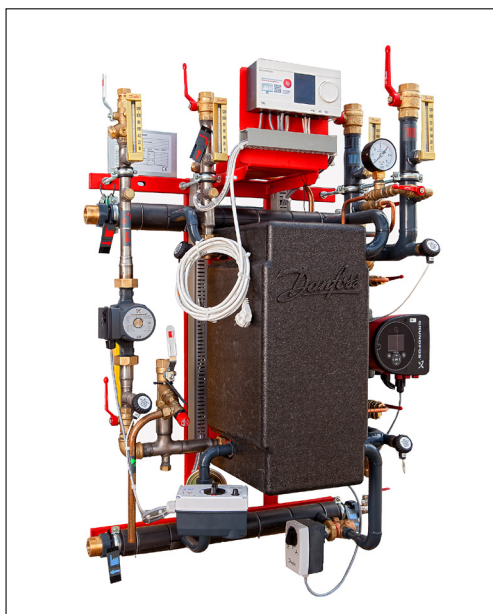


## Data Sheet

# DSA WALL – Wall Mounted Station

### General description and application



Danfoss district heating substations provide the link between district heating suppliers and customer installations. They contain all the necessary equipment to adjust the heat supplied for the needs of the object premises as specified in the heating supply contract. In this respect they must comply with all applicable standards and with the supplier's technical connection conditions. Indirect connections (in which district heating and in-house systems are hydraulically isolated) incorporate components that separate the systems (heat exchanger), limit the flow volume to that specified in the contract, regulate the secondary supply temperature and measure energy consumption.

The DSA WALL is designed for use in high-parameter district heating networks. It is suitable for heating single and multifamily homes, and commercial and industrial buildings. It offers an alternative solution to oil or gas boilers. The DSA WALL is prepared for heating, domestic hot water and floor heating applications. Its wall-mounted construction allows for the space saving needed for installation and servicing.

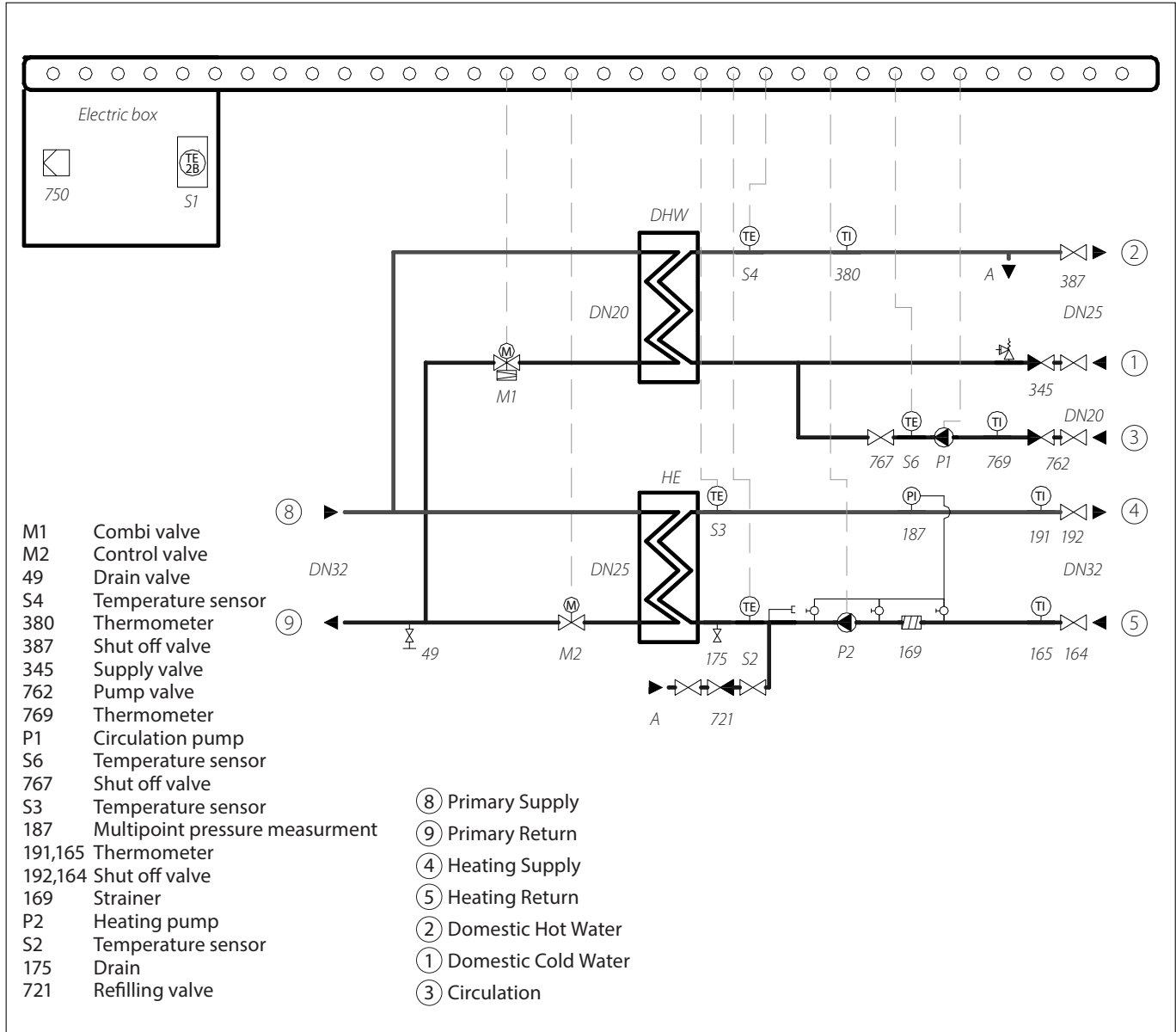
### Maximum operating parameters

<b>Primary</b>	
Maximum permissible supply temperature, primary	130°C
Maximum permissible operating pressure, primary	14,4 bar(g)
Rated pressure, primary	PN16
<b>Secondary Heating</b>	
Maximum permissible temperature, secondary	100°C
Maximum permissible operating pressure, secondary	6 bar(g)
Minimum required pressure (static), water supply	1.0 bar(g)
<b>Secondary Domestic Hot Water</b>	
Maximum permissible temperature, secondary	90°C
Maximum permissible operating pressure, secondary	10 bar(g)
Minimum required pressure (static), water supply	1.0 bar(g)

### Materials

Pipes, fittings, flanges, valves (primary side)	P235GH, EN-JL 1040 (GG25), CuSn5Pb5Zn5-C (RG-5)
Pipes, fittings, flanges, valves (heating side)	P235GH, EN-JL 1040 (GG25), CuSn5Pb5Zn5-C (RG-5)
Pipes, fittings, flanges, valves (DHW side)	1.4301, 1.4404, brass (DZR type), bronze
Heat exchanger	1.4404 with Cu solder
Insulation	EPP foam $\lambda=0.037$ W/mK (heat exchanger) PU foam $\lambda=0.029$ W/mK (primary piping)

Circuit diagram



Technical data

Type HE/DHW	Control valve		Heat exchanger		Pump	
	HE VM2+AMV10	DHW AVQM+AMV30	HE	DHW	HE	DHW
90 / 80 <sup>1</sup>	DN15/1.6	DN15/4.0/0.2	XB37L-1-26	XB37H-1-26	Magna 3 25-100	UPS 25-60 N
120 / 80 <sup>1</sup>	DN15/2.5	DN15/4.0/0.2	XB37L-1-40	XB37H-1-26		
150 / 80 <sup>1</sup>	DN15/2.5	DN15/4.0/0.2	XB37L-1-60	XB37H-1-26		
90 / 120 <sup>1</sup>	DN15/1.6	DN20/6.3/0.2	XB37L-1-26	XB37H-1-36		
120 / 120 <sup>1</sup>	DN15/2.5	DN20/6.3/0.2	XB37L-1-40	XB37H-1-36		
150 / 120 <sup>1</sup>	DN15/2.5	DN20/6.3/0.2	XB37L-1-60	XB37H-1-36		
145 / 120 <sup>2</sup>	DN15/2.5	DN20/6.3/0.2	XB37L-1-80	XB37H-1-36		

1) Reference temperatures: HE – 100/63/60/80 °C, DHW – 65/22/10/55 °C. Pressure drop: HE – 20/20 kPa, DHW – 20/20 kPa  
 2) Reference temperatures: HE – 100/63/60/80 °C, DHW – 65/22/10/55 °C. Pressure drop: HE – 30/15 kPa, DHW – 20/20 kPa

**Function**

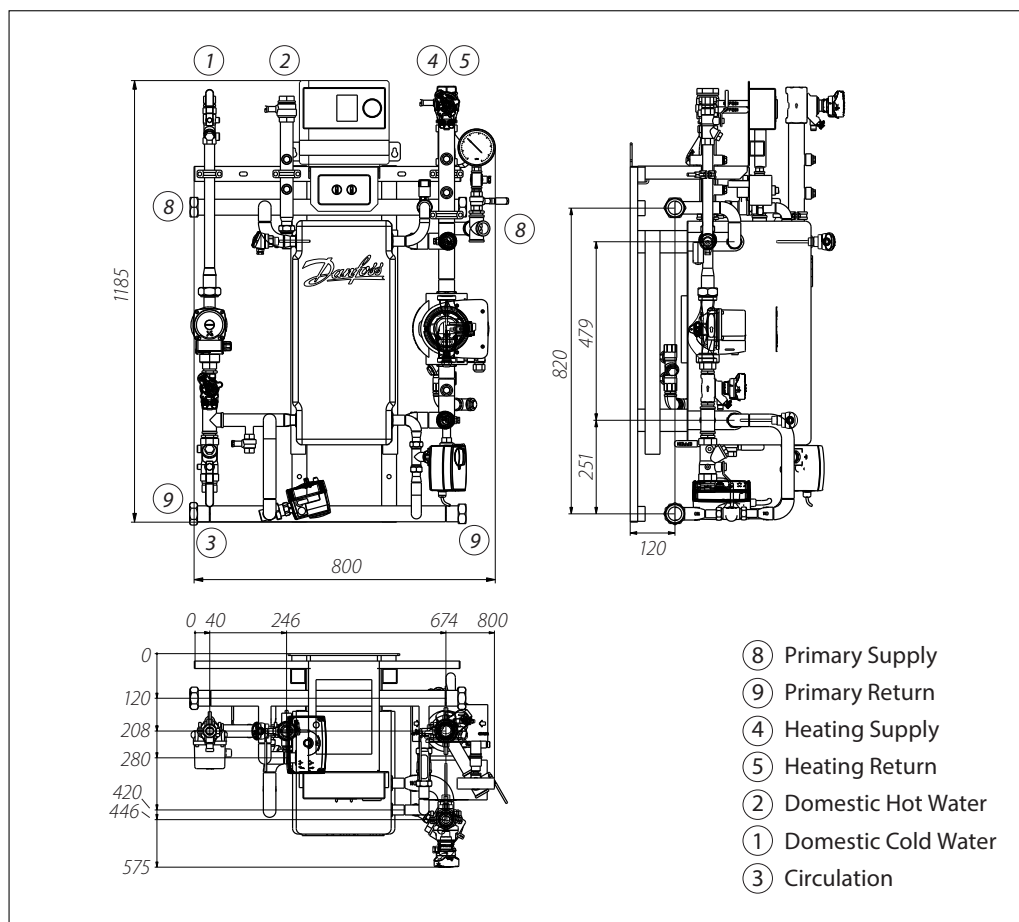
The DSA WALL platform can be used for various applications such as heating, domestic hot water and / or floor heating. Due to its modular construction and flexibility, it is possible to deliver a 1-, 2- or 3-circuit station based on customer request and the needed application(s). The wall-mounted construction allows easy access to all components for maintenance and servicing purposes. Standard assembly support significantly reduces the time needed to place the substation on the wall. An additional frame (accessory list) allows for placing the substation in the centre of the substation room.

Heat transfer between the district heating network and the building installation is achieved by way of a micro plate heat exchanger, which ensures better heat transfer, higher energy efficiency and reduced pressure loss. In addition to the standard controller functions, the ECL310 offers easy remote access via an internet page with data logging possibilities and energy optimisation functions such as weather compensation and auto-tuning (adaptive settings for domestic hot water parameters).

The primary modules allow for the upgrading of the compact module with an additional differential pressure controller, measuring devices, strainers or a heat meter to fulfil all of the supplier's technical connection requirements.

**Dimensions**

Type HE/DHW	Pipe diameter			Weight [kg]	External dimension		
	DH (8 & 9)	HE (4 & 5)	DHW		Height	Width	Depth
90 / 80 kW	DN25	DN32	DN25	69	1185 mm	800 mm	575 mm
120 / 80 kW	DN32	DN32	DN25	73			
150 / 80 kW	DN32	DN32	DN25	77			
90 / 120 kW	DN25	DN32	DN25	81			
120 / 120 kW	DN32	DN32	DN25	85			
150 / 120 kW	DN32	DN32	DN25	89			
145 / 120 kW	DN32	DN32	DN25	91			



**Accessories**

Primary module may include:

- Shut-off valves
- Differential pressure regulator
- Strainer
- Energy meter
- Temperature measurement
- Pressure measurement

Frame for stand-alone assembly, allowing for placement of the DSA WALL in the centre of the technical room.

---

**Configuration**

The DSA WALL's flexibility of construction makes it possible to order a substation with additional components and different capacities depending on requested features and requirements, such as:

Primary side

- Shut-off valves
- Temperature sensors
- Drain valves

Heating

- Additional temperature sensors
- Thermostat
- Pressure measurement
- Temperature measurement
- Drain valve

Domestic hot water

- Additional temperature sensors
- Thermostat
- Pressure measurement
- Temperature measurement
- Drain valve
- Water meter

Contact the sales staff responsible for additional details and a quotation for the DSA WALL.