

Flat HIU station BE-HF

The flat HIU station combines innovative *step a valve* technology with a microprocessor-controlled controller and offers an optimal solution for modern heating and hot water systems. The hard foam insulation box ensures optimal insulation and is environmentally friendly and recyclable.

The underfloor heating is regulated by a thermostatic control. This continuously monitors and adjusts the temperature to prevent fluctuations.

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.
- **Regulated heating circuit:** Fixed-value-controlled for optimal energy consumption.
- **Optional with unregulated heating circuit:** For flexibility.
- **Hard foam insulated box:** With excellent thermal insulation for energy-saving operation and reliable protection.
- **Temperature maintenance valve:** Ensures constant water temperatures through an integrated actuator.
- **Protection and comfort:** Includes 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.	
3240002	Flush-mounted, copper plate heat exchanger, hot water capacity M
3240004	Flush-mounted, copper plate heat exchanger, hot water capacity XL
3240102	Flush-mounted, stainless steel plate heat exchanger, hot water capacity M
3240104	Flush-mounted, stainless steel plate heat exchanger, hot water capacity XL
3240012	Surface-mounted, copper plate heat exchanger, hot water capacity M
3240014	Surface-mounted, copper plate heat exchanger, hot water capacity XL
3240112	Surface-mounted, stainless steel plate heat exchanger, hot water capacity M
3240114	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	G3/4" internal thread	G3/4" internal thread
Dimensions (WxHxD):	Flush-mounted: 738 x 826 x 130-175 mm / Surface-mounted: 760 x 930 x 140 mm		
Niche size (WxHxD):	Flush-mounted: min. 759 x 836 x 135-180 mm		

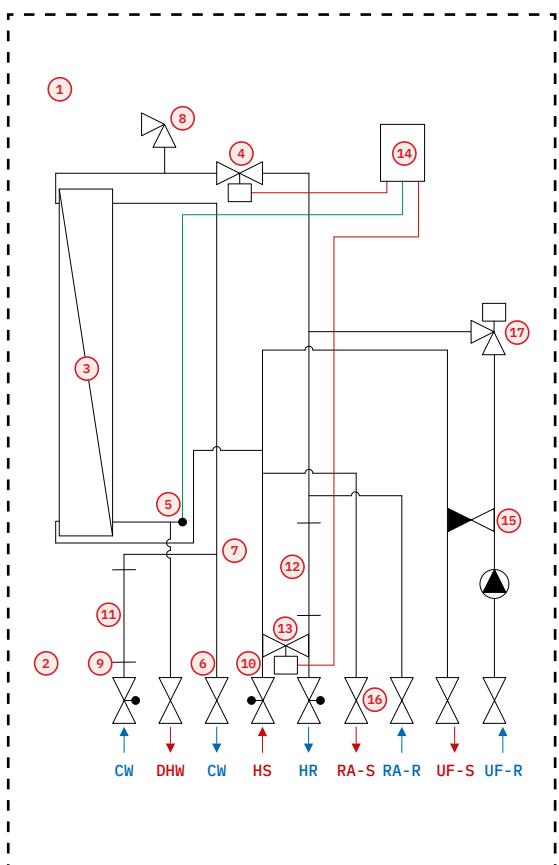
PERFORMANCE EXAMPLE: HEAT EXCHANGER				
HOT WATER CAPACITY:		M (36 KW)		XL (51 KW)
PERFORMANCE INDICATOR		PI2**	PI1*	PI2**
Hot water output:		48,1 kW	45,3 kW	63,4 kW
Supply / Return temperature primary:		70 / 28 °C	60 / 20,7 °C	70 / 27,6 °C
CW inlet / HW outlet temperature:		10 / 60 °C	10 / 45 °C	10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

*** without cold water meter or heat meter

**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	<ul style="list-style-type: none"> Time & date Daylight saving time Night setback time for standby 	<ul style="list-style-type: none"> Program selection: Heating circuit unregulated Hot water temperature Maintenance temperature station Commissioning assistant Circulation mode (optional) Heating priority circuit (optional)

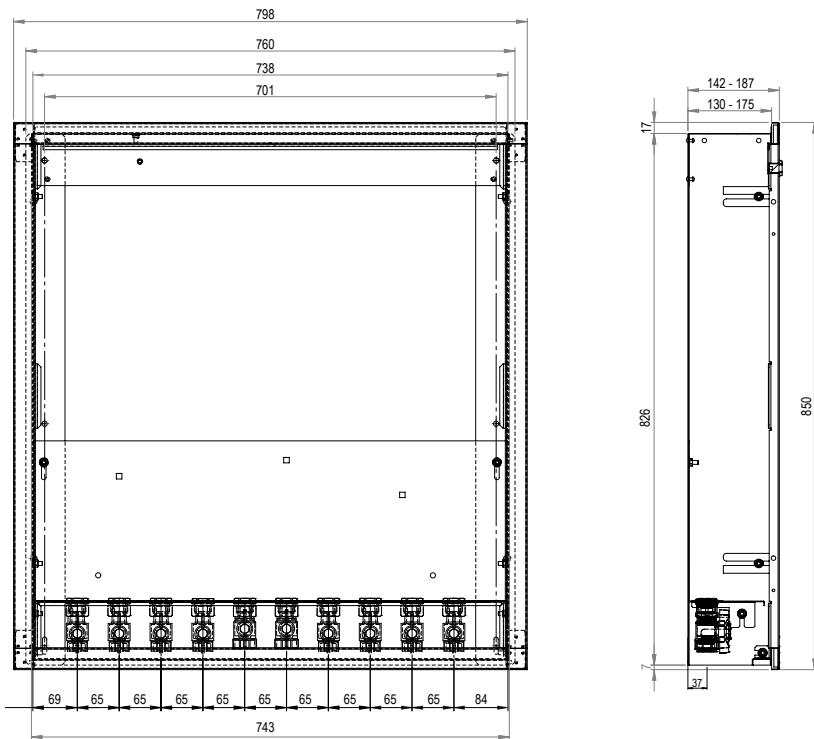


SCHEMATIC

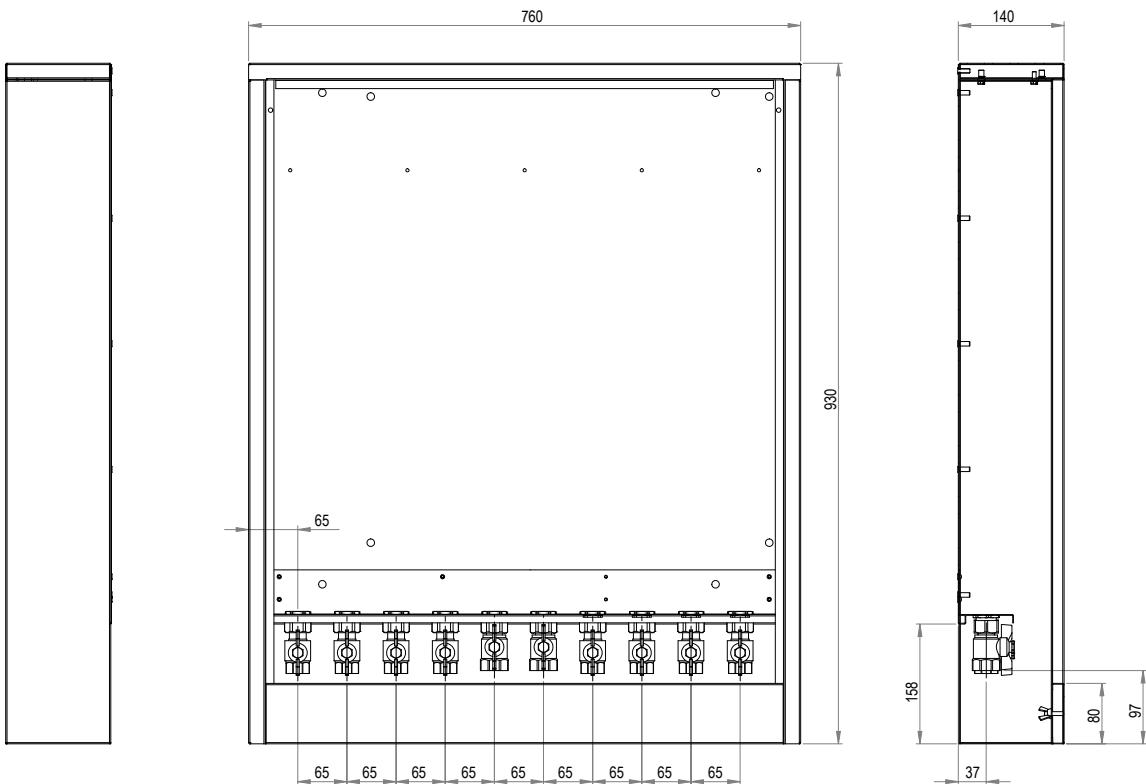
- 1 Built-in cabinet
- 2 Connection rail with ball valves
- 3 Plate heat exchanger
- 4 step a valve stepper motor valve (drinking water)
- 5 Temperature and flow sensor based on the vortex principle
- 6 Cold water outlet
- 7 Cold water maximum limiter (optional)
- 8 Ventilation and drainage
- 9 Strainer insert CW (optional)
- 10 Strainer insert HS (optional)
- 11 Cold water meter fitting piece G3/4" - 110 mm
- 12 Heat meter fitting piece G3/4" - 110 mm
- 13 Temperature maintenance valve (bypass) with actuator
- 14 Controller
- 15 Underfloor control unit (low temperature NT)
- 16 Radiator outlet (high temperature HT)
- 17 step a valve stepper motor valve (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.

⚠ 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.

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.



Beispiel-Abbildung

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 –



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.

1000120 Module ZV

Zone valve

G $\frac{1}{2}$ " 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.

1000123 Module HK

Radiator connection

Supply and return connection piping with G $\frac{3}{4}$ " shut-off ball valves and strainer insert. Piping is connected to the high-temperature outlets of the station and the ball valves are integrated into the strip.



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.