



## and microprocessor regulated controller

- ✓ controlled by stepper motor valve hot water preparation in the flow principle
- ✓ temperature provision valve integrated with actuator
- ✓ cold water pipes insulated against heat input
- ✓ modular design - individually expandable with e.g. secondary differential pressure module
- ✓ unregulated heating circuit
- ✓ piping in stainless steel 18 x 1 mm
- ✓ low profile design 130 mm

### DHW heating in the flow principle::

The domestic hot water is heated in the flow principle only during the request via a stainless steel plate heat exchanger. A temperature and flow sensor according to the vortex principle detects the temperatures and flows. The controller regulates the necessary heating energy for the plate exchanger by means of a **step a valve** stepper motor valve. The plate exchanger is not kept warm. Unnecessary circulation loss is avoided and increased legionella formation is effectively prevented. Unnötiger Zirkulationsverlust wird vermieden und eine vermehrte Legionellenbildung effektiv verhindert.

Controller	Customers menu (simple)	Installer menu (expert)
Display	Date & time	Measured data or hydraulic diagram
Setting	<ul style="list-style-type: none"> <li>- Date &amp; time</li> <li>- Summer time</li> <li>- Night lowering time for storage</li> </ul>	<ul style="list-style-type: none"> <li>- Program selection: Unregulated heating circuit</li> <li>- Hot water temperature</li> <li>- Provision temperature station</li> <li>- Commissioning assistant</li> <li>- Circulation mode (optional)</li> <li>- Priority switching of the heating (optional)</li> </ul>











Specifications			
	Heating primary	Heating secondary	
	Buffer tank	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
Connection threads:	1" female thread	¾" female thread	¾" female thread
Dimensions (WxHxD):	UP: 565 x 800 x 110-150 mm / AP: 580 x 900 x 140 mm		
Space size: (WxHxD)	UP: min. 585 x 805 x 112 mm		

Example performance heat exchanger				
DHW performance:	M (36 kW)		XL (51kW)	
Supply/return temperature primary:	60 / 21 °C	60 / 17 °C	60 / 21 °C	60 / 17 °C
DCW entry / DHW outlet temperature:	10 / 50 °C	10 / 45 °C	10 / 50 °C	10 / 45 °C
DHW tap load max.:	13 l/min	15 l/min	18 l/min	21 l/min
Pressure drop DHW:	155 mbar	200 mbar	210 mbar	280 mbar
Pressure drop heating *:	345 mbar	265 mbar	345 mbar	310 mbar
Flow primary:	840 l/h	720 l/h	1020 l/h	960 l/h

\* without heat meter

(at 2 bar DCW pressure and 350 mbar HS)

## Options

Module S1 - strainer insert	Module W - water damper	Module Z - circulation
		
Item No. 1000100	Item No. 1000122	Item No. 1000107
Strainer (80 mbar pressure drop)	The water damper prevents water hammer and thus damage to components within the station. This is recommended e.g. for single-lever mixers or solenoid valves in drinking water installation	A drinking water high-efficiency circulation pump Wilo Nova Z15 with backflow preventer enables an internal circulation. Fully assembled with stainless steel piping 18x1mm. 
<p><b>⚠ Note:</b> When installing domestic hot water heating, the applicable standards, the recognized rules of technology and the local regulations must be observed! In particular, the hygiene regulations according to DVGW worksheet W551 must be observed when operating a circulation system. DHW stations are small systems according to DVGW worksheet W551, if the pipe content in each drinking water pipeline after the station does not exceed 3 liters. Please check whether the use of a system-specific safety valve / expansion vessel in the circulation circuit is necessary! The installation of the safety valve and the required blow-out line must be implemented on site.</p>		
Module STV	Module D	Module D2 - differential pressure regulator
		
Item No. 1000116	Item No. 1000105	Item No. 1000117
A static volume flow controller installed in the primary return. (Station output) - with measuring socket DN 20, setting range up to 4860 l/h, 5.10 Kvs	An externally adjustable dynamic volume flow controller combined with a differential pressure controller built into the primary return. (Station output) - with measuring socket DN 15, setting range up to 1330 l/h, 2.7 Kvs	Combi-auto for maintaining the differential pressure at strong load changes. Continuously adjustable from 50 to 350 mbar, complete with connection capillary tube 3 mm.
Module VOR	Module ZV - zone valve	Module ISO H
		
Item No. 1000121	Item No. 1000120	Item No. 1000151
DHW priority circuit mounted secondary in the radiator circuit	Zone valve 1/2" with the option of mounting an actuator with M30x1.5 mm, mounted secondary in the radiator circuit	Insulating cover for BM-WP



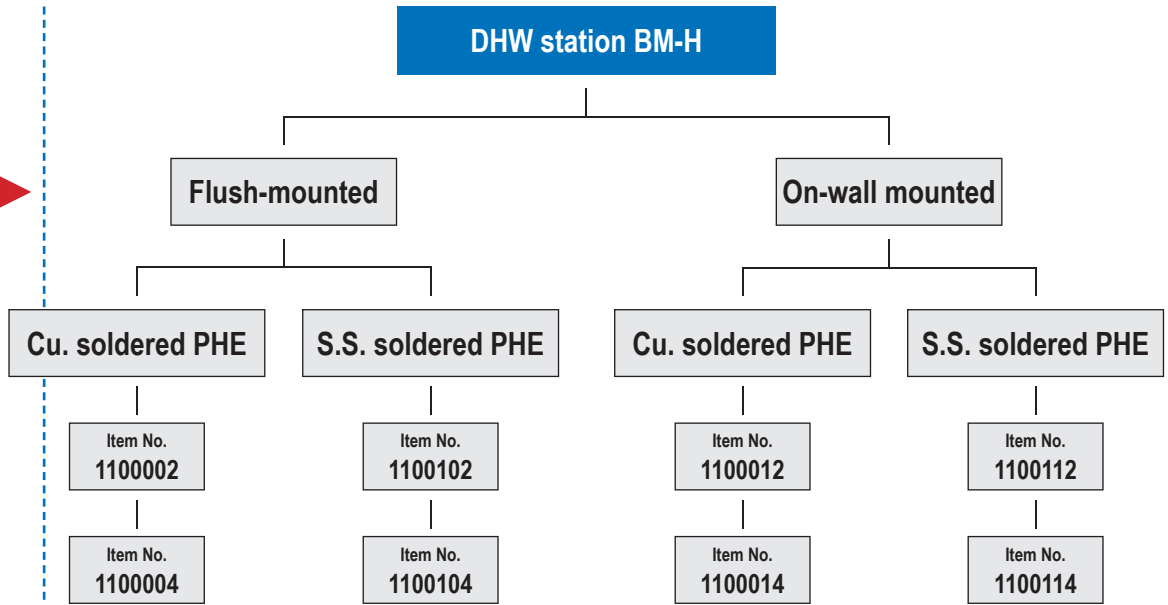
Selection criteria:

1. Installation:

2. PHE\*:

DHW performance

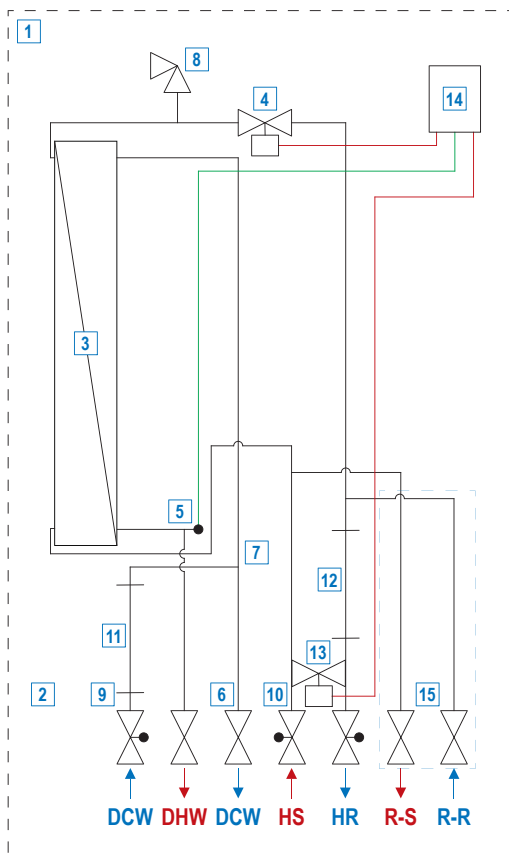
- M medium
- XL extra large



Example categorization of item no. PHE\*: plate heat exchanger

Example:	Type DHW station				Solder material	Installation	DHW performance
Item No.	1	1	0	0	0	0	4
					CU	UP	XL

## Circuit diagram BM-H



- 1 Cabinet
- 2 Connecting rail with ball valves
- 3 Plate heat exchanger
- 4 *step a valve* stepper motor valve
- 5 Vortex sensor temperature and flow
- 6 Cold water outlet
- 7 Maximum cold water limiter (optional)
- 8 Fill and drain
- 9 Strainer CW (optional)
- 10 Strainer HS (optional)
- 11 Fitting cold water meter 3/4" - 110 mm
- 12 Fitting heating meter 3/4" - 110 mm
- 13 Temperature provision valve (bypass) with actuator
- 14 Controller
- 15 Underfloor heating / radiator heating