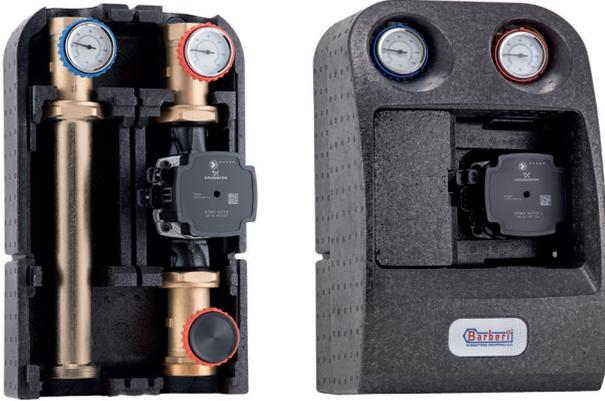


## DIRECT DISTRIBUTION GROUP DN 32

### Description



Preassembled pump group for direct distribution or circulation. Allows the circulation of the thermal fluid, coming from the primary circuit, without performing any thermal regulation. It is used when the same flow temperature of the primary circuit is requested by the user in heating systems. The group is composed of a pump, flow/return shut-off valves, shut-off valve at the pump inlet, flow/return temperature gauges, anti-thermosiphon check valve, thermal insulation. In this group, the differential by-pass valve can be installed only externally. The group is reversible (the flow line can be exchanged with the return line).

**BAFA**  
LIST

### Range of products

Direct distribution group	XXX	XXX	XX	X
Group without connections for by-pass, G 2 M-G 1 1/4 F connections	01G	032		
Without accessories			00	
With fittings 44D.DN32 (G 1 1/4 F-G 2 RN)			01	
Without pump				X
Pump Grundfos UPM3 AUTO 32-70 180				Y
Pump Grundfos UPML 32-105 180				F
Pump Grundfos UPSO 32-65 180 (Extra EU)				T

### Features

Working temperature range: **5–90 °C**  
 Max working pressure: **10 bar**  
 Female connections: **EN 10226-1**  
 Male connections: **ISO 228-1**  
 Connection centre distance: **125 mm**  
 Pump: **Grundfos UPM3 AUTO 32-70 180**  
**Grundfos UPML AUTO 32-105 180**  
**Grundfos UPSO 32-65 180 (Extra EU)**  
 Suitable fluids: **water, glycol solutions (max 30%)**  
 Temperature gauge scale: **0–120 °C**

### Materials

Ball valves

- Body: **brass EN12165 CW617N**
- Gaskets: **PTFE, EPDM, Viton**

Extension: **galvanized steel**

#### Check valve insert

- Body and obturator: **POM**
- Gasket: **NBR**

#### Pump

- Body: **cast iron**
- Electric supply: **230 V-50/60 Hz**
- Protection class:
  - Grundfos UPM3: **IP 44**
  - Grundfos UPML: **IPX2D**
  - Grundfos UPSO (Extra EU): **IP 44**

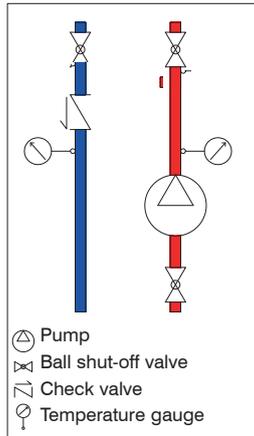
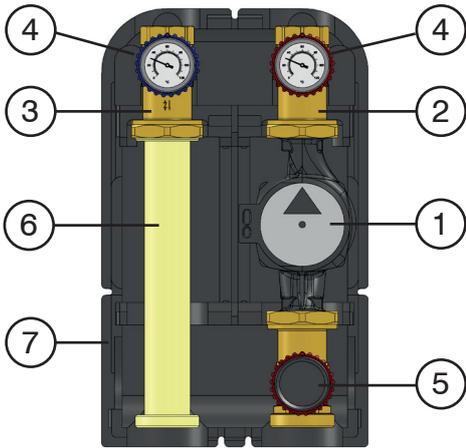
#### Centre distance: **180 mm**

- Connections: **G 2 M (ISO 228-1)**

#### Insulation shell

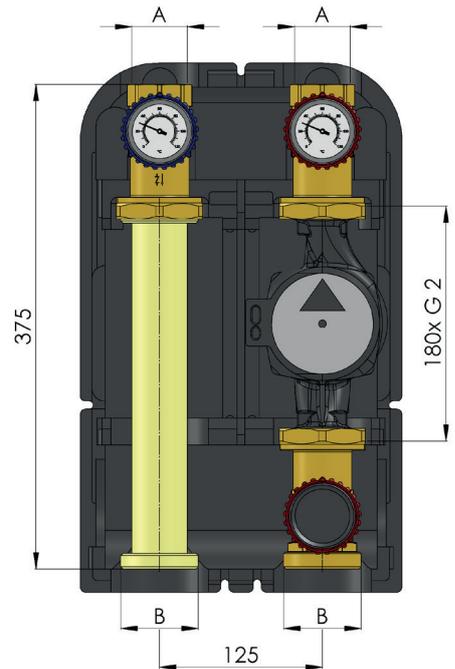
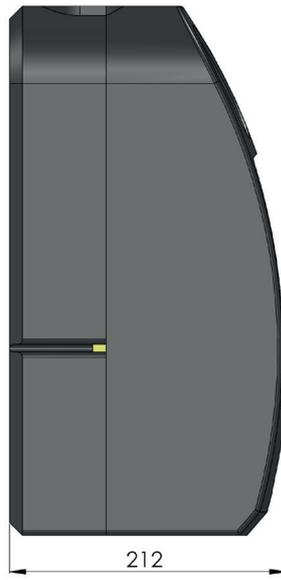
- Body: **EPP**
- Density: **60 kg/m<sup>3</sup>**
- Working temperature range: **-5–120 °C**
- Thermal conductivity: **0,04 W/(m·K)**

Components



01G.DN32		
1	Pump	Grundfos UPM3 AUTO, Grundfos UPML AUTO, Grundfos UPSO (Extra EU)
2	Ball shut-off valve	
3	Ball shut-off valve with check valve	
4	Temperature gauge	
5	Ball shut-off valve	
6	Extension	
7	Insulation	

Dimensions



Code	P [bar]	A	B	Pump	Weight [kg]	N. P/B	N. P/C
01G 032 00X	10	G 1 1/4 F	G 2 M	Senza pompa	3,83	-	1
01G 032 00Y	10	G 1 1/4 F	G 2 M	Grundfos UPM3 AUTO 32-70 180	5,83	-	1
01G 032 00T	10	G 1 1/4 F	G 2 M	Grundfos UPSO 32-65 180 (Extra EU)	6,53	-	1
01G 032 00F	10	G 1 1/4 F	G 2 M	Grundfos UPML AUTO 32-105 180	6,73	-	1

N. P/B: number of pieces in box - N. P/C: number of pieces in carton  
Other pump types should be evaluated

Diagrams

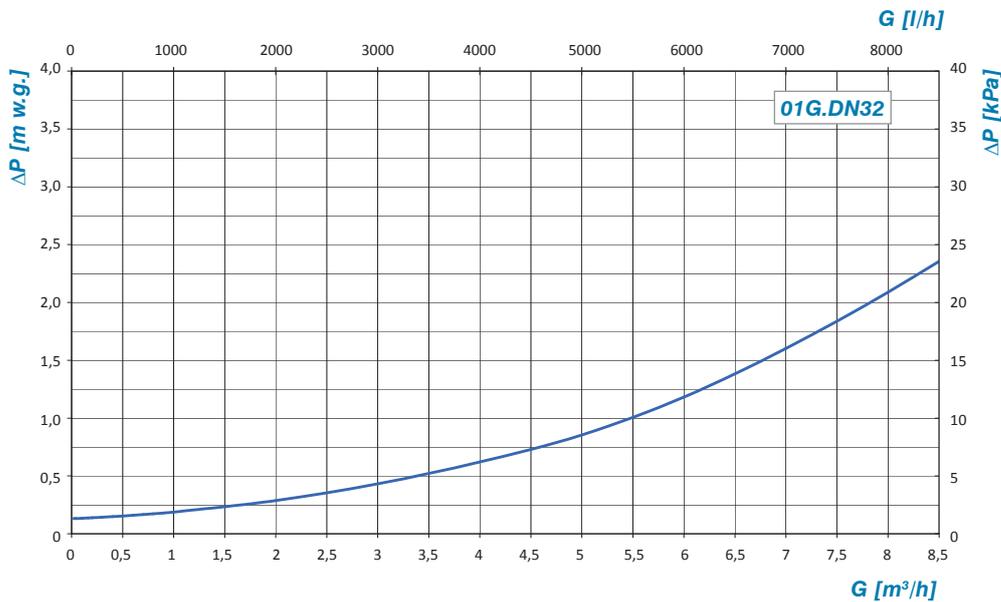
**Group sizing** (operation for specialized/authorized technical personnel).

**Step 1: head losses of the group without pump.** Enter on the x-axis of the first diagram with the design flow rate value. Cross the curve of the group and read the corresponding head losses of the group (without pump) on the y-axis.

**Step 2: available head of the pump.** With the same design flow rate value, enter on the x-axis of the selected pump diagram ("Head of pump"). Cross the curve of the selected working mode (Constant speed, Proportional pressure, Constant pressure) and read the corresponding available head of the pump on the y-axis.

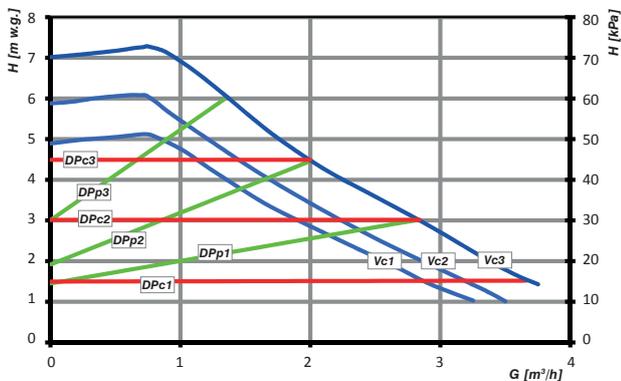
**Step 3: pump validation.** Calculate the difference between the available head of the pump and the head losses of the group without pump. The remaining pump head should be higher than the head losses of the rest of the system: if so, the selected pump is suitable to supply water to the rest of the system, otherwise a different pump working mode or pump size or different group size or a system resizing could be necessary.

**Hydraulic characteristics: head losses of the direct distribution group without pump**



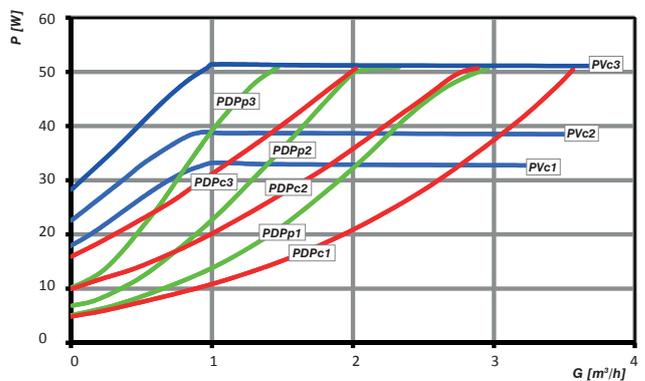
**Head and power consumption of the pumps**

Head of pump Grundfos UPM3 AUTO 32-70 180



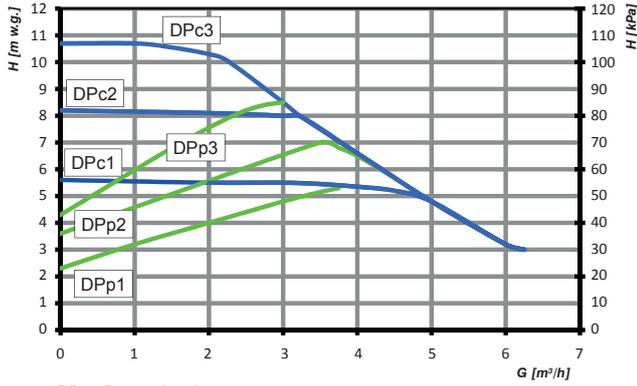
Vc: Constant speed  
 DPP: Proportional pressure  
 DPc: Constant pressure

Power of pump Grundfos UPM3 AUTO 32-70 180



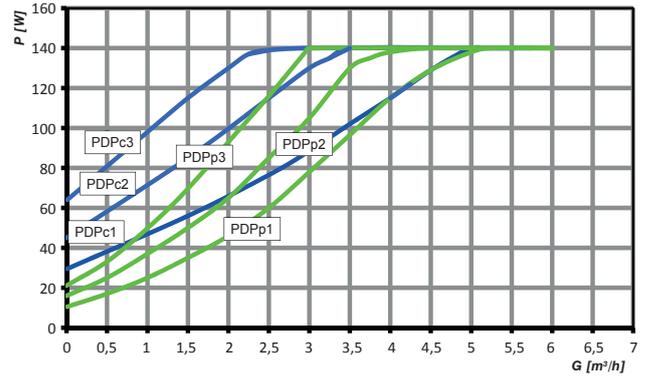
PVc: Power consumption at constant speed  
 PDPp: Power consumption at proportional pressure  
 PDPc: Power consumption at constant pressure

Head of pump Grundfos UPML AUTO 32-105 180



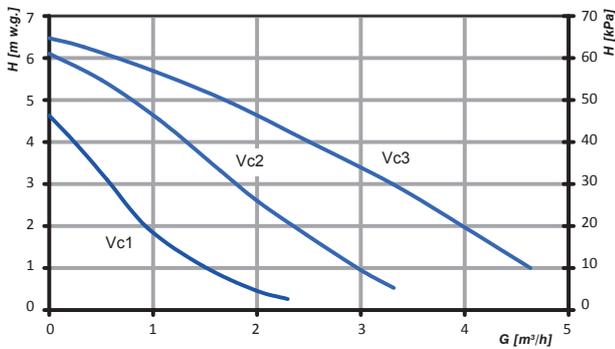
DPp: Proportional pressure  
DPc: Constant pressure

Power of pump Grundfos UPML AUTO 32-105 180



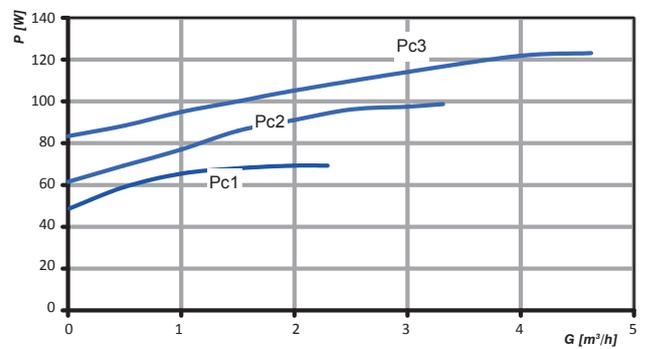
PDPp: Power consumption at proportional pressure  
PDPc: Power consumption at constant pressure

Head of pump Grundfos UPSO 32-65 180 (Extra EU)



Vc: Constant speed

Power of pump Grundfos UPSO 32-65 180 (Extra EU)

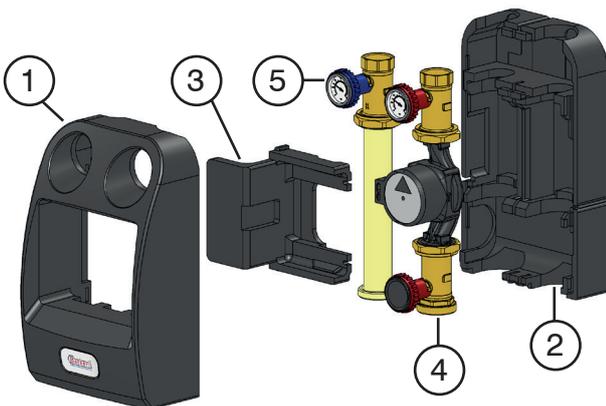


Pvc: Power consumption

## Features

The direct distribution group consists of:

- Front insulation shell (1),
- Rear insulation shell (2),
- Central front insulation shell (3),
- Flow line (4) including 2 ball shut-off valves, temperature gauge and pump
- Return line (5) including ball shut-off valve, check valve, temperature gauge and extension.



## Advantages

**Energy saving:** the front (1) and rear shells (2) help the thermal insulation of the group and allow energy saving.

**Frontal devices:** all devices, such as the pump menu, temperature gauges, shut-off valves and, in mixed groups, the valve and actuator are frontal. This allows fast regulation and functional check, in particular for the installation of several groups very close to one another.

**Versatility of the wall mounting bracket:** the universal bracket 42D.DN32 (accessory) makes it possible to install the group with flow upward, downward or with the group laying on a side. Pay however the maximum attention to correctly fix the group to the wall when installed laying on a side.

**Transformability:** in case of need, the groups are easily transformable from one version to another (eg. from direct distribution group to motorized/motorizable regulating group and vice versa) as they share the vast majority of components.

**Identical actuators for all DN:** the motorized groups DN 20 can be combined with the same actuators of the DN 25 and DN 32 ranges, allowing a reduction of the models to be purchased and consequently of the warehouse.

**Pump range:** the groups are available with three different pump models. For the use of other models and/or manufacturers, it is advisable to contact Barberi for verification.

**Flat gaskets:** the various components of the groups are connected to each other by means of flat seal fittings. This makes the installation faster by avoiding the use of hemp or other sealants.

**Cable glands:** the insulation of the groups is equipped with cable glands pointing upward and downward to allow the cables to be laid safely and tidy.

**Accessibility and maneuverability of the nuts:** by lifting the rear insulation, still applied to the group, it's possible to create the space necessary to maneuver all the nuts, with a suitable hexagonal key, without having to remove it. This is an advantage especially in the wall installation where the insulation is laying against the wall or when pipes pass behind the insulation.

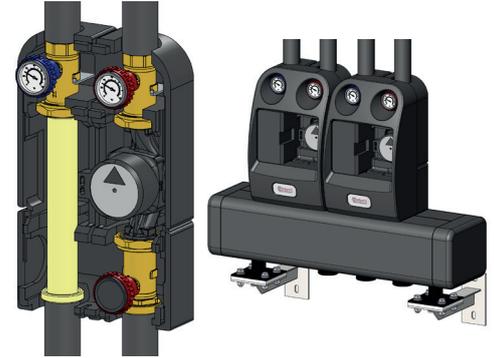
**The nuts are supplied loosened to facilitate the group reversion on the installation field. Fully screw the nuts before installing the group.**

### Installation

The mounting options of the group are:

- Wall installation
- Manifold installation

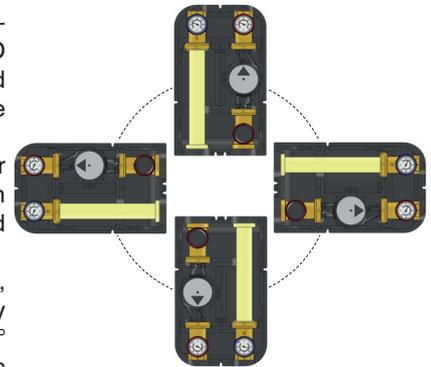
The group can be installed on standard manifolds with independent hydraulic separator, on manifolds connected to a storage.



### Group position

The group can be installed in one of the ways shown in the picture, with the pump rotation axis always horizontal. For the UPML AUTO 32-105 180 pump, 3 and 9 o'clock positions are not allowed because:

- 1) the two holes for condensation drain must point upward and downward;
- 2) to solve this problem, it is not allowed anyway to rotate the pump by 90° because the electronic part of the pump would interfere with the pipes, due to its dimensions.



### Accessories

## 42D.DN32

Bracket for wall mounting of the distribution and regulating groups, with screws and anchors

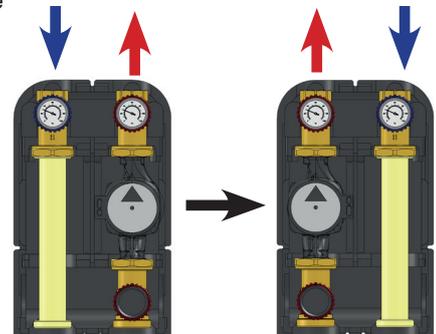
Hole centre distance: **90 mm**  
Hole diameter: **8 mm**



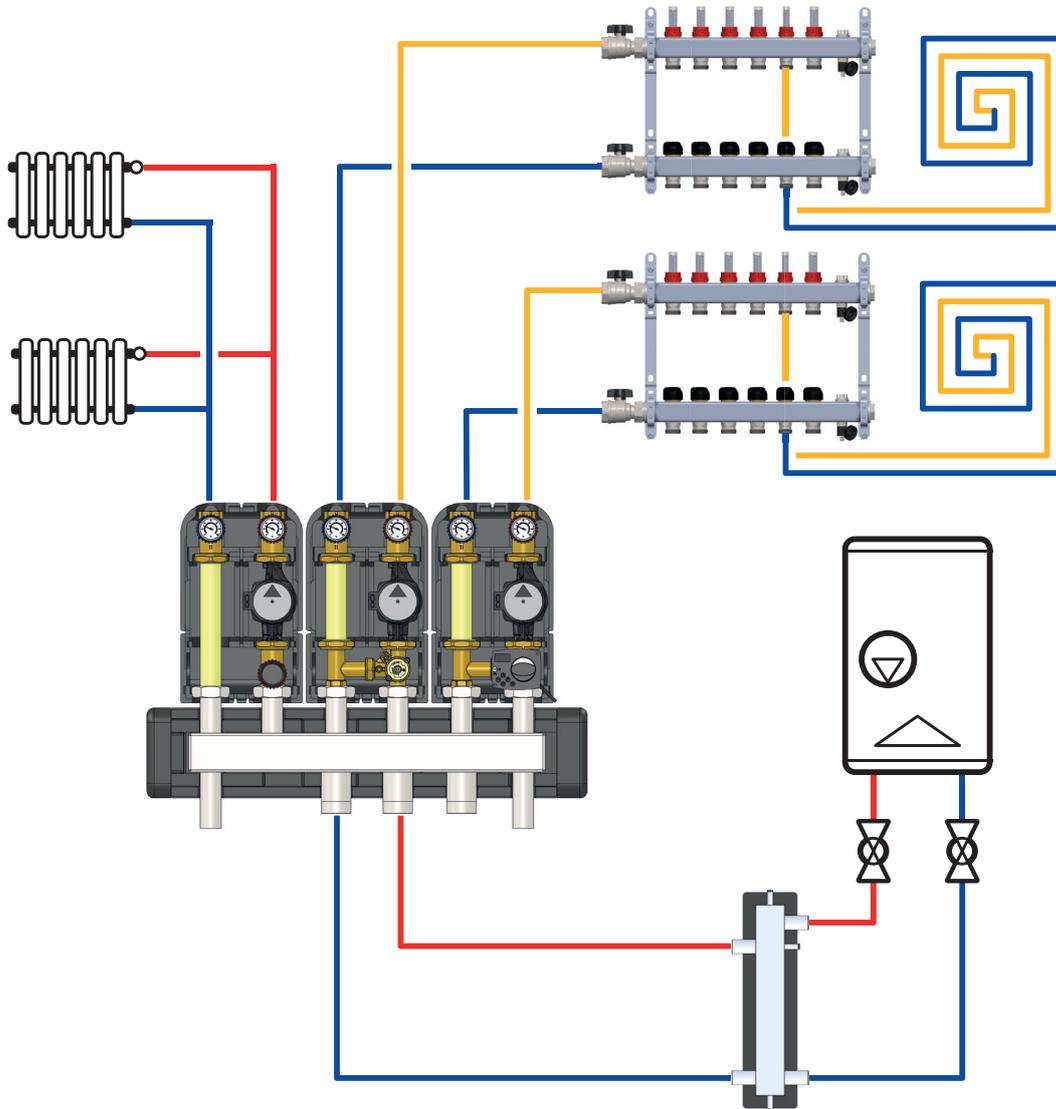
Code		
42D 032 Z00 I	1	25

### Group reversibility

The group is factory set with pump on the RH side and flow upwards (or, by rotating it, pump on the LH side and flow downwards). The reversibility is allowed on the installation field simply by exchanging the flow line with the return one. Warning: due to the presence of a check valve, keep the ball shut-off valve with red knob on the pump line and the blue knob on the return. For some pump models, it is necessary to rotate the electronic part to place it within the insulation.



System diagrams



Specifications

**Series 01G.DN32**

Direct distribution group with G 2 M connections with flat gaskets to the primary circuit and G 1 1/4 F connections to the secondary circuit. Centre distance between flow and return connections 125 mm. Height of flow and return lines 375 mm. Dimensions of the group with shell 247x410x212 mm (Width x Height x Depth). The group is composed of: ball shut-off valves in brass on the flow and return of the secondary circuit, POM check valve on the return line, ball shut-off valve in brass on the flow line of the primary circuit, flow and return temperature gauges with 0–120 °C scale. High-efficiency pump Grundfos UPM3 AUTO 32-70 180 (Grundfos UPML AUTO 32-105 180, 3 constant speed pump Grundfos UPSO 32-65 180 (Extra EU)), electric supply 230 V (50 Hz). Insulation shell in EPP. Working temperature range 5–90 °C. Maximum working pressure 10 bar. Reversible group. Without connections for optional differential by-pass valve.