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COMMISSION REGULATION (EU) …/…

of XXX

laying down ecodesign requirements for air-to-air air conditioners, air-to-air air heat pumps and comfort fans pursuant to implementing Directive 2009/125/EC of the European Parliament and of the Council

and repealing Regulation No 206/2012 with regard to ecodesign requirements for air conditioners and comfort fans

(Text with EEA relevance)

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to Article 114 of 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[1], and in particular point 1 of Article 15 thereof,

Whereas:

(1) Pursuant to Directive 2009/125/EC the Commission should set ecodesign requirements for energy-related products which account for significant volumes of sales and trade in the Union and which have a significant environmental impact and presenting significant potential for improvement through design in terms of their environmental impact, without entailing excessive costs.

(2) The Communication from the Commission COM(2016)773[2] (ecodesign working plan) established by the Commission in application of point 1 of Article 16 of Directive 2009/125/EC sets out the working priorities under the ecodesign and energy labelling framework for the period 2016-2019. Air conditioners and comfort fans are among the energy-related product groups to be considered as priorities for the undertaking of preparatory studies and eventual adoption of measures.

(3) Measures from the ecodesign working plan have an estimated potential to deliver a total in excess of 260 TWh of annual final energy savings in 2030, which is equivalent to reducing greenhouse gas emissions by approximately 100 million tonnes per year in 2030. Air conditioners and comfort fans is one of the product groups listed in the Working Plan.

(4) The Commission established ecodesign requirements for the air conditioners and comfort fans in Commission Regulation (EU) No 206/2012[3] and pursuant to that Regulation, the Commission should regularly review the Regulation in the light of technological progress.

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1 OJ L 285, 31.10.2009, p. 10.

2 Communication from the Commission. Ecodesign working plan 2016-2019, COM(2016)773 final, 30.11.2016.

3 OJ L 72, 10.03.2012, p.7.

(5) The Commission has reviewed Commission Regulation (EU) No 206/2012 and analysed the technical, environmental and economic aspects of air conditioners, heat pumps and comfort fans as well as real-life user behaviour. The review was carried out in close cooperation with stakeholders and interested parties from the Union and third countries. The results of the review were made public and presented to the Consultation Forum established by Article 18 of Directive 2009/125/EC.

(6) The review study shows the benefit of continued and improved requirements, adapted in stringency to the technological process of air conditioners, heat pumps and comfort fans, not only to industry but also to the consumers.

(7) The annual final energy consumption of products subject to this Regulation in the Union was estimated at 44,5 TWh in the EU in 2015, corresponding to 28,6 million tonnes of CO_2 equivalent. In a business as usual scenario the energy consumption is estimated to increase to 61,8 TWh by 2030 and 96,0 TWh by 2040.

(8) The environmental aspects of air conditioners, heat pumps and comfort fans have been identified as significant for the purposes of this Regulation are energy use in the use-phase.

(9) The Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions COM(2015)0614[4] (circular economy action plan) and the ecodesign working plan underline the importance of using the ecodesign framework to support the move towards a more resource efficient and circular economy. Directive 2012/19/EU of the European Parliament and of the Council[5] refers to Directive 2009/125/EC and indicates that ecodesign requirements should facilitate the re-use, dismantling and recovery of waste electrical and electronic equipment (WEEE) by tackling the issues upstream. This Regulation should therefore lay down appropriate requirements for this.

(10) The relevant product parameters should be measured using reliable, accurate and reproducible methods. Those methods should take into account recognised state-of-the-art measurement methods including, where available, harmonised standards adopted by the European standardisation bodies, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council[6].

(11) In accordance with Article 8 of Directive 2009/125/EC, this Regulation should specify the applicable conformity assessment procedures.

(12) To facilitate compliance checks, manufacturers, importers or authorised representatives should provide information in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC in so far as that information relates to the requirements laid down in this Regulation.

(13) For market surveillance purposes, manufacturers, importers or authorised representatives should be allowed to refer to the product database if the technical documentation as per Commission Delegated Regulation *[OP – please enter the*

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4 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Closing the loop - An EU action plan for the circular economy, COM/2015/0614 final, 02.12/2015.

5 Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38).

6 OJ L 316, 14.11.2012, p. 12.

Regulation number of the Energy Labelling Regulation for air-to-air heat pumps, air-to-air air conditioners and comfort fans] contains the same information.

(14) To improve the effectiveness and credibility of the Regulation and to protect consumers, products that automatically alter their performance in test conditions to improve the declared parameters should be prohibited.

(15) In addition to the legally binding requirements laid down in this Regulation, indicative benchmarks for best available technologies should be identified to make information on the products' environmental performance over their life cycle subject to this Regulation widely available and easily accessible, in accordance with Directive 2009/125/EC, Annex 1, part 3, point 2.

(16) A review of this Regulation should assess the appropriateness and effectiveness of its provisions in achieving its goals. The timing of the review should be sufficient for all provisions to be implemented and show an effect on the market.

(17) Commission Regulation (EU) No 260/2012 should therefore be repealed.

(18) 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

Subject matter and scope

This Regulation establishes ecodesign requirements for placing on the market and putting into service of electric mains operated air-to-air air conditioners and air-to-air heat pumps with a rated capacity of ≤ 12 kW for cooling, or heating if the product has no cooling function, and comfort fans with an electric fan power input ≤ 125W.

Article 2

Definitions

For the purpose of this Regulation, the following definitions shall apply:

(1) 'air-to-air air conditioner' means a device that:

(a) has an indoor side heat exchanger (evaporator), which extracts heat from the from the indoor air or ventilation supply air (heat source), by means of an air-moving device, either through ducting or directly from the cooled space; and

(b) is equipped with a cold generator; and

(c) has an outdoor side heat exchanger (condenser), which releases this heat to ambient air or ventilation exhaust air (heat sink); and

(d) may provide additional functionalities such as dehumidification, air-purification, ventilation; and

(e) may use water (either condensate water that is formed on the evaporator side or externally added water) for evaporation on the condenser, provided that the device is also able to function without the use of additional water using air only; and

where the purpose of the device is to contribute to a certain level of human thermal comfort;

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(2) ‘cold generator’ means the part of a cooling product that generates a temperature difference allowing heat to be extracted from ambient air or ventilation supply air (heat source) and transferred to ambient air or ventilation exhaust air (heat sink), using a vapour compression cycle or a sorption cycle;

(3) ‘air-to-air heat pump’ means a device that:

(a) has an outdoor side heat exchanger (evaporator), which extracts heat from ambient air or ventilation exhaust air (heat source); and

(b) is equipped with a heat generator; and

(c) may be equipped with an electric supplementary heater; and

(d) has an indoor side heat exchanger (condenser), which releases heat by means of an air-moving device, either through ducting or directly into the heated space or to ventilation supply air (heat sink); and

(e) may provide additional functionalities such as dehumidification, air-purification, ventilation; and

(f) may use water (either condensate water that is formed on the evaporator side or externally added water) for evaporation on the condenser, provided that the device is also able to function without the use of additional water, using air only; and

(g) may operate in reverse in which case it functions as an air-to-air air conditioner; and

where the purpose of the device is to contribute to a certain level of human thermal comfort;

(4) ‘heat generator’ means the part of heat pump that generates useful heat by capturing heat from the ambient air or ventilation exhaust air (heat source) and transfers this heat to the heated space or to ventilation supply air (heat sink) using a vapour compression cycle;

(5) ‘electric supplementary heater’ means a non-preferential heater that generates heat in case the heat demand is greater than the rated heat output of the preferential heater, using the Joule effect in electric heating elements;

(6) ‘rated capacity’ (P_{rated}) means the cooling or heating capacity of the vapour compression cycle of the unit at standard rating conditions;

(7) ‘standard rating conditions’ means the combination of indoor (T_{in}) and outdoor temperatures (T_j) that describe the operating conditions of air-to-air air conditioners and air-to-air heat pumps while establishing the sound power level, rated capacity, rated air flow rate, the rated energy efficiency ratio (EER_{rated}) and/or rated coefficient of performance (COP_{rated}), as set out in Annex III, Table 9 and 10;

(8) ‘rated air flow rate’ means the air flow rate of air-to-air air conditioners and air-to-air heat pumps measured at the air outlet of indoor and/or outdoor units (if applicable) of air conditioners at standard rating conditions for cooling (or heating, if the product has no cooling function), expressed in cubic meters per hour (m^3/h);

(9) ‘indoor temperature’ (T_{in}) means the dry bulb indoor air temperature, expressed in degrees Celsius (°C). The relative humidity may be indicated by the corresponding wet bulb temperature, expressed in degrees Celsius (°C);

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(10) 'outdoor temperature' (T_j) means the dry bulb outdoor air temperature, expressed in degrees Celsius (°C). The relative humidity may be indicated by a corresponding wet bulb temperature, expressed in degrees Celsius (°C);

(11) 'sound power level of air-to-air air conditioners and air-to-air heat pumps' means the A-weighted sound power level indoors and/or outdoors measured at standard rating conditions for cooling (or heating, if the product has no cooling function), expressed in A weighted decibels (dB(A));

(12) 'rated energy efficiency ratio' (EER_{rated}) means the declared capacity for cooling divided by the rated power input for cooling of a air-to-air air conditioner when providing cooling at standard rating conditions;

(13) 'declared capacity' is the capacity of the vapour compression cycle of the air-to-air air conditioner for cooling ($P_{d,c}(T_j)$) or air-to-air heat pump for heating ($P_{d,h}(T_j)$), pertaining to an outdoor temperature T_j and indoor temperature (T_{in}), expressed in kilowatt (kW);

(14) 'rated power input for cooling' (P_{EER}) means the electric power input of an air-to-air air conditioner when providing cooling at standard rating conditions, expressed in kilowatt (kW);

(15) 'rated coefficient of performance' (COP_{rated}) means the declared capacity for heating divided by the rated power input for heating of an air-to-air heat pump when providing heating at standard rating conditions;

(16) 'rated power input for heating' (P_{COP}) means the electric power input of an air-to-air heat pump when providing heating at standard rating conditions, expressed in kilowatt (kW);

(17) 'comfort fan' means an appliance primarily designed for creating air movement around or on part of a human body for personal cooling comfort, including comfort fans that can perform additional functionalities such as lighting;

(18) 'fan power input' (P_F) means the electric power input of a comfort fan operating at the declared maximum fan flow rate, measured with the oscillating mechanism active (if/when applicable), expressed in watt (W);

(19) 'equivalent model' means a model which has the same technical characteristics relevant for the technical information to be provided, but which is placed on the market or put into service by the same manufacturer, importer or authorised representative as another model with a different model identifier;

(20) 'model identifier' means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trade mark or the same manufacturer's, importer's or authorised representative's name;

(21) 'product database' means a collection of data concerning products, which is arranged in a systematic manner and consists of a consumer-oriented public part, where information concerning individual product parameters is accessible by electronic means, an online portal for accessibility and a compliance part, with clearly specified accessibility and security requirements, as referred to in Regulation (EU) 2017/1369 of the European Parliament and of the Council[7].

Additional definitions are set out in Annex I.

[7] Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

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Article 3

Ecodesign requirements

The ecodesign requirements set out in Annex II shall apply from the dates indicated therein.

Article 4

Conformity assessment

1. The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall be the internal design control system set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.

2. For the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC, the technical documentation shall contain a copy of the product information provided in accordance with point 4 of Annex II, and the details and the results of the calculations set out in Annex III to this Regulation.

3. Where the information included in the technical documentation for a particular model has been obtained:

   (a) from a model that has the same technical characteristics relevant for the technical information to be provided but is produced by a different manufacturer; or

   (b) by calculation on the basis of design or extrapolation from another model of the same or a different manufacturer, or both.

   The technical documentation shall include the details of such calculation, the assessment undertaken by the manufacturer to verify the accuracy of the calculation and, where appropriate, the declaration of identity between the models of different manufacturers.

   The technical documentation shall include a list of all equivalent models, including the model identifiers.

4. The technical documentation shall include the information in the order and as set out in Annex VI of Regulation (EU) *[OP - Please insert here references of the energy labelling regulation for air-to-air heat pumps, air-to-air air conditioners and comfort fans]*[8]. For market surveillance purposes, manufacturers, importers or authorised representatives may, without prejudice to Annex IV, point 2(g) of Directive 2009/125/EC, refer to the technical documentation uploaded to the product database which contains the same information laid down in Regulation (EU) *[OP - Please insert here references of the energy labelling regulation for for air-to-air heat pumps, air-to-air air conditioners and comfort fans]*.

Article 5

Verification procedure for market surveillance purposes

Member States shall apply the verification procedure set out in Annex IV when performing the market surveillance checks referred to in point 2 of Article 3 of Directive 2009/125/EC.

[8] *OP - Please insert here references of the energy labelling regulation for air-to-air heat pumps, air-to-air air conditioners and comfort fans.*

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Article 6

Circumvention

The manufacturer, importer or authorised representative shall not place on the market products designed to be able to detect they are being tested (e.g. recognising the test conditions or test cycle), and to react specifically by automatically altering their performance during the test with the aim of reaching a more favourable level for any of the parameters declared by the manufacturer, importer or authorised representative in the technical documentation or included in any of the documentation provided.

The energy consumption of the product and any of the other declared parameters shall not deteriorate after a software or firmware update when measured with the same test standard originally used for the declaration of conformity, except with explicit consent of the end-user prior to the update. No performance change shall occur as a result of rejecting the update.

A software update shall never have the effect of changing the product's performance in a way that makes it non-compliant with the ecodesign requirements applicable for the declaration of conformity.

Article 7

Indicative benchmarks

The indicative benchmarks for the best-performing products and technologies available on the market at the time of adopting this Regulation are set out in Annex V.

Article 8

Evaluation

The Commission shall review this Regulation in the light of technological progress and present the results of this assessment, including, if appropriate, a draft revision proposal, to the Consultation Forum no later than *[OP please enter date - five years after its entry into force]*.

This review shall among other matters assess:

(a) the level of the energy efficiency requirements;

(b) the appropriateness to set additional resource efficiency requirements in accordance with the objectives of the circular economy, including whether more spare parts should be included;

(c) the appropriateness of a mandatory on-board measurement device for displaying, logging, analysing and allowing to optimise in-situ energy consumption.

Article 9

Repeal

Commission Regulation (EC) No 206/2012 shall be repealed with effect from 1 January 2022.

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*.

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It shall apply from 1 January 2022. However, Article 6 shall apply from *[OP – please insert the day of entry into force of this Regulation]*.

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

Done at Brussels,

For the Commission
Jean-Claude JUNCKER
The President

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