Air handling unit

11050327
VEX525 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.

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

• VEX525 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/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

Désignations	References
Sens CO2 sensor	11017090
VEX525 rain hood	11069033
Flexible sleeve rectangular/circular D355 VEX525	11069049
Rigid adapter piece VEX525	11069041
MOTOR DAMPER ISOL. VEX525	11069017
Motor Sfa-S2 On/Off 24/230V	11055045
Ambient temp° transmitter	11069100
Standalone detector trip device 230/24V	11906103
Smoke sensor	11058417
Flexible sleeve MS Pro rectangular 510x310 mm VEX525	11069089
Flat adapter piece rectangular-circular VEX525 and VEX525-C4	11069199

Consumables

Désignations	References
F7 flat filter kit VEX525	11069057
G4 flat filter kit VEX525	11069065
F7 HE flat filter kit VEX525 AN	11069073
G4 pre-filter kit VEX525 pre-21/02/2018	11069081
M5 flat filter kit VEX525	11100731
F9 flat filter kit VEX525	11100739

Options

base
C69386
CO2
DEBCON
E69394
EXTENSION
EXTER
F69386
F7
F7+F9
FILAIRE
G4+F9
G4_S
G69375
HAUTEFF
L69375
M5+F7
M5+F7HE
M5+F9
M5_R

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Options

M5_S
PRECON
PREDEBCON
PREFILTRE
PREFILTRE2
PRESS
S69375
S69386
S69394
TACTILE

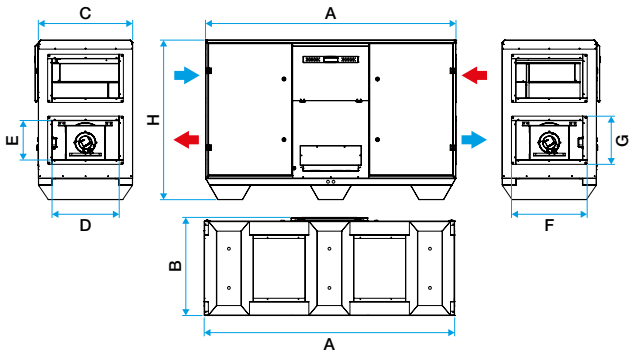
Associated services
Commissioning

General data

References	Insulation density (kg/m³)	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11050327	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)
11050327	1823	734	704	510	310	540	340	1161	239



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.

Airflow data

References	Max. airflow (m³/h)
11050327	1400

Thermal data

References	Max. exchanger output (%)	Max. current absorbed (kW)
11050327	95	0,856

Electrical datas

References	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Electrical coil voltage 1	Unit voltage (V)
11050327	3.74	0,98	3x400	230

Regulatory data

References	Test values as per standard EN 1886
11050327	D1, L2, F7, T3, TB2

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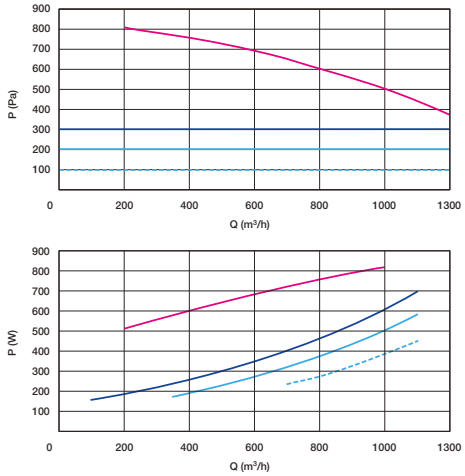
Principe de fonctionnement

Eclaté VEX500

View of airflows in a VEX500

Curve



Airflow and power VEX525

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