

Air handling unit

11050338

VEX540-C4 Pre-coated

VEX500-C4 is the air handling unit solution for bedrooms. It delivers a very good indoor air quality, a high level of comfort and restricts energy losses to a minimum.



VEX500-C4

PRODUCT BENEFITS

- the safety of C4 blended with the benefits of very high efficiency air handling (up to 95%),
- exclusive Aldes Smart Control® system,
- optimum air quality and thermal comfort.

REGLEMENTATIONS AND COMPLIANCES

Eurovent Certification no. : 13.03.001

Principles of operation

VEX500-C4 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

VEX500-C4 is the ideal high-performance solution for multi-occupancy housing and non-residential accommodation. 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. VEX500-C4 also severely restricts energy losses to a minimum (up to 95% efficiency on Eurovent AAHE-certified heat exchanger).

Fields of application

Multi-occupancy residential housing, 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

- VEX540-C4 monobloc air handling unit with horizontal connection. • C4 Fire certification • 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-painted finish and an-thracite 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

- C4 solution: 400 °C 1/2 hour (Ø 160mm)
- 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% (AAHE-certified),
- EC motor and high-performance backward curve impeller,
- 100 % and adjustable bypass control,
- G4 filters (Coarse 60%) on exhaust, F7 (ePM1 60%) on fresh air,
- 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 probe (0-10V 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,
 - web server,
 - BMS via ModbusRTU, Bacnet, TCP/IP.
- defrosting by electrical coil on exhaust air or by imbalancing the bypass.

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
VEX540 rain hood	11069035
Flexible sleeve rectangular/circular D500 VEX440/540	11069051
Rigid adapter piece VEX540	11069043
Flexible sleeve MS Pro rectangular 610x410 mm VEX440 VEX540	11069091

Consumables

Désignations	References
G4 flat filter kit VEX640an 440/540	11069067
G4 pre-filter kit VEX540 pre-21/02/2018	11069083
F9 flat filter kit VEX540/VEX640	11100741
FILTER KIT M5 FLAT VEX640 fresh air VEX440/VEX540	11100555
ePM1 flat filter 60% (F7) VEX440/VEX640 fresh air and VEX540	11069059

Options

base
C69384
CO2
DEBCON

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Options

E69392
EXTENSION
EXTER
F69384
F7
F7+F9
FILAIRE
G4+F9
G4_S
G69373
HAUTEFF
L69373
M5+F7
M5+F7HE
M5+F9
M5_R
M5_S
PRECON
PREDEBCON
PREFILTRE
PREFILTRE2
PRESS
S69373
S69384
S69392
TACTILE

Associated services

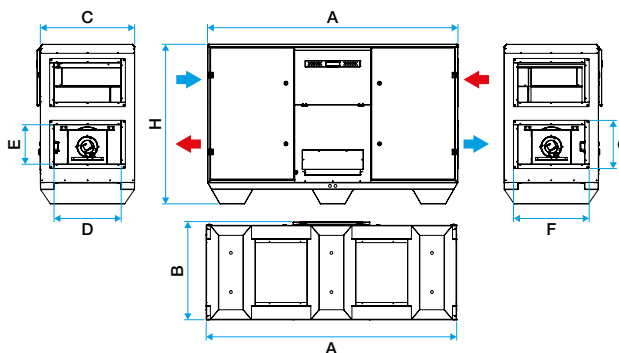
Commissioning

General data

References	Insulation density (kg/m ³)	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11050338	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)
11050338	2125	931	903	610	410	640	440	1470	366



Dimensions VEX500-C4

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

References	Minimum airflow	Max. airflow (m ³ /h)
11050338	460	2300

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Thermal data

References	Max. exchanger output (%)	Max. current absorbed (kW)
11050338	95	1,4

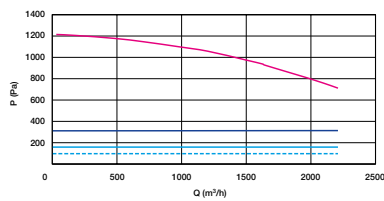
Electrical datas

References	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Electrical coil voltage 1	Unit voltage (V)
11050338	7.48	1,4	3x400	230

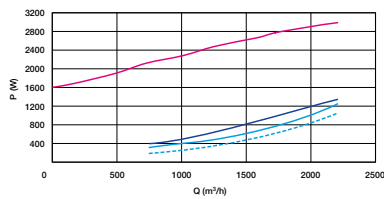
Regulatory data

References	Test values as per standard EN 1886
11050338	D1, L2, F7, T3, TB2

Curve



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



Airflow and power VEX540-C4