

## Air handling unit

11069013  
VEX640

VEX600 is the air handling unit solution with a small footprint. It delivers a very good indoor air quality, a high level of comfort and restricts energy losses to a minimum.



VEX600

## PRODUCT BENEFITS

- air handling units producing very high efficiency (up to 95%),
- optimal air quality and thermal comfort,
- excellent acoustic performance,

## REGLEMENTATIONS AND COMPLIANCES

Eurovent Certification no. : 13.03.001

## Principles of operation

VEX600 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

VEX600 is the ideal high-performance solution for non-residential buildings where floor space is at a premium. 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. VEX600 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/ cabinets,
- indoors,
- vertical duct connections,
- rectangular connectors (circular adapters available as accessories).

## Reference arguments

- VEX640 monobloc air handling unit with vertical connection.
- High-efficiency counterflow plate heat exchanger (AAHE-certified).
- EC motors and backward curve impellers.
- 2300 m<sup>3</sup>/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,
- duct connections on top of unit,
- 50 mm mineral wool insulation, density 40 kg/m<sup>3</sup>,
- high-efficiency counterflow heat exchanger up to 95% (AAHE-certified),
- EC motor and high-performance backward curve impeller,
- 100 % and adjustable bypass control,
- G4 filter (Coarse 60%) on exhaust, F7 (ePM1 60%) on fresh air,
- optional: M5 (ePM10 50%), F9 (ePM1 90%),
- optional 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,
  - 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,
- 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   |
| Flexible sleeve MS Pro rectangular/circular insulated VEX640 D450 | 11068346   |
| Flexible sleeve MS Pro rectangular/circular VEX640 D450           | 11068414   |
| Rigid adapter piece VEX640  | 11068384   |
| Ambient temp° transmitter   | 11069100   |
| Motor Sfa-S2 On/Off 24/230V                                       | 11055045   |
| Standalone detector trip device 230/24V                           | 11906103   |
| Smoke sensor  | 11058417   |
| Motorised shut-off damper VEX430, VEX530 and VEX640               | 11069018   |

## Consumables

| Désignations   | References |
|--|------------|
| F7 HE filter kit VEX640 AN                                     | 11100428   |
| M5 pre-filter kit Fresh Air (AN) / Extract air (AE) for VEX430 | 11100554   |
| F9 flat filter kit VEX540/VEX640                               | 11100741   |
| FILTER KIT M5 FLAT VEX640 fresh air VEX440/VEX540              | 11100555   |
| F7 flat filter VEX430/630an 640ae 530                          | 11069058   |
| ePM1 flat filter 60% (F7) VEX440/VEX640 fresh air and VEX540   | 11069059   |
| G4 flat filter kit VEX630an 640ae 430/530                      | 11069066   |
| G4 flat filter kit VEX640an 440/540                            | 11069067   |

## Options

|         |
|---------|
| base    |
| F7+F9   |
| G4+F9   |
| M5+F7   |
| M5+F9   |
| M5_R    |
| M5_S    |
| C78957  |
| CO2     |
| DEBCON  |
| E68410  |
| E78656  |
| F7      |
| F78957  |
| FILAIRE |
| G4_S    |
| G68418  |
| HAUTEFF |
| L68418  |
| M5+F7HE |
| PRECON  |

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#### Options

|            |
|------------|
| PREDEBCON  |
| PREFILTRE  |
| PREFILTRE2 |
| PRESS      |
| S68410     |
| S68418     |
| S78656     |
| S78957     |
| TACTILE    |

#### Associated services

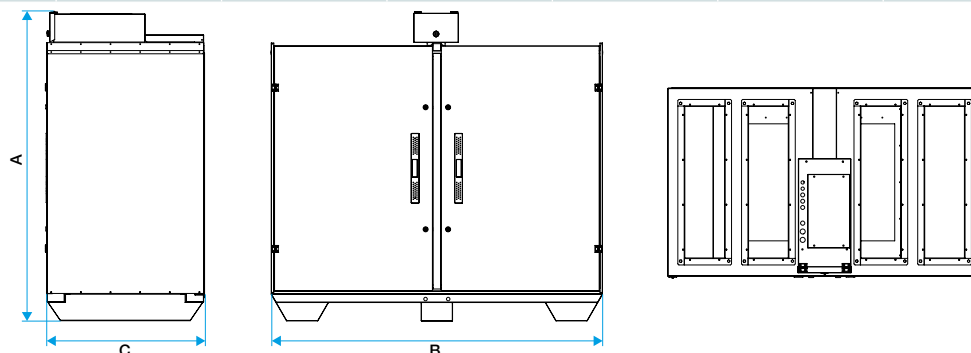
Commissioning

#### General data

| References | Insulation density (kg/m <sup>3</sup> ) | Thickness of insulation (mm) | Available filters                         | Connection direction | Type of exchanger | Type of motor | Type of impeller |
|------------|---|------------------------------|---|----------------------|-------------------|---------------|------------------|
| 11069013   | 40                                      | 50                           | Coarse 65%, ePM10 50%, ePM1 60%, ePM1 90% | Vertical             | With plates       | EC            | Backward curve   |

#### Dimensional data

| References | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | Weight (kg) | Connection h (mm) | Connection l (mm) |
|------------|--------|--------|--------|--------|--------|-------------|-------------------|-------------------|
| 11069013   | 1724   | 1900   | 909    | 740    | 340    | 365         | 340               | 740               |



Dimensions VEX600

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

#### Airflow data

| References | Max. airflow (m <sup>3</sup> /h) |
|------------|----------------------------------|
| 11069013   | 2500                             |

#### Thermal data

| References | Max. exchanger output (%) | Max. current absorbed (kW) |
|------------|---------------------------|----------------------------|
| 11069013   | 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) |
|------------|--------------------------------------|-------------------------------------|---------------------------|------------------|
| 11069013   | 7.5                                  | 1,4                                 | 3x400                     | 230              |

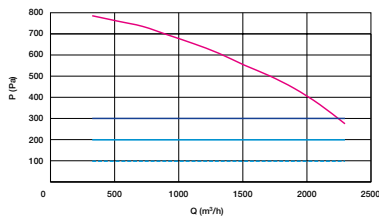
#### Regulatory data

| References | Test values as per standard EN 1886 |
|------------|-------------------------------------|
| 11069013   | D1, L2, F7, T3, TB2                 |

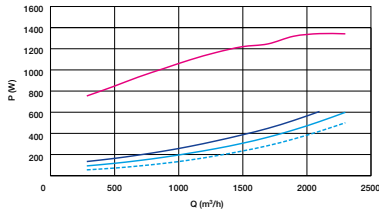
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### Curve



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



Airflow and power VEX640