

## Air handling unit

11069003  
VEX530

VEX500 is the air handling unit solution that delivers very good indoor air quality (ePM1 filter 90%) and a high level of comfort while limiting energy losses to a minimum.



VEX500

## PRODUCT BENEFITS

- air handling units producing very high efficiency (up to 95%),
- exclusive Aldes Smart Control® system,
- optimal air quality and thermal comfort,

## REGLEMENTATIONS AND COMPLIANCES

Eurovent Certification no. : 13.03.001

## Principles of operation

VEX500 brings fresh, filtered air (up to 90% of PM1) into the building and recovers heat from exhaust air using its very high-efficiency heat exchanger. The incoming air can be heated and/or cooled using a full range of coils.

## Product description

VEX400 is the ideal high-performance solution for small non-residential buildings. Thanks to its very high-performance heat exchanger, its wide range of filters and coils, building occupants enjoy very good indoor air quality (up to ePM1 90%) alongside excellent thermal and acoustic comfort. VEX400 also severely restricts energy losses to a minimum (up to 95% efficiency on Eurovent AAHE-certified heat exchanger).

## Fields of application

New, Refurbishment, Non-residential buildings

## Installation

- equipment rooms / flat roofs,
- indoors / outdoors,
- in-line duct connections,
- rectangular connectors (circular adapters available as accessories),
- choice of utility connections side - left or right.

## Reference arguments

- VEX530 monobloc air handling unit, horizontal connection.
- High-efficiency counterflow plate heat exchanger (AAHU certified)
- EC motor and backward curve impellers
- 1600 m<sup>3</sup>/h,
- 50 mm dual skin insulation
- Filtration up to ePM1 90%
- 100% adjustable bypass
- Anthracite grey access panel.
- Multiple possibilities for built-in coils
- Aldes Smart Control system
- Integrated web server.
- BMS via Modbus RTU and Bacnet TCP/IP.

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## Main characteristics

- pre-wired monobloc unit featuring self-supporting construction with dual-wall panels,
- 50 mm mineral wool insulation, density 40 kg/m<sup>3</sup>,
- high-efficiency counterflow plate heat exchanger up to 95% (AAHU-certified),
- EC motor and high-performance backward curve impeller,
- 100 % and adjustable bypass control,
- G4 filters (Coarse 60%) on exhaust and F7 (ePM1 60%) on fresh air as standard,
- optional: M5 (ePM10 50%), F9 (ePM1 90%),
- wide range of coils,
- built-in switch,
- Aldes Smart Control® system:
  - constant speed,
  - constant airflow,
  - constant pressure,
  - variable airflow according to CO<sub>2</sub>/VOC sensor (0-10 V signal),
  - pressure control: adapts pressure to airflow measured, for very high energy efficiency,
  - built-in clock: timer control.
- configuration & monitoring via:
  - remote touch-screen control,
  - built-in webserver,
  - BMS via ModbusRTU, Bacnet, TCP/IP.
- de-icing by electrical coil on exhaust air or by controlled bypass opening

## Supplementary characteristics

- coil options:
  - electrical,
  - electrical post-heating,
  - hot water with or without 3-way valve,
  - cold water with or without 3-way valve,
  - reversible (hot/cold) water with or without 3-way valve.
- aluminium or galvanised steel + paint condensate collection tray on heat exchanger,
- monobloc roof piece fitted in factory for outdoor versions,
- access to all components on the main panel via hinged, removable doors, and to control system via a specific central hatch,
- steel access doors pre-coated in dark grey (RAL 7016),
- galvanised steel or pre-coated external finish (RAL 9006) depending on the version,
- M0 interior finishes made of Z275 galvanised steel.

## Accessories

Désignations	References
Sens CO <sub>2</sub> sensor	11017090
VEX530 rain hood	11069034
Flexible sleeve rectangular/circular D355 VEX430/530	11069050
Rigid adapter piece VEX530	11069042
Motorised shut-off damper VEX430, VEX530 and VEX640	11069018
Ambient temp° transmitter	11069100
Motor Sfa-S2 On/Off 24/230V	11055045
Standalone detector trip device 230/24V	11906103
Smoke sensor	11058417
Flexible sleeve MS Pro rectangular 710x310 mm VEX430 VEX530	11069090

## Consumables

Désignations	References
F7 flat filter VEX430/630an 640ae 530	11069058
G4 flat filter kit VEX630an 640ae 430/530	11069066
F7 HE flat filter kit VEX530 AN	11069074
G4 flat pre-filter kit VEX530	11069082
M5 pre-filter kit Fresh Air (AN) / Extract air (AE) for VEX430	11100554
F9 flat filter kit VEX530/VEX630	11100740

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#### Options

base
C69385
C02
DEBCON
E69393
EXTENSION
EXTER
F69385
F7
F7+F9
FILAIRE
G4+F9
G4_S
G69374
HAUTEFF
L69374
M5+F7
M5+F7HE
M5+F9
M5_R
M5_S
PRECON
PREDEBCON
PREFILTRE
PREFILTRE2
PRESS
S69374
S69385
S69393
TACTILE
ZAS024

#### Associated services

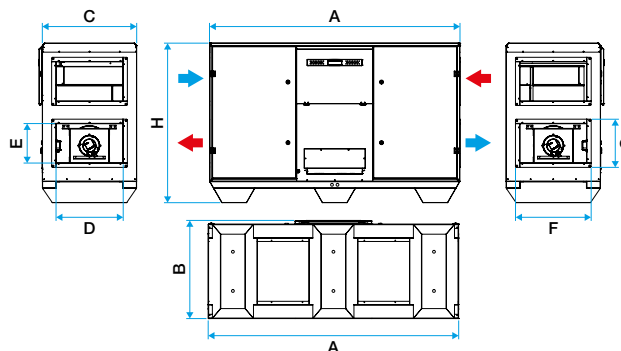
Commissioning

#### General data

References	Insulation density (kg/m <sup>3</sup> )	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11069003	40	50	Coarse 65%, ePM10 50%, ePM1 60%, ePM1 90%	Horizontal	With plates	EC	Backward curve

#### Dimensional data

References	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
11069003	1823	937	907	710	310	740	340	1161	291



Dimensions VEX500

Dimensions are given as a guide only. Make your selection in the Selector VEX software to obtain the actual characteristics of your unit.

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#### Airflow data

References	Max. airflow (m³/h)
11069003	1650

#### Thermal data

References	Max. exchanger output (%)	Max. current absorbed (kW)
11069003	95	1,011

#### Electrical datas

References	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Electrical coil voltage 1	Unit voltage (V)
11069003	5.61	0,98	3x400	230

#### Regulatory data

References	Test values as per standard EN 1886
11069003	D1, L2, F7, T3, TB2

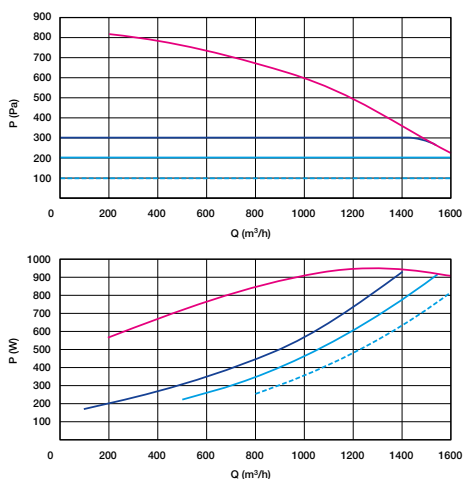
#### Principe de fonctionnement



View of airflows in a VEX500

Eclaté VEX500

#### Curve



- > Aeraulic curves drawn up as per standard NF EN ISO 5801.
- > P (Pa) = static pressure.
- > P (W) = power consumption.

Airflow and power VEX530