

## Hydraulic Groups - HB-109

Fully brass hydraulic group with side pump connection, designed for combi type heating devices.

Design of the flow hydraulic enables an overall more compact placement of the group in the device.

Compatible with all circulation pump make and models, and suitable to be used with on off and stepper type 3WV actuators.

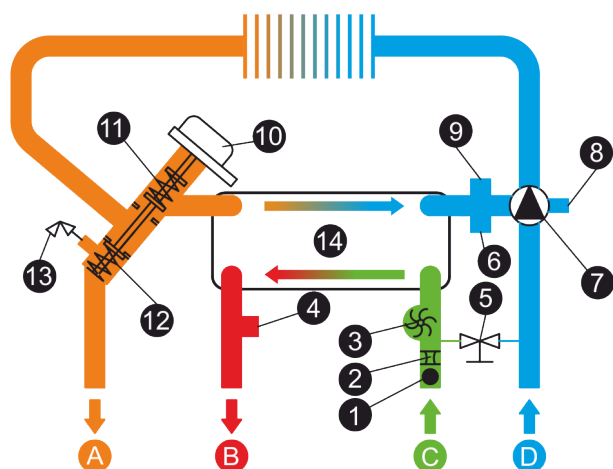
Standard content of delivery includes flow and return blocks with DHW filter, flow regulator as per customer request, radial type turbine flow meter with Hall effect sensor, manual filling tap, 3WV cartridge, brass or plastic 3 bar ½" pressure relief valve, ½" and ¾" brass connection nipples.

The hydraulic set could be customized and provided with a plate heat exchanger, 3WV motor, pressure switch or sensor and NTC sensor upon customer request.

### Constructive Properties

Flow Detection	· Turbine Type Flowmeter with Hall Effect Sensor
Pump Connection	· Side
By-Pass Type	· Through PHE
Material	· CuZn40Pb2 (CW617N)
Flow Regulator	· 6 to 22 (lt/min)
Pressure Relief Valve	· 3 bar ½"

## Technical Drawings - HB-109



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|--------------------------------|--------------------------|
| 1 DHW Filter                   | 8 Expansion Vessel Conn. |
| 2 Flow Regulator               | 9 Pressure Gauge Conn.   |
| 3 Flow Sensor                  | 10 3 Way Valve Motor     |
| 4 NTC Sensor Connection        | 11 Automatic Bypass      |
| 5 Filling Tap                  | 12 3 Way Valve           |
| 6 Pressure Switch/Sensor Conn. | 13 Safety Valve          |
| 7 Circulation Pump             | 14 Plate Heat Exchanger  |

- |                            |                           |
|----------------------------|---------------------------|
| A Heating Delivery CH      | C Sanitary Water Inlet DW |
| B Sanitary Water Outlet DW | D Heating Return CH       |

