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## Comments and questions for the Consultation Forum on the review of the industrial fans Regulation (EU) 327/2011

In preparation for the Consultation Forum meeting on 1 April 2022, hereby we submit comments and questions to the discussion document 'Draft Elements of a possible fans regulation' from Eurovent members representing the fan industry and other sectors of the HVAC industry.

### 1 Subject matter and scope – Article 1

#### 1.1 Exclusion of jet fans with maximum electric input power <5 kW – point 2(d)

Jet fans with a maximum electrical input >5 kW and above are within the scope of the draft regulation. Very often in car parking areas, systems comprising of several jet fans of power input < 5kW are used. This kind of system will be installed into car parks also into the future and will account for significant energy consumption. Therefore, Eurovent proposed to include jet fans with a maximum electrical input <5 kW into the scope of the prospective regulation.

#### 1.2 Exclusion of replacement for identical fans integrated in products – point 3q)

Eurovent believes that with the current wording this exemption is open-ended and could lead to a loophole. The prerequisites for this exclusion should be explicit. (e.g non-compliance with EMC requirements for the product by using an upgraded technology replacement fan). The referred in the text argument about exceeding the available space may be questionable, since in some products it can be adapted to the needs by feasible means.

### 2 Definitions – Article 2

#### 2.1 Variable speed drive (VSD) – point (8)

In the opinion of Eurovent the proposed definition is not unambiguous and it is not clear whether it covers all types of VSDs, for example EC motors (In the previous working document of 2015, the explicit statement 'including electronically commutated motors' was used). There are applications (e.g. in ventilation units) where several fans are powered from the same VSD. The current definition excludes this kind of application. Furthermore, protection devices are not in the scope of this regulation. Eurovent therefore recommends retaining the current definition in the revised regulation.

### 3 Ecodesign requirements – Article 3

Requirement for CE marking applies to other directives and regulations. It should be clarified whether the sentence 'shall not bear the CE marking' refers to this regulation or all applicable requirements.

The statement 'Fans other than complete or incomplete fans shall not be placed on the EU market' requires a clear explanation as to which fans are being referred to if not complete or incomplete fans?

### 4 Conformity assessment – Article 4

Eurovent will be grateful for clarification whether a fan supplied as a 'complete fan' but without VSD (assessed with  $C_c = 1$ ) and thereafter completed with a VSD by the customer (e.g. ventilation unit manufacturer), will be considered as an incomplete fan transformed into the complete fan, and the customer will be subject to a separate conformity assessment?

In our understanding, a fan with a VSD supplied by the fan OEM (also when the VSD is supplied separately) is considered as the complete fan. Whereas the same fan completed with the same VSD by the customer which is a professional HVAC manufacturer may be subject to different requirements, even though the energy performance would be the same. This would be contrary to free market principles and would restrict access to market channels.

## **5 Review – ban on halogenated flame retardants – Article 8**

The use of halogen flame retardants in the manufacturing process is also essential for the strength and shape retention of existing components. There are no equivalent materials available that could be used without major changes in manufacturing technology and significant burdens on manufacturers. Therefore, Eurovent opposes explicit indication of this aspect for addressing in the next review.

## **6 Entry into force and application – Article 10, Annex II section 1**

### **6.1 Limits for the minimum fan efficiency**

The draft proposes that the new Tier 2 limits will apply only three years after entry into force of the revised Regulation. By that time, the Tier 1 limits would apply.

In the opinion of Eurovent, there is no need for two tiers, and we propose that the efficiency limits of Tier 2 (stricter efficiency requirements) apply 2 years after the entry into force of the amended regulation.

The Tier 1 efficiency limits, which in our understanding are intended to maintain the ErP2015 limits of Regulation (EU) 327/2011 for the transitional period, use different formulas and categories. This will cause confusion and unnecessary burden for the market.

Furthermore, in some cases the actual limits of Tier 1 are lower than the ErP2015. We believe this may be an error in the formulas (see also paragraph 8.1) which should be revisited. Nevertheless, if the reduction in requirements is deliberate, the only effect would be an increased import of low-efficient fans during the Tier 1 period, to the detriment of the European industry.

### **6.2 Protective grids – Annex II, section 1**

Eurovent supports Tier 1 with regard to consider the protective grid that cannot be removed without making the fan ineffective as a non-significant element.

At the same time, we suggest revisiting the proposal for considering the protective grid as a significant element. This makes the performance of the same fan different when installed with a permanent guard and with a plain (unguarded) supporting bracket. The minimum motor efficiency required for compliance with and without integral guard would become different, forcing a proliferation of fan designs. This would be very difficult to implement for logistic reasons. The manufacturers may tend to re-design their supporting brackets to make the guards a separate and optional component, with a cost increase and safety reduction. The proposed approach conflicts with the compromise adopted in prEN17166, which was the result of a long debate on the subject.

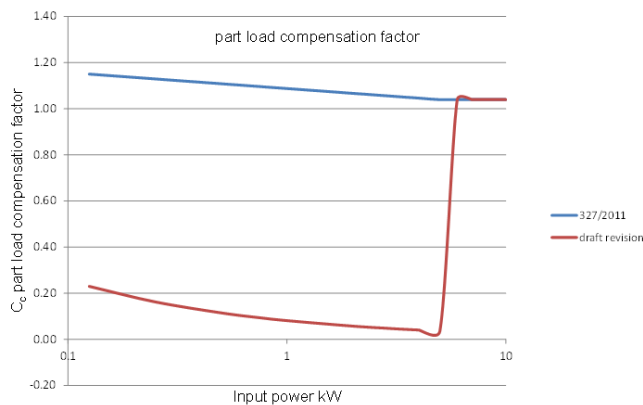
## 7 Definitions applicable for the Annexes – Annex I

### 7.1 Measurement categories B and C - point (3) and (4).

These definitions appear to be incorrect. Eurovent suggests retaining the text from the current regulation.

### 7.2 Part load compensation factor $C_c$ –point (12)

The Formula for  $C_c$  for  $P_e < 5$  kW appears to be wrong. See graph below. Eurovent proposes to keep the current formula of Regulation (EU) 327/2011.



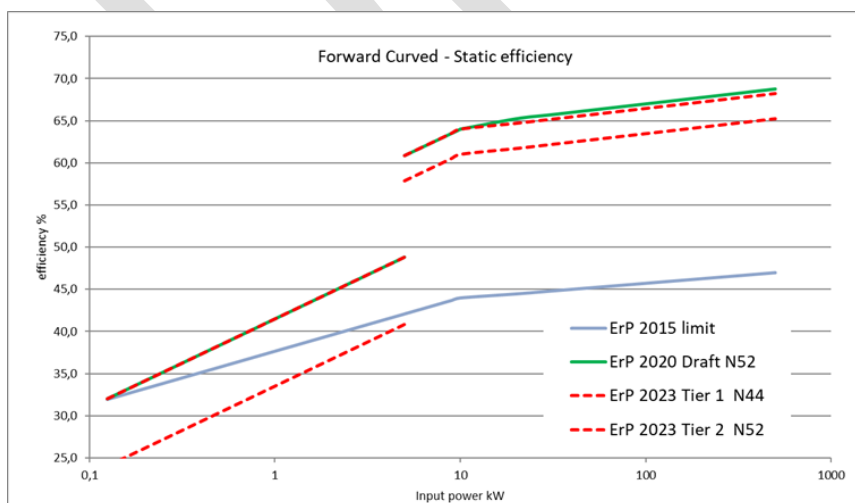
### 7.3 Custom fan – point (24)

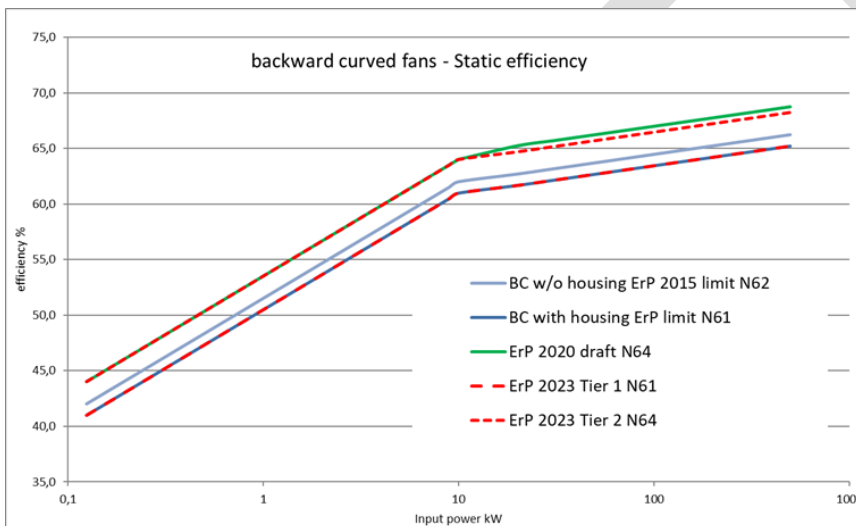
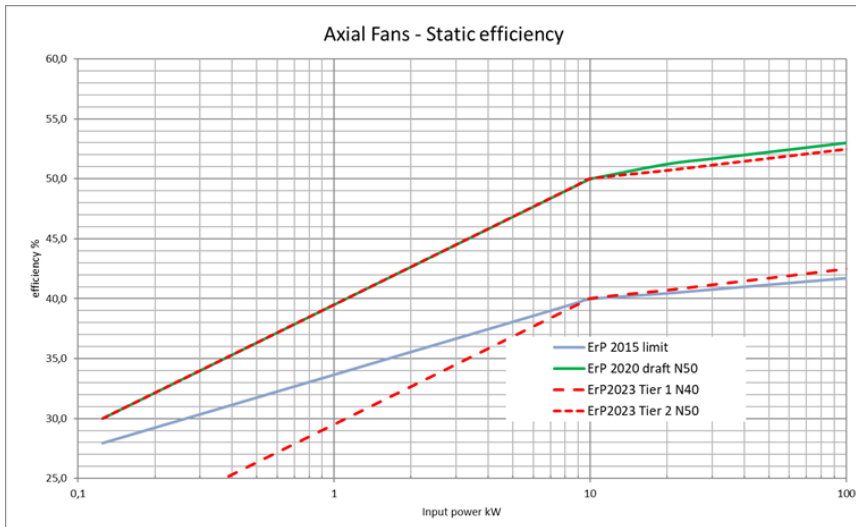
This definition needs to be better clarified. We expect that this is not related to standard fans sold to OEM customers. This is a potential loophole and therefore needs to be stricter.

## 8 Ecodesign requirements for fans that are not incomplete - Annex II

### 8.1 Minimum fan efficiency and efficiency grade Tier 1 - Point 1

The Tier 1 limits for forward curved, axial and backward curves fans are lower than ErP2015 requirements of Regulation (EU) 327/2011. See diagrams below. We believe it may be a mistake in formulas / coefficients.





## 8.2 Product information requirements on fans - Section 2 point 1(c)

For fans integrated in final products covered by ecodesign requirements the information should only be displayed in the technical documentation file for the purposes of conformity assessment and should not be publicly available on the free access website.

## 8.3 Product information requirements on fans - Section 2 point 1(5)

Eurovent does not support a proposal to display flow rate  $q_v$  in  $m^3/h$  when  $<1 m^3/s$ , else in  $m^3/s$ . In our opinion the displayed unit of measure should be decided by the manufacturer regardless of the flow rate.

## 8.4 Information requirements on partial load – Section 3 point (1)

Eurovent welcomes the proposal to provide the partial-load operational performance of the fan with variable speed drive. In the opinion of Eurovent members, this should be demonstrated by at least three curves: for maximum (100%) speed, for 30% speed curve and the third curve according to the manufacture choice. However, some requirements to the third curve (e.g. to avoid very close gap between the maximum and minimum curve) should be defined.

Such information should not be addressed to end-users of final products, in which fans are integrated. Part load data is already provided for the final product.

### **8.5 Resource efficiency requirements – spare parts – Section 5 point 1 (1)/(2)**

- An unequivocal definition of spare parts is needed. Our understanding is that when a supplier delivers a spare part, it must be a complete component (e.g. a complete drive or complete motor, not the spare part of VSD or motor). It is not clear whether it must be a 1:1 replace or just an equivalent part.

Eurovent proposes that for drives and motors, the 'equivalent part' means that it has at least the same IE/IES class according to EN61800-9-2 (adjustable speed electrical power drive systems, EN60034-30-2 (for variable speed motors, excluding the drive), and EN60034-30-1 (for DOL motors).

If the original part is not IE/IES classified, the spare part has to be at least IE3 according to EN60034-30-1, IE3 according to EN60034-30-2, IE2 according to EN61800-9-2 or IES2 according to EN61800-9-2

- Eurovent proposes to include in the requirement for availability of spare parts the following additional sentence: 'Spare parts that are not possible to replace individually can be supplied as a package'.
- In addition, further clarification is needed on the specific requirements for impellers. Some impellers are integrated with the motor and cannot be supplied as separate spare parts.
- Also, the wording 'stator' can be confusing. We believe this is meant to be the fan housing, but could be interpreted as the stator inside the motor.
- Furthermore, the fans that are integrated in products already subject to Ecodesign, should be exempted from resource efficiency requirements. The final products in which they are integrated are already subject to spare part availability and delivery time requirements. Such requirement for components is not useful and can be counterproductive if not aligned.

### **8.6 Resource efficiency requirements – RMI requirements – Section 5 point 3**

Instructions for installation of relevant software and firmware including and firmware including reset software should only be available to authorised service providers. The competence of independent service repair service providers cannot be verified by the suppliers. Furthermore, granting access to independent service providers may infringe intellectual property of the supplier embedded in the firmware.

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## Eurovent and transparency

### When assessing position papers, are you aware whom you are dealing with?

Eurovent's structure rests upon democratic decision-making procedures between its members and their representatives. The more than 1.000 organisations within the Eurovent network count on us to represent their needs in a fair and transparent manner. Accordingly, we can answer policy makers' questions regarding our representativeness and decisions-making processes as follows:

#### 1. Who receives which number of votes?

At Eurovent, the number of votes is never determined by organisation sizes, country sizes, or membership fee levels. SMEs and large multinationals receive the same number of votes within our technical working groups: 2 votes if belonging to a national Member Association, 1 vote if not. In our General Assembly and Eurovent Commission ('steering committee'), our national Member Associations receive two votes per country.

#### 2. Who has the final decision-making power?

The Eurovent Commission acts as the association's 'steering committee'. It defines the overall association roadmap, makes decisions on horizontal topics, and mediates in case manufacturers cannot agree within technical working groups. The Commission consists of national Member Associations, receiving two votes per country independent from its size or economic weight.

#### 3. How European is the association?

More than 90 per cent of manufacturers within Eurovent manufacture in and come from Europe. They employ around 150.000 people in Europe largely within the secondary sector. Our structure as an umbrella enables us to consolidate manufacturers' positions across the industry, ensuring a broad and credible representation.

#### 4. How representative is the organisation?

Eurovent represents more than 1.000 companies of all sizes spread widely across 20+ European countries, which are treated equally. As each country receives the same number of votes, there is no 'leading' country. Our national Member Associations ensure a wide-ranging national outreach also to remote locations.

Check on us in the [European Union Transparency Register](#) under identification no. 89424237848-89.

### We are Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies – thinking 'Beyond HVACR'

Eurovent is Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies. Its members from throughout Europe 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 EUR, 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.

Eurovent's roots date back to 1958. Over the years, the Brussels-based organisation has become a well-respected and known stakeholder that builds bridges between the manufacturers it represents, associations, legislators and standardisation bodies on a national, regional and international level. While Eurovent strongly supports energy efficient and sustainable technologies, it advocates a holistic approach that also integrates health, life and work quality as well as safety aspects. Eurovent holds in-depth relations with partner associations around the globe. It is a founding member of the ICARHMA network, supporter of REHVA, and contributor to various EU and UN initiatives.