

## CMEV air handling unit

11050330  
VEX550 Pre-coated

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.



## PRODUCT BENEFITS

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

## REGULATIONS 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

- VEX550 monobloc air handling unit with horizontal connection.
- High-efficiency counterflow plate heat exchanger (AAHE-certified).
- EC motors and backward curve impellers.
- 50 mm double-skin insulation.
- Filtration up to ePM1 90%.
- 100% adjustable bypass.
- Pre-coated finish and anthracite grey access panel.
- Multiple possibilities for built-in coils.
- Aldes Smart Control system.
- Built-in 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

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## 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

Description	Variants
Sens CO2 sensor	11017090
VEX550 rain hood	11069036
Flexible sleeve rectangular/circular D500 VEX550	11069052
Rigid adapter piece VEX550	11069044
MOTORISED SHUT-OFF DAMPER VEX550	11069020
Temperature sensor, Modbus, room P_ACCESSORIES_DFE1106910-1 P_ACCESSORIES_DFE1106910-2 P_ACCESSORIES_DFE1106910-3 P_ACCESSORIES_DFE1106910-4 P_ACCESSORIES_DFE1106911-3 P_ACCESSORIES_DFE1106911-4 P_ACCESSORIES_DFE1106911-5 P_ACCESSORIES_DFE1109026-3 P_ACCESSORIES_DFE1109026-4 P_ACCESSORIES_DFE1109026-5 P_ACCESSORIES_DFE1109026-6 P_ACCESSORIES_DFE1109026-7 P_ACCESSORIES_DFE1109026-8	11069100
Optiflex, flex tube Ø90 (antistatic and antibacterial) OPTIFLEX round OPTIFLEX oval duct (antistatic and antibacterial)	
Optiflex, flex tube Ø75 (antistatic and antibacterial) OPTIFLEX round Optiflex, flex pipe Ø75 (antistatic) Optiflex, flex pipe Ø90 (antistatic) OCTA-Ø160 sound attenuator P_ACCESSORIES_DFE1110014-2	
Motor Sfa-S2 On/Off 24/230V	11055045
Standalone detector trip device 230/24V	11906103
Smoke sensor	11058417
Flexible sleeve MS Pro rectangular 910x410 mm VEX550	11069092

## Filters

Description	Variants
ePM1 flat filter kit 60% (F7) for VEX550	11069060
G4 flat filter kit VEX550	11069068
F7 HE flat filter kit VEX550 AN	11069076
G4 pre-filter kit VEX550 pre-21/02/2018	11069084
M5 flat filter kit VEX550	11100732
F9 flat filter kit VEX550	11100742

## Options

base
C69383
CO2
DEBCON
E69391

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### Options

EXTENSION
EXTER
F69383
F7
F7+F9
FILAIRE
G4+F9
G4_S
G69372
HAUTEFF
L69372
M5+F7
M5+F7HE
M5+F9
M5_R
M5_S
PRECON
PREDEBCON
PREFILTRE
PREFILTRE2
PRESS
S69372
S69383
S69391
TACTILE

### Associated services

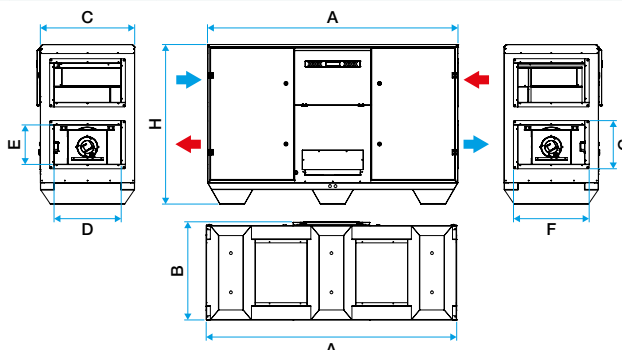
Commissioning

### General data

Variants	Insulation density (kg/m³)	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11050330	40	50	Coarse 65%, ePM10 50%, ePM1 60%, ePM1 90%	Horizontal	With plates	EC	Backward curve

### Dimensional data

Variants	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
11050330	2125	1311	1283	910	410	940	440	1470	494



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

### Airflow data

Variants	Max. airflow (m³/h)
11050330	3800

### Heat recovery data

Variants	Max. exchanger output (%)	Max. current absorbed (kW)
11050330	95	2,456

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### Electrical datas

Variants	Electrical coil voltage 1	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Unit voltage (V)
11050330	3x400	11.22	2,7	230

### Regulatory data

Variants	Test values as per standard EN 1886
11050330	D1, L2, F7, T3, TB2

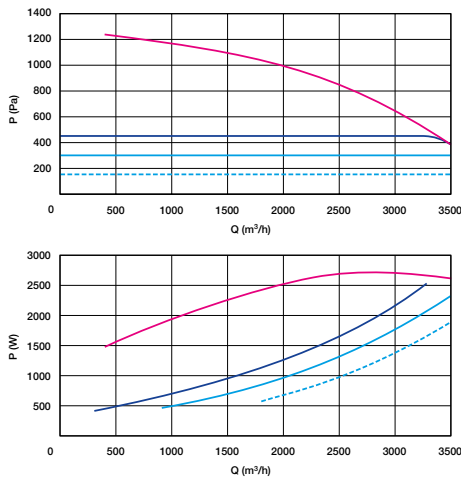
### Principles of operation



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.