

STAKEHOLDER: VORTICE ELETTROSOCIALI SPA (Italy)

## **Reference person:**

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## Reference document:

"Considerations about scope of Regulation 327/2011 and Regulation 1253/201 for ventilation product producing an airflow in one direction only and intended to replace air in a building or part of a building"

- 1. Questions about Example 4:
  - a) The question asked during the meeting was:

#### Products like those below:







They consist of 1 housing and 1 backward curved centrifugal impeller; must they be taken as "Fans" to comply with Regulation 327/2011 only?

The answer of the Commission during the meeting has been "Yes they are fans" as Centrifugal backward curved fan with housing" as written in Table 1 and Table 2 of the Regulation 327/2011.

- b) Can these products be fans according 327/2011 even if equipped with a removable grille?
- c) Most of these products are actually sold with a fixed (not removable) safety grille on the inlet side.
  Can they be taken as fans according 327/2011 if the efficiency test is done with the grille and the efficiency measured include the grille?
- 2. Other ventilation products, producing an air flow in one direction only and designed to replace air in a building or part of a building and not specified in the discussion document, like the product in the photos below, have only one housing combined with a removable protection grille only.
  - These kind of products are external wall fans see attached drawings:







Can the manufacturers consider the product below covered by the Regulation 327/2011 removing the grille during testing?









Removable grille

# Reference document:

Regulation 1253/2014 Part related to RVUs

## **Annex I: Definitions**

1. In the regulation 1253/2014 there are two definitions that should be better explained:

Definitions number 22 "ducted unit"

Definitions number 23 "non ducted unit"

If we read these two definitions it is not so clear which is a "non-ducted unit.

A ducted unit must be intended to be equipped with duct connections on both side.

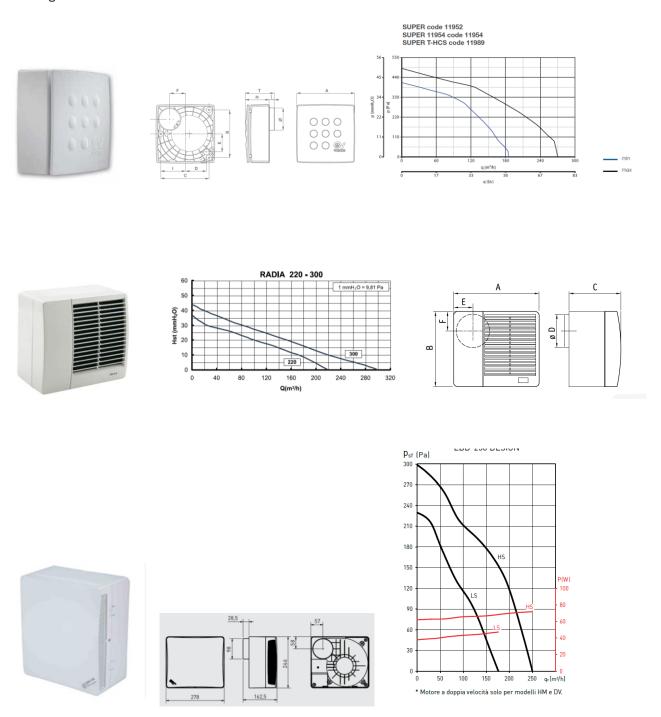
A non-ducted unit must non to be intended to be equipped with duct connections specify better.

## The text of the regulation say:

- (22) 'ducted unit' means a ventilation unit intended to ventilate one or more rooms or enclosed space in a building through the use of air ducts, intended to be equipped with duct connections;
- (23) 'non-ducted unit' means a single room ventilation unit intended to ventilate a single room or enclosed space in a building, and not intended to be equipped with duct connections;

During the meeting the Commission said that is must be considered as a <u>non ducted unit</u> the products that have only one connection to the duct and the duct must be shorter that one meter.

On the market there are a lot of products that are centrifugal products with only one connection to a duct but with a very high pressure that can be used to extract air from a building or a part of a building through a duct longer than one meter (2-3-4...meters). Please find here attached these kind of products like taken from the catalogues of some manufacturers.



It is important to know how these products must be consider: ducted, as we think, or non ducted?

2. It is also important to understand how to give measure "SENSITIVITY parameter" another information that it is necessary to the customers.

### Definition:

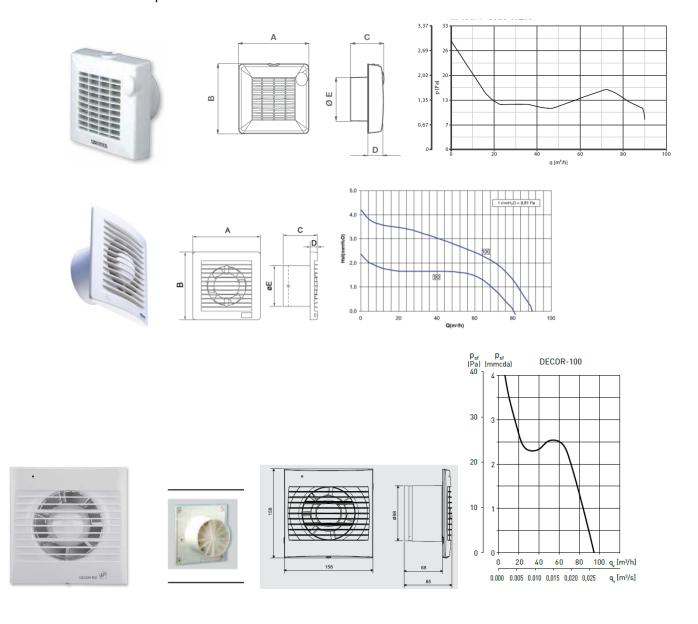
(32) 'airflow sensitivity to pressure variations' of a non-ducted RVU is the ratio between the maximum deviation from the maximum RVU flow rate at + 20 Pa and that at – 20 Pa external total pressure difference;

This information must be given to customer also for RVUS that are escluded from the regulation because under 30 W.

"SENSITIVITY" is not an Eco Design requirement, there are a lot of small RVUs under 30 W normally used in bathroom or toilets that are not able to have this parameter fullfilled.

These RVUs are normally axial fans with 1 connection to a duct and that can work, with their maximum air flow, at max 10 Pa. For these kind of products it is paractically impossible to determine the sensitivity because at the values of  $\pm$  20 Pa the products are a very low air flow.

Please check the products below:



These kind of products cover a very important number of sales produtes and represent a very big part of Residential Ventilation Market.

These products are escluded from the regulation 1253/2014 for their low comsumptions (normally under 30 W).

We think that it is not possible to write a value of "Sensitivity" for these type of products, we ask to the Commission to find a solution to define in a different way the sensitivity parameter or allowing manufacturers not to declare it if it is not possible.

Thank you for your kind attention.

Sincerely yours

Pierluigi Ferrario