



Brussels, **XXX**
[...] (2014) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of **XXX**

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

(Text with EEA relevance)

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE DELEGATED ACT

Grounds for and objectives of the proposal

The 2009-11 Ecodesign Working Plan¹ identified ‘refrigerating and freezing equipment’ as one of ten priority product groups². The European Commission explored the possibility of setting ecodesign requirements for such equipment and introducing a labelling system for the professional refrigeration category under the Energy Labelling Directive (2010/30/EU). This category includes five types of product: professional storage cabinets, blast cabinets, condensing units, industrial process chillers and walk-in cold rooms. On the basis of impact assessments for professional storage cabinets and blast cabinets, and for condensing units and process chillers, the Commission proposed setting ecodesign requirements for professional storage cabinets, blast cabinets, condensing units and process chillers, and energy-labelling requirements for professional storage cabinets. It was decided that walk-in cold rooms (the fifth product type) should be handled separately because of their unique characteristics, so these are not currently covered by the proposed Regulation and Delegated Regulations.

Today’s market for the products in the professional refrigeration category is driven primarily by price. Little attention is paid to the significant savings that energy-efficient products bring, even though cost-effective energy-saving technologies are available and the products are bought by professionals who may know more about energy-efficiency than the average consumer.

The general objective of the proposed Delegated Regulation is to complement the proposed Ecodesign Regulation by addressing this problem. The aim is to reduce energy consumption and related CO₂ and pollutant emissions, promote energy efficiency and consequently encourage innovation, reduce energy dependency and contribute to achieving the EU’s objective of saving 20 % of its energy consumption by 2020.

The specific objectives are:

- to help purchasers make informed and rational choices based on performance information that reflects real-life usage, thereby prompting the market to adopt improved technology solutions;
- to create incentives for producers to further develop and market energy-efficient technology and products; and
- to generate cost savings for end-users.

General context

The annual electricity consumption of professional storage cabinets in the EU was estimated at 8.5 terawatt hours (TWh) in 2012, corresponding to 3.5 megatonnes (Mt) of CO₂ emissions. Based on this, consumption is expected to be 9.5 TWh in 2020 and 10.5 TWh in 2030, corresponding to 3.8 and 4.3 Mt CO₂ respectively. Together, this Delegated Regulation and the Commission Regulation implementing Directive 2009/125/EC on ecodesign requirements for (*inter alia*) professional storage cabinets are expected to produce savings of 1.8 TWh a

¹ COM(2008) 660.

² The Ecodesign Working Plan sets a priority list of energy-related products that could be covered by an implementing act under the Ecodesign Directive (2009/125/EC) and/or a delegated act under the Energy Labelling Directive (2010/30/EU).

year by 2020 and 4.1 TWh by 2030, as compared with what would happen if no action is taken.

Current provisions

To date, there is no direct regulatory approach to reducing the energy consumption of professional refrigeration products in the EU. Existing legislation dealing with the environmental aspects of such products includes:

- Directive 2002/96/EC³ of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE);
- Directive 2011/65/EU⁴ of the European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment; and
- Regulation (EC) No 842/2006 of the European Parliament and of the Council on certain fluorinated greenhouse gases⁵.

Consistency with other policies and EU objectives

Increased market take-up of energy-efficient professional storage cabinets through the introduction of new energy efficiency classes (together with the proposed ecodesign requirements) will contribute to the 20% energy savings to be achieved by 2020 under the Energy Efficiency Action Plan⁶ and confirmed in the Commission's Communication on Energy 2020⁷ and 2011 Energy Efficiency Plan⁸.

The present proposal will complement promotion of the market take-up of efficient products, which is at the heart of the EU's Europe 2020 strategy for smart, sustainable and inclusive growth⁹, as it will greatly improve energy efficiency, support the transition to a resource-efficient economy, encourage investment in R&D and ensure a level playing field for professional storage cabinets.

The proposed energy labelling of professional storage cabinets is in line with the Commission's industrial policy, in particular the Sustainable Consumption, Production and Industrial Policy Action Plan¹⁰ and the European Economic Recovery Plan¹¹, which mentions energy efficiency as a key priority. Furthermore, implementation of Directive 2010/30/EU contributes to the EU's objective of attaining at least a 20% reduction in greenhouse gas emissions by 2020.

2. CONSULTATIONS PRIOR TO THE ADOPTION OF THE ACT

Consultation of interested parties

Consultation methods, main sectors targeted and general profile of respondents

The opinions of stakeholders were gathered throughout the process through the Consultation Forum set up under Article 18 of the Ecodesign Directive (2009/125/EC) and through

³ OJ L 37, 13.2.2003, p. 24.

⁴ OJ L 174, 1.7.2011, p. 88.

⁵ OJ L 161, 14.6.2006, p. 1.

⁶ COM(2006) 545.

⁷ COM(2010) 639.

⁸ COM(2011) 109.

⁹ COM(2010) 2020.

¹⁰ COM(2008) 397.

¹¹ COM(2008) 800.

numerous bilateral meetings, from the very beginning. The authors of the preparatory study consulted manufacturers in three stakeholder meetings and registered stakeholders were granted access to the documents publicly available on the project website (<http://ecofreezercom.org>). The Ecodesign Consultation Forum was consulted on 19 January 2012 with the participation of Member States, consumer organisations, environmental NGOs and the manufacturers represented by ASERCOMM (a platform of leading component manufacturers in the European heating, ventilation, air-conditioning and refrigeration industry), EUROVENT (which certifies the performance ratings of air-conditioning and refrigeration products) and the European Federation of Catering Equipment Manufacturers (EFCEM). An options paper was sent out a month before the meeting. All replies are available on the CIRCABC portal. Several other meetings, stakeholder consultations, SME consultations and conference calls were held to identify key issues of concern, discuss the data analysis process, agree thresholds and review the proposal.

Additional meetings with manufacturers to discuss the data analysis process, label thresholds and options for addressing concerns as regards storage cabinets were hosted on 15 May 2012 by EFCEM and on 28 May 2012 by CECED Italia. The Commission's contractor held a further meeting on storage cabinets on 3 July 2012 to review the energy label thresholds and minimum requirements and finalise the proposals so as to address concerns.

Summary of responses and how they have been taken into account

Member States largely agreed with the introduction of regulatory measures for professional storage cabinets and helped to develop a shared methodology. Some provided useful data from existing national schemes and explained the relevant national regulations. However, they differed as to the suggested level of requirements, reflecting to some extent the range of average efficiency levels in their home markets.

Environmental NGOs were generally in favour of introducing regulatory measures.

Consultation of industry (associations and individual companies) has been a key part of the process of developing the proposed Regulation and determining its effect on the market, the relative stringency of the thresholds and the testing methodologies. Important issues for small and medium-sized enterprises (SMEs) were also identified; in particular, it emerged that the cost of testing was clearly at the top of their agenda, and important suggestions were made on how to reduce it.

International stakeholders

The proposed Delegated Regulation has been notified to WTO/TBT, to ensure that no barrier to trade is introduced.

Collection and use of expertise

Scientific/expertise domains concerned

External expertise was gathered mainly through a preparatory study carried out on behalf of the Commission's Directorate-General for Enterprise, which provided a technical, environmental and economic analysis. Also, an external consultant analysed various policy scenarios for the impact assessment.

Main organisations/experts consulted

The preparatory studies were compiled through an open process, taking into account input from stakeholders, including manufacturers, retailers and their associations, environmental NGOs, consumer organisations, and EU/EEA Member State and third country experts.

Summary of advice received and used

The technical, market and economic analysis carried out for the preparatory studies resulted in recommendations for energy labelling requirements for professional storage cabinets. No potentially serious risks with irreversible consequences were mentioned by any stakeholder, nor were any identified during the preparatory work.

Means used to make the expert advice publicly available

The preparatory study was accompanied by a dedicated website where interim results and further relevant materials were published regularly for timely stakeholder consultation and input. The study websites were publicised on DG ENTR specific ecodesign websites.

The written input received during the Consultation Forum process and the minutes of the Forum meetings on professional refrigeration products are available on the Commission's CIRCABC portal.

Impact assessments

An assessment of the impact of the following policy options as regards professional storage cabinets and blast cabinets was carried out in accordance with Article 15(4)(b) of the Ecodesign Directive:

Option A: No new EU action;

Option B: Adoption of existing foreign policy;

Option C: Self-regulation;

Option D: Mandatory information requirements;

Option E: Information and minimum energy performance requirements (MEPS);

Option F: Energy labelling;

Option G: MEPS and energy labelling; and

Option H: Malus/bonus and/or other measures regarding the global warming potential of refrigerants.

Options A, B, C and H were considered unviable due to the limited impact they would have on the problem, impracticability of implementation, a lack of stakeholder support and/or disproportionate burden. Options E, F and G were retained for professional storage cabinets and assessed in detail against the baseline option. Option D was retained for blast cabinets.

Option E: Information and MEPS

Under this option, which (like the subsequent ones) is currently viable only for storage cabinets, only products that are accompanied by energy performance information and perform above a given energy efficiency level would be allowed onto the market. This approach is very common in ecodesign regulations and would help to tackle the problem by removing the worst-performing products from the market. It would encourage the spread of energy-saving technologies, but the innovation benefits would be limited, since only the lower end of the market would be affected. This option would allow significant annual energy savings (estimated at 3 TWh in 2030) and total savings (energy bill savings minus product cost increases) for users, estimated at EUR 277 million in 2030.

Option F: Energy labelling

Energy labelling would be a user-friendly way of giving information about the energy performance of the products, which would also have to be ranked accordingly. Users would not have to go through the difficult and time-consuming process of comparing products themselves by collecting the necessary information: the labels would convey it immediately.

Such a system already applies for many household products, including refrigerators. The effect of this option on the market would be quite different from that of Option E: minimum requirements would improve average performance by pushing the worst-performing products out of the market, while labels would encourage the improvement of all products, including those that are already efficient, by increasing the demand for energy efficiency from better-informed buyers. Option F would allow energy savings estimated at 1 TWh and total savings to users estimated at EUR 114 million in 2030.

Option G: MEPS and energy labelling

Merging Options E and F for storage cabinets could combine the ‘pushing’ effect of removing the worst products from the market with the motivating (‘pulling’) effect of transparent efficiency information driving competition and innovation on energy efficiency issues. This dynamic is familiar from experience of applying many ecodesign and energy labelling regulations. Option G would allow energy savings estimated at 4.1 TWh and total savings to users estimated at EUR 391 million in 2030.

Based on the assessment of costs and benefits, in terms of annual energy savings, total equivalent warming impact (TEWI) savings (expressed in million tonnes CO₂ equivalent), savings to users and costs to manufacturers, this is the preferred option for professional storage cabinets. It achieves more energy savings, fewer TEWI emissions and more added value for users. Also, it is expected to have a positive impact on innovation and competitiveness. The testing burden could be reduced most effectively through a scheduled entry into force of requirements and extensive use of agreed calculation methodologies that require fewer tests to be performed.

Energy labelling was considered in the dedicated impact assessment as an option for two other products in DG ENTR’s Lot 1 (professional refrigeration): process chillers and condensing units. It was discarded in both cases, for different reasons, but should be further investigated when the time comes for review. In the case of chillers, the biggest obstacle relates to the complexity of engineering choices (usage profile, operational temperatures, seasonality of demand, capacity and many other parameters) involved in selecting an industrial chiller for a particular application. A traditional ‘A to G’ energy label could arguably oversimplify to the point of misleading some buyers into making a sub-optimal choice for their particular application: the most cost- and energy-efficient chiller for one application may not be best for another. For condensing units, apart from the same general risk of oversimplifying, there was lack of sufficient data. Also, condensing units are only components and labels should apply to the finished system as a whole.

3. LEGAL ELEMENTS OF THE DELEGATED ACT

Summary of the proposed action

Scope of the proposed measure

The scope of the proposed Delegated Regulation on energy labelling covers electric mains-operated professional storage cabinets, including those sold for the refrigeration of items other than foodstuffs.

Phased implementation of ecodesign requirements

The scope of the measure is aligned with that of the draft Commission Regulation implementing the Ecodesign Directive with regard to ecodesign requirements for (*inter alia*) professional storage cabinets. The energy efficiency ranking is based on the scheme laid down

in the Energy Labelling Directive in having a single energy efficiency scale for professional storage cabinets.

As of 1 January 2016, a scale from G to A becomes mandatory. As of 1 July 2017, this is replaced by a new scale from G to A+, followed by scales from G to A++ (as of 1 January 2019) and from G to A+++ (as of 1 July 2020). This will ensure a progressive shift in the market towards highly energy-efficient products.

The proposed product labels and standardised product information will help overcome the lack of information for purchasers of professional storage cabinets. The measurement methods and verification procedure for market surveillance purposes are fully aligned with the draft Commission Regulation implementing the Ecodesign Directive.

Legal basis

The draft Delegated Regulation implements the Energy Labelling Directive (in particular Article 10) and is based on Article 194 TFEU.

Subsidiarity principle

The draft Delegated Regulation implements the Energy Labelling Directive, in line with Article 10.

Proportionality principle

In accordance with the principle of proportionality, this measure does not go beyond what is necessary in order to achieve the objective.

The implementing measure is a Delegated Regulation directly applicable in all Member States, thus ensuring that national and EU administrations will not incur costs in transposing the implementing legislation into national legislation.

The extra costs in terms of conformity assessment will cover both the energy labelling and the ecodesign measures.

Choice of instrument

Proposed instrument: Delegated Regulation.

Budgetary implications

The proposal has no implications for the EU budget.

Review/revision/sunset clause

The proposal includes a review clause.

European Economic Area

The proposed act concerns a European Economic Area matter and should therefore extend to the EEA.

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of **XXX**

supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to the energy labelling of professional 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 products¹², 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 but exhibit wide disparity in performance levels with equivalent functionality.
- (2) The energy consumed by professional storage cabinets accounts for a significant share of total electricity demand in the Union, and professional storage cabinets with equivalent functionality exhibit wide disparity in terms of energy efficiency. The scope for reducing their energy consumption is significant. Professional 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 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) No **XX/YY** implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional storage cabinets¹³ 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 on European standardisation¹⁴.

¹² OJ L 153, 18.6.2010, p. 1.

¹³ OJ L **XXX, DD.MM.YYYY, p. X.**

¹⁴ OJ L 316, 14.11.2012, p. 12.

- (6) This Regulation should specify a uniform design and content of product labels for professional storage cabinets.
- (7) In addition, this Regulation should specify requirements for the product fiche and technical documentation for professional storage cabinets.
- (8) Moreover, this Regulation should specify requirements for the information to be provided in any form of distance-selling of professional 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 storage cabinets.
2. This Regulation shall apply to electric mains-operated professional storage cabinets, including those sold for the refrigeration of items other than foodstuffs.
3. This Regulation shall not apply to the following products:
 - (a) professional storage cabinets that are primarily powered by energy sources other than electricity;
 - (b) professional 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 specifically designed for the storage of medicines and scientific samples;
 - (i) cabinets that do not use a vapour compression refrigeration cycle;
 - (j) custom-made professional storage cabinets, made on a one-off basis and not equivalent functionally or materially to other professional storage cabinets;
 - (k) refrigerator-freezers;
 - (l) static-air cabinets;

- (m) built-in cabinets; and
- (n) roll-in and pass-through cabinets.

Article 2
Definitions

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

- (a) ‘professional 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 storage cabinet including one unique compartment that allows wheeled racks of product to be wheeled in;
- (e) ‘pass-through cabinet’ means a professional storage cabinet accessible from both sides;
- (f) ‘static-air cabinet’ means a professional 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 storage cabinet whose refrigerated enclosure can be reached from the outside without opening a door or a drawer;
- (h) ‘saladette’ means a professional 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 pizza toppings or salad items;
- (i) ‘combined cabinet’ means a professional 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.

Article 3
Responsibilities of suppliers and timetable

1. From 1 January 2016, suppliers placing professional 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 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 storage cabinet model;
- (c) a product fiche, as set out in Annex IV, shall be provided for each professional storage cabinet;
- (d) an electronic product fiche, as set out in Annex IV, shall be made available to dealers for each professional 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 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 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 storage cabinets placed on the market according to the following timetable:

- from 1 January 2016: label 1;
- from 1 July 2017: label 2;
- from 1 January 2019: label 3;
- from 1 July 2020: label 4.

Article 4 **Responsibilities of dealers**

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

- (a) at the point of sale, each professional 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 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 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 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 any significant changes in the market shares of various types of appliance and the verification tolerances set out in Annex X.

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,

For the Commission

The President

José Manuel BARROSO

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°C and 5°C;
- (3) 'frozen operating temperature' means that the temperature of foodstuffs stored in the cabinet is continuously maintained at a temperature lower than -15°C;
- (4) 'multi-use cabinet' means that a professional 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 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 cabinet of overall height lower than 1050 mm with one or more front doors or drawers accessing the same compartment;
- (7) 'light-duty cabinet' means a professional storage cabinet only capable of continuously maintaining chilled or frozen operating temperature 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 storage cabinet capable of continuously maintaining chilled or frozen operating temperature in ambient conditions corresponding to climate class 5, as detailed in Table 3 in Annex IX;
- (9) 'equivalent refrigerating appliance' means a refrigerating appliance model placed on the market with the same net volume, same technical, efficiency and performance characteristics, and same compartment types as another refrigerating appliance 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 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 storage cabinets

Energy efficiency class	EEI
A+++	$EEI < 10$
A++	$10 \leq EEI < 15$
A+	$15 \leq EEI < 20$
A	$20 \leq EEI < 30$
B	$30 \leq EEI < 40$
C	$40 \leq EEI < 55$
D	$55 \leq EEI < 75$
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 storage cabinets in energy efficiency classes A to G



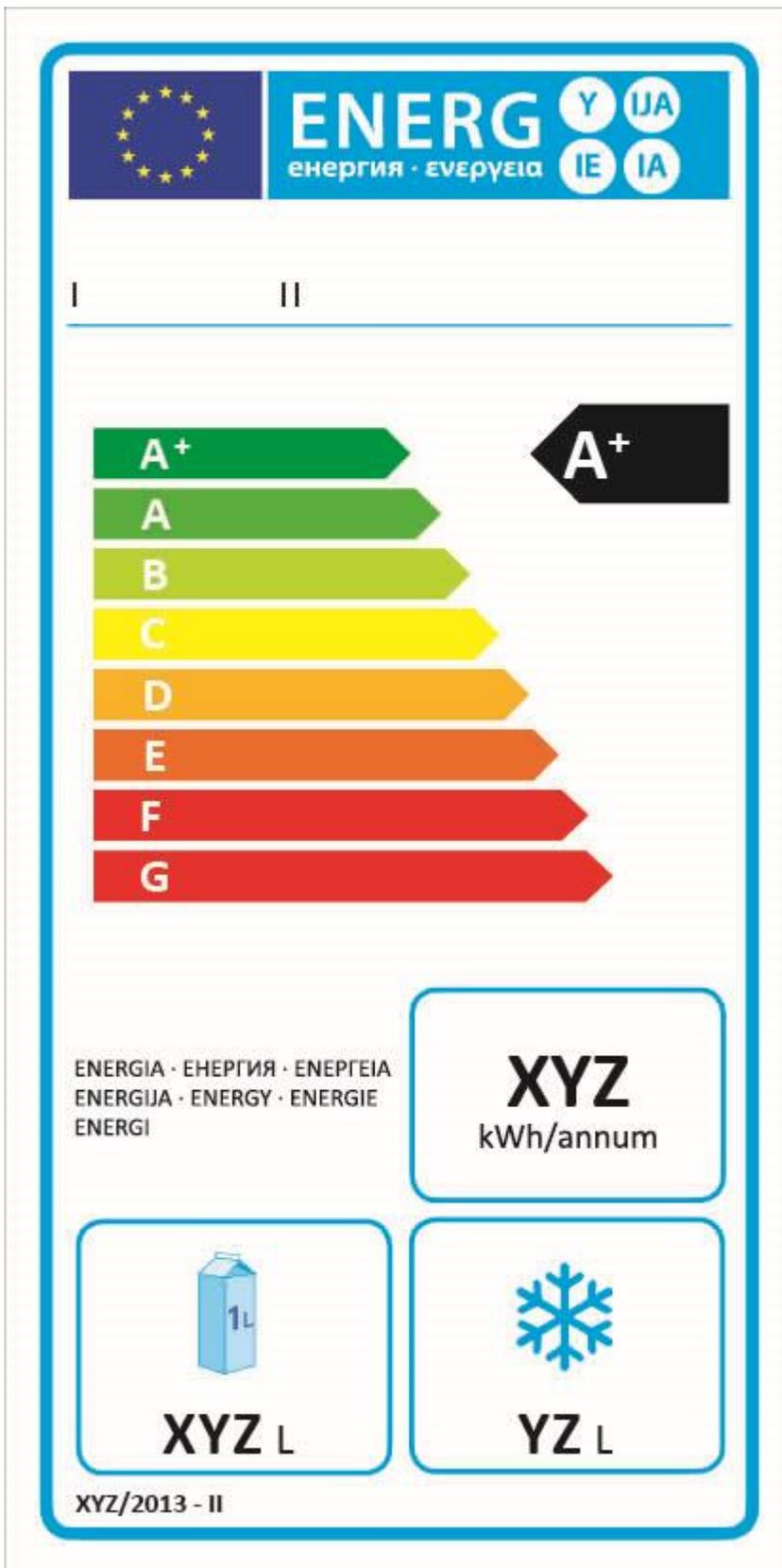
The following information shall be included in the label:

- 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 of all chilled compartments; and
- VI. the sum of the net volumes of all frozen compartments.

The design of the label shall be in accordance with point 5. By way of derogation, where a model has been awarded an 'EU ecolabel'¹⁵, a copy of the ecolabel may be added.

¹⁵ Under Regulation (EC) No 66/2010 (OJ L 27, 30.1.2010, p. 1).

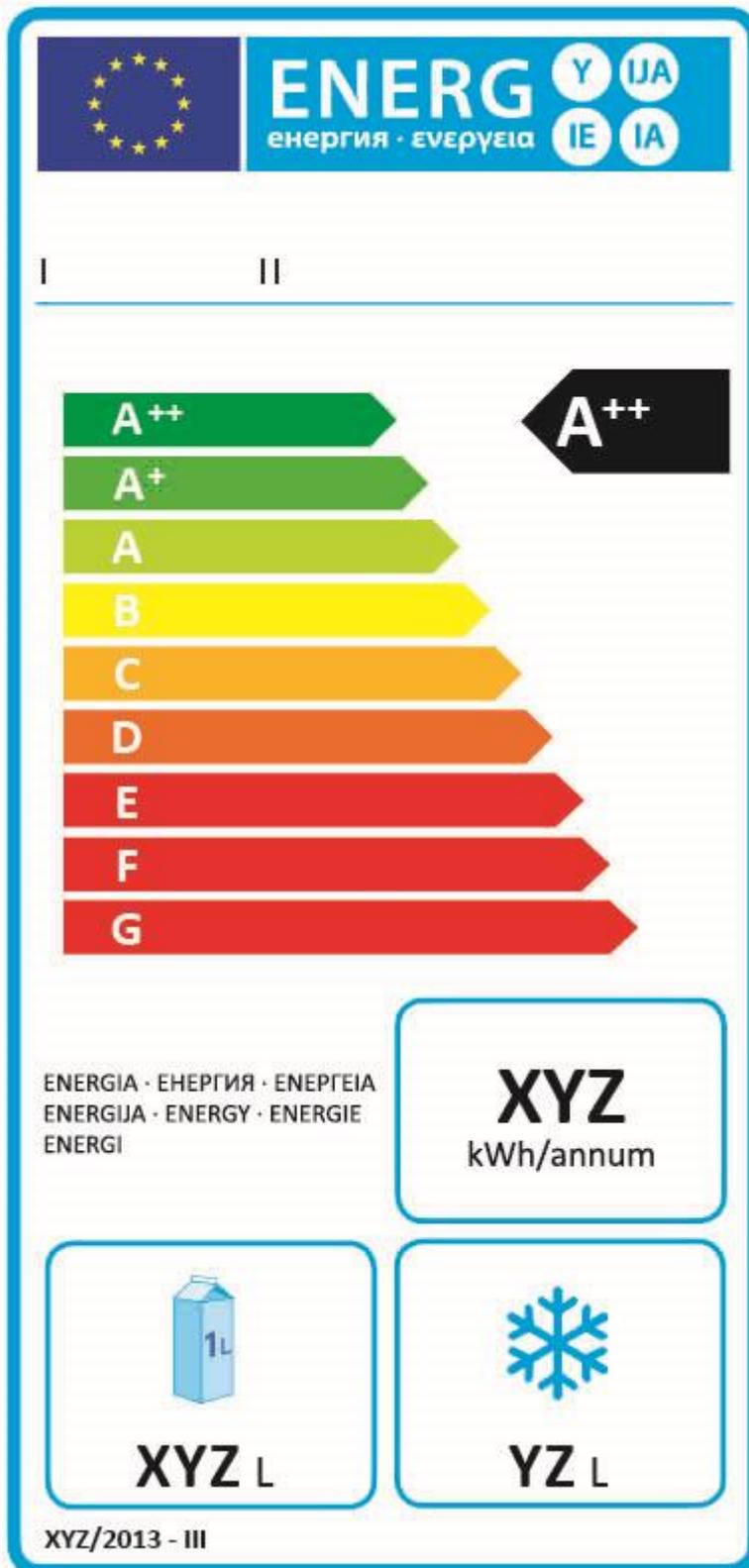
2. Label 2 — Professional storage cabinets in energy efficiency classes A+ to G



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

The design of the label shall be in accordance with point 5. By way of derogation, where a model has been awarded an 'EU eco-label', a copy of the eco-label may be added.

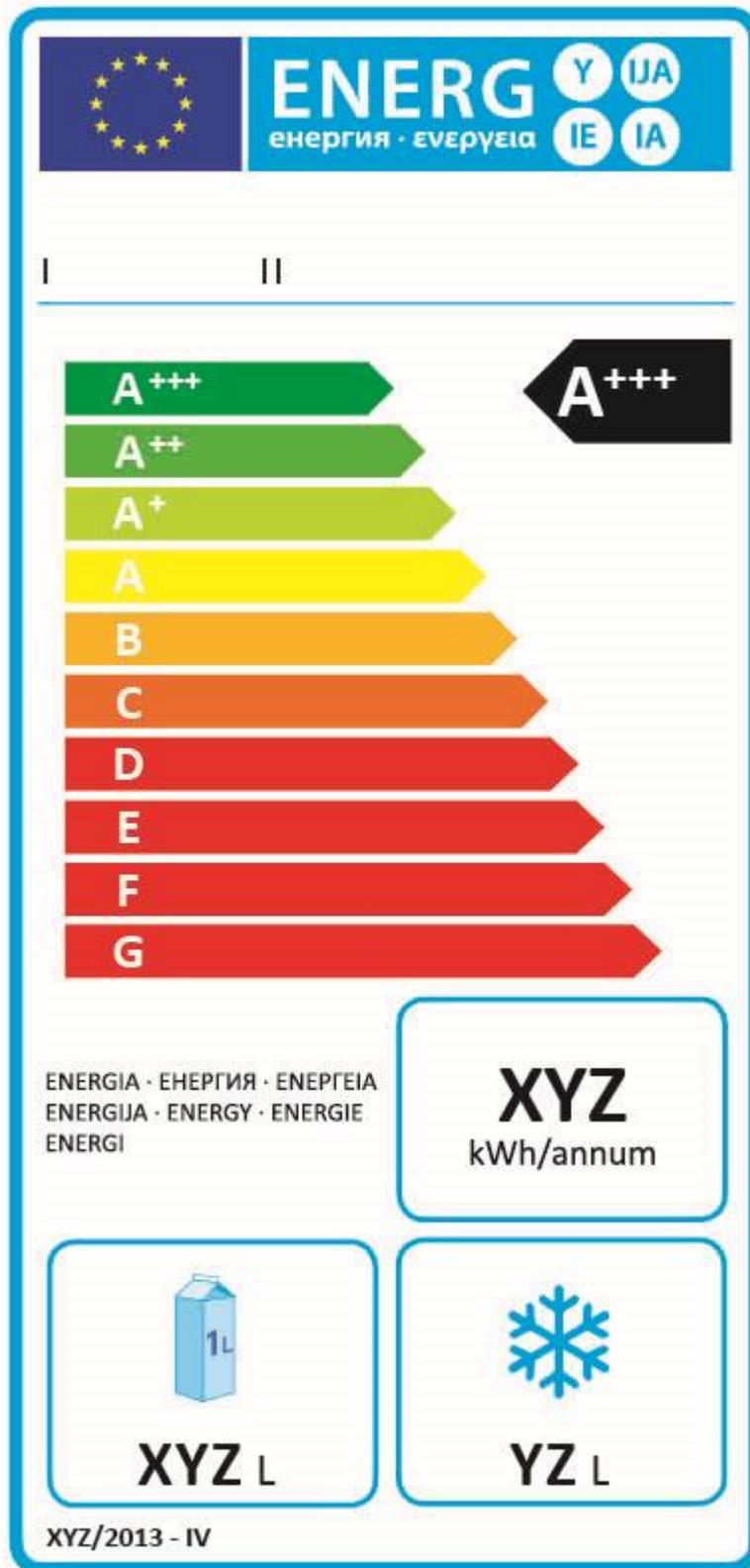
3. Label 3 — Professional storage cabinets in energy efficiency classes A++ to G



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

The design of the label shall be in accordance with point 5. By way of derogation, where a model has been awarded an 'EU eco-label', a copy of the eco-label may be added.

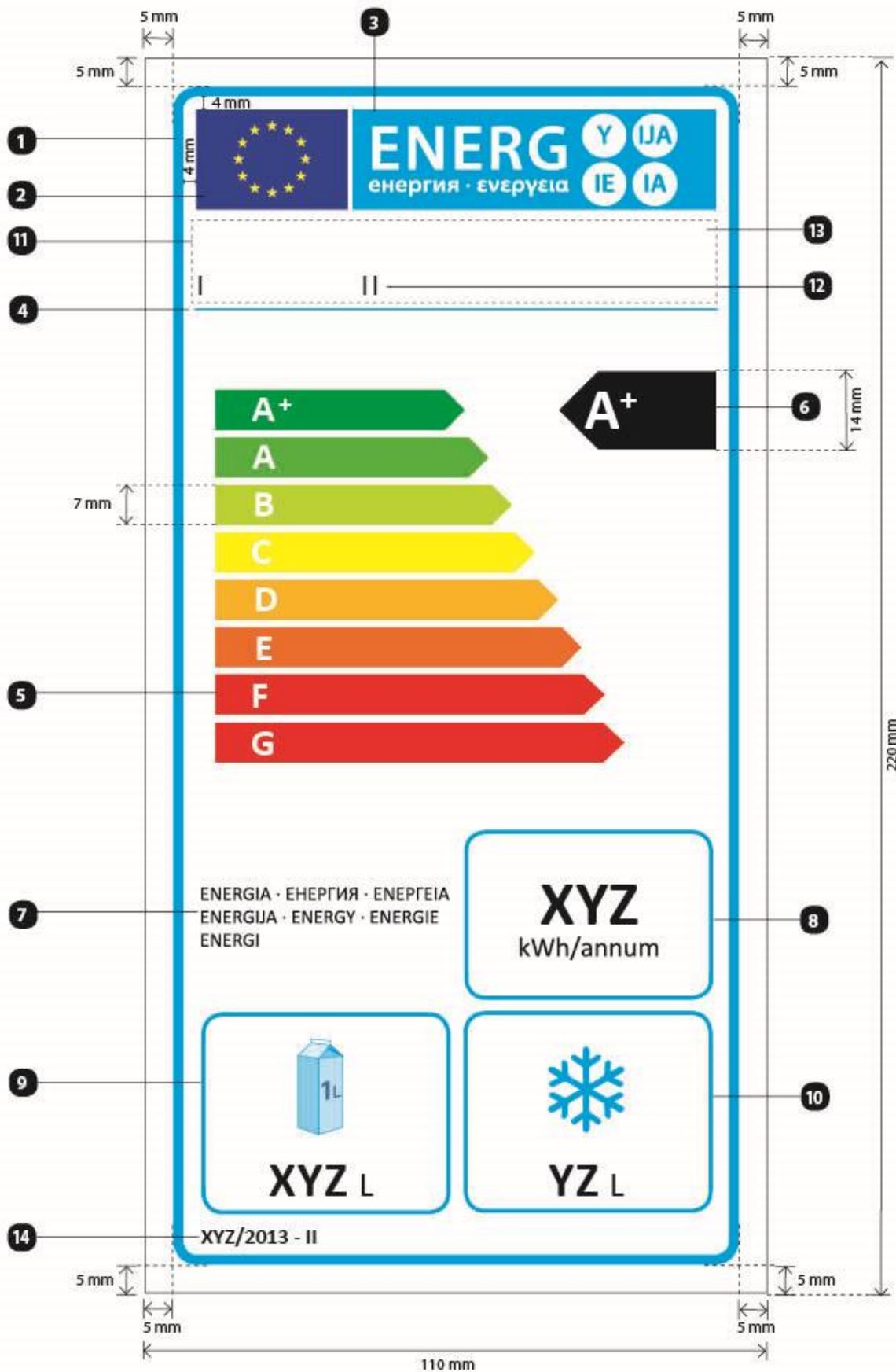
4. Label 4 — Professional storage cabinets in energy efficiency classes A+++ to G



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

The design of the label shall be in accordance with point 5. By way of derogation, where a model has been awarded an ‘EU eco-label’, a copy of the eco-label may be added.

5. The design of the label for professional 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 x 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, capitals, white, aligned on a single row;

❻ **Energy efficiency class**

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

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

❼ **Energy**

Text: Calibri regular 11 pt, capitals, black;

❽ **Annual energy consumption**

Border: 3 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 **Net volumes of all compartments that do not merit a star rating**

Border: 3 pt — colour: Cyan 100 % — round corners: 3.5 mm;

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

⑩ Net volumes of all frozen-food storage compartments that merit a star rating

Border: 3 pt — colour: Cyan 100 % — round corners: 3.5 mm;

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

⑪ Supplier's name or trademark

⑫ Supplier's model identifier

⑬ The supplier's name or trademark and model identifier should fit in a space of 90 x 15 mm

⑭ Number of Regulation

Text: Calibri bold 11 pt.

ANNEX IV Product fiche

1. The information in the product fiche of the professional 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 not intended for use in hot professional kitchens';
 - (j) for heavy-duty cabinets, the following sentence: 'This appliance is capable of maintaining test conditions at climate class 5';
2. A single fiche may cover a number of professional 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 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 storage cabinet model has been obtained by a calculation based on an equivalent professional storage cabinet, 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 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, under average climate conditions, 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 5 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 storage cabinets

For the calculation of the energy efficiency index (EEI) of a professional 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:

$$AEC = E_{24h} \times 365$$

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

E_{24h} = energy consumption of the cabinet over 24 hours,

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

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	1472
Counter Chilled	2.555	1790
Counter Frozen	5.840	2380

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 storage cabinets, measurements shall be carried out under the following conditions:
 - The temperature of test packages shall be between -1 °C and 5 °C for chilled cabinets and lower than -15 °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 should then be applied to the testing results obtained for light-duty cabinets.
 - Professional 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 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.

Test room climate class	Dry bulb temperature, °C	Relative humidity, %	Dew point, °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 5%.
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.
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 5%.
5. Where the results referred to in point 4 are not achieved, the model and all other equivalent professional 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.
6. Member State authorities shall use the measurement and calculation methods set out in Annexes VIII and IX.
7. The verification tolerances set out in point 2 and point 4 of this Annex relate only to the verification of the measured parameters by Member State authorities and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation. The values and classes on the label or in the product fiche shall not be more favourable for the supplier than the values reported in the technical documentation.