

ECO-DESIGN PREPARATORY STUDY FOR AIR-CONDITIONING AND VENTILATION SYSTEMS – ENTR LOT 6

Brussels, 6 February 2012

Dear Mr Kemna, Dear Mr. van Elburg,

[Cc = Mr Biermann, Mr Rivière]

Following our meeting with you on 21 December 2011, the Joint Industry Expert Group (JIEG) on ENTR Lot 6 would like to thank VHK for the latest draft Task 4 and 5 reports of the preparatory study on the air-conditioning side of ENTR Lot 6, and look forward to consider the final draft report, including Task 6 and 7 reports.

We agreed to provide you with our arguments on the following elements:

- Mandatory data to be declared by manufacturers;
- The threshold between residential and non-residential ventilation;
- Heat recovery for non-Residential ventilation units.

Below, you will find our positions in detail on which we would like to raise your attention and we hope that these will be of constructive support to the preparatory study you are currently undertaking for the European Commission.

Should you have any questions, do not hesitate to contact us.

Kind Regards,

Andrea Voigt
EPEE Director-General

Joop Hoogkamer
Eurovent Executive Director

Stefan Wiesendanger
EVIA Chairman

The Joint Industry Expert Group (JIEG) on ENTR Lot 6 is made of the European Partnership for Energy and the Environment (EPEE), Eurovent - the European Committee of Air Handling and Refrigeration, and EVIA – the European Ventilation Industry Association, all together representing the air-conditioning and ventilation industry in Europe

1. Declaration of mandatory data by manufacturers

The declaration of the following data should be mandatory to all manufacturers of a ducted ventilation unit sold in the European Internal Market:

1. rated air flow at a density of 1,2 kg/m³
2. external pressure at rated air flow
3. total static pressure and pressure losses of all components at rated airflow
4. absorbed motor power (incl. controls, e. g. FI) at rated air flow (and rated pressure)
5. velocity inside AHU
6. SFP-value with add. SFP-Values at rated air flow acc. EN 13779
7. temperature efficiency acc. EN 308 of the heat recovery under dry conditions (without condensation) at rated air flow(s) and equal mass flows (based on supply air flow)
8. pressure losses of heat recovery for both air sides at rated air flow(s)
9. latent efficiency acc. EN 308 of the heat recovery at rated air flow(s) and equal mass flows (based on supply air flow) if applicable.

2. The threshold between residential and non-residential ventilation for ducted ventilation units

The market of residential and non-residential ventilation products is completely different (Test standards, national building regulations and market mechanism).

The best solution will be a declaration of the intended use by the manufacturer.

For ducted ventilation units a threshold between residential and non-residential ventilation based the air flow rate might be possible

- Residential unit if design volume flow rate < 0,14 m³/s (500 m³/h);
- Non-residential if design volume flow rate > 0,42 m³/s (1.500 m³/h).
- For rated flow rates between upper and lower limit, ducted unit designation shall be specified!

3. Heat recovery for non-Residential ventilation units

- a. Boundaries for heat recovery to be mandatory could be a rated air flow above 0,07 m³/s (250 m³/h) in conjunction with design winter outdoor temperature equal or below +9°C.
- b. We still guess it make more sense to define heat recovery requirements regarding the three climate zones as we decided originally in our expert group. It would be a more down to earth approach and it will solve the problem, that a general requirement all over Europe will not be the most economic solution. However, if the European Commission decides not to

follow this approach, we will support the idea of a global value for Europe, which remains better than no requirements at all.

Comparison of fan regulation EU 327 to p-classes acc. to EN 13053 A1


