

Fact Sheet

VXe Solo HWP (A347) fully insulated substation

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



Application

The VXe Solo HWP (ECL 310 / A247 / A347) is a fully insulated substation for indirect heating with one heating circuit and primary connection for DHW cylinder featuring high performance and simple operation. VXe Solo HWP is especially suitable for two-pipe systems and 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 / A247 / A347.

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 is controlled by an electronic ECL 310 / A247 / A347 controller with weather compensation.

Heating (HE)

The heating side consists of a stainless steel plate heat exchanger and the VXe Solo HWP 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 primary

side pressure independent control valve with actuator AMV with or without safety function, the temperature by means of an electronic temperature controller (ECL 310 / A247 / A347).

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 HWP is supplied with connection pipes for domestic hot water cylinder on the primary side, and the temperature in the cylinder is controlled by a pressure independent control valve with actuator and Danfoss ECL controller.

Design

The design emphasizes the user-friendly placement of all components. The VXe Solo HWP is supplied with an elegant insulation cover and the removable cover plate in the front insulation allows easy access to components for regulation and maintenance purposes.

Service and maintenance

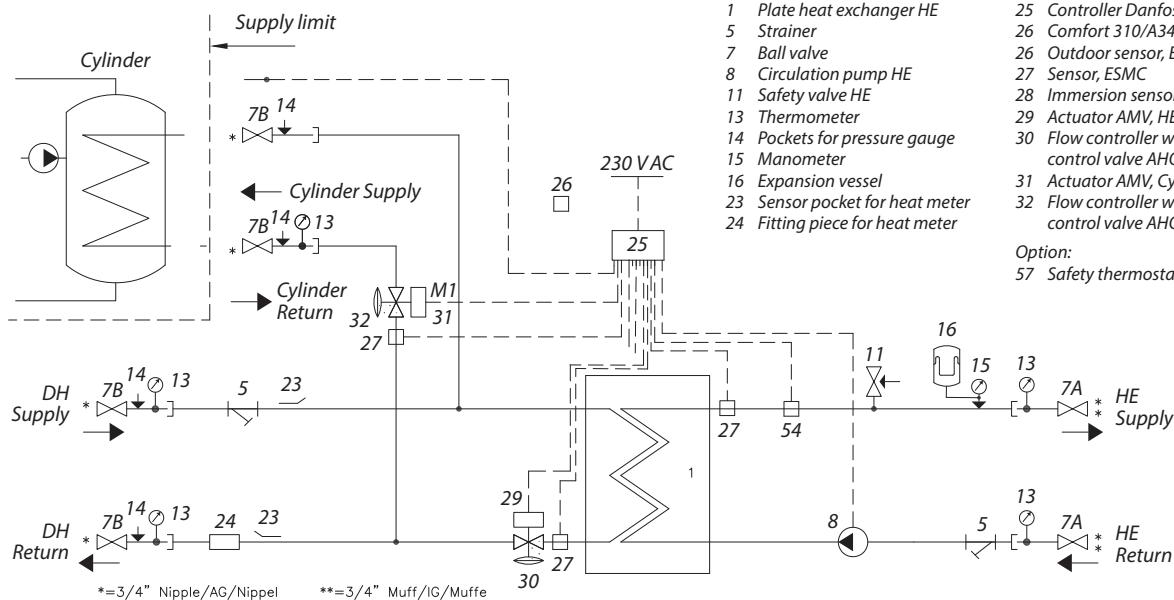
The substation is very service-friendly and easy to install. It is mounted on the wall and as all pipes are placed in pipe bracket distance, it is possible to establish a nice piping. The removable cover plate in the front allows easy access to the specially

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
- Primary 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
- Electronic control of heating (HE and DHW) temperature
- Pipes and heat exchanger made of stainless steel, connections with EPDM gaskets.
- Capacity: 20–30 kW HE, 15 kW FH
- Minimum space required for installation
- Pipes and plate heat exchanger made of stainless steel AISI 316/314
- Dezinification-free brass CuZn39Pb3
- Electrical wiring from factory – Plug & Play

CIRCUIT DIAGRAM (EXAMPLE)



Design specifications:

Nominal pressure (prim/sec.): PN 16 / PN 3
Max. supply temperature: 120°C (design temp.)
Min. ΔP: See capacity examples
Brazing material (HEX): Copper

Weight:

Max. 55 kg

Insulation:

Polypropylene
FPP λ 0.039

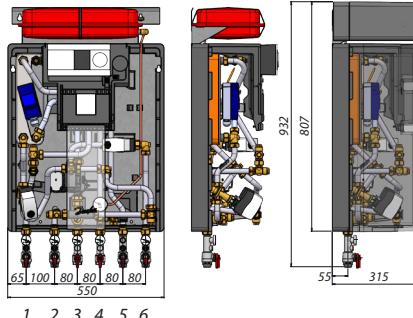
Electrical supply:

230V AC

Dimensions (mm):

Dimensions (mm):
with insulation: H 932 x W 550 x D 315

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

Basic type VXe Solo HWP	Code No
Type 1, fully insulated	145F4471
Type 2, fully insulated	145F4472
Type 1, fully insulated, safety function*	145F4473
Type 2, fully insulated, safety function*	145F4474
Type 3, fully insulated, safety function*	145F4475

*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

Substation type	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]
Type 1 XB06H-1 26	20	75/46	40/65	38	594	688	57
	20	80/50	45/70	37	588	688	57
	20	90/52	50/70	28	462	860	51
Type 2 XB06H-1 40	30	75/45	40/65	60	882	1032	44
	30	80/50	45/70	59	876	1032	44
	30	90/52	50/70	42	696	1290	26
Type 3 XB06L-1 24	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 DHW capacity not incl. ** DHW capacity not incl.

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