

## Fact Sheet

# DSA HOME

District heating substation up to 25 / 40 kW<sup>1)</sup>

## FEATURES AND BENEFITS

- Substation with high efficiency brazed plate heat exchangers for one family houses, made from acid-proof stainless steel
- Wall-mounted construction
- Suitable for new buildings as well as renovation projects
- Small, lightweight, compact construction
- Electronic controllers for heating and domestic hot water systems
- Fast and reliable delivery
- Fast and easy installation
- Danfoss substations and heat exchangers are manufactured according to European Pressure Directive PED 2014/68/EU

## Application

The DSA HOME is designed for use in high-parameter district heating networks. Suitable for heating single houses. It provides an alternative solution to an oil or gas boiler. The DSA Home is designed for heating or heating and domestic hot water. The wall-mounted construction saves space needed for installation and servicing.

## Flexibility

The new DSA HOME is offered as 1- or 2- circuit module. In addition, primary modules (including ball valves, strainers, differential pressure regulators and heat meters) can be ordered as accessories. Primary modules can be connected to either the right or the left side, without any modification to the construction.

## Construction / Installation

The DSA HOME is designed as a wall-mounted station. Each station is equipped with micro plate heat exchangers manufactured by Danfoss, which significantly increase substation performance and lifetime. All components are placed at the front of the station, which makes it very easy to access them during maintenance or servicing. Due to the Euro-pallet size, it is possible to transport the DSA HOME with a small van. The mounting equipment significantly reduces the time required to mount the substation to the wall. The standard station layout means that the piping can easily be prepared in the room where the substation is to be installed before the substation is delivered, which reduces the time between delivery and start-up. Piping prepared with automatic welding machines ensures the highest possible welding quality.

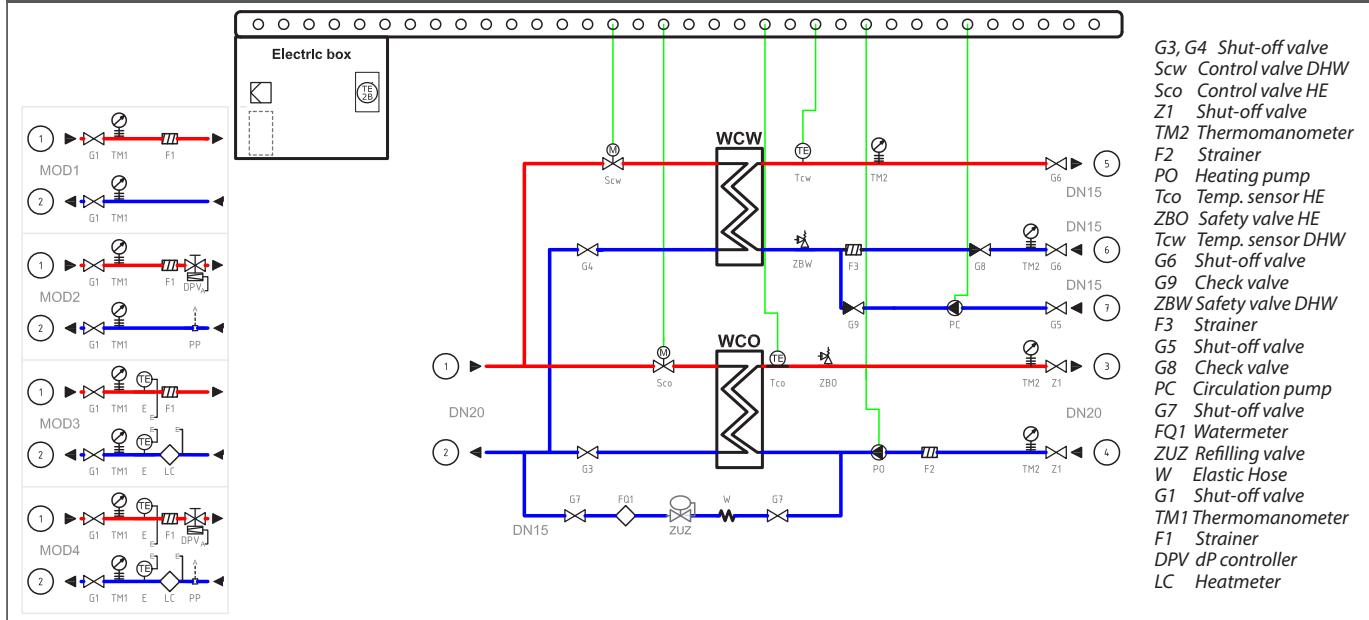
## Equipment

The DSA HOME offers a wide variety of additional accessories, such as substation cover or primary modules. It is delivered with ECL310 controller with communication functionality.

## Information needed for a quotation

- Heat capacities
- Temperature programme
- Permissible pressure losses in the heat exchangers / substations
- Primary pressure difference available
- Pressure losses in secondary circuits
- Flow-through hot water circulation
- Other information about other required components

1) Maximum capacity is determined by temperature, allowable pressure drops and local regulations.

**CIRCUIT DIAGRAM – EXAMPLE****Technical parameters****Primary side**

Maximum temperature: 130 °C  
Nominal pressure: PN16  
Diameter (threaded): DN 20

**Heating**

Maximum temperature: 100 °C  
Nominal pressure: PN6  
Diameter (threaded): DN 20

**Domestic Hot Water**

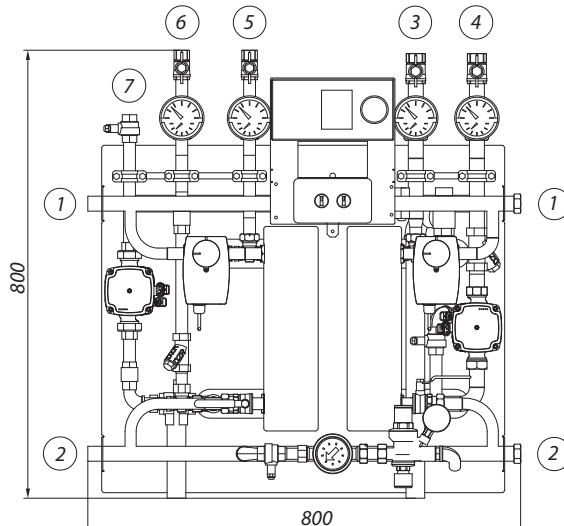
Maximum temperature: 90 °C  
Nominal pressure: PN10  
Diameter (threaded): DN 15/15

**Max dimensions (mm)**

Width / Height / Depth (1F): 500 / 810 / 350 mm  
Width / Height / Depth (2F): 800 / 810 / 350 mm

**Weight (incl. packing)**

1-circuit station: max. 24 kg  
2-circuit station: max. 35 kg

**Additional accessories and options:**

- Primary side module (which may include ball valves, strainer, differential pressure controller, heat meter, thermometers and manometers)

**Connections:**

1. District Heating Supply
2. District Heating Return
3. Heating Supply
4. Heating Return
5. Domestic Hot Water
6. Domestic Cold Water
7. Circulation

**SPECIFICATION**

Type	Capacity [kW]		Control valve		Heat exchanger		Pump		Controller
	HE	DHW	HE	DHW	HE	DHW	HE	DHW	
DSA HOME 1F-2	25	-	VS 2 DN15 / 1,0	-	XB06L-1-16	-	UPM3AUTO 15-70	-	ECL310
DSA HOME 1F-3		-		-		-		-	
DSA HOME 2F-1									
DSA HOME 2F-2					XB06H-1-20				ECL310
DSA HOME 2F-3									
DSA HOME 2F-4								UPM3 DHW 15-20	ECL310

**Danfoss A/S**

Climate Solutions • [danfoss.com](http://danfoss.com) • +45 7488 2222

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