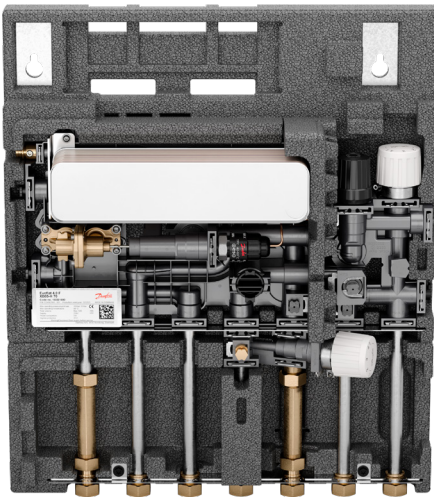


Data Sheet

# EvoFlat 4.0 F



EvoFlat 4.0 F is a Flat station (a.k.a. Heat Interface Unit or HIU) with self-acting controls for direct heating of a radiator circuit and instantaneous domestic hot water.

The compact sized station is designed for wall mounting or can be built into a wall using an optional recess box.

## Application

The EvoFlat 4.0 F Flat station is easy to install, maintain and operate. It is particularly suitable for apartment buildings with central heat generation or district heating.

## Construction

The innovative EvoFlat 4.0 F sets a new standard. Its 'body' is made from special reinforced PPS composite. This makes the station extremely lightweight and limits internal heat emission. The smooth surface significantly reduces the risks of scaling and clogging.

The use of PPS composite also enables the main components to be easy exchangeable.

All components are mounted with newly designed click connections. Compared to conventional stations with lots of pipes and screw connections, this new connection technology does not require retightening during installation.

The size, connection order and distances between the stainless-steel connection pipes is compatible with the existing EvoFlat program.

## Primary side (DH)

The flat station is equipped with two differential pressure regulators and a central strainer.

The station is connected to the heat supply with two connections.

A summer bypass keeps the supply line warm during standstill. This ensures a quick response time.

Hot water production even when heating is not required. The bypass can be operated thermostatically or manually and is standard positioned after the optional heat meter.

A fitting piece for the optional heat meter (e.g. Danfoss SonoSelect®) allows fast and easy placement of the meter. A sensor pocket for the sensor is standard.

## Heating (HE)

The flat station supplies the radiator heating circuits with the flow temperature provided by the supply.

The differential pressure regulator integrated as standard creates optimal operating conditions for the heating.

A zone valve is integrated in the return side. Time-dependent temperature control can be carried out using an optional actuator and room thermostat.

## Domestic hot water (DHW)

The hot water output is determined by the number of plates in the built-in heat exchanger. There are 4 Heat exchanger types from 37 to 80 kW are 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.

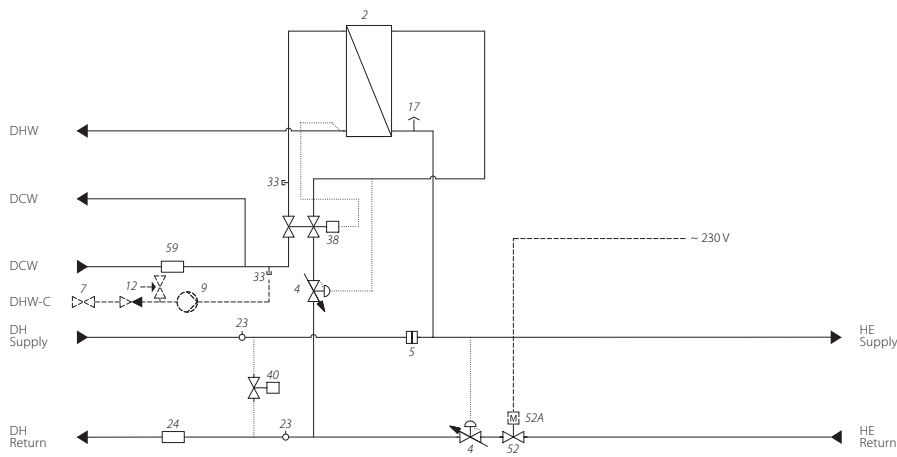
To measure water consumption, the EvoFlat 4.0 F is equipped with a fitting piece for mounting a water meter in the cold-water inlet.

If necessary, the station can be expanded with a DHW circulation set.

## Insulation

The EvoFlat 4.0 F 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.

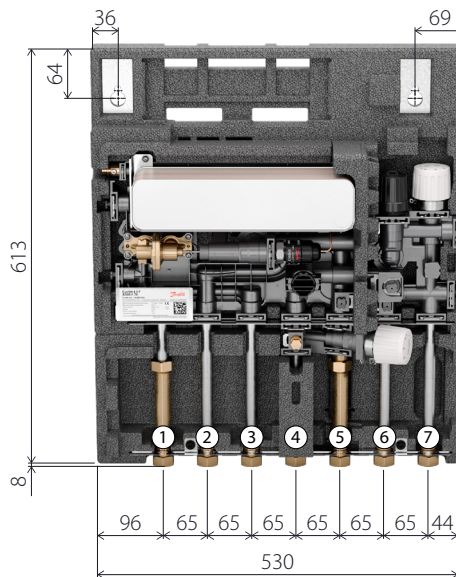
### CIRCUIT DIAGRAM (EXAMPLE)



- 2 Plate heat exchanger DHW
- 4 Differential pressure controller
- 5 Stainer
- 7 Ball valve
- 9 DHW circulation set with safety valve
- 12 Safety valve
- 17 Air vent
- 23 Sensor pocket
- 24 Fitting piece for energy meter 3/4" x 110 mm
- 38 Hot Water Controller
- 40 Summer By-pass
- 52 Zone valve
- 52A TWA Q-NO 230V for zone valve (optional)
- 59 Fitting piece for water meter 3/4" x 110 mm

#### Technical specifications:

- Nominal pressure: PN 10
- Max. supply temperature: 95 °C
- DCW static pressure:  $P_{min} = 1,5 \text{ bar}$
- Heat exchanger material: Copper or Stainless steel
- Weight excl. cover:** 7,7 - 9,3 kg
- Insulation:** EPP  $\lambda 0,039$
- Electrical supply:** 230 V AC
- Dimensions (mm):** H 613 x W 530 x D 150
- Connections sizes:** G 3/4" internal thread



#### Connections:

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

#### Options:

- PWH - Circulation set (183H0500)
- Actuator TWA-Q NO 230V (082F1601)

### DHW: CAPACITY EXAMPLES

Unit type HEX	DHW capacity [kW]	Temperature DHS/DHR [°C]	Flow rate Primary [l/h]	Pressure loss Primary* [kPa]	Tap load 50°C [l/min.]
XB05H 36 Cu/E (Type 1)	37	65/15	637	20	13,3
	43	65/16	750	27	15,4
XB05H 46 Cu/E (Type 2)	45	65/15	770	23	16,2
	49	65/15	844	29	17,6
XB05H 54 Cu/E (Type 3)	55	65/15	943	34	19,8
	37	55/18	869	27	13,3
XB05H 70 Cu/E (Type 4)	60	65/14	1014	37	21,6
	70	65/14	1197	52	25,2
	49	55/19	1158	50	17,6

### HEATING: CAPACITY EXAMPLES

Heating capacity [kW]	Heating circuit $\Delta T$ [°C]	Total pressure loss primary* [kPa]	Flow rate supply [l/h]
10	20	12	430
10	25	8	344
10	30	6	287
10	35	5	246
10	40	4	215
17,5	25	25	600**

\* Energy meter and DHW heating not included  
\*\* max. flow

\* Energy meter not included

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