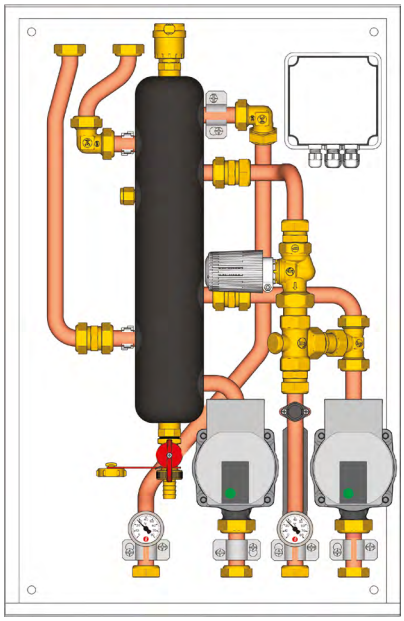
R586P-1

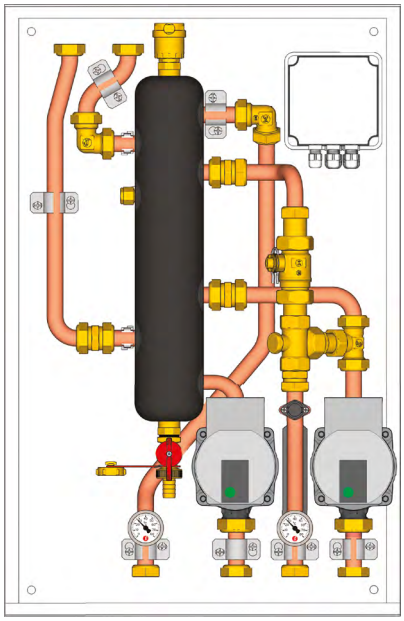
Energy Management

Universal mixing units

Datasheet/Instruction
0787EN 06/2019
047U54448



R586PY024



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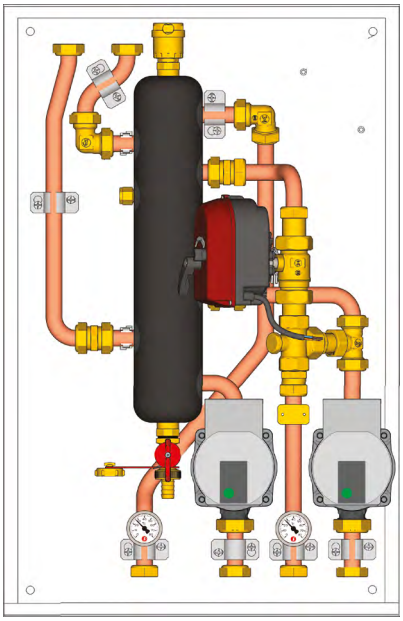

R586PY026

The pre-assembled R586P-1 mixing units are used to manage the heating functions in ceiling or radiant floor systems. They are the ideal solution where it is necessary to integrate a radiant floor/ceiling systems with high-temperature radiators or fan-coils.

Versions and product codes

PRODUCT CODE	CONNECTIONS	TYPE OF MIXING VALVE
R586PY024	3/4"F (ISO 228)	Control with thermostatic head
R586PY025	3/4"F (ISO 228)	Control with mixing valve
R586PY026	3/4"F (ISO 228)	Control with mixing valve with actuator included

Accessories (only for R586PY025)

- K275Y002: actuator 230 V with costant integrated regulator, for controlling the mixing valve
- K274Y101: actuator 230 V, 3-point floating, for controlling the mixing valve in combination with KLIMAdomotic RAD thermoregulation system

GIACOMINI WATER E-MOTION

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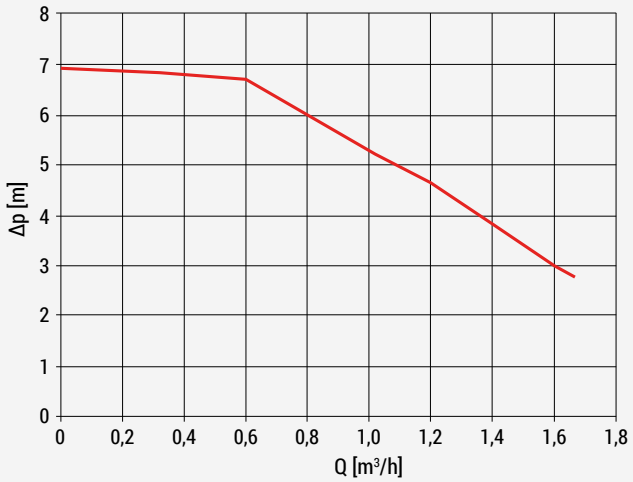
Technical data

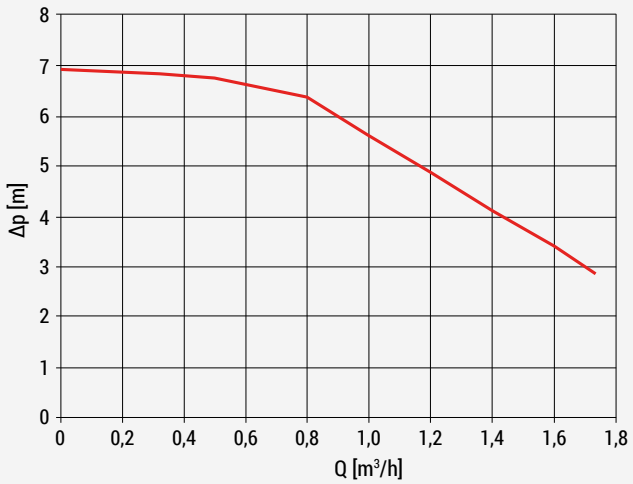
- Temperature range: 5÷90 °C
- Max. working pressure: 6 bar
- Primary circuit flow rate: 1÷3 m³/h
- Secondary circuit flow rate: 0,5÷1,5 m³/h
- Self-modulating circulators 15/7, centre distance 130 mm, in compliance with ErP 2009/125/CE directive
- Power supply: 230 V, 50 Hz
- Setting range for thermostatic mixing valve R462L (only for R586PY024): 20÷70 °C

⚠ **WARNING.** Respect the connections and flow directions shown in operation paragraph. Any errors could compromise proper operation and performance.

R586PY024: useful hydraulic head to circulator (secondary circuit, mixed side)



R586PY025/26: useful hydraulic head to circulator (secondary circuit, mixed side)



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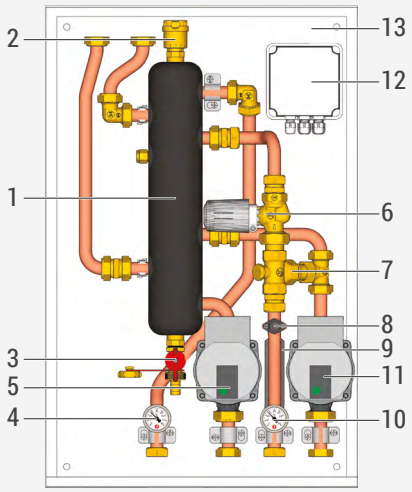
Components



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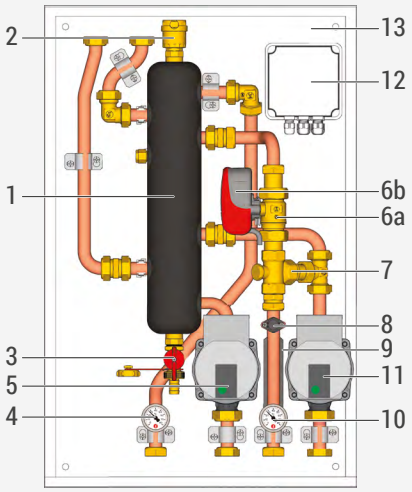

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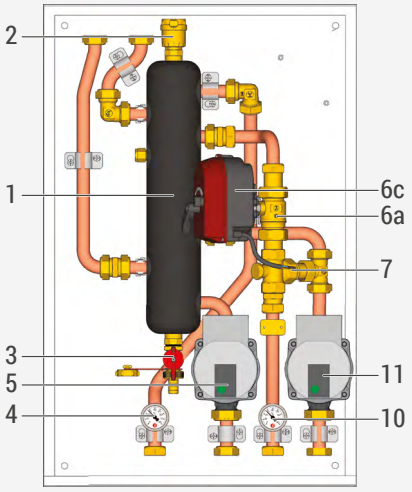

R586PY026

1	Hydraulic separator, primary circuit	6c	Actuator 3-point floating for mixing valve, secondary circuit, mixed side
2	Automatic air vent valve, primary circuit	7	By-pass valve + lockshield, secondary circuit, mixed side
3	Drain cock, primary circuit	8	Safety thermometer, secondary circuit, mixed side
4	Thermometer, secondary circuit, direct side	9	Metallic plate to suite the temperature probe
5	Circulator, secondary circuit, direct side	10	Thermometer, secondary circuit, mixed side
6	Valvola e testa termostatica, lato secondario, zona miscelata	11	Circulator, secondary circuit, mixed side
6a	Thermostatic valve and head, secondary circuit, mixed side	12	Box with electric terminals
6b	Actuator for mixing valve, secondary circuit, mixed side (accessory)	13	Metallic frame

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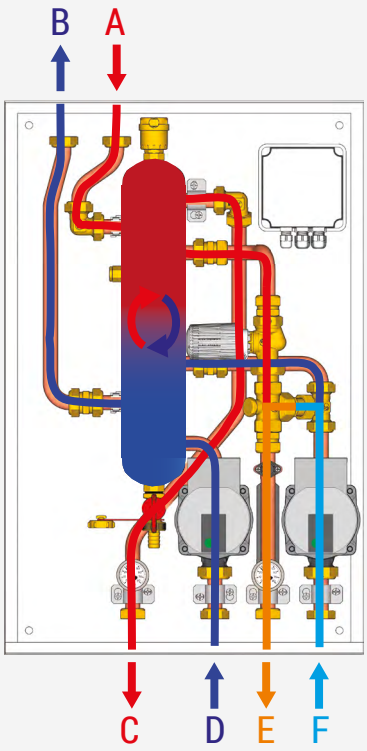
Operation

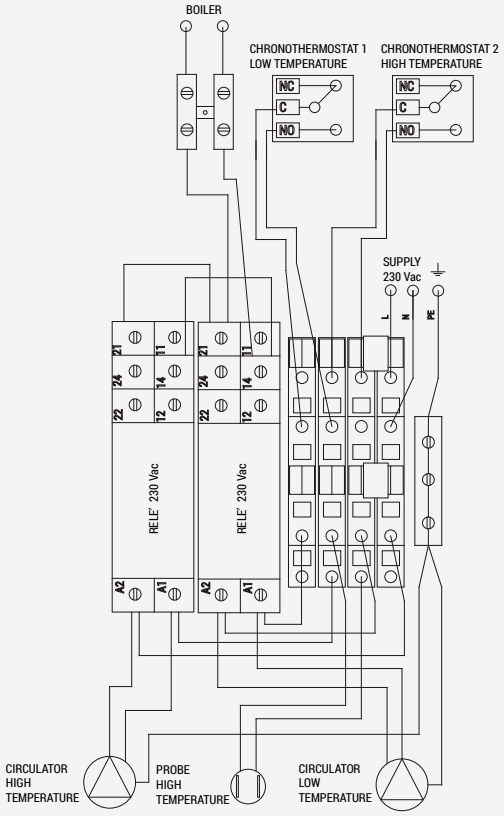


The mixing units operates as follows:

- the heating fluid from the centralized boiler room enters the unit (A);
- the hydraulic separator dynamically separates the primary and secondary flows;
- on the secondary flow, there are two sides with respective circulators on the delivery pipes.
  One of these sides is fitted with a mixing valve (mixed side), ideal for low-temperature radiant systems; the other side is a direct connection, and is ideal for connecting high-temperature radiators or fan-coil.

A	Primary circuit delivery
B	Primary circuit return
C	Secondary circuit delivery, direct side
D	Secondary circuit return, direct side
E	Secondary circuit delivery, mixed side
F	Secondary circuit return, mixed side

Installation and electric connections



- Install the group on the wall using expanding wall anchors that are suitable for the type of wall and weight of the equipment.
- Make the hydraulic connections to the systems (primary, direct secondary and mixed secondary).
- Make the electric connections of the components.

⚠ **WARNING.** The hydraulic and electric installation must be carried out by qualified personnel.

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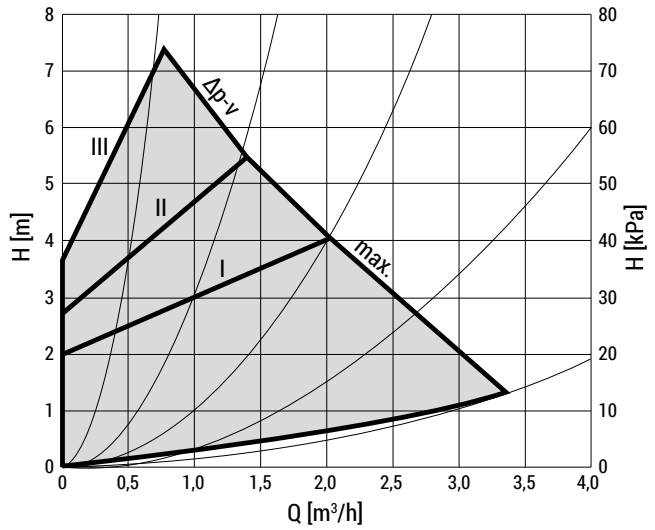
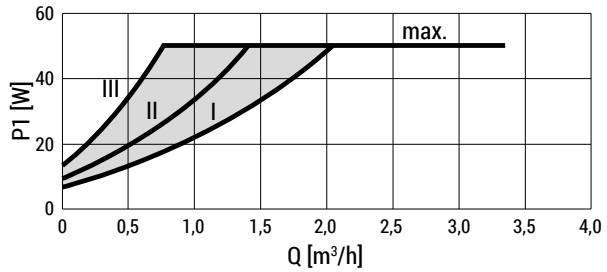
Circulators features

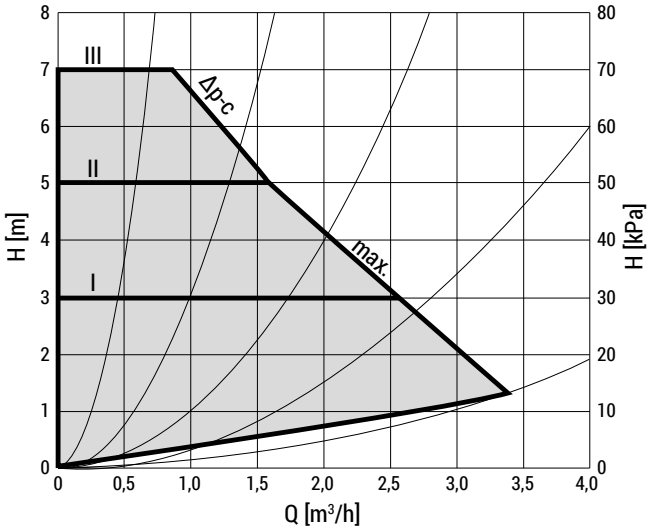
Variable differential pressure Δp-v (I, II, III)

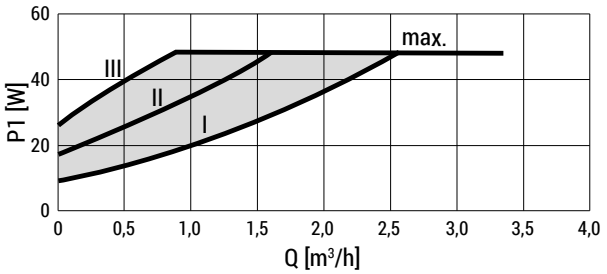




Recommended for two-pipe heating systems with radiators to reduce the flow noise at thermostatic valves. The pump reduces the delivery head to half in the case of decreasing volume flow in the pipe network. Electrical energy saving by adjusting the delivery head to the volume flow requirement and lower flow rates.
There are three pre-defined pump curves (I, II, III) to choose from.

Constant differential pressure Δp-c (I, II, III) [RECOMMENDED]





Recommended for underfloor heating for large-sized pipes or all applications without a variable pipe network curve (e.g. storage charge pumps), as well as single-pipe heating systems with radiators.
The control keeps the set delivery head constant irrespective of the pumped volume flow.
There are three pre-defined pump curves (I, II, III) to choose from.

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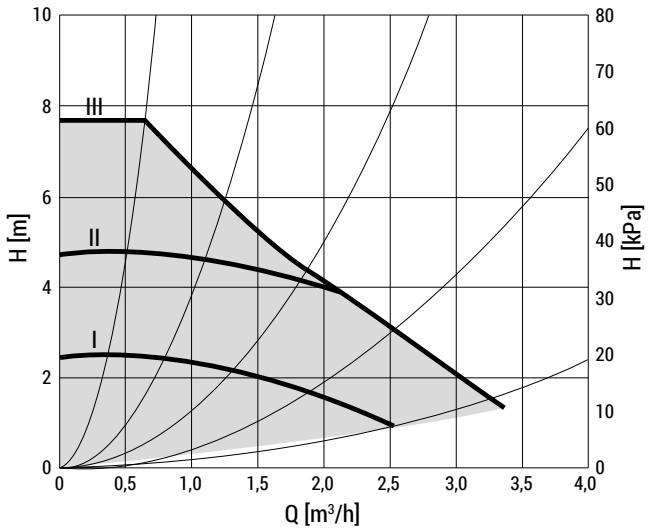
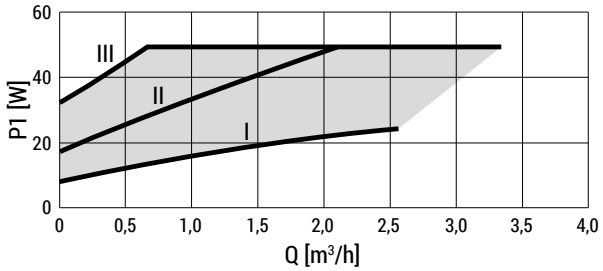
Constant speed (I, II, III) [FACTORY SETTING]





Recommended for systems with fixed system resistance requiring a constant volume flow. The pump runs in three prescribed fixed speed stages (I, II, III).

Fault signals

- The fault signal LED indicates a fault.
- The pump switches off (depending on the fault) and attempts a cyclical restart.

LED	Faults	Causes	Remedy
Lights up red	Blocking	Rotor blocked	Activate manual restart or contact customer service
	Contacting/winding	Winding defective	
Flashing red	Under/overvoltage	Power supply too low/high on mains side	Check mains voltage and operating conditions, and request customer service
	Excessive module temperature	Module interior too warm	
	Short-circuit	Motor current too high	
Flashes red/ green	Generator operation	Water is flowing through the pump hydraulics, but there is no mains voltage at the pump	Check the mains voltage, water quantity/pressure and the ambient conditions
	Dry run	Air in the pump	
	Overload	Sluggish motor, pump is operated outside of its specifications (e.g. high module temperature). The speed is lower than during normal operation	

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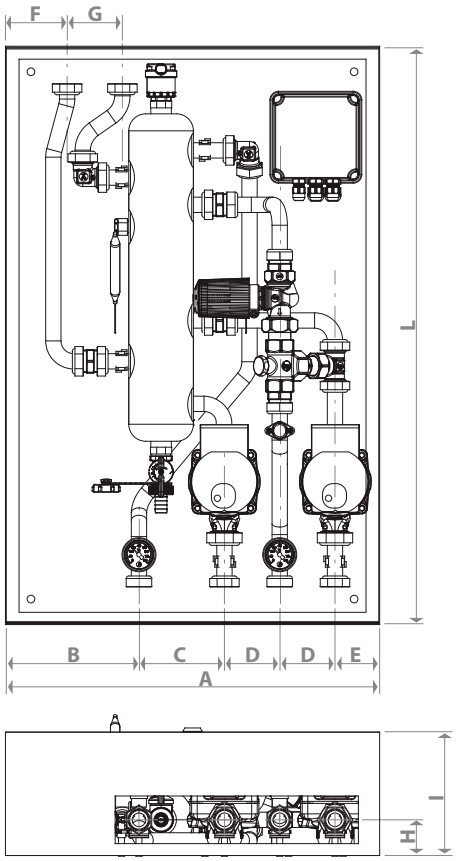
Dimensions



A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]
440	157	101	65	53	73	65	42	160	680

Product specifications

R586PY024

Mixing unit to manage the heating functions in ceiling or radiant floor systems. Primary and secondary circuits connections: 3/4"F. Primary circuit flow rate: 1÷3 m³/h. Secondary circuit flow rate: 0,5÷1,5 m³/h. Self-modulating circulators 15/7, centre distance 130 mm, complying with ErP 2009/125/CE directive. Thermostatic mixing valve R462L: range 20÷70 °C. Temperature range: 5÷90 °C. Max. working pressure: 6 bar. Power supply: 230 V, 50 Hz.

R586PY025

Mixing unit to manage the heating functions in ceiling or radiant floor systems. Primary and secondary circuits connections: 3/4"F. Primary circuit flow rate: 1÷3 m³/h. Secondary circuit flow rate: 0,5÷1,5 m³/h. Self-modulating circulators 15/7, centre distance 130 mm, complying with ErP 2009/125/CE directive. Temperature range: 5÷90 °C. Max. working pressure: 6 bar. Power supply: 230 V, 50 Hz.

R586PY026

Mixing unit to manage the heating functions in ceiling or radiant floor systems. Primary and secondary circuits connections: 3/4"F. Primary circuit flow rate: 1÷3 m³/h. Secondary circuit flow rate: 0,5÷1,5 m³/h. Self-modulating circulators 15/7, centre distance 130 mm, complying with ErP 2009/125/CE directive. Mixing valve with 3-point floating actuator included. Temperature range: 5÷90 °C. Max. working pressure: 6 bar. Power supply: 230 V, 50 Hz.

Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

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Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.

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