



Brussels, 1.10.2019  
C(2019) 2127 final

**COMMISSION REGULATION (EU) .../...**

**of 1.10.2019**

**laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council**

(Text with EEA relevance)

{SEC(2019) 338 final} - {SWD(2019) 352 final} - {SWD(2019) 353 final}

# COMMISSION REGULATION (EU) .../...

of 1.10.2019

## laying down ecodesign requirements for refrigerating appliances with a direct sales function pursuant to Directive 2009/125/EC of the European Parliament and of the Council

(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<sup>1</sup>, 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<sup>2</sup> (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. Refrigerating appliances with a direct sales function 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. Refrigerating appliances with a direct sales function is one of the product groups listed in the Working Plan, with an estimated 48 TWh of annual final energy savings in 2030.
- (4) The Commission has carried out two preparatory studies covering the technical, environmental and economic characteristics of refrigerating appliances with a direct sales function typically used in the Union. The studies were carried out in close cooperation with stakeholders and interested parties from the Union and third countries. The results of the studies were made public and presented to the Consultation Forum established by Article 18 of Directive 2009/125/EC.

---

<sup>1</sup> OJ L 285, 31.10.2009, p. 10.

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

- (5) This Regulation should apply to the following refrigerating appliances with a direct sales function: supermarket refrigerating (freezer or refrigerator) cabinets, beverage coolers, ice-cream freezers, gelato-scooping cabinets and refrigerated vending machines.
- (6) The environmental aspect of refrigerating appliances with a direct sales function that has been identified as most significant for the purposes of this Regulation is energy consumption in the use phase. This energy consumption could be reduced, without increasing the combined costs of purchasing and operating these products, using cost-effective non-proprietary technologies. Direct emissions from refrigerants and the availability of spare parts were also identified as relevant.
- (7) As refrigerants are subject to Regulation (EU) No 517/2014 of the European Parliament and of the Council<sup>3</sup>, no specific requirements on refrigerants are set in this Regulation. Furthermore, an increasing use of low global warming potential refrigerants in the last decade in the Union market indicates that the manufacturers are already undertaking a gradual substitution towards refrigerants with reduced impact on the environment, without the need of additional policy intervention by means of ecodesign.
- (8) The annual energy consumption of products subject to this Regulation in the Union was estimated at 65 TWh in 2015, corresponding to 26 million tonnes of CO<sub>2</sub> equivalent. The energy consumption of refrigerating appliances with a direct sales function in a business-as-usual scenario is projected to decrease by 2030. However, this decrease is expected to slow down unless ecodesign requirements are set.
- (9) Minibars and wine storage appliances with sales functions should not be considered refrigerating appliances with direct sales functions and therefore should be excluded from this Regulation, they are in the scope of Commission Regulation (EU) 2019/XXX<sup>4</sup> [*OP – please enter the number of the Ecodesign Regulation C(2019) 2120 for refrigerating appliances*].
- (10) Vertical static-air cabinets are professional refrigerating appliances and are defined in Commission Regulation (EU) 2015/1095<sup>5</sup>, and therefore should be excluded from this Regulation.
- (11) This Regulation applies to products with varying technical characteristics and functionalities. For this reason energy efficiency requirements are set according to the functionality of the appliances. In this functionality approach, a minimum breakdown of refrigerating appliances with a direct sales function categories is proposed, this will bring clear signals to the markets about more/less energy efficient refrigerating appliances with a direct sales function types with the same function. Inefficient refrigerating appliances with a direct sales function types will have more difficulties to reach a certain energy labelling class or may even not meet the minimum energy requirements.

---

<sup>3</sup> Regulation (EC) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing (EC) No 842/2006 (OJ L 150, 20.5.2014, p. 195).

<sup>4</sup> Commission Regulation (EU) 2019/XXX [*OP - please enter the full OJ-L references of Regulation C(2019) 2120*].

<sup>5</sup> Commission Regulation (EU) 2015/1095 of 5 May 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers (OJ L OJ L 177, 8.7.2015, p. 19).

- (12) 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 final<sup>6</sup> (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 the Council<sup>7</sup> 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.
- (13) 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<sup>8</sup>.
- (14) In accordance with Article 8 of Directive 2009/125/EC, this Regulation should specify the applicable conformity assessment procedures.
- (15) 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.
- (16) For market surveillance purposes, manufacturers should be allowed to refer to the product database if the technical documentation as per Commission Delegated Regulation (EU) 2019/XXX<sup>9</sup> *[OP – please enter the number of Regulation C(2019) 1815 on Energy Labelling for refrigerating appliances with a direct sales function]* contains the same information.
- (17) To improve the effectiveness of this Regulation and to protect consumers, products that automatically alter their performance in test conditions to improve the declared parameters should be prohibited.
- (18) In addition to the legally binding requirements laid down in this Regulation, benchmarks for best available technologies should be identified to make information on the products' environmental performance over their lifecycle subject to this Regulation widely available and easily accessible, in accordance with Directive 2009/125/EC, point 3(2) of Annex I.
- (19) A review of this Regulation should assess the appropriateness and effectiveness of its provisions in achieving its goals. The timing of the review should allow for all provisions to be implemented.

---

<sup>6</sup> 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.

<sup>7</sup> 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).

<sup>8</sup> Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council (OJ L 316, 14.11.2012, p. 12).

<sup>9</sup> Commission Delegated Regulation (EU) 2019/XXX *[OP please enter the full OJ-L references of Regulation C(2019) 1815]*.

- (20) The measures provided for in this Regulation are in accordance with the opinion of the Committee established by point 1 of Article 19 of Directive 2009/125/EC.

HAS ADOPTED THIS REGULATION:

### *Article 1*

#### **Subject matter and scope**

1. This Regulation establishes ecodesign requirements for the placing on the market or the putting into service of electric mains-operated refrigerating appliances with a direct sales function, including appliances sold for refrigeration of items other than foodstuffs.
2. This Regulation does not apply to:
  - (a) refrigerating appliances with a direct sales function that are only powered by energy sources other than electricity;
  - (b) the remote components, such as the condensing unit, compressors or water condensed unit, to which a remote cabinet needs to be connected in order to function;
  - (c) food processing refrigerating appliances with a direct sales function;
  - (d) refrigerating appliances with a direct sales function specifically tested and approved for the storage of medicines or scientific samples;
  - (e) refrigerating appliances with a direct sales function that have no integrated system for producing cooling, and function by ducting chilled air that is produced by an external air chiller unit; this does not include remote cabinets nor does it include category 6 refrigerated vending machines, as defined in Table 5 of Annex III;
  - (f) professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers as defined in Regulation (EU) 2015/1095 of the European Parliament and Council;
  - (g) wine storage appliances and minibars.
3. The requirements in point 1 and point 3(k) of Annex II do not apply to:
  - (a) refrigerating appliances with a direct sales function that do not use a vapour compression refrigeration cycle;
  - (b) refrigerating appliances with a direct sales function for the sale and display of live foodstuffs, such as refrigerating appliances for the sale and display of living fish and shellfish, refrigerated aquaria and water tanks;
  - (c) saladettes;
  - (d) horizontal serve-over counters with integrated storage designed to work at chilled operating temperatures;
  - (e) corner cabinets;
  - (f) vending machines designed to work at frozen operating temperatures;
  - (g) serve-over fish counters with flaked ice.

## *Article 2*

### **Definitions**

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

1. 'refrigerating appliance with a direct sales function' means an insulated cabinet with one or more compartments that are controlled at specific temperatures, cooled by natural or forced convection through one or more energy consuming means and is intended for displaying and selling, with or without assisted serving, foodstuffs and other items at specified temperatures below the ambient temperature to customers, accessible directly through open sides or through one or more doors, or drawers or both, including refrigerating appliances with a direct sales function with areas used for storage of foodstuffs and other items not accessible by customers, and excluding minibars and wine storage appliances;
2. 'foodstuffs' means food, ingredients, beverages, including wine, and other items primarily used for consumption which require refrigeration at specified temperatures;
3. 'condensing unit' means a product integrating at least one electrically driven compressor and one condenser, capable of cooling down and continuously maintaining low or medium temperature inside a refrigerated appliance or system, using a vapour compression cycle once connected to an evaporator and an expansion device, as defined in Regulation (EU) 2015/1095;
4. 'remote cabinet' means a refrigerating appliance with a direct sales function which consists of a factory-made assembly of components that in order to function as a refrigerating appliance with a direct sales function, needs to be connected additionally to remote components (condensing unit and/or compressor and/or water condensed unit) which are not an integral part of the cabinet;
5. 'food processing refrigerating appliance with a direct sales function' means a refrigerating appliance with a direct sales function specifically tested and approved for carrying out food processing such as ice-cream makers, microwave-equipped refrigerated vending machines or ice makers; this does not include refrigerating appliances with a direct sales function equipped with one compartment specifically designed for carrying out food processing which is equivalent to less than 20 % of the appliance total net volume;
6. 'net volume' means the part of the gross volume of any compartment which is left after deduction of the volume of components and spaces unusable for the storage or display of foodstuffs and other items, in cubic decimetres (dm<sup>3</sup>) or litres (L);
7. 'gross volume' means the volume within the inside liners of the compartment, without internal fittings and with door or lid closed, in cubic decimetres (dm<sup>3</sup>) or litres (L);
8. 'specifically tested and approved' means that the product complies with all the following requirements:
  - (a) it has been specifically designed and tested for the mentioned operating condition or application, according to the Union legislation mentioned or related acts, relevant Member State legislation, and/or relevant European or international standards;
  - (b) it is accompanied by evidence, to be included in the technical documentation in the form of a certificate, a type approval mark or a test report, that the product

has been specifically approved for the mentioned operating condition or application;

- (c) it is placed on the market specifically for the mentioned operating condition or application, as evidenced at least by the technical documentation, information provided for the product and any advertising, information or marketing materials;
9. 'wine storage appliance' means refrigerating appliance with only one type of compartment for the storage of wine, with precision temperature control for the storage conditions and target temperature, and equipped with anti-vibration measures, as defined in Regulation (EU) 2019/XXX *[OP – please insert the number of Regulation C(2019) 2120]*;
  10. 'compartment' means an enclosed space within a refrigerating appliance with a direct sales function, separated from other compartment(s) by a partition, container, or similar construction, which is directly accessible through one or more external doors and may itself be divided into sub-compartments. For the purpose of this Regulation, unless specified otherwise, compartment refers to both compartments and sub-compartments;
  11. 'external door' is the part of a refrigerating appliance with a direct sales function that can be moved or removed to at least allow inserting the load from the exterior to the interior or extracting the load from the interior to the exterior of the refrigerating appliance with a direct sales function;
  12. 'sub-compartment' means an enclosed space in a compartment having a different operating temperature range from the compartment in which it is located;
  13. 'minibar' means a refrigerating appliance with a total volume of maximum 60 litres, which is primary intended for the storage and sales of foodstuffs in hotel rooms and similar premises, as defined in Regulation (EU) 2019/XXX *[OP – please insert the number of C(2019)2120 on ecodesign for refrigerating appliances]*;
  14. 'refrigerated drum vending machine' means a refrigerated vending machine with rotating drums each divided in partitions, in which the foodstuffs and other items are placed on a horizontal surface, and are retrieved through individual delivery doors;
  15. 'refrigerated vending machine' means a refrigerating appliance with a direct sales function designed to accept consumer payments or tokens to dispense chilled foodstuffs or other items without on-site labour intervention;
  16. 'saladette' means a refrigerating appliance with a direct sales function with one or more doors or drawer fronts in the vertical plane that has cut-outs in the top surface into which temporary storage bins can be inserted for easy-access storage of foodstuffs such as pizza toppings or salad items;
  17. 'horizontal serve-over counter with integrated storage' means a horizontal cabinet for assisted service, which includes refrigerated storage which is of at least 100 litres (L) per meter (m) length and which is normally placed at the serve-over counter's base;
  18. 'horizontal cabinet' means a refrigerating appliance with a direct sales function with horizontal display, opening on its top, and accessible from above;
  19. 'chilled operating temperature' means a temperature between -3,5 degrees Celsius (°C) and 15 degrees Celsius (°C) for appliances equipped with energy management systems for saving energy and between -3,5 degrees Celsius (°C) and 10 degrees

Celsius (°C) for appliances not equipped with energy management systems for saving energy;

20. 'operating temperature' means the reference temperature inside a compartment during testing;
21. 'corner cabinet' means a refrigerating appliance with a direct sales function used to achieve geometrical continuity between two linear cabinets that are at an angle to each other and/or that form a curve. A corner cabinet does not have a recognisable longitudinal axis or length since it consists only of a filling shape (wedge or similar) and is not designed to function as a stand-alone refrigerated unit. The two ends of the corner cabinet are inclined at an angle between 30 ° and 90 °;
22. 'frozen operating temperature' means a temperature below -12 degrees Celsius (°C);
23. 'serve-over fish counter with flaked ice' means a cabinet for horizontal assisted service, designed and marketed specifically for fresh fish display. It is characterised by having on its top a bed of flaked ice used to maintain the temperature of the displayed fresh fish, and it also has a built in drain outlet;
24. '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;
25. '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;
26. '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<sup>10</sup>;
27. 'beverage cooler' means a refrigerating appliance with a direct sales function designed to cool, at a specified speed, packaged non-perishable beverages, excluding wine, loaded at ambient temperature, for sale at specified temperatures below the ambient temperature. A beverage cooler allows accessing the beverages directly through open sides or through one or more doors, drawers or both. The temperature inside the cooler may increase during periods of no demand, for the purpose of energy saving, in view of the non-perishable nature of beverages;
28. 'energy efficiency index' (EEI) means an index number for the relative energy efficiency of a refrigeration appliance with a direct sales function expressed in percentage, calculated in accordance with point 2 of Annex III.

For the purposes of the Annexes, additional definitions are set out in Annex I.

### *Article 3*

#### **Ecodesign requirements**

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

---

<sup>10</sup> 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).

#### 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 3 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) 2019/XXX [OP - Please insert here the number of Regulation C(2019) 1815]. Except for products referred to in point 3 of Article 1, 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) 2019/XXX [OP - Please insert here the number of Regulation C(2019) 1815].

#### 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.

#### Article 6

### Circumvention and software updates

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 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*

### **Benchmarks**

The 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*

### **Review**

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 - four years after its entry into force]*.

This review shall among other matters assess:

- (a) the level of energy efficiency index requirements;
- (b) the appropriateness of modifying the EEI formula, including the modelling parameters and the correction factors;
- (c) the appropriateness of further segmentation of the product categories;
- (d) 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;
- (e) the appropriateness to set energy efficiency requirements and additional information requirements for saladettes, horizontal serve-over counters with integrated storage working at chilled operating temperatures, corner cabinets, vending machines designed to work at a frozen operating temperature and serve-over fish counters with flaked ice;
- (f) the appropriateness to base the [equivalent volume] of a beverage cooler on the net volume instead of the gross volume;
- (g) the appropriateness to introduce an EEI formula for supermarket cabinets based on the net volume instead of total display area;
- (h) the level of the tolerances.

#### *Article 9*

### **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 1 March 2021.

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

Done at Brussels, 1.10.2019

*For the Commission*  
*The President*  
*Jean-Claude JUNCKER*