

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) 2015/1094

of 5 May 2015

supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of professional refrigerated storage cabinets

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Directive 2010/30/EU of the European Parliament and of the Council on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products ⁽¹⁾, and in particular Article 10 thereof,

Whereas:

- (1) Directive 2010/30/EU requires the Commission to adopt delegated acts as regards the labelling of energy-related products that have significant potential for energy savings and exhibit wide disparity in performance levels with equivalent functionality.
- (2) The energy consumed by professional refrigerated storage cabinets accounts for a significant share of total electricity demand in the Union, and professional refrigerated storage cabinets with equivalent functionality exhibit wide disparity in terms of energy efficiency. The scope for reducing their energy consumption is significant. Professional refrigerated storage cabinets should therefore be covered by energy labelling requirements.
- (3) Harmonised provisions should be laid down on labelling and standard product information regarding the energy efficiency of professional refrigerated storage cabinets in order to provide incentives for manufacturers to improve the energy efficiency of those products, encourage end-users to purchase energy-efficient products and contribute to the functioning of the internal market.
- (4) The combined effect of this Regulation and Commission Regulation (EU) 2015/1095 ⁽²⁾ is expected to result in estimated annual energy savings of about 1,8 TWh in 2020 and 4,1 TWh in 2030, corresponding to 0,7 and 1,4 million tonnes CO₂ equivalent, as compared with what would happen if no measures were taken.
- (5) The information provided on the label should be obtained through reliable, accurate and reproducible measurement procedures based on recognised state-of-the-art methods, including, where available, harmonised standards adopted by the European standardisation organisations, as listed in Annex I to Regulation (EU) No 1025/2012 of the European Parliament and of the Council ⁽³⁾.

⁽¹⁾ OJ L 153, 18.6.2010, p. 1.

⁽²⁾ 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 (see page 19 of this Official Journal).

⁽³⁾ 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).

- (6) This Regulation should specify a uniform design and content of product labels for professional refrigerated storage cabinets.
- (7) In addition, this Regulation should specify requirements for the product fiche and technical documentation for professional refrigerated storage cabinets.
- (8) Moreover, this Regulation should specify requirements for the information to be provided in any form of distance-selling of professional refrigerated storage cabinets and in any advertisements and technical promotional material for such products.
- (9) It is appropriate to provide for a review of the provisions of this Regulation taking into account technological progress,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

1. This Regulation establishes requirements for the labelling of, and the provision of supplementary product information on, professional refrigerated storage cabinets.
2. This Regulation shall apply to electric mains-operated professional refrigerated storage cabinets, including those sold for the refrigeration of foodstuffs and animal feed.
3. This Regulation shall not apply to the following products:
 - (a) professional refrigerated storage cabinets that are primarily powered by energy sources other than electricity;
 - (b) professional refrigerated storage cabinets operating with a remote condensing unit;
 - (c) open cabinets, where their openness is a fundamental requirement for their primary functionality;
 - (d) cabinets specifically designed for food processing, where the mere presence of one compartment, with a net volume equivalent to less than 20 % of the cabinet's total net volume and specifically designed for food processing, is not sufficient for exemption;
 - (e) cabinets specifically designed only for the purpose of thawing frozen foodstuffs in a controlled manner, where the mere presence of one compartment specifically designed for thawing frozen foodstuffs in a controlled manner is not sufficient for exemption;
 - (f) saladettes;
 - (g) serve-over counters and other similar forms of cabinet primarily intended for display and sale of foodstuffs in addition to refrigeration and storage;
 - (h) cabinets that do not use a vapour compression refrigeration cycle;
 - (i) custom-made professional refrigerated storage cabinets, made on a one-off basis according to individual customer specification and not equivalent to other professional refrigerated storage cabinets as described in definition 9 of Annex I;
 - (j) refrigerator-freezers;
 - (k) static-air cabinets;
 - (l) built-in cabinets;
 - (m) roll-in and pass-through cabinets;
 - (n) chest freezers.

*Article 2***Definitions**

The following definitions shall apply for the purpose of this Regulation:

- (a) 'professional refrigerated storage cabinet' means an insulated refrigerating appliance integrating one or more compartments accessible via one or more doors or drawers, capable of continuously maintaining the temperature of foodstuffs within prescribed limits at chilled or frozen operating temperature, using a vapour compression cycle, and intended for the storage of foodstuffs in non-household environments but not for the display to or access by customers;
- (b) 'foodstuffs' means food, ingredients, beverages, including wine, and other items primarily intended for consumption which require refrigeration at specified temperatures;
- (c) 'built-in cabinet' means a fixed insulated refrigerating appliance intended to be installed in a cabinet, in a prepared recess in a wall or similar location, and requiring furniture finishing;
- (d) 'roll-in cabinet' means a professional refrigerated storage cabinet including one unique compartment that allows wheeled racks of product to be wheeled in;
- (e) 'pass-through cabinet' means a professional refrigerated storage cabinet accessible from both sides;
- (f) 'static-air cabinet' means a professional refrigerated storage cabinet without internal forced-air circulation, specifically designed to store temperature-sensitive foodstuffs or to avoid a drying effect on foodstuffs stored without a sealed enclosure, where a single static air compartment within the cabinet is not sufficient to designate the cabinet as a static air cabinet;
- (g) 'open cabinet' means a professional refrigerated storage cabinet whose refrigerated enclosure can be reached from the outside without opening a door or a drawer, where the mere presence of one compartment which can be reached from the outside without opening a door or a drawer, with a net volume equivalent to less than 20 % of the professional refrigerated storage cabinet's total volume, is not sufficient to qualify it as such;
- (h) 'saladette' means a professional refrigerated storage cabinet 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, but not limited to, pizza toppings or salad items;
- (i) 'combined cabinet' means a professional refrigerated storage cabinet including two or more compartments with different temperatures for the refrigeration and storage of foodstuffs;
- (j) 'refrigerator-freezer' means a type of combined cabinet including at least one compartment exclusively intended for chilled operating temperature and one compartment exclusively intended for frozen operating temperature;
- (k) 'chest freezer' means a food freezer in which the compartment(s) is accessible from the top of the appliance or which has both top-opening type and upright type compartments but where the gross volume of the top-opening type compartment(s) exceeds 75 % of the total gross volume of the appliance.

*Article 3***Responsibilities of suppliers and timetable**

1. From 1 July 2016, suppliers placing professional refrigerated storage cabinets on the market or putting them into service shall ensure that the following requirements are met:

- (a) a printed label in the format and containing the information set out in Annex III shall be provided for each professional refrigerated storage cabinet;
- (b) an electronic label in the format and containing the information set out in Annex III shall be made available to dealers for each professional refrigerated storage cabinet model;
- (c) a product fiche, as set out in Annex IV, shall be made available;

- (d) an electronic product fiche, as set out in Annex IV, shall be made available to dealers for each professional refrigerated storage cabinet model;
 - (e) technical documentation, as set out in Annex V, shall be provided on request to the authorities of the Member States;
 - (f) any advertisement relating to a specific professional refrigerated storage cabinet model and containing energy-related or price information shall include a reference to the energy efficiency class of that model;
 - (g) any technical promotional material concerning a specific professional refrigerated storage cabinet model and describing its specific technical parameters shall include a reference to the energy efficiency class of that model.
2. The labels in Annex III shall accompany professional refrigerated storage cabinets placed on the market according to the following timetable:
- from 1 July 2016: label 1 or label 2,
 - from 1 July 2019: label 2.

Article 4

Responsibilities of dealers

Dealers of professional refrigerated storage cabinets shall ensure that the following requirements are met:

- (a) at the point of sale, each professional refrigerated storage cabinet shall bear the label provided by suppliers in accordance with Article 3(1) on the outside of the front or top of the appliance, so that it is clearly visible;
- (b) professional refrigerated storage cabinets offered for sale, hire or hire-purchase, where the end-user cannot be expected to see the product displayed, shall be marketed with the information provided by the suppliers in accordance with Annex VI, except where the offer is made on the internet, in which case the provisions of Annex VII shall apply;
- (c) any advertisement relating to a specific professional refrigerated storage cabinet model and containing energy-related or price information shall include a reference to the energy efficiency class of that model;
- (d) any technical promotional material concerning a specific professional refrigerated storage cabinet model and describing its specific technical parameters shall include a reference to the energy efficiency class of that model.

Article 5

Measurement and calculation

The information to be provided pursuant to Articles 3 and 4 shall be obtained by reliable, accurate and reproducible measurement and calculation procedures based on recognised state-of-the-art methods, as set out in Annex IX.

Article 6

Verification procedure for market surveillance purposes

Member States shall apply the procedure set out in Annex X when assessing the conformity of the declared energy efficiency class, annual energy consumption and volumes.

Article 7

Review

The Commission shall review this Regulation in the light of technological progress no later than five years after its entry into force. The review shall in particular assess:

- (a) any significant changes in the market shares of various types of appliance;
- (b) the verification tolerances set out in Annex X;

- (c) the appropriateness of introducing a method for determining the standard annual energy consumption for refrigerator-freezers;
- (d) the appropriateness of introducing a revised method for the standard annual energy consumption of counter cabinets.

Article 8

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, 5 May 2015.

For the Commission
The President
Jean-Claude JUNCKER

ANNEX I

Definitions applicable for Annexes II to X

For the purposes of Annexes II to X, the following definitions shall apply:

- (1) 'net volume' means the volume containing foodstuffs within the load limit;
 - (2) 'chilled operating temperature' means that the temperature of foodstuffs stored in the cabinet is continuously maintained at a temperature between $-1\text{ }^{\circ}\text{C}$ and $5\text{ }^{\circ}\text{C}$;
 - (3) 'frozen operating temperature' means that the temperature of foodstuffs stored in the cabinet is continuously maintained at a temperature lower than $-15\text{ }^{\circ}\text{C}$, which is understood as the highest temperature of the warmest package test;
 - (4) 'multi-use cabinet' means that a professional refrigerated storage cabinet or separate compartment of the same cabinet may be set at different temperatures for chilled or frozen foodstuffs;
 - (5) 'vertical cabinet' means a professional refrigerated storage cabinet of overall height equal to or higher than 1 050 mm with one or more front doors or drawers accessing the same compartment;
 - (6) 'counter cabinet' means a professional refrigerated storage cabinet of overall height lower than 1 050 mm with one or more front doors or drawers accessing the same compartment;
 - (7) 'light-duty cabinet', also known as 'semi-professional cabinet', means a professional refrigerated storage cabinet only capable of continuously maintaining chilled or frozen operating temperature in all its compartment(s) in ambient conditions corresponding to climate class 3, as detailed in Table 3 of Annex IX; if the cabinet is able to maintain temperature in ambient conditions corresponding to climate class 4, it shall not be considered a light-duty cabinet;
 - (8) 'heavy-duty cabinet' means a professional refrigerated storage cabinet capable of continuously maintaining chilled or frozen operating temperature in all its compartment(s) in ambient conditions corresponding to climate class 5, as detailed in Table 3 in Annex IX;
 - (9) 'equivalent professional refrigerated storage cabinet' means a professional refrigerated storage cabinet model placed on the market with the same net volume, same technical, efficiency and performance characteristics, and same compartment types and volumes as another professional refrigerated storage cabinet model placed on the market under a different commercial code number by the same manufacturer.
-

ANNEX II

Energy efficiency classes

The energy efficiency class of a professional refrigerated storage cabinet shall be determined on the basis of its energy efficiency index (EEI), as set out in Table 1.

Table 1

Energy efficiency classes of professional refrigerated storage cabinets

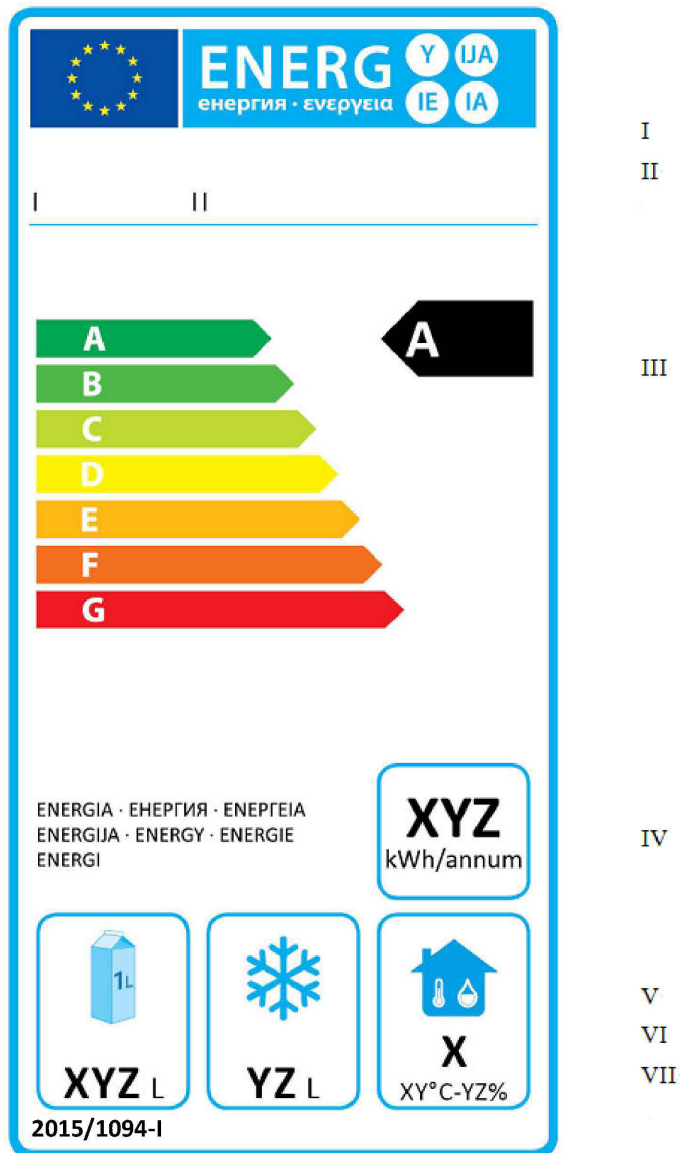
Energy efficiency class	EEI
A+++	$EEI < 5$
A++	$5 \leq EEI < 10$
A+	$10 \leq EEI < 15$
A	$15 \leq EEI < 25$
B	$25 \leq EEI < 35$
C	$35 \leq EEI < 50$
D	$50 \leq EEI < 75$
E	$75 \leq EEI < 85$
F	$85 \leq EEI < 95$
G	$95 \leq EEI < 115$

The EEI shall be calculated as detailed in Annex VIII.

ANNEX III

Labels

1. Label 1 — Professional refrigerated storage cabinets in energy efficiency classes A to G



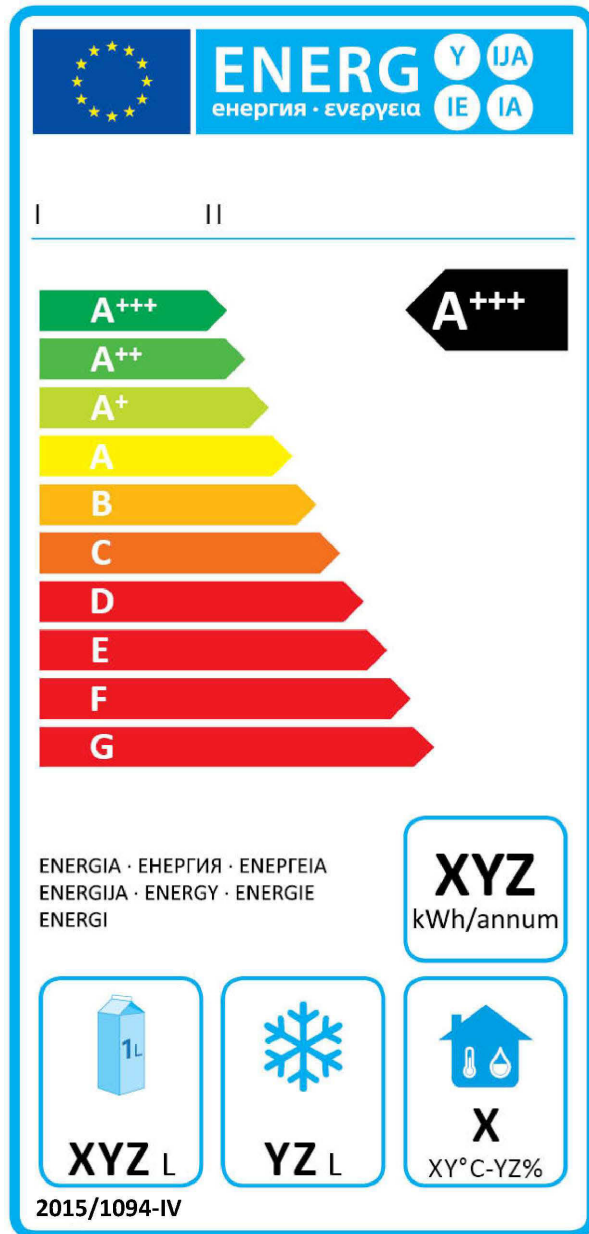
The following information shall be included in the label:

- I. supplier's name or trade mark;
- II. supplier's model identifier;
- III. the energy efficiency class, determined in accordance with Annex II; the head of the arrow containing the energy efficiency class shall be placed at the same height as that for the relevant energy efficiency class;
- IV. the annual electricity consumption in kWh in terms of final energy consumption per year, calculated in accordance with Annex IX and rounded to the nearest integer;
- V. the sum of the net volumes, expressed in litres, of all chilled compartments functioning at chilled operating temperature; where no compartments functioning at chilled operating temperature are present, the supplier shall declare '- L' instead of a value;

- VI. the sum of the net volumes, expressed in litres, of all compartments functioning at frozen operating temperature; where no compartments functioning at frozen operating temperature are present, the supplier shall declare ‘- L’ instead of a value;
- VII. the climate class (3, 4 or 5), together with the associated dry bulb temperature (in °C) and the relative humidity (in %), as referred to in Table 3, Annex IX.

The design of the label shall be in accordance with point 3. By way of derogation, where a model has been awarded an ‘EU ecolabel’ ⁽¹⁾, a copy of the ecolabel may be added.

2. **Label 2 — Professional refrigerated storage cabinets in energy efficiency classes A+++ to G**

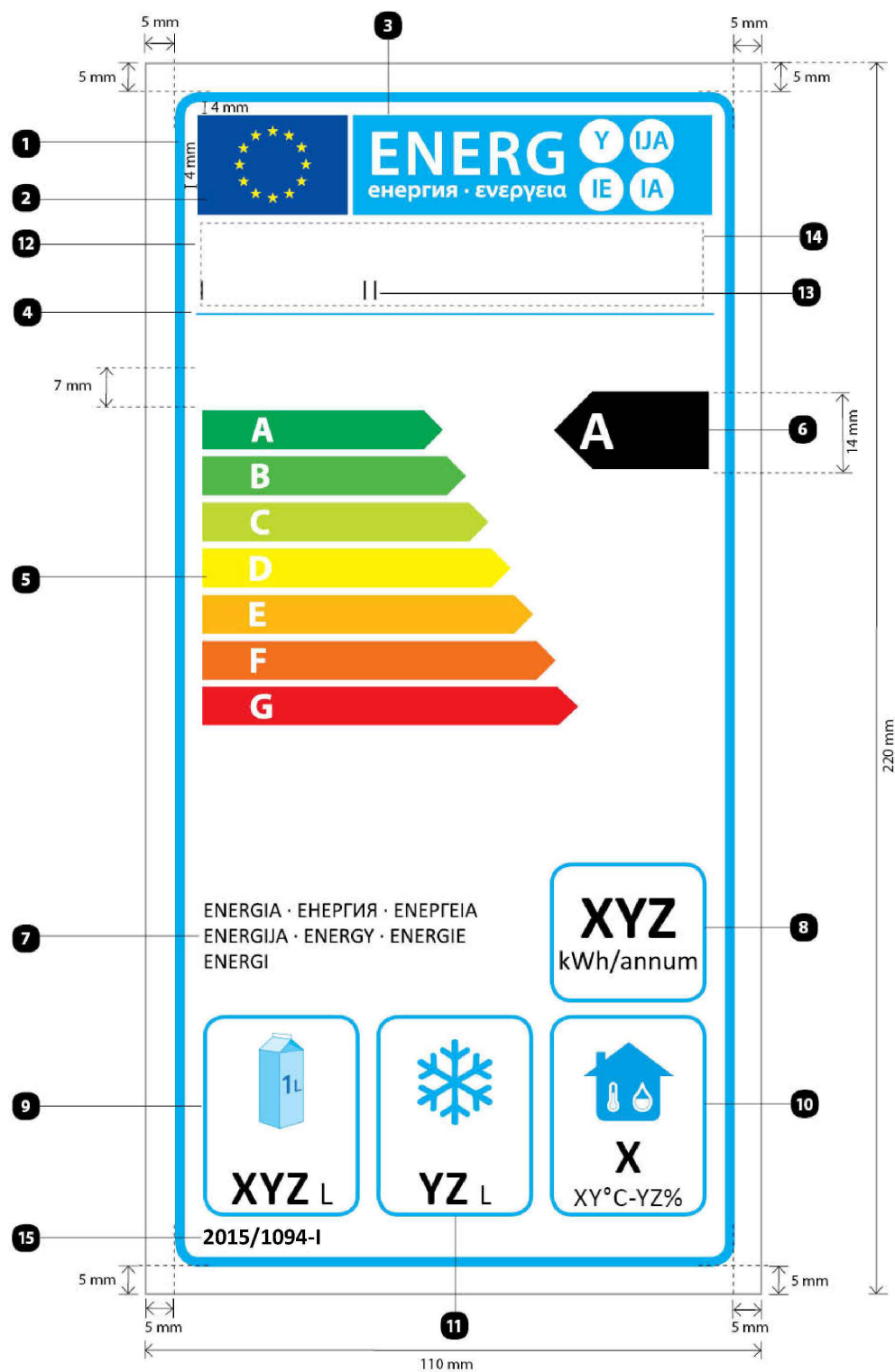


The information listed in point 1 shall be included in this label.

The design of the label shall be in accordance with point 3. By way of derogation, where a model has been awarded an ‘EU eco-label’, a copy of the eco-label may be added.

⁽¹⁾ Under Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (OJ L 27, 30.1.2010, p. 1).

3. The design of the label for professional refrigerated storage cabinets shall be as follows:



Where:

- (a) The label shall be at least 110 mm wide and 220 mm high. Where the label is printed in a larger format, its content shall nevertheless remain proportionate to the specifications above.
- (b) The background of the label shall be white.

(c) Colours shall be CMYK — cyan, magenta, yellow and black; for example, 00-70-X-00 indicates 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.

(d) The label shall meet the following specifications (numbers refer to the figure above):

❶ **EU label border stroke:** 5 pt — colour: Cyan 100 % — round corners: 3,5 mm;

❷ **EU logo:** colours: X-80-00-00 and 00-00-X-00;

❸ **Energy label:** colour: X-00-00-00;

Pictogram as depicted (EU logo + energy label): 92 mm wide × 17 mm high;

❹ **Sub-logos border:** 1 pt — colour: Cyan 100 % — 92,5 mm long;

❺ **A-G scale**

Arrow: 7 mm high, gap 0,75 mm — colours:

Highest class: X-00-X-00,

Second class: 70-00-X-00,

Third class: 30-00-X-00,

Fourth class: 00-00-X-00,

Fifth class: 00-30-X-00,

Sixth class: 00-70-X-00,

Last classes: 00-X-X-00.

Text: Calibri bold 19 pt, capitals and white; '+' symbols: Calibri bold 13 pt, superscript, white, aligned on a single row;

❻ **Energy efficiency class**

Arrow: 26 mm wide × 14 mm high, 100 % black;

Text: Calibri bold 29 pt, capitals and white; '+' symbols: Calibri bold 18 pt, superscript, white and aligned on a single row;

❼ **Energy**

Text: Calibri regular 11 pt, capitals, 100 % black;

❽ **Annual energy consumption**

Border: 2 pt — colour: Cyan 100 % — round corners: 3,5 mm;

Value: Calibri bold 32 pt, 100 % black;

2nd line: Calibri regular 14 pt, 100 % black;

❾ **Sum of the net volumes of all compartments functioning at chilled operating temperature**

Border: 2 pt — colour: Cyan 100 % — round corners: 3,5 mm;

Value: Calibri bold 25 pt, 100 % black; Calibri regular 17 pt, 100 % black;

❿ **Climate class together with the associated dry bulb temperature and the relative humidity**

Border: 2 pt — colour: Cyan 100 % — round corners: 3,5 mm;

Value: Calibri bold 25 pt, 100 % black;

2nd line: Calibri regular 14 pt, 100 % black;

11 Sum of the net volumes of all compartments functioning at frozen operating temperature

Border: 2 pt — colour: Cyan 100 % — round corners: 3,5 mm;

Value: Calibri bold 25 pt, 100 % black; Calibri regular 17 pt, 100 % black;

12 Supplier's name or trademark**13 Supplier's model identifier****14 The supplier's name or trademark and model identifier shall fit in a space of 90 × 15 mm****15 Number of Regulation**

Text: Calibri bold 11 pt.

ANNEX IV**Product fiche**

1. The information in the product fiche of the professional refrigerated storage cabinet shall be provided in the following order and shall be included in the product brochure or other literature provided with the product:
 - (a) supplier's name or trade mark;
 - (b) supplier's model identifier;
 - (c) type of model in accordance with the definitions in Annex I;
 - (d) the energy efficiency class and energy efficiency index of the model, determined in accordance with Annex II;
 - (e) where the model has been awarded an 'EU eco-label' under Regulation (EC) No 66/2010, that information may be included;
 - (f) the energy consumption of the cabinet over 24 hours (E24h) and the annual energy consumption in kWh, calculated in accordance with Annex IX and rounded to the nearest integer;
 - (g) net volume of each compartment;
 - (h) climate class in accordance with Table 3 in Annex IX;
 - (i) for light-duty cabinets, the following sentence: 'This appliance is intended for use in ambient temperatures up to 25 °C and therefore is not suitable for use in hot professional kitchens';
 - (j) for heavy-duty cabinets, the following sentence: 'This appliance is intended for use in ambient temperatures up to 40 °C'.
 2. A single fiche may cover a number of professional refrigerated storage cabinet models supplied by the same supplier.
 3. The information in the fiche may be given in the form of a copy of the label, either in colour or in black and white, in which case information listed in point 1 and not displayed on the label shall also be provided.
-

ANNEX V

Technical documentation

1. The technical documentation referred to in Article 3(1)(c) shall include:
 - (a) the name and address of the supplier;
 - (b) sufficient description of the professional refrigerated storage cabinet model for it to be unambiguously identified;
 - (c) where appropriate, the references of the harmonised standards applied;
 - (d) where appropriate, the other technical standards and specifications used;
 - (e) the identification and signature of the person empowered to bind the supplier;
 - (f) the results of the measurements and calculations for the technical parameters specified in Annex IX.
2. Where the information included in the technical documentation file for a professional refrigerated storage cabinet model has been obtained by a calculation based on an equivalent professional refrigerated storage cabinet model, the technical documentation shall include details of such calculations and of tests undertaken by suppliers to verify the accuracy of the calculations undertaken. The technical information shall also include a list of all other equivalent professional refrigerated storage cabinet models where the information was obtained on the same basis.
3. The information contained in this technical documentation may be merged with the technical documentation provided in accordance with measures under Directive 2009/125/EC.

ANNEX VI

Information to be provided where end-users cannot be expected to see the product displayed, except on the internet

1. Where end-users cannot be expected to see the product displayed, except on the internet, the information shall be provided in the following order:
 - (a) the energy efficiency class of the model, in accordance with Annex II;
 - (b) the annual energy consumption in kWh per year, rounded to the nearest integer and calculated in accordance with Annex IX;
 - (c) the net volume of each compartment;
 - (d) the climate class in accordance with Annex IX.
2. Where other information contained in the product fiche is provided, it shall be in the form and order specified in Annex IV.
3. The size and font in which the information referred in this Annex is printed or shown shall be such that it is legible.

ANNEX VII

Information to be provided in the case of sale, hire or hire-purchase through the internet

1. For the purpose of points 2 to 5 of this Annex the following definitions shall apply:
 - (a) 'display mechanism' means any screen, including tactile screen, or other visual technology used for displaying internet content to users;
 - (b) 'nested display' means visual interface where an image or data set is accessed by a mouse click, mouse roll-over or tactile screen expansion of another image or data set;
 - (c) 'tactile screen' means a screen responding to touch, such as that of a tablet computer, slate computer or a smartphone;
 - (d) 'alternative text' means text provided as an alternative to a graphic allowing information to be presented in non-graphical form where display devices cannot render the graphic or as an aid to accessibility such as input to voice synthesis applications.
2. The appropriate label made available by suppliers in accordance with Article 3(1)(b) shall be shown on the display mechanism near the price of the product in accordance with the timelines indicated in Article 3(2). The size of the label shall be such that it is clearly visible and legible and shall be proportionate to the size specified in point 3 of Annex III. The label may be displayed using a nested display, in which case the image used for accessing it shall comply with the specifications in point 3 of this Annex. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.
3. The image used for accessing the label in the case of nested display shall:
 - (a) be an arrow in the colour corresponding to the energy efficiency class of the product on the label;
 - (b) indicate the energy efficiency class of the product in white in the same font size as that used for the price; and
 - (c) be in one of the following two formats:



4. In the case of nested display, the sequence of display of the label shall be as follows:
 - (a) the image referred to in point 3 of this Annex is shown on the display mechanism in proximity to the price of the product;
 - (b) the image links to the label;
 - (c) the label is displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
 - (d) the label is displayed by pop up, new tab, new page or inset screen display;
 - (e) for magnification of the label on tactile screens, the device conventions for tactile magnification apply;
 - (f) display of the label is closed by means of a close option or other standard closing mechanism;
 - (g) the alternative text for the graphic, to be displayed on failure to display the label, is the energy efficiency class of the product in the same font size as that used for the price.

5. The appropriate product fiche made available by suppliers in accordance with Article 3(1)(d) shall be shown on the display mechanism near the price of the product. The size shall be such that the product fiche is clearly visible and legible. The product fiche may be displayed using a nested display, in which case the link used for accessing it shall clearly and legibly indicate 'Product fiche'. If nested display is used, the fiche shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

ANNEX VIII

Method for calculating the energy efficiency index for professional refrigerated storage cabinets

For the calculation of the energy efficiency index (EEI) of a professional refrigerated storage cabinet model, the annual energy consumption of the cabinet shall be compared to its standard annual energy consumption.

The EEI shall be calculated as:

$$EEI = (AEC/SAEC) \times 100$$

Where:

$$AEC = E24h \times af \times 365$$

AEC = annual energy consumption of the cabinet in kWh/year

E24h = energy consumption of the cabinet over 24 hours

af = *adjustment factor* to be applied only for light-duty cabinets, according to Annex IX, point 2

$$SAEC = M \times V_n + N$$

SAEC = standard annual energy consumption of the cabinet in kWh/year

V_n = net volume of the appliance, which is the sum of net volumes of all compartments of the cabinet, expressed in litres.

M and N are given in the Table 2.

Table 2

M and N coefficient values

Category	Value for M	Value for N
Vertical Chilled	1,643	609
Vertical Frozen	4,928	1 472
Counter Chilled	2,555	1 790
Counter Frozen	5,840	2 380

ANNEX IX

Measurement and calculation

1. For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for that purpose in the *Official Journal of the European Union*, or using other reliable, accurate and reproducible methods that take into account the generally recognised state-of-the-art methods. They shall meet the technical definitions, conditions, equations and parameters set out in this Annex.
2. For establishing the values of annual energy consumption and energy efficiency index for professional refrigerated storage cabinets, measurements shall be carried out under the following conditions:
 - The temperature of test packages shall be between $-1\text{ }^{\circ}\text{C}$ and $5\text{ }^{\circ}\text{C}$ for chilled cabinets and lower than $-15\text{ }^{\circ}\text{C}$ for frozen cabinets.
 - The ambient conditions shall correspond to climate class 4 as detailed in Table 3, except for light-duty cabinets, which shall be tested in ambient conditions corresponding to climate class 3. Adjustment factors of 1,2 for light-duty cabinets at chilled operating temperature and 1,1 for light-duty cabinets at frozen operating temperature shall then be applied to the testing results obtained for light-duty cabinets.
 - Professional refrigerated storage cabinets shall be tested:
 - at chilled operating temperature in the case of a combined cabinet containing at least one compartment exclusively intended for chilled operating temperature,
 - at chilled operating temperature in the case of a professional refrigerated storage cabinet which has solely one compartment exclusively intended for chilled operating temperature,
 - at frozen operating temperature in all other cases.
3. The ambient conditions of climate classes 3, 4 and 5 are shown in Table 3.

Table 3

Ambient conditions of climate classes 3, 4 and 5

Test room climate class	Dry bulb temperature, $^{\circ}\text{C}$	Relative humidity, %	Dew point, $^{\circ}\text{C}$	Water vapour mass in dry air, g/kg
3	25	60	16,7	12,0
4	30	55	20,0	14,8
5	40	40	23,9	18,8

ANNEX X

Verification procedure for market surveillance purposes

For the purposes of assessing conformity with the requirements laid down in Articles 3 and 4, Member States authorities shall apply the following verification procedure:

1. The Member State authorities shall test one single unit per model.
2. The model shall be considered to comply with the applicable requirements provided the following requirements are met:
 - (a) the measured volume is not lower than the rated value by more than 3 %;
 - (b) the measured value of energy consumption is not greater than the rated value (E24h) by more than 10 %.
3. Where the result referred to in point 2 is not achieved, the Member State authorities shall randomly select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models which have been listed as equivalent product in the technical documentation.
4. The model shall be considered to comply with the applicable requirements provided the following requirements are met:
 - (a) the average of the three units for the measured volume is not lower than the rated value by more than 3 %;
 - (b) the average of the three units for the measured value of energy consumption is not greater than the rated value (E24h) by more than 10 %.
5. Where the results referred to in point 4 are not achieved, the model and all other equivalent professional refrigerated storage cabinet models shall be considered not to comply with this Regulation. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within one month of the decision being taken on the non-compliance of the model.

Member State authorities shall use the measurement and calculation methods set out in Annexes VIII and IX.

The verification tolerances set in this Annex shall be applied only to the verification of the measured parameters by Member State authorities, representing the allowed variations of the measurement results of the verification tests, and shall not be used by the supplier in establishing the values in the technical documentation or in interpreting these values with a view to achieving a better labelling classification or to communicate better performance by any means.
