Flat HIU station BE-H

The flat HIU station combines *step a valve* technology and a microprocessor-controlled controller for efficient and reliable heating and hot water supply. The hard foam insulation box ensures optimum insulation and is environmentally friendly and recyclable.

The unregulated heating connection expands the range of possible applications and enables simple and flexible integration into existing heating systems.

Suitable for:

- ***step a valve* stepper motor valve:** Precise control of hot water preparation using the flow principle. Minimizes energy losses and prevents the formation of Legionella bacteria.
- **Microprocessor controller:** Controls heating and hot water systems, adapts to weather conditions.
- **Hard foam insulated box:** With excellent thermal insulation for energy-saving operation and reliable protection.
- **Unregulated heating connection:** Offers simple and flexible connection options.
- **Temperature maintenance valve:** Ensures constant water temperatures through an integrated actuator.
- **Protection and comfort:** Includes drinking water priority circuit and water hammer damper for a secure water supply.
- **Insulated cold water pipes:** Prevents heat transfer and increases energy efficiency.
- **Stainless steel piping:** Robust, corrosion-resistant pipes (18x1 mm).
- **Low-profile design:** Compact depth of 130 mm.

Domestic hot water preparation
The drinking water is heated using the flow principle through a stainless steel plate heat exchanger only when it is needed. A sensor based on the vortex principle monitors the temperature and flow. A controller uses a *step a valve* step motor valve to regulate the necessary heating energy in order to minimize circulation losses and legionella formation. The plate exchanger is not kept warm.

ORDER NO.	
3100002	Flush-mounted, copper plate heat exchanger, hot water capacity M
3100004	Flush-mounted, copper plate heat exchanger, hot water capacity XL
3100102	Flush-mounted, stainless steel plate heat exchanger, hot water capacity M
3100104	Flush-mounted, stainless steel plate heat exchanger, hot water capacity XL
3100012	Surface-mounted, copper plate heat exchanger, hot water capacity M
3100014	Surface-mounted, copper plate heat exchanger, hot water capacity XL
3100112	Surface-mounted, stainless steel plate heat exchanger, hot water capacity M
3100114	Surface-mounted, stainless steel plate heat exchanger, hot water capacity XL

	HEATING PRIMARY	HEATING SECONDARY	
	BUFFER STORAGE	HEATING	DRINKING WATER
Pressure rating:	PN 6	PN 6	PN 10
Max. temperature:	90 °C	60 °C	75 °C
Connection dimensions:	DN 25	DN 20	DN 20
Thread:	G1" internal thread	G¾" internal thread	G¾" internal thread
Dimensions (WxHxD):	Flush-mounted: 539 x 826 x 130-175 mm / Surface-mounted: 615 x 930 x 140 mm		
Niche size (WxHxD):	Flush-mounted: min. 559 x 836 x 135-180 mm		

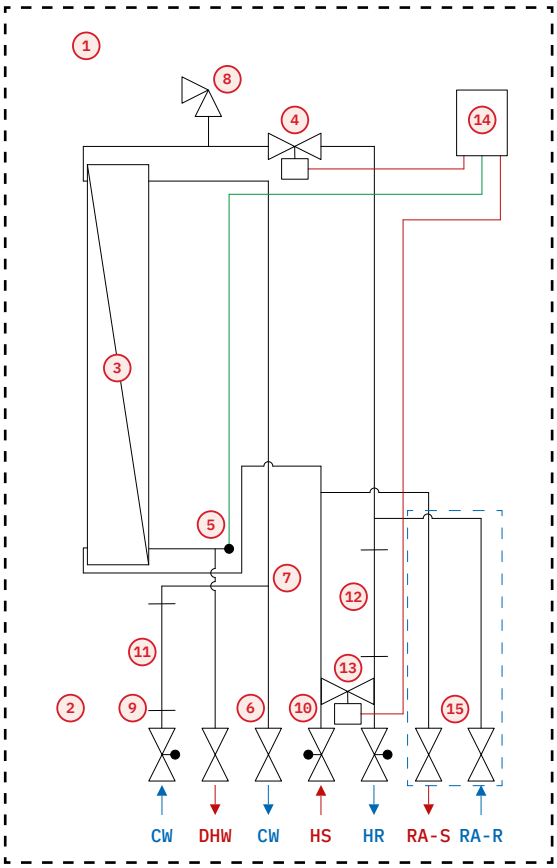
PERFORMANCE EXAMPLE: HEAT EXCHANGER				
HOT WATER CAPACITY:	M (36 KW)		XL (51 KW)	
PERFORMANCE INDICATOR	PI2**	PI1*	PI2**	PI1*
Hot water output:	48,1 kW	45,3 kW	63,4 kW	59,7 kW
Supply / Return temperature primary:	70 / 28 °C	60 / 20,7 °C	70 / 27,6 °C	60 / 20,2 °C
CW inlet/ HW outlet temperature:	10 / 60 °C	10 / 45 °C	10 / 60 °C	10 / 45 °C
DHW tap capacity max.:	13,7 l/min	18,5 l/min	18,1 l/min	24,4 l/min
Pressure loss secondary DHW ***:	131 mbar	237 mbar	227 mbar	411 mbar
Pressure loss primary Heating ***:	356 mbar	355 mbar	601 mbar	601 mbar
Heating flow rate primary:	1000 l/h	1000 l/h	1300 l/h	1300 l/h
38 °C DHW tap quantity after CW admixture:	24,6 l/min	23,2 l/min	32,5 l/min	30,6 l/min
40 °C DHW tap quantity after CW admixture:	23,0 l/min	21,7 l/min	30,3 l/min	28,5 l/min

*** without cold water meter or heat meter

(at 2 bar cold water pressure and 350 mbar heating)

PI2 = Performance indicator 2: at a set hot water temperature of 60 °C; at a primary flow temperature of 70 °C; at a cold water temperature of 10 °C
PI1 = Performance indicator 1: at a set hot water temperature of 45 °C; at a primary flow temperature of 60 °C; at a cold water temperature of 10 °C

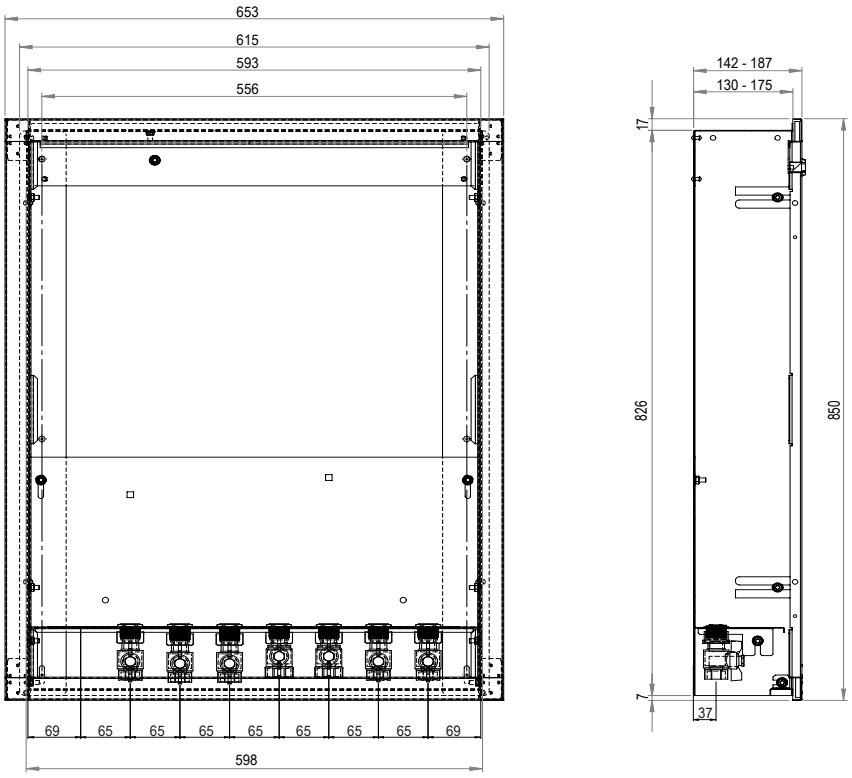
CONTROLLER	END CUSTOMER MENU (SIMPLE)	TECHNICIAN MENU (EXPERT)
DISPLAY	Time & date	Measured values or hydraulic diagram
SETTINGS	• Time & date • Daylight saving time • Night setback time for standby	• Program selection: Heating circuit unregulated • Hot water temperature • Maintenance temperature station • Commissioning assistant • Circulation mode (optional) • Heating priority circuit (optional)



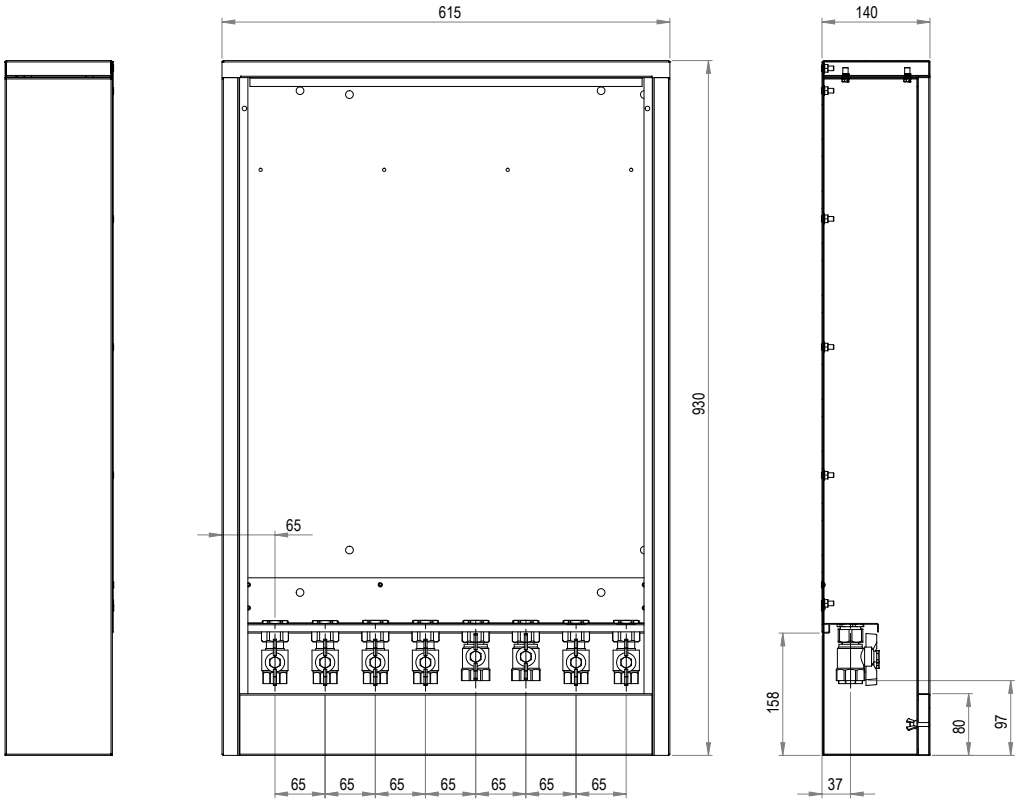
SCHEMATIC	
1	Built-in cabinet
2	Connection rail with ball valves
3	Plate heat exchanger
4	*step a valve* stepper motor valve (drinking water)
5	Temperature and flow sensor based on the vortex principle
6	Cold water outlet
7	Cold water maximum limiter (optional)
8	Ventilation and drainage
9	Strainer insert CW (optional)
10	Strainer insert HS (optional)
11	Cold water meter fitting piece G¾" - 110 mm
12	Heat meter fitting piece G¾" - 110 mm
13	Temperature maintenance valve (bypass) with actuator
14	Controller
15	Underfloor and radiator heating

DIMENSIONS FOR INSTALLATION

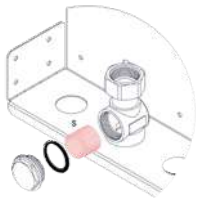
FLUSH-MOUNTED



SURFACE-MOUNTED



EXPANSION MODULES & ACCESSORIES



ORDER NO.

1000100 Module S1

Strainer insert

Strainer insert for removing dirt particles in the system, with a pressure loss of 80 mbar. Optimal protection for the entire system thanks to reliable filtering.

ORDER NO.

1000105 Module VR

Volume flow controller

Dynamic volume flow controller for hydraulic balancing. Externally adjustable, DN 15, adjustment range up to 1330 l/h, K_{vs} 2,7. Ensures stable flow rates under changing load conditions.

Example image

ORDER NO.

1000107 Module Z

Circulation ⚠

Drinking water circulation pump Z15 with backflow preventer for internal apartment circulation. Fully assembled with 18x1 mm stainless steel pipe.

– Not possible with module TWWM-E –

⚠ Note: Observe the applicable standards and regulations for circulation, in particular the hygiene regulations according to DVGW worksheet W 551. If necessary, a safety valve or expansion tank must be used.

ORDER NO.

1000109 Module D1

Differential pressure regulator

Differential pressure regulator primary (station outlet) for maintaining the differential pressure during significant load changes. DN 15, continuously adjustable from 50 to 650 mbar, incl. connecting capillary tube 3 mm, K_{vs} 2,9.

ORDER NO.

1000111E Module TWWM-E

DHW mixer

Thermostatic mixer for drinking water, which ensures a constant hot water temperature. Regulates in the range of 35-60 °C and provides a reliable hot water supply.

– Not possible with module Z –

ORDER NO.

1000117 Module D2

Differential pressure regulator

Differential pressure regulator secondary (station inlet) for maintaining the differential pressure during significant load changes. DN 15, continuously adjustable from 50 to 650 mbar, incl. connecting capillary tube 3 mm, K_{vs} 2,9.

ORDER NO.

1000120 Module ZV

Zone valve

G½" zone valve with the option of integrating an actuator (M30x1,5 mm), mounted secondarily in the radiator circuit. It enables precise control of the heating circuit and offers flexibility in room temperature regulation.

ORDER NO.

1000160 Module VOR

Priority circuit

Domestic hot water priority circuit for safe and efficient prioritization of hot water preparation. Integrated secondarily in the radiator circuit, it ensures that hot water preparation is given priority when there is a simultaneous demand for hot water and heating.