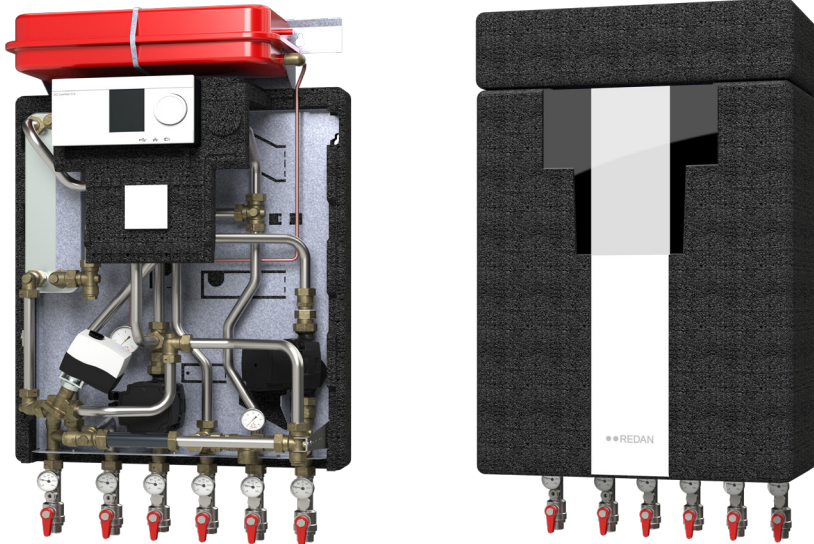


Fact Sheet

VXe Solo HWS fully insulated substation

For indirect heating with 1 HE circuit, secondary connection for DHW cylinder for single-family, semi-detached and terraced houses



Application

The VXe Solo HWS (ECL 310/A337) is a fully insulated substation for indirect heating with one heating circuit and secondary connection for DHW cylinder featuring high performance and simple operation. VXe Solo HWS is especially suitable for two-pipe systems such as systems with radiator or floor heating. Designed for wall-mounting with pipes connection in bottom. The heating circuit and the cylinder temperature is controlled by electronic temperature controller Danfoss ECL 310/A337.

District heating (DH)

The substation is prefabricated with inter-connecting components such as fitting piece and sensor pockets for insertion of a heat meter mounted in the DH return line, as well as strainer, thermometer and ball valves. The heating temperature and the inlet temperature for the DHW cylinder is controlled by an electronic ECL 310/A337 controller with weather compensation.

Heating (HE)

The heating side consists of a stainless steel plate heat exchanger and the VXe Solo HWS substation is available with heat exchanger type XB 06H-26, XB 06H-40 for radiator heating and type XB 06L-1 24 for floor heating. The heating side also features safety valve, expansion vessel, strainer, thermometers, manometer, energy-efficient circulation pump and ball valves. The HE circuit is controlled by the district energy class pressure independent control valve AVQM together with the AMV actuator

with or without safety function, the temperature by means of an electronic temperature controller (ECL 310/A337).

Mounting of heat meter

The substation is equipped with 3/4" fitting pieces in the DH return flow for fitting of a heat meter.

Domestic hot water

The VXe Solo HWS is supplied with connection pipes for domestic hot water cylinder on the secondary side, and the temperature in the cylinder is controlled by the Danfoss ECL controller in combination with a control valve and actuator. VXe Solo HWS with connection pipes for domestic hot water cylinder on the secondary side is delivered with a factory installed circulation pump.

Design

The design emphasizes the user-friendly placement of all components. The VXe Solo HWS is supplied with an elegant insulation cover and a removable cover plate in the front insulation.

Service and maintenance

The substation is very service-friendly and easy to install. It is mounted on the wall and as all pipes are placed in pipe bracket distance, it is possible to establish a nice piping. The removable cover plate in the front allows easy access to the specially designed chamber, where the most frequently used components such as ECL310 are located.

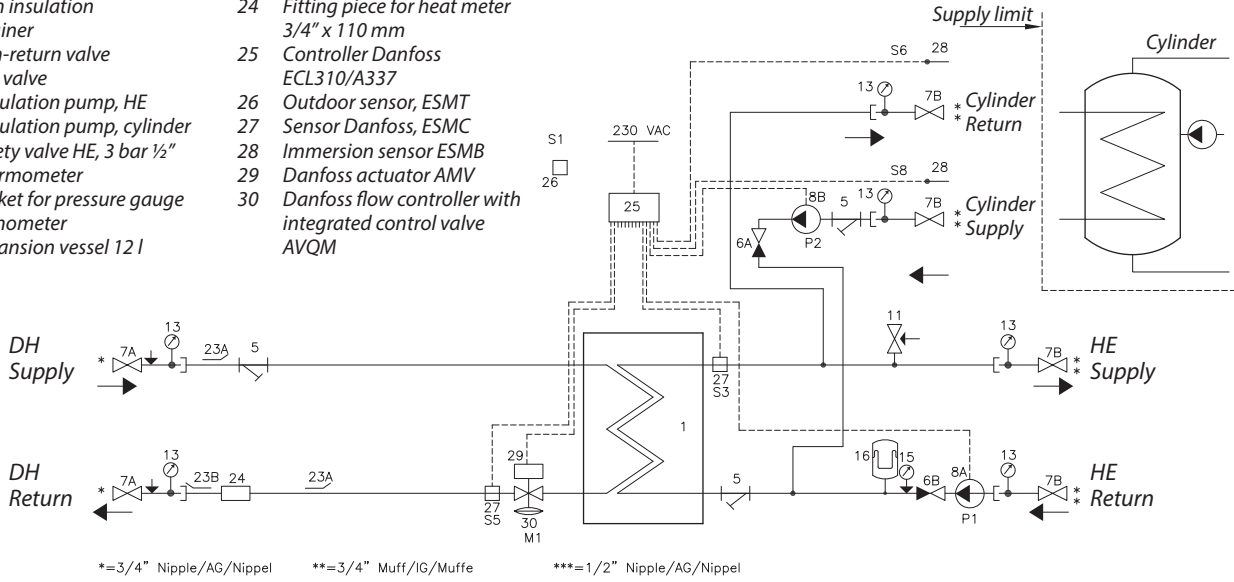
The easy access chamber enables faster commissioning and maintenance without removing the whole cover of the substation.

FEATURES AND BENEFITS

- Connectivity with LeanHeat Monitor for monitoring and remote setting
- Fully insulated with very low heat losses
- Indirect heating, 1 HE circuit
- Secondary connection for DHW cylinder
- Ensuring the lowest return temperature by special Danfoss technologies exclusively developed for substations
- Customer-specific solutions, specially adapted to the applicable technical regulations
- Advanced electronic control of heating (HE) with weather compensation and remote access possibility
- Pipes and heat exchanger made of stainless steel, connections with EPDM gaskets.
- Capacity: 20-30 kW HE, 15kW FH
- Minimum space required for installation
- Pipes and plate heat exchanger made of stainless steel AISI 316/314
- Dezincification-free brass CuZn39Pb3
- Electrical wiring from factory - Plug & Play

CIRCUIT DIAGRAM (EXAMPLE)

- 1 Plate heat exchanger HE, with insulation
- 5 Strainer
- 6 Non-return valve
- 7 Ball valve
- 8 Circulation pump, HE
- 8A Circulation pump, cylinder
- 11 Safety valve HE, 3 bar 1/2"
- 13 Thermometer
- 14 Pocket for pressure gauge
- 15 Manometer
- 16 Expansion vessel 12 l
- 23 Sensor pocket for heat meter
- 24 Fitting piece for heat meter 3/4" x 110 mm
- 25 Controller Danfoss ECL310/A337
- 26 Outdoor sensor, ESMT
- 27 Sensor Danfoss, ESMC
- 28 Immersion sensor ESMB
- 29 Danfoss actuator AMV
- 30 Danfoss flow controller with integrated control valve AVQM



Design specifications:

Nominal pressure (prim/sec.): PN 16/PN 6
 Max. supply temperature: 120 °C (design temp.)
 Min. ΔP: See capacity examples
 Brazing material (HEX): Copper

Weight: Max. 55 kg

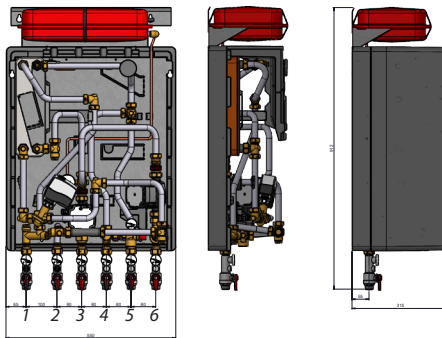
Insulation: Polypropylene
 EPP λ 0.039

Electrical supply: 230V AC

Dimensions (mm):
 with insulation: H 912 x W 550 x D 315

Connections sizes:
 DH, Cylinder: G 3/4" ET (ext. thread)
 HE: G 3/4" IT (int. thread)

Dimensional sketch:



Connections:

1. District heating (DH) supply
2. District heating (DH) return
3. Heating (HE) return
4. Heating (HE) supply
5. Cylinder supply
6. Cylinder return

VXe Solo HWS	Bestell Nr.
Type 1, fully insulated	145F0609
Type 2, fully insulated	145F0632
Type 1, fully insulated, STW *	145F0618
Typ 2, fully insulated, STW *	145F0619

*Safety function = AMV13 / Jumo safety thermostat

Options	Code No
KFE filling and drain valve 1/4" (for mounting in ball valve)	145H3717

HEATING: CAPACITY EXAMPLES

Plate heat exchanger HEX	HE capacity [kW]	HE circuit primary [°C]	HE circuit secondary [°C]	Pressure loss primary [kPa]	Flow rate primary [l/h]	Flow rate secondary [l/h]	Residual pressure UPM3 15-70 [kPa]
XB06H-1 26 Type 1	20	75/46	40/65	38	594	696	57
	20	80/50	45/70	37	588	696	57
	20	90/52	50/70	28	462	870	51
XB06H-1 40 Type 2	30	75/45	40/65	60	882	1038	44
	30	80/50	45/75	59	876	1044	44
	30	90/52	50/70	42	696	1308	26
XB06L-1 24 Type 3	15	75/31	30/40	20	300	1296	25
	15	80/31	30/40	18	270	1296	25
	15	90/31	30/40	18	222	1296	25

* Heat meter and PHW capacity not incl. ** PHW capacity not incl.

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