



2025/2481

8.12.2025

**COMMISSION REGULATION (EU) 2025/2481**

**of 2 December 2025**

**amending Regulation (EU) 2024/1834 as regards definitions, transitional provisions, verification tolerances, test results corrections and other provisions that relate to fan speed**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products <sup>(1)</sup> and in particular Article 15(1) thereof,

Whereas:

- (1) Article 79(1) of Regulation (EU) 2024/1781 of the European Parliament and of the Council <sup>(2)</sup> partially repeals Directive 2009/125/EC upon its entry into force. It however empowers the Commission to adopt, until 31 December 2030, amendments to address technical issues with regard to implementing measures adopted under Article 15 of Directive 2009/125/EC.
- (2) Commission Regulation (EU) 2024/1834 <sup>(3)</sup> established ecodesign requirements for fans driven by motors with an electric input power between 125 W and 500 kW.
- (3) To improve legal certainty, the current definitions of 'best efficiency point' and of 'inherent speed' should be amended. The latter amended definition should in addition, better specify the supply conditions of the motor.
- (4) Article 40 paragraphs 1 to 4 of Regulation (EU) 2024/1781 tackles circumvention in a comprehensive manner and applies to products covered by Regulation (EU) 2024/1834 since the entry into application of Regulation (EU) 2024/1781. Therefore Article 6 of Regulation (EU) 2024/1834 has become redundant and should be deleted.
- (5) The transitional regimes for fans that are integrated into other products and for spare part fans, as set out in the first two paragraphs of Annex II, should be clarified.
- (6) Commission Regulation (EU) 2024/1834 sets out the verification tolerances that national market surveillance authorities apply when verifying compliance of fans. It appears from the consultation with stakeholders that given the variability of other parameters which influence fan speed, a broader verification tolerance margin is appropriate.
- (7) In order to ensure consistency in the application of the technical terms 'tip speed' and 'impeller diameter' used in Annex III to Regulation (EU) 2024/1834 these two terms should be defined. For similar reasons in the same Annex, it should be clarified that the correction factor for part load compensation  $C_c$  is a function of the electric input power  $P_e$ , expressed in kW.

<sup>(1)</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products (OJ L 285, 31.10.2009, p. 10, ELI: <http://data.europa.eu/eli/dir/2009/125/oj>).

<sup>(2)</sup> Regulation (EU) 2024/1781 of the European Parliament and of the Council of 13 June 2024 establishing a framework for the setting of ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC (OJ L, 2024/1781, 28.6.2024, ELI: <http://data.europa.eu/eli/reg/2024/1781/oj>).

<sup>(3)</sup> Commission Regulation (EU) 2024/1834 of 3 July 2024 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electric input power between 125 W and 500 kW and repealing Commission Regulation (EU) No 327/2011 (OJ L, 2024/1834, 4.7.2024, ELI: <http://data.europa.eu/eli/reg/2024/1834/oj>).

- (8) In order to ensure uniform testing conditions for parameter 'Electric input power  $P_e$  (in kW)' a reference to the applicable clauses with respect to ambient temperature during testing should be added.
- (9) When fans are tested, air pressure and temperature may differ from the standard air conditions and influence the test results. It should be clarified that when Member State authorities and manufacturers are testing fans, they should correct test results in order to produce values reflecting standard air conditions, in compliance with the applicable technical standards. Also, where appropriate, manufacturers should be able to correct test results to match the applicable declared speed when a test has been carried out at a different speed, in compliance with the applicable technical standards.
- (10) In order to improve accuracy, the term 'fan speed' should be replaced by the more precise term 'inherent speed' in Annexes II and IV to Regulation (EU) 2024/1834.
- (11) Regulation (EU) 2024/1834 should therefore be amended.
- (12) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by Article 19(1) of Directive 2009/125/EC,

HAS ADOPTED THIS REGULATION:

#### Article 1

### Amendments to Regulation (EU) 2024/1834

Regulation (EU) 2024/1834 is amended as follows:

- (1) Article 2 is amended as follows:
  - (a) point (3) is replaced by the following:

'(3) "best efficiency point" (BEP) means the best energy efficiency point for fan operation, determined at inherent speed;'
  - (b) the following definition is added as point (32):

'(32) "inherent speed" means the rotation speed of the fan impeller, when the fan is operated at its nominal voltage and frequency. In case of fans with a variable speed drive or intended to be used with a variable speed drive, the inherent speed is the maximum speed achieved by the fan or the speed at which the efficiency is declared by the manufacturer, and that is in line with the fan safe operation and in line with the intended use of the fan. Where the motor is a multiple speed motor, the highest speed made available to the customer applies.'
- (2) Article 6 is deleted.
- (3) In Article 8, the seventh indent is deleted.
- (4) In Article 9, paragraph 1 is replaced by the following:

'1. Regulation (EU) No 327/2011 is repealed with effect from 24 July 2026. However, Annexes I, II and III to that Regulation shall continue to apply until 24 July 2027 to fans integrated into other products, and until 24 July 2037 to spare part fans, in accordance with the first two paragraphs of Annex II of this regulation.;
- (5) Article 10 is replaced by the following:

'Article 10

#### **Entry into force and application**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 24 July 2026. However, Article 9(2) shall apply from 24 July 2024.'

Annexes I, II, III and IV are amended as set out in the Annex to this Regulation.

*Article 2***Entry into force and application**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 2 December 2025.

*For the Commission*  
*The President*  
Ursula VON DER LEYEN

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## ANNEX

Annexes I, II, III and IV to Regulation (EU) 2024/1834 are amended as follows:

(1) Annex I is amended as follows:

(a) point (36) is deleted;

(b) the following points (40) and (41) are added:

'(40) 'tip speed' ( $u_{tip}$ ), in m/s, means the peripheral speed of the impeller blade tips;

(41) 'impeller diameter' ( $D_{impeller}$ ), in mm, means the maximum diameter measured over the tips of the blades of the impeller.';

(2) Annex II is amended as follows:

(a) after the heading 'ECODESIGN REQUIREMENTS FOR FANS', in the second paragraph, the introductory sentence is replaced by the following:

'However, until 24 July 2037, spare part fans replacing fans

— placed on the market before 24 July 2026 and integrated into products, or

— complying with all criteria under (a) to (d) above and integrated into products are exempt from the requirements set out in points 1 to 5, provided that:';

(b) point (2)(2)(l) is replaced by the following:

'(l) inherent speed at BEP or  $T_m$  (in rpm, rounded to the nearest integer)';

(c) in point (3)(1), first paragraph, the second sentence is replaced by the following:

'This shall be described by a minimum of three performance curves at different speeds: one at the inherent speed, one at a lower speed of between 40 % and 50 % of the inherent speed, plus an additional one in the middle ( $\pm 10$  percentage points) of the other two.';

(3) Annex III is amended as follows:

(a) in point (3), the following third paragraph is added:

'Where relevant, test results shall be corrected as specified in the applicable standards, to produce values reflecting standard air conditions and, when applicable, also the applicable inherent speed. The details of such corrections shall be provided in the technical documentation'.

(b) in point (6)(6.1), the sentence 'C<sub>c</sub> is a correction factor for part load compensation with one of the following values:' is replaced by the following:

'C<sub>c</sub> is a correction factor for part load compensation with one of the following values, as a function of the electric input power P<sub>e</sub> (expressed in kW)';

(c) in Table 2, the text in the column 'Notes and short description' for parameter 'Electric input power P<sub>e</sub> (in kW)' is replaced by the following:

'The electric input power at BEP, measured at main terminals of motor or, when present, variable speed drive. EN IEC/60034-2-1:2014 for the electric input power of electric motors fed directly from the grid, EN IEC 61800-9-2:2017 for the electric input power of electric motors combined with and fed by a CDM), including the applicable clauses with respect to ambient temperature during testing (clauses 5.10 and 7.10 respectively), i.e. between 15 °C and 30 °C.';

(4) Annex IV is amended as follows:

(a) point (2) is replaced by the following:

'2. Where a model is not in conformity with the requirements laid down in Article 40 of Regulation (EU) 2024/1781, the model and all equivalent models shall be considered not compliant.';

- (b) point (3)(b)(iv) is replaced by the following:
- (iv) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing, corrected where applicable to standard air conditions), and the values calculated from those measurements, comply with the respective verification tolerances set out in Table 3;
- (c) in Table 3 'Verification tolerances', the fifth row after the heading row is replaced by the following:

Inherent speed at BEP (rpm)	The determined value* shall not differ by more than 5 % from the corresponding declared value.'
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