

## Call for including multifunctional bidirectional ventilation units in the revision of the Ecodesign Regulation (EU) 1253/2014 (Ventilation)

Dear Mr. Hodson, Ms. Beelaerts and Mr. Polverini,

We are writing to you to introduce the European Platform for Multifunctional Units, which has been established to bring together the interests of multifunctional unit manufacturers. Indeed, we count among our membership five of the leading European industry associations in our sector: EPEE, EHPA, Eurovent, EVIA and EHI.

Our industry associations are jointly directing this correspondence to initiate dialogue with the European Commission and to share common concerns over the approach taken to the integration of multifunctional units within the EU's framework for Energy Related Products (ERP).

### REVIEW OF (EU) 206/2012 (SMALL AIR CONDITIONERS AND COMFORTS FANS)

In particular, we have reservations on the following proposal outlined in the Task 7 Final Report<sup>1</sup> on the revision of EU 206/2012 (Small air conditioners and comforts fans) to extend the scope to include ventilation exhaust air-to-air heat pumps and air conditioners whose rated capacity is  $\leq 12$  kW.

As the functions of ventilation, heating and hot water production may be combined in one multifunctional product (see EN 16573), overlapping with the scopes of (EU) 813/2013 and 814/2013 and 1253/2014 is arising. Whilst we recognise the concept of multifunctional units as valid, we also note that the definition of the possible technical parameters and scope of multifunctional units is, as of yet, to be clarified.

Multifunctional units may include only one exhaust air fan or may include both exhaust air and supply air fans. In addition, multifunctional units include one or several additional functions, such as heating and/or cooling and/or domestic hot water production etc. Multifunctional units including only one exhaust air fan, namely exhaust air heat pumps, are already covered by regulations (EU) 813/2013 and 814/2013 and shall remain in the scope of these regulations.

As multifunctional bidirectional ventilation units may include any combination of additional functions there are multiple types and architectures of multifunctional bidirectional ventilation units. Among them, ventilation is the only common function. For that reason, in order to gather all the multifunctional bidirectional units in a single regulation to make it possible the comparison among them, we propose to include these units in (EU) 1253/2014, and not in (EU) 206/2012.

Including them in (EU) 1253/2014 will also allow to consider them independently on their capacity range (as EU 206/2012 is limited to 12kW units).

Today, products are included in the different ERP regulations according to their function. However, typically multifunctional units are not optimised to perform a function in isolation, but to provide a combination aimed at achieving the highest overall performance and benefit for the consumer.

Including multifunctional bidirectional ventilation units in the revision of regulation (EU) 1253/2014 will allow to assess the energy efficiency of the ventilation function. However, as these units offer functions other than ventilation only, all additional functions of a unit having energy and environmental impacts shall be considered in the revised regulation. So, energy efficiencies of heating and/or cooling and/or DHW shall be addressed as well as sound power level. This will also allow a fair

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<sup>1</sup> [Review of Regulation 206/2012 and 626/2011 on air conditioners and comfort fans. Task 7 report. Final version](#)

comparison of these units with products already covered by existing regulations addressing the impact of a specific function (heating, cooling, DHW), such as regulation 206/2012, 813/2013 and 814/2013.

### **DEFINITION AND TESTING OF “MULTIFUNCTIONAL BIDIRECTIONAL VENTILATION UNITS”**

EN 16573<sup>2</sup> was intended to cater specifically for these kinds of units. The rating basis is the reference flow for the ventilating function plus one or more additional functions. It references a wide range of multifunctional units as examples.

The definitions and procedures of this standard would be a good starting point:

- EN 16573 covers units that contain at least, within one or more casing (please see ANNEX for examples:
  - 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.
- A multifunctional bidirectional ventilation unit provides ventilation for single dwellings as a primary function. The additional functions that may be provided by the units are:
  - Hydronic heating/air heating;
  - Hydronic cooling/air cooling;
  - Hot water production.
- EN 16573 delivers global performance, EER, COP etc. and performance by functions at reference air volume flow considering the test standards EN 13141-7, EN 14511 and EN 16147 in the applicable combination.

### **CONCLUSION**

**In consideration of the aspects outlined above, our industry associations, which represent multifunctional units, request that multifunctional bidirectional ventilation units are removed from the scope of EU 206/2013 revision and are instead covered within EN 1253/2014 revision. Multifunctional units including only one exhaust air fan are already in the scope of regulations 813/2016 and 814/2013.**

Further, we suggest that EN 16573 provides a ready-made foundation for facilitating the implementation of a change that will assist in delivering a measurable improvement in the energy efficiency delivered to European consumers, whilst providing a level playing field for the uptake and future development of the technology.

Representatives of the Platform trust that the proposal outlined in this letter will be given thorough consideration in the context of the revisions of (EU) 206/2012 and (EU) 1253/2014 and would be delighted to address clarifications in person.

Currently, the market for multifunctional bidirectional ventilation units including heat pumps is relatively small. Indeed, we estimate that no more than 15,000 units per year are placed on the market for residential applications. The units for residential applications that are available on the market are optimised for very low energy buildings providing predominately ventilation and, depending on the

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<sup>2</sup> Ventilation for Buildings - Performance testing of components for residential buildings - Multifunctional balanced ventilation units for single family dwellings, including heat pumps; German version EN 16573:2017

function, space heating/cooling and hot water capabilities. We estimate similar numbers for non-residential applications. Nevertheless, we welcome the European Commission's efforts to integrate multifunctional units within the ERP framework with a view to shaping the development of the marketplace.

The members of the Platform would greatly appreciate the opportunity to discuss our proposal in more detail in person at your convenience, but with a view to the ongoing review of EU 206/2012 ideally in January or February 2019

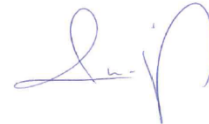
Yours sincerely,



Federica Sabbati  
EHI Secretary-General



Thomas Novak  
EHPA Secretary-General



Andrea Voigt  
EPEE Director-General



Felix Van Eyken  
Eurovent Secretary-General



Russell Patten  
EVIA Secretary-General

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#### ABOUT EHI:

EHI, the association of the European Heating Industry, represents 90% of the European market for heat and hot water generation, heating controls and heat emitters, as well as 75% of the hydronic heat pump market. Our Members produce advanced technologies for heating in buildings and renewable energy solutions including: heat pumps, solar thermal, biomass heaters, boilers, heating systems, components, radiators, surface heating & cooling. In doing so, we employ directly more than 160.000 people in Europe and invest about 700 million euro a year in energy efficiency.  
[www.ehi.eu](http://www.ehi.eu)

#### ABOUT EHPA:

The European Heat Pump Association (EHPA) is a Brussels based industry association which aims at promoting awareness and proper deployment of heat pump technology in the European market place for residential, commercial and industrial applications. EHPA provides technical and economic input to European, national and local authorities in legislative, regulatory and energy efficiency matters. All activities are aimed at overcoming market barriers and dissemination of information in order to speed up market development of heat pumps for heating, cooling and hot water production.

EHPA coordinates quality initiatives: including the HP KEYMARK, a Quality label for heat pumps and Certification standards for heat pump installers. The association compiles the annual heat pump statistics and organizes a number of events, among them an annual heat pump conference.

#### **ABOUT EPEE:**

The European Partnership for Energy and the Environment (EPEE) represents the refrigeration, air-conditioning and heat pump industry in Europe. Founded in the year 2000, EPEE's membership is composed of 48 member companies, national and international associations from three continents (Europe, North America, Asia).

EPEE member companies realize a turnover of over 30 billion Euros, employ more than 200,000 people in Europe and also create indirect employment through a vast network of small and medium-sized enterprises such as contractors who install, service and maintain equipment.

EPEE member companies have manufacturing sites and research and development facilities across the EU, which innovate for the global market.

As an expert association, EPEE is supporting safe, environmentally and economically viable technologies with the objective of promoting a better understanding of the sector in the EU and contributing to the development of effective European policies. Please see our website ([www.epeeglobal.org](http://www.epeeglobal.org)) for further information.

#### **ABOUT Eurovent:**

Eurovent is Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies. Its members from throughout Europe, the Middle East and Africa represent more than 1.000 companies, the majority small and medium-sized manufacturers. Based on objective and verifiable data, these account for a combined annual turnover of more than 30bn Euros, employing around 150.000 people within the association's geographic area. This makes Eurovent one of the largest cross-regional industry committees of its kind. The organisation's activities are based on highly valued democratic decision-making principles, ensuring a level-playing field for the entire industry independent from organisation sizes or membership fees. [www.eurovent.eu](http://www.eurovent.eu)

#### **ABOUT EVIA:**

The European Ventilation Industry Association ([EVIA](http://www.eviamission.eu)) was established in Brussels in July 2010. EVIA's mission is to represent the views and interests of the ventilation industry and serve as a platform between all the relevant European stakeholders involved in the ventilation sector, such as decision-makers at the EU level as well as our partners in EU Member States.

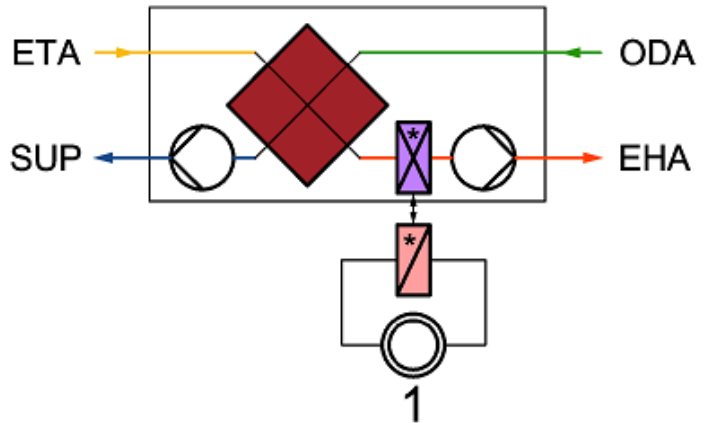
Our membership is composed of more than 40 member companies and 6 national associations across Europe realising an annual turnover of over 7 Billion Euros and employing more than 45,000 people in Europe.

EVIA aims to promote highly energy efficient ventilation applications across Europe, with high consideration for health and comfort aspects. Fresh and good indoor air quality is a critical element of comfort and contributes to keeping people healthy in buildings.

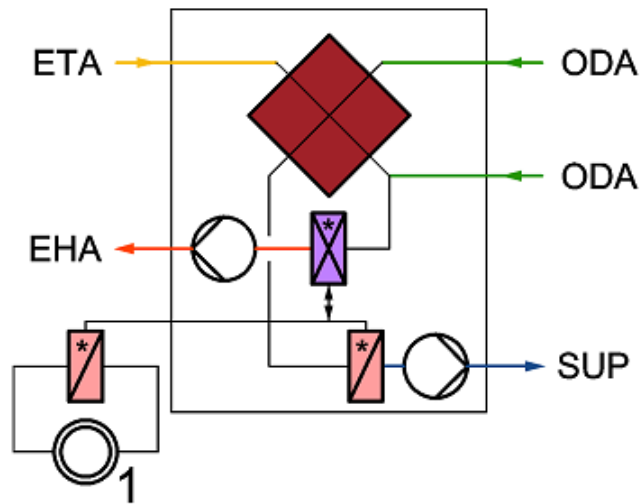
**ANNEX**

Examples for typical multifunctional bidirectional ventilation units (taken from EN 16573):

9. + air to air heat exchanger  
+ Air to water heat pump for domestic hot water production



13. + air to air heat exchanger  
+ Air source heat pump for:  
- supply air heating or cooling  
- for alternative:  
- hydronic heating or cooling  
- domestic hot water production



18. + air to air heat exchanger  
+ Air source heat pump for:  
- supply air heating or cooling and simultaneous or alternative domestic hot water production  
With recirculation air

