

Air for life

### Technical Data Sheet

Flair 400

English



### Contents

| 1 | Scope of delivery              | 3   |
|---|--------------------------------|-----|
|   | 1.1 Scope of delivery          | . 3 |
| 2 | Technical specifications       | 4   |
|   | 2.1 Technical information      | 4   |
|   | 2.2 Connections and dimensions | 6   |
|   | 2.3 Internal parts             | 8   |
| 3 | Service parts                  | . 9 |
|   | 3.1 Exploded view              | . 9 |
|   | 3.2 Service artikelen          | 10  |
|   | 3.3 Ordering service parts     | 10  |
| 4 | Conformity declaration         | 11  |
|   | ERP values                     | 12  |
| 6 | Recycling and disposal         | 1/  |

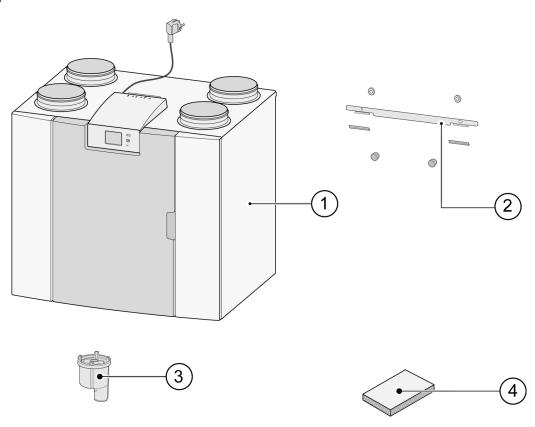
# 1 Scope of delivery

#### 1.1 Scope of delivery

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 consists of the following components:

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



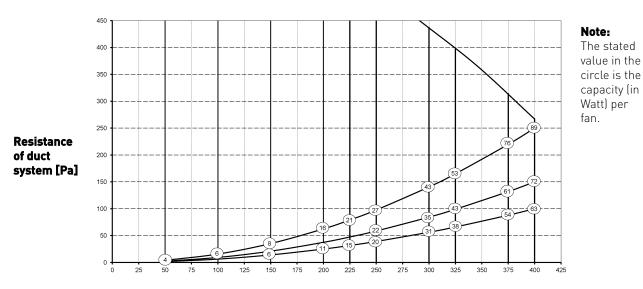
# 2 Technical specifications

#### 2.1 Technical information

| Flair 400  |                        |  |          |          |         |          |         |          |          |       |       |
|--|------------------------|--|----------|----------|---------|----------|---------|----------|----------|-------|-------|
| Supply voltage [V/Hz]                                |                        | 230V/50Hz  |          |          |         |          |         |          |          |       |       |
| Dimensions (w x h x d) [mm]                          |                        | 750 x 650 x 560  |          |          |         |          |         |          |          |       |       |
| Duct diameter [mm]                                   |                        | ø180   |          |          |         |          |         |          |          |       |       |
| Ext. diameter condensate disc                        | harge [mm]             | ø32  |          |          |         |          |         |          |          |       |       |
| Weight [kg]  |                        | 38.5   |          |          |         |          |         |          |          |       |       |
| Filter class   |                        | ISO Co   | arse 609 | % (ISO e | PM1.0 5 | 0% for 1 | the air | supply o | ptional) |       |       |
| Fan setting (factory setting)                        |                        | 0  |          | 1        |         | 2        |         | 3        |          | max   |       |
| Factory setting [m³/h]                               |                        | 50   |          | 100      |         | 200      |         | 300      |          | 400   |       |
| Permissible resistance of duct                       | system [Pa]            | 2  | 4        | 6        | 16      | 25       | 63      | 56       | 141      | 100   | 250   |
| Rated power (excl. preheater)                        | • •                    | 7.6  | 7.8      | 10.3     | 11.5    | 23.0     | 31.4    | 62.5     | 87.0     | 126.6 | 177.9 |
| Rated current (excl. preheater)                      | [A]                    | 0.12   | 0.12     | 0.15     | 0.16    | 0.25     | 0.33    | 0.58     | 0.77     | 1.01  | 1.38  |
| Max. rated current (incl. preheater switched on) [A] |                        | 6  |          |          |         |          |         |          |          |       |       |
| Rated power preheater [W]                            |                        | 1000   |          |          |         |          |         |          |          |       |       |
| Cos φ  |                        | 0.270  | 0.272    | 0.300    | 0.310   | 0.369    | 0.410   | 0.470    | 0.493    | 0.545 | 0.560 |
| WiFi Frequency range (OFR)                           |                        | 2400 MHz - 2483,5 MHz  |          |          |         |          |         |          |          |       |       |
| WiFi 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 [m <sup>3</sup> /h]             |                        |  |          | 150      |         | 250      | 350     |          | 400      |       |       |
|  | Static pressure [Pa]   |  |          |          | 25      |          | 50      | 100      |          | 100   |       |
| Sound power level Lw(A)                              | Casing radiation [dB(A | A)]  |          |          |         | 37       |         | 43,5     | 52       |       | 55    |
| Souria power level Lw(A)                             | Duct "From dwelling"   | [db(A)]  |          |          | 43,5    |          | 46,5    | 51       |          | 61    |       |
|  | Duct 'To dwelling' [db |  | (A)] 5   |          |         | 50       |         | 58       | 69,5     | 5     | 71    |

<sup>\*)</sup> Duct noise including end correction

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

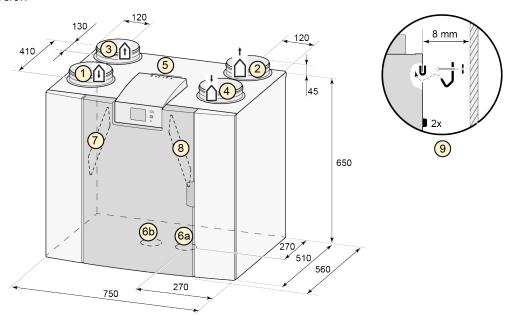


Flow rate [m<sup>3</sup>/h]

#### 2.2 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 sealing cap is then fitted in the right-hand opening at the bottom of the appliance. With a right-hand version the "warm" connections [1 & 3] are on the right-hand side of the appliance.

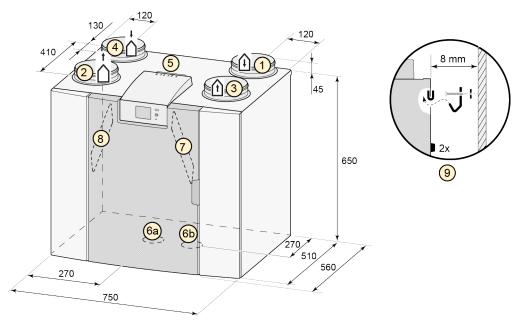
#### Left-hand version



All dimensions in millimeters. Diameter of all collars is 180 mm

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

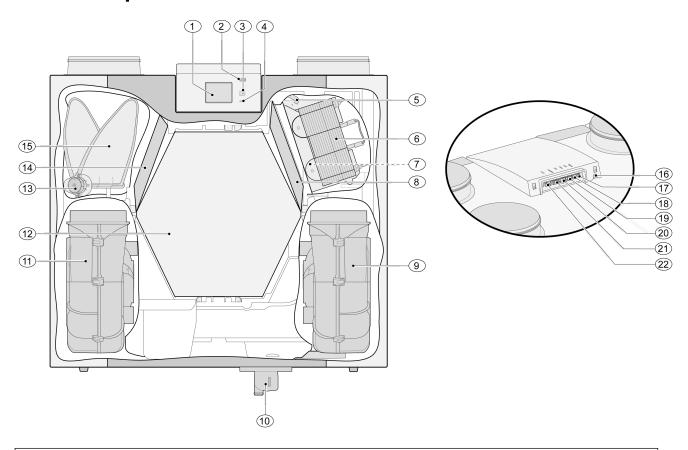
#### Right-hand version



All dimensions in millimeters. Diameter of all collars is 180 mm

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

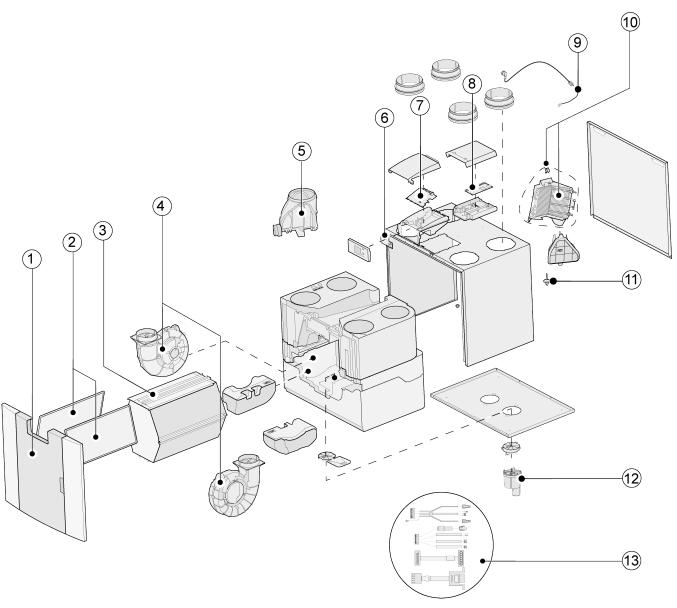
### 2.3 Internal parts



| The appliance shown above is a left-hand version: in the case of a right-hand version, the connector of the preheater, bypass valve and the siphon connector are installed in mirror image! |                               |  |    |                                      |  |
|---|-------------------------------|--|----|--------------------------------------|--|
| 1   | Touchscreen                   |  | 12 | Heat exchanger                       |  |
| 2   | USB connector (X13)           |  | 13 | Motor bypass valve                   |  |
| 3   | Service connector             |  | 14 | Exhaust air filter                   |  |
| 4   | LED indicator                 |  | 15 | Bypass valve                         |  |
| 5   | Overheat protection preheater |  | 16 | Power cable 230 volt                 |  |
| 6   | Preheater                     |  | 17 | Signal output (X19) )                |  |
| 7   | Temperature sensor            |  | 18 | 24 volt connector (X18)              |  |
| 8   | Supply filter                 |  | 19 | eBus connector (X17)                 |  |
| 9   | Exhaust fan                   |  | 20 | 24 volt connector (X16)              |  |
| 10  | Siphon                        |  | 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 artikelen

| No. | Article description   | Article code |
|-----|---|--------------|
| 1   | Front panel complete  | 532804       |
| 2   | Filters (2 items) ISO Coarse 60%  | 532716       |
| 3   | Heat exchanger  | 532754       |
| 4   | Fan (1 item)  | 532770       |
| 5   | Bypass valve with motor complete  | 532760       |
| 6   | Display pcb UBP-2   | 532752       |
| 7   | Appliances manufactured <b>before 01-01-2023</b> : Basic pcb UWA2-B + display | 532750       |
|     | Appliances manufactured <b>after 01-01-2023:</b> Basic pcb UWA2-B             | 532966       |
| 8   | Plus pcb UWA2-E (only applicable with Plus version)                           | 532751       |
| 9   | Mains plug and cable 230 V  | 532756       |
| 10  | Internal preheater incl. maximum security                                     | 532761       |
| 11  | Temperature sensor NTC 10K  | 531775       |
| 12  | Condensation discharge  | 532762       |
| 13  | Cable set   | 532767       |

### 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:

#### i 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 400 Plus |  |  |  |
| Serial number      | 43100022201    |  |  |  |
| Year of production | 2024           |  |  |  |
| Part               | Fan            |  |  |  |
| Article code       | 532770         |  |  |  |
| Quantity           | 1              |  |  |  |

### 4 Conformity declaration

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Manufacturer: Brink Climate Systems B.V.

Address: P.O. Box 11

NL-7950 AA, Staphorst, The Netherlands

Product: Flair 400

The product described above complies with the following directives:

◆ 2014/35/EU (OJEU L 96/357; 29-03-2014)

◆ 2014/30/EU (OJEU L 96/79; 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

Technical Director

# 5 ERP values

| Manufactu                 | rer:  | Brink Climate Systems B.V. Flair 400   |  |   |   |  |  |  |
|---------------------------|---|--|--|---|---|--|--|--|
| Model:                    |   |  |  |   |   |  |  |  |
| Climate<br>zone           | ate Type of control SEC Value kWh/m²/a      |  | SEC<br>Class   | Annual electricity consumption (AEC) in kWh | Annual heating<br>saved (AHS) in<br>kWh |  |  |  |
| Average                   | manual                                      | -40,68   | А  | 258   | 4646                                    |  |  |  |
|                           | clock control                               | -41,33   | А  | 237   | 4658                                    |  |  |  |
|                           | 1x sensor (RV/CO <sub>2</sub> /VOC)         | -42,54   | A+   | 199   | 4684                                    |  |  |  |
|                           | 2 or more sensors (RV/CO <sub>2</sub> /VOC) | -44,65   | A+   | 135   | 4735                                    |  |  |  |
| Cold                      | manual                                      | -79,74   | A+   | 795   | 9088                                    |  |  |  |
|                           | clock control                               | -80,50   | A+   | 774   | 9113                                    |  |  |  |
|                           | 1x sensor (RV/CO <sub>2</sub> /VOC)         | -81,96   | A+   | 736   | 9163                                    |  |  |  |
|                           | 2 or more sensors (RV/CO <sub>2</sub> /VOC) | -84,56   | A+   | 672   | 9263                                    |  |  |  |
| Hot                       | manual                                      | -15,68   | E  | 213   | 2101                                    |  |  |  |
|                           | clock control                               | -16,26   | E  | 192   | 2106                                    |  |  |  |
|                           | 1x sensor (RV/CO <sub>2</sub> /VOC)         | -17,33   | Е  | 154   | 2118                                    |  |  |  |
|                           | 2 or more sensors (RV/CO <sub>2</sub> /VOC) | -19,16   | Е  | 90  | 2141                                    |  |  |  |
| Type of ventilation unit: |   | Balanced residential ventilation appliance with heat recovery  |  |   |   |  |  |  |
| Fan:                      |   | EC - fan with infinitely variable control  |  |   |   |  |  |  |
| Type of heat              | exchanger:                                  | Recuperative plastic cross-counterflow heat exchanger  |  |   |   |  |  |  |
| Thermal effi              | ciency                                      | 92 %   |  |   |   |  |  |  |
| Maximum fl                | ow rate:                                    | 400 m³/h   |  |   |   |  |  |  |
| Maximum ra                | ated power:                                 | 178 W  |  |   |   |  |  |  |
| Sound powe                | er level Lwa:                               | 50 dB(A)   |  |   |   |  |  |  |
| Reference fl              | ow rate:                                    | 280 m³/h   |  |   |   |  |  |  |
| Reference p               |   | 50 Pa  |  |   |   |  |  |  |
| Specific Pow              | ver Input (SEL):                            | 0,17 Wh/m³   |  |   |   |  |  |  |
| Control facto             | or:   | 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                                    | 0.6 %  |  |   |   |  |  |  |
| External                  |   | 0.9 %  |  |   |   |  |  |  |
| osition dirt              | y filter indication:                        | On the display of the appliance / on the multiple switch (LED) / on the Brink Air Control.   |  |   |   |  |  |  |
|                           |   | <b>Attention!</b> For optimal energy efficiency and a proper operation, a regular filter inspection, cleaning or replacement is necessary. |  |   |   |  |  |  |
| Internet add              | Iress for Assembly instructions:            | · · · · · · · · · · · · · · · · · · ·  | https://www.brinkclimatesystems.nl/support/downloads |   |   |  |  |  |
| Bypass:                   |   | · ·  | Yes, 100% Bypass                                     |   |   |  |  |  |

<sup>\*</sup> Measurements executed by TZWL according to the EN 13141-7 standard

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

## 6 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.



Wethouder Wassebaliestraat 8, NL-7951SN Staphorst

T: +31 (0) 522 46 99 44

E. info@brinkclimatesystems.nl www.brinkclimatesystems.nl