

CMEV air handling unit

11061077

VEX520

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.

Produktbeskrivelse

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

- VEX520 monobloc air handling unit, horizontal connection.
- High-efficiency counterflow plate heat exchanger (AAHE certified)
- EC motor and backward curve impellers
- 1000 m³/h
- 50 mm dual skin insulation
- Filtration up to ePM1 90% and activated carbon filter
- 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
- Available in pre-coated version

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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/m³,
- 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 CO₂/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
VEX520 rain hood	11069032
Flexible sleeve MS rectangular/circular D315 VEX40/VEX520	11069048
Rigid adapter piece VEX520	11069040
MOTOR SHUT-OFF DAMPER VEX420/520	11069016
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 410x310 mm VEX420 and VEX520	11069088

Filters

Description	Variants
F7 flat filter kit VEX420/520	11069056
G4 flat filter kit VEX420/520	11069064
G4 pre-filter kit flat VEX520 pre-21/02/2018	11069080
F9 flat filter kit VEX520	11100738
FILTER KIT M5 FLAT VEX420/520 BASE	11100553

Associated services

Commissioning

General data

Variants	Insulation density (kg/m³)	Thickness of insulation (mm)	Type of motor
11061077	40	50	EC

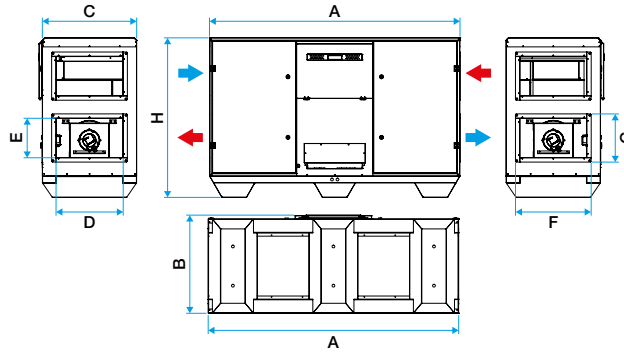
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Dimensional data

Variants	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
11061077	1823	644	579	410	310	440	340	1161	205



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)
11061077	1200

Heat recovery data

Variants	Max. exchanger output (%)	Max. current absorbed (kW)
11061077	95	0,696

Electrical datas

Variants	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Electrical coil voltage 1	Unit voltage (V)
11061077	2,616	0,98	3x400	230

Regulatory data

Variants	Test values as per standard EN 1886
11061077	D1, L2, F7, T3, TB2

Principles of operation



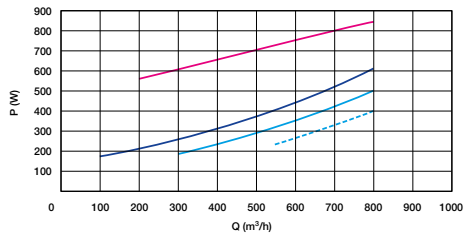
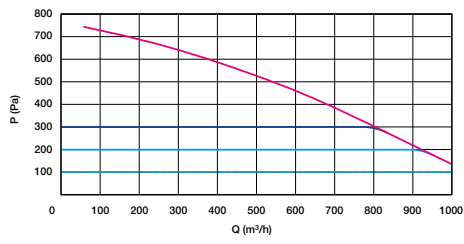
View of airflows in a VEX500

Eclaté VEX500

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Curve



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