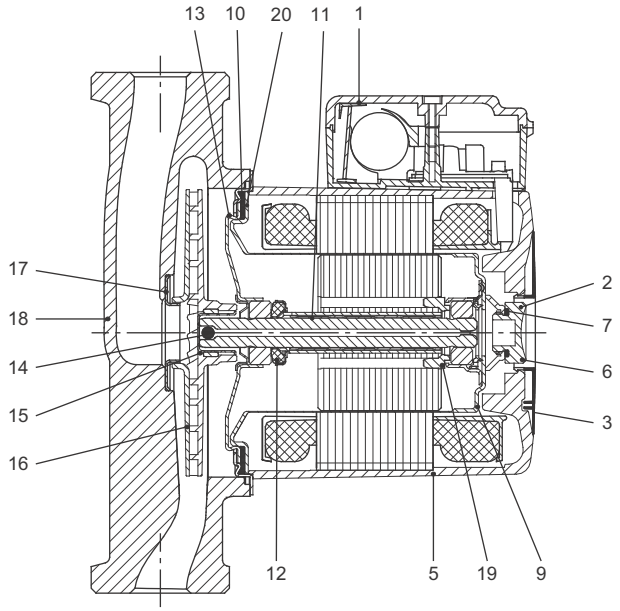



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**Fig. 3** Sectional drawing UPA 120

## Material specification UPA 120

| Pos. | Component | Material | Material number EN | AISI |
|---|---|---|---|---|
| 1 | Terminal box | Composite PPE/PS | | |
| | Terminal box cover | Composite PPE/PS | | |
| | Electric unit (single-phase only) | Composite PET | | |
| 2 | Radial bearing | Ceramic | | |
| 3 | Nameplate | Composite PA 66 | | |
| 5 | Stator housing | Aluminium AlSi10Cu2 | | |
| | Stator winding cap | Composite PET | | |
| 6 | Air vent screw | Brass, nickelled, Ms58 | 2.0401.30 | |
| 7, 10 | Gaskets | EPDM rubber | | |
| 9 | Rotor can | Stainless steel | 1.4301/1.4521 | 304 |
| 11 | Shaft, complete | Ceramic | | |
| 12 | Thrust bearing | Carbon | | |
| | Thrust bearing retainer | EPDM rubber | | |
| 13 | Bearing plate | Stainless steel | 1.4301 | 304 |
| 14 | Ball (non-return valve) | EPDM rubber | | |
| 15 | Split cone | Stainless steel | 1.4301 | 304 |
| 16 | Impeller | Composite PSP/PP 30 % GF | | |
| 17 | Neck ring | Stainless steel | 1.4301 | 304 |
| 18 | Pump housing | Cast iron | EN1561 EN-GJL-150 | |
| 19 | Stop ring | Composite PES | | |
| 20 | Intermediate ring | Stainless steel | 1.4301 | 304 |

## Motor UPA 15-90 (N)

The motor is a 2-pole, asynchronous, squirrel-cage motor. The motor has a built-in impedance protection and is short-circuit-proof. No external motor protection is required. The terminal box is easily accessible and has functional cable-connecting terminals. The cable entry is tight and incorporates cable relief.

## Motor UPA 120 and UPA 15-120

The motor is a 2-pole, asynchronous, squirrel-cage motor. The motor incorporates thermal overload protection. Therefore, no external motor protection is required. The terminal box is easily accessible and has functional cable-connecting terminals. The cable entry is tight and incorporates cable relief including the plug.

## Rotor can

The rotor can is closed with an air vent screw fitted directly at the top.

The upper radial bearing is incorporated in the top of the rotor can, and ground and honed with great precision.

## Shaft with rotor

The rotor is secured to the shaft with a pipe and an elastic sleeve. The rotor is totally encapsulated in a stainless-steel cladding. To avoid precipitation of calcium in the radial bearings, the shaft has been plunge-ground at the bearing entries.

The shaft has a through-going hole to ensure perfect lubrication and cooling of the upper bearing. See sectional drawings.

To prevent system water under pressure from running out when the air vent screw is removed, a non-return valve (rubber ball) is incorporated at the impeller end of the shaft.

The air in the rotor chamber escapes out into the system through the hole in the shaft.

## Thrust bearing

The thrust bearing is secured to the shaft by a spherically flexible suspension.

## Bearing plate

The lower radial bearing is pressed into the bearing plate, and ground and honed with great precision.

Due to the relatively large surface of the bearing plate, the motor heat is carried away from the rotor can by the pumped liquid.

## Impeller

The impeller is a radial impeller with curved composite blades. It is secured to the shaft by a split cone.

## Pump housing

### Standard (UPA 15-90, UPA 15-120)

The pump housing has a bore for a flow switch, and hydraulics have been adapted to the larger impeller. A stainless-steel ring equalises the dimensional difference between stator housing and pump housing (UPA 15-120, UPA 120).

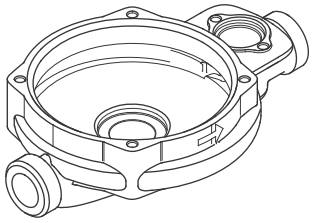

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**Fig. 4** Pump housing UPA 15-90 and UPA 15-120

The standard pump housing is made of cast iron. The pump housing has a pressed-in neck ring to guide the liquid directly to the impeller.

The pump housing and the stator housing are assembled with four cheese-head screws.

### Stainless steel (UPA 15-90 N)

The cast stainless-steel pump housing has a pressed-in neck ring to guide the liquid directly to the impeller.

The pump housing and the stator housing are assembled with four cheese-head screws.

### Standard (UPA 120)

The hydraulics have been adapted to the larger impeller. A stainless-steel ring equalises the dimensional difference between stator housing and pump housing.

The standard pump housing is made of cast iron. The pump housing has a pressed-in neck ring to guide the liquid directly to the impeller.

The pump housing and the stator housing are assembled with four cheese-head screws.

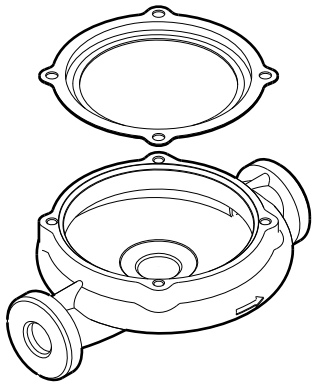

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**Fig. 5** Pump housing UPA 120

## Flow switch

### UPA 15-90

The flow switch consists of an arm with a magnet (1), that moves in a chamber (2). The chamber is separated from the pumped liquid and the terminal box. The magnetic field activates a magnetic contact (3) in the terminal box.

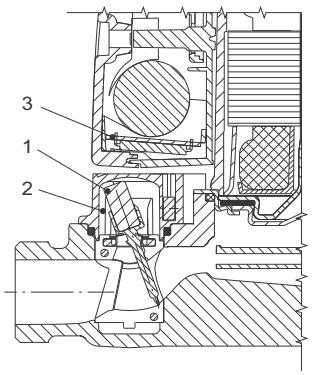


**Fig. 6** UPA 15-90 flow switch in "OFF" position

The pump selector can be set to the positions "OFF", "AUTO" and "MANUAL".

| Selector in positions | | Description |
|---|---|---|
| I | OFF | The pump is switched off. |
| II | AUTO | The pump starts and stops automatically (when the flow exceeds or falls below 90-120 l/h). |
| III | MANUAL* | The pump runs continuously (even if tapping points are turned off). |

* When the selector is in position "MANUAL", at least one tap must be open. Otherwise the pumped liquid may become too hot.

### UPA 15-120

The flow switch consists of an arm with a magnet (1), that moves in a chamber (2). The chamber is separated from the pumped liquid and the terminal box. The magnetic field activates a magnetic contact (3) in the terminal box.

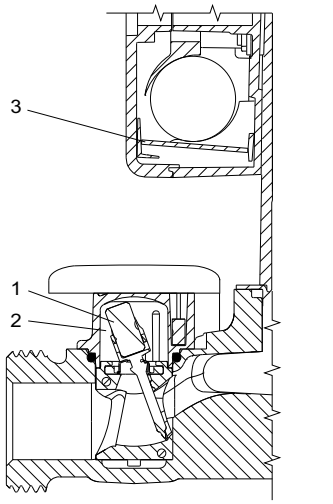


**Fig. 7** UPA 15-120 flow switch

The UPA 15-120 doesn’t contain an On/Off switch.

# 4. Installation and start-up

## Installation

The pump must always be installed with horizontal motor shaft. At start-up, the rotor can must be vented by removing the plug from the top of the motor.

Within a short time, the rotor forces the remaining air out into the system via the shaft.

UPA 120 and UPA 15-120 pumps can be installed vertically or horizontally. The mounting position is limited by the length of the cable between the external flow switch and the terminal box.

The terminal box of the UPA 15-90 has to be on the outlet of the pump, because of the built-in flow switch.

**Note:** As the pumps have drain holes, the terminal box must not face downwards.

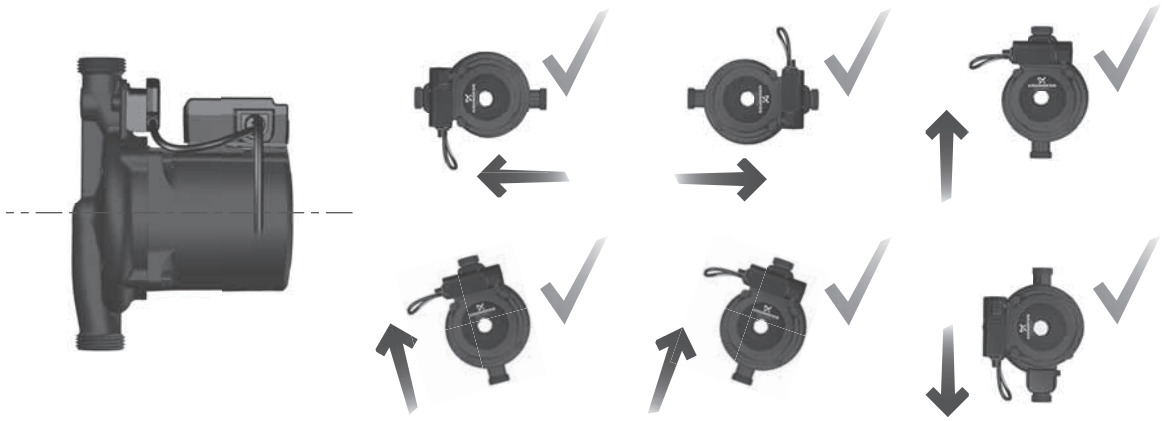

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**Fig. 8** Installation directions

## Start-up

The pump must not be started until the system has been filled with liquid and vented. Furthermore, the required minimum inlet pressure must be available at the pump inlet. The system cannot be vented through the pump.

The pump is self-venting and does not require venting before start-up.

# 5. Performance curves and technical data

## Curve conditions

The guidelines below apply to the performance curves on the following pages:

- Test liquid: airless water.
- The measurements for the UPA have been made at a water temperature of 20 °C.
- All curves show average values and should not be used as guarantee curves. If a specific minimum performance is required, individual measurements must be made.
- The curves apply to a kinematic viscosity of $\upsilon$ = 1 $mm^2/s$ (1 cSt).
- The conversion between head H [m] and pressure p [kPa] has been made for water with a density of $\rho$ = 1000 $kg/m^3$. For liquids with other densities, for example hot water, the discharge pressure is proportional to the density.

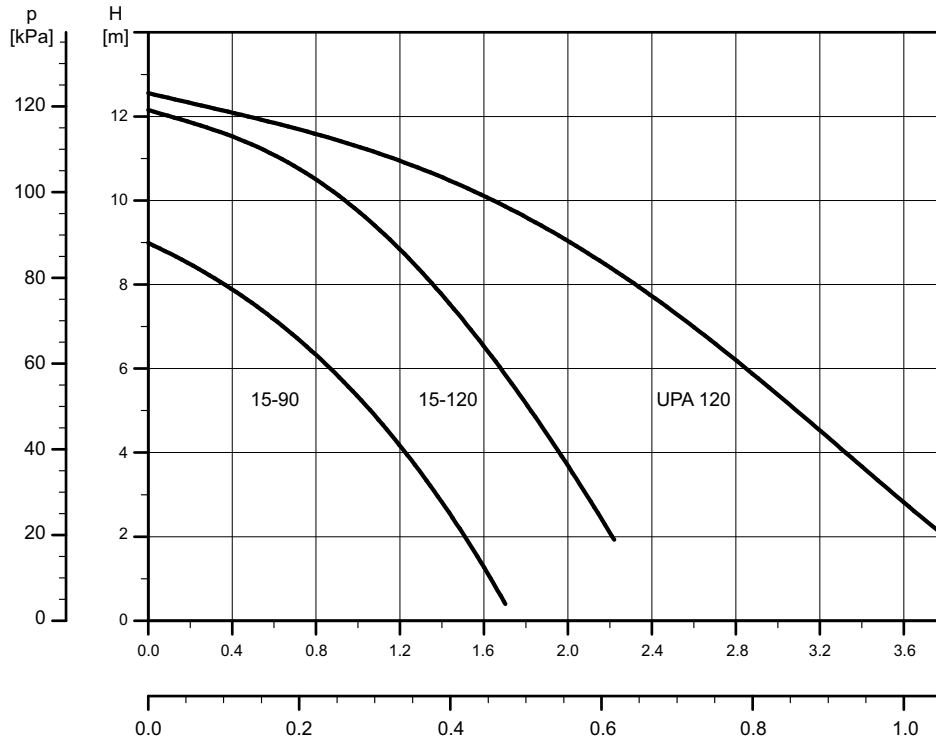
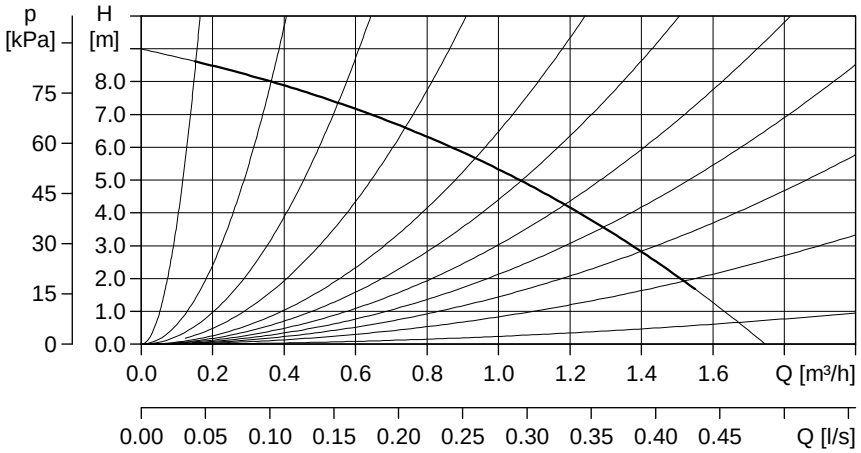



**Fig. 9** Comparison of curves: UPA 15-90, UPA 15-120, UPA 120 (230 V, 50 Hz)

# UPA 15-90, 1 x 220 V, 50 Hz

## China, Argentina, Czech Republic, Turkey, Romania, Indonesia

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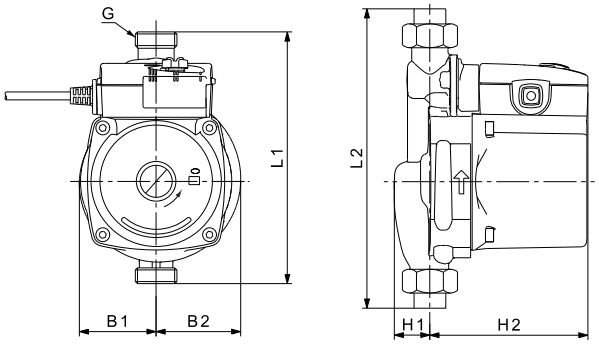
| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 118 | 40 | 0.48 |



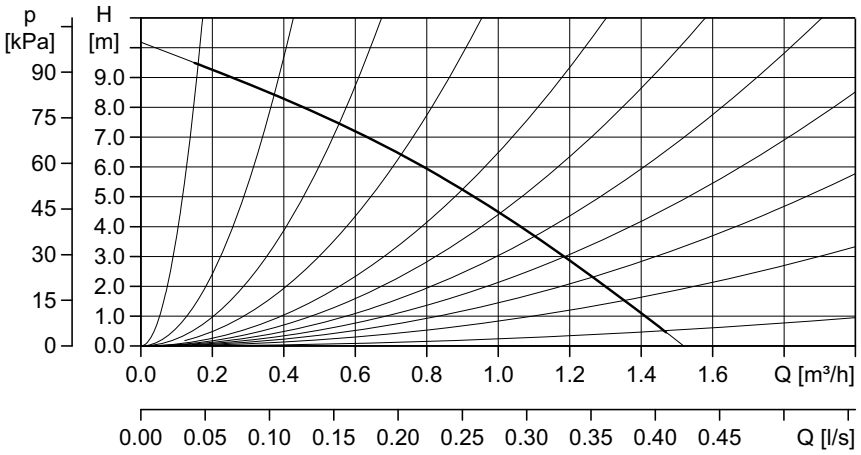

TM05 2534 0212

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

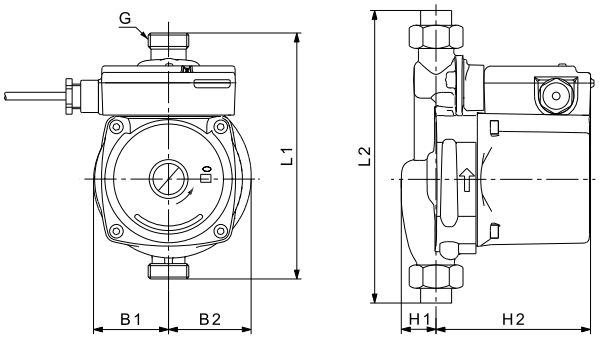
# UPA 15-90, 1 x 110 V, 60 Hz

## Brazil, Taiwan




TM01 9635 2300

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | **-** |
| 118 | 40 | 1.0 |



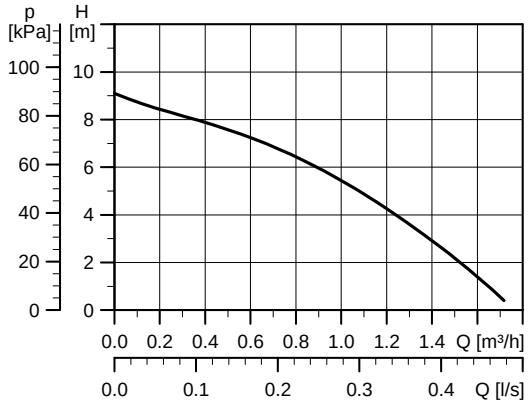

TM01 9639 2300

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

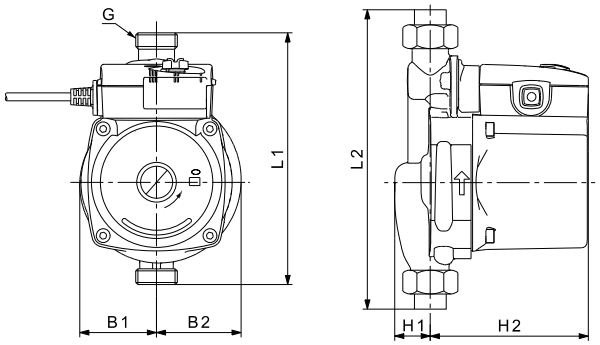
# UPA 15-90 N, 1 x 240 V, 50 Hz

## Singapore, Australia, New Zealand




TM05 7460 1013

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 120 | 40 | 0.48 |



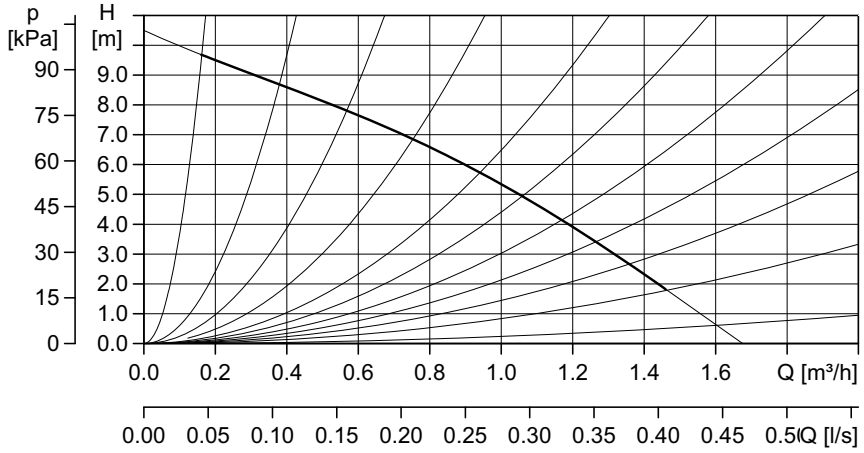

TM01 6894 3699

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +60 °C (TF 60)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

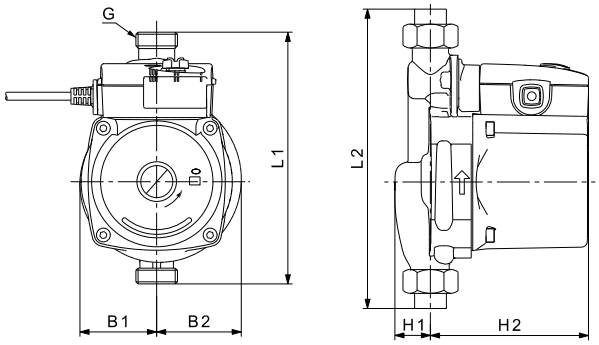
# UPA 15-90, 1 x 220 V, 60 Hz

## Brazil, Korea, Taiwan




TM01 9636 2300

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 120 | 40 | 0.48 |



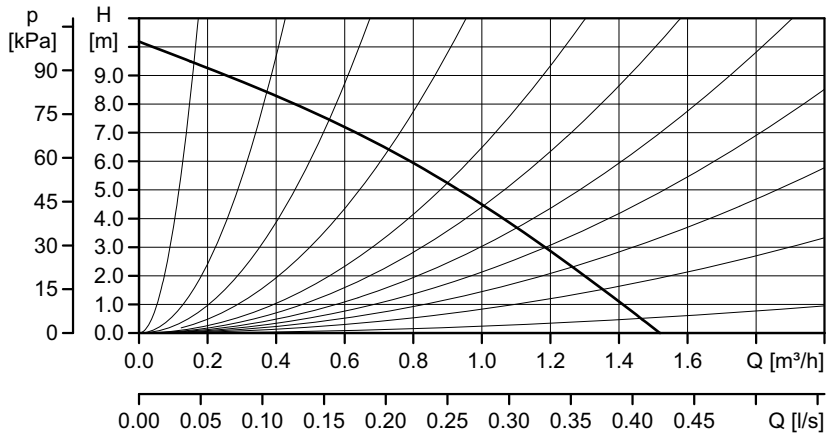

TM01 6894 3699

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

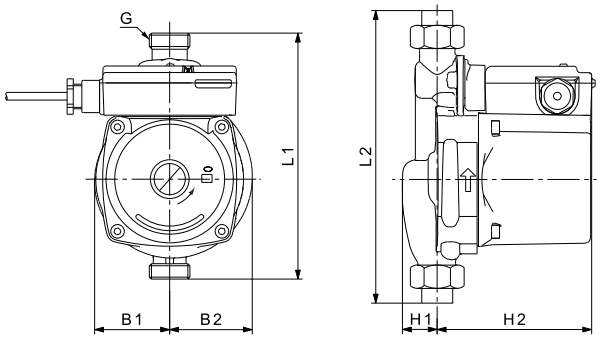
# UPA 15-90 N, 1 x 100 V, 60 Hz

## Japan




TM06 1927 3414

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| Max. | Min. | - |
| 120 | 40 | 0.48 |



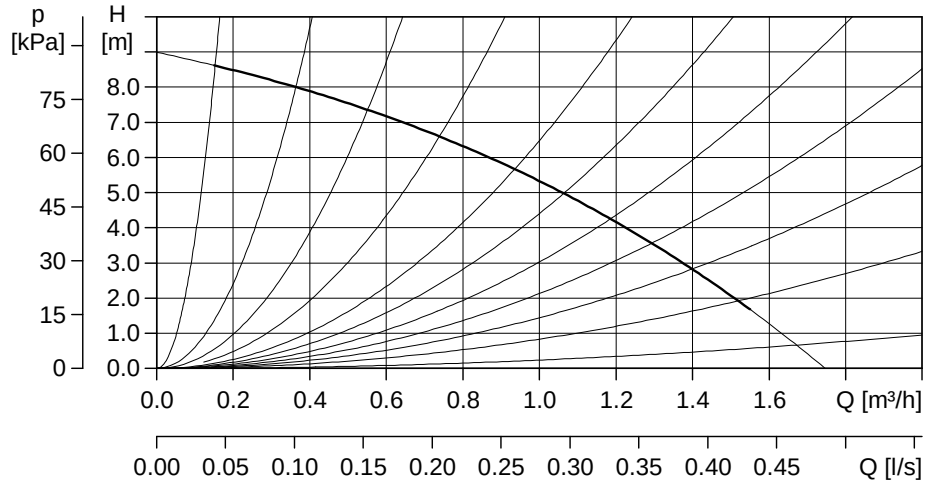

TM019639 2300

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +60 °C (TF 60)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 N | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

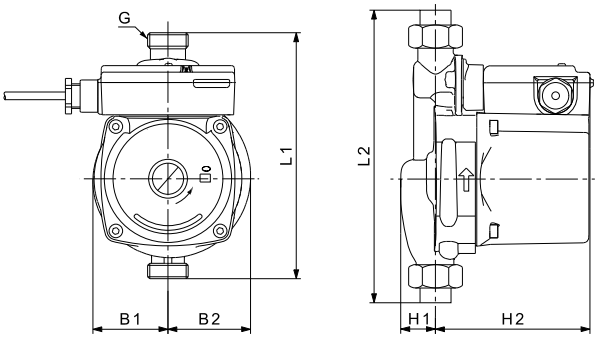
# UPA 15-90, 1 x 230 V, 50 Hz

## UK, India, Russia, Global




TM01 6893 3699

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 118 | 40 | 0.48 |



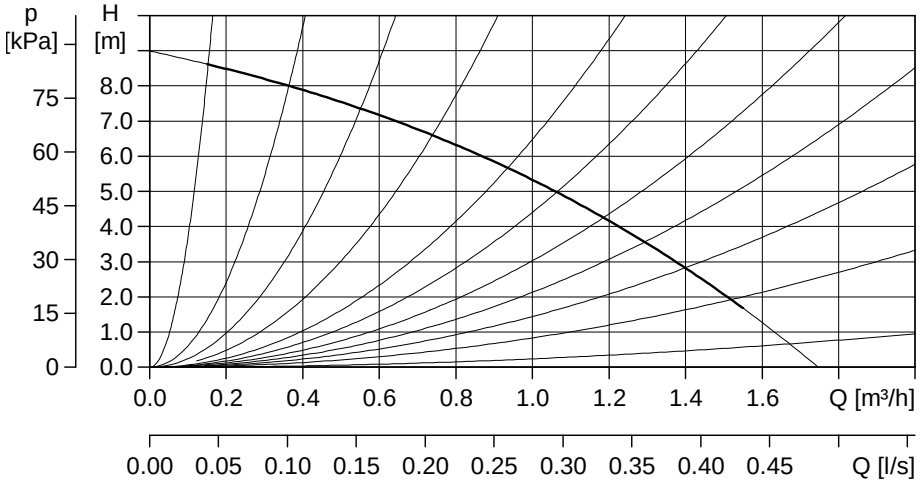

TM01 9639 2300

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar / Max. 10 bar (Global only)
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

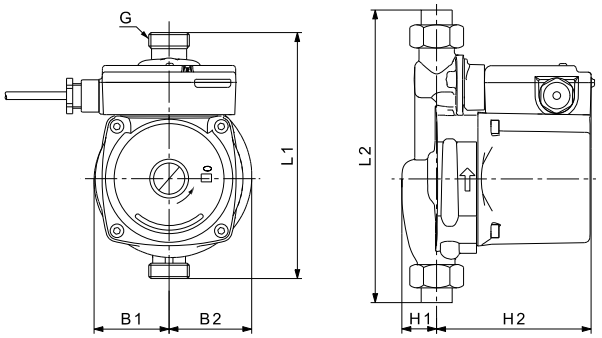
# UPA 15-90 N, 1 x 230 V, 50 Hz

## Netherlands, UK




TM01 6893 3699

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 118 | 40 | 0.48 |



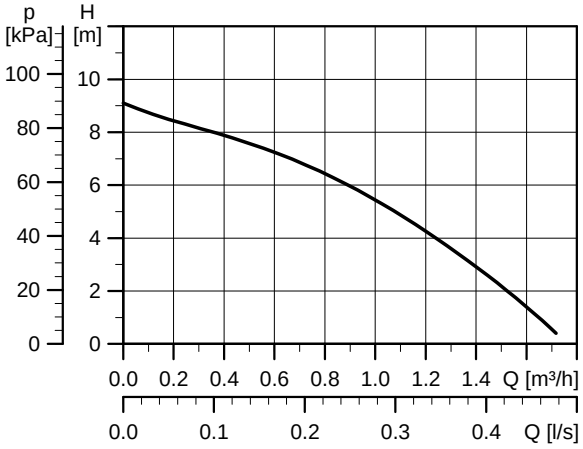

TM01 9639 2300

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar / Max. 10 bar (Netherlands only)
Liquid temperature: +2 °C to +60 °C (TF 60)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

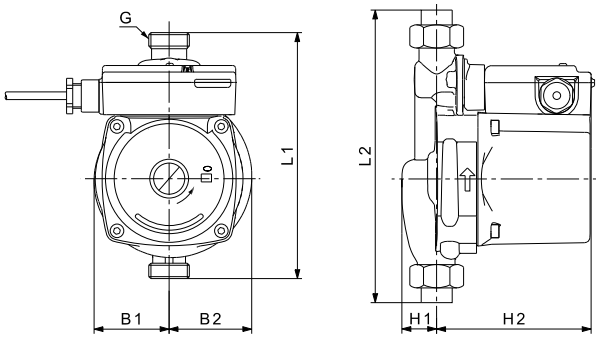
# UPA 15-90, 1 x 127 V, 60 Hz

## Mexico




TM05 7460 1013

| P1 [W] | | $I_{1/1}$ [A] |
|---|---|---|
| **Max.** | **Min.** | - |
| 120 | 40 | 1 |



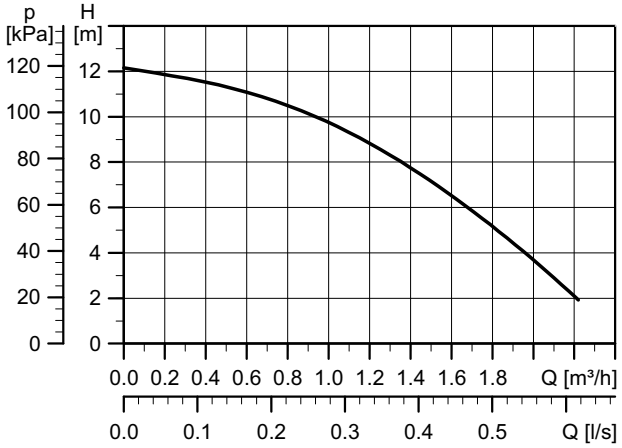

TM01 9639 2300

Enclosure class: IPX2D
Connections: Rp 3/4 - Rp 1/2 unions
Operating pressure: Max. 6 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|---|
| | L1 | L2 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 15-90 | 160 | 214 | 23 | 103 | 50 | 54 | 3/4" | 2.5 | 2.7 | 0.0042 |

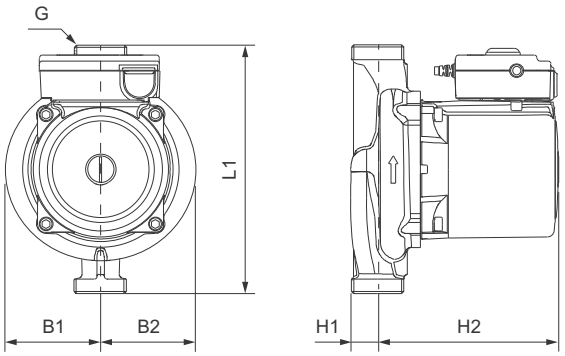
# UPA 15-120, 1 x 230 V, 50 Hz

## Europe




TM06 2052 3814

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 200 | 0.89 |



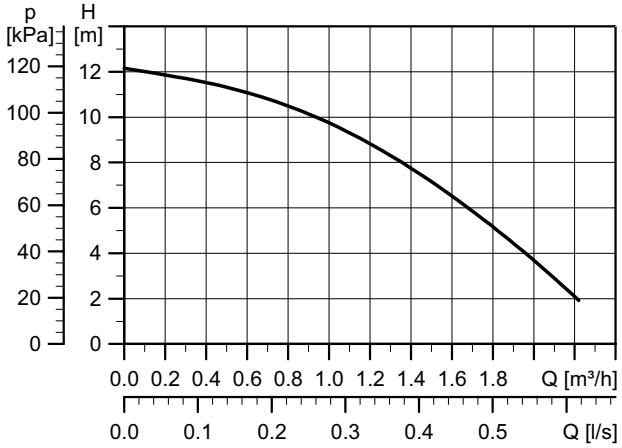

TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1 - Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 120 | 200 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5.1 | 0.0058 |

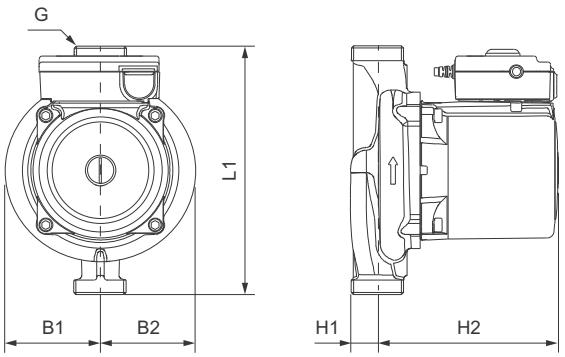
# UPA 15-120, 1 x 230 V, 50 Hz

## China




TM06 2052 3814

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 200 | 0.89 |



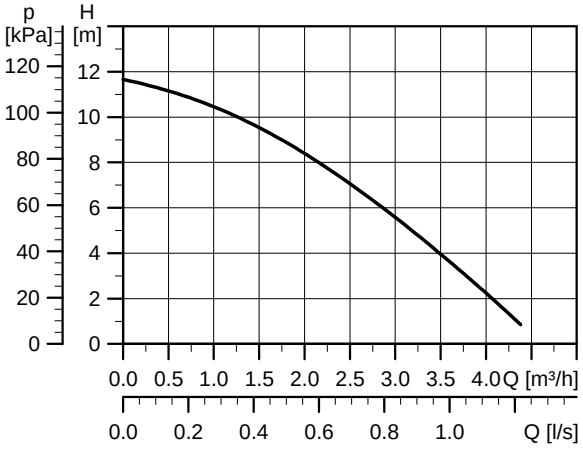

TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1- Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net | Gross | |
| UPA 15-120 | 200 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5 | 0.0058 |

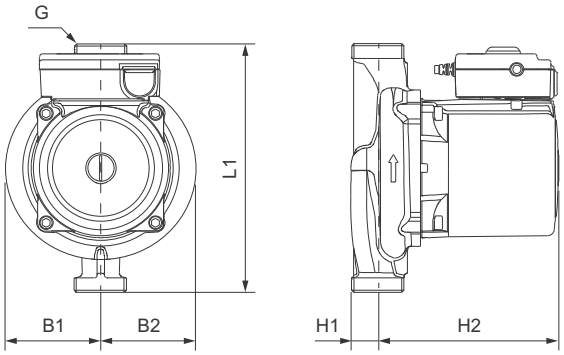
# UPA 120, 1 x 110 V, 60 Hz

## Taiwan, Brazil




TM05 7458 1013

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 215 | 2.1 |



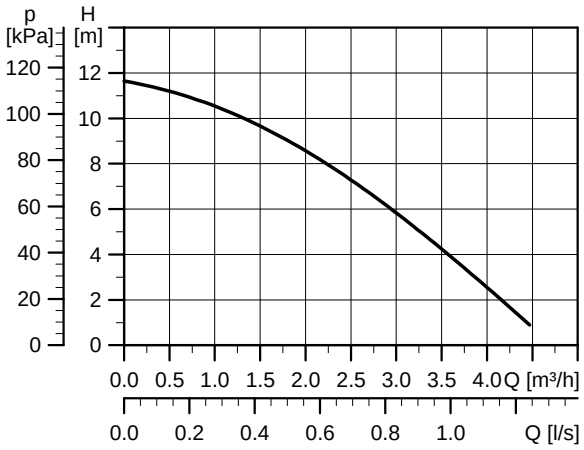

TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1 - Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 120 | 180 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5 | 0.0058 |

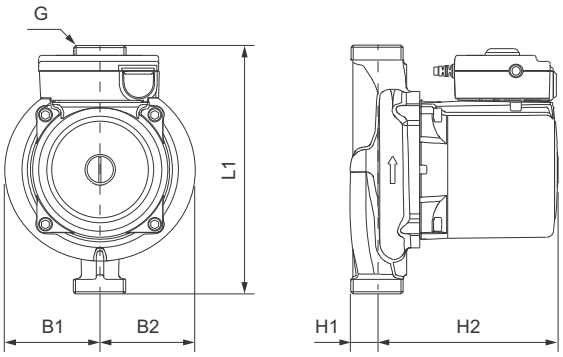
# UPA 120, 1 x 220 V, 60 Hz

## Taiwan, Brazil, Korea




TM05 7462 1013

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 220 | 1.05 |



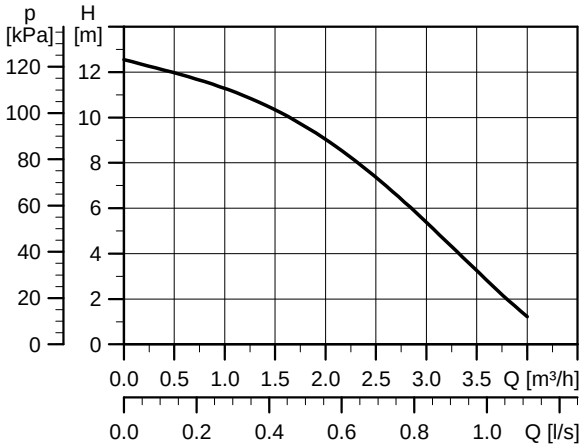

TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1 - Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 120 | 180 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5 | 0.0058 |

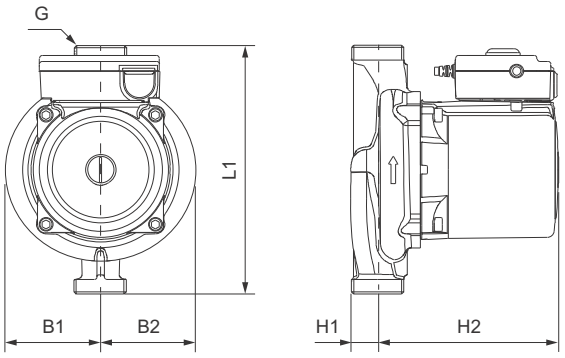
# UPA 120, 1 x 220 V, 50 Hz

## Singapore, India, Argentina




TM05 7459 1013

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 250 | 1.14 |



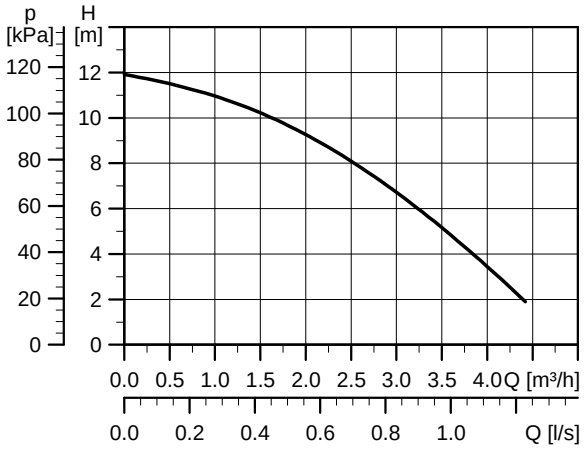

TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1 - Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 120 | 180 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5 | 0.0058 |

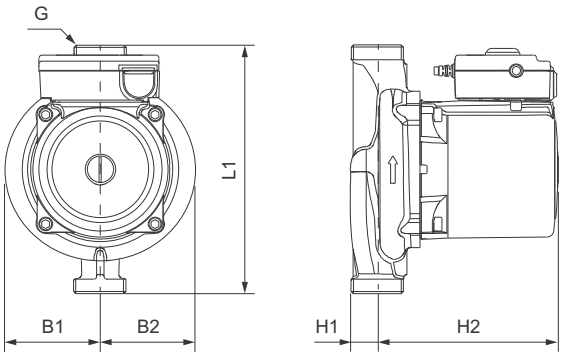
# UPA 120, 1 x 120 V, 60 Hz

## Mexico




TM05 7463 1013

| Max. P1 [W] | $I_{1/1}$ [A] |
|---|---|
| 225 | 2 |




TM06 1838 3214

Enclosure class: IPX2D
Connections: Rp 1 - Rp 1/2 unions
Operating pressure: Max. 10 bar
Liquid temperature: +2 °C to +95 °C (TF 95)

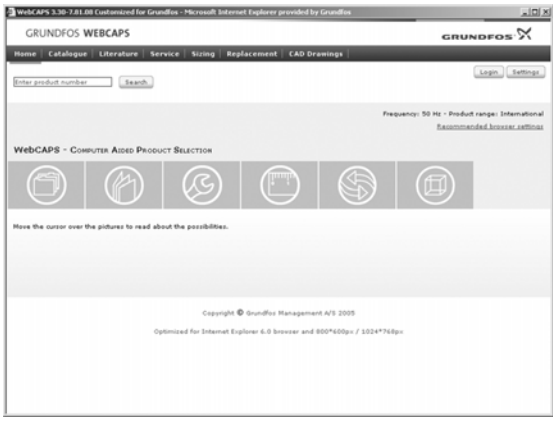
| Pump type | Dimensions [mm] | | | | | | Weights [kg] | | Shipping volume [$m^3$] |
|---|---|---|---|---|---|---|---|---|---|
| | L1 | H1 | H2 | B1 | B2 | G | Net [kg] | Gross [kg] | |
| UPA 120 | 180 | 20 | 130 | 63 | 69 | 1" | 4.7 | 5.1 | 0.0058 |

# 6. Pump selection

| Market | Pump type | Port-to-port length [mm] | Terminal box position | Connection | Voltage [V] | Frequency [Hz] | Product number | Data sheet page |
|---|---|---|---|---|---|---|---|---|
| Argentina | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539502 | 11 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 50 | 52588423 | 23 |
| Australia and New Zealand | UPA 15-90 N | 160 | 12 H | G 3/4 | 240 | 50 | 59539508 | 13 |
| Brazil | UPA 15-90 | 160 | 12 H | G 3/4 | 110 | 60 | 59539518 | 12 |
| | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 60 | 59539517 | 14 |
| | UPA 120 | 180 | 12 H | G 1 | 110 | 60 | 52588421 | 21 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 60 | 52588420 | 22 |
| China | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539500 | 11 |
| | UPA 15-120 | 180 | 12 H | G 1 | 230 | 50 | 98699697 | 20 |
| Czech Republic | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539514 | 11 |
| Europe | UPA 15-120 | 180 | 12 H | G 1 | 230 | 50 | 98699677 | 19 |
| Global | UPA 15-90 | 160 | 12 H | G 3/4 | 230 | 50 | 59539521 | 16 |
| Netherlands | UPA 15-90 N | 160 | 12 H | G 3/4 | 230 | 50 | 96621403 | 17 |
| India | UPA 15-90 | 160 | 12 H | G 3/4 | 230 | 50 | 59539511 | 16 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 50 | 52588416 | 23 |
| Indonesia | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539519 | 11 |
| Japan | UPA 15-90 N | 160 | 12 H | G 3/4 | 100 | 60 | 59539505 | 15 |
| Korea | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 60 | 59539513 | 14 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 60 | 52588418 | 22 |
| Mexico | UPA 15-90 | 160 | 12 H | G 3/4 | 127 | 60 | 59539520 | 18 |
| | UPA 120 | 180 | 12 H | G 1 | 120 | 60 | 52588422 | 24 |
| Romania | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539516 | 11 |
| Russia | UPA 15-90 | 160 | 12 H | G 3/4 | 230 | 50 | 59539512 | 16 |
| Singapore | UPA 15-90 N | 160 | 12 H | G 3/4 | 240 | 50 | 59539509 | 13 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 50 | 52588415 | 23 |
| Taiwan | UPA 15-90 | 160 | 12 H | G 3/4 | 110 | 60 | 59539506 | 12 |
| | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 60 | 59539507 | 14 |
| | UPA 120 | 180 | 12 H | G 1 | 110 | 60 | 52588413 | 21 |
| | UPA 120 | 180 | 12 H | G 1 | 220 | 60 | 52588414 | 22 |
| Turkey | UPA 15-90 | 160 | 12 H | G 3/4 | 220 | 50 | 59539515 | 11 |
| UK | UPA 15-90 N | 160 | 12 H | G 3/4 | 230 | 50 | 97620721 | 15 |
| | UPA 15-90 | 160 | 12 H | G 3/4 | 230 | 50 | 59539510 | 16 |

# 7. Further product information

## WebCAPS

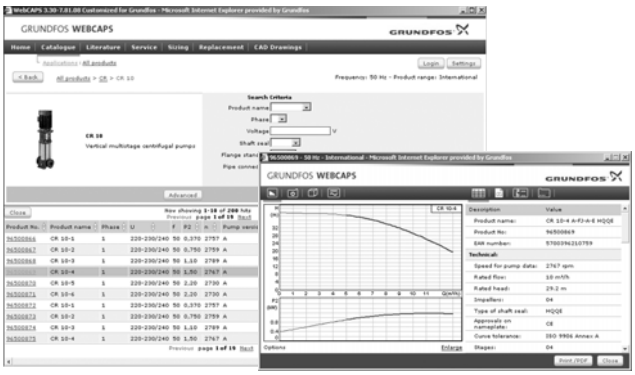



WebCAPS is a **Web**-based **C**omputer **A**ided **P**roduct **S**election program available on www.grundfos.com.

WebCAPS contains detailed information on more than 220,000 Grundfos products in more than 30 languages.

Information in WebCAPS is divided into six sections:

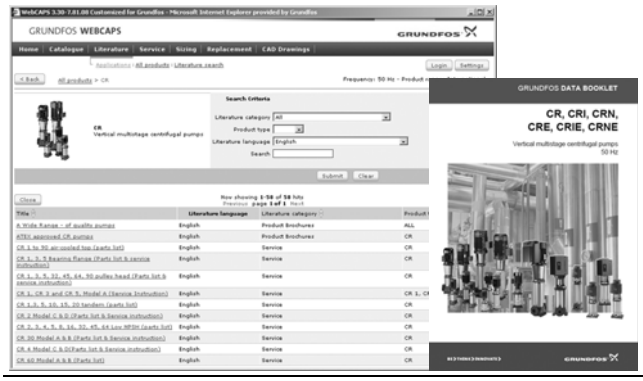
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.




**Catalogue**

Based on fields of application and pump types, this section contains the following:

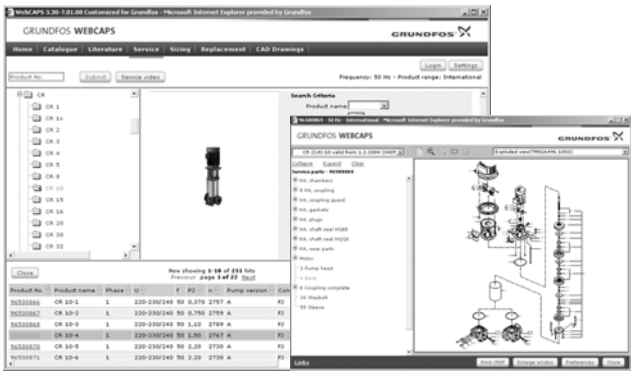
- technical data
- curves (QH, Eta, P1, P2, etc.) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.




**Literature**

This section contains all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.




**Service**

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.
Furthermore, the section contains service videos showing you how to replace service parts.


**Sizing**

This section is based on different fields of application and installation examples and gives easy step-by-step instructions in how to size a product:

- Select the most suitable and efficient pump for your installation.
- Carry out advanced calculations based on energy, consumption, payback periods, load profiles, life cycle costs, etc.
- Analyse your selected pump via the built-in life cycle cost tool.
- Determine the flow velocity in wastewater applications, etc.


**Replacement**

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump.
The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.


**CAD drawings**

In this section, it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

## WinCAPS


**Fig. 10** WinCAPS DVD

WinCAPS is a **Win**dows-based **C**omputer **A**ided **P**roduct **S**election program containing detailed information on more than 220,000 Grundfos products in more than 30 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no internet connection is available.

WinCAPS is available on DVD and updated once a year.

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