

#### Vetranie budov Skúšanie funkčných charakteristík komponentov pre budovy na bývanie Multifunkčné vyvážené vetracie jednotky pre rodinné domy vrátane tepelných čerpadiel

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Ventilation for Buildings - Performance testing of components for residential buildings - Multifunctional balanced ventilation units for single family dwellings, including heat pumps

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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#### **English Version**

# Ventilation for Buildings - Performance testing of components for residential buildings - Multifunctional balanced ventilation units for single family dwellings, including heat pumps

Ventilation des bâtiments - Essais de performance des composants pour les bâtiments résidentiels - Centrales de ventilation double flux multifonctions pour les logements individuels, comprenant des pompes à chaleur Lüftung von Gebäuden - Leistungsprüfung von Bauteilen für Wohnbauten - Multifunktionale Zu-/Abluft-Lüftungseinheiten für Einzelwohnungen, einschließlich Wärmepumpen

This European Standard was approved by CEN on 22 July 2016.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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#### **European foreword**

This document (EN 16573:2017) has been prepared by Technical Committee CEN/TC 156 "Ventilation for buildings", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### 1 Scope

This European Standard specifies the laboratory test methods and test requirements for aerodynamic, energy rating and acoustic performance, of multifunctional balanced units intended for use in a single dwelling.

In the case of units consisting of several parts, this standard applies only to those designed and supplied as a complete package with the mount instructions.

It covers units that contain at least, within one or more casing:

- supply and exhaust air fans;
- air filters
- common control system;

and one or more of the additional components:

- air to water heat pump;
- air to air heat pump;
- air-to-air heat exchanger.

Units including only an air to air heat exchanger and/or an exhaust air to supply air heat pump are covered by EN 13141-7.

A non-exhaustive list of possible configurations of multifunctional units covered by this standard is given in Clause 5.

The standard does not cover the thermal aspects of humidity transfer in the air-to-air heat exchanger.

This standard does not deal with non-ducted units on supply and extract air side.

This standard does not deal with collective units (centralized or semi-centralized systems)

These multifunctional balanced units can be connected to ground heat exchanger for air preheating, solar collector or other heating systems. This standard does not cover the testing with these additional components.

This standard does not cover units including combustion engine driven compression heat pumps and sorption heat pump.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12102, Air conditioners, liquid chilling packages, heat pumps and dehumidifiers with electrically driven compressors for space heating and cooling - Measurement of airborne noise - Determination of the sound power level

EN 12792, Ventilation for buildings - Symbols, terminology and graphical symbols

EN 13141-7:2010, Ventilation for buildings - Performance testing of components/products for residential ventilation - Part 7: Performance testing of a mechanical supply and exhaust ventilation units (including heat recovery) for mechanical ventilation systems intended for single family dwellings

#### EN 16573:2017 (E)

EN 14511 (all parts), Air conditioners, liquid chilling packages and heat pumps with electrically driven compressors for space heating and cooling

EN 16147, Heat pumps with electrically driven compressors - Testing and requirements for marking of domestic hot water units

EN ISO 5135, Acoustics - Determination of sound power levels of noise from air-terminal devices, air-terminal units, dampers and valves by measurement in a reverberation room (ISO 5135)

### koniec náhľadu – text ďalej pokračuje v platenej verzii STN