

ESSENSSE NEO B

4th generation of low-pressure air curtain with integrated control

2VV PARTNER
IN VENTILATION
2VV.CZ

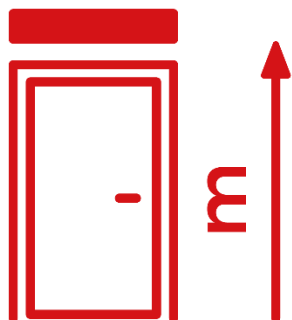


ESSENSSE NEO B VCES 4 B

Air curtain with a low profile to be used in multi-purpose installations.



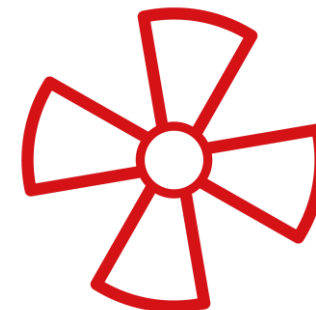
PERFORMANCE



Recommended
installation height up
to **3,0m**

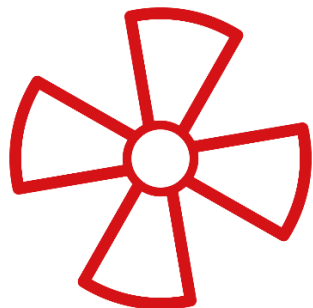


Available with
AC or **EC** fans

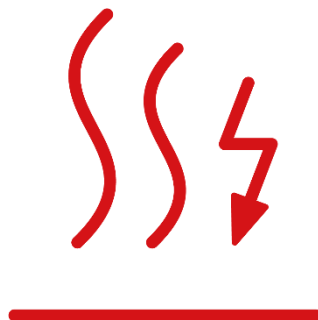


Average airflow is
1.400 / 1.800
m³/h/m

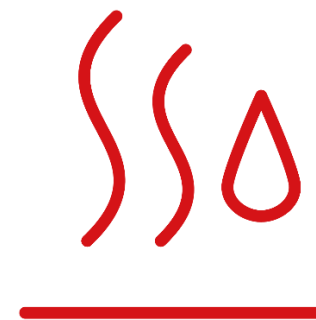
HEATING



Ambient version
without heating



Electric heating
(Various output lines
– E0, E1, E2)



Water heating with
standard capacity

ELECTRIC

Extra safety

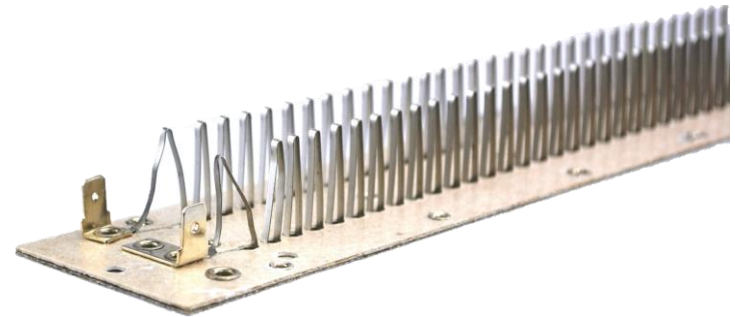
Each wire with own thermostat

Instant heat output

100% heat within 40s

Various heat outputs

5 - 6,5 - 9,5 kW/m

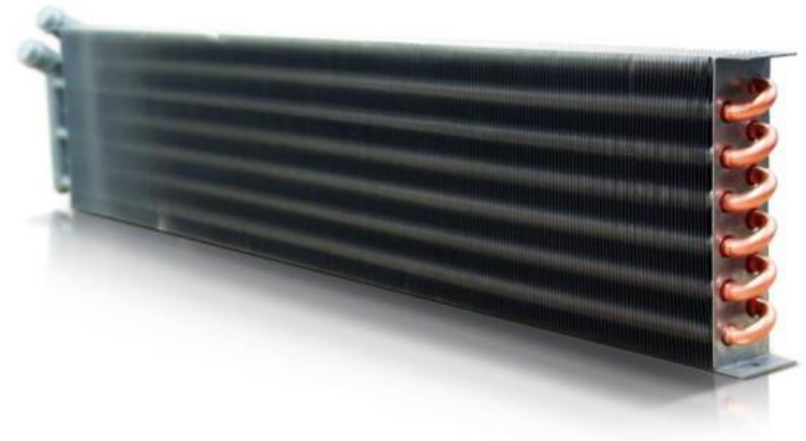


WATER

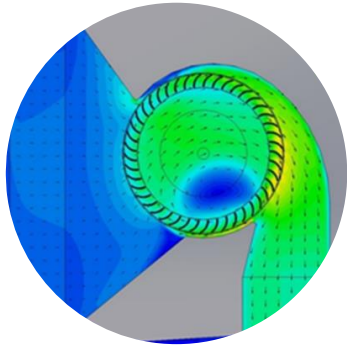
2-row LPHW coil
(Aluminium/Cooper)

110°C max. water temperature
1,6MPa max. operation pressure

14kW/m
(80/60°C, 18°C)

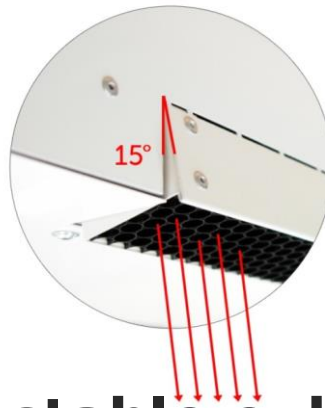


SMART FEATURES



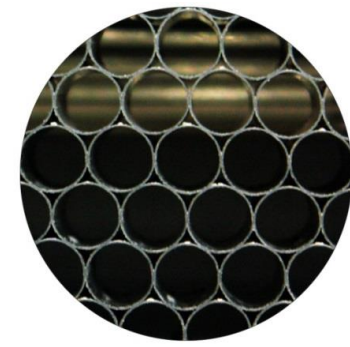
Fan chamber

Smart construction to maximize airflow and keep low sound.



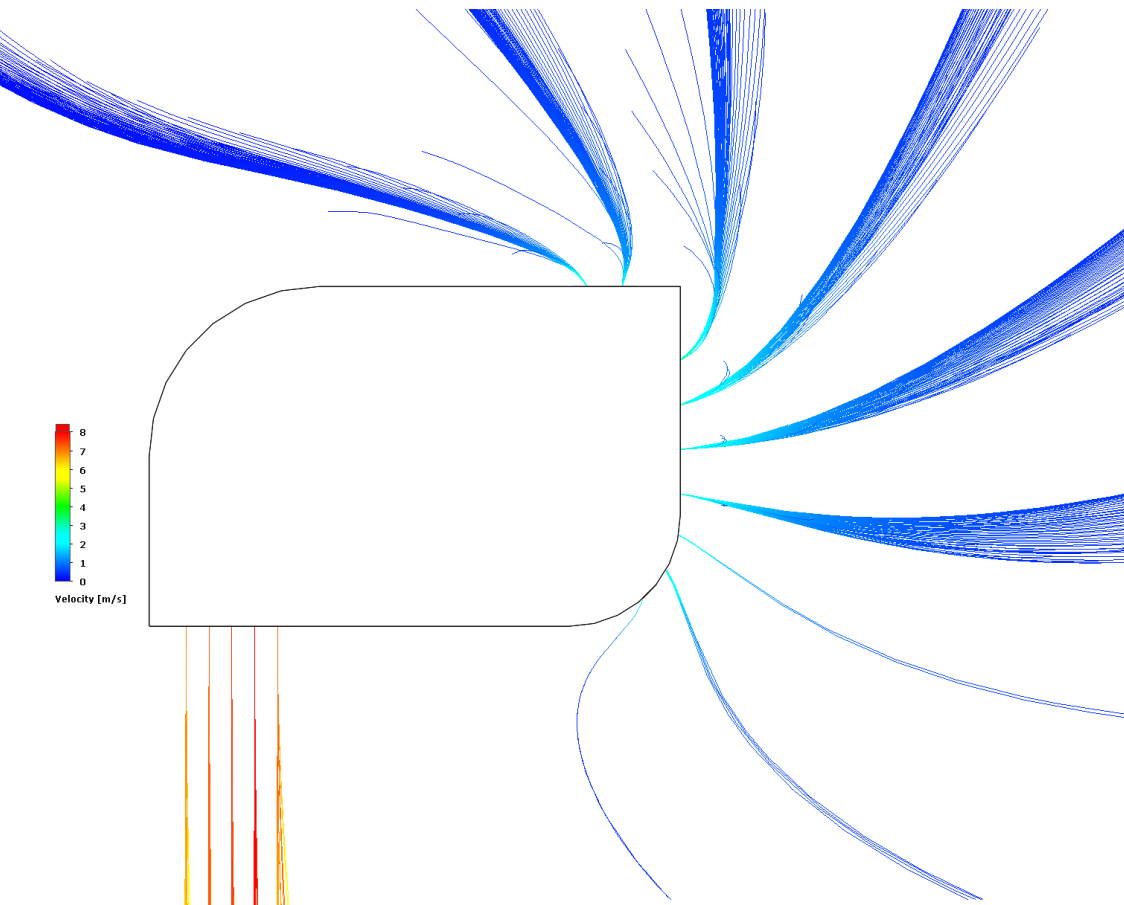
Adjustable exhaust

From 3° to 15°, improves screening efficiency where needed.



Straw System

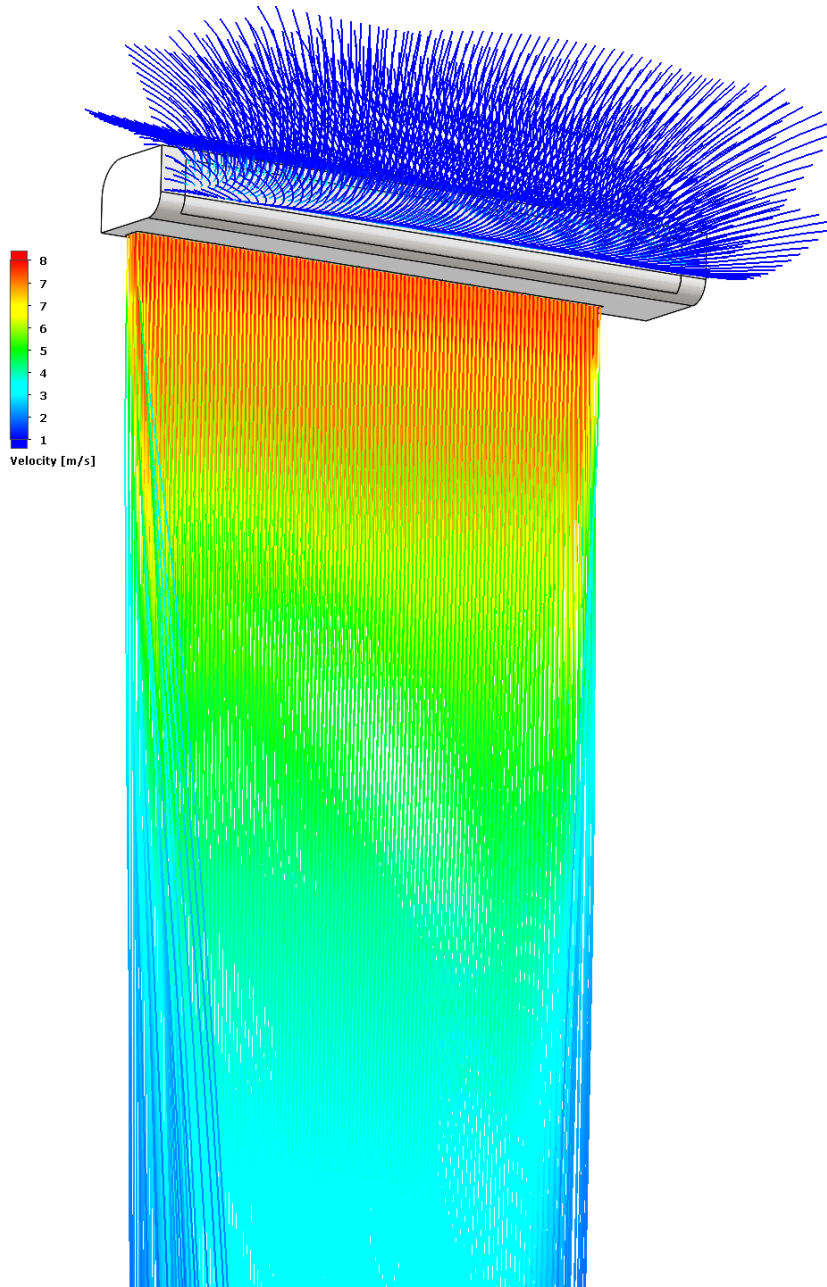
Efficient screening with excellent airflow reach.



STRAW SYSTEM

COMPACT AND LAMINAR

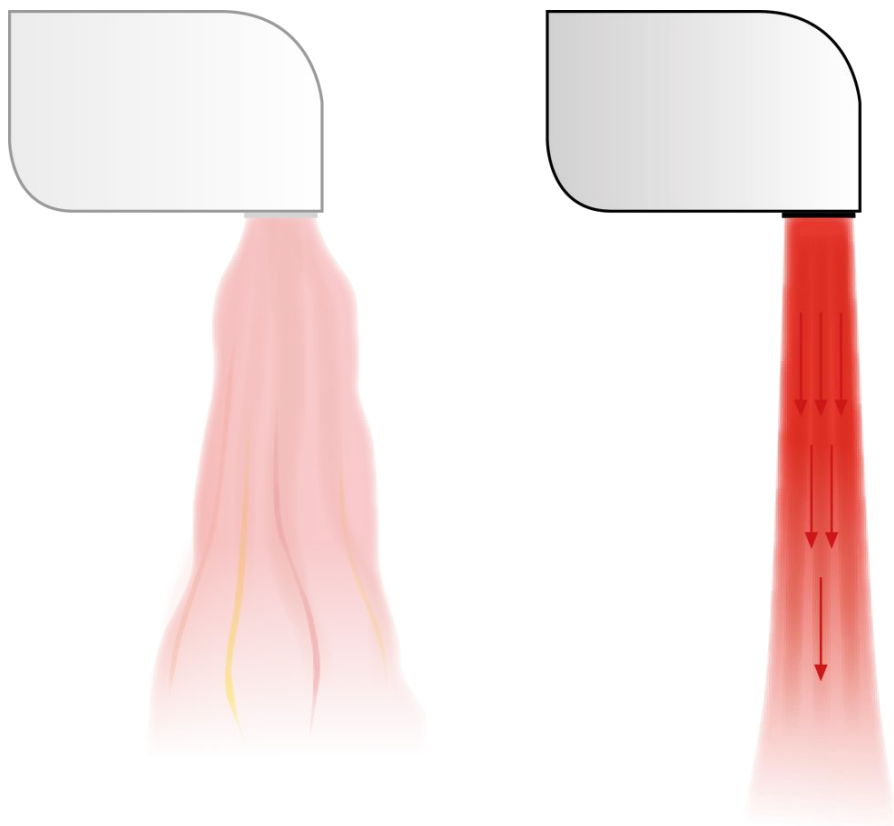
STRAW SYSTEM Technology transforms the turbulent airflow and consolidates it into laminar and compact airflow.



STRAW SYSTEM

STEADY AIR VELOCITY

STRAW-SYSTEM Technology secures constant air velocity over the entire **exhaust width** and length



STRAW SYSTEM

EXTENDED AIRFLOW REACH

Straw-System maximises the screening effect

SMART DIMENSIONS

Compact fit with dimensions
height:244mm x depth:392mm



SMART DIMENSIONS

Compact fit with dimensions
height:244mm x depth:392mm

Available length:

1,0 / 1,5 / 2,0 / 2,5m



CASING FINISH

Standard is **RAL9016**

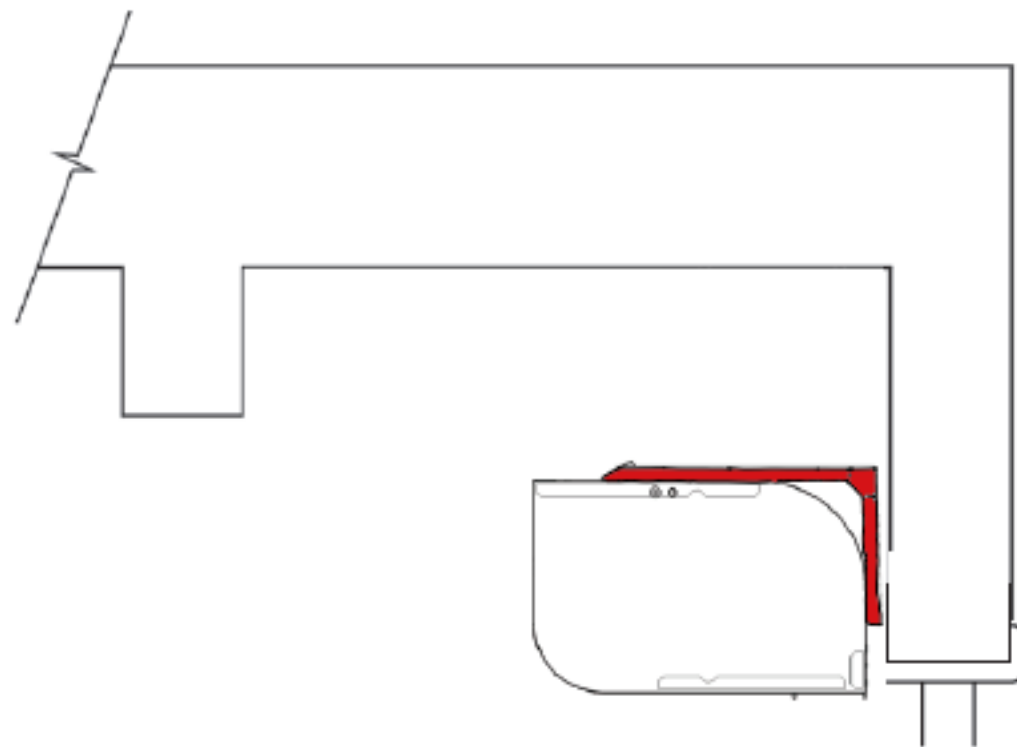
Any **RAL on request** to suit
perfectly to any interior



MOUNTING ACCESSORIES

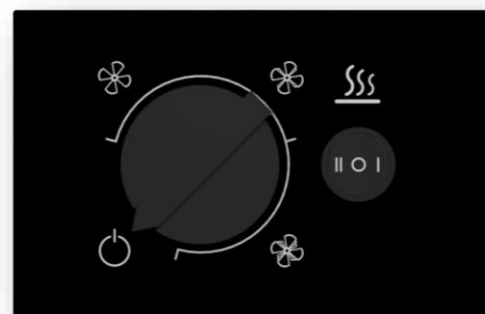
Wall brackets

Integrated **in the delivery**



AirGENIO CONTROL

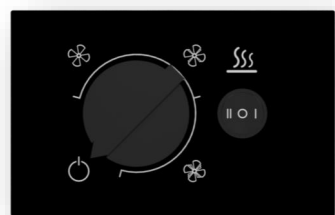
Integrated in the air curtain



BASIC



PRIME

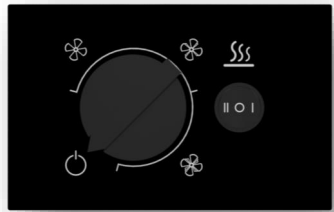


AirGENIO BASIC



Manual

Manual power control



AirGENIO BASIC



Manual

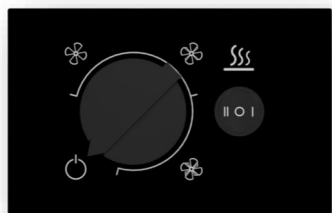
Manual power control



Fan control

AC version – 3 steps

EC version – Fluent PWM/0-10V



AirGENIO BASIC



Manual

Manual power control



Fan control

AC version – 3 steps

EC version – Fluent PWM/0-10V



Heating control

Electric – 0 / 50% / 100%

Water - ON/OFF

AirGENIO PRIME

Control panel

- 7segment display



AirGENIO PRIME

Control panel

- 7segment display
- Capacity buttons



AirGENIO PRIME

Control panel

- 7segment display
- Capacity buttons
- LED indication



AirGENIO PRIME



Auto / Manual

Choice of control
type

AirGENIO PRIME



Auto / Manual

Choice of control
type



Fan control

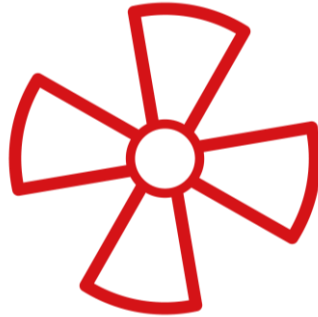
3 steps (AC)
PWM/0-10V (EC)

AirGENIO PRIME



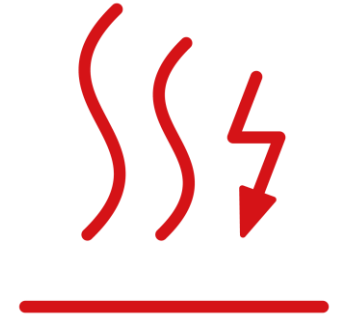
Auto / Manual

Choice of control
type



Fan control

3 steps (AC)
PWM/0-10V (EC)



Heating control

PWM (electric)
On/Off or 0/10V
(water)

AirGENIO PRIME



Smart functionality

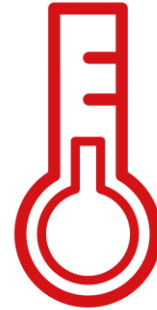
Keeps the same as
COMFORT &
SUPERIOR

AirGENIO PRIME



Smart functionality

Keeps the same as
COMFORT &
SUPERIOR



Room thermostat

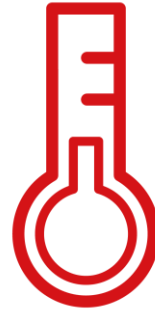
In-built in control
panel

AirGENIO PRIME



Smart functionality

Keeps the same as
COMFORT &
SUPERIOR



Room thermostat

In-built in control
panel



Door functions

Factory setting to be
adjusted at mobile
app

AirGENIO PRIME



Chaining structure

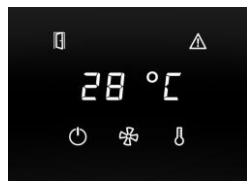
Controller = Master

Air curtain = Slave



PRIME
structure:

Master
Control panel



Slave 1
Air curtain 1



2 3 4 5 6 7 8 9

Slave 10
Air curtain 10

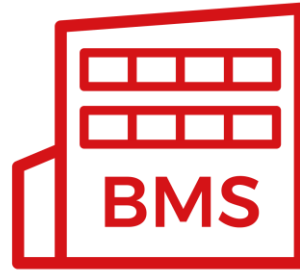


AirGENIO PRIME



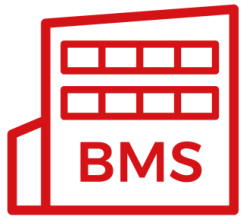
Chaining structure

Controller = Master
Air curtain = Slave



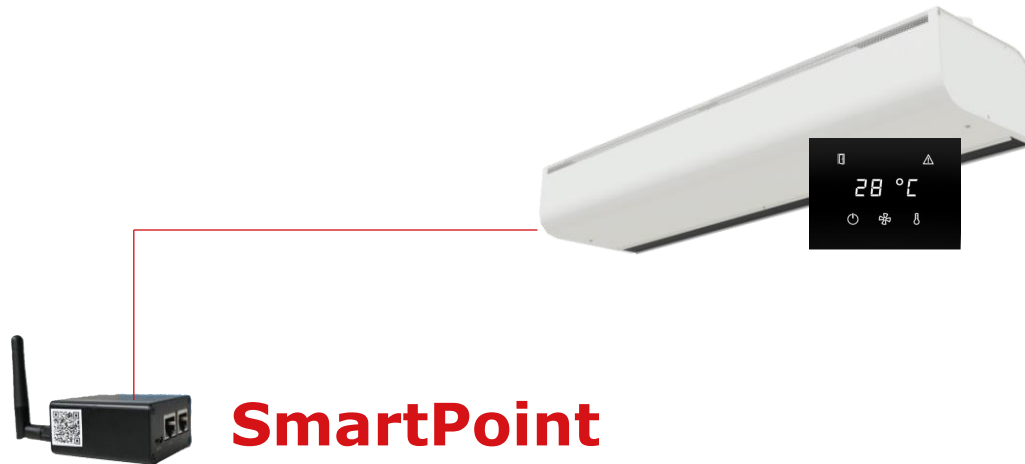
BMS connection

Modbus RTU in
standard;
Modbus TPC, BACnet
with accessory



PRIME

- Modbus RTU



SmartPoint

- Modbus TCP
- BACnet IP
- AirGENIO Cloud

AirGENIO PRIME



Chaining structure

Controller = Master
Air curtain = Slave



BMS connection

Modbus RTU in
standard;
Modbus TPC, BACnet
with accessory



Settings

Via mobile
application & in-built
Wifi module



Significant **extension** of controllers functions with a **user-friendly interface**.

Available for download at:



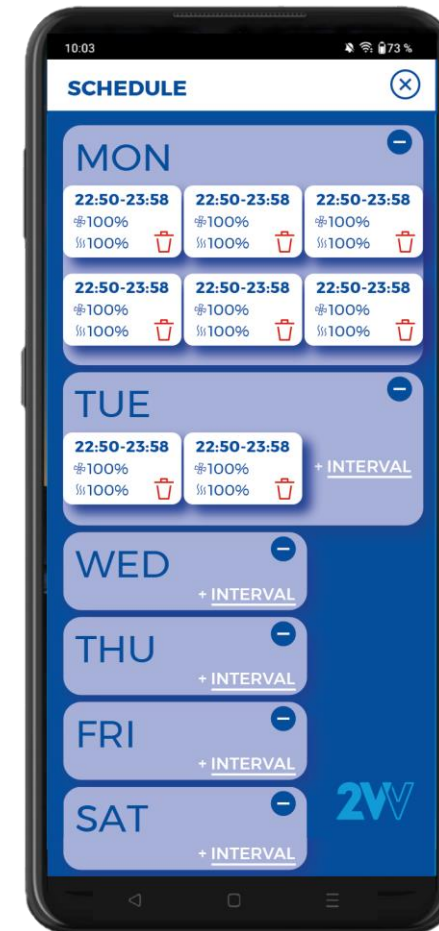
MAIN SCREEN

Main screen displaying current status and connected slave units.



TIMER

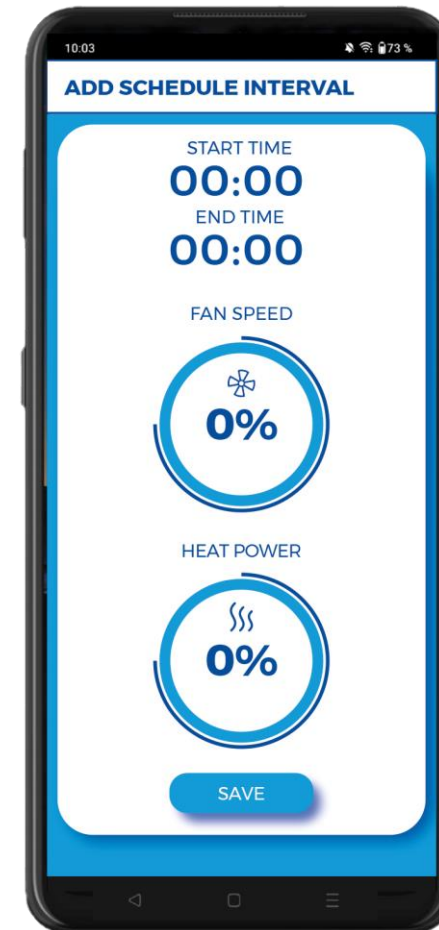
Available 6 time intervals for each day.



TIMER

Setting of each interval

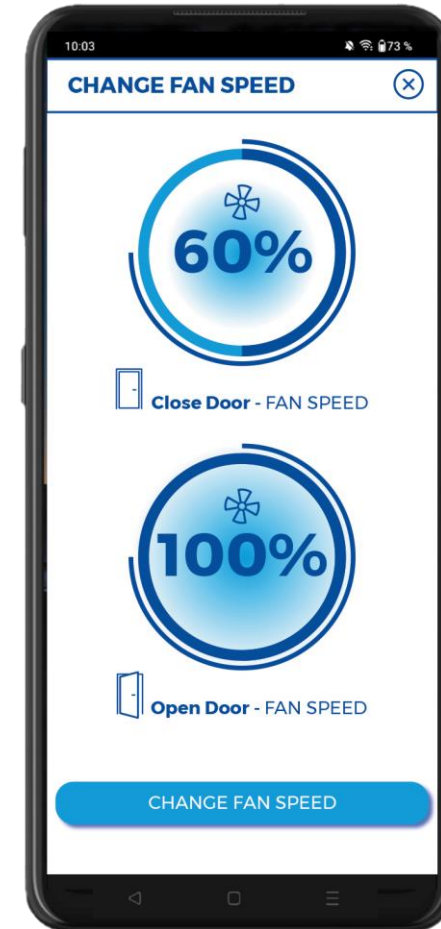
- Time period
- Fans speed
- Heat power



DOOR FUNCTION

Door closed / Door opened –
setting:

- Fan speed
- Temperature



AirGENIO PRIME



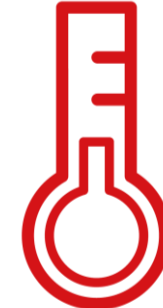
Smart functionality

Keeps the same as
COMFORT &
SUPERIOR



Quick installation

In-built control in
air curtain



Room thermostat

In-built in control
panel

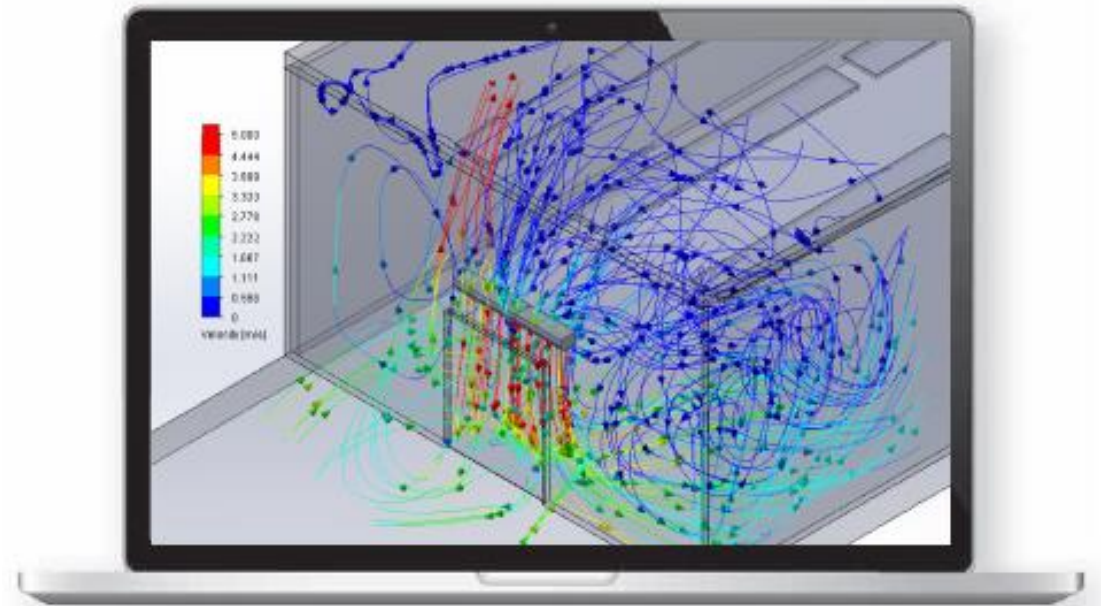
2VV SUPPORT

Sales and after-sales assistance

CFD SIMULATIONS

Clear out any doubts!

CFD Simulations confirms efficiency and functionality of the proposed solution.



TECHNICAL DOCUMENTATION

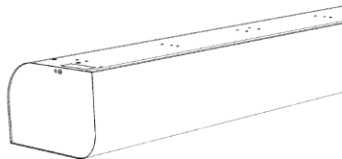
Technical sheet
Manuals

List of recommended accessories

2V PARTNER
IN VENTILATION
2VV.CZ

CZ
EN
RU
DE
IT
ES
NO
SV
FI

ESSENSSE NEO
VCES4 AC/EC BASIC - F



QUICK START



4-118-0429

ver 1.10-12-23

ESSENSSE NEO | VCES4 AIR CURTAINS



air-only
water heater
electric wire heater

AC FANS **EC FANS** **WIRE HEATER** **STRAW SYSTEM** **3 YEARS WARRANTY**

BASIC FEATURES

- AC version airflow up to 3.500 m³/h (ISO 27 327-1)
- EC version airflow up to 4.800 m³/h (ISO 27 327-1)
- **Straw System** - maximising the screening effect
- Recommended installation height up to 3m
- Length: 1.0; 1.5; 2.0; 2.5m
- Low profile design
- Integrated **AIRGENIO PRIME** or **AIRGENIO BASIC** control

ESSENSSE NEO is a low profile air curtain designed for horizontal installation at the entry doors of **retail shops, shopping centres, restaurants, administrative buildings, and manufacturing facilities** with a recommended installation height up to 3m*.

* Maximum recommended installation height - may vary according to the particular conditions at the installation site.

The air curtain has a self-supporting casing made from a galvanized metal sheet powder-coated in **RAL9016** colour in a glossy smooth finish; any RAL colour may be provided upon the customer's request.

The air curtain is equipped with a cross-flow fan optionally with **3-speed AC** motor or energy-efficient **EC** motor controlled **PWM**. The fan motors feature integrated maintenance free ball-bearings and thermal protection.

The air curtain has an option for heating and it can be equipped with **LPWH** coil or electric wire heater.

The air curtain's exhaust nozzle is equipped with a unique **Straw System Technology**, which relies on a special tubing system to control airflow performance and maximise the screening effect. The **Straw System** ensures a laminar, compact and stable airflow across the entire exhaust nozzle. The exhaust nozzle can be set up from 3° to 15° angle to direct the airflow stream against the door opening.

The air curtain features an integrated control system, which can be either the simple power control **AIRGENIO BASIC** or the sophisticated control **AIRGENIO PRIME**, which optimizes the air curtain's operation to ensure interior comfort while minimizing operating cost.

The air curtain shall be installed indoors in a dry environment with ambient temperatures ranging from **0 °C up to +40 °C** and relative humidity of up to 80%. It is designed to convey air free of fine dust, grease, chemical fumes, and other impurities. The IP rating of the air curtain is **IP20**. It is recommended that air curtain projects always be developed by an HVAC designer or engineer.

1

CHOOSE&GO AIR CURTAIN SW

Essential product selection on-line
tool for project design.

Precise and **reliable data** in one
click into PDF.

2V PARTNER
IN VENTILATION
2VV.CZ

WCalc - water coils

Horizontal installation ☐ Vertical installation ☐ Two-sided vertical installation ☐

INDUSTRIAL ☐ COMMERCIAL ☒

EXPOSED ☒ RECESSED ☐

AC FANS ☒ EC FANS ☐

Heater

TECHNICAL PARAMETER STATEMENT

Basic air curtain for use in shops, shopping centres, recommended installation height up to 4 m. The ambient temperature of 0 °C to +40 °C and a free of fine dust, grease, chemical vapours and

Air curtain reference code: VCES4B250-S04

Width	382 mm
Height	240 mm
Length	2570 mm
Weight	43 kg
Max. airflow	3500 m ³ /h
Voltage	230-50 V-Hz
Max. power	0.4 kW
Max. current	1.4 A

Controls & Accessories Unit characteristics Noise characteristics

ESSENSE NEO AC

Air velocity profile

m	0.5	8.1 m/s
1.0	5.7	
2.0	3.9	
3.0	3.2	
4.0	2.7	

VCES4B250-S04C-PR-0A0

Technical parameter statement

width	382 mm	3500 m³/h
height	240 mm	Maximal airflow
length	2570 mm	
weight	43 kg	
voltage	230-50 V	
max. power	0.4 kW	
max. current	1.4 A	

Heater

Noise characteristics

Frequency band (Hz)	63	125	250	500	750	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
Acoustic output LWA(dB) into the environment	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	74.3

Dimensions

2570 mm

382 mm

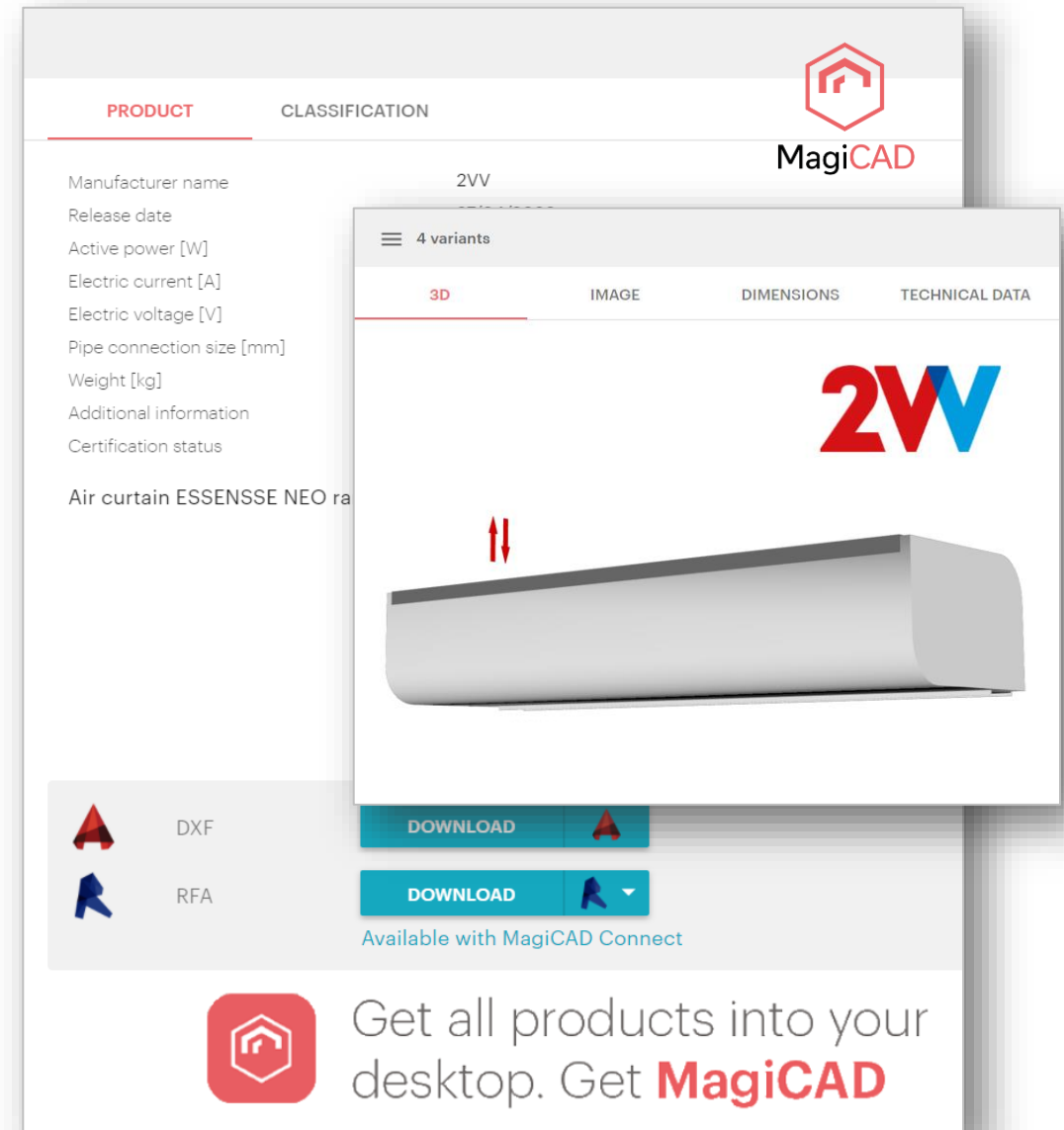
240 mm

2V PARTNER
IN VENTILATION
2VV.CZ

BIM DATABASE

2VV BIM database in **MagiCAD** can be used with AutoCAD or REVIT

Complete **Air Curtain** and Air Heaters range



AFTER-SALES SUPPORT

Technical support **hotline**

support@2vv.cz



Petr NEUMANN



Martin KRÁTKÝ



Lukáš BORŮVKA



Sergiy SHRAMKO

PRODUCT REFERENCES

ESSENSSE NEO Air curtain

MARTA KUNZMANNOVÁ

Product Manager

marta.kunzmannova@2vv.cz

+420 606 687 957

