



Akva Multi TDP-F

Direct flat station for one-family, semi-detached and terraced houses as well as flats

District heating flat station for direct heating and instantaneous domestic hot water.

Application

The Akva Multi TDP-F is a flat station featuring high performance and simple operation. The Akva Multi TDP-F is based on a self-acting combined controller, developed for flat systems supplied from a secondary connected district heating system, a block heating system or a centrally located boiler system in a dwelling house.

District heating (DH)

The flat station is prefabricated with interconnecting components such as fitting piece and sensor pockets for insertion of a heat meter and strainer. In addition several optional components can be supplied.

Heating (HE)

The heating side is designed for direct generation of heat in a 2-pipe system. Besides temperature control of instantaneous domestic hot water production, the multifunctional self-acting controller provides a differential pressure control throughout the heating system and a domestic hot water prioritization.

The differential pressure control part of the controller sets the optimum operation conditions for radiator thermostatic valves in order to enable individual temperature control in each room. In order to enable a time depending temperature control program a zone valve with actuator and a room thermostat can be included as an option.

Domestic hot water (DHW)

The domestic hot water is prepared in the heat exchanger based on the flow principle. Supreme ease of operation is obtained via the combined hydraulic and thermostatic regulation of domestic hot water through the multifunctional self-acting controller, thereby guaranteeing a constant domestic hot water temperature at all times. The use of hydraulic regulation largely prevents the formation of lime scale and bacteria due to the fact, that the valve closes immediately when tapping is ended. A thermostatic by-pass enables tapping of hot water without any delay, ensuring the best possible efficiency and economy. The plate heat exchanger is insulated.

Construction

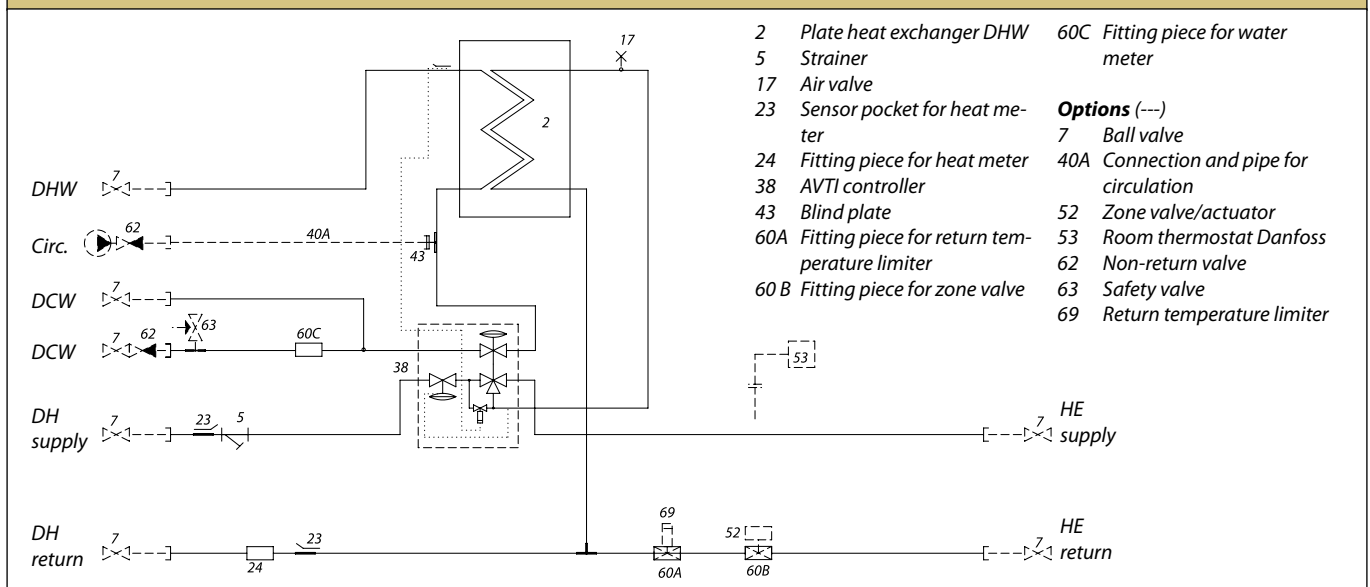
All pipes are made of stainless steel. The connections are made by nuts and gaskets. The Akva Multi TDP-F can be delivered with white-lacquered steel sheet cover.

FEATURES AND BENEFITS

- Flat station for district heating
- Direct heating, DHW heating based on flow principle
- Capacity: 15 kW heating, 35 kW domestic hot water
- Maximum hot water comfort supply
- Minimum space required for installation
- Pipes and plate heat exchanger made of stainless steel
- Minimized risk of lime scale and bacteria formation

Akva Multi TDP-F

Circuit diagram - example



Technical parameters:

Nominal pressure: PN 10
 DH supply temperature: $T_{max} = 90\text{ °C}$
 DCW static pressure: $p_{min} = 2,5\text{ bar}$
 Chloride compounds: Max. 300 mg/l

Weight incl. cover: 26,0 kg (incl. packing)

Cover: White-lacquered steel sheet

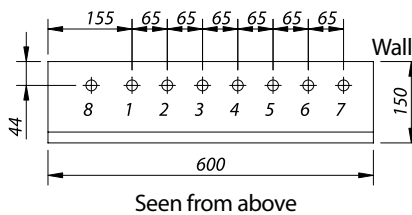
Dimensions (mm):

Without cover:
 H 640 x W 565 x D 110 (incl. ball valves)
 H 520 x W 565 x D 110 (excl. ball valves)

With cover:
 H 740 x W 600 x D 150

Connections:

- 1 District heating (DH) supply
- 2 District heating (DH) return
- 3 Domestic cold water (DCW) inlet
- 4 Domestic cold water (DCW) outlet
- 5 Domestic hot water (DHW)
- 6 Heating (HE) supply
- 7 Heating (HE) return
- 8 Circulation - optional



Connections sizes:

DH + DCW + DHW: G 3/4" (int. thread)
 HE + optional circ.: G 3/4" (int. thread)

Options:

- Ball valves
- Connection pipe for circulation
- Zone valve with actuator
- Connection rail with 7 connections G 3/4" (int. thread), insulated or non-insulated
- Flexible stainless steel connection pipes G 3/4" (int. thread) x G 3/4" (ext. thread)
- Room thermostat with day and/or week program
- Heat meter (DH supply)
- Cold water meter
- With white-lacquered stainless steel cover

DHW: Capacity examples, 10 °C / 45 °C

DHW Capacity kW	Plate heat exchanger	Supply flow Primary °C	Return flow Primary °C	DHW Tap load l/min.	Pressure loss Primary *bar	Flow rate Primary l/h
35	CB20-26H	60	20	14,3	0,64	752
35	CB20-26H	70	17	14,3	0,35	569
35	CB20-26H	80	15	14,3	0,24	464
35	CB20-26H	90	14	14,3	0,18	396

* Heat meter not incl.

Heating: Capacity examples

Heating Capacity kW	Heating circuit, Δt		Pressure loss Primary *bar	Flow rate primary l/h
	Primary °C	Secondary °C		
10	20	20	0,33	428
10	30	30	0,25	284
10	40	40	0,23	216
15	30	30	0,33	428
15	40	40	0,26	320

* Heat meter not incl.

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