Air handling unit

11069008
VEX580

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.

VEX580

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

• VEX580 monobloc air handling unit with horizontal connection. • High-efficiency counterflow plate heat exchanger (AAHE-certified). • EC motors and backward curve impellers. • 7000 m³/h. • 50 mm double-skin insulation. • Filtration up to ePM1 90%. • 100% adjustable bypass. • 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

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
VEX580 rain hood	11069039
Flexible sleeve rectangular/circular D710 VEX580	11069055
Rigid adapter piece VEX580	11069047
MOTOR DAMPER ISOL. VEX580	11069023
Ambient temp° transmitter	11069100
Motor Sfa-S2 On/Off 24/230V	11055045
Standalone detector trip device 230/24V	11906103
Smoke sensor	11058417
Flexible sleeve rectangular 1410x510 mm VEX580	11069095

Consumables

Désignations	References
ePM1 flat filter kit 60% (F7) for VEX580	11069063
G4 flat filter kit VEX580	11069071
F7 HE flat filter kit VEX580 AN	11069079
G4 pre-filter kit VEX580 pre-21/02/2018	11069087
M5 flat filter kit VEX580	11100735
F9 flat filter kit VEX580	11100745

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Options

base
C69380
CO2
DEBCON
E69388
EXTENSION
EXTER
F69380
F7
F7+F9
FILAIRE
G4+F9
G4_S
G69369
HAUTEFF
L69369
M5+F7
M5+F7HE
M5+F9
M5_R
M5_S
PRECON
PREDEBCON
PREFILTRE
PREFILTRE2
PRESS
S69369
S69380
S69388
TACTILE

Associated services

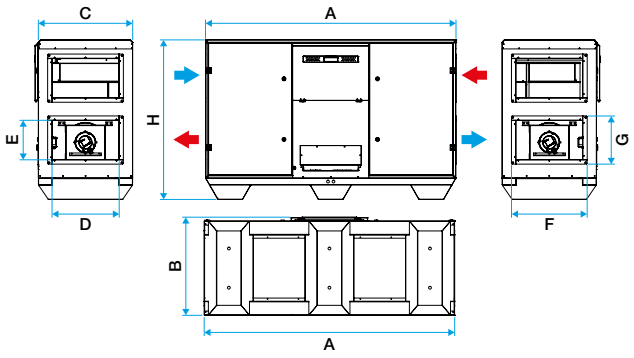
Commissioning

General data

References	Insulation density (kg/m³)	Thickness of insulation (mm)	Available filters	Connection direction	Type of exchanger	Type of motor	Type of impeller
11069008	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)
11069008	2627	1847	1818	1410	510	1440	540	1693	840



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)
11069008	7500

Thermal data

References	Max. exchanger output (%)	Max. current absorbed (kW)
11069008	95	5,18

Electrical datas

References	Max. power of electrical coil 1 (kW)	Max. electrical output of unit (kW)	Electrical coil voltage 1	Unit voltage (V)
11069008	22.4	7,2	3x400	400

Regulatory data

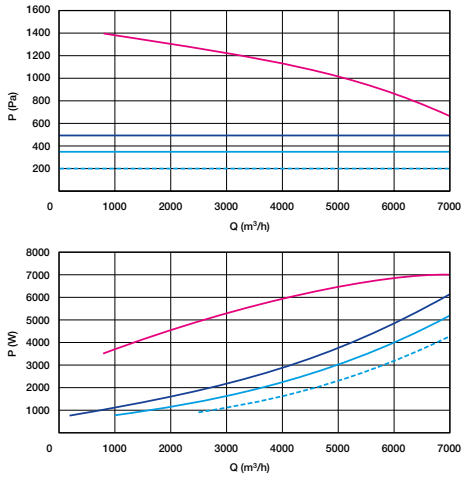
References	Test values as per standard EN 1886
11069008	D1, L2, F7, T3, TB2

Principe de fonctionnement

Eclaté VEX500

View of airflows in a VEX500

Curve



Airflow and power VEX580

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