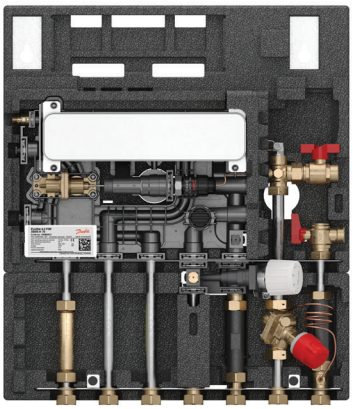
ENGINEERING TOMORROW

Data sheet

EvoFlat™ 4.0 FSF fully insulated



Application

The EvoFlat four pipe station are developed to increase efficiency in systems with heat pumps. The concept includes the use of two different temperature levels. A flow temperature of 55 °C is required for tap water heating. On the heating side, the surface heating system is operated with a flow temperature of 35–38 °C. In this way, the best possible COP for the heat pump is achieved. The EvoFlat™ four pipe station is available as an in-wall version with a flush-mounted box or as a wall-mounted version.

Domestic hot water (DHW)

The hot water output is determined by the number of plates in the built-in heat exchanger. Due to the flow temperature of 55 °C, only type 4 is available. A built-in flow controller opens the flow through the heat exchanger on the heating and drinking water side. When the tap is finished, both flows are closed. The Evoflat 4.0 F is equipped with an intelligent controller that regulates the flow rate on the supply side depending on the hot water temperature and the tap volume. The station has an integrated differential pressure regulator on the supply side of the drinking water heating. This means that hydraulic balancing of the station is not necessary. These components ensure the optimum operating status for all home stations that are connected to the same system. To measure water consumption, are the EvoFlat 4.0 F is equipped with a fitting piece for mounting a water meter in the cold-water inlet.

Heating

The control section on the heating side includes a differential pressure controller type AB-PM DN 20, a strainer, a sensor thermowell and a fitting piece for inserting a heat meter. The differential pressure controller with flow limitation ensures optimal operating conditions during heating.
To ensure time-dependent temperature control, the EvoFlat™ four pipe station can optionally be equipped with an actuator (type TWA-Q) for the zone valve integrated in the AB-PM and a room thermostat with timer.

Design

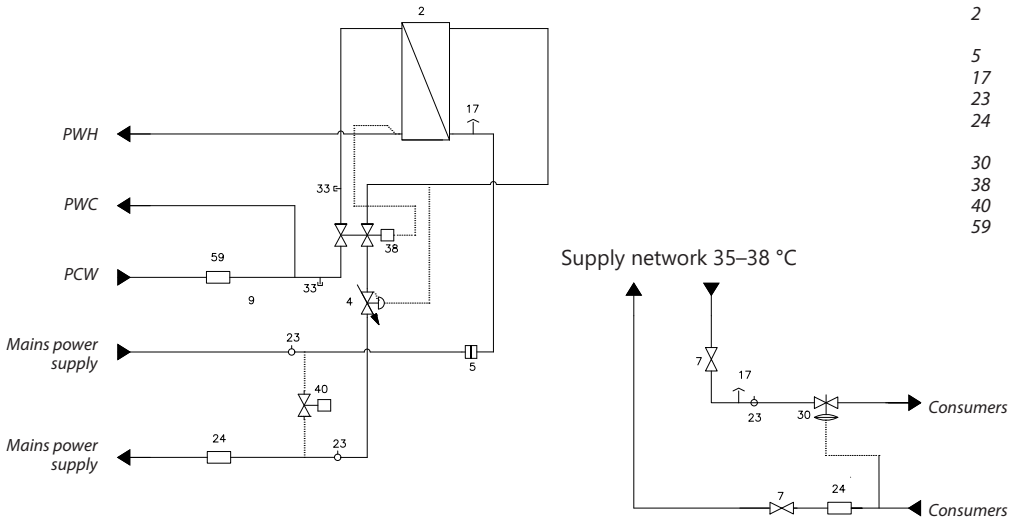
The innovative EvoFlat 4.0 FSF sets new standards. It consists of function blocks made of a specially composite material. This makes the station extremely light and limits internal heat emission. The smooth surface significantly reduces the risk of deposits and contaminants.

Insulation

The EvoFlat 4.0 FSF has a high insulation EPP cover. It is built up on an EPP insulated back plate and a few front insulation covers for the DHW, DH, HE and mounting rail. This ensures the EvoFlat 4.0 F is fully insulated for minimum heat losses and excellent operating economy.

ENGINEERING
TOMORROW

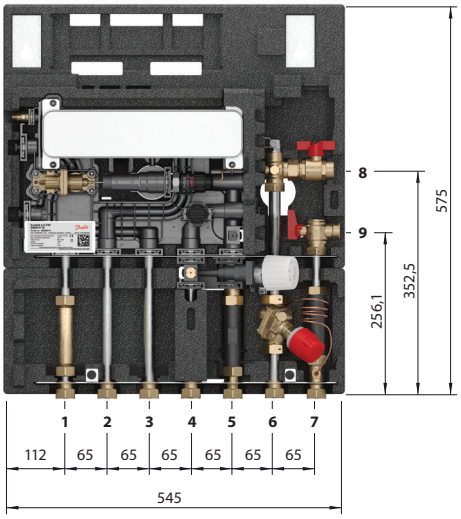
HYDRAULIC DIAGRAM (EXAMPLE)



2 Plate heat exchanger: Danfoss XB06H -1
5 Strainer MW 0.6 mm
17 Airvent
23 Sensor
24 Fitting piece for heat meter: 3/4" × 110 mm
30 AB-PM DN 20
38 Hot water controller type TPC-M
40 Summer bypass
59 Fitting piece for water meter: 3/4" × 110 mm

Technical data:

Nominal pressure:	PN 10
Max: Flow temperature:	95 °C
Static cold water pressure Pmin:	1.5 bar
Heat exchanger material:	Copper/stainless steel
Weight excl. cover:	7,7 - 9,3 kg
Insulation:	EPP λ 0.039
Power supply:	230 V
Dimensions (mm):	H613×W530×D150



Connections:

1. Cold water (PWC) inlet
2. Hot water (PWH)
3. Cold water (PWC) outlet
4. Flow, supply network
5. Return flow, supply network
6. Consumers, flow
7. Consumers, return flow
8. Flow supply network (35-38°C)
9. Return supply network (35-38°C)

Code no. :

183B3010 EvoFlat 4.0 FPS Type 3
183B3011 EvoFlat 4.0 FPS Type 4
183B3510 EvoFlat 4.0 FPS Type 3 StS
183B3511 EvoFlat 4.0 FPS Type 4 StS

PHW: OUTPUT EXAMPLES 10/50°C

Type designation HEX	PWH output [kW]	Supply network VL/RL [°C]	Pressure loss, supply network* [kPa]	Flow rate, supply network [l/h]	Draw-off flow rate [l/min]
XB05H-54	37	55/18	27	869	13,3
	55	65/15	34	940	19,7
XB05H-70	38	53/20	32	987	13,6
	41	55/18	30	941	17,6
	70	65/15	52	1197	25,2

* without heat meter

HEATING: EXAMPLES OF OUTPUT

Heating output [kW]	Heating circuit Δt [°C]	Pressure loss [kPa], supply network*	Flow rate, supply network* [l/h]
4,9	7	20	600
6,9	10	20	600
10,5	15	20	600

* without heat meter

Danfoss A/S
Climate Solutions • danfoss.com • +45 7488 2222