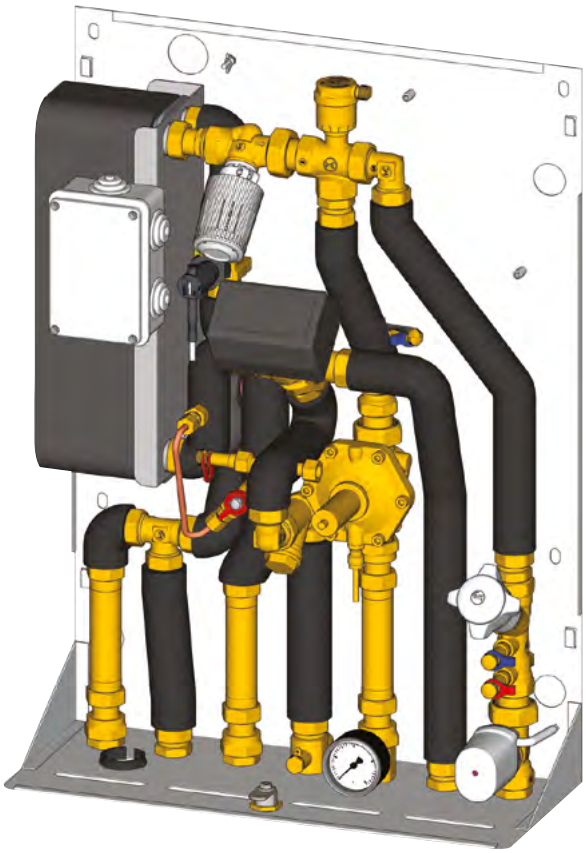
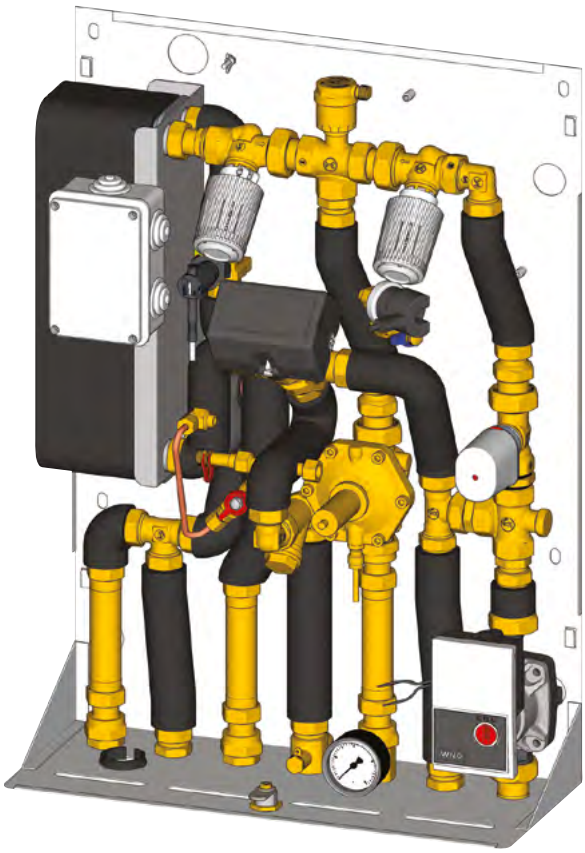


GE556Y320 - GE556Y321
(High temperature)



GE556Y322 - GE556Y323
(Low temperature)

Index

1. General information

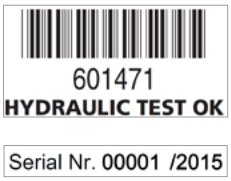
GE556Y320, 321, 322 and 323 HIUs enable metering thermal energy consumptions when heating and the production of Domestic Hot Water (DHW) in modern autonomous systems with heat centralized production (eg. teleheating).
HIUs are controlled thermostatically by means of a 3-way priority valve.
Thermostatic control provides for the lowest return temperature when producing hot water.

1.1 Warnings

- Installation must be carried out by qualified personnel authorized by the building administration body. Comply with the regulations in terms of use (installation, fitting, etc...), operation, re-gauging and replacement of metering units. Also refer to assembly instructions included with every metering unit.
- Risk of scalds and electric shocks. Only qualified personnel authorized by the building administration body should access the HIU. Misuse may cause serious injuries to people and damage the system.
- An excessive temperature of the Domestic Hot Water may cause scalds to people; too cold water may lead to undesired bacterial growth within the hot water system.
- Some HIU parts may overheat, do not touch them.
- Before connecting the HIU to the power line, make sure it has been properly filled with water. Starting the HIU without water inside may damage the circulator and the HIU.
- When starting up the HIU, make sure no one uses the system water till the water temperature has been adjusted in order to prevent scalds.
- To prevent polluting agents from entering the system, first open the primary circuit valves and then the return valves when starting up the HIU. Open the valves slowly to prevent pressure peaks.
- Do not cut off the electric power from the control panel. This may damage the circulator, the valve actuators, etc...
- The cleaning frequency of the sanitary water exchanger strongly depends on the hardness of the supply Domestic Cold Water.
- With water hardness values higher than 15°f we recommend using anti-scaling devices to be selected based on water characteristics.
- To enhance the resistance to limestone crusting, we recommend adjusting the sanitary water temperature at a value very close to the value of actual use.
- When installing the HIU to control a low temperature zone, include a low-temperature safety thermostat on the controlled zone.
- Clean the sanitary water exchanger at the end of the first year; then, based on the limestone crusting status, this period can be extended to two years.
- The HIU can be used in closed boiler rooms for operation with non-aggressive fluids (water, glycol-based water in compliance with VDI 2035/ÖNORM 5195).
- The electrical installation must be done by qualified personnel, respecting the current legislation and Standards.

1.2 Versions and product codes

Product code	Type	Number of exchanger plates	Heating side power	DHW exchanger nominal power	Template with valves
GE556Y320	High temperature heating and DHW production	30 plates	21 kW	56 kW	GE551Y075
GE556Y321		40 plates		67 kW	
GE556Y322	Low temperature heating and DHW production	30 plates	10 kW	56 kW	
GE556Y323		40 plates		67 kW	



Warning.
- Every HIU includes:
  - a label with the HIU model identification data;
  - a label proving its compliance with electric and hydraulic tests;
- Every HIU is identified by a serial number both inside and on the packaging.

1.3 Completion codes

The components listed below may be installed on every HIU:
- Thermal energy meter series GE552
- Domestic Hot Water meter series GE552-2
- Template with 7 interception valves and 3/4" connections: code GE551Y075

1.4 Main characteristics

- Thermostatic regulation to control Domestic Hot Water temperature and heating temperature.
- AISI 316L stainless steel 30 or 40 plates heat exchanger, insulated.
- Flow switch for DHW production priority.
- Motorized 3-way priority valve.
- Automatic air vent valve with hygroscopic plug, pressure gauge and filter on primary side.
- By-pass on primary side to keep the heat exchanger warm.
- Differential pressure control valve on primary side.
- Brass spacers to install energy and flow meters.
- Varnished metal sheet cabinet (RAL9010) with key lock.
- Safety valve with actuator on heating side.

GE556Y320-321 peculiarity
- Static balancing valve on heating circuit.

GE556Y322-323 peculiarity
- 15/6 - 130 mm electronic circulator.
- Safety pressure switch for low pressures.
- Thermostatic control of heating delivery temperature (23÷67 °C)

1.5 Technical data

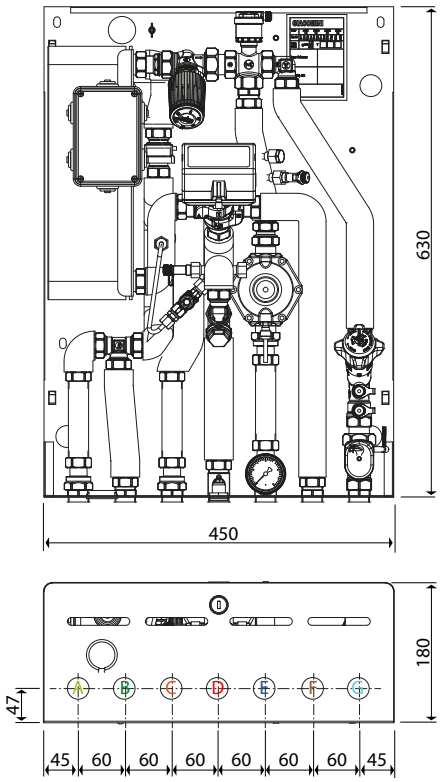
- Max. operation temperature: 90 °C
- Max. operation pressure: 10 bar

Warning.
Max. operation differential pressure for primary side = 2 bar (differential pressure control valve)

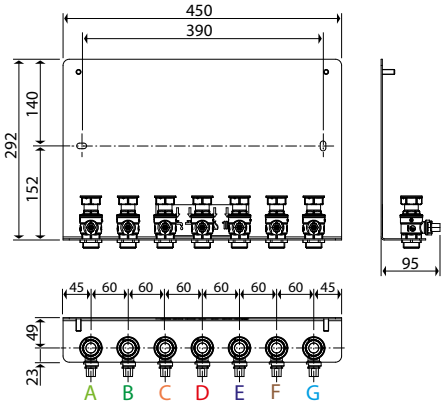
- DHW secondary circuit temperature range: 20÷70 °C (SET POINT 50°C)
- Primary nominal flow: 1130 l/h @ 70 °C for 56 kW (GE556Y320, GE556Y321)
  1280 l/h @ 70 °C for 67 kW (GE556Y322, GE556Y323)
- Power: 230 V; 50-60 Hz
- Weight: GE556Y320 ~22 kg
  GE556Y321 ~23 kg
  GE556Y322 ~25 kg
  GE556Y323 ~26,5 kg

1.6 Dimensions

GE556Y320-321 HIUs



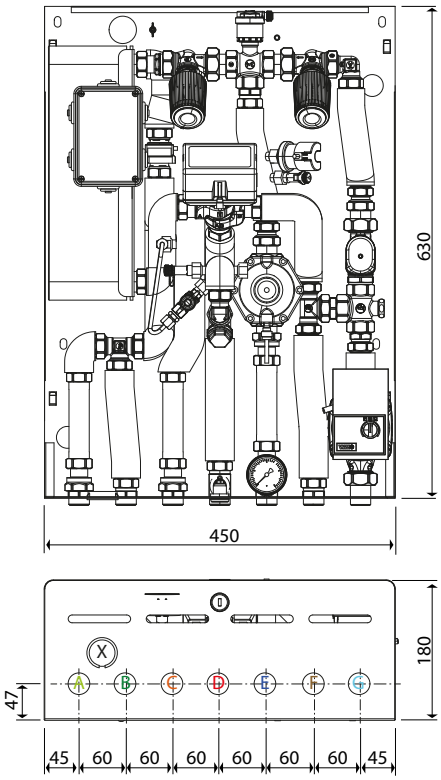
GE551Y075 templates



Legend

X: Cable cover
A: Domestic Cold Water inlet
B: Domestic Cold Water outlet
C: Domestic Hot Water outlet
D: Primary inlet
E: Primary outlet
F: Heating delivery circuit
G: Heating return circuit

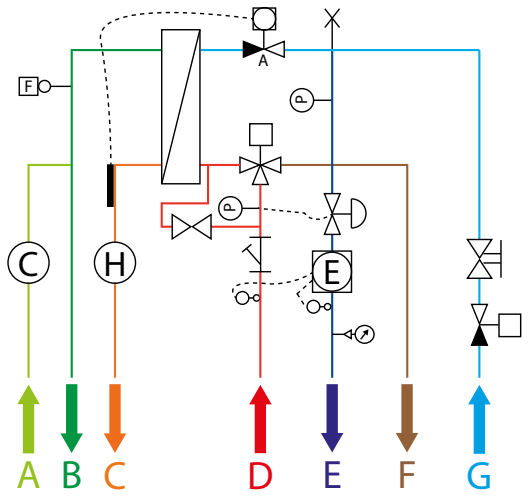
GE556Y322-323 HIUs



Dimensions mm

2. Operation

2.1 GE556Y320-GE556Y321 operation



Legend					
	Heat exchanger		Motorized 3-way priority valve		Differential pressure control valve (DPC)
C	Brass spacer for DCW flow meter		Differential pressure probe-holder	A	Thermostatic head for temperature control of sanitary side
H	Brass spacer for DHW flow meter		Filter		Air vent automatic valve
	Thermostatic head probe		Housing for thermal energy meter temperature probe		Motorized 2-way zone valve
F	Flow switch		Primary by-pass		Static balancing valve
	Pressure gauge	E	Brass spacer for thermal energy meter		

A: Domestic Cold Water inlet
B: Domestic Cold Water outlet
C: Domestic Hot Water outlet

D: Primary inlet
E: Primary outlet
F: Heating delivery circuit
G: Heating return circuit

Primary circuit

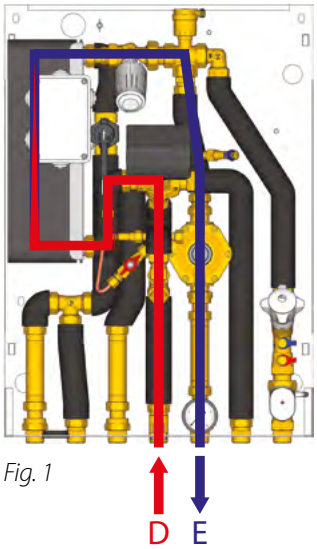


Fig. 1

Inlet (D) and return (E). The primary circuit includes a by-pass, an inspectionable filter, a differential pressure probe-holder, a motorized 3-way priority valve, an automatic air vent valve, a heat exchanger, a pressure gauge, a minimum pressure switch, a thermostatic head to control the sanitary water temperature and a differential pressure control valve (DPC).
The thermal energy meter can be installed in place of the brass spacer by inserting its temperature probe in the corresponding housing (Paragraph "3 Components - Housing for thermal energy unit temperature probe").

Heating circuit

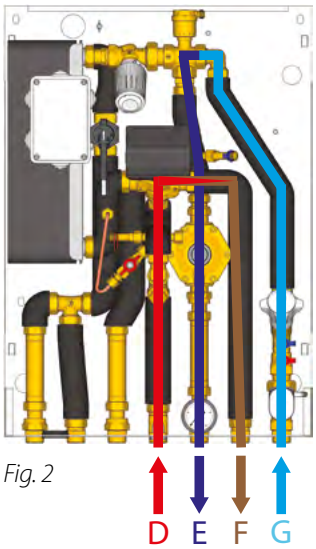


Fig. 2

Delivery (F) and return (G). The heating circuit includes a motorized 2-way zone valve working as thermal and electric safety device and a static balancing valve.

Domestic Hot Water

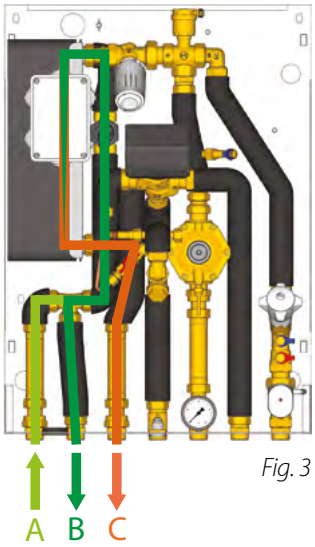


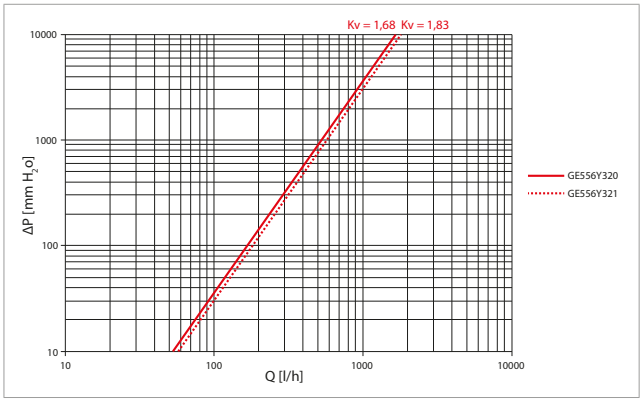
Fig. 3

Domestic Cold Water inlet (A), Domestic Cold Water outlet (B) and Domestic Hot Water outlet (C).
The DHW circuit includes a flow switch, a heat exchanger and brass spacers to install the DHW and DCW flow meters.

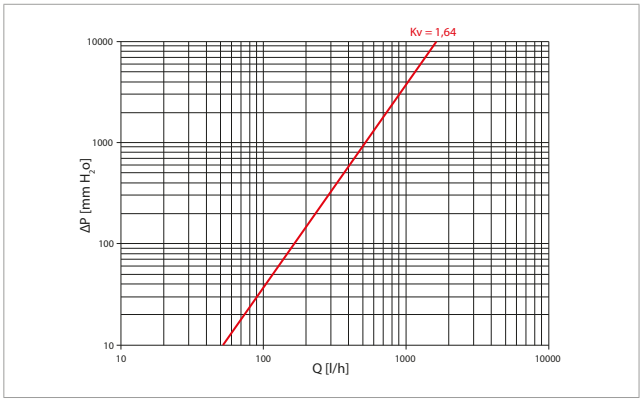
2.1.1 GE556Y320-GE556Y321 operational data

Note.
Operational data valid for differential pressure of the control valve set at 50 kPa.

Primary circuit

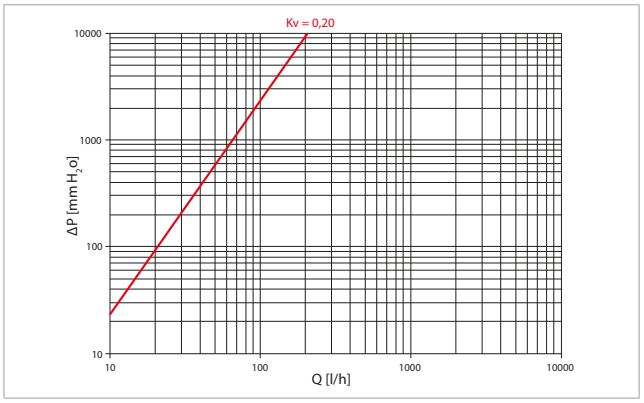


Primary circuit for DHW production (see fig.1)



Heating primary circuit - Dynamic balancing valve fully open (see fig.2)

Primary circuit by-pass



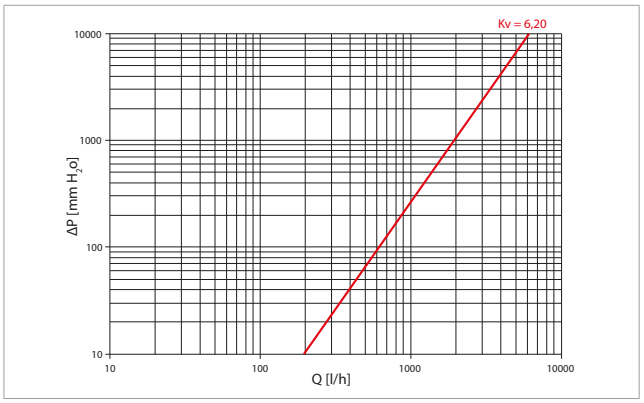
Primary circuit by-pass

Heating

Nominal flow rate high temperature heating circuit:
540 l/h @ ΔT 15 °C (65-50 °C) for 9,5 kW
1200 l/h @ ΔT 15 °C (65-50 °C) for 21 kW

410 l/h @ ΔT 20 °C (70-50 °C) for 9,5 kW
910 l/h @ ΔT 20 °C (70-50 °C) for 21 kW

DCW production

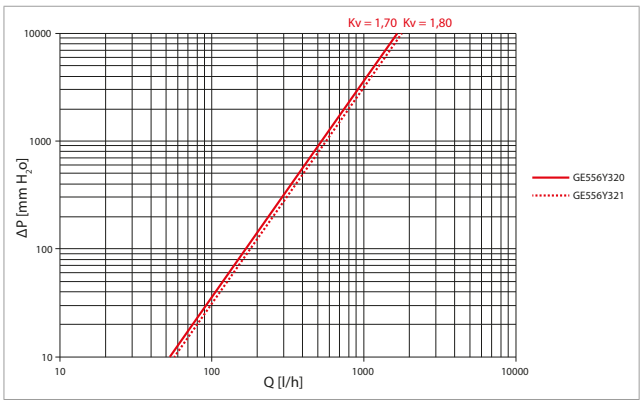


Domestic Cold Water circuit (DCW)

DHW production

Domestic hot water GE556Y320 (Δt 10-50 °C)			Primary circuit working conditions		
Flow rate [l/min]	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
12	720	33,6	**70**	620	23
			65	730	25
15	900	42	**70**	800	24
			65	940	26
17	1020	47,6	**70**	940	26
			65	1090	27
20	1200	56	**70**	1130	27

Domestic hot water GE556Y321 (Δt 10-50 °C)			Primary circuit working conditions		
Flow rate [l/min]	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
12	720	33,5	**70**	580	20
			65	670	22
15	900	42	**70**	750	22
			65	880	24
17	1020	47,5	**70**	880	23,5
			65	1020	25
20	1200	56	**70**	1050	24,2
			65	1230	26
22	1320	61,5	**70**	1160	24,6
24	1440	67	**70**	1280	25

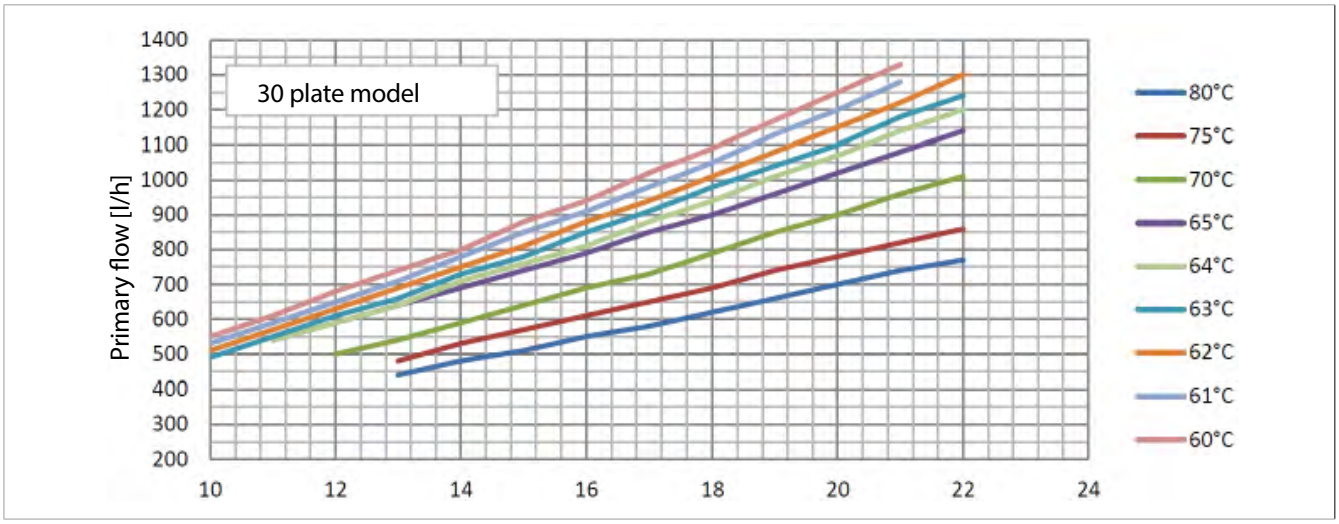


Domestic Hot Water circuit (DHW)

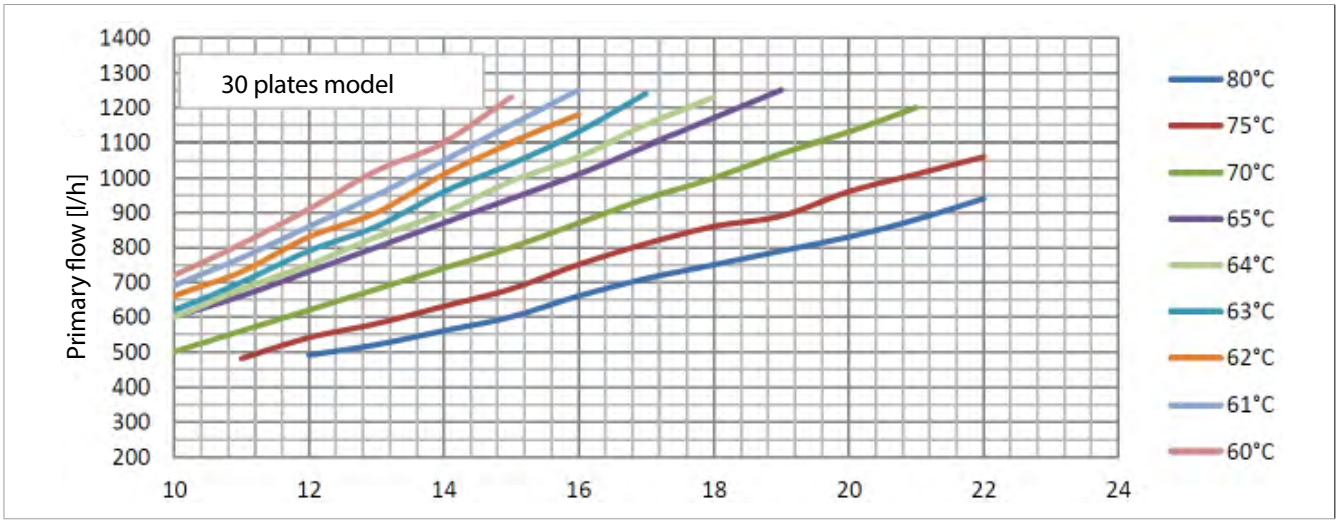
Note.
For regulation of static balancing valves and differential pressure control valves (Paragraph "5 HIU setting").

2.1.2 GE556Y320-GE556Y321 energy saving characteristics

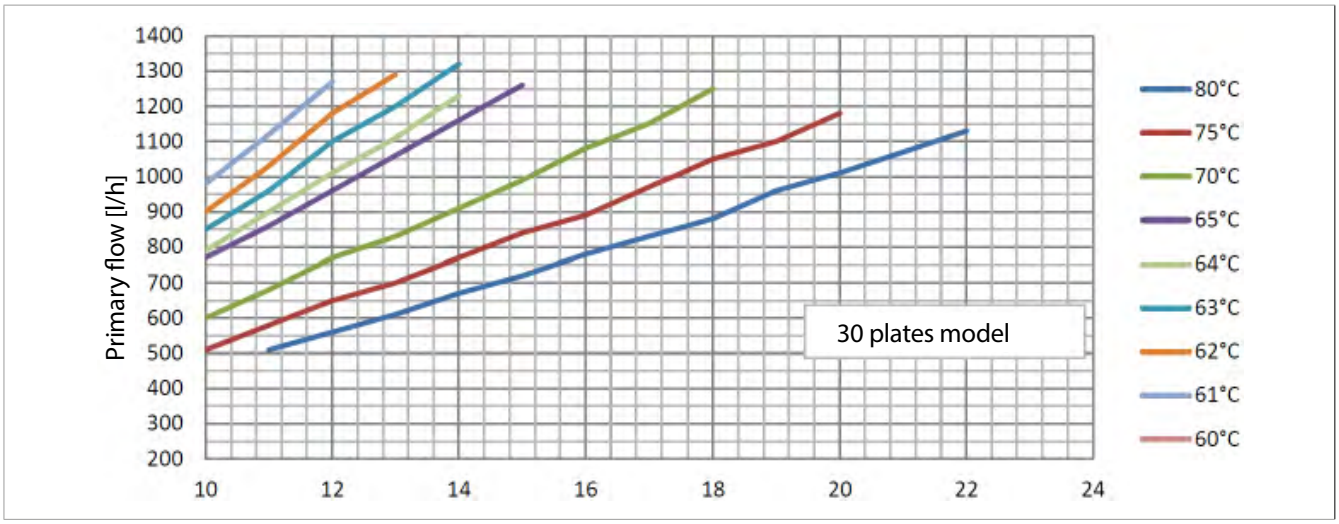
Hot water primary circuit flow based on DHW flow at 45 °C



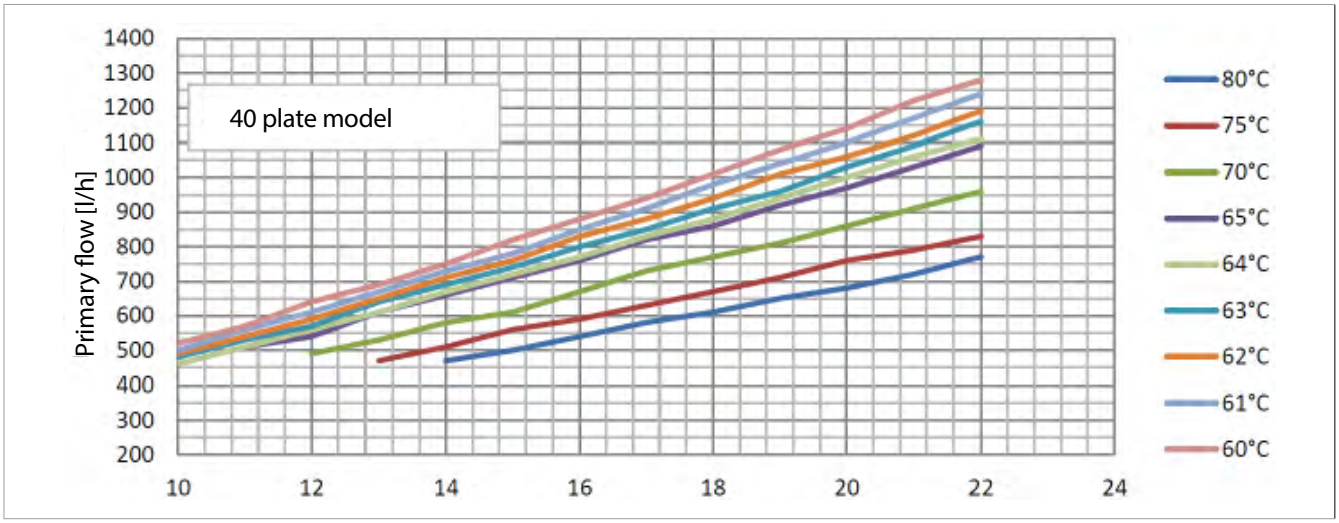
Hot water primary circuit flow based on DHW flow at 50 °C



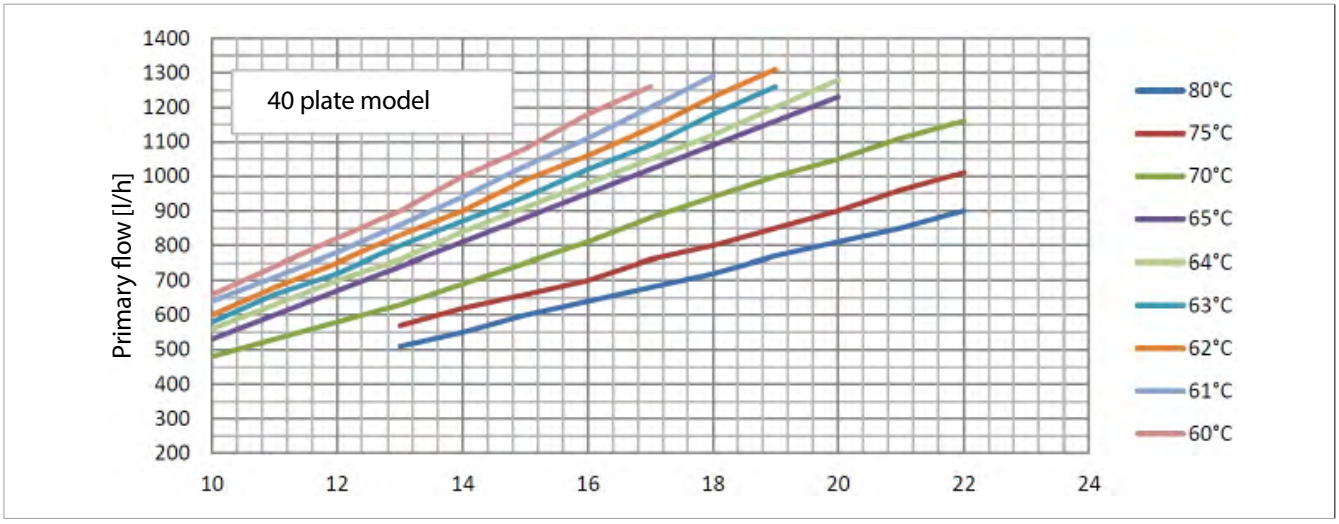
Hot water primary circuit flow based on DHW flow at 55 °C



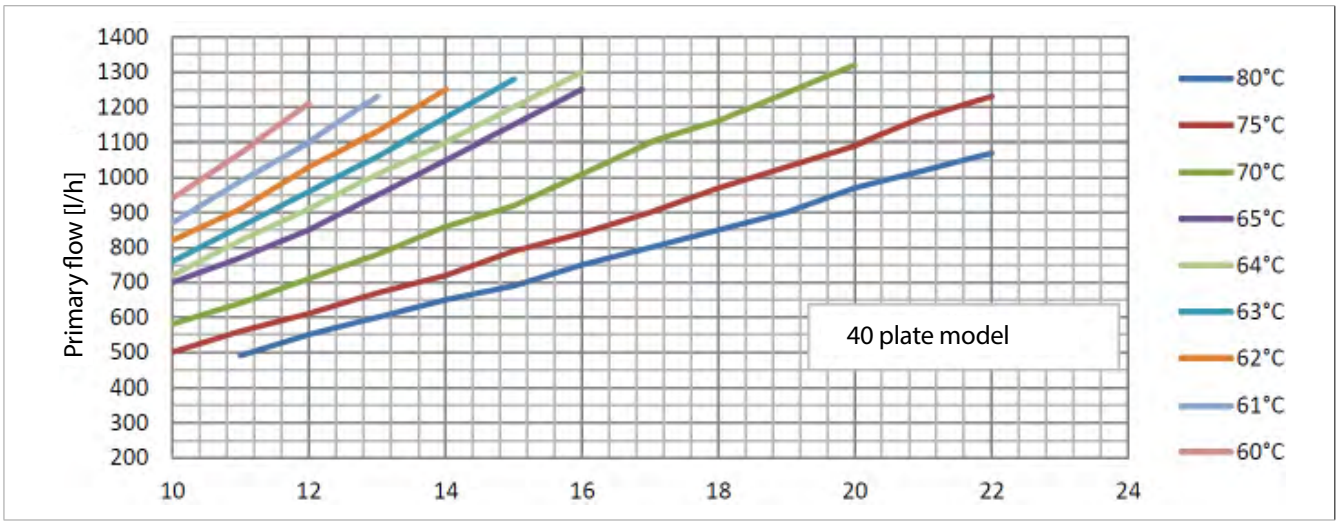
Hot water primary circuit flow based on DHW flow at 45 °C



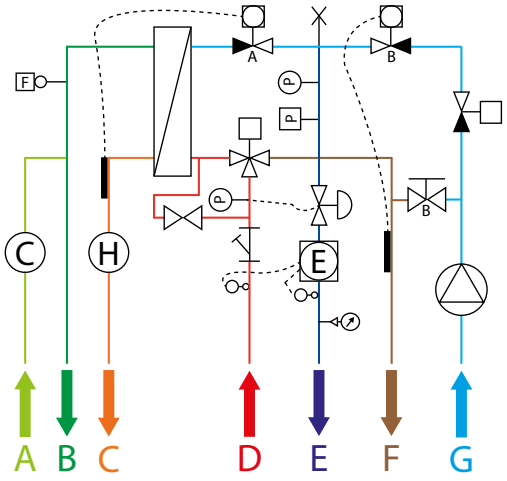
Hot water primary circuit flow based on DHW flow at 50 °C



Hot water primary circuit flow based on DHW flow at 55 °C



2.2 GE556Y322-GE556Y323 operation



Legend					
	Heat exchanger		Motorized 3-way priority valve		Differential pressure control valve (DPC)
C	Brass spacer for DCW flow meter		Differential pressure probe-holder	A	Thermostatic head for sanitary side temperature control
H	Brass spacer for DHW flow meter		Filter		Automatic air vent valve
	Thermostatic head probe		Housing for thermal energy meter temperature probe		Motorized 2-way zone valve
F	Flow switch		Primary by-pass	B	R462L thermostatic head
	Pressure gauge	E	Brass spacer for thermal energy meter	B	Heating lockshield valve
	Minimum pressure switch		Circulator		

A: Domestic Cold Water inlet
B: Domestic Cold Water outlet
C: Domestic Hot Water outlet

D: Primary inlet
E: Primary outlet
F: Heating delivery
G: Heating return

Primary circuit

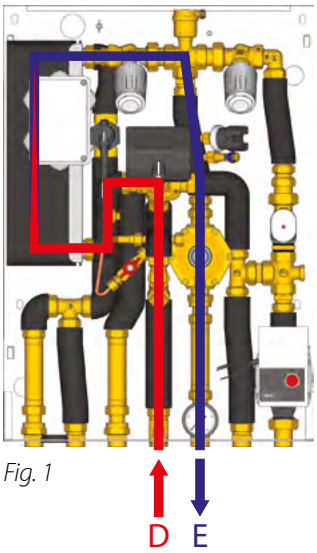


Fig. 1

Inlet (D) and return (E). The primary circuit includes a by-pass, an inspectionable filter, a differential pressure probe-holder, a motorized 3-way priority valve, an automatic air vent valve, a heat exchanger, a pressure gauge, a minimum pressure switch, a thermostatic head to control the sanitary water temperature and a differential pressure control valve (DPC).
The thermal energy metering unit can be installed in place of the brass spacer by inserting its temperature probe in the corresponding housing (Paragraph "3 Components - Housing for thermal energy meter temperature probe").

Heating circuit

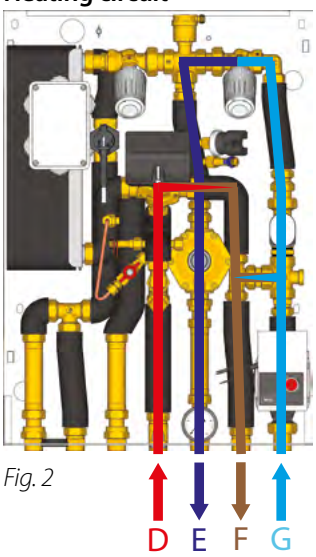


Fig. 2

Delivery (F) and return (G). The heating circuit includes a self-modulating circulator, a by-pass lockshield valve and a R462L thermostatic head to control the heating temperature.

Domestic Hot Water circuit

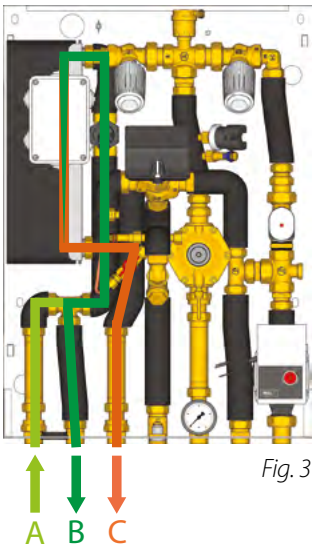


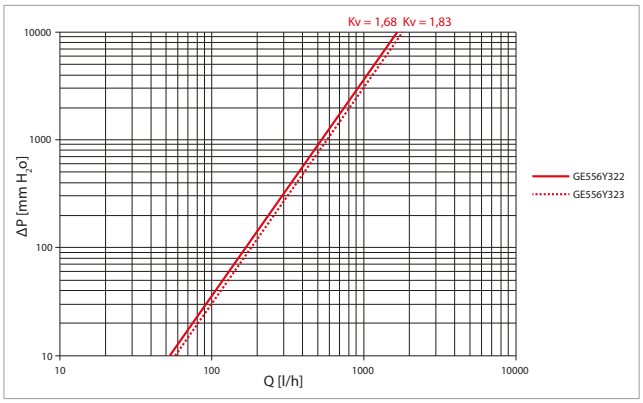
Fig. 3

Domestic Cold Water inlet (A), Domestic Cold Water outlet (B) and Domestic Hot Water outlet (C). The DHW circuit includes a flow switch, a heat exchanger and brass spacers to insert the DHW and DCW flow meters.

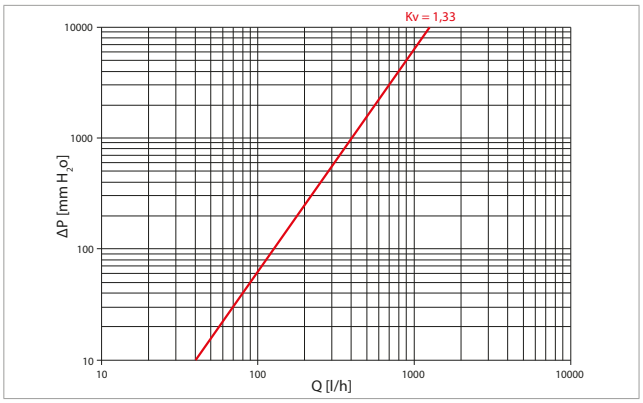
2.2.1 GE556Y322-GE556Y323 operational data

Note.
Operational data valid when setting the differential pressure control valve at 50 kPa.

Primary circuit

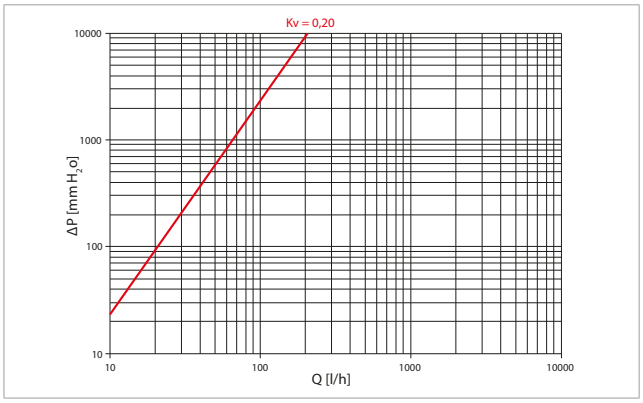


Primary circuit for DHW production (see fig.1)



Primary circuit for heating (see fig.2)

Primary circuit by-pass

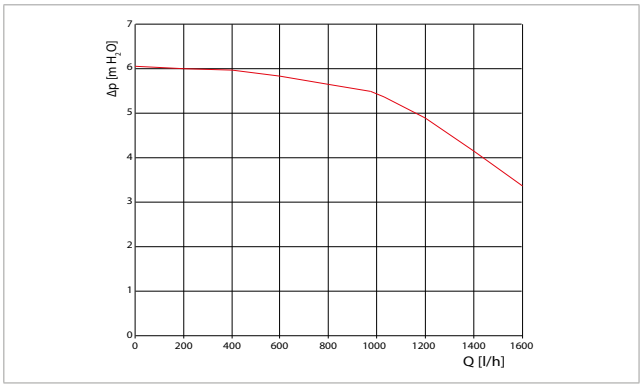


Primary circuit by-pass

Heating

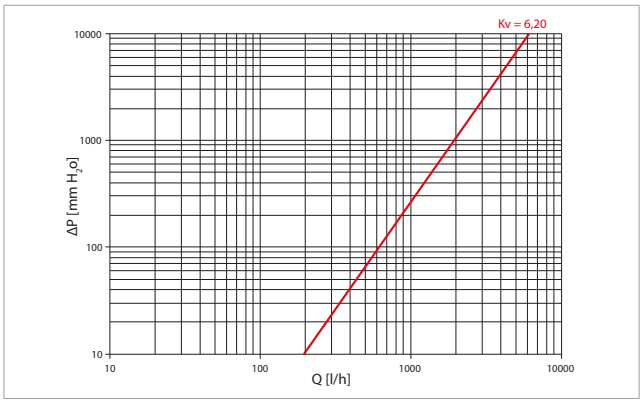
Heating GE556Y322/323 (Δt 45-39 °C)			Primary circuit working conditions		
Circulator speed	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
Max.	1200	10	70	280	39
			65	340	39

Heating GE556Y322/323 (Δt 35-30 °C)			Primary circuit working conditions		
Circulator speed	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
Max.	1500	8,8	70	190	30
			65	215	30



Circuit loss of pressure curve

DCW production

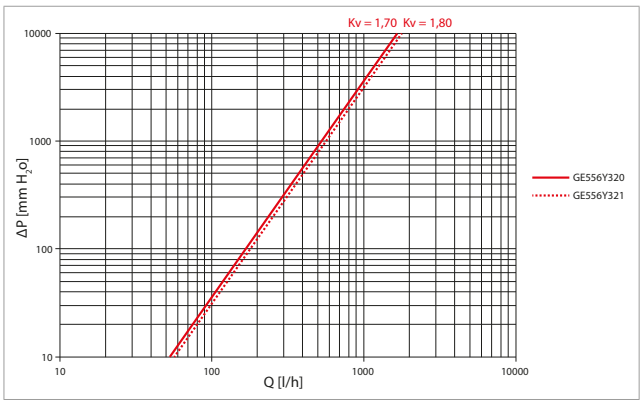


Domestic Cold Water circuit (DCW)

DHW production

Domestic hot water GE556Y320 (Δt 10-50 °C)			Primary circuit working conditions		
Flow rate [l/min]	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
12	720	33,6	**70**	620	23
			65	730	25
15	900	42	**70**	800	24
			65	940	26
17	1020	47,6	**70**	940	26
			65	1090	27
20	1200	56	**70**	1130	27

Domestic hot water GE556Y321 (Δt 10-50 °C)			Primary circuit working conditions		
Flow rate [l/min]	Flow rate [l/h]	Power [kW]	Inlet T [° C]	Flow rate [l/h]	Outlet T [° C]
12	720	33,5	**70**	580	20
			65	670	22
15	900	42	**70**	750	22
			65	880	24
17	1020	47,5	**70**	880	23,5
			65	1020	25
20	1200	56	**70**	1050	24,2
			65	1230	26
22	1320	61,5	**70**	1160	24,6
24	1440	67	**70**	1280	25

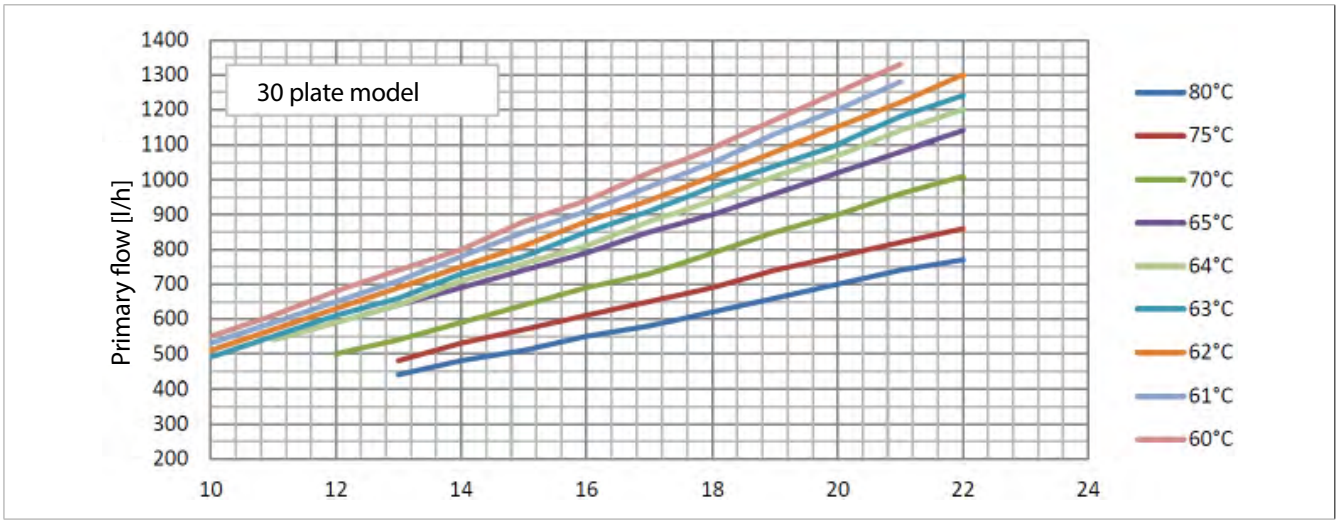


Domestic Hot Water circuit (DHW)

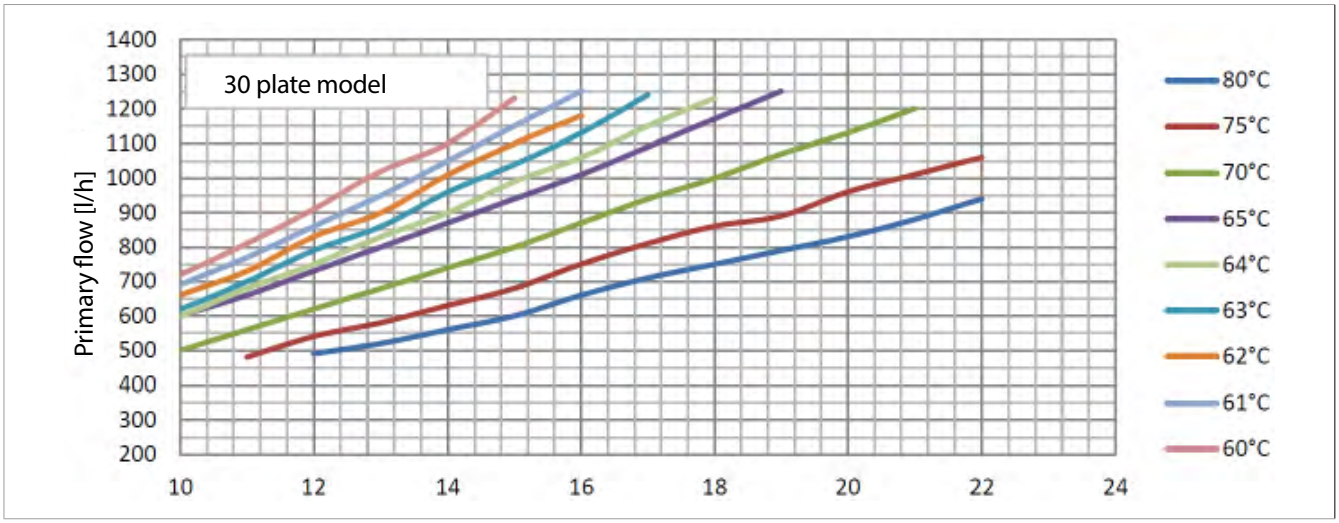
Note.
For regulation of static balancing valves and differential pressure control valves (Paragraph "5 HIU setting").

2.2.2 GE556Y322-GE556Y323 energy saving characteristics

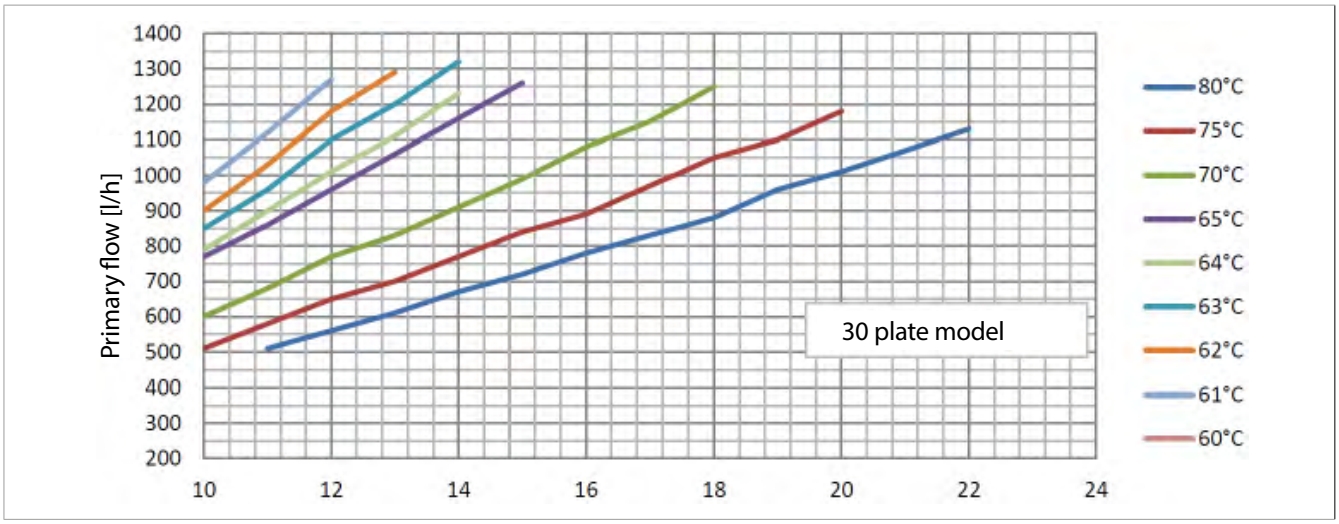
Hot water primary circuit flow rate based on DHW flow at 45 °C



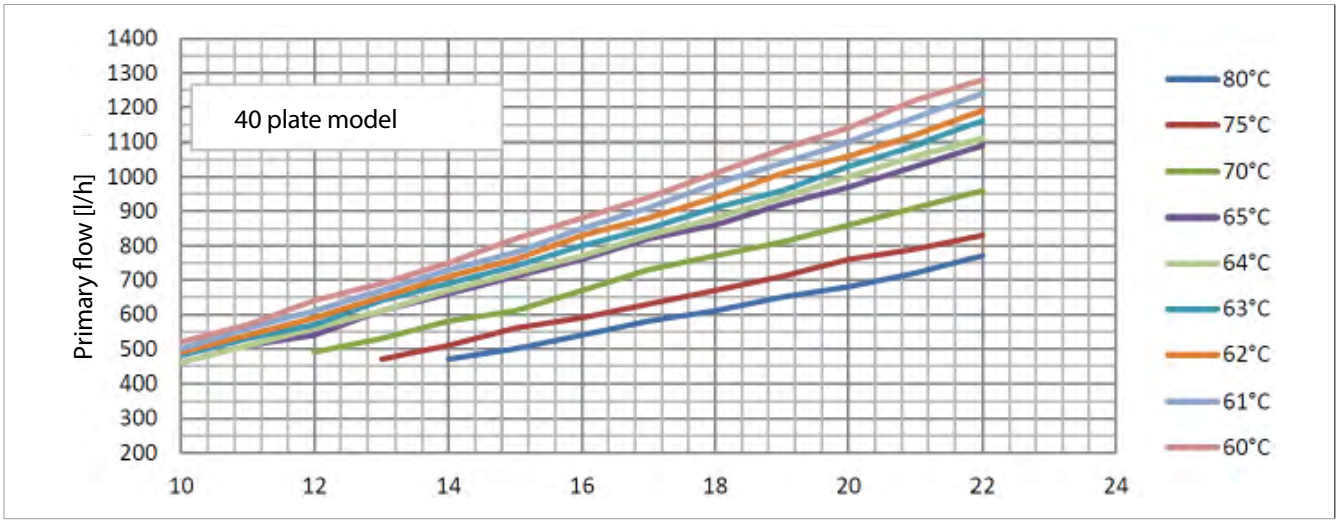
Hot water primary circuit flow rate based on DHW flow at 50 °C



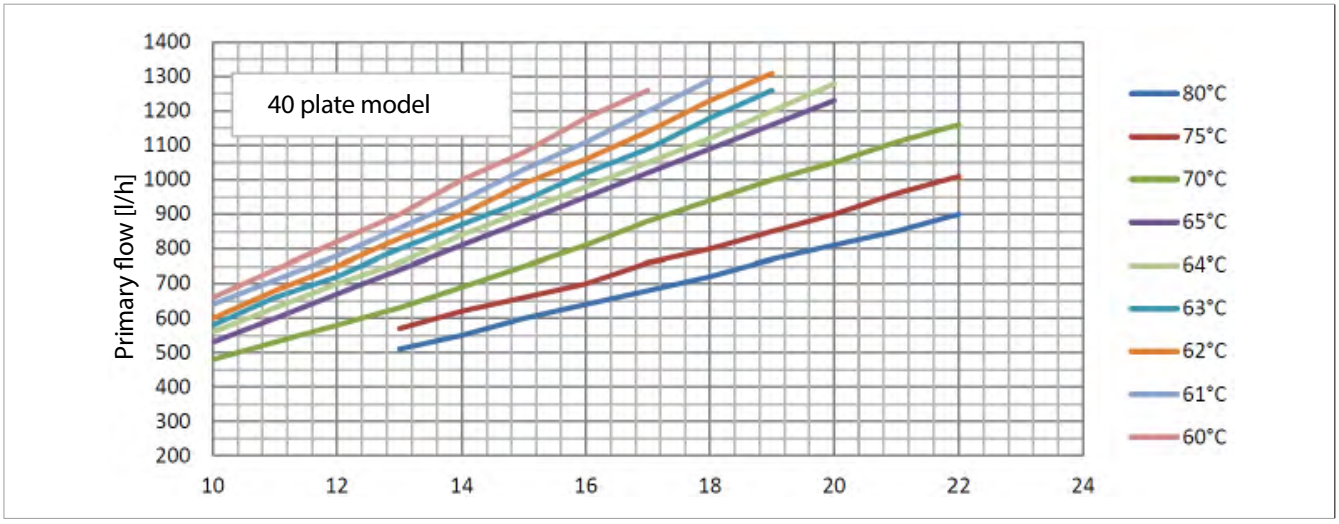
Hot water primary circuit flow rate based on DHW flow at 55 °C



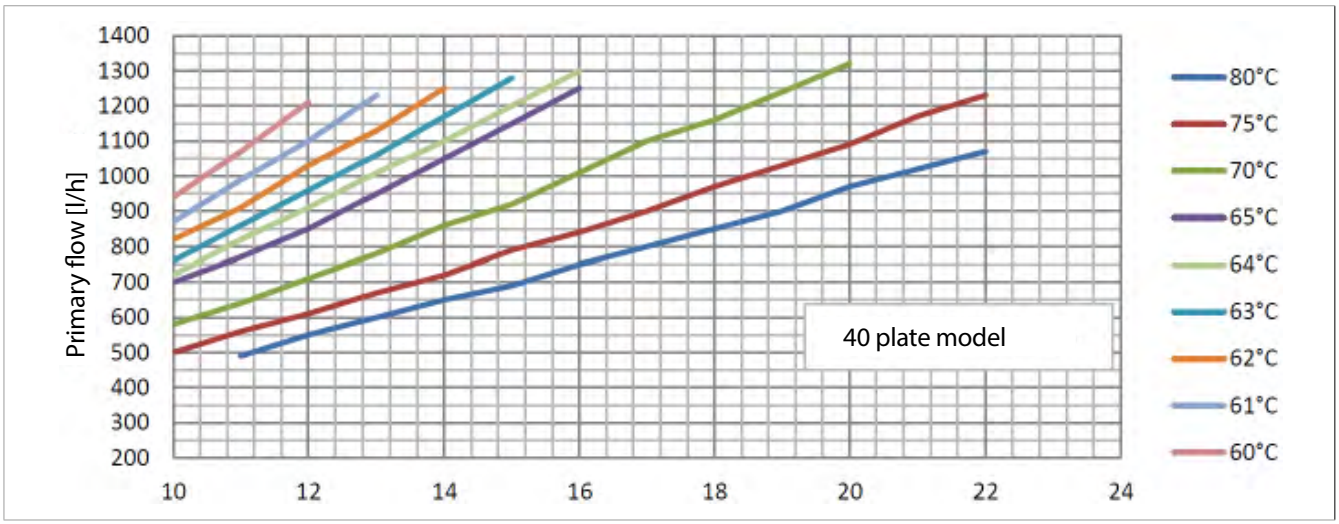
Hot water primary circuit flow rate based on DHW flow at 45 °C



Hot water primary circuit flow rate based on DHW flow at 50 °C

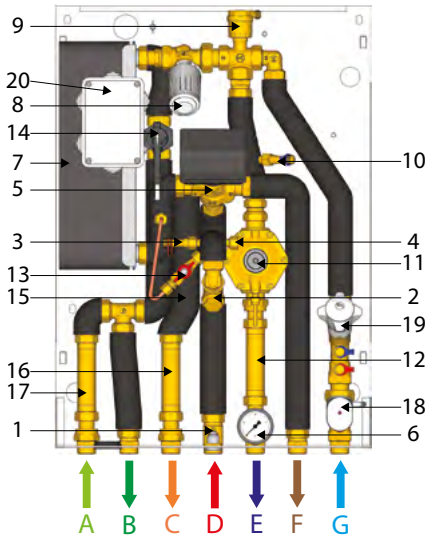


Hot water primary circuit flow rate based on DHW flow at 55 °C



3. Components

GE556Y320-GE556Y321

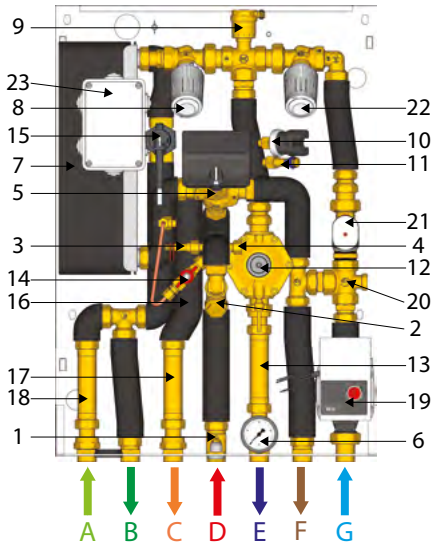


Legend		
1	Housing for thermal en. met. unit temp. probe	PRIMARY
2	Filter	
3	Differential pressure probe-holder	
4	Probe for differential pressure control valve	
5	Motorized 3-way priority valve for DHW function	
6	Pressure gauge	
7	Heat exchanger, DHW function	
8	Thermostatic head for sanitary side temperature control	
9	Automatic air vent valve	
10	Differential pressure probe holder	
11	Differential pressure control valve (DPC)	
12	Brass spacer for thermal energy meter	
13	Primary circuit by-pass	
14	Flow switch	DHW PRO-DUCTION
15	Thermostatic head probe	
16	Brass spacer for DHW meter	
17	Brass spacer for DCW meter	
18	Motorized 2-way zone valve	HEATING
19	Static balancing valve	
20	Electric cabinet	CONTROLS

A: DCW inlet
B: DCW outlet
C: DHW outlet

D: Primary inlet
E: Primary outlet
F: Heating delivery
G: Heating return

GE556Y322-GE556Y323



Legend		
1	Housing for thermal en. met. unit temp. probe	PRIMARY
2	Filter	
3	Differential pressure probe-holder	
4	Probe for differential pressure control valve	
5	Motorized 3-way priority valve for DHW function	
6	Pressure gauge	
7	Heat exchanger, DHW function	
8	Thermostatic head for sanitary side temperature control	
9	Automatic air vent valve	
10	Minimum pressure switch	
11	Differential pressure probe-holder	
12	Differential pressure control valve (DPC)	
13	Brass spacer for thermal energy meter	
14	Primary circuit by-pass	
15	Flow switch	DHW PRO-DUCTION
16	Thermostatic head probe	
17	Brass spacer for DHW meter	
18	Brass spacer for DCW meter	
19	Circulator	HEATING
20	Heating circuit lockshield valve	
21	Motorized 2-way zone valve	
22	R462L thermostatic head for heating temp. control	
23	Electric cabinet	CONTROLS

A: DCW inlet
B: DCW outlet
C: DHW outlet

D: Primary inlet
E: Primary outlet
F: Heating delivery
G: Heating return

4. Installation

4.1 Unpacking

• Remove the shipping packing, make sure the product is not damaged and that delivery has been carried out according to the agreed terms and conditions.
• When handling the HIU, the pipes and the exchanger should not be exposed to stress. Do not move the HIU holding it by the exchanger or pipes

4.2 Installation set up

• Make sure the primary circuit complies with the rules in force. The available differential pressure must be included between a minimum of 0,5 bar and a maximum of 2 bar. In case of higher pressure values, install a differential pressure controller.
• Wash the heating and Domestic Hot Water circuit.

4.3 Hydraulic system precautions

• Max. working temperature: 90 °C
• Primary circuit max. working pressure: 10 bar
• DHW secondary circuit max. working pressure: 10 bar

Warning.
Max. working differential pressure for primary side = 2 bar

4.4 Electric system precautions

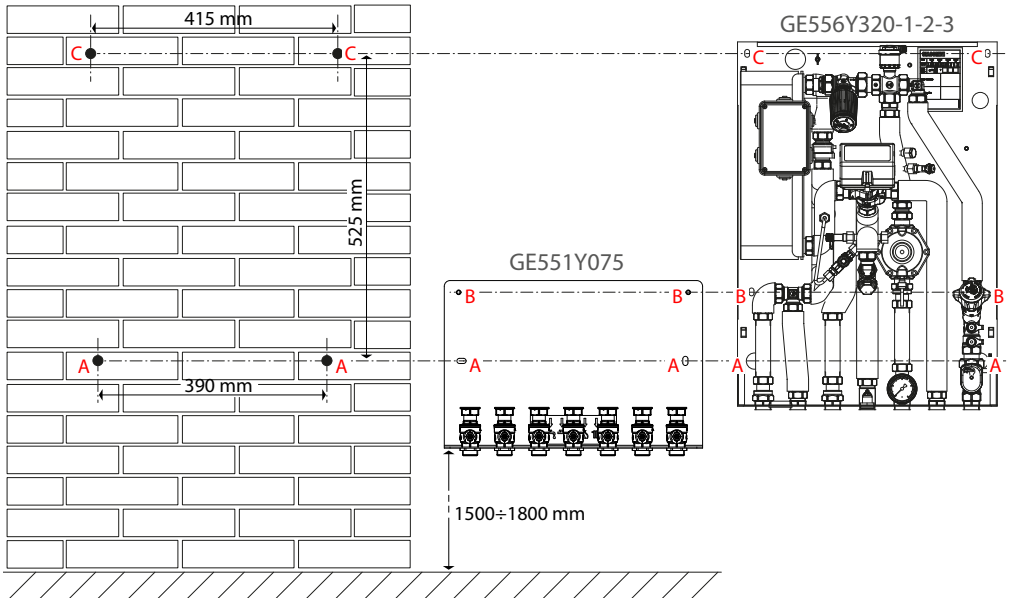
• Make sure the power voltage is 230 V and that the entire HIU is properly connected to the grounding network.
We recommend installing a 10 A magnetothermic differential switch to protect the HIU.

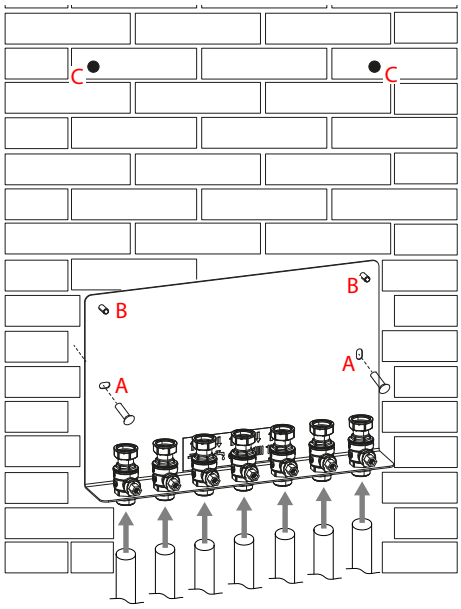
4.5 Template and HIU installation

Warning.
Hydraulic connection of heating, sanitary water and primary circuits should be carried out by qualified personnel and in compliance with the local or national rules and provisions in force.
We recommend installing a check valve on the sanitary water circuit inlet.

The HIU can be installed at any height however we recommend a distance of 1500÷1800 mm from the floor to the bottom edge of the HIU cover.

Before installing the template and the HIU on the wall, make 4 holes to fit them (A, C).
The holes must be suitable to fit the screw anchors properly.

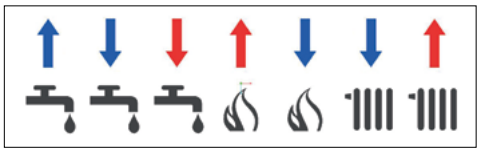




Install the GE551Y075 template on the wall using screw anchors fit for the type of wall and equipment weight (A).

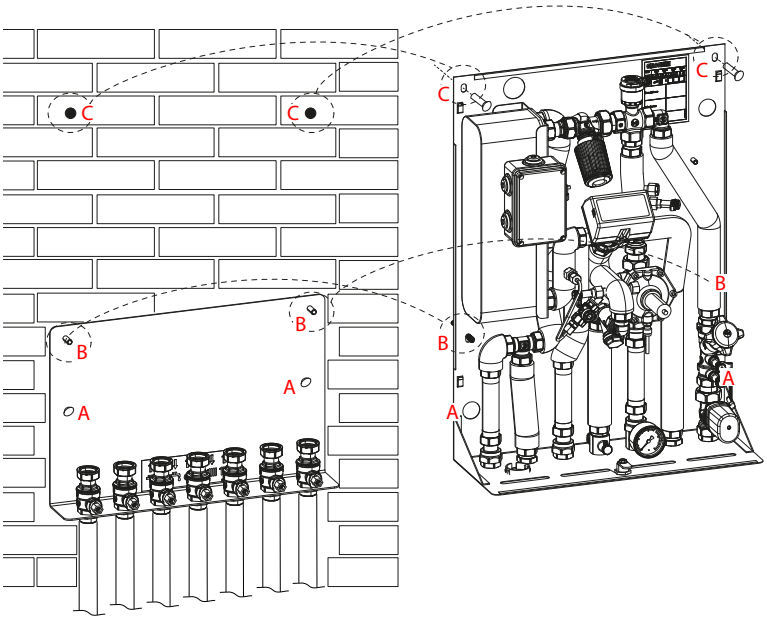
Install the ball valves in the corresponding template holes and tighten them with a wrench using the locknut.

Connect the system pipes to the ball valves with the 3/4"M template connections using proper adapters. For proper installation of the pipes, refer to the indications on the template label.

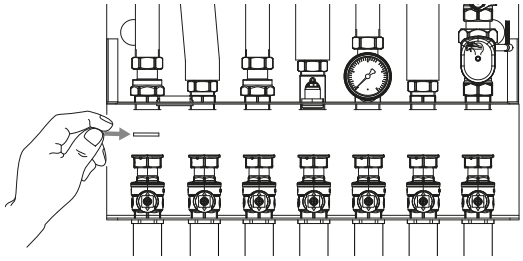


Warning.
Before installing the HIU, wash the system primary and secondary circuits.

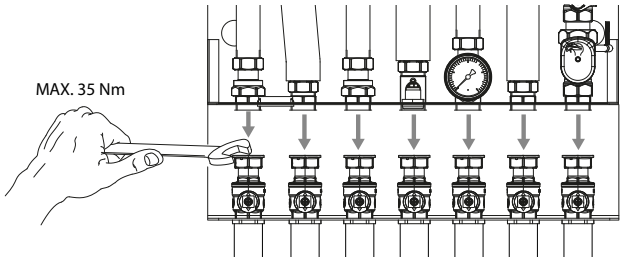
Warning.
Before connecting the template to the HIU, remove the lock nuts from the threaded connections.



Install the GE556Y320-321-322-323 HIU in the corresponding threaded pegs on the template (B) and lock it using the washers and nuts included with the template.
The HIU top must be locked to the wall using the holes (C) previously drilled and the screw anchors suitable for the type of wall and equipment weight.



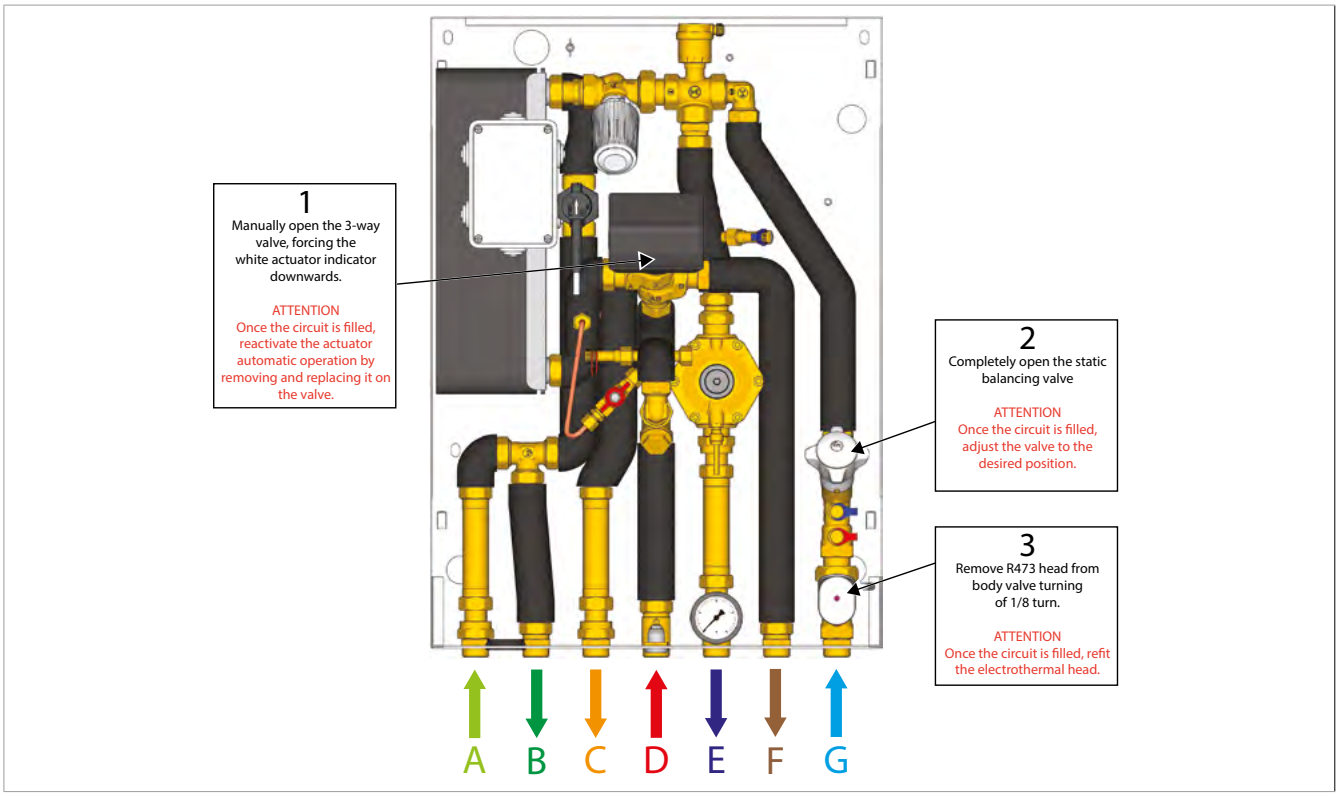
Before connecting the HIU to the template, fit the gaskets between the HIU connections and the template valve caps.



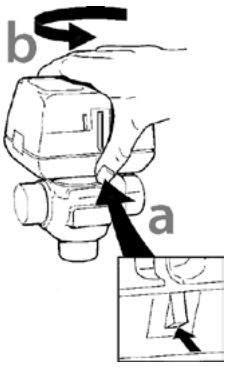
Tighten the template valve caps using a 35 Nm max. torque.

4.6 Start-up

4.6.1 GE556Y320-GE556Y321 start-up



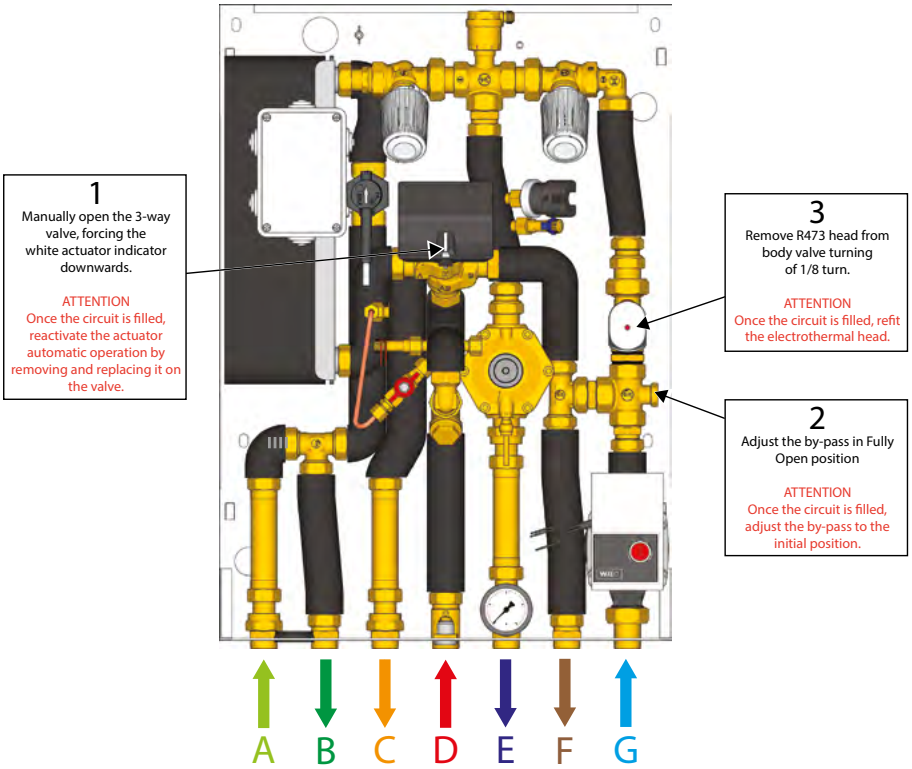
• Make sure the HIU is disconnected from main power.
• Force the 3-way diverter valve open by manually pushing the white actuator indicator downwards **(ref. 1)**.
• Make sure the static balancing valve is fully open **(ref. 2)**.
• Remove the electrical actuator from the valve body **(ref. 3)**.
• Open the Domestic Cold Water inlet **(ref. A)** to fill the sanitary water circuit.
• Open the sanitary hot and cold water circuits **(ref. B, C)** and open a faucet to make the water flow inside the exchanger.
• Open the primary circuit inlet **(ref. D)** and the other valves **(ref. E, F, G)** to fill the primary and heating circuits and make sure the pressure shown on the HIU pressure gauge is equivalent to the system pressure.
• When filling, the automatic air vent with hygroscopic disc ensures venting of the air inside the system.
• Keep the HIU pressurized and check visually any pressure loss at joints, glued components and even under the exchanger insulation.
• Re-tighten all connections, including those tightened in factory. If connections need to be retightened after starting up the HIU, decrease the system pressure before tightening. The gaskets may be damaged if the system pressure is not decreased.
• ATTENTION: After filling the system, reactivate the automatic operation of the actuator on the 3-way diverter valve.
To restore automatic operation, follow the steps below:



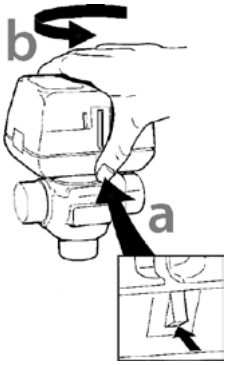
- Disconnect the Molex electric connector from the actuator to ease its rotation.
- The actuator is connected to the valve body, to remove it lift the locking mechanism directly under the manual opening lever **(ref. a)**.
- Push the actuator with your hand, without forcing it, towards the valve body while turning it in anticlockwise direction by 1/8 turn (45°) **(ref. b)**.
- Remove the actuator from the valve body.
- Reinstall the actuator in reverse order.
- Reconnect the Molex electric connector to the actuator.

• Complete the start-up procedure by connecting the power supply to the HIU (Paragraphs "4.8 HIU electric connections" and "4.10 Electric diagrams").

4.6.2 GE556Y322-GE556Y323 start-up



• Make sure the HIU is disconnected from main power.
• Force the 3-way diverter valve open by manually pushing the white actuator indicator downwards **(ref. 1)**.
• Make sure the heating circuit by-pass is fully open **(ref. 2)**.
• Remove the electrical actuator from the valve body **(ref. 3)**.
• Open the Domestic Cold Water inlet **(ref. A)** to fill the sanitary water circuit.
• Open the sanitary hot and cold water circuits **(ref. B, C)** and open a faucet to make the water flow inside the exchanger.
• Open the primary circuit inlet **(ref. D)** and the other valves **(ref. E, F, G)** to fill the primary and heating circuits and make sure the pressure shown on the HIU pressure gauge is equivalent to the system pressure.
• Keep the HIU pressurized and check visually any pressure loss at joints, glued components and even under the exchanger insulation.
• Re-tighten all connections, including those tightened in factory. If connections need to be retightened after starting up the HIU, decrease the system pressure before tightening. The gaskets may be damaged if the system pressure is not decreased.
• ATTENTION: After filling the system, reactivate the automatic operation of the actuator on the 3-way diverter valve.
To restore automatic operation, follow the steps below:



- Disconnect the Molex electric connector form the actuator to ease its rotation.
- The actuator is connected to the valve body, to remove it lift the locking mechanism directly under the manual opening lever **(ref. a)**.
- Push the actuator with your hand, without forcing it, towards the valve body while turning it in anticlockwise direction by 1/8 turn (45°) **(ref. b)**.
- Remove the actuator from the valve body.
- Reinstall the actuator in reverse order.
- Reconnect the Molex electric connector to the actuator.

• Complete the start-up procedure by connecting the power supply to the HIU (Paragraphs "4.8 HIU electric connections" and "4.10 Electric diagrams").

4.7 Flow and thermal energy meter installation

The flow and thermal energy meters must be installed according to the supplier's instructions and by replacing the spacers on the HIU (Paragraph "3 Components - Spacers for DHW and DCW flow meters; spacer for thermal energy meter").

4.8 HIU electric connections

The IP55 electric cabinet is in the left upper corner of the HIU (Paragraph "3. Components - Electric cabinet"). The 1,4 m-long electric power cable extending from the cabinet must be used to connect the HIU to the power network.
Make sure the entire HIU is properly connected to the grounding network. We recommend the installation of a 10A magnetothermal differential switch to protect the HIU (Paragraph "4.10 Electric diagrams").

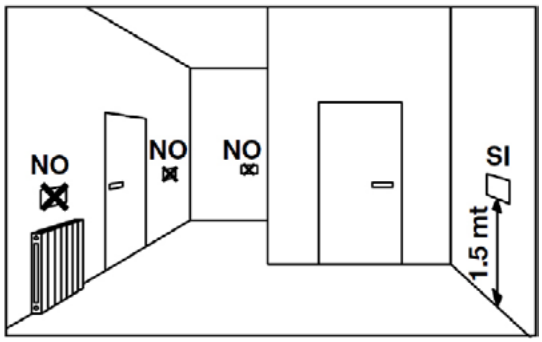
4.9 Thermostat electric connections

Warning.
Before connecting the thermostat, make sure the HIU can be used with the thermostat by referring to its user's manual.

4.9.1 General warnings

• Carefully read the warnings of the thermostat user's manual as they provide important information on use, installation and service safety.
• The system installation must comply to the safety rules in force.
• Service of the device must be carried out by a qualified support center authorized by the manufacturer.
• Failure to comply with the above warnings may compromise the device safety.
• When installed to control a low temperature zone, a low temperature safety thermostat should be installed on the controlled zone.
• The manufacturer is not liable for possible damages deriving from malfunctions, exceptional events, configuration errors, improper, erroneous and unreasonable use of the device.
• The manufacturer reserves the right to carry out modifications and any other operation deemed necessary for constant improvement of the product.

4.9.2 Positioning of thermostat

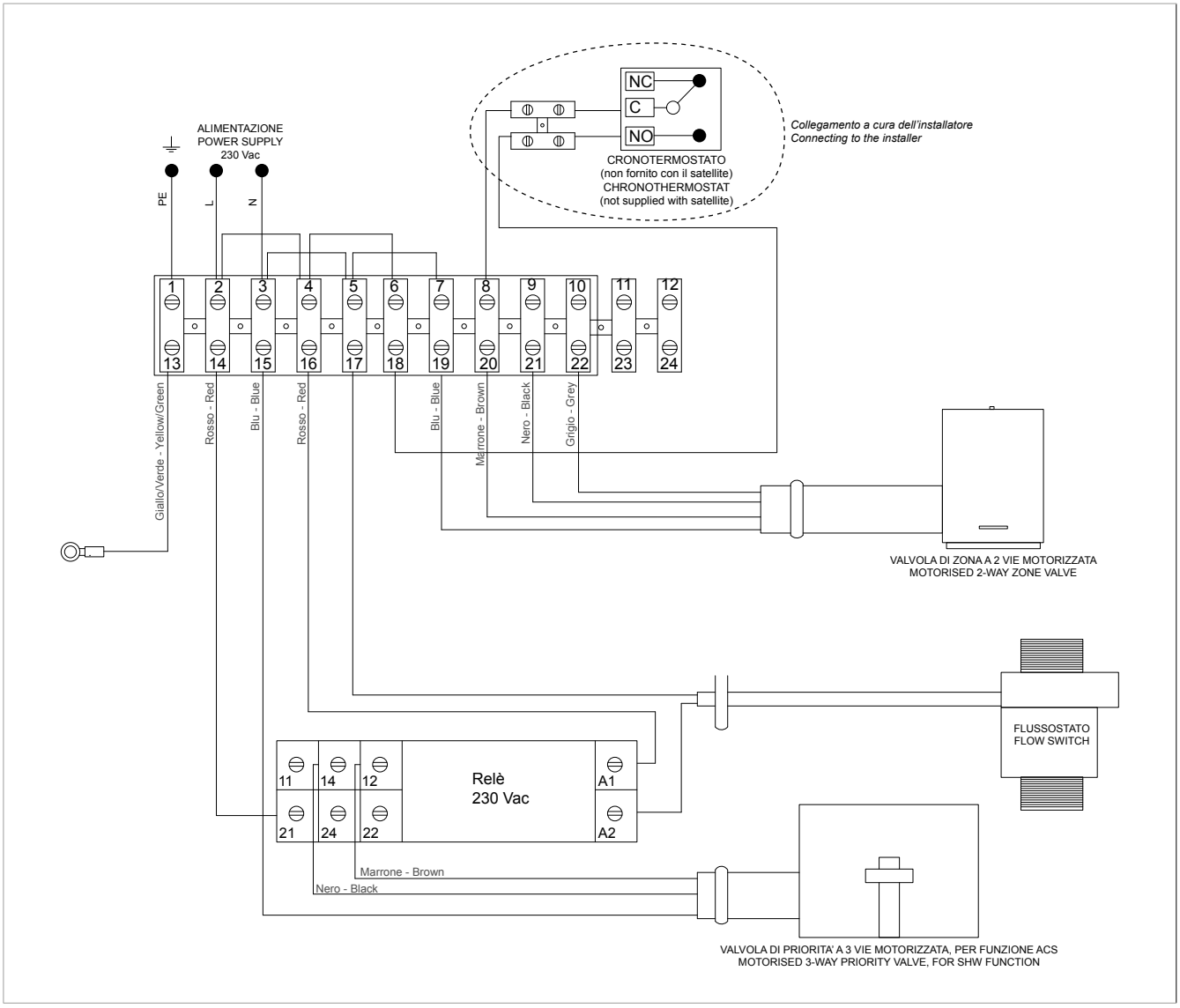


Only a qualified operator should install the thermostat. For proper installation, use a dedicated line to connect the thermostat according to the rules in force for electric systems. Should this be impracticable, possible interference from other electric wires may cause malfunctions to the thermostat. Install the thermostat at about 1,5 m from the floor and in a position suitable to correctly read the room temperature. Do not install it inside niches, behind doors and curtains, near heat sources, exposed to direct sunlight or water sprays. Make sure the HIU is disconnected from power supply before connecting the thermostat.

Note.
Connect the thermostat to the proper terminal wire extending from the electric box.
Protect the connection properly to prevent malfunctions.

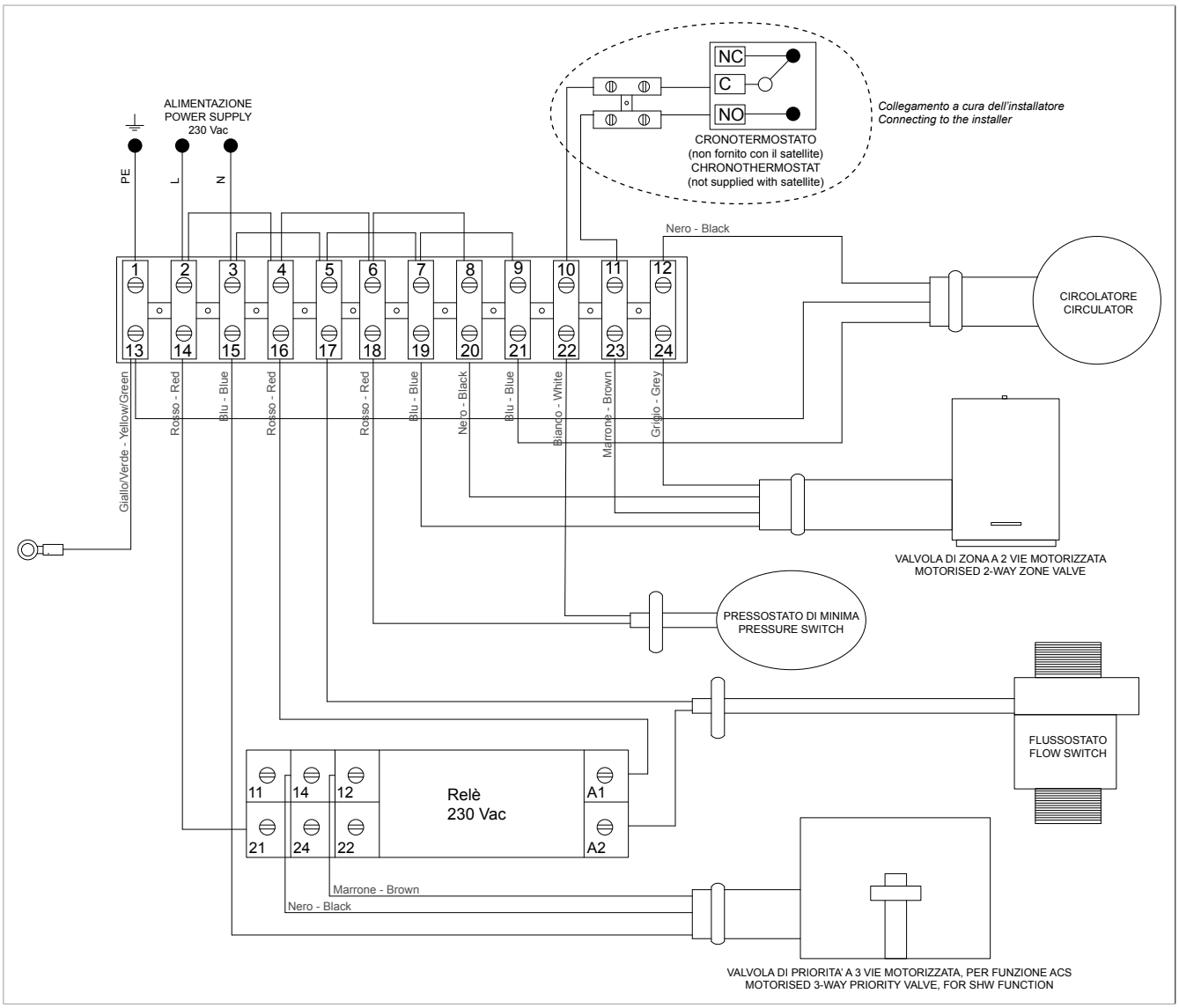
4.10 Electric diagrams

4.10.1 GE556Y320-GE556Y321 HIU electric diagrams



Note.
The diagram refers to connection of a battery-powered thermostat.

4.10.2 GE556Y322-GE556Y323 HIU electric diagrams



Note.
The diagram refers to connection of a battery-powered thermostat.

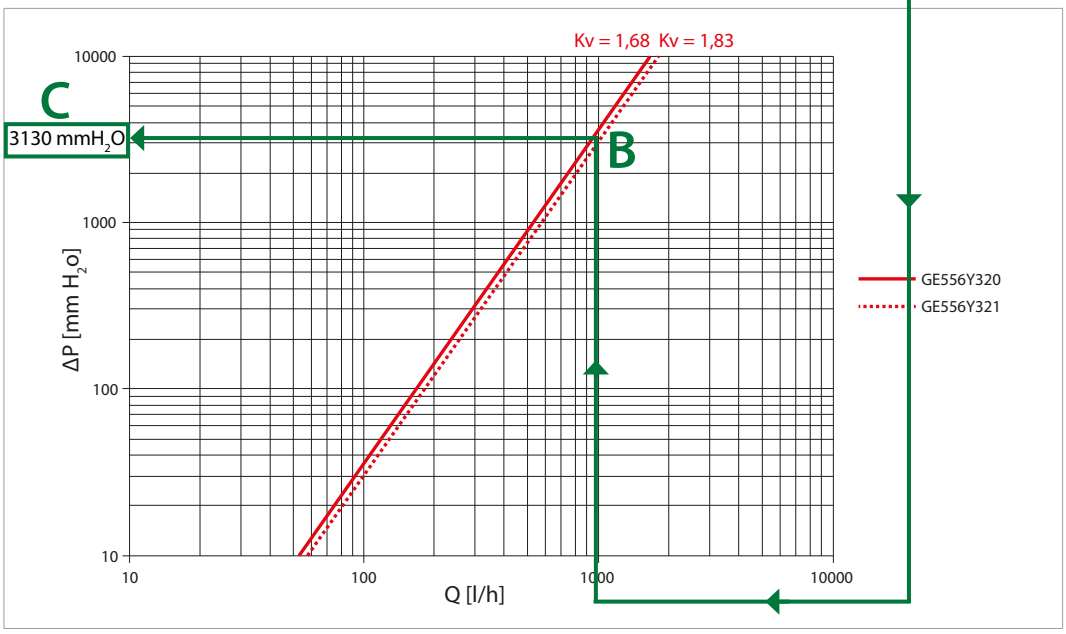
5. HIU setting

5.1 Setting of differential pressure control valve

The HIU is equipped with a differential pressure valve which maintains the differential pressure value constant under any operational conditions of the primary circuit.
The differential pressure control valve must be set based on the pressure losses inside the exchanger for the production of DHW and therefore based on the Kv of the primary circuit for the production of DHW (see example below).
Once selected the required primary flow rate (A), pinpoint it on the curve of the primary circuit Kv for the production of DHW (B).
Then intersect the Δp axis; the resulting value (C) shows the minimum setting value for the valve.

Example:
- *Required = 15 l/min*
- *DCW temperature = 10 °C*
- *DHW temperature = 50 °C*
- *Primary circuit outlet temperature = 65 °C*

GE556Y320 Domestic Hot Water			Flow rate [l/h] Primary circuit outlet temp. (DHW 10-50 °C)	
l/min	l/h	kW	70 °C	65 °C
12	720	33,6	620 l/h (23 °C)	730 l/h (25 °C)
15	900	42	800 l/h (24 °C)	940 l/h (26 °C)
17	1020	47,6	940 l/h (26 °C)	1090 l/h (27 °C)
20	1200	56	1130 l/h (27 °C)	-

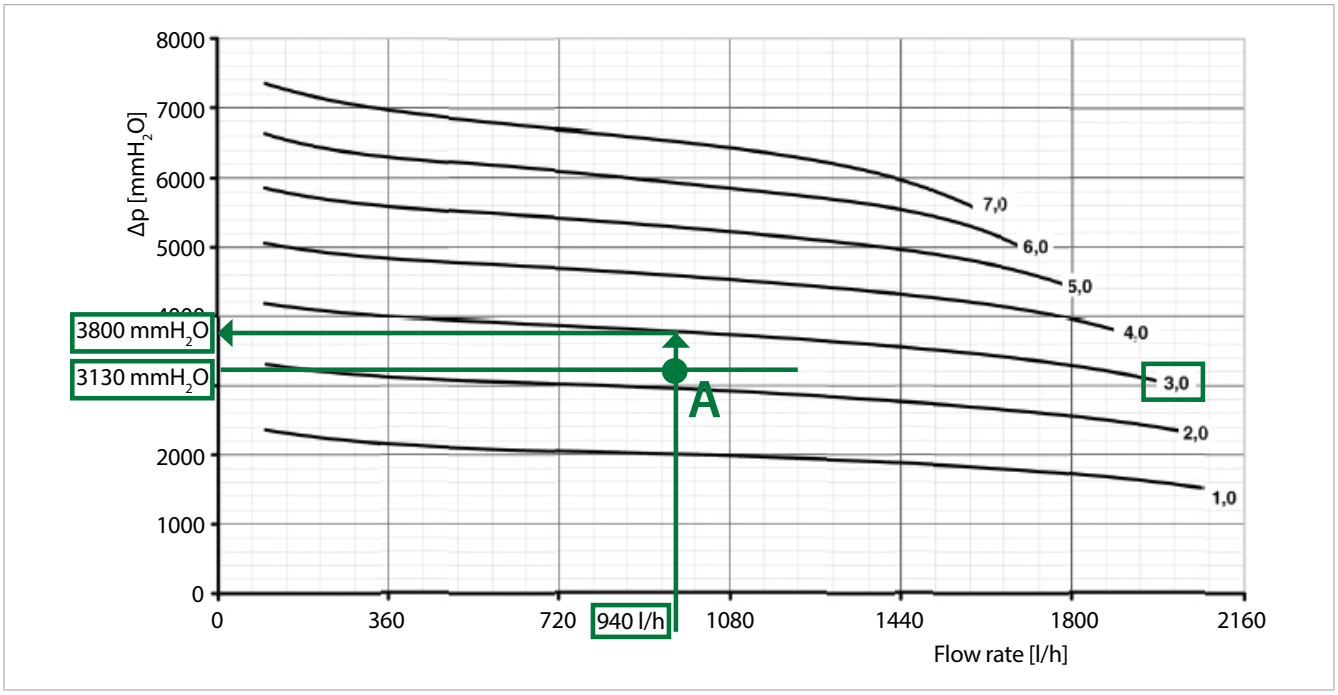


Primary circuit for DHW production

Setting diagram for differential pressure control valve

Proper setting of the differential pressure control valve may be identified on the diagram by intersecting the flow rate and minimum Δp data required to operate the HIU.
Once identified the intersection point of the two lines, use the valve setting value right above that point.

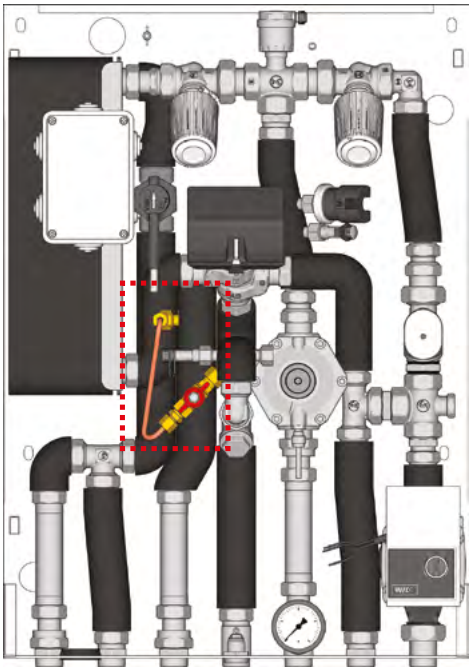
Example:
- *Flow rate: 940 l/h*
- *Δp: 3130 mmH$_2$O*
- *Intersection point: ref. A*
- *Setting value to be selected on the differential pressure control valve: 3.0 (3800 mmH$_2$O)*



valve setting diagram

5.2 Setting of primary circuit by-pass

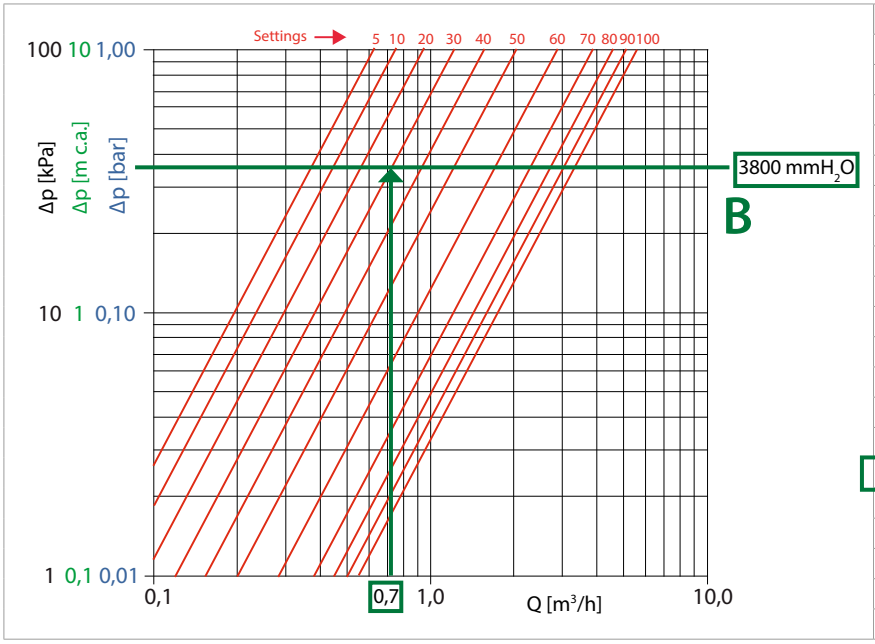
The HIU is equipped with a by-pass on the sanitary side of the primary circuit, interceptable by means of the ball valve.
The by-pass enables to maintain the temperature of the sanitary circuit exchanger also when the system is idle or when heating is active. Close the ball valve if this function is not required.



5.3 GE556Y320-GE556Y321: setting of static balancing valve

For GE556Y320-321HIUs, set the static balancing valve starting from the Δp value resulting from the value set on the differential pressure control valve (ref. B) to obtain the project flow rate for the heating circuit.

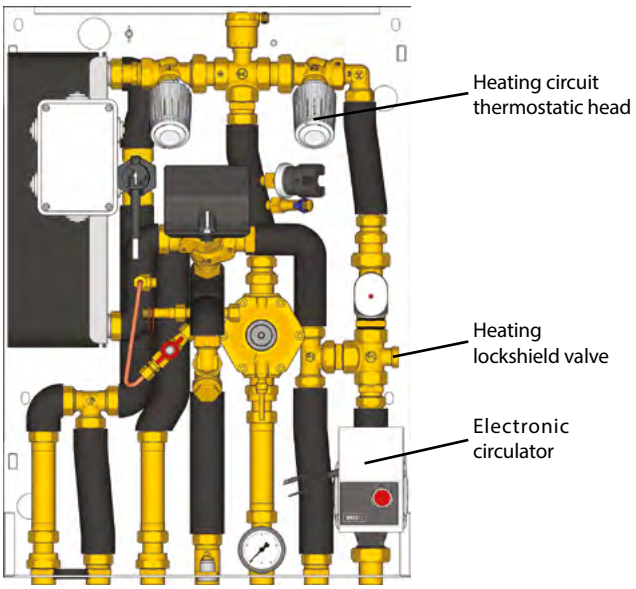
Previous example:
Required project flow rate: 0,7 m3/h
Intersect the Δp setting line of the differential pressure valve.
The intersection point indicates the static balancing valve calibration: setting 30

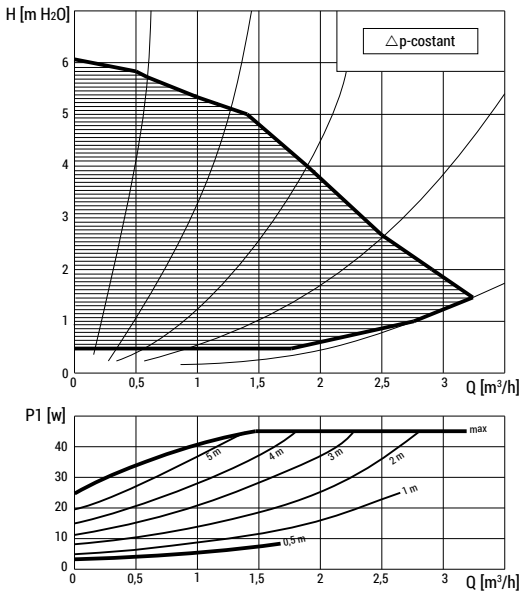


Setting	Kv
100	5,50
95	5,20
90	5,00
85	4,80
80	4,57
75	4,35
70	3,95
65	3,50
60	2,88
55	2,37
50	2,00
45	1,81
40	1,58
35	1,39
30	1,24
25	1,10
20	0,96
15	0,85
10	0,75
5	0,62

5.4 GE556Y322-GE556Y323: setting of thermostatic head and circulator

The heating circuit of GE556Y322-323 HIUs is controlled by a thermostatic head and an electronic circulator.



15/6 self-modulating circulator (230 V)	Operation	
		Automatic operation with constant pressure (recommended).
		Automatic operation with variable pressure.
		Automatic operation for air ejection (duration 10 minutes): the circulator increases and reduces its speed to aggregate the air bubbles and support their ejection through the air vent valve (not included with the circulator).
	LED - errors	
	solid green	Regular operation.
	blinking green	Automatic operation for air ejection.
	blinking green/red	Temporary anomalous situation: 1) incorrect voltage 2) incorrect fluid or room temperature.
	blinking red	Circulator stopped (permanent error: the circulator must be reset manually). The circulator may need to be replaced.
	NO LED	Electric power failure: 1) circulator not powered: check cable connection 2) damaged LED: check if circulator is working 3) electronic card damaged: replace circulator.

- Set the heating circuit thermostatic head on the value requested by the system (setting range 23÷67 °C).
- We recommend setting the electronic circulator on automatic operation with constant pressure .
- We recommend keeping the heating lockshiedl valve fully open. If required, perform setting in compliance with the system project instructions.

6. Troubleshooting

6.1 Domestic Hot Water temperature too low

- Cause: wrong setting value of the thermostatic head to control Domestic Hot Water temperature.
  Action: make sure the setting position of the thermostatic head (Paragraph "3 Components - Thermostatic head to control sanitary side temperature") corresponds to the required temperature value; if not, set the desired value.
  Remove the thermostatic head and check that the 2-way zone valve rod runs all the way through; if not, replace the valve.

- Cause: primary system delivery temperature too low.
  Action: check the primary system temperature through the energy meter. The min. temperature must be 60 °C. If not, contact the boiler room manager.

- Cause: primary circuit filter clogged (paragraph 3 "Components" - Filter").
  Action: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages.

- Cause: primary flow too low.
  Action: check the instantaneous flow on the energy meter. Make sure the filter (Paragraph 3 "Components" - Filter) is not clogged and if necessary clean it according to the instructions of the previous paragraph. Make sure the heat exchanger (Paragraph "3 Components - Heat exchanger") is not clogged; clean it if possible, otherwise replace the exchanger.
  Should the primary flow still be too low, contact the boiler room manager.

- Cause: erroneous setting of the differential pressure control valve (Paragraph "3 Components - Differential pressure control valve DPC").
  Action: check the HIU differential pressure value using the pressure probes (Paragraph "3 Components - Differential pressure probe-holder") and a differential pressure gauge. If not complying to the project requirements, set the differential pressure valve following the setting instructions (Paragraph "5.1 Setting of differential pressure control valve").

- Cause: flow switch not working (Paragraph "3 Components - Flow switch").
  Action: make sure the position indicator of the 3-way priority valve actuator moves every time there is a Domestic Hot Water request, if not make sure the resistance value on the flow switch terminals is higher than 0 using a tester.

- Cause: 3-way diverter priority valve not working (Paragraph 3 "Components" - Motorized 3-way priority valve).
  Action: make sure the Molex electric connector of the actuator is properly connected, if not reconnect it. Check visually that the actuator position indicator moves every time there is a Domestic Hot Water request, if not try removing and reinstalling the actuator according to the diagram of paragraph "4.6 Star-up". If it's still not working, replace the actuator.

6.2 Domestic Hot Water temperature too high

- Cause: wrong setting value of the thermostatic head for Domestic Hot Water temperature control.
  Action: check the thermostatic head setting position (Paragraph 23 Components - Thermostatic head for sanitary side control") corresponds to the required temperature value, if not set the desired value.
  Remove the thermostatic head and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

6.3 Heating circuit water temperature too low

6.3.1 GE556Y320-GE556Y321

- Cause: primary system delivery temperature too low.
  Action: check the primary circuit temperature through the energy meter. The min. temperature must be 60 °C. If not, contact the boiler room manager.

- Cause: primary circuit filter clogged (Paragraph "3 Components - Filter").
  Action: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages.

- Cause: primary flow too low.

Action: check the instantaneous flow on the energy meter. Make sure the filter (Paragraph 3 "Components" - Filter) is not clogged and if necessary clean it according to the instructions of the previous paragraph. Should the primary flow still be too low, contact the boiler room manager.

- Cause: erroneous setting of the static balancing valve (Paragraph "3 Components - Static balancing valve").
  Action: make sure setting of the static balancing valve complies with the project requirements. If not, see paragraph "5.3 Setting of static balancing valve" for proper setting.

- Cause: motorized 2-way zone valve with electrical actuator not working (Paragraph "3 Components - 2-way zone valve").
  Action: make sure the electrical actuator wires are properly connected to the corresponding terminals of the electric cabinet, if not reconnect them according to instructions of paragraph "4.10 Electric diagrams". Check visually that the position indicator on top of the electrical actuator moves every time there is a heating request, if not make sure the red lever at the base of the electrical actuator is properly pressed in. If it is still not working, replace the electrical actuator.
  Remove the electrical actuator and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

6.3.2 GE556Y322-GE556Y323

- Cause: erroneous setting value of R462L thermostatic head for heating temperature control.
  Action: check the setting position of the thermostatic head (Paragraph "3 Components - R462L thermostatic head for heating temperature control") corresponds to the requested temperature value, if not set the desired value.
  Remove the R462L thermostatic head and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

- Cause: primary system delivery temperature too low.
  Action: check the primary system temperature through the energy meter. The min. temperature must be 60 °C. If not, contact the boiler room manager.

- Cause: primary circuit filter clogged (Paragraph "3 Components - Filter").
  Action: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages.

- Cause: primary flow too low.

Action: check the instantaneous flow on the energy meter. Make sure the filter (paragraph 3 "Components" - Filter) is not clogged and if necessary clean it according to the instructions of the previous paragraph. Should the primary flow still be too low, contact the boiler room manager.

- Cause: 2-way modulating mixing valve with electrical actuator not working (Paragraph 3 "Components" - 2-way zone valve).

Action: make sure the electrical actuator wires are properly connected to the corresponding terminals of the electric cabinet, if not reconnect them according to instructions of paragraph "4.10 Electric diagrams". Visually check that the position indicator on top of the electrical actuator moves every time there is a heating request, if not make sure the red lever at the base of the electrical actuator is properly pressed in. If it is still not working, replace the electrical actuator.
Remove the electrical actuator and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

- Cause: circulator not working (Paragraph "3 Components - Circulator").
  Action: make sure the Molex electric connector of the circulator is properly connected, if not reconnect it.
  Make sure the circulator is set on "Constant pressure automatic operation ".
  Make sure the light indicator on the front panel is ON, if not replace the circulator.

6.4 Heating circuit water temperature too high

6.4.1 GE556Y320-GE556Y321

- Cause: primary system delivery temperature too high.
  Action: check the primary system temperature through the energy meter. The temperature must comply with the project requirements. If not, contact the boiler room manager.

6.4.2 GE556Y322-GE556Y323

- Cause: erroneous setting value of R462L thermostatic head for control of heating temperature.
  Action: make sure the setting position of the thermostatic head (Paragraph "3 Components - R462L thermostatic head for control of heating temperature") corresponds to the requested temperature value, if not set the desired value.
  Remove the R462L thermostatic head and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

6.5 Heating circuit not working

6.5.1 GE556Y320-GE556Y321

- Cause: motorized 2-way zone valve with electrical actuator not working (Paragraph "3 Components - 2-way zone valve").
  Action: make sure the electrical actuator wires are properly connected to the corresponding terminals of the electric cabinet, if not reconnect them according to instructions of paragraph "4.10 Electric diagrams". Visually check that the position indicator on top of the electrical actuator moves every time there is a heating request, if not make sure the red lever at the base of the electrical actuator is properly pressed in. If it is still not working, replace the electrical actuator.
  Remove the electrical actuator and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

- Cause: room thermostat not working.
  Action: make sure the room thermostat is ON, if not, turn it ON and check connection to the corresponding terminals of the electric cabinet. Make sure the room thermostat has been properly set, if not set the chronothermostat.

- Cause: erroneous setting of static balancing valve (Paragraph "3 Components - Static balancing valve").
  Action: make sure setting of static balancing valve complies with project requirements. If not, refer to instructions of paragraph "5.3 Setting of static balancing valve" for proper setting.

- Cause: primary circuit filter clogged (Paragraph "3 Components - Filter").
  Action: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages.

6.5.2 GE556Y322-GE556Y323

- Cause: erroneous setting value of R462L thermostatic head for control of heating temperature.
  Action: make sure the setting position of the thermostatic head (Paragraph "3 Components - R462L thermostatic head for control of heating temperature") corresponds to the requested temperature value, if not set the desired value.
  Remove the R462L thermostatic head and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

- Cause: motorized 2-way zone valve with electrical actuator not working (Paragraph "3 Components - 2-way zone valve").
  Action: make sure the electrical actuator wires are properly connected to the corresponding terminals of the electric cabinet, if not reconnect them according to instructions of paragraph "4.10 Electric diagrams". Visually check that the position indicator on top of the electrical actuator moves every time there is a heating request, if not make sure the red lever at the base of the electrical actuator is properly pressed in. If it is still not working, replace the electrical actuator.
  Remove the electrical actuator and make sure the 2-way zone valve rod runs all the way through, if not replace the valve.

- Cause: room thermostat not working.
  Action: make sure the room thermostat is ON, if not, turn it ON and check connection to the corresponding terminals of the electric cabinet. Make sure the room thermostat has been properly set, if not set the chronothermostat.

- Cause: circulator not working (Paragraph "3 Components - Circulator").
  Action: make sure the Molex electric connector of the circulator is properly connected, if not reconnect it. Check that the circulator is properly set on "Constant pressure automatic operation".
  Make sure the light indicator on the front panel is ON, if not replace the circulator

- Cause: primary circuit filter clogged (Paragraph "3 Components - Filter").
  Action: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages.

- Cause: system pressure too low.
  Action: make sure the pressure gauge (Paragraph "3 Components - Pressure gauge") indicates at least 1 bar for the system static pressure. If not, contact the boiler room manager.

6.6 Noise in the heating system

- Cause: circulator prevalence setting too high (Paragraph "3 Components - Circulator").
  Action: set the correct prevalence according to diagram of paragraph "5.4 Setting of thermostatic head and circulator".

- Cause: air in the heating system.
  Action: make sure the cap of the automatic air vent valve is open (Paragraph "3 Components - Automatic air vent valve").

- Cause: damaged circulator motor or components.
  Action: replace the circulator.

7. Inspections and service

Warning.
State-of-the-art inspections and service carried out on a regular basis as well as using only original spare parts are essential to prevent anomalies and guarantee a long life to your HIU. Yearly service recommended. Refer to provisions of regional/national regulations.

Warning.
Failure to carry out inspections and service may damage people and objects.

We recommend stipulating an inspection and service contract. Inspections are required to establish the actual operational conditions of a device and compare them to optimal status. This is achieved through measurement, control, observation.
Service is required to eliminate any difference between the actual and optimal status. This is generally obtained through cleaning, setting and replacing single components subject to wear and tear.

Recommended service operations

• Periodically check (recommended every year) the heating circuit pressure value using the gauge: the pressure value must be maintained above 1 bar.
Pressure value lower than 1 bar in GE556Y322-GE556Y323 HIUs may damage the circulator by cavitation.
A pressure switch set at 0,8 bar is included to protect the circulator.

• Periodically inspect the sealing elements for possible leakages from joints and glued parts (recommended every two years).

• Periodically check correct hydraulic functioning (recommended every two years).

• Periodically check efficiency of the electric and electronic components (recommended every two years).

• Periodically check the filter: close the interception valves on the template (primary and heating circuit), then remove the filter cap and pull out the filtering drum. Rinse the drum and reinsert the filter in reverse order. Screw on the cap using a 20 Nm max. torque. Open the interception valves on the template and make sure there are no leakages (recommended every year).

• Periodically check setting and efficiency of differential pressure control valve. Read differential pressure using differential pressure probes installed on HIU and a differential pressure gauge. Carry out this operation with HIU active (recommended every two years).

• Check DHW temperature setting. Make sure thermostatic head is positioned on project value. Change setting if required (recommended every two years).

• For GE556Y320-GE556Y321 HIUs, make sure setting of static balancing valve complies with project requirements. Change setting if required. Also check proper operation of thermo-electric actuator (recommended every two years).

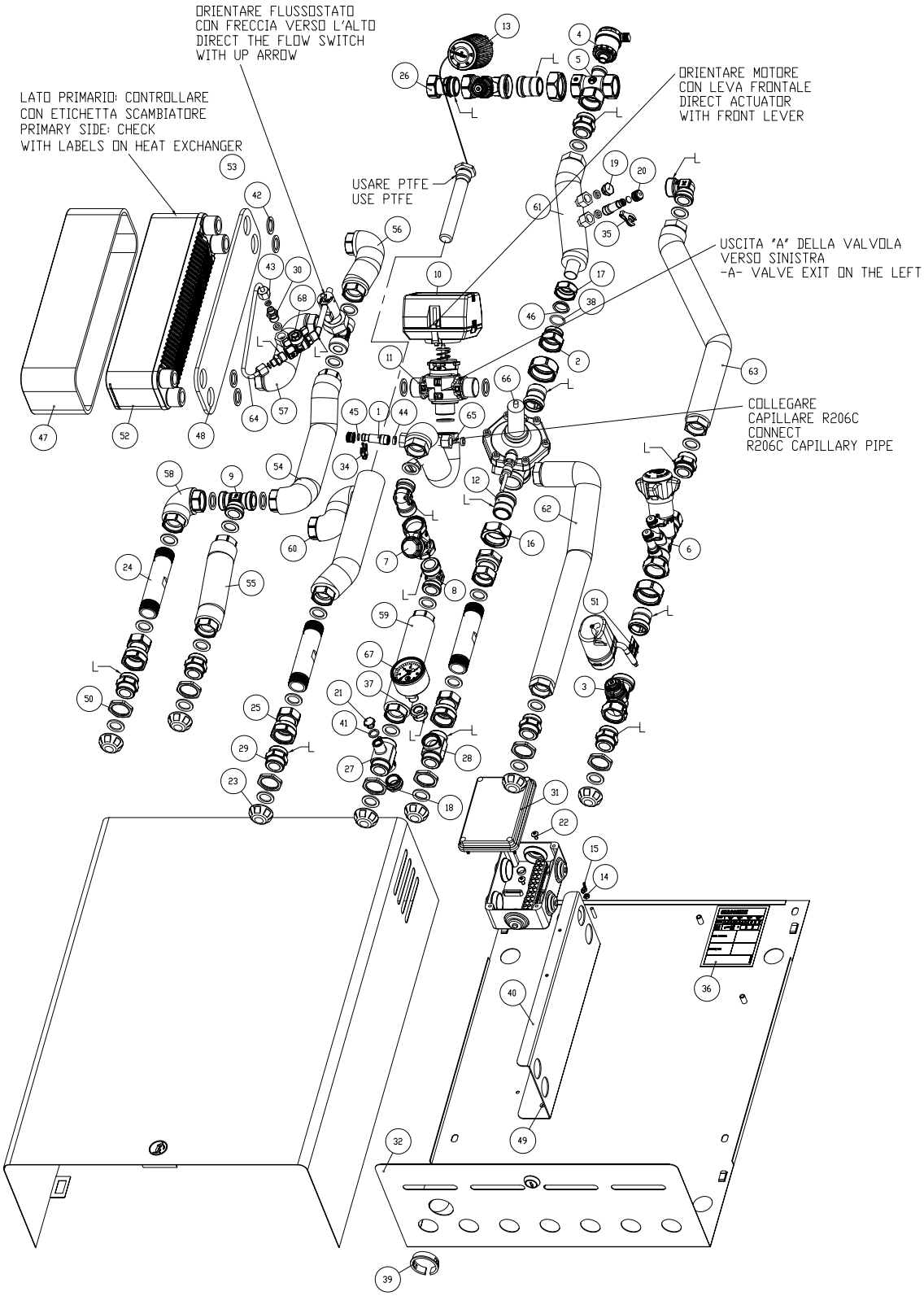
• For GE556Y322-GE556Y323 HIUs, make sure R462L thermostatic head is positioned on project value. Change setting if required. Also check proper operation of thermo-electric actuator and electronic circulator (recommended every two years).

8. Spare parts

8.1 GE556Y320-GE556Y321 HIU spare parts

CODICE CODE	SCAMBIATORE (RIF.52) HEAT EXCHANGER (REF.52)	COIBENTAZIONE (RIF.47) INSULATION (REF.47)
GE556Y320	26 PIASTRE/PLATES - 077S02038	062P08108
GE556Y321	34 PIASTRE/PLATES - 077S02048	062P00858

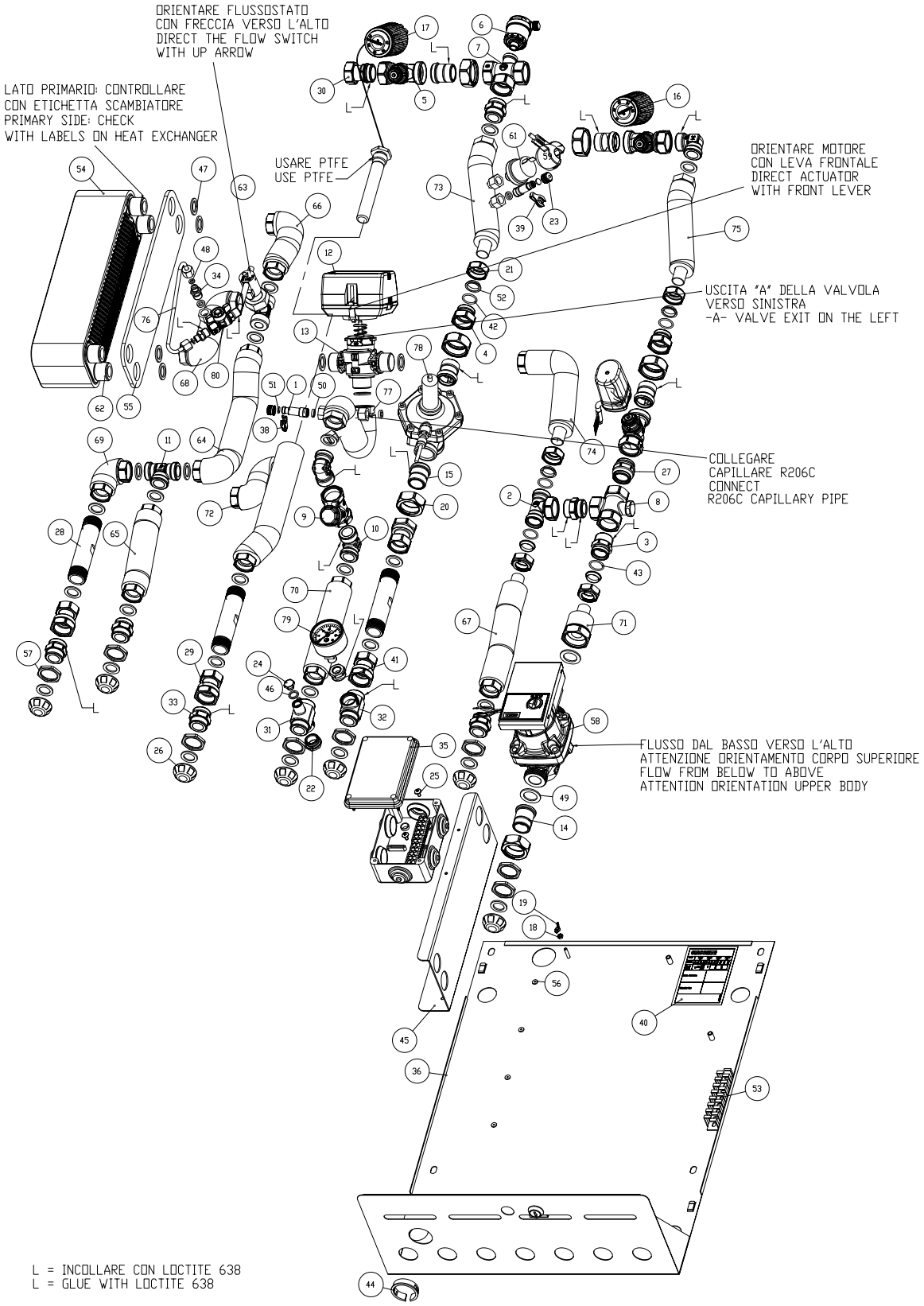
POS.	CODICE CODE	N.
68	R254X001	1
67	R225Y005	1
66	R206CY004	1
65	085A05668	1
64	085A04448	1
63	085A04308	1
62	085A04298	1
61	085A04258	1
60	085A04248	1
59	085A03918	1
58	085A03898	1
57	085A03868	1
56	085A03828	1
55	085A03818	1
54	085A03808	1
53	077S02208	1
52	077S02048	1
51	077S0174S	1
50	075A00212	7
49	065S00008	4
48	062P04058	1
47	062P00858	1
46	061A00082	1
45	057G00938	2
44	057G00708	5
43	057F00958	2
42	057F00918	33
41	057F00098	1
40	055S01888	1
39	053P00018	1
38	051G19058	1
37	050A00042B	1
36	047E60258	1
35	046P00054	1
34	046P00044	1
33	045P15078	1
32	040S01488	1
31	040P0065P	1
30	029A41118	2
29	029A08723	7
28	029A08353	1
27	029A08273	1
26	029A0442P	1
25	029A0373P	4
24	029A03712	3
23	026P00034	7
22	024A00368	2
21	023A01232	1
20	023A00672	2
19	023A00342	1
18	023A0003P	1
17	018A00113	1
16	018A00043	4
15	017S00768	1
14	017A15018	1
13	016P1555P	1
12	015A1503P	4
11	010ASP042	1
10	010ASP041	1
9	010A48203	1
8	010A48193	3
7	010A4551P	1
6	010A4162P	1
5	010A30413	1
4	010A2718P	1
3	010A1535Q	2
2	010A03142	1
1	010A0017Q	2



8.2 GE556Y322-GE556Y323 HIU spare parts

CODICE	SCAMBIATORE (RIF. 62) HEAT EXCHANGER (RIF. 62)	COIBENTAZIONE (RIF.54) INSULATION (RIF.54)
GE556Y322	30 PIASTRE/PLATES - 077S02038	062P08108
GE556Y323	40 PIASTRE/PLATES - 077S02048	062P00858

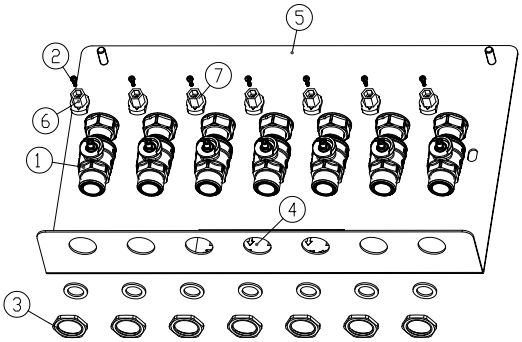
POS.	CODICE CODE	N.
80	R254X001	1
79	R225Y005	1
78	R206CY004	1
77	085A05668	1
76	085A04448	1
75	085A04278	1
74	085A04268	1
73	085A04258	1
72	085A04248	1
71	085A03928	1
70	085A03918	1
69	085A03898	1
68	085A03868	1
67	085A03838	1
66	085A03828	1
65	085A03818	1
64	085A03808	1
63	077S02208	1
62	077S02048	1
61	077S01838	1
60	077S0174S	1
59	077S01728	1
58	076S00218	1
57	075A00212	8
56	065S00008	4
55	062P04058	1
54	062P00858	1
53	062P00848	1
52	061A00082	5
51	057G00938	2
50	057G00708	4
49	057G00068	2
48	057F00958	2
47	057F00918	32
46	057F00098	1
45	055S01888	1
44	053P00018	1
43	051G19488	3
42	051G19058	2
41	050A00042B	1
40	047E60258	1
39	046P00054	1
38	046P00044	1
37	045P15078	2
36	040S01488	1
35	040P0066P	1
34	029A41118	2
33	029A08723	6
32	029A08353	1
31	029A08273	1
30	029A0442P	1
29	029A0373P	4
28	029A03712	3
27	029A0250P	1
26	026P00034	7
25	024A00368	2
24	023A01232	1
23	023A00672	2
22	023A0003P	1
21	018A00113	5
20	018A00043	6
19	017S00768	1
18	017A15018	1
17	016P1555P	1
16	016P1535P	1
15	015A1503P	5
14	015A00633	1
13	010ASP042	1
12	010ASP041	1
11	010A48203	1
10	010A48193	3
9	010A4551P	1
8	010A3094P	1
7	010A30413	1
6	010A2718P	1
5	010A1535Q	3
4	010A03142	2
3	010A03082	1
2	010A01563B	1
1	010A0017Q	2



L = INCOLLARE CON LOCTITE 638
L = GLUE WITH LOCTITE 638

8.3 GE551Y075 template spare parts

7	W22R06088	3
6	W22A06088	4
5	055S01898	1
4	049A00608	1
3	047P0582Z	1
2	024S00738	7
1	010A2967P	7
POS.	CODICE CODE	N.



9. Compliance statements

GIACOMINI
WATER E-MOTION

San Maurizio d'Opaglio, 12/10/2015

DICHIARAZIONE DI CONFORMITA' DEL FORNITORE

(secondo la ISO/IEC 17050-1)

La società **Giacomini S.p.A.**, produttrice di componenti per sistemi di riscaldamento, raffrescamento e distribuzione sanitaria, con sede in San Maurizio d'Opaglio (NO), via per Alzo n. 39, i cui processi di progettazione e produzione sono conformi ai requisiti della norma UNI EN ISO 9001:2008,

DICHIARA che

i satelliti di contabilizzazione standard **GE556,**

i satelliti di contabilizzazione con doppio scambiatore **GE556-1,**

i satelliti di contabilizzazione con valvola di controllo della pressione differenziale **GE556-4**

sono progettati e costruiti a regola d'arte.

Tutti i modelli sopra indicati sono inoltre conformi ai requisiti richiamati nelle Direttive Europee:

- LVD 2006/95/EC
- EMC 2004/108/EC

Marco Rosa Brusin

Responsabile Tecnico

Marco Rosa Brusin

DICHIARAZIONE NUMERO: **dich1_12_01_02**

GIACOMINI S.p.A.
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info@giacomini.com - www.giacomini.com

(IT) AVVERTENZE PER IL CORRETTO SMALTIMENTO DEL PRODOTTO

Questo prodotto rientra nel campo di applicazione della Direttiva 2012/19/UE riguardante la gestione dei rifiuti di apparecchiature elettriche ed elettroniche (RAEE).
L'apparecchio non deve essere eliminato con gli scarti domestici in quanto composto da diversi materiali che possono essere riciclati presso le strutture adeguate.
Informarsi attraverso l'autorità comunale per quanto riguarda l'ubicazione delle piattaforme ecologiche atte a ricevere il prodotto per lo smaltimento ed il suo successivo corretto riciclaggio.
Si ricorda, inoltre, che a fronte di acquisto di apparecchio equivalente, il distributore è tenuto al ritiro gratuito del prodotto da smaltire.
Il prodotto non è potenzialmente pericoloso per la salute umana e l'ambiente, ma se abbandonato nell'ambiente impatta negativamente sull'ecosistema.
Leggere attentamente le istruzioni prima di utilizzare l'apparecchio per la prima volta.
Si raccomanda di non usare assolutamente il prodotto per un uso diverso da quello a cui è stato destinato, essendoci pericolo di shock elettrico se usato impropriamente.
Il simbolo del bidone barrato, presente sull'etichetta posta sull'apparecchio, indica la rispondenza di tale prodotto alla normativa relativa ai rifiuti di apparecchiature elettriche ed elettroniche.
L'abbandono nell'ambiente dell'apparecchiatura o lo smaltimento abusivo della stessa sono puniti dalla legge.

(EN) IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT

This product falls into the scope of the Directive 2012/19/EU concerning the management of Waste Electrical and Electronic Equipment (WEEE).
This product shall not be dispose in to the domestic waste as it is made of different materials that have to be recycled at the appropriate facilities.
Inquire through the municipal authority regarding the location of the ecological platforms to receive the product for disposal and its subsequent correct recycling.
Furthermore, upon purchase of an equivalent appliance, the distributor is obliged to collect the product for disposal free of charge.
The product is not potentially dangerous for human health and the environment, but if abandoned in the environment can have negative impact on the environment.
Read carefully the instructions before using the product for the first time.
It is recommended that you do not use the product for any purpose rather than those for which it was intended, there being a danger of electric shock if used improperly.
The crossed-out wheeled dustbin symbol, on the label on the product, indicates the compliance of this product with the regulations regarding Waste Electrical and Electronic Equipment.
Abandonment in the environment or illegal disposal of the product is punishable by law.

(FR) AVERTISSEMENTS POUR L'ÉLIMINATION CORRECTE DU PRODUIT

Ce produit entre dans le champ d'application de la directive 2012/19 / UE relative à la gestion des déchets équipements électriques et électroniques (DEEE).
L'appareil ne doit pas être jeté avec les ordures ménagères car il est fait de différents matériaux pouvant être recyclés dans des centres appropriés.
Renseignez-vous auprès de l'autorité locale concernant l'emplacement des plates-formes écologiques appropriées pour recevoir le produit pour sa destruction et son recyclage correct ultérieur.
Il convient également de rappeler que, en cas d'achat d'un appareil équivalent, le distributeur est tenu de collecter le produit à détruire.
Le produit n'est potentiellement pas dangereux pour la santé humaine et l'environnement, mais s'il est abandonné dans l'environnement, il a un impact négatif sur l'écosystème.
Lisez attentivement les instructions avant d'utiliser l'appareil pour la première fois.
Il est interdit d'utiliser le produit pour un usage différent de celui auquel il était destiné, il y a risque de choc électrique si utilisé incorrectement.
Le symbole de la poubelle barrée sur l'étiquette de l'appareil indique sa correspondance produit à la législation relative aux déchets d'équipements électriques et électroniques.
L'abandon dans l'environnement de l'équipement ou l'élimination illégale de l'équipement est punissable par la loi.

(DE) WICHTIGE HINWEISE ZUR KORREKTEN ENTSORGUNG DES PRODUKTS

Dieses Produkt fällt in den Anwendungsbereich der Richtlinie 2012/19/EU über die Entsorgung von Elektro- und Elektronik - Altgeräten (WEEE).
Dieses Produkt darf nicht in den Hausmüll entsorgt werden, da es aus verschiedenen Materialien besteht, die in entsprechenden Einrichtungen recycelt werden müssen.
Erkundigen sie sich bei ihrer Gemeinde nach dem Standort des nächsten Recyclinghofs bzw. der nächsten Annahmestelle, um das Produkt dem Recycling zuzuführen bzw. fachgerecht zu entsorgen.
Darüber hinaus ist der Händler verpflichtet, das Produkt beim Kauf eines gleichwertigen Geräts kostenlos zu entsorgen.
Das Produkt ist für die menschliche Gesundheit und die Umwelt potenziell nicht gefährlich.
Diese können sich aber, falls sie in der Umwelt gelangen, negativ auf diese auswirken.
Lesen Sie daher vor dem ersten Gebrauch des Produkts die Inbetriebnahme-, Bedienungs- und Entsorgungsanweisungen sorgfältig durch. Es wird empfohlen, dass Sie das Produkt nur für den vorgesehenen Zweck verwenden.
Bei unsachgemäßer Verwendung bzw. Fehlgebrauch besteht die Gefahr eines elektrischen Schlags.
Das Symbol der durchgestrichenen Mülltonne auf dem Etikett des Produkts weist auf die Konformität dieses Produkts zu den Vorschriften für Elektro- und Elektronik-Altgeräte hin.
Das Ablagern in der Umwelt oder die illegale Entsorgung des Produkts ist strafbar.

Avvertenza per la sicurezza - *Safety Warning*
L'installazione, la messa in servizio e la periodica manutenzione del prodotto devono essere eseguite da personale professionalmente abilitato, in accordo con i regolamenti nazionali e/o i requisiti locali.
L'installatore qualificato deve adottare tutti gli accorgimenti necessari, incluso l'utilizzo di Dispositivi di Protezione Individuale, per assicurare la propria incolumità e quella di terzi. L'errata installazione può causare danni a persone, animali o cose nei confronti dei quali Giacomini S.p.A. non può essere considerata responsabile.
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.

Smaltimento imballo - *Package Disposal*
Scatole in cartone: raccolta differenziata carta. Sacchetti in plastica e pluriball: raccolta differenziata plastica.
Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

Smaltimento del prodotto - *Product Disposal*
Alla fine del suo ciclo di vita il prodotto non deve essere smaltito come rifiuto urbano. Può essere portato ad un centro di riciclaggio gestito dall'autorità locale o ad un rivenditore autorizzato che offre questo servizio.
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.

Altre informazioni - *Additional information*
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