RUBINETTERIE INDUSTRIALI s.r.l.

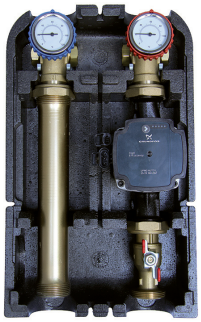
EN | DATASHEET | rev. B

ST00054

cod. **01G.DN25**

DIRECT DISTRIBUTION GROUP

Description



This preassembled pump group is part of the **Barberi®** *trolli HEATING*.
This distribution group is a direct line that allows the circulation of the thermal fluid, coming from the primary circuit. As this group doesn't make thermal regulations, it's appropriate when the supply temperature of the primary circuit it's the same of the one required from the consumer.
The direct group is optimal both for supplying heating circuit or conditioning. The group is composed of pump, shut-ff valves supply/return side, shut-off valves at pump inlet, supply/return side thermometer, check valve anti-recirculation, thermal insulation.

Range of products

Direct distribution group	*01G*	*XXX*	*XX*	*X*
Upper connections G1"F		025		
Without fittings			00	
Fittings with running connection*			01	
Without pump				X
Pump Grundfos UPM3 AUTO L 25-70 180				V
▶ Pump Grundfos UPM3 AUTO 25-70 180				U
Pump Wilo Yonos Para 25-6 180				L
Pump Grundfos UPSO 25-65 180 (extra EU)				C

** see fittings*
▶ on request

Features

Max. and minimum working temperature: **5 °C – 90 °C**
Max working pressure: **10 bar**
Female connections: **UNI EN 10226-1**
Male connections: **UNI ISO 228-1**
Pump: **Grundfos UPM3 AUTO L 25-70 180**
Grundfos UPM3 AUTO 25-70 180
Wilo Yonos Para 25-60 180
Grundfos UPSO 25-65 180(Extra EU)
Allowed fluids: **water, mix water and glycol(max 30%)**
Thermometers measurement range: **0-120°C**

Material

Ball and check valve
- Body: **brass UNI EN 12165 - CW617N**
- Gasket: **PTFE, EPDM, Viton**

Pump
- Body: **cast iron**

Insulation shell
- Body: **EPP**
  Density 60 kg/m 3
  Thermal conductivity 0,039W/mK(20°C)
  Thermal conductivity 0,041W/mK(40°C)

Barberi Rubinetterie Industriali s.r.l. • 13018 VALDUGGIA (VC) ITALY • Via Monte Fenera, 7 • Tel. 0039 0163 48.284 r.a. • Fax 0039 0163 48.287 • e-mail: barberi@barberi.it • website: http://www.barberi.it

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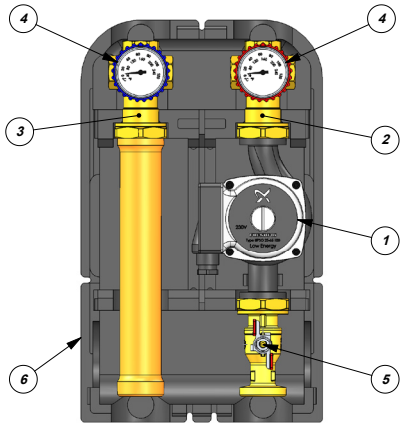
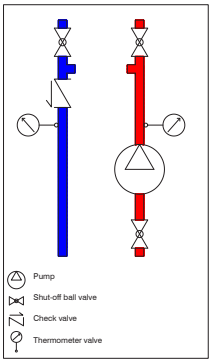
Components

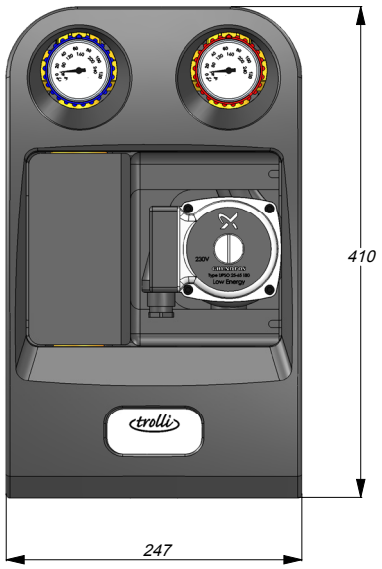


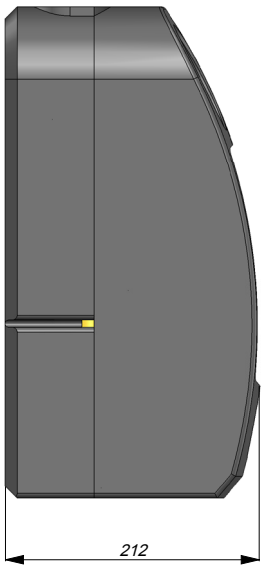


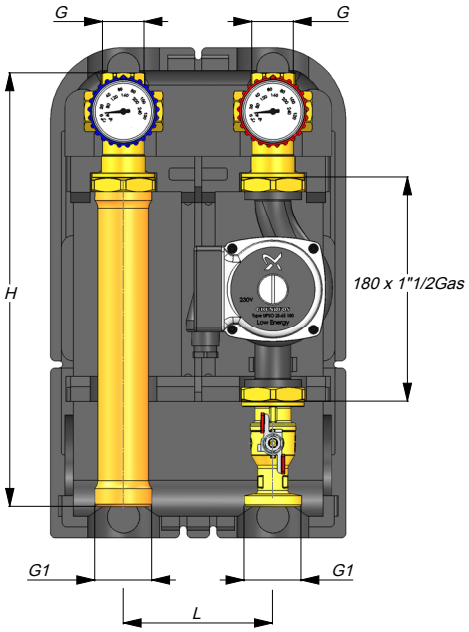
cod. 01G-DN25		
1	Pump	Grundfos UPM3 AUTO L, Grundfos UMP3 AUTO, Wilo yonos para, Grundfos UPSO
2	Shut-off ball valve	
3	Shut-off ball valve with check valve	
4	Thermometer	
5	Shut-off ball valve	
6	Insulation shell	

▸*on request*

Dimensions







Cod.	P [bar]	G	G1	L	H	Pump	Weight	N. P/S	N. P/C
01G 025 00X	10	G 1"F	G 1"1/2 M	125	375	without pump	3350	-	1
01G 025 00V	10	G 1"F	G 1"1/2 M	125	375	Grundfos UPM3 AUTO L 25-70 180	5165	-	1
▸**01G** 025 00U	10	G 1"F	G 1"1/2 M	125	375	Grundfos UPM3 AUTO 25-70 180	5165	-	1
01G 025 00L	10	G 1"F	G 1"1/2 M	125	375	Wilo Yonos Para 25-6 180	5240	-	1
01G 025 00C	10	G 1"F	G 1"1/2 M	125	375	Grundfos UPSO 25-65 180	5850	-	1

Weight (grams) - N. P/B: number of pieces in box, plastic bag - N. P/C: number of pieces in carton

▸*on request*

DIRECT DISTRIBUTION GROUP

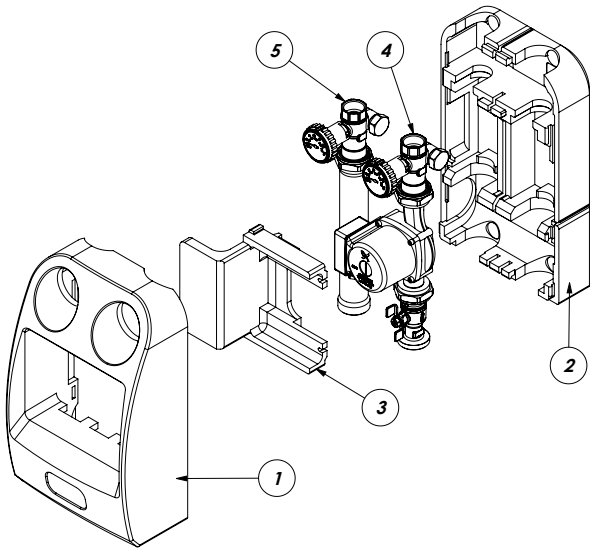
Installation

The installation of every component must be made from qualified people because this system is used to carry the fluid at temperature and pressure that can be dangerous for people and things.

Introduction

The direct distribution group consists of the parts in the picture:

- Front insulation shell (1),
- Back insulation shell (2),
- Pump protection (3),
- Delivery side (4) includes 2 shut-off ball valves and thermometer,
- Return side (5), includes shut-off ball valve and check valve



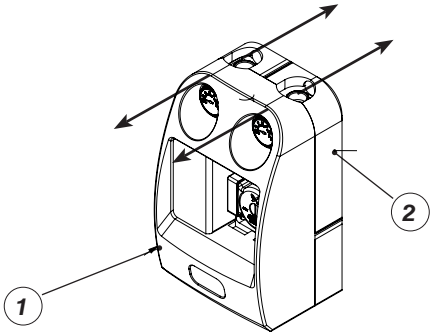
The front (1) and back shells (2) help the thermal insulation and save energy. The pump protection shell (3) has been introduced for maintaining the thermal insulation and avoiding overheating of electric actuator of the pump. In this way the risk of damage is reduced.
The thermometer that is integrated in the handle of ball valve helps the temperature control of both side. The check insert that is integrated in the body of shut-off valve of return side is used to prevent parasitic flows when the pump is off. The mounting options of the group are:

- Wall installation
- Collector installation

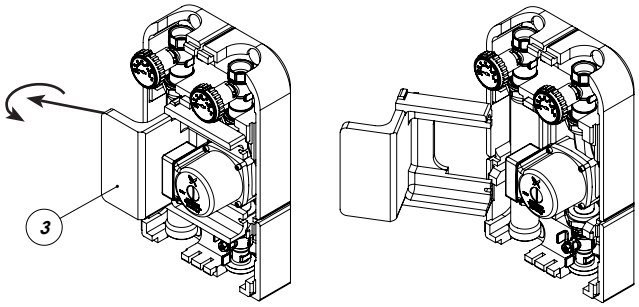
Wall installation

(only for groups supplied with steel bracket). Note: check the distance of the pipes from the wall. See point 7.

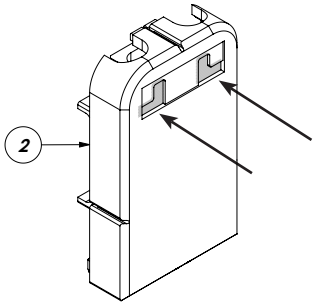
1. Remove the pre-assembled group from the box packing;
2. Open the shell pulling the parts (1) e (2) from the upper ends indicated;



3. Remove the pump protection (3);



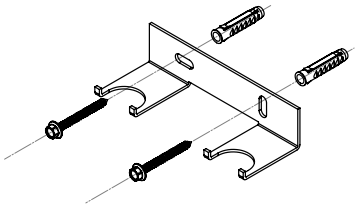
4. Remove side 4 and side 5
5. Cut the 2 boxes on the back shell (2)



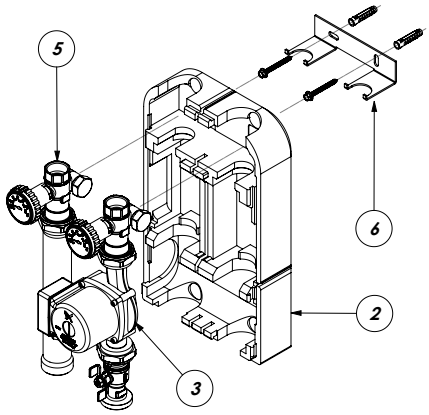
6. The bracket has to be used on a suited wall. The bracket is provided with holes and a slot to facilitate the positioning. Fasten the bracket on the wall with screws and dow-

DIRECT DISTRIBUTION GROUP

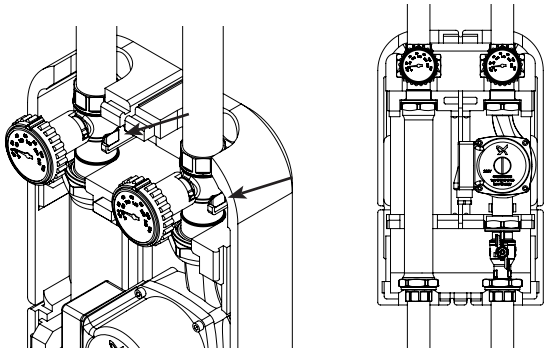
els you find in packing ;



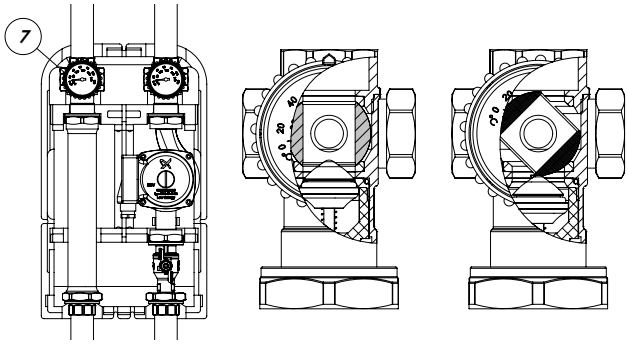
7. Insert the back shell (2) in the bracket (6). Insert the delivery (4) and return side (5) on the bracket slightly lifting the shell. In this way the distance between the centre of the pipes and wall surface is about 54 mm.



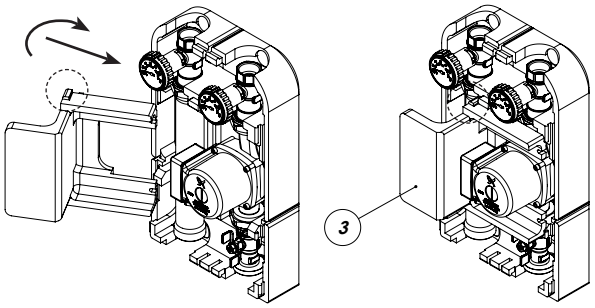
8. Install the pipes of both sides of the group through the fittings supplied in the packing (for models with fittings) or through the appropriate connections (it's recommended fittings with plane gaskets). In case there is a pump installed in series to the group (e.g. pump of the boiler), it's a good practise to install a unit for hydraulic separation of the circuits to avoid malfunctioning of both pumps or boiler.



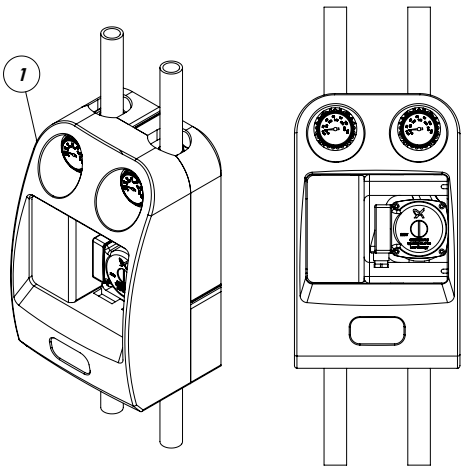
9. Rotate the handle of the shut-off valve (7) of return side up to 45°. In this position the ball will press the check insert disconnecting it and allowing a better water and air flow. This air has to be eliminated during the filling phase. Fill the system and check the presence of leakage of thermal fluid (water or mix water and glycol).



10. Open the shut-off valve in return side (7)
11. Do the wiring (See the section 'Wire positioning')
12. Insert the pump protection (3)



13. Join the 2 parts of the shell (1)



Installation on collector

The distribution group can be installed on collectors with integrated hydraulic separator, on standard collectors with not integrated hydraulic separator, on collectors connected to a storage. For an appropriate installation, the collector must have the distance of connections of at least 60 mm from the wall.

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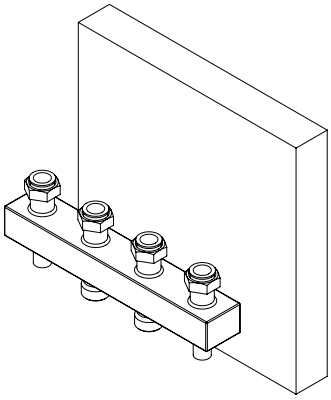
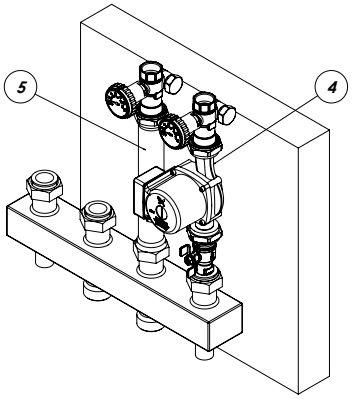
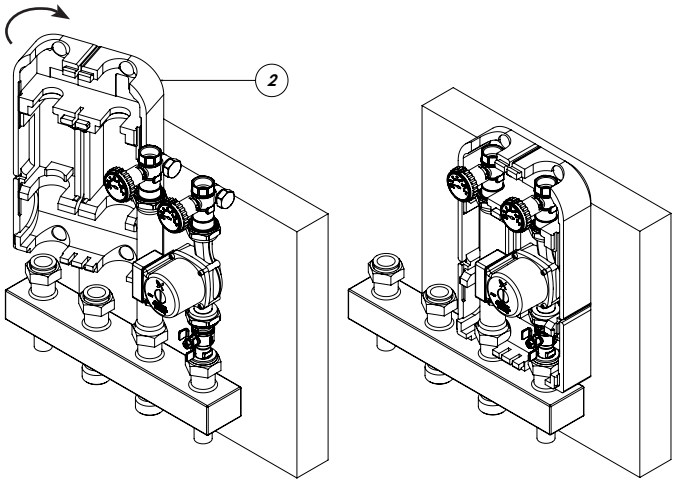


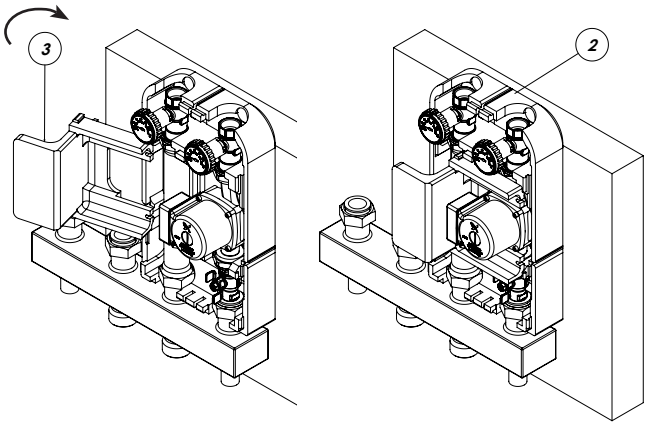
1. Follow the steps 1, 2, 3, 4, of wall installation
2. To facilitate the installation, start from the centre of the collector and go on with the outermost ; install the delivery (4) and return (5) on the distribution collector through the fittings supplied in the packing (for models with fittings) or through the appropriate ones (it's recommended fittings with plane gasket)



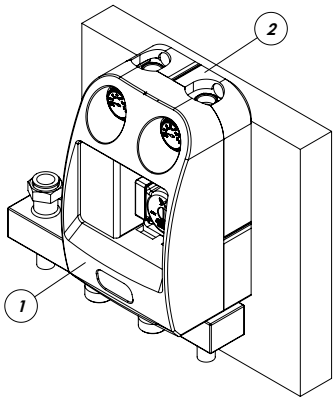
3. Put on the shell (2); (if the collector is too close to the wall, it's necessary to insert the part (2) before installing the delivery (4) and return (5)



4. Put on the shell (3) pressing the part (2) from the back side;



5. Proceed as in step (9) of wall installation.
6. Open the shut-off valve in return side
7. Do the wiring (see wires positioning section)
8. Join the 2 parts of the shell holding the part (2) on the back side



Wires positioning

The wires must be connected by qualified people to avoid any safety risks for people and things. The shell (2) has been realized to help the wires positioning inside the shell. In fact there are guides that allow the reaching of the lateral wires of the shell (2).

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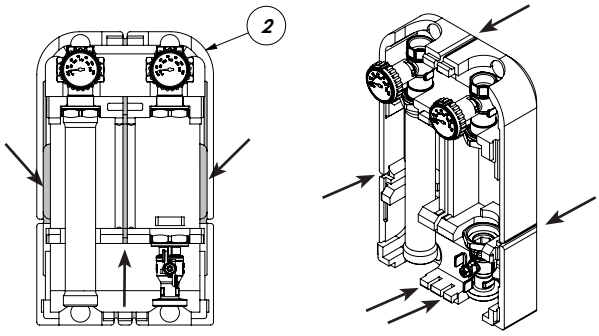
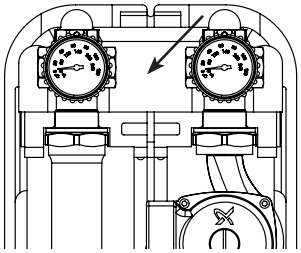
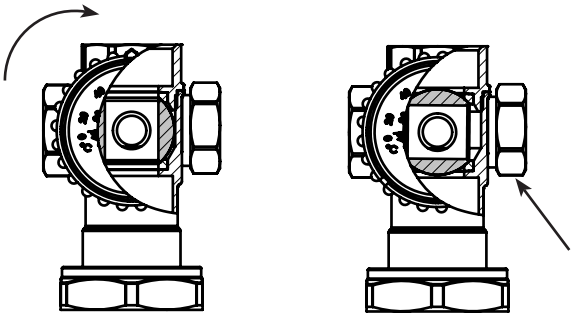


Installation and adjustment of differential by-pass valve (for models with differential by-pass or installation at a later time)

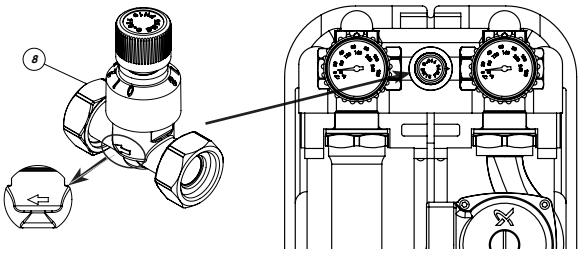
The installation of differential by-pass valve must be done as shown in the picture.



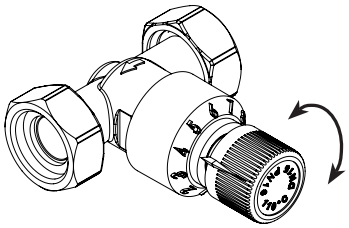
1. For the installation of differential by-pass valve (specially with filled system) you must close the 2 ball valve with thermometer as shown in the picture,



2. Disassemble the lateral cover and the plane gaskets of the ball valves. Insert the differential by-pass valve (8) (e.g. art 615, art 616) with plane gaskets supplied with the packing paying attention to the flow direction indicated by the arrow.



3. Rotate the handle of the valve on the value specified from the designer in order to achieve the right working conditions for the system.



Pump replacement

The distribution groups has been realized in order to hold different type of pumps. The models that suit the distribution group Barberi are shown in the table. The pump Grundfos UPSO is supplied by Barberi without the cable; the pumps Grundfos Alpha2 e Wilo Yonos Para are supplied with wire and connector following the dimensions of the shell of distribution group. In case of purchasing the pumps from other suppliers, pump and connector may require small adjustments on the shell, The installer can do the adjustment by himself.

Suitable pumps with distribution group
Grundfos UPSO 25-65 - 180
Grundfos UPM3 25-70 - 180
Wilo Yonos Para 25-6 - 180

*other type of pumps have singly evaluated from the company

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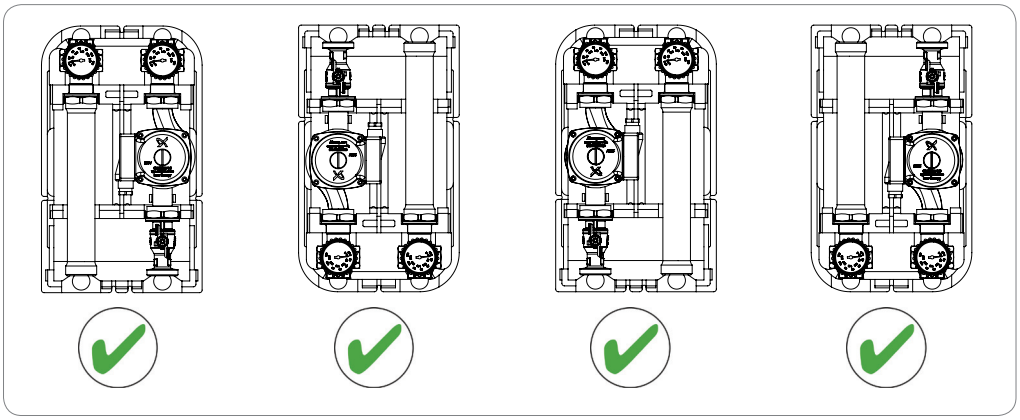
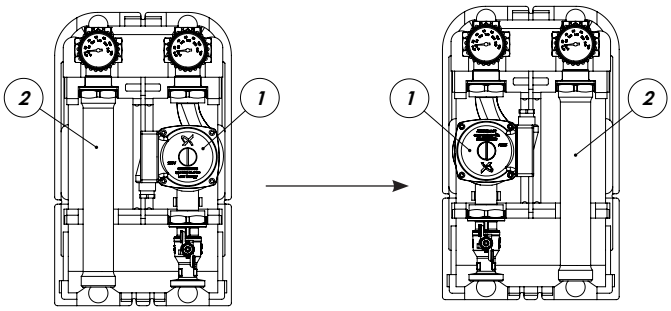
Positioning of the group

The direct distribution group can be installed differently from the standard (delivery on the right and up direction). The possible layout of positioning depends on the model of the pump installed. In the table below are shown the options you have with the pumps you are using.



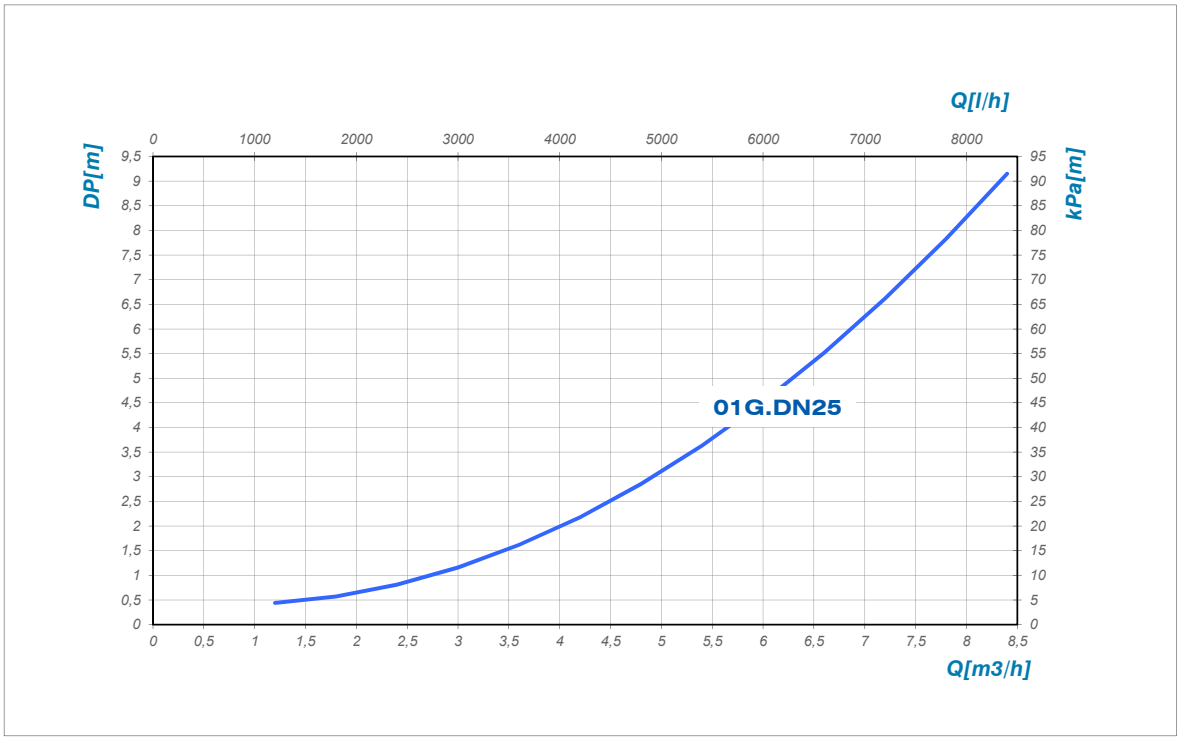
This group is supplied with standard layout as shown in the scheme 1-2, with pump on the right, delivery up direction or after rotation, pump on the left and lower direction. The same product can be used to get the scheme 3-4 just reversing delivery (1) with return (2).
Attention: keep the ball valve with red handle on the side with the pump, the one with bluee handle on return side because of the presence of unidirectional check valve .



DIRECT DISTRIBUTION GROUP

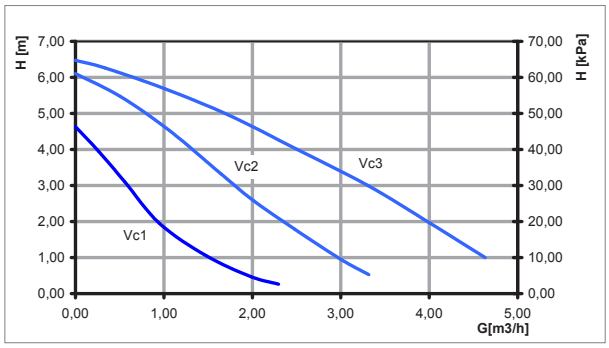
Diagram

Pressure drop of direct distribution group



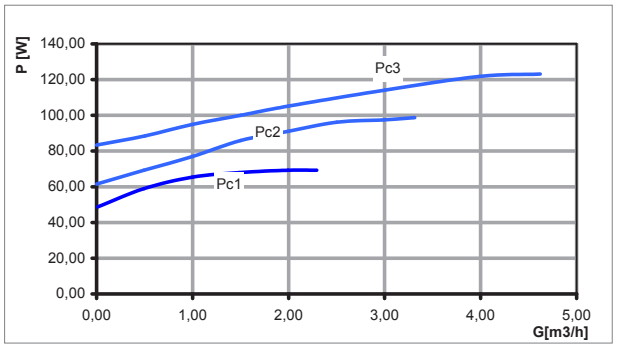
Head and power consumption of the pumps

Head of Grundfos pump UPSO 25-65/180



Vci: ***Constant speed***

Power of Grundfos pump UPSO 25-65/180



PVci: ***Power consumption***

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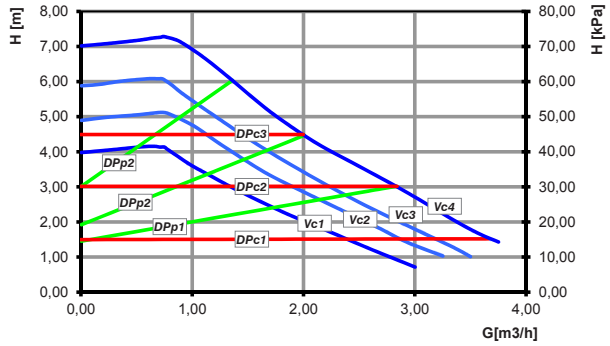
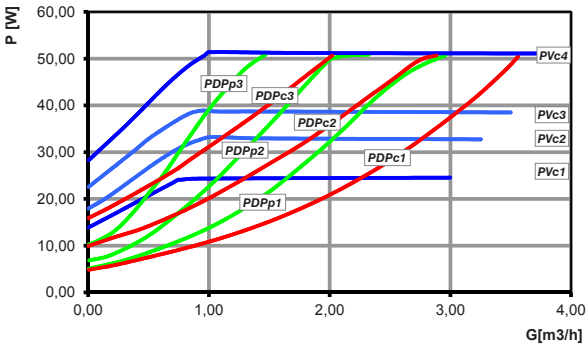
Head of Grundfos pump UPM3 AUTO L 25-70 180
UPM3 AUTO 25-70 180



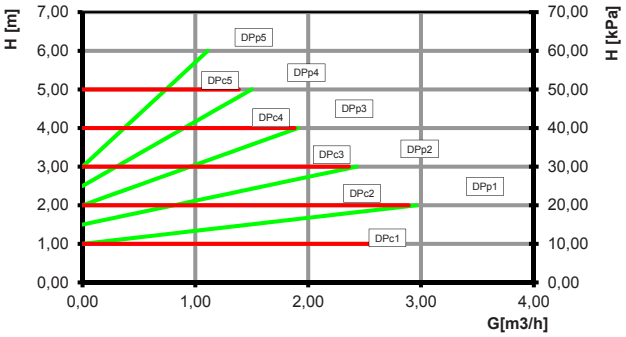
Vci: Constant speed
DPpi: Proportional pressure
DPci: Constant pressure

Power of Grundfos pump UPM3 AUTO L 25-70 180
UPM3 AUTO 25-70 180



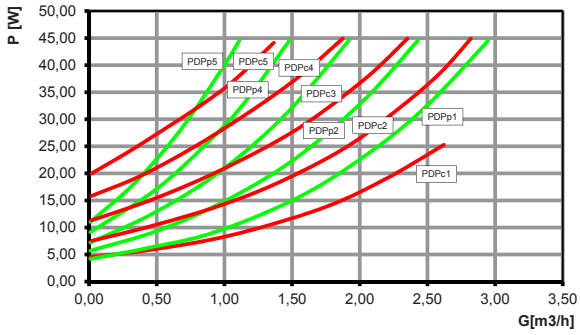
PVci: Power consumption at constant speed
PDPpi: Power consumption at proportional pressure
PDPci: Power consumption at constant pressure

Head of Wilo Yonos Para pump 25-6



DPpi: Proportional pressure
DPci: Constant pressure

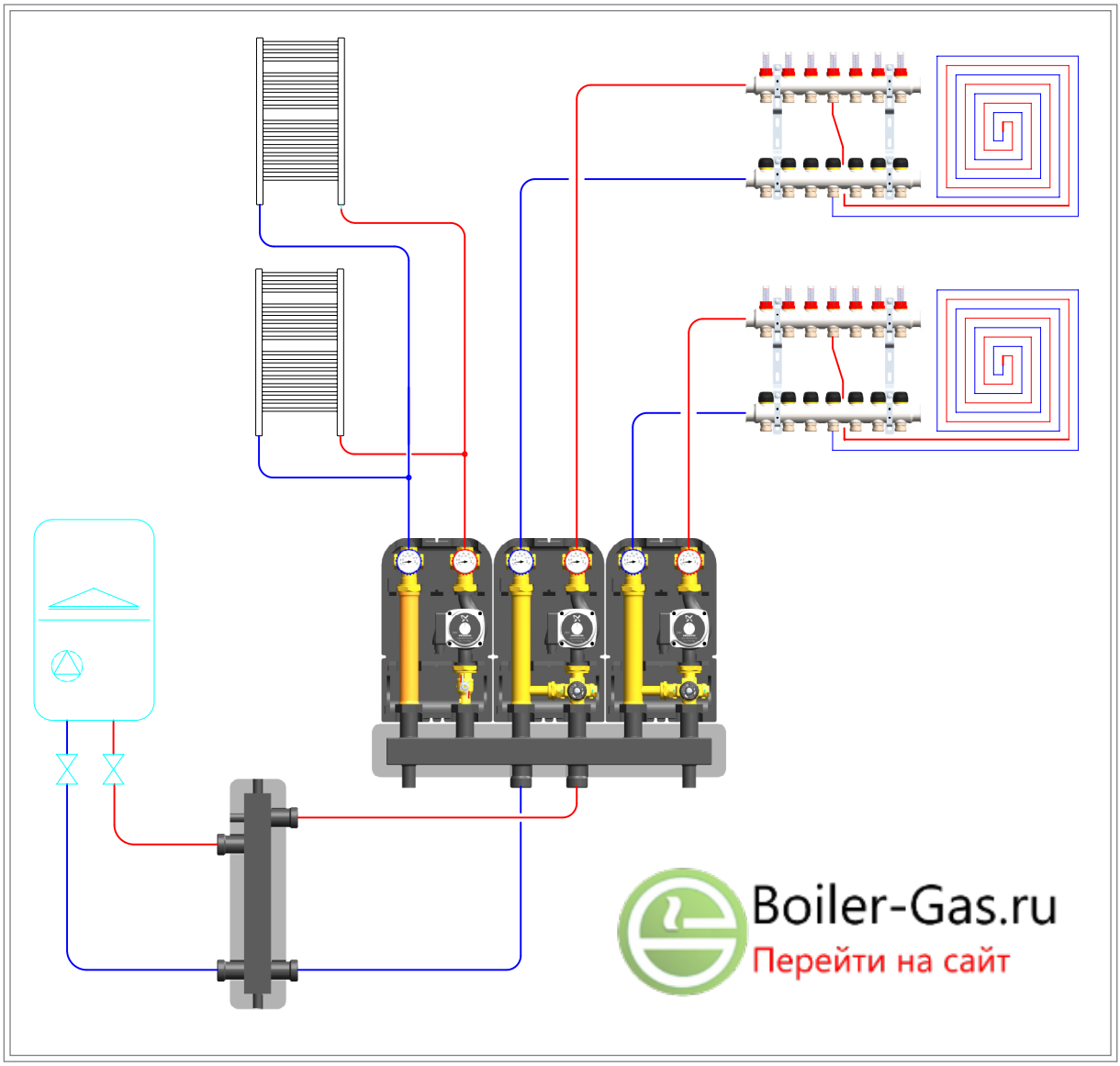
Power of Wilo Yonos Para pump 25-6



PDPpi: Power consumption at proportional pressure
PDPci: Power consumption at constant pressure

DIRECT DISTRIBUTION GROUP

Examples of installation



Specification

This text refers to a specific code of the product. For each version of the groups the designer must modify the specifications.

Code 01G 025 00C
Direct distribution group with 1”1/2 G male connections with plane gaskets on primary circuit and 1” G female on the secondary circuit. Distance between connections of delivery and return:125mm. Height of delivery and return side: 363mm. Dimensions of the group with shell: 247, 410, 212,(width, height, depth). The group is composed of : shut-off ball valves of secondary circuit in delivery and return, check valve on return side, shut-off ball valve of primary circuit on delivery side, thermometer in the delivery and return with 0-120°C scale. Fittings available for differential by-pass valve 615/616, pump with 3 constant speeds Grundfos UPS 25-65 180, power supply 230V (50Hz). Shell in EPP black colour 60 kg/m3. Maximum temperature of the thermal fluid 90°C. Maximum working pressure of thermal fluid 10bar.

DIRECT DISTRIBUTION GROUP

Accessories

38D.DN25

Monobloc with pump connection (ball valve+thermometer+2 side connections) - thermometer 0-120°C - DN25

Max working temperature: **95°C**

cod.	size	handle colour	P [bar]
38D 025 000	G 1"1/2 F - G 1"F	red	10
38D 025 000B ●	G 1"1/2 F - G 1"F	blue	10

● *on request*

37D.DN25

Monobloc with pump connection (ball valve +thermometer+2 side connections+check valve+check valve disconnection) - thermometer 0-120°C - DN25

Max working temperature: **95°C**

cod.	size	handle colour	P [bar]
37D 025 000	G 1"1/2 F - G 1"F	blue	10
37D 025 000R ●	G 1"1/2 F - G 1"F	red	10

● *on request*

38D.1

Monobloc with pump connection (ball valve +thermometer) - thermometer 0-120°C - DN25

Max working temperature: **95°C**

cod.	size	handle colour	P [bar]
38D 025 0001	G 1"1/2 F - G 1"F	red	10
38D 025 0001B ●	G 1"1/2 F - G 1"F	blue	10

● *on request*

37D.1

Monobloc with pump connection (ball valve +thermometer+check valve+check valve disconnection) - thermometer 0-120°C - DN25

Max working temperature: **95°C**

cod.	size	handle colour	P [bar]
37D 025 0001	G 1"1/2 F - G 1"F	blue	10
37D 025 0001R ●	G 1"1/2 F - G 1"F	red	10

● *on request*

39D

Ball valve with pump connection and male connection

Max working temperature: **95°C**

cod.	size	handle colour	P [bar]
39D 020 000R	G 1"1/2 F - G 1"F	red	10

40D

Extensions with flat sealing, dimension 272 mm

Max working temperature: **140°C**

cod.	size	P [bar]
40D 040 000	G 1"1/2 - 272mm	10

44D.DN25

2 fittings with flat gasket - DN25

Max working temperature: **95°C**

cod.	size	P [bar]
44D 025 000	G 1"F - G 1"1/2F	10

42D.DN25

Bracket for wall mounting of the group, including screws and dowels

Holes diameter: **8mm**
Holes distance: **90mm**

cod.
42D 025 Z00I

DIRECT DISTRIBUTION GROUP

11D.120

Axial thermometer

Range: **0-120°C**

cod.	size
11D 015 000120	*ø51mm*

615

By-pass differential valve with running nuts - range 0,2-2,5m. With flat gaskets. Connection distance 65mm

Max working temperature: **95°C**
Connection distance: **65mm**

cod.	size	P [bar]
615 015 000	G 3/4" F	*10*

616

By-pass differential valve with running nuts - range 2-6,5m. With flat gaskets. Connection distance 65mm

Max working temperature: **95°C**
Connection distance: **65mm**

cod.	size	P [bar]
615 015 000	G 3/4" F	*10*

26A.DN25

Grundfos Pump UPM3 AUTO 25-70 180 with high efficiency (EEI < 0.23 in accordance with EuP directive). With 1 m cable

Max working temperature: **100°C**
Max head: **7m**
Connection distance: **180mm**

cod.	size	P [bar]
26A 040 070BC	G 1"1/2 M	*10*

27A.DN25

Grundfos Pump UPM3 AUTO L 25-70 180 with high efficiency without autoadapt (EEI < 0.23 in accordance with EuP directive). With 1 m cable

Max working temperature: **100°C**
Max head: **7m**
Connection distance: **180mm**

cod.	size	P [bar]
27A 040 070BC	G 1"1/2 M	*10*

07A.DN25

Wilo Pump Yonos Para 25-6 with high efficiency (EEI < 0.23 in accordance with EuP directive). With 1 m cable

Max working temperature: **100°C**
Max head: **6m**
Connection distance: **180mm**

cod.	size	P [bar]
07A 040 060B	G 1"1/2 M	*10*

05A.DN25

Grundfos Pump UPSO 25-65 with 3 constant speed (Extra UE)

Max working temperature: **100°C**
Max head: **6.5m**
Connection distance: **180mm**

cod.	size	P [bar]
05A 040 065B	G 1"1/2 M	*10*

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