



Air for life

Technical Data Sheet

Flair 450/600 Enthalpy

English



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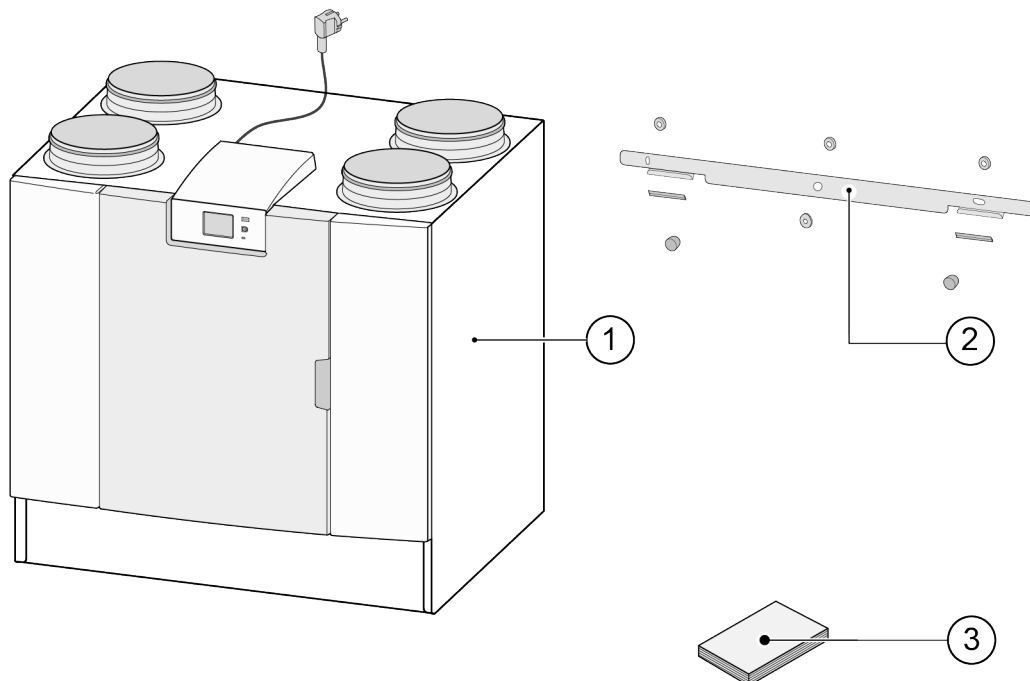
1 Scope of delivery

1.1 Delivery size

Before installation of the heat recovery appliance is started, check that it has been supplied in complete and undamaged condition.

The delivery size of the heat recovery appliance type Flair 450/600 Enthalpy consists of the following components:

1. Heat recovery appliance
2. Wall mounting bracket consisting of:
 - 1x mounting bracket
 - 2x protective caps
 - 2x rubber strip
 - 3x rubber rings
 - 1x washer
3. Documentation set consisting of:
 - 1x short installation instructions
 - 1x occupant's instructions



2 Technical specifications

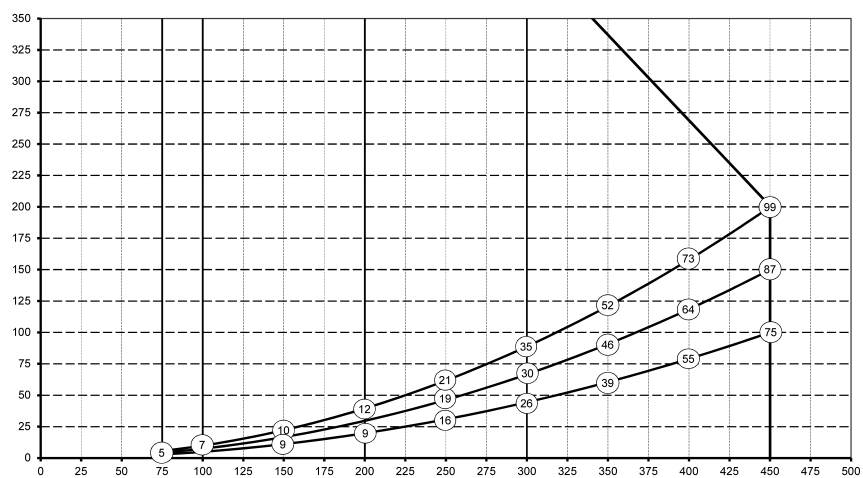
2.1 Technical information Flair 450 Enthalpy

Flair 450 Enthalpy (Plus)												
Supply voltage [V/Hz]			230V/50Hz									
Dimensions (w x h x d) [mm]			850 x 800 x 660									
Duct diameter [mm]			ø200									
Weight [kg]			57,5									
Filter class			ISO Coarse 60% (ISO ePM1.0 50% for the air supply optional)									
Fan setting (factory setting)			0		1		2		3		max	
Factory setting [m³/h]			75		100		200		300		450	
Permissible resistance of duct system [Pa]			3	6	5	10	20	40	44	89	100	200
Rated power (excl. preheater) [W]			10.4	10.8	12.4	13.2	17.6	23.8	51.9	69.3	149.5	198.8
Rated current (excl. preheater) [A]			0.17	0.17	0.19	0.19	0.20	0.27	0.53	0.69	1.32	1.68
Max. rated current (incl. preheater on) [A]			5.2									
Rated power preheater [W]			1000									
Cos φ			0.271	0.274	0.291	0.295	0.378	0.383	0.425	0.437	0.492	0.514
Wi-Fi Frequency range (OFR)			2400 MHz - 2483,5 MHz									
Wi-Fi Max. power (EIRP)			<20 dBm (100 mW)									
Permitted ambient conditions			Between +2°C and +40°C. RH <90% non condensing									
Storage and transport conditions			Between -20°C and +45°C. RH <90% non condensing									
Permitted air temperature through appliance			Between -20°C and +45°C with standard internal pre-heater * Add an external pre-heater when the outside temperature is below -20°C for longer periods of time.									
Sound power												
Ventilation capacity [m³/h]						100	200	200	300	300	450	450
Sound power level Lw(A)	Static pressure [Pa]					25	25	50	50	100	100	150
	Casing radiation [dB(A)]					<38.1	36.5	42.0	45.5	46.0	51.7	54.0
	Duct "Extract air" [db(A)]					<36.3	38.5	40.0	45.0	42.5	49.0	49.5
	Duct "Supply Air" [db(A)]					<38.5	43.5	47.5	53.0	53.5	58.6	59.0

*) Duct noise including end correction

In practice the value may differ by 1dB(A) through measurement tolerances.

**Resistance
of duct
system [Pa]**



Note:

The stated value in the circle is the capacity (in Watt) per fan.

Flow rate [m³/h]

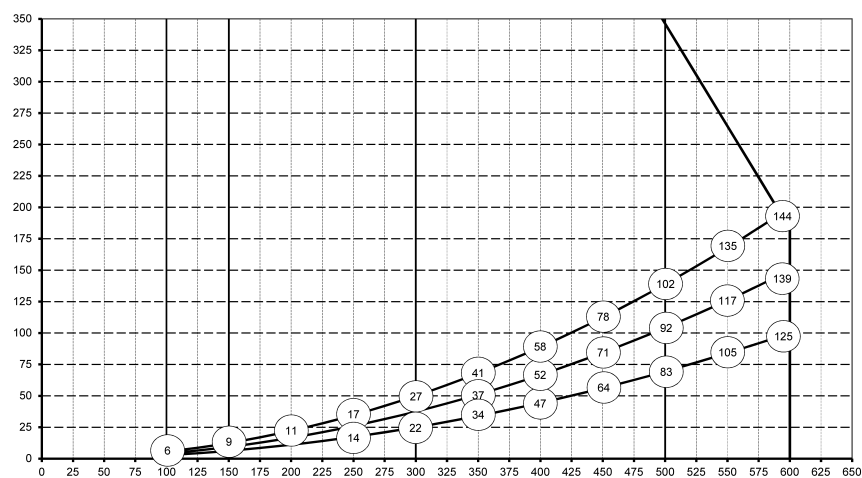
2.2 Technical information Flair 600 Enthalpy

Flair 600 Enthalpy (Plus)													
Supply voltage [V/Hz]				230V/50Hz									
Dimensions (w x h x d) [mm]				850 x 800 x 660									
Duct diameter [mm]				ø200									
Weight [kg]				57,5									
Filter class				ISO Coarse 60% (ISO ePM1.0 50% for the air supply optional)									
Fan setting (factory setting)				0		1		2		3		max	
Factory setting [m³/h]				100		150		300		500		600	
Permissible resistance of duct system [Pa]				3	6	6	13	25	50	69	139	100	188
Rated power (excl. preheater) [W]				12.1	12.5	17.2	18.3	44.5	54.2	166.6	203.1	260.6	288.0
Rated current (excl. preheater) [A]				0.18	0.19	0.23	0.24	0.46	0.55	1.45	1.71	2.11	2.3
Max. rated current (incl. preheater switched on) [A]				5.7									
Rated power preheater [W]				1000									
Cos φ				0.288	0.291	0.322	0.327	0.421	0.427	0.500	0.516	0.536	0.544
Wi-Fi Frequency range (OFR)				2400 MHz - 2483,5 MHz									
Wi-Fi Max. power (EIRP)				<20 dBm (100 mW)									
Permitted ambient conditions				Between +2°C and +40°C. RH <90% non condensing									
Storage and transport conditions				Between -20°C and +45°C. RH <90% non condensing									
Permitted air temperature through appliance				Between -20°C and +45°C with standard internal pre-heater * Add an external pre-heater when the outside temperature is below -20°C for longer periods of time.									
Sound power													
Ventilation capacity [m³/h]							150	300	300	500	500	600	600
Sound power level Lw(A)	Static pressure [Pa]						25	50	100	100	150	100	150
	Casing radiation [dB(A)]						37.5	45.5	46.0	56.0	54.5	56.5	56.5
	Duct “Extract Air” [db(A)]						35.0	45.0	42.5	51.0	52.0	53.5	56.5
	Duct ‘To dwelling’ [db(A)]						43.5	53.0	53.5	60.5	61.5	62.0	66.6

*) Duct noise including end correction

In practice the value may differ by 1dB(A) through measurement tolerances.

**Resistance
of duct
system [Pa]**



Flow rate [m³/h]

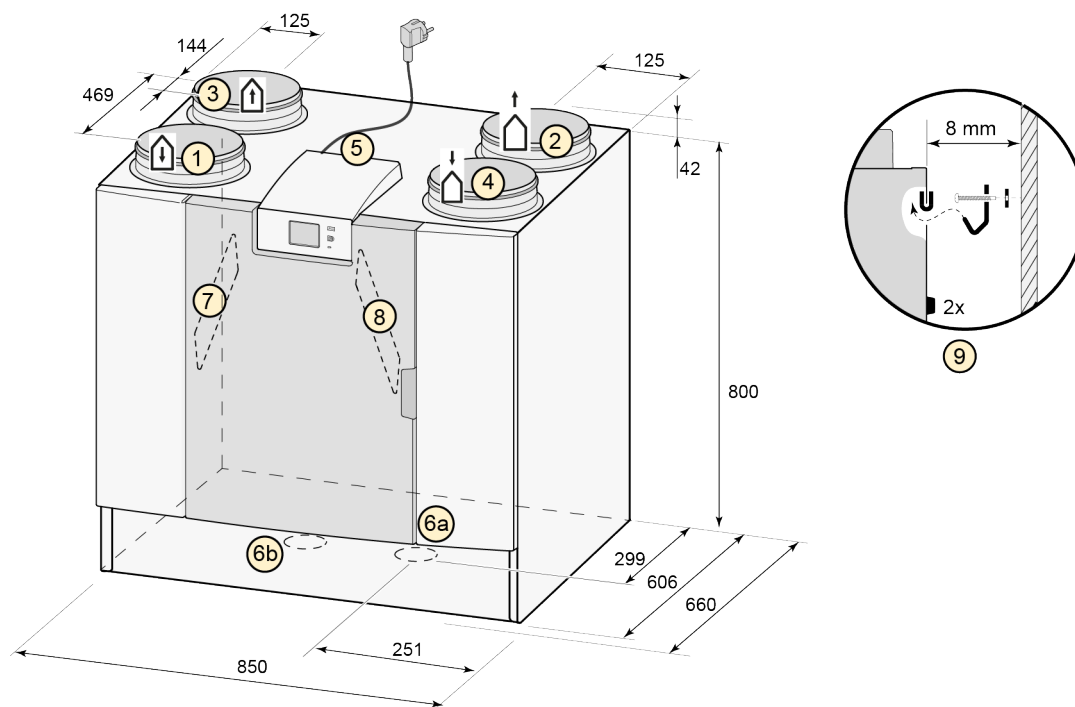
Note:

The stated value
in the circle is
the capacity (in
Watt) per fan.

2.3 Connections and dimensions

The Flair appliance is available in a left-hand and right-hand version. With a left-hand version the “warm” connections (from dwelling 3 and to dwelling 1) are on the left-hand side of the appliance; the condensate discharge is then mounted at the right-hand opening below the appliance. With a right-hand version the “warm” connections (1 & 3) are on the right-hand side of the appliance.

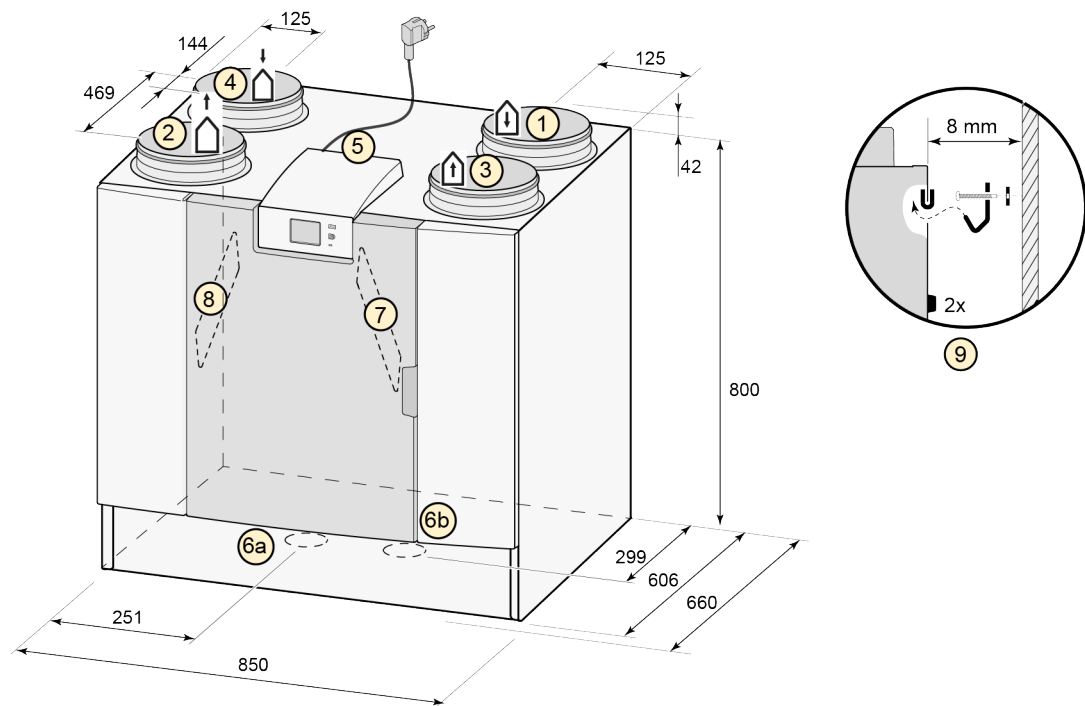
Left-hand version



All dimensions in millimeters. Diameter of all collars is 200 mm

1	Supply air	
2	Exhaust air	
3	Extract air	
4	Outdoor air	
5	Electrical connections	
6a	Sealing cap	
6b	Sealing cap unused condensate discharge connection; do not remove!	
7	Extract air filter	
8	Supply air filter	
9	Mounting bracket	

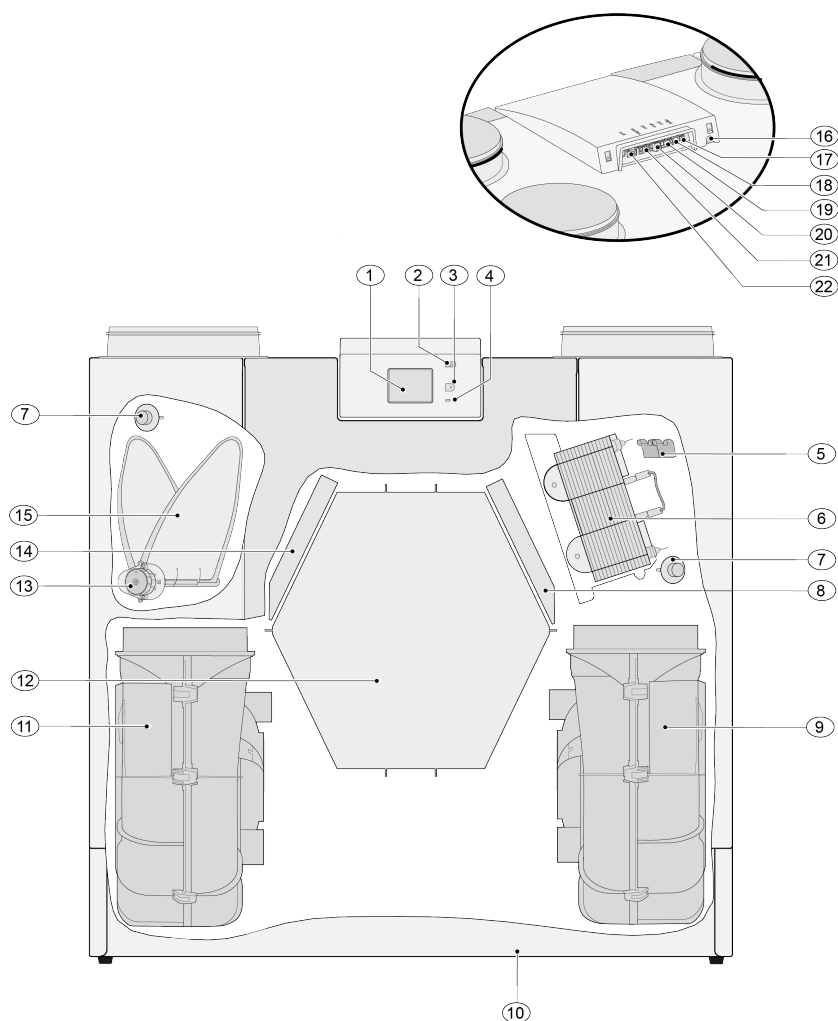
Right-hand version



All dimensions in millimeters. Diameter of all collars is 200 mm

1	To dwelling	
2	Exhaust air	
3	Extract air	
4	Outdoor air	
5	Electrical connections	
6a	Sealing cap	
6b	Sealing cap unused condensate discharge connection; do not remove!	
7	Extract air filter	
8	Supply air filter	
9	Mounting bracket	

2.4 Appliance parts

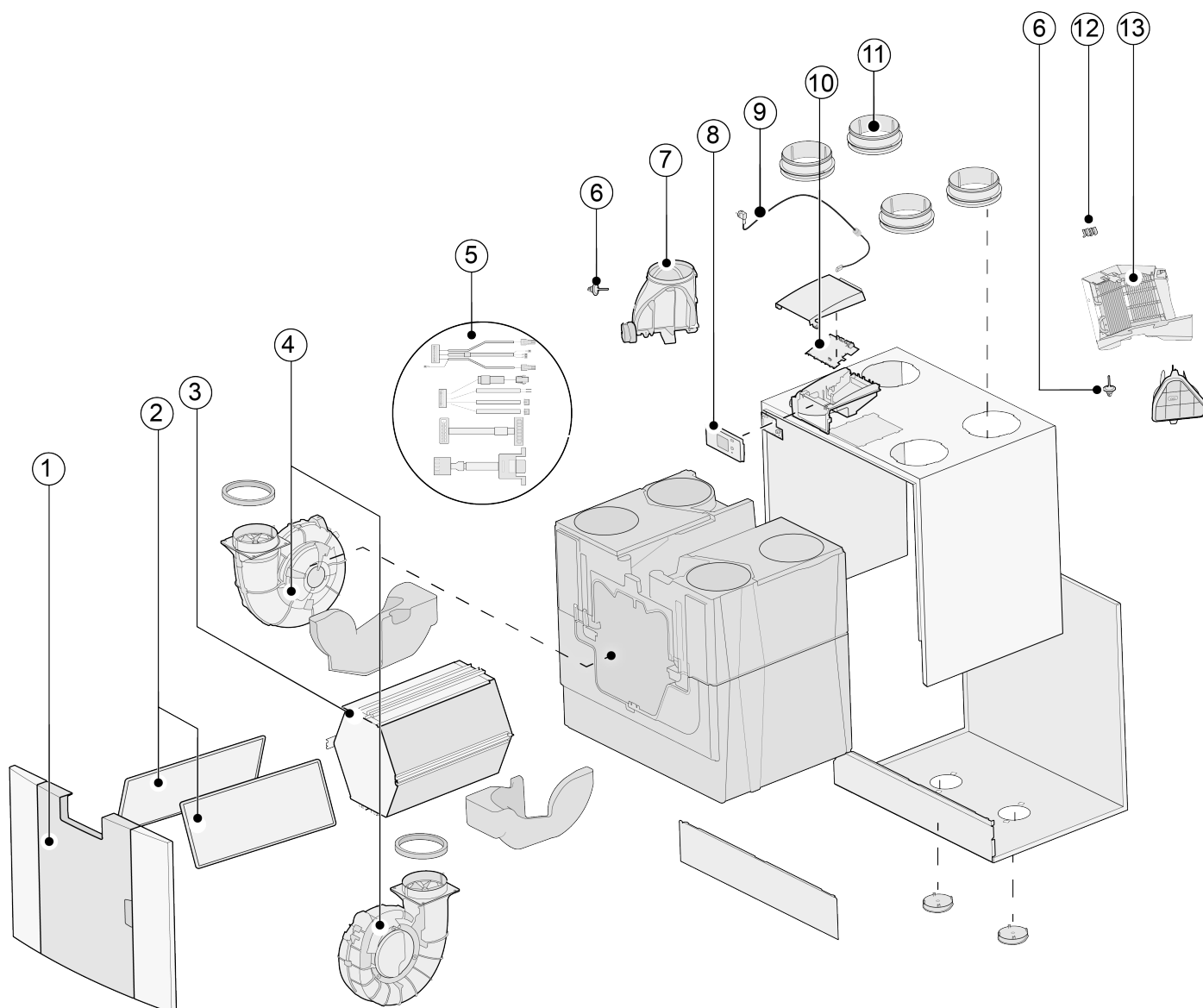


The appliance shown above is a left-hand version: in the case of a right-hand version, the connector of the preheater and the bypass valve are installed in mirror image!

1	Touchscreen	12	Enthalpy heat exchanger
2	USB connector (X13)	13	Motor bypass valve
3	Service connector	14	Exhaust air filter
4	LED indicator	15	Bypass valve
5	Maximum protection preheater	16	Power cable 230 volt
6	Preheater	17	Signal output (X19)
7	Temperature sensor (2x)	18	24 volt connector (X18)
8	Supply filter	19	eBus connector (X17)
9	Exhaust fan	20	24 volt connector (X16)
10	Sealing cap	21	Modbus/ internal bus connector (X15)
11	Supply fan	22	Multiple switch connector (X14)

3 Service parts

3.1 Exploded view



Danger

The power cable is fitted with a circuit board connector. When replacing it, always order a replacement mains cable from Brink.

To prevent dangerous situations, a damaged mains connection can only be replaced by a qualified expert.

3.2 Service articles

o.	Article description	Article code
1	Front panel complete Flair 450	532828
	Front panel complete Flair 600	532826
2	Filters (2 items) ISO Coarse 60%	532821
3	Heat exchanger enthalpy	532962
4	Fan (1 item)	533037
5	Cable set	532891
6	Temperature sensor NTC 10K (1 item)	531775
7	Bypass valve with motor complete	532760
8	Display pcb UBP-2	532752
9	Mains plug and cable 230 V *	532929
10	Appliances manufactured before 01-01-2023 : Basic pcb UWA2-B + display	532750
	Appliances manufactured after 01-01-2023 : Basic pcb UWA2-B	532966
11	Collars 200 mm	532899
12	Maximum security	532769
13	Internal preheater	532886

3.3 Ordering service parts

When ordering parts, in addition to the article code number (see exploded view), please state the heat recovery appliance type, the serial number, the year of production and the name of the part:

Note

Appliance type, serial number and year of production are stated on the identification plate behind the plastic front panel on the appliance.

Example	
Appliance type	Flair 450/600 Enthalpy (Plus)
Serial number	432000234121
Year of production	2024
Part	Fan
Article code	533037
Quantity	1

4 Conformity declaration

Manufacturer: **Brink Climate Systems B.V.**

Address: **P.O. Box 11**
NL-7950 AA, Staphorst, The Netherlands

Product: **Heat recovery appliance type:**
Flair 450 Enthalpy
Flair 600 Enthalpy

The product described above complies with the following directives:

- | | |
|-------------------|-----------------------------|
| ◆ 2014/30/EU | (OJEU L 96/79; 29-03-2014) |
| ◆ 2014/35/EU | (OJEU L 96/357; 29-03-2014) |
| ◆ 2009/125/EU | (OJEU L 285/10; 31-10-2009) |
| ◆ 2017/1369/EU | (OJEU L 198/1; 28-07-2017) |
| ◆ RoHS 2011/65/EU | (OJEU L 174/88; 01-07-2011) |

The product described above has been tested according to the following standards:

- | | |
|---------------------|---|
| ◆ EN IEC 55014-1: | 2021 |
| ◆ EN IEC 55014-2: | 2021 |
| ◆ EN IEC 61000-3-2: | 2019 + A1:2021 |
| ◆ EN 61000-3-3: | 2013 + A1:2019 + A2:2021 |
| ◆ EN 60335-1: | 2012 + AC:2014 + A11:2014 + A13:2017 + A1:2019 +
A2:2019 + A14:2019 + A15:2021 |
| ◆ EN 60335-2-40: | 2003 + A11:2004 + A12:2005 + AC:2006 + A1:2006 +
A2:2009 + AC:2010 + A13:2012 |
| ◆ EN 62233: | 2008 + AC:2008 |

Staphorst, 07-06-2023



A. Hans
Managing Director

5 ERP values Flair 450 Enthalpy

Technical information sheet Flair 450 Enthalpy in accordance with Ecodesign (ErP), no. 1254/2014 (Annex IV)					
Manufacturer:		Brink Climate Systems B.V.			
Model:		Flair 450 Enthalpy Enthalpy			
Climate zone	Type of control	SEC Value in kWh/m²/a	SEC Class	Annual electricity consumption (AEC) in kWh	Annual heating saved (AHS) in kWh
Average	manual	-35.90	A	258	4168
	clock control	-36.79	A	237	4204
	1x sensor (RV/CO ₂ /VOC)	-38.48	A	199	4278
	2 or more sensors (RV/CO ₂ /VOC)	-41.54	A	135	4424
Cold	manual	-70.39	A+	795	8153
	clock control	-71.63	A+	774	8225
	1x sensor (RV/CO ₂ /VOC)	-74.02	A+	736	8368
	2 or more sensors (RV/CO ₂ /VOC)	-78.48	A+	672	8655
Hot	manual	-13.52	E	213	1885
	clock control	-14.21	E	192	1901
	1x sensor (RV/CO ₂ /VOC)	-15.50	E	154	1934
	2 or more sensors (RV/CO ₂ /VOC)	-17.76	E	90	2001
Type of ventilation unit:		Balanced residential ventilation appliance with heat recovery			
Fan:		EC - fan with infinitely variable control			
Type of heat exchanger:		Recuperative plastic counterflow heat exchanger			
Thermal efficiency		77%			
Maximum flow rate:		450 m³/h			
Maximum rated power:		192 W			
Sound power level Lwa:		47 dB(A)			
Reference flow rate:		315 m³/h			
Reference pressure:		50 Pa			
Specific Power Input (SEL):		0.17 Wh/m³			
Control factor:		1.0 in combination with multiple switch			
		0.95 in combination with clock control			
		0.85 in combination with 1 sensor			
		0.65 in combination with 2 or more sensors			
Leakage*	Internal	1.20%			
	External	1.30%			
Position dirty filter indication:		On the display of the appliance / on the multiple switch (LED) / on the Brink Air Control. Attention! For optimal energy efficiency and a proper operation, a regular filter inspection, cleaning or replacement is necessary.			
Internet address for Assembly instructions:		https://www.brinkclimatesystems.nl/support/downloads			
Bypass:		Yes, 100% Bypass			

* Measurements executed by Brink Climate Systems B.V. according to the EN 13141-7: 2021 (Brink-report 2230, 09-10-2023)

Classification from 1 January 2016	
SEC class ("Average climate zone")	SEC in kWh/m²/a
A+ (Most efficient)	SEC < -42
A	-42 ≤ SEC < -34
B	-34 ≤ SEC < -26
C	-26 ≤ SEC < -23
D	-23 ≤ SEC < -20
E (Least efficient)	-20 ≤ SEC < -10

6 ERP values Flair 600 Enthalpy

Technical information sheet Flair 600 Enthalpy in accordance with Ecodesign (ErP), no. 1254/2014 (Annex IV)					
Manufacturer:		Brink Climate Systems B.V.			
Model:		Flair 600 Enthalpy Enthalpy			
Climate zone	Type of control	SEC Value in kWh/m²/a	SEC Class	Annual electricity consumption (AEC) in kWh	Annual heating saved (AHS) in kWh
Average	manual	-34.01	A	296	4072
	clock control	-35.03	A	271	4114
	1x sensor (RV/CO ₂ /VOC)	-36.99	A	226	4196
	2 or more sensors (RV/CO ₂ /VOC)	-40.52	A	151	4362
Cold	manual	-67.58	A+	833	7966
	clock control	-69.00	A+	808	8047
	1x sensor (RV/CO ₂ /VOC)	-71.75	A+	763	8209
	2 or more sensors (RV/CO ₂ /VOC)	-76.87	A+	688	8533
Hot	manual	-12.15	E	251	1841
	clock control	-12.95	E	226	1860
	1x sensor (RV/CO ₂ /VOC)	-14.45	E	181	1898
	2 or more sensors (RV/CO ₂ /VOC)	-17.08	E	106	1972
Type of ventilation unit:		Balanced residential ventilation appliance with heat recovery			
Fan:		EC - fan with infinitely variable control			
Type of heat exchanger:		Recuperative plastic counterflow heat exchanger			
Thermal efficiency		74%			
Maximum flow rate:		600 m³/h			
Maximum rated power:		288 W			
Sound power level Lwa:		53 dB(A)			
Reference flow rate:		420 m³/h			
Reference pressure:		50 Pa			
Specific Power Input (SEL):		0.20 Wh/m³			
Control factor:		1.0 in combination with multiple switch			
		0.95 in combination with clock control			
		0.85 in combination with 1 sensor			
		0.65 in combination with 2 or more sensors			
Leakage*	Internal	0.90%			
	External	1.00%			
Position dirty filter indication:		On the display of the appliance / on the multiple switch (LED) / on the Brink Air Control. Attention! For optimal energy efficiency and a proper operation, a regular filter inspection, cleaning or replacement is necessary.			
Internet address for Assembly instructions:		https://www.brinkclimatesystems.nl/support/downloads			
Bypass:		Yes, 100% Bypass			

* Measurements executed by Brink Climate Systems B.V. according to the EN 13141-7: 2021 (Brink-report 2230, 09-10-2023)

Classification from 1 January 2016	
SEC class ("Average climate zone")	SEC in kWh/m²/a
A+ (Most efficient)	SEC < -42
A	-42 ≤ SEC < -34
B	-34 ≤ SEC < -26
C	-26 ≤ SEC < -23
D	-23 ≤ SEC < -20
E (Least efficient)	-20 ≤ SEC < -10

7 Recycling and disposal



Do not dispose of as household waste!

In accordance with the Waste Disposal Act, the following components must be disposed of or recycled in an environmentally compatible manner by means of appropriate collection points:

- Old appliance
- Wearing parts
- Defective components
- Electrical or electronic waste
- Environmentally hazardous liquids and oils

Environmentally compatible means separated by material groups to ensure the greatest possible recyclability of the basic materials with the minimum environmental impact.

1. Dispose of packaging made of cardboard, recyclable plastics and synthetic filler materials in an environmentally compatible manner through appropriate recycling systems or a recycling center.
2. Please observe the applicable national and local regulations.

Brink Climate Systems B.V.

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