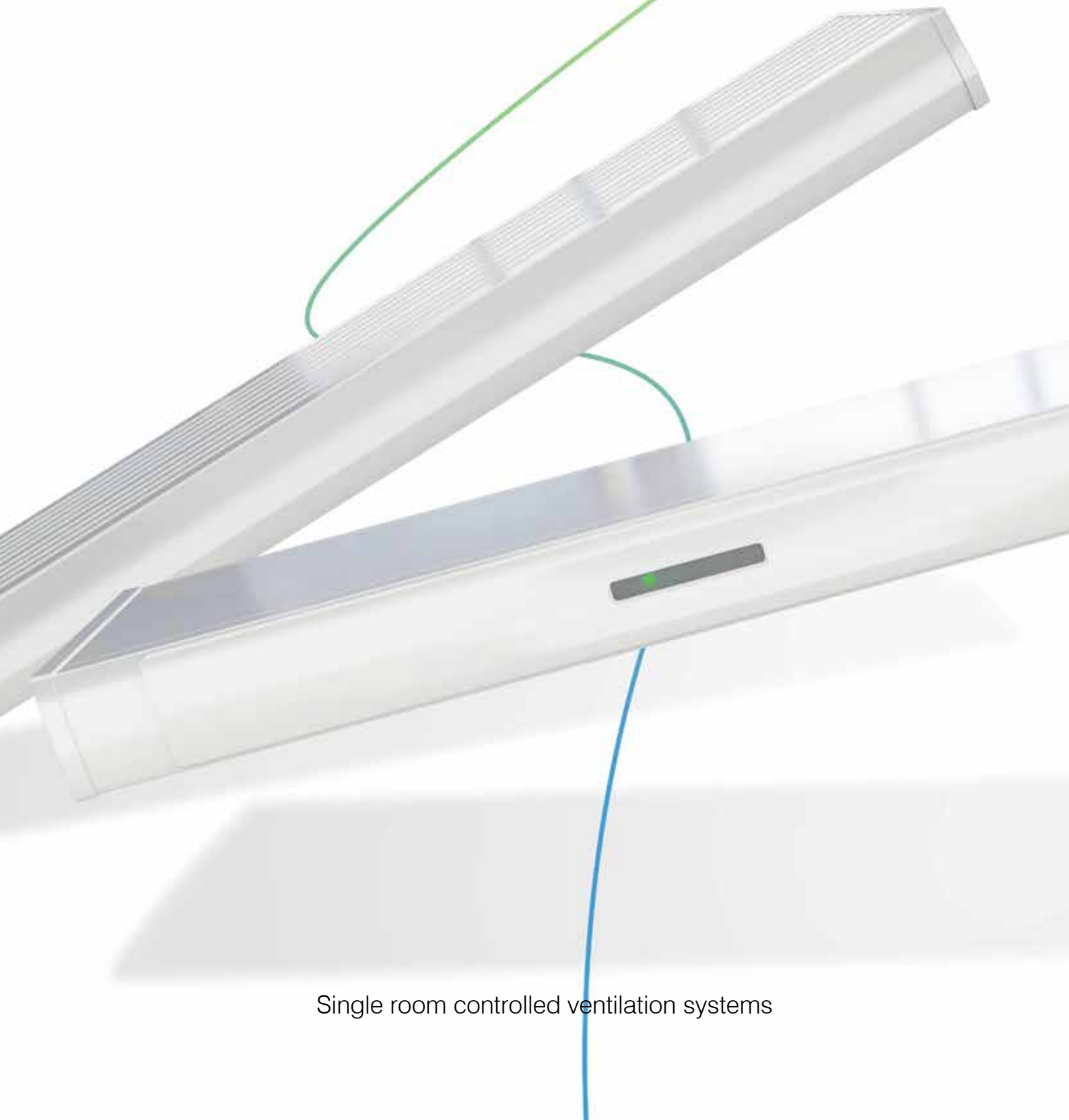


THESAN Aircare



Single room controlled ventilation systems



AF+

ES

Aesthetics

Aircare is the innovative range of controlled ventilation solutions, featuring the essential lines typical of the unmistakable Pininfarina style. This is why it can easily fit into any architectural design, whether for public or private use.

Efficiency

Since windows can be kept closed, Aircare helps to fight noise pollution. It also helps to save energy. During the hotter months, it helps to limit the use of air conditioning since it brings fresh air into the environment during the night. When it's cold, it refreshes the air without the need to open windows, avoiding heat loss.

Application

Almost invisible from the outside, on the inside it has a functional and pleasingly technological appearance, making it ideal for both residential uses - in apartments and single family homes - whether in bedrooms or living spaces, and for non-residential uses - in small cafés, stores, offices, hotels or patient rooms in healthcare structures.

Installation

Light and compact, Aircare is placed between the upper crossbeam of the window frame and the wall for the integrated version. The flush version can also be placed either above or below the window, rather than vertically. In both cases, Aircare is easy to install with minimum and quick labour and is appropriate both for buildings under construction and those being remodelled.



✓ Time spent inside: 90%

We spend 90% of our time inside closed spaces where pollution is created: house, office and school.
European Union - ECA report no.23 Ventilation, Good Indoor Air Quality and Rational Use of Energy.

✓ How can we protect us from domestic humidity?

A number of studies carried out in European countries, Canada and the United States indicate that at least 20% of buildings suffer from humidity.
WHO - Guidelines for indoor air quality: dampness and mould - 2009.

✓ Radon. Killer gas.

Indoor exposure to radon is the second highest cause of lung cancer in the world.
WHO-Handbook on indoor radon 2009.

✓ Indoor air, lethal air

Lethal diseases caused by pollution of indoor air cause over 2 million premature deaths globally every year.
WHO - World Health Organization.

The sources

The air in homes, offices and schools is much more polluted than the air on the street.



How to protect ourselves

Recommendations

Based on the European guidelines issued by the World Health Organisation in 2009, relative to air quality inside residences, it is necessary to ensure adequate air exchange, able to guarantee a minimum comfort level and protect against pathologies associated with excess pollutants in the environment.

Open windows to aerate environments, but with consequences such as:

- Too cold or too hot
- Energy wasted
- Drafts
- External noise
- Possible intrusion
- No air filtration



The ideal solution

THESAN
Aircare

As easy as opening a window, but much more effective

Main aspects

AF + Controlled ventilation and air filtration

ES Controlled ventilation and filtration with heat recovery



Internal pollution

Smoke

Humidity

CO₂

Carbon dioxide

Molds and
condensation

Formaldehyde
from furniture

Compounds
produced by
detergents

Radon

External pollution

PM₁₀

Particulates

SO₂

Sulphur dioxide

PM_{2,5}

Particulates

HC

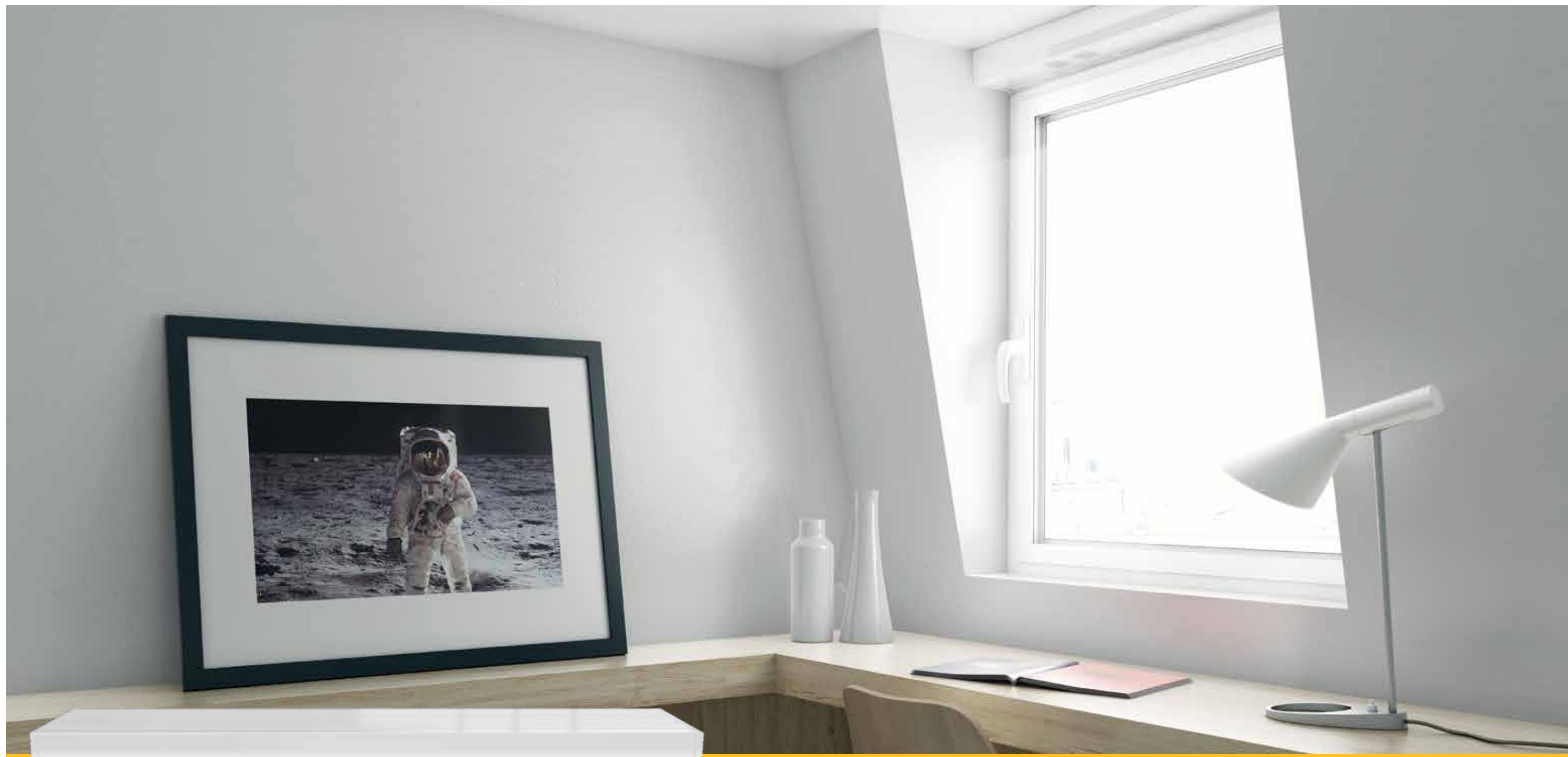
Hydrocarbons

Smog

Noise

Pollen

Bacteria



Aircare

AF+

THE SAN

Why Aircare AF+?

Aircare AF+ helps to guarantee proper air exchange in residential buildings, offices, hotels and schools, whether newly constructed or after remodelling.

Proper air exchange, without the need for heat recovery, suitable for all climates with moderate cold (climactic zones A-B-C), ensures that the relative humidity in the home is kept under control, eliminating the risk of condensation, mould and fungus, with extremely low energy consumption and adequate air quality.



The air quality

Aircare AF+ includes a double filter that eliminates up to 98% of particulates of 2.5 μm and all PM 10 μm , together with pollen, dust mites, spores and bacteria larger than 0.4 μm .

Aircare AF+ helps to eliminate excess CO₂ in the environment, as well as excess relative humidity, dilutes VOCs, and eliminates radon risk. The input filter is a double F8+G4 filter, which can be accessed and inspected easily.



The energy savings

When windows are opened to exchange air, as is done traditionally, pollutants enter the house and more heat may be dispersed than is desired. With Aircare AF+ none of this happens. Thanks to proprietary software and appropriate sensors, the amount of air needed for adequate exchange is guaranteed, while electricity consumption is minimised, based on the internal and external temperature and relative humidity values, as well as the option for CO₂ values.



The comfort

Aircare AF+ works perfectly with all heating and air conditioning systems found in the house or designed for new buildings.

Thanks to its low capacity and air speed, air exchange is guaranteed without users noticing anything in terms of noise and heat effects. Aircare AF+ can be installed in any corner of the room, in any way or position, and is extremely easy to control, use and maintain.

External air is drawn in

New clean air is brought out

pininfarina

Aircare AF+ has a clean design, thanks to the unmistakable Pininfarina style. This is why it can easily fit into any architectural design.

Filter from
F7 to F9

Technical informations

Speed	Capacity [m³/h]	Sound Power LwA [dB]	Sound Pressure Lp (a 3m) [dB]	Power consumption [W]
1	15	35	17	2,8
2	23	42	25	4,4
3	29	46	28	6,2
4	35	47	30	8,9
5	41	52	34	12,6

Connection to the network	230V / 50 Hz
Security class	II
Protection level	IP65

Temperature allowed	Min -15° Max 50°
Ratio	U= 0,30 W/m3K
Noise reduction	Dn,e,w= 51 dB with shutters opened Dn,e,w= 53 dB with shutters closed

Measurement taken in conformity to standard EN 13141-11

Standard dimensions

Length	Min 1000 mm - Max 5000 mm
Width	218 mm

Height	78 mm
Weight	4,8 kg (L 1000) - 6,6 kg (L 1500) - 8,4 kg (L 2000)

For profiles up to 80 mm thick

11

Aircare

AF +

THESAN

To manage the various Aircare AF+ operating speeds, a simple and practical 3 button remote control is available, for the following functions:

- On/off
- Speed increase/decrease
- Anti-ice function

10

Product information

AF +

a

Supplier's name

THESAN

b

Supplier (code)

model

1

AIRCARE AF+

c

SEC-Class - Specific energy consumption SEC

cold

D

-20

average

F

-7

warm

F

-1

kWh/(m2*a)

d

Typology

☒RVU

☐NRVU

☐BVU

☒UVU

e

Type of drive installed/
intended to be installed

☐single speed

☐2-speed

☒multi-speed

f

Type of heat recovery system

☐recuperative

☐regenerative

☒none

g

Thermal efficiency of heat recovery η_o/η_s

NA

%

h

Maximum flow rate

41.4

m³/h

i

Electric power input of the fan drive, max flow rate

12.5

W

j

Sound power level decorate installation LWA, ref. flow

46

dB[A]

k

Reference flow rate

29.3

m³/h

l

Reference pressure difference, Pa

0

Pa

m

Specific power input

0,21

W/(m³/h)

n

Control factor and control typology

CTRL

1

MISC

1.21

X-Value

2

-

o

Max. internal leakage rate
Max. external leakage rate

NA

internal

56%

external

p

Mixing rate

NA

indoor

NA

outdoor

q

Position, description of visual/acoustically filter warning

Front cover LED

r

Instructions to install regulated supply/exhaust grilles

Not applicable

is cancelled

s

Internet address for pre-/dis-assembly instructions

<http://www.thesan.com/download.php>

t

Airflow sensitivity to pressure variations at -20 Pa and +20 Pa

41%

%

u

Indoor / outdoor air tightness

12

m³/h

v

The annual electricity consumption per 100 m² floor area AEC

cold

2.4

average

2.4

warm

2.4

kWh/a

w

The annual heating saved AHS

cold

27.3

average

14.0

warm

6.3

kWh/a

Item table

Codes	Description	Dimensions (mm)	Finishes	Pcs.
Complete machine				
AC-AF102-8200	Structure	1000	RAL 9010	1
AC-AF102-8201	Structure	1500	RAL 9010	1
AC-AF102-8202	Structure	2000	RAL 9010	1
AC-AF102-8203	Structure	2500	RAL 9010	1
AC-AF102-8204	Structure	3000	RAL 9010	1
AC-AF104-0000	Motor assembly			1
AC-AF003-0000	Filter set G-F6/M6			1
AC-AF003-A000	Filter set G-F9/M6			1
AC-AF105-0000	3 button remote control			1
Spare Parts - Optional Parts				
AC-AF106-0000	Door without heater			1
AC-AF106-0001	Door with 110V heater			1
AC-AF106-0002	Door with 220V heater			1
AC-AF007-00A0	External cover	1000	untreated aluminium	1
AC-AF007-00A1	External cover	1500	untreated aluminium	1
AC-AF007-00A2	External cover	2000	untreated aluminium	1
AC-AF007-00A3	External cover	2500	untreated aluminium	1
AC-AF007-00A4	External cover	3000	untreated aluminium	1
AC-AF007-0000	External cover	1000	untreated aluminium	10
AC-AF007-0001	External cover	1500	untreated aluminium	10
AC-AF007-0002	External cover	2000	untreated aluminium	10
AC-AF007-0003	External cover	2500	untreated aluminium	10
AC-AF007-0004	External cover	3000	untreated aluminium	10



Aircare

ES

 THESANO

Why Aircare ES?

Aircare ES helps to guarantee proper air exchange in residential buildings, offices, hotels and schools, whether newly constructed or after remodelling.

Proper air exchange, combined with thermal and electricity savings, ensures an improvement in energy class certification or the achievement of excellent energy classes, leading to energy efficient buildings (A, A+, A gold, NZEB), with extremely low energy consumption and adequate air quality.



The air quality

Aircare ES includes a triple filter that eliminates up to 98% of particulates of 2.5 μm and all PM 10 μm , together with pollen, dust mites, spores and bacteria larger than 0.4 μm .

Aircare ES helps to eliminate CO², as well as excess relative humidity, dilutes VOCs, and eliminates radon risk. The input filter is a double F8+G4 filter that can easily be accessed and inspected. the output filter is a G4.



The energy savings

Aircare ES comes with an "enthalpy" heat exchanger with double crossed flow, that offers sensible and latent heat recovery, with a relative efficiency of up to 82% compared to just sensible heat.

Electricity consumption, thanks to proprietary software and appropriate sensors, is reduced to a minimum based on internal and external temperature and relative humidity values, as well as the option for CO² values.



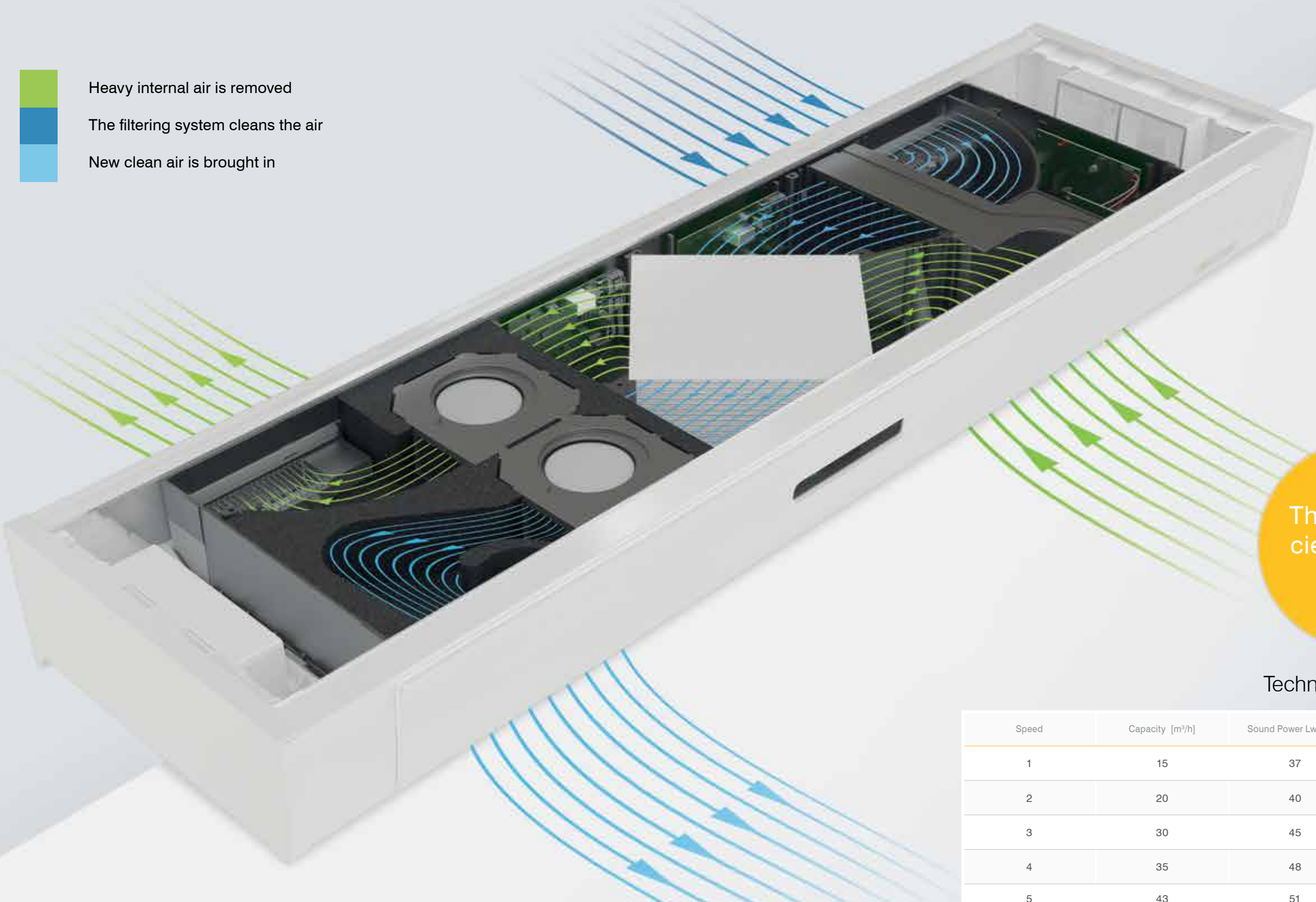
The comfort

Aircare ES works perfectly with all heating and air conditioning systems found in the house or designed for new buildings.

Thanks to its low capacity and air speed, air exchange is guaranteed without users noticing anything in terms of noise and heat effects. Aircare ES can be installed in any position in the room, in any way or position, and is extremely easy to control, use and maintain.



- Heavy internal air is removed
- The filtering system cleans the air
- New clean air is brought in



pininfarina

Aircare ES has a clean design, thanks to the unmistakable Pininfarina style. This is why it can easily fit into any architectural design.

Thermal efficiency up to 82%

Technical informations

Speed	Capacity [m³/h]	Sound Power LwA [dB]	Sound Pressure Lp (a 3m) [dB]	Thermal efficiency %	Power consumption [W]
1	15	37	19	82	4,6
2	20	40	22	-	5,8
3	30	45	27	74	10,3
4	35	48	30	-	14,6
5	43	51	33	69	20,6

Heat recovered as % efficiency depends on T, HR and air capacity	up to 82%
Connection to the network	230V / 50 Hz
Security class	II
Protection level	IP65

Operating temperature range	Min -15°C Max 50°C
Ratio	U= 0,30 W/m3K
Noise reduction	Dn,e,w= 53 dB with shutters opened Dn,e,w= 55 dB with shutters closed
Air filter standard	F8/F9+G4 external air inflow internal air extraction G4

Measurement taken in conformity to standard EN 13141-11

Standard dimensions

Length	Min 1000 mm - Max 3000 mm
Width	270 mm

Height	95 mm
Peso Weight	7 Kg (L 1000 mm)

Aircare

ES



To manage the various Aircare ES operating speeds, a simple and practical 5 button remote control is available, for the following functions:

On/off
Speed increase/decrease
Anti-ice function
Automatic mode
BYPASS activate/deactivate

Product form (ErP)

ES

THESAN

aSupplier's name

bSupplier model

cSEC-Class - Specific energy consumption SEC

dTypology

eType of drive installed/
intended to be installed

fType of heat recovery system

gThermal efficiency of heat recovery corr.

hMaximum flow rate

iElectric power input of the fan drive

jSound power level decorate installation LWA, ref. flow

kReference flow rate

lReference pressure difference, Pa

mSpecific power input

nControl factor and control typology

oMax. internal leakage rate
Max. external leakage rate

pMixing rate

qPosition, description of visual/acoustically filter warning

rInstructions to install regulated supply/exhaust grilles

sInternet address for pre-/dis-assembly instructions

tAirflow sensitivity to pressure variations at -20 Pa and +20 Pa

uIndoor / outdoor air tightness

vThe annual electricity consumption per 100 m² floor area AEC

wThe annual heating saved AHS

1AIRCARE ES

coldA+
-77

averageA
-37

warmE
-14

kWh/(m2*a)

☒RVU

☐NRVU

☒BVU

☐UVU

☐single speed

☐2-speed

☒multi-speed

☐VSD

☐installed

☐intended to be instal.

☐recuperative

☒regenerative

☐none

74 / 70

%

40.6

m³/h

20.8

W

45

dB[A]

28.4

m³/h

0

Pa

0,35

W/(m³/h)

CTRL0.65

MISC1,21

X-Value2

-

2.1%

internal

3.3%

external

0.5%

indoor

0.3%

outdoor

Front cover LED

Not applicable

is cancelled

http://www.thesan.com/download.php

6.0%

%

1,6

m³/h

cold1.1

average1.1

warm1.1

kWh/a

cold82.5

average42.2

warm19.1

kWh/a

Item table

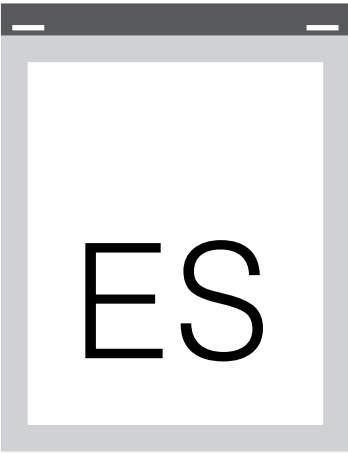
Code	Description	Dimensions (mm)	Finishes	Pcs
Complete machine				
AC-ES002-8200	Structure	1000	RAL 9010	1
AC-ES002-8201	Structure	1500	RAL 9010	1
AC-ES002-8202	Structure	2000	RAL 9010	1
AC-ES002-8203	Structure	2500	RAL 9010	1
AC-ES002-8204	Structure	3000	RAL 9010	1
AC-ES004-0000	Machine body Aircare ES			1
AC-ES003-0000	Air filter G4+F8			1
AC-ES003-A000	Air filter G4+F9			1
AC-ES005-0000	5 button remote control			1
Spare & Optional Parts				
AC-ES011-0000	Heat exchanger			1
AC-ES009-0000	Mesh output filter			1
AC-ES008-00A0	External cover	1000	untreated aluminium	1
AC-ES008-00A1	External cover	1500	untreated aluminium	1
AC-ES008-00A2	External cover	2000	untreated aluminium	1
AC-ES008-00A3	External cover	2500	untreated aluminium	1
AC-ES008-00A4	External cover	3000	untreated aluminium	1
AC-ES008-0000	External cover	1000	untreated aluminium	10
AC-ES008-0001	External cover	1500	untreated aluminium	10
AC-ES008-0002	External cover	2000	untreated aluminium	10
AC-ES008-0003	External cover	2500	untreated aluminium	10
AC-ES008-0004	External cover	3000	untreated aluminium	10

Aircare ES built-in version - horizontal installation

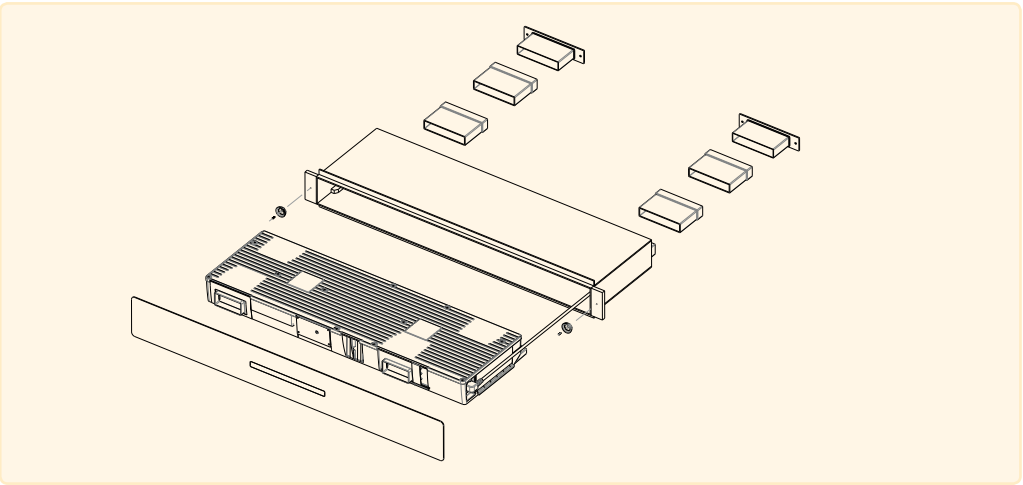


Optional fascia

Vents with straight output



Code	Description
AC-ES015-54A0	SLIM ALUMINIUM PLATE PAINTED RAL 9016
AC-ES004-00B2	AIRCARE ES MACHINE
AC-ES021-0002	BOX WITH REAR OPENINGS, HORIZ. ADAPTOR AND 15mm BAR
AC-ES025-0000	STRAIGHT OUTPUT AERATION VENT KIT



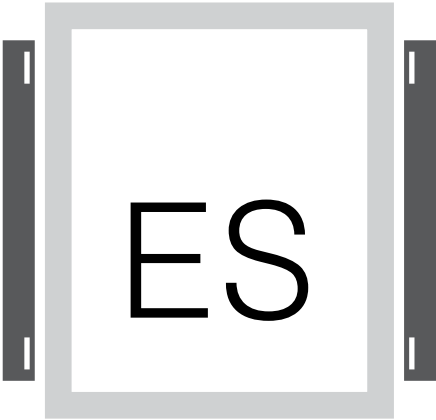
Aircare ES built-in version - vertical installation



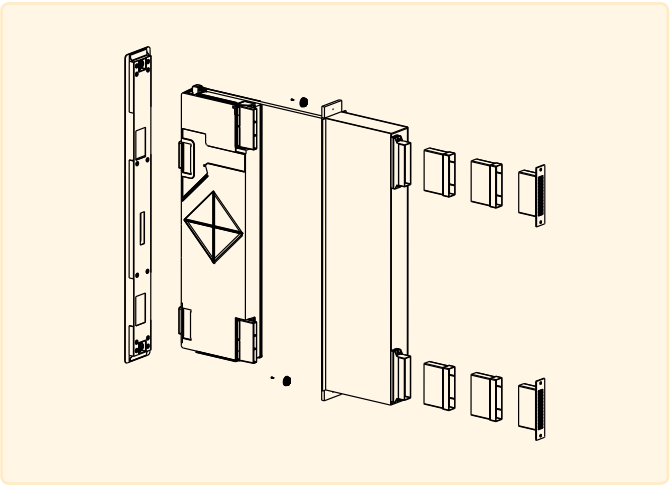
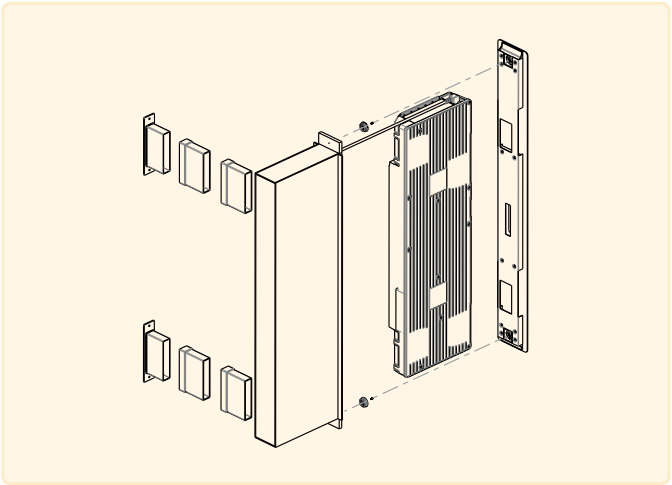
Vents with abutment output



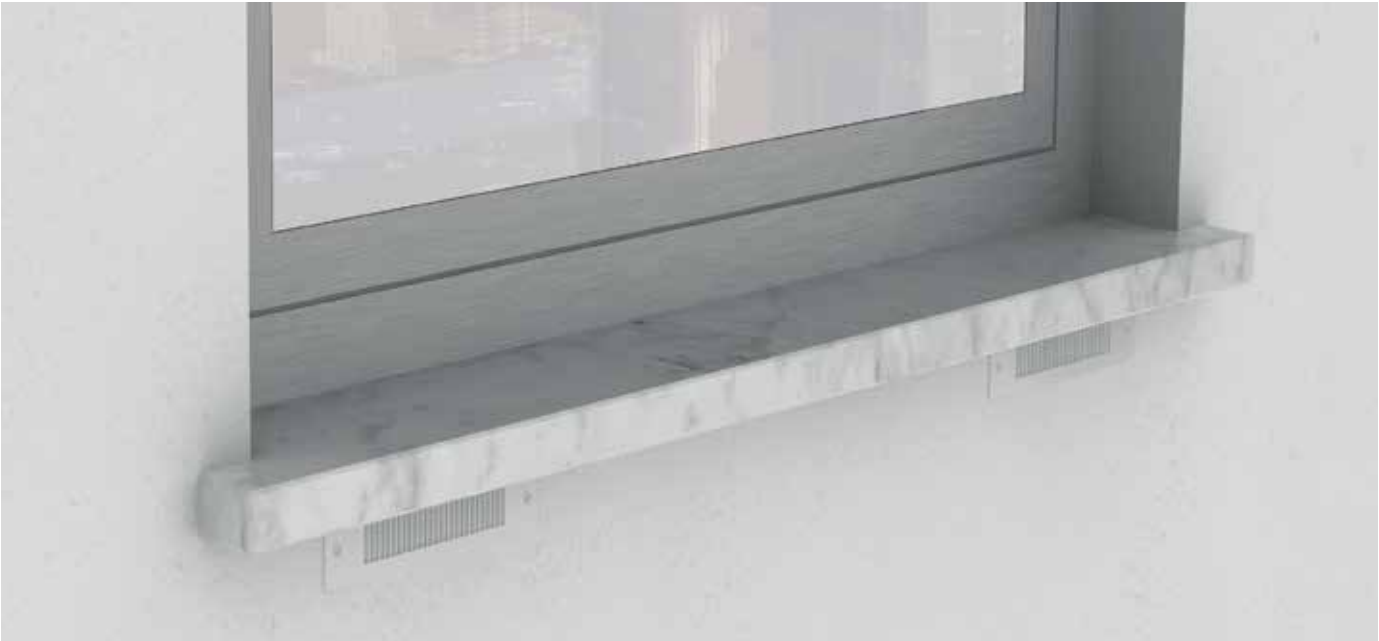
Vents with straight output



Codes	Description
AC-ES015-54A0	SLIM ALUMINIUM PLATE PAINTED RAL 9016
For version with shoulder output vent	
AC-ES004-00B1	AIRCARE ES MACHINE - B1 VERSION
AC-ES021-0001	BOX WITH LOWER OPENINGS AND 15mm BAR
AC-ES025-0000	ABUTMENT OUTPUT AERATION VENT KIT
For version with straight output vent	
AC-ES004-00B2	AIRCARE ES MACHINE
AC-ES021-0002	BOX WITH REAR OPENINGS, HORIZ. ADAPTOR AND 15mm BAR
AC-ES025-0000	STRAIGHT OUTPUT AERATION VENT KIT

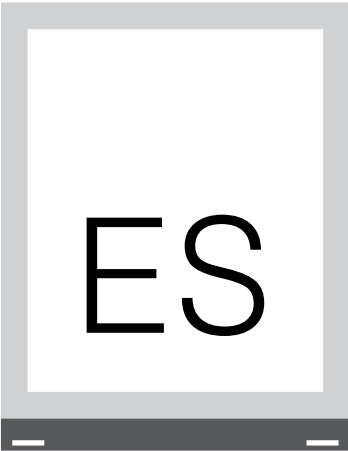


Aircare ES built-in version - horizontal installation

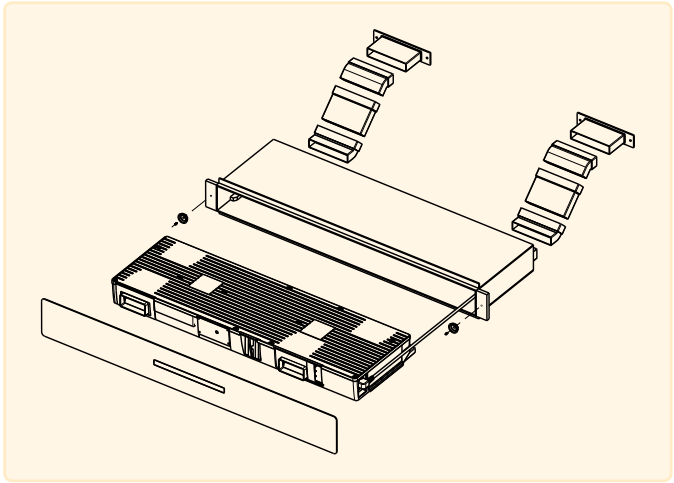
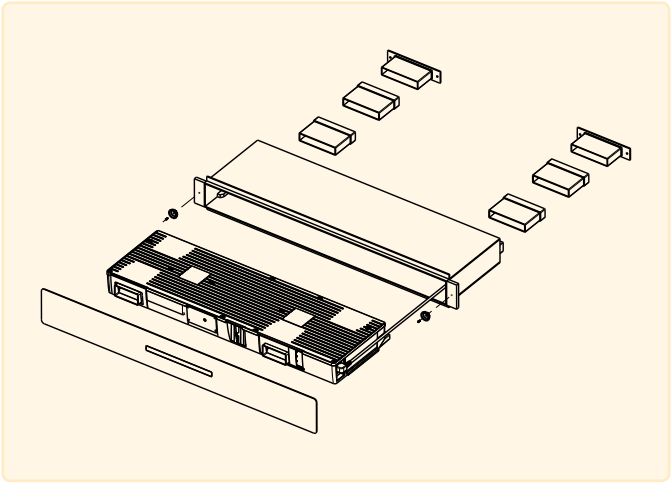


Vents with straight output

Vents with coil output



Codes	Description
AC-ES015-54A0	SLIM ALUMINIUM PLATE PAINTED RAL 9016
AC-ES004-00B2	AIRCARE ES MACHINE
AC-ES021-0002	BOX WITH REAR OPENINGS, HORIZ. ADAPTOR AND 15mm BAR
For version with straight output vent	
AC-ES025-0000	STRAIGHT OUTPUT AERATION VENT KIT
For version with coil output vent	
AC-ES026-0000	COIL OUTPUT AERATION VENT KIT





Aircare

AE

 THESANI

Why Aircare AE?

Aircare AE works to ensure fast and effective removal of humidity and unpleasant odours from bathrooms and kitchens in residential buildings, offices, hotels, and schools, whether newly constructed or undergoing remodelling.

Aircare AE can be controlled manually or automatically with a detector or hygrometer that either turns on or off to extract air on demand. Together with Aircare ES, Aircare AE makes it possible to create buildings with excellent performance in terms of comfort, health and energy savings.



The air quality

The relative humidity produced every day in buildings is for the most part concentrated in bathrooms and kitchens. The same is true for odours, steam and VOCs.

This means effective elimination of these elements, which worsen air quality in every environment, is needed. Aircare AE has a G4 output filter to contribute to environmental quality.



The energy savings

Aircare AE does not run constantly but works on demand, since humidity in bathrooms and kitchens is formed regularly and for around an hour per day.

This means the consumption of electricity needed for extraction is minimized, while the quantity of heat extracted is also reduced, to around 3% annually, compensated for by more than 25 times by the heat recovered by Aircare ES in other areas of the home.

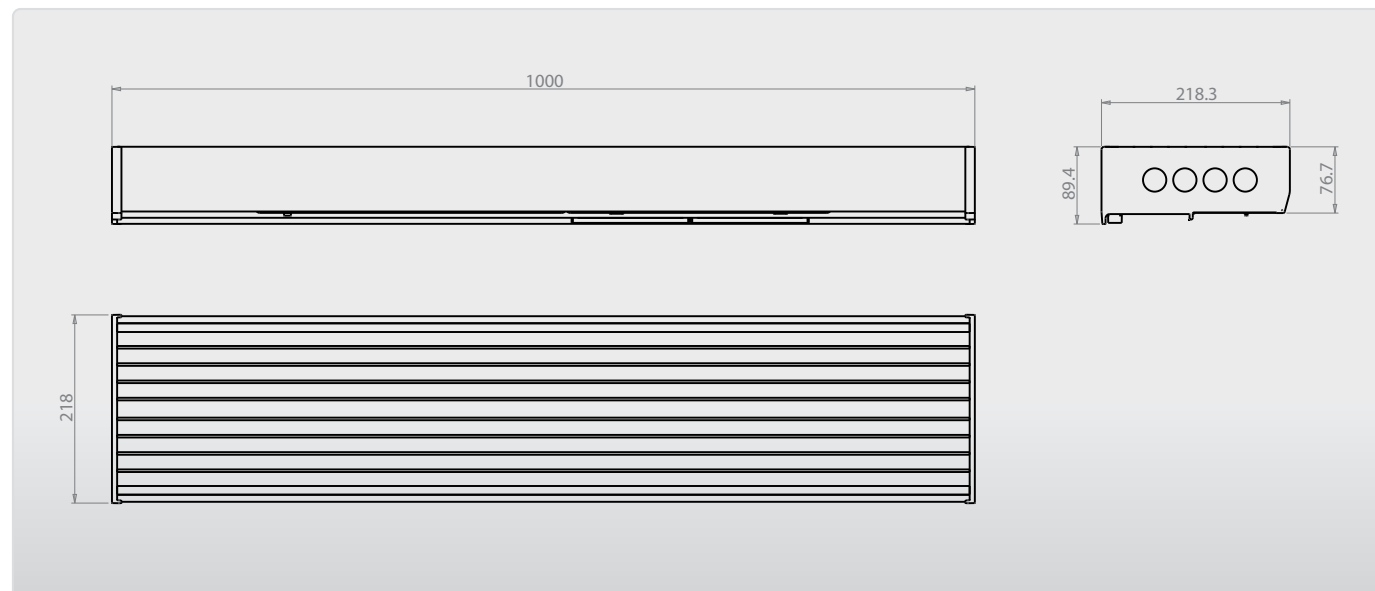


The comfort

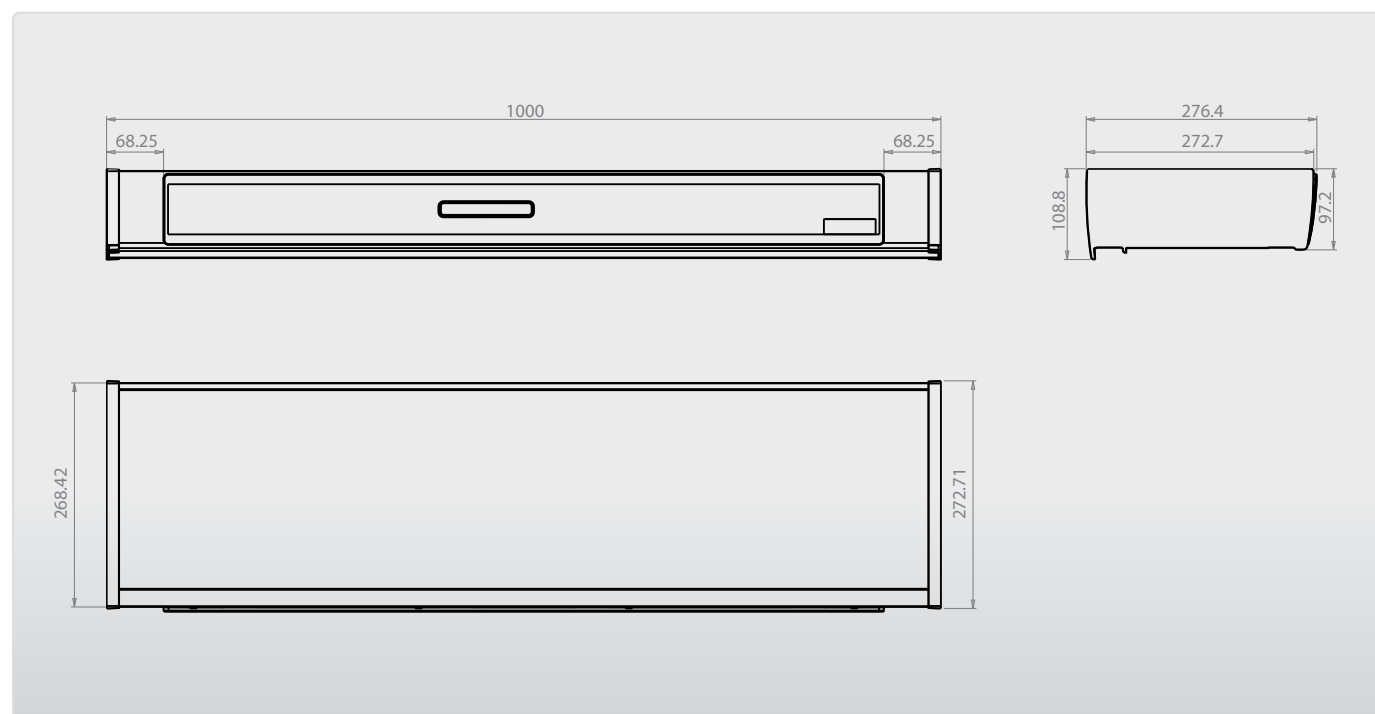
Aircare AE can be installed in the same way as other Aircare models.

Intelligent extraction control and the possibility of manual adjustment using the remote control, combined with the silent nature of the device, make extraction extremely easy.

Aircare ES in window frame

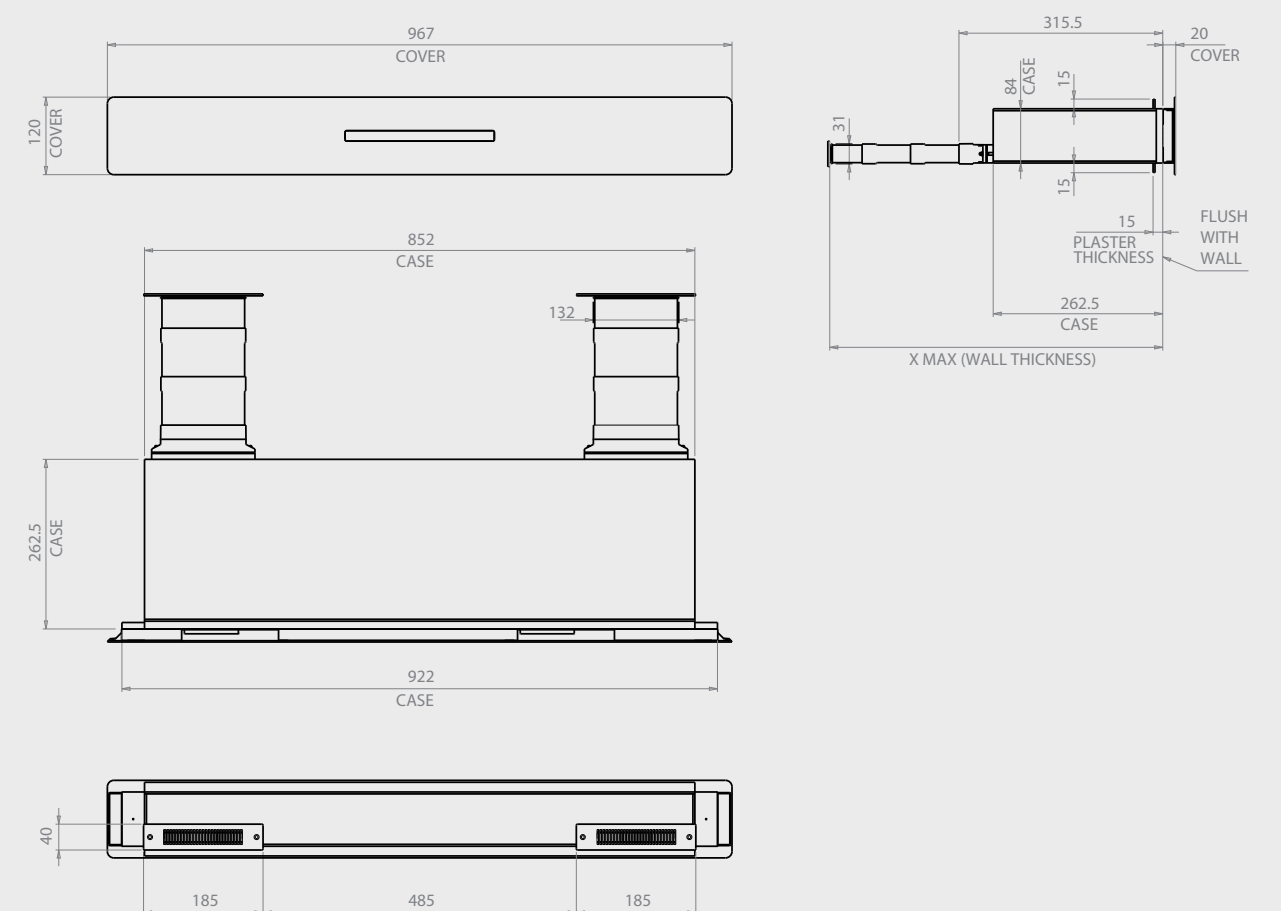


AF + 



AFL ✓ ES ✓ AE ✓

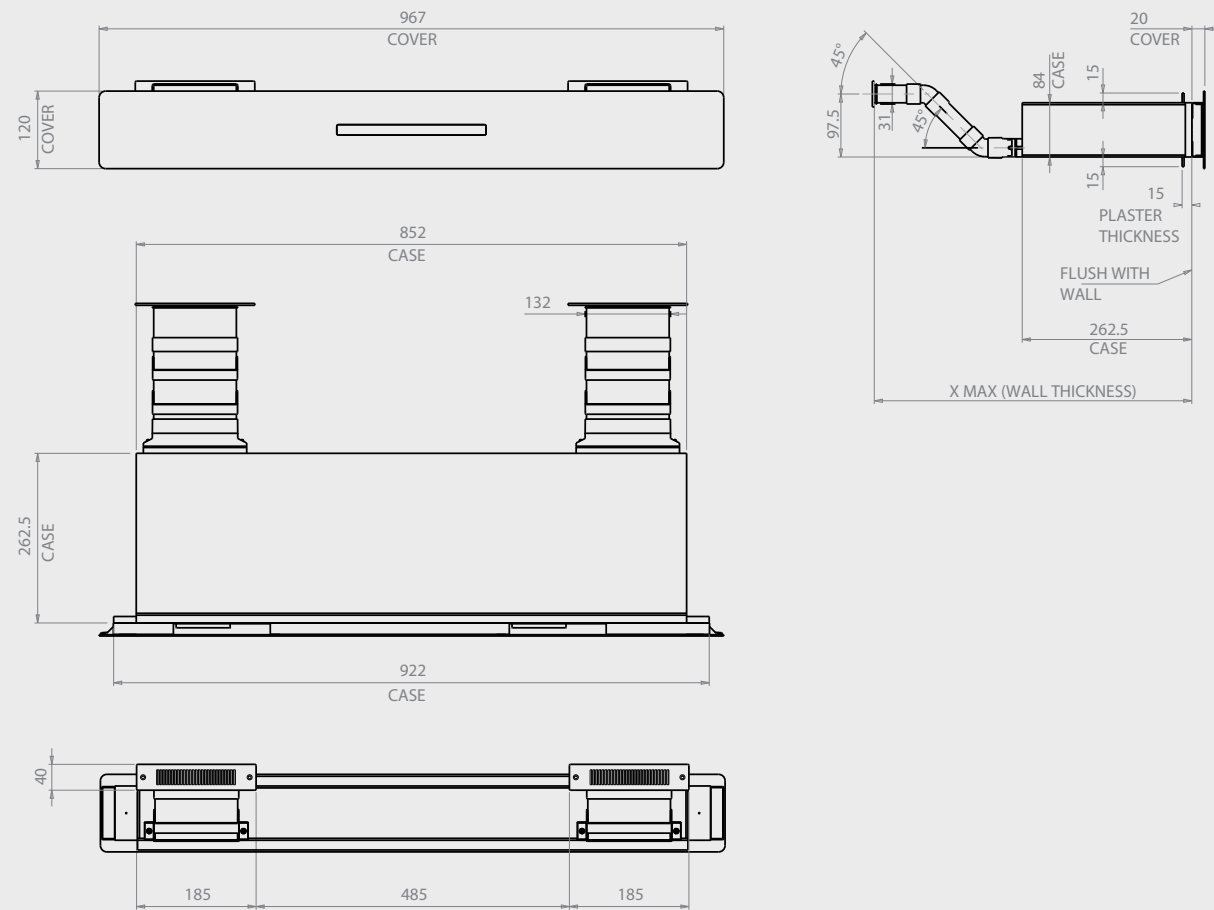
Aircare ES built-in version - horizontal installation (high)



X Max mm	Vent L = 70 mm	Extension L = 75 mm
365	1+1	NO
440	1+1	1+1
515	1+1	2+2
590	1+1	3+3
665	1+1	4+4
740	1+1	5+5
815	1+1	6+6

For wall thicknesses less than those indicated in the table, it is necessary to trim the extension or vent at the worksite.

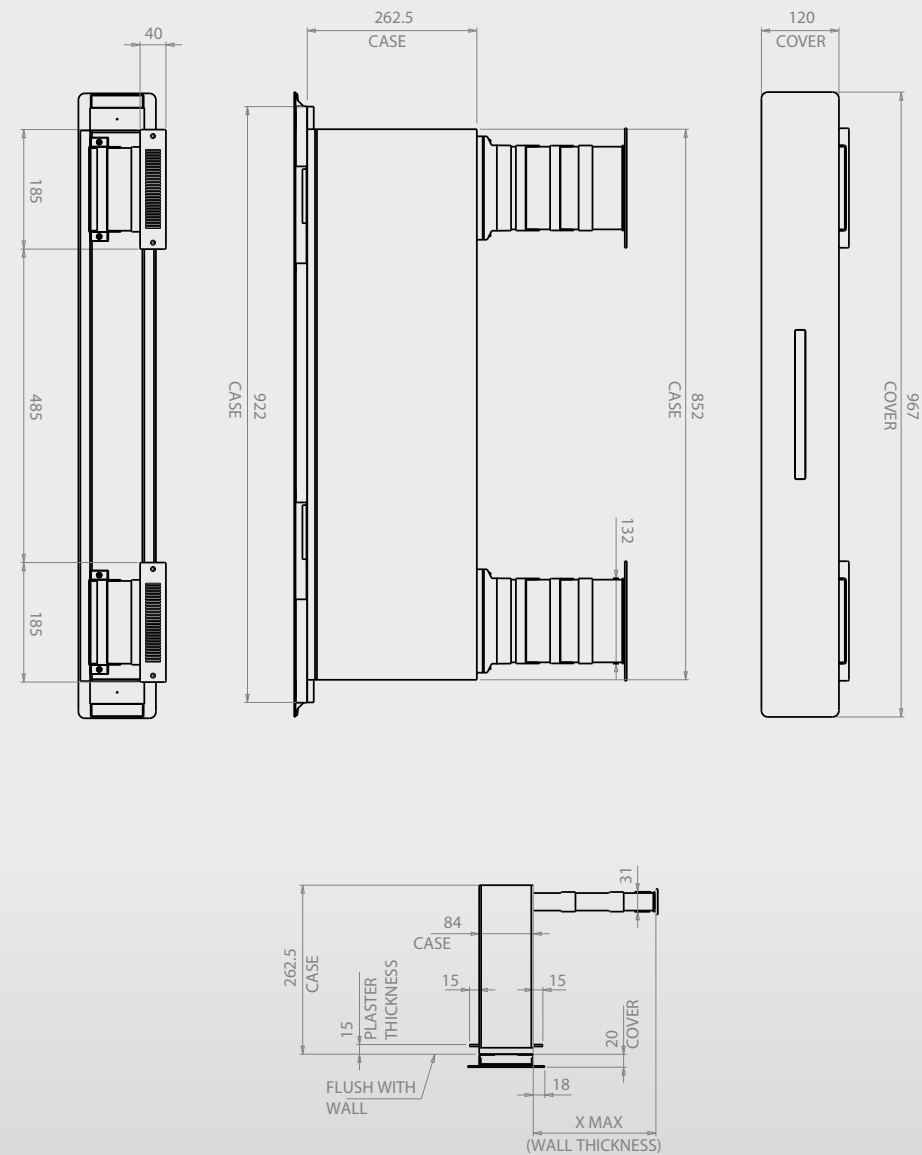
Aircare ES built-in version - horizontal installation (low)



X Max mm	Vent L = 70 mm	Extension L = 75 mm
491	1+1	NO
566	1+1	1+1
641	1+1	2+2
716	1+1	3+3
791	1+1	4+4
866	1+1	5+5

For wall thicknesses less than those indicated in the table, it is necessary to trim the extension or vent at the worksite.

Aircare ES built-in version - vertical installation



X Max mm	Vent L = 70 mm	Extension L = 75 mm
41	1+1	NO
115	1+1	1+1
190	1+1	2+2
265	1+1	3+3
340	1+1	4+4

For wall thicknesses less than those indicated in the table, it is necessary to trim the extension or vent at the worksite.

Aircare ES machine for built-in version

