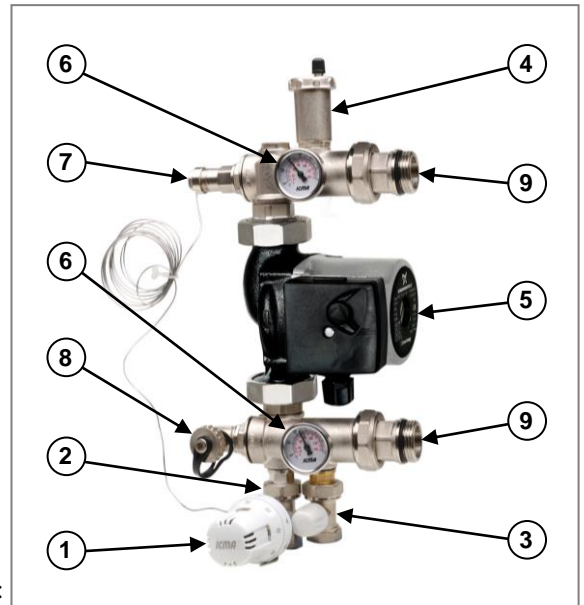


ART. M059 - MIXING UNIT

Fixed point mixing unit with boiler delivery and return at bottom, includes:

- 1) Thermostat control device (20-50°C) with remote sensor
- 2) Fixed point thermostatic valve
- 3) Holder for boiler return
- 4) Automatic air vent valve
- 5) Circulator
- 6) Thermometers (0-60°C)
- 7) Sensor slot
- 8) Valve for system loading/discharge
- 9) G1" pipe unions with O-ring seal for collector

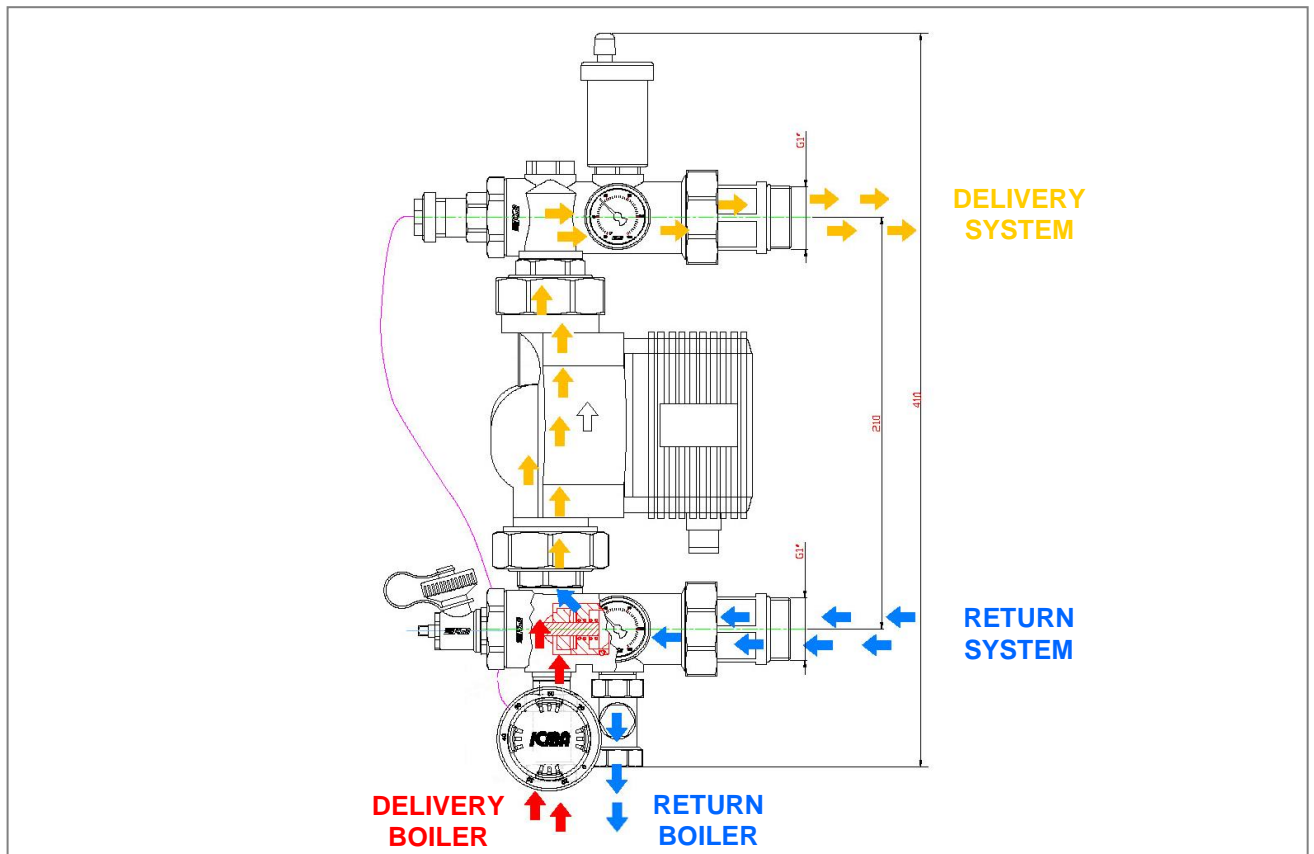
Boiler circuit connections: G½" Female
 Collector connections: G1" Male
 Can be installed either on the left or the right side of collectors.



The pre-assembled units are supplied with three different pump models:

- GRUNDFOS - UPSO 25-65 130 - Synchronous circulation pump with 3 speeds
- GRUNDFOS - UPS2 25-40/60 130 - Circulation pump with 3 speeds
- GRUNDFOS - UPM3 HYBRID 25-70 130 – Electronic circulation pump

INSTALLATION DIAGRAM AND DIMENSIONS



ARTICLE: P328

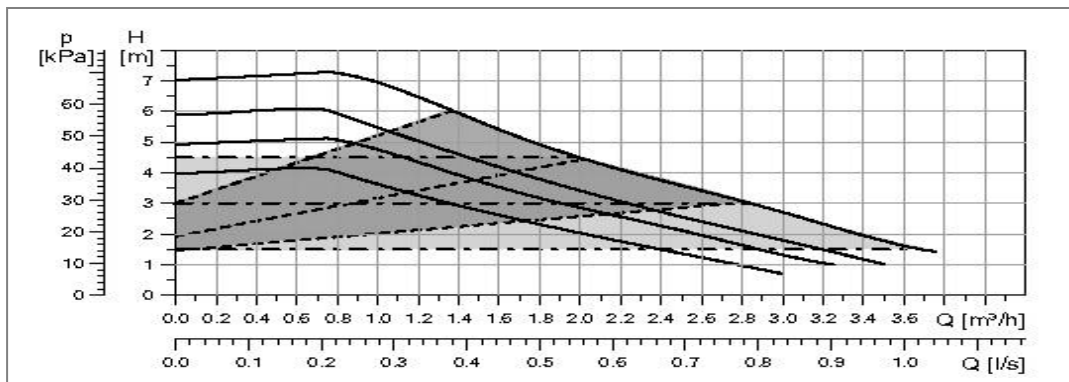
**Circulator with PP (proportional pressure), CP (constant pressure)
CC (constant curves), PWM (profile A o C), AA (auto adapt)**

Technical specifications

Brand:	Grundfos
Model:	UPM3 HYBRID 25-70 130
Centre to centre distance:	130 mm
Connections:	G 1”1/2 M
Electrical power supply:	230V – 50Hz
Operating temperature:	+2°C / 110°C.
Max operating pressure:	10 bar
Protection level:	IP44
Energy class (EEI):	≤0.20 Part 3
PWM signal cable code:	C64P3280153 (NOT INCLUDED)



Hydraulic characteristics



SAFETY



Before starting the equipment, carefully read the assembly and start-up instructions, to prevent any accidents or failures of the system resulting from improper use of the product. It must be pointed out that non authorized modifications or tampering with during the assembly and construction stages may lead to the forfeiture of the right to the guarantee. In addition to the directives stated above, the following rules must be followed:

DIN 4751

Water heating systems

DIN 4757

Solar heating systems

DIN 18380

Heating systems and sanitary water heating systems

DIN 18382

Electric and running systems in buildings

DIN 12975

Thermal solar systems and relevant construction

OPERATION CONDITIONS

The limit values shown **MUST IN NO WAY** be exceeded. The operation safety conditions are therefore assured by respecting the general conditions and the operation limit values described in this sheet.

SAFETY RULES FOR ASSEMBLY AND INSPECTION

The assembly and inspection operations shall be carried out by qualified personnel, duly authorized and well aware of the instructions described herein. Before starting any works on the devices and equipment, it is important to check that they are switched off.

ELECTRIC CONNECTIONS

The electric connections shall be carried out by qualified personnel.

Before powering the mixing and circulation group, check that the voltage type and values supplied by the electric grid meet the data on the manufacturer's plate. All connections shall be made as prescribed by law.

MAINTENANCE

The maintenance operations shall be carried out by qualified personnel, duly authorized and well aware of the instructions described herein. Before starting any works on the equipment, it is important to check that they are switched off. Should the pump be replaced, rotate the on/off valve to closed position.



Warning! The surface temperature could reach very high values, according to the operation conditions of the pumps and to the features of the system. Therefore, **DO NOT** touch the pump directly. Danger of burns!

CONFORMITY STATEMENT' (CE)

The circulating units provided with the ICMA mixing and circulation groups comply with the following harmonizing directives:

CEE Machine Directives

89/392/CEE, 91/368/CEE, 93/44/CEE, 93/68/CEE.

Electromagnetic compatibility

89/336/CEE, 92/31/CEE, 93/68/CEE

General harmonized standards

EN 809, EN 50081-1, EN 50081-2, EN 50082-1, EN 50082-2.