

## Technical Sheet

### Heat recovery appliance Renovent Excellent 400 (Plus)



**BRINK**

The Brink Renovent Excellent is a ventilation unit with heat recovery with an efficiency of 95%, a maximum ventilation capacity of 300 or 400 m<sup>3</sup>/h and low-energy fans. Features Renovent Excellent:

- steplessly adjustable air flow rates through a control panel;
- filter indication on the appliance and the possibility for filter indication on the multiple switch;
- a completely new intelligent frost protection system which ensures that also at low outdoor temperatures the appliance's performance remains optimal and that, if necessary, it activates the standard preheater.
- low sound level
- comes as standard with automatic bypass valve
- constant flow control
- low energy consumption
- high efficiency

Renovent Excellent 300/400 is available in two types:

- **Renovent Excellent™**
- **Renovent Excellent Plus™**

Compared to the Renovent Excellent, the Renovent Excellent Plus has a more extensive control board which increases the connection options.

These installation instruction describe both the standard Renovent Excellent and the Renovent Excellent Plus.

The Renovent Excellent (Plus) is available in the left-handed or right-handed version. A left-handed version has the filters on the left behind the filter door; a right-handed version has the filters on the right behind the filtered door. The position of the air ducts differs for these two versions! For the correct position of the connection ducts and dimensions see page 5.

When ordering an appliance always state the correct type; subsequent conversion to a different version is not possible.


The Renovent Excellent comes ready to plug in with a 230 V mains plug and a connection for a low-voltage multiple switch on the outside of the appliance.

**Note:** When replacing a Renovent Large by a Renovent Excellent, do realise that the positions of the ducts "From dwelling" and "From atmosphere" are different! (only for type 4/0 & 3/1) Carefully check the position of these ducts on the basis of the connection drawings on page 5.

**Version types Renovent Excellent 300/400**

Type	Version L of R	Position air ducts	Power supply	Type code
Renovent Excellent	Left-handed version	4 top connections	Power plug	4/0 L
		2 top connections & 2 bottom connections	Power plug	2/2 L
		3 top connections & 1 bottom connection	Power plug	3/1 L
	Right-hand version	4 top connections	Power plug	4/0 R
		2 top connections & 2 bottom connections	Power plug	2/2 R
		3 top connections & 1 bottom connection	Power plug	3/1 R
Renovent Excellent Plus	Left-handed version	4 top connections	Power plug	4/0 L+
		2 top connections & 2 bottom connections	Power plug	2/2 L+
		3 top connections & 1 bottom connection	Power plug	3/1 L+
	Right-hand version	4 top connections	Power plug	4/0 R+
		2 top connections & 2 bottom connections	Power plug	2/2 R+
		3 top connections & 1 bottom connection	Power plug	3/1 R+

## Technical information

	Renovent Excellent 400			
Supply voltage [V/Hz]	230/50			
Protection degree	IP30			
Dimensions (w x h x d) [mm]	675 x 765 x 564			
Duct diameter [mm]	Ø180			
External diameter condensate discharge [mm]	Ø32			
Weight [kg]	38			
Filter class	G3 (F7 optional for supply)			
Fan setting (factory setting)		1	2	3
Ventilation capacity [m³/h]	50	100	200	300
Permissible resistance ducts system [Pa]	3 - 6	6 - 20	25 - 49	56 - 178
Rated power (excl. preheater)[W]	8,6	9.5 - 15	29 - 40	72 - 98
Rated current (excl. preheater)[AA]	0,10	0.12 - 0.14	0.24 - 0.31	0.51 - 0.7
Max. rated current (with preheater switched on) [A]	6			
Cos φ	0,38	0.45 - 0.40	0.56 - 0.58	0.60 - 0.61

## Packaging

Packaging unit per pallet
2

## Warranty period

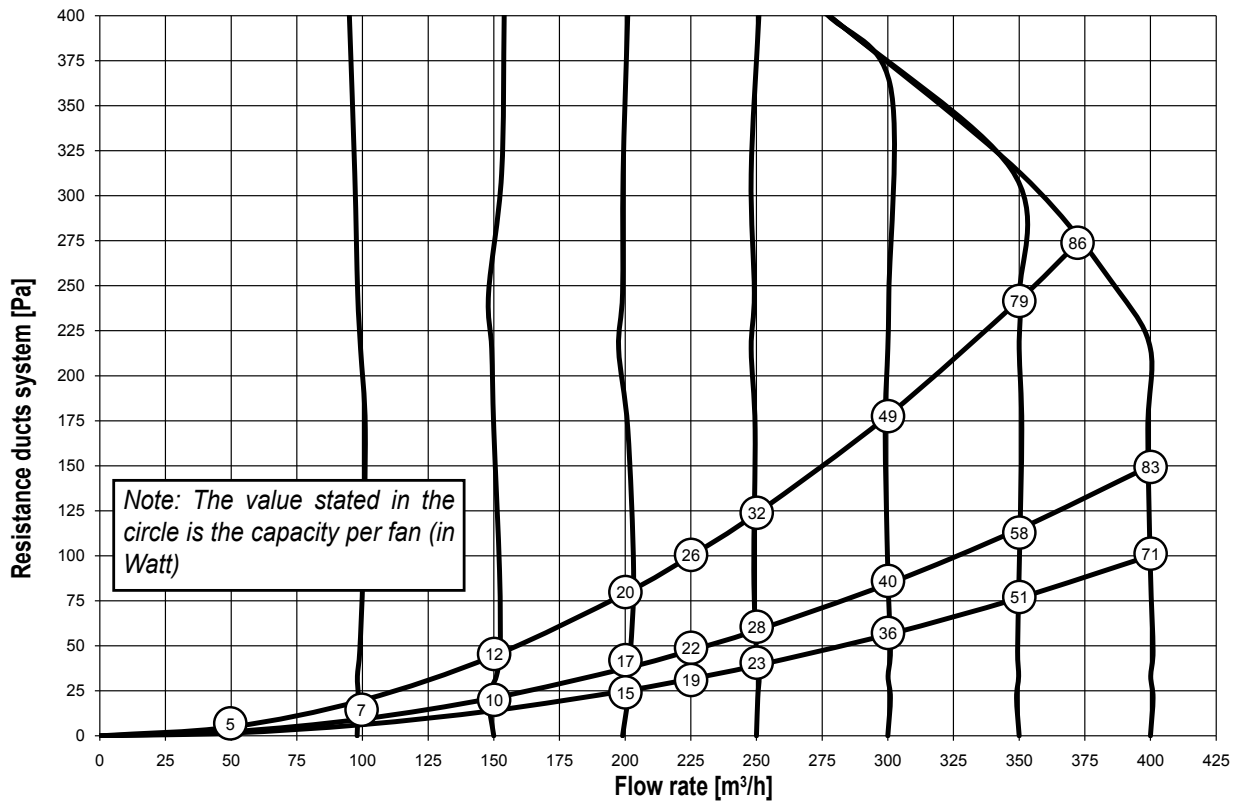
2 years on parts and 5 years on the heat exchanger.

## Sound power

Sound power Excellent 400												
Ventilation capacity [m³/h]		100		200		225		300			400	
Sound power level L <sub>w</sub> (A)	Static pressure [Pa]	9	40	38	80	47	100	84	175	240	150	225
	Housing emission [dB(A)]	28.5	31.5	39.5	40.5	42.5	46.5	50.0	52.0	53.0	53.5	56.0
	Duct "from dwelling" [dB(A)]	30.5	33.5	45.5	47.0	47.5	49.0	55.5	56.0	57.0	58.0	59.0
	Duct "to dwelling" [dB(A)]	41.5	46.5	56.0	58.0	59.5	61.5	65.0	67.5	68.5	69.5	70.5

*In practice, the value may deviate 1 dB(A) as a result of measuring tolerances*

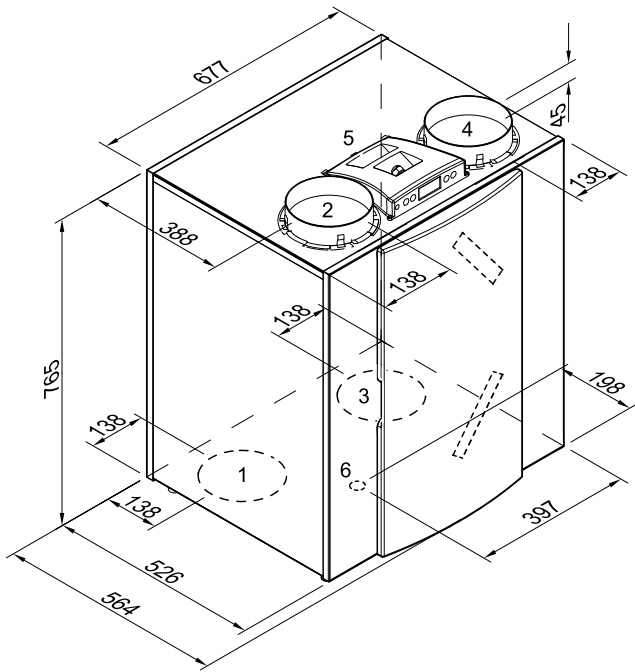
## Fan graphs



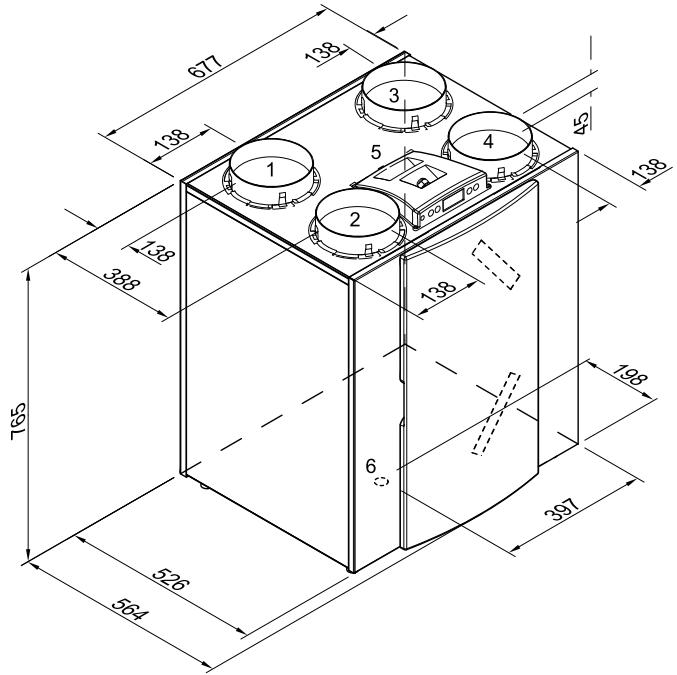
Fan graph Renovent Excellent 400

**Connections and dimensions Renovent Excellent 300/400**

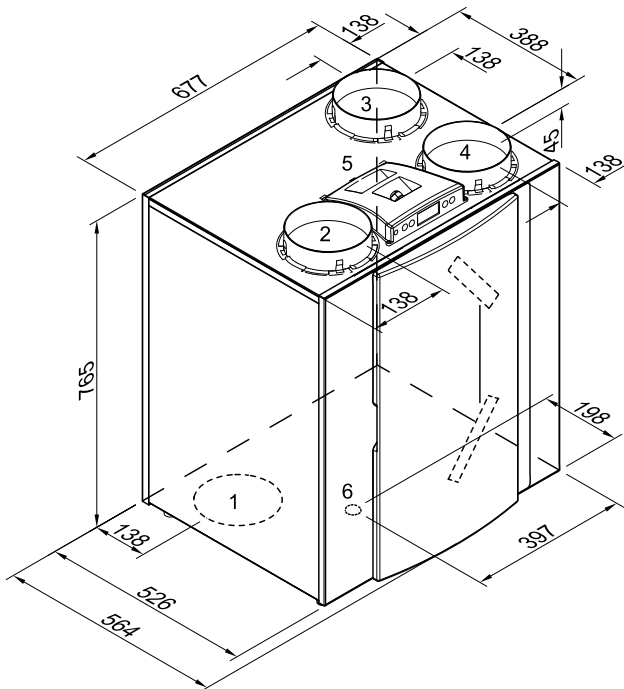
**Renovent Excellent right-handed version**



Renovent Excellent Right-handed 2/2



Renovent Excellent Right-handed 4/0

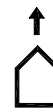


Renovent Excellent Right-handed 3/1

1 = Supply In



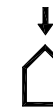
2 = Exhaust Out



3 = Exhaust



4 = Fresh Air In

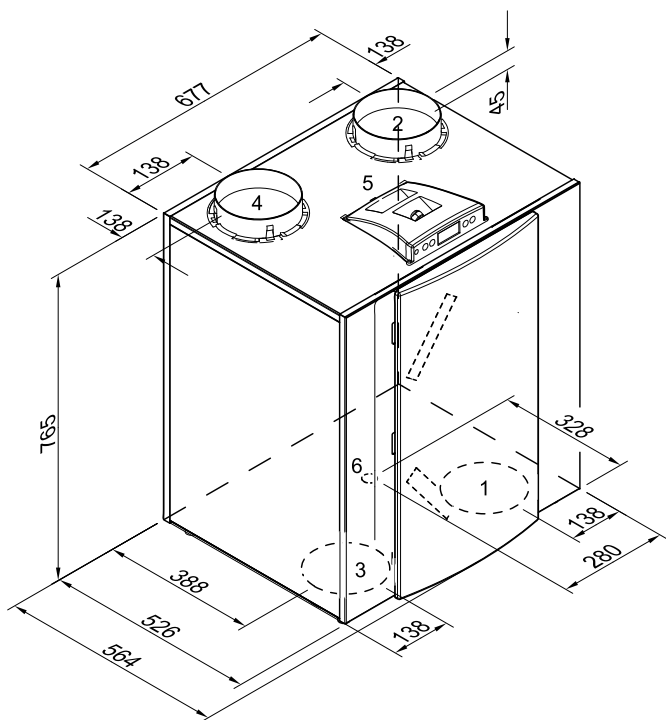


5 = Electric connections

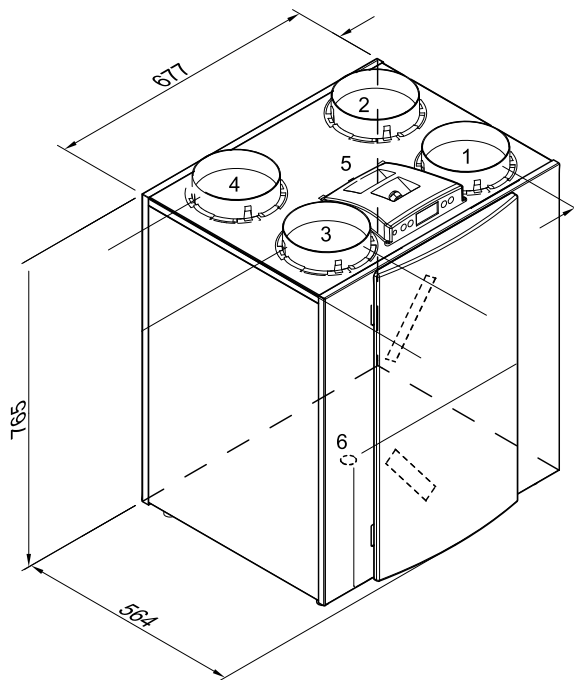
6 = Connection condensate discharge

7 = Wall mounting bracket (note the correct position of the rubber strip, washers and caps)

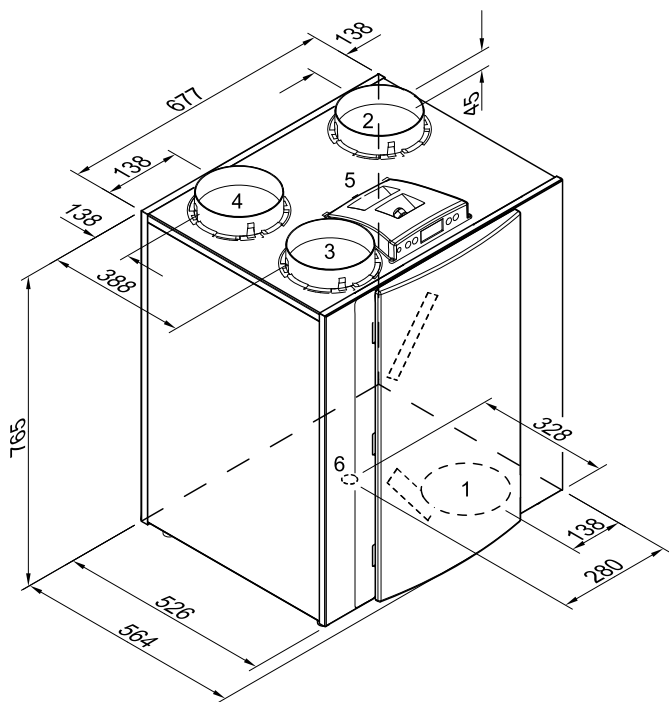
**Renovent Excellent left-handed version**



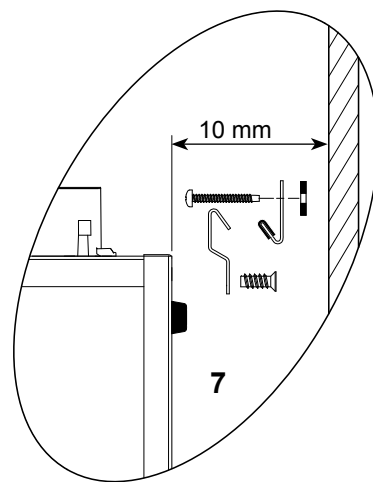
**Renovent Excellent left-handed 2/2**



**Renovent Excellent left-handed 4/0**



**Renovent Excellent left-handed 3/1**



**Mounting wall suspension kit**

## Exploded view

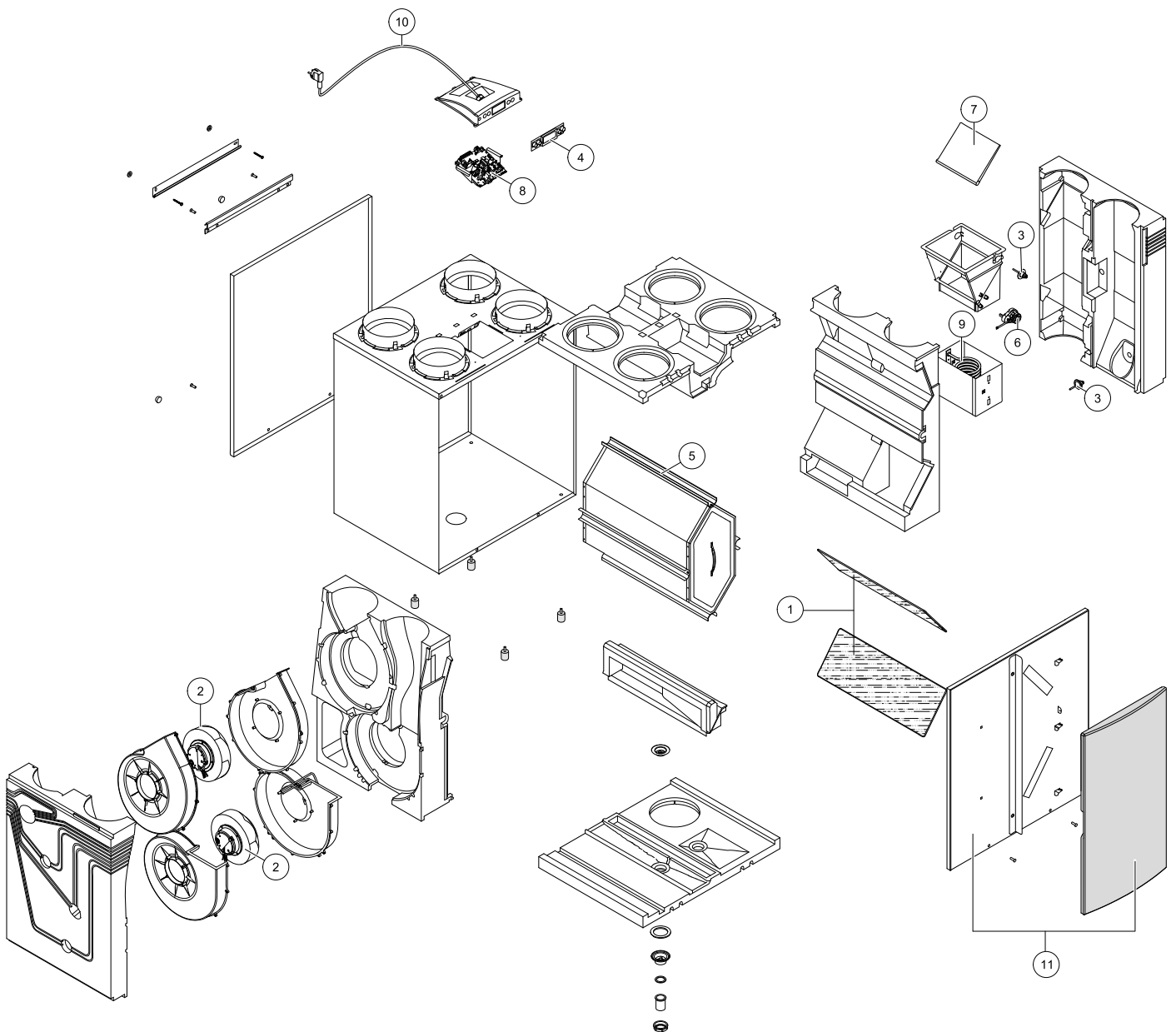
When ordering parts, in addition to the article code number (see exploded view), please state the type of the heat recovery appliance, the serial number, the year of production and the name of the part:

### N. B.:

Appliance type, serial number and year of production are stated on the identification plate on the top of the appliance.

Example	
Appliance type	: Renovent Excellent 4/0 R
Serial number	: 420020113201
Year of production	: 2013
Part	: Fan
Article code	: 531774
Qty	: 1

## Service parts



## Service parts

No.	Article description	Article code
1	Filter kit 2x G3 filter (standard version)	531770
2	Fan Excellent 300 (1 pcs)	532003
	Fan Excellent 4300 (1 pcs)	531774
3	Temperature sensor	531775
4	Control panel	531776
5	Heat exchanger Excellent 300	531840
	Heat exchanger Excellent 400	531777
6	Motor bypass valve	531778
7	Bypass valve	531779
8	Control board (Plus version) When replacing, note the correct dip switch settings; see §8.1	531780
9	Heating coil 1000 W preheater	531781
10	Cable with power plug 230 volt with display cover*	531782
11	Filter door left	531934
	Filter door right	531935

\* The mains cable has a print connector.

When replacing it, always order a replacement mains cable Brink

**To avoid dangerous situations, a damaged mains should only be replaced by a qualified person!**



## DIBt: Renovent Excellent 400

**Deutsches Institut für Bautechnik DIBt**

Zulassungsgesetz für Baugruben und Bauelemente  
Technisches Prüfamt  
Eines vom Bund und den Ländern  
gemeinsam getragenen Aufstufes des öffentlichen Rechts  
Regelnd nach BtZiff. 10c S.1 Abs.1 und der MPR 10

**Allgemeine bauaufsichtliche Zulassung**

Zulassungsnummer: **Z-013-271**

Geltungsbeginn: vom **19. Februar 2013** bis **19. Februar 2018**

Antragsteller:  
**Brink Climate Systems B.V.**  
R. D. Bügelstraat 3  
7951 DA Staphorst  
NIEDERLANDE

Zulassungsgegenstand:  
**Zentrales Lüftungsgeriät mit Wärmerückgewinnung "Renovent Excellent 400"**

Der oben genannte Zulassungsgegenstand wird hiermit allgemein bauaufsichtlich zugelassen.  
Diese allgemeine bauaufsichtliche Zulassung umfasst neue Bauteile und solche Anlagen.

**DIBt**

## EN 308/EN 13141-7: Renovent Excellent 400

**TNO innovation for life**

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**Declaration of Conformity according to EN 13141-7:2004 / EN308**

**TNO-060-DTM-2013-01161**  
Determination of the energetic efficiency  
of the energy recovery appliance  
"Renovent Excellent 400"  
Test report in accordance with  
EN 13141-7:2004 / EN308

Date: May 2013  
Author(s): H.A.J. Hamrick  
Sponsor: Brink Climate Systems B.V.  
R.D. Bügelstraat 3  
7951 DA Staphorst  
Project number: 060.01122  
Keywords: heat recovery efficiency

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## NEN 5138: Renovent Excellent 400

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**Verklaring conform norm**

**BRR 060-APD-2011-00014**  
Bepaling van het energetische rendement van het warmteterugwinapparaat "Renovent Excellent 400"  
Meetbrief volgens NEN 5138-2004

Datum: Januari 2011  
Auteur(s): G.J. Afink  
Opdrachtgever: Brink Climate Systems B.V.  
R.D. Bügelstraat 3  
7951 DA STAPHORST  
Projectnummer: 034.23261/01.01  
Trefwoorden: warmteterugwinning rendement

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## Passive House Certificate: Renovent Excellent 400

**Certificate**  
Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
GERMANY

**Passive House suitable component**  
For cool, temperate climates, valid until 31 December 2013

Category: **Heat recovery unit**  
Manufacturer: **Brink Climate Systems B.V.**  
7951 -DA Staphorst, NETHERLANDS  
Product name: **Renovent Excellent 400 4/0 (3/1) (Plus)**

**This certificate was awarded based on the following criteria:**

Thermal comfort	$\Theta_{\text{supply air}} \geq 16.5 \text{ }^\circ\text{C}$ at $\Theta_{\text{outdoor air}} = -10 \text{ }^\circ\text{C}$
Effective heat recovery rate	$\eta_{\text{HRA}} \geq 75\%$
Electric power consumption	$P_{\text{el}} \leq 0.45 \text{ Wh/m}^3$
Airtightness	Interior and exterior air leakage rates less than 3% of nominal air flow rate
Balancing and adjustability	Air flow balancing possible: yes Automated air flow balancing: yes
Sound insulation	Sound pressure level $L_p \leq 35 \text{ dB(A)}$ based on a 4 m² equivalent absorption area not met Here $L_p = 51.5 \text{ dB(A)}$ Unit should be installed so that it is acoustically separated from living areas.
Indoor air quality	Outdoor air filter F7 Extract air filter G4
Frostprotection	Frost protection for the heat exchanger with continuous fresh air supply down to $\Theta_{\text{outdoor air}} = -15 \text{ }^\circ\text{C}$ <sup>1)</sup>

<sup>1)</sup> Only with additional anti freezing protection

Further information can be found in the appendix of this certificate.

**Certified for air flow rates of**  
**77 – 290 m³/h**

**$\eta_{\text{HRA}}$**   
**84%**  
(88% bei 100 m³/h)

**Electric power consumption**  
**0.29 Wh/m³**

**CERTIFIED COMPONENT**  
Passive House Institute

www.passivehouse.com 0503v03

SAP-Appendix-Q: Renovent Excellent 400

Declaration of Conformity Renovent Excellent 400

### Certificate

**Certified Passive House Component**  
For cool, temperate climates, valid until 31 December 2013

Category: **Heat recovery unit**

Manufacturer: **Brink Climate Systems B.V.**  
7851 -DA Staphorst, NETHERLANDS

Product name: **Renovent Excellent 300 4/0 (3/1) (Plus)**

This certificate was awarded based on the following criteria:

Thermal comfort	$\dot{Q}_{Supply\ air} \geq 16.5\text{ °C}$ at $\dot{Q}_{Substr\ air} = +10\text{ °C}$
Effective heat recovery ratio	$\eta_{heat\ ex} = 75\%$
Electric power consumption	$P_e \leq 0.45\text{ Wh/m}^3$
Airtightness	Interior and exterior air leakage (after less than 3 % of nominal air flow rate)
Balancing and adjustability	Air flow balancing possible: <b>yes</b> Automated air flow balancing: <b>yes</b>
Sound insulation	Sound pressure level $L_p \leq 35\text{ dB(A)}$ based on a 4 m <sup>2</sup> equivalent absorption area not met Here $L_p = 47\text{ dB(A)}$ Unit should be installed so that it is acoustically separated from living areas
Indoor air quality	Outdoor air filter at least F7 Extract air filter at least G4
Frost protection	Frost protection for the heat exchanger with continuous fresh air supply down to $\dot{Q}_{Substr\ air} = -15\text{ °C}$ (1)

1) Only with additional and freezing protection.

Further information can be found in the appendix of this certificate.

www.passivehouse.com 0532v03

Passive House Institute  
Dr. Wolfgang Feist  
64283 Darmstadt  
GERMANY

**Certified for air flow rates of**

**59 – 235 m<sup>3</sup>/h**

**η<sub>heat</sub>**

**84 %**  
(88% at 74 m<sup>3</sup>/h)

**Electric power consumption**

**0.26 Wh/m<sup>3</sup>**

**DECLARATION OF CONFORMITY**

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

Address: **R.D. Buijsstraat 3  
7851 DA Staphorst, The Netherlands**

Product: **Heat recovery unit type:  
Renovent Excellent 300/400  
Renovent Excellent 300/400 Plus**

The product described above complies with the following directives:

- 2006/95/EC (low voltage directive)
- 2002/95/EC (SMD directive)
- RoHS 2002/95/EC (substances directive)

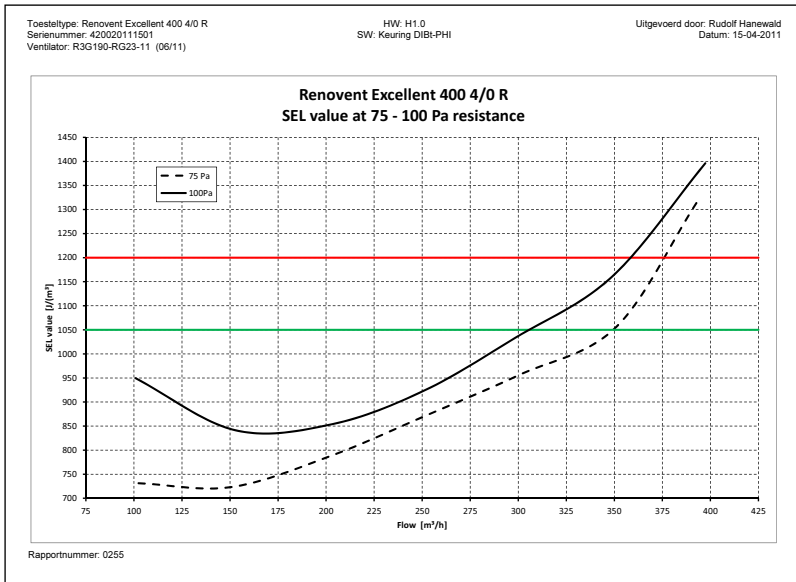
The product bears the CE label:

Staphorst, 24-03-11

Mr. Altmann,  
managing director

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Renovent Excellent

Renovent Excellent 400 - SEL-waarde 75+100 Pa



**Modifications reserved**

Brink Climate Systems B. V. continuously strives after improvement of products and reserves the right to change the specifications without prior notice.



**BRINK CLIMATE SYSTEMS B.V.**

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