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# COVER NOTE

| From:            | Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director  |
|------------------|--|
| date of receipt: | 11 March 2019  |
| To:              | Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union  |
| No. Cion doc.:   | C(2019)1815 final ANNEXES 1 to 9   |
| Subject:         | ANNEXES to the COMMISSION DELEGATED REGULATION (EU)/<br>supplementing Regulation (EU) 2017/1369 of the European Parliament and<br>of the Council with regard to energy labelling of refrigerating appliances<br>with a direct sales function |

Delegations will find attached document C(2019)1815 final ANNEXES 1 to 9.

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EUROPEAN COMMISSION

> Brussels, 11.3.2019 C(2019) 1815 final

ANNEXES 1 to 9

# ANNEXES

to the

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

supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of refrigerating appliances with a direct sales function

#### ANNEX I

#### **Definitions applicable for the Annexes**

The following definition shall apply:

- (1) '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;
- (2) 'ice-cream freezer' means a horizontal closed cabinet intended to store and/or display and sell pre-packed ice cream, where access by the consumer to the pre-packed icecream is achieved by opening a non-transparent or transparent lid from the top, with a net volume  $\leq 600$  litres (L) and, only in the case of transparent lid ice-cream freezers, a net volume divided by the TDA  $\geq 0.35$  meters (m);
- (3) 'transparent lid' means a door made of a transparent material that covers at least 75 % of the door surface and that allows the end-user to clearly see items through it;
- (4) 'total display area (TDA)' means the total visible foodstuffs and other items area, including visible area through glazing, defined by the sum of horizontal and vertical projected surface areas of the net volume, expressed in square meters (m<sup>2</sup>);
- (5) 'quick response' (QR) code means a matrix barcode included on the energy label of a product model that links to that model's information in the public part of the product database;
- (6) 'annual energy consumption' (*AE*) means the average daily energy consumption multiplied by 365 (days per year) expressed in kilowatt hour per year (kWh/a), calculated in accordance with point 2(b) of Annex IV;
- (7) 'daily energy consumption'  $(E_{daily})$  means the energy used by a refrigerating appliance with a direct sales function over 24 hours at reference conditions, expressed in kilowatt hour per day (kWh/24h);
- (8) 'standard annual energy consumption' (*SAE*) means the reference annual energy consumption of a refrigeration appliance with a direct sales function, expressed in kilowatt hour per year (kWh/a), calculated in accordance with point 2(c) of Annex IV;
- (9) 'M' and 'N' means modelling parameters that take into account the total display area or volume-dependence of the energy use, with values as set out in Table 3, Annex IV;
- (10) 'temperature coefficient' (C) means a correction factor that accounts for the difference in operating temperature;
- (11) 'climate class factor' (*CC*) means a correction factor that accounts for the difference in ambient conditions for which the refrigerating appliance is designed for;
- (12) 'P' means a correction factor that accounts for the differences between integral and remote cabinets;

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- (13) 'integral cabinet' means a refrigerating appliance with a direct sales function that has an integral refrigeration system which incorporates a compressor and condensing unit;
- (14) 'gelato-scooping cabinet' means a refrigerating appliance with a direct sales function in which ice-cream can be stored, displayed and scooped, within prescribed temperature limits as set out in Annex IV, Table 4;
- (15) 'vertical cabinet' means a refrigerating appliance with a direct sales function with a vertical or inclined display opening;
- (16) 'semi- vertical cabinet' means a vertical cabinet with a vertical or inclined display opening whose overall height does not exceed 1,5 meters (m);
- (17) 'combined cabinet' means a refrigerating appliance with a direct sales function which combines display and opening directions from a vertical and a horizontal cabinet;
- (18) 'supermarket cabinet' means a refrigerating appliance with a direct sales function intended for the sale and display of foodstuffs and other items in retail applications, such as in supermarkets. Beverage coolers, refrigerated vending machines, gelatoscooping cabinets and ice-cream freezers are not considered supermarket cabinets;
- (19) 'refrigerator' means a refrigerating appliance with a direct sales function that continuously maintains the temperature of the products stored in the cabinet at chilled operating temperature;
- (20) 'freezer' means a refrigerating appliance with a direct sales function that continuously maintains the temperature of the products stored in the cabinet at frozen operating temperature;
- (21) 'roll-in cabinet' means a supermarket cabinet which enables goods to be displayed directly on their pallets or rolls which can be placed inside by lifting, swinging, or removing the lower front part, where fitted;
- (22) 'M-package' means a test package fitted with a temperature measuring device;
- (23) 'multi-temperature vending machine' means a refrigerated vending machine including at least two compartments with different operating temperatures;
- (24) 'display mechanism' means any screen, including tactile screen, or other visual technology used for displaying internet content to users;
- (25) 'tactile screen' means a screen responding to touch, such as that of a tablet computer, slate computer or a smartphone;
- (26) 'nested display' means a 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;
- (27) '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.

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# ANNEX II Energy efficiency classes

The energy efficiency class of a refrigerating appliance with a direct sales function shall be determined on the basis of its EEI as set out in Table 1.

| Energy Efficiency Class | EEI                      |
|-------------------------|--------------------------|
| А                       | EEI < 10                 |
| В                       | $10 \le \text{EEI} < 20$ |
| С                       | $20 \le \text{EEI} < 35$ |
| D                       | $35 \le \text{EEI} < 50$ |
| Е                       | $50 \le \text{EEI} < 65$ |
| F                       | $65 \le \text{EEI} < 80$ |
| G                       | $EEI \ge 80$             |

# Table 1: Energy efficiency classes of refrigerating appliances with a direct sales function

The Energy EEI of a refrigerating appliance with a direct sales function shall be determined in accordance with point 2 of Annex IV.

### ANNEX III

# Label for refrigerating appliances with a direct sales function

- 1. LABEL FOR REFRIGERATING APPLIANCES WITH A DIRECT SALES FUNCTION, EXCEPT FOR BEVERAGE COOLERS AND ICE-CREAM FREEZERS
- 1.1. Label:



- 1.2. The following information shall be included in the label:
  - I. QR code;
  - II. supplier's name or trade mark;
  - III. supplier's model identifier;
  - IV. scale of energy efficiency classes from A to G;
  - V. the energy efficiency class determined in accordance with Annex II;
  - VI. *AE* in kWh per year and rounded to the nearest integer;

VII.

- for refrigerated vending machines: the sum of the net volumes of all compartments with chilled operating temperatures, expressed in litres (L) and rounded to the nearest integer;
- for all other refrigerating appliances with a direct sales function: the sum of the display areas with chilled operating temperatures, expressed in square meters (m<sup>2</sup>) and rounded to two decimal places;
- for refrigerating appliances with a direct sales function that does not contain compartments with chilled operating temperatures: the pictogram and the values in litres (L) or square meters (m<sup>2</sup>) in VII are omitted;

VIII.

- for refrigerating appliances with a direct sales function with all compartments with chilled operating temperature having the same temperature class, with the exception of refrigerated vending machines:
  - the temperature at the top: the highest temperature of the warmest M-package of the compartment(s) with chilled operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
  - the temperature at the bottom: the lowest temperature of the coldest M-package of the compartment(s) with chilled operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, or the highest minimum temperature of all M-packages of the compartment(s) with chilled operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
- for refrigerated vending machines:
  - the temperature at the top: the maximum measured product temperature of the compartment(s) with chilled operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
  - the temperature at the bottom: the temperature is omitted;
- for refrigerating appliances with a direct sales function that does not contain compartments with chilled operating temperatures the pictogram and the values in degrees Celsius (°C) in VIII shall be omitted;

IX.

- for all refrigerating appliances with a direct sales function, except for vending machines: the sum of the display areas with frozen operating temperatures, expressed in square meter (m<sup>2</sup>) and rounded to two decimal places;
- for refrigerating appliances with a direct sales function that does not contain compartments with frozen operating temperatures: the pictogram and the values in square meters (m<sup>2</sup>) in IX are omitted;
- Х.
- for refrigerating appliances with a direct sales function with all compartments with frozen operating temperatures having the same temperature class, with the exception of refrigerated vending machines:
  - the temperature at the top: the highest temperature of the warmest M-package of the compartment(s) with frozen operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
  - the temperature at the bottom: the lowest temperature of the coldest M-package of the compartment(s) with frozen operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, or the highest minimum temperature of all M-packages of the compartment(s) with frozen operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
- for refrigerated vending machines:
  - the temperature at the top: the maximum measured product temperature of the compartment(s) with frozen operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 4;
  - the temperature at the bottom: the temperature is omitted;
- for refrigerating appliances with a direct sales function that does not contain compartments with frozen operating temperatures: the pictogram and the values in degrees Celsius (°C) in X are omitted;
- XI. the number of this Regulation, that is '2019/XXX' [OP please insert the number of this Regulation in this point and in the right corner of the energy label].

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- 2. LABEL FOR BEVERAGE COOLERS
- 2.1. Label:



- 2.2. The following information shall be included in the label:
  - I. QR code;
  - II. supplier's name or trade mark;
  - III. supplier's model identifier;
  - IV. scale of energy efficiency classes from A to G;
  - V. the energy efficiency class determined in accordance with Annex II;;
  - VI. *AE* in kWh per year and rounded to the nearest integer;
  - VII. the sum of the gross volumes of all compartments with chilled operating temperatures, expressed in litres (L) and rounded to the nearest integer;
  - VIII. the highest average compartment temperature of all compartments with chilled operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 5;
  - IX. the warmest ambient temperature, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 6;
  - XIII. the number of this Regulation, that is '2019/XXX' [OP please insert the number of this Regulation in this point and in the right corner of the energy label].

- 3. LABEL FOR ICE-CREAM FREEZERS
- 3.1. Label:



- 3.2. The following information shall be included in the label:
  - I. QR-code;
  - II. supplier's name or trade mark;
  - III. supplier's model identifier;
  - IV. scale of energy efficiency classes from A to G;
  - V. the energy efficiency class determined in accordance with Annex II;
  - VI. *AE* in kWh per year and rounded to the nearest integer;
  - VII. the sum of the net volumes of all compartments with frozen operating temperatures, expressed in litres (L) and rounded to the nearest integer;
  - VIII. the highest average compartment temperature of all compartments with frozen operating temperatures, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 7;
  - IX. the maximum ambient temperature, in degrees Celsius (°C) and rounded to the nearest integer, as set out in Table 8;
  - X. the number of this Regulation, that is '2019/XXX' [OP please insert the number of this Regulation in this point and in the right corner of the energy label]

## 4. LABEL DESIGNS

4.1. Label design for refrigerating appliances with a direct sales function, except for beverage coolers and ice-cream freezers:



4.2. Label design for beverage coolers:





- 4.4. Whereby:
  - (a) The labels shall be at least 96 mm wide and 192 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 100 % white.
  - (c) The typefaces shall be Verdana and Calibri.
  - (d) The dimensions and specifications of the elements constituting the label shall be as indicated in the label designs in points 4.1 to 4.3.
  - (e) Colours shall be CMYK cyan, magenta, yellow and black, following this example: 0,70,100,0: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.
  - (f) The labels shall fulfil all the following requirements (numbers refer to the figures above):
    - the colours of the EU logo shall be as follows:
      - the background: 100,80,0,0;
      - the stars: 0,0,100,0;
    - 2 the colour of the energy logo shall be: 100,80,0,0;
    - 3 the QR code shall be 100 % black;
    - the supplier's name shall be 100 % black and in Verdana Bold, 9 pt;
    - the model identifier shall be 100 % black and in Verdana Regular 9 pt;
    - the A to G scale shall be as follows:
      - the letters of the energy efficiency scale shall be 100 % white and in Calibri Bold 19 pt; the letters shall be centred on an axis at 4,5 mm from the left side of the arrows;
      - the colours of the A to G scale arrows shall be as follows:
        - A-class: 100,0,100,0;
        - B-class: 70,0,100,0;
        - C-class: 30,0,100,0;
        - D-class: 0,0,100,0;
        - E-class: 0,30,100,0;
        - F-class: 0,70,100,0;
        - G-class: 0,100,100,0;
    - the internal dividers shall have a weight of 0,5 pt and the colour shall be 100 % black;
    - the letter of the energy efficiency class shall be 100 % white and in Calibri Bold 33 pt. The energy efficiency class arrow and the corresponding arrow in the A to G scale shall be positioned in such a way that their tips are aligned. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow which shall be 100 % black;

- Ithe annual energy consumption value shall be in Verdana Bold 28 pt; 'kWh/annum' shall be in Verdana Regular 18 pt. They shall be centred and 100 % black;
- the pictograms shall be as shown as in the label designs and as follows:
  - the pictograms' lines shall have a weight of 1,2 pt and they and the texts (numbers and units) shall be 100 % black;
  - the numbers under the pictograms shall be in Verdana Bold 16 pt with the units in Verdana Regular 12 pt and they shall be centred under the pictograms;
  - the temperatures\_values shall be in Verdana Bold 12 pt with the "C" in Verdana Regular 12 pt and they shall be placed either on the right side of the thermometer pictogram or inside the pictogram representing the ambient temperature;
  - for refrigerating appliances with a direct sales function, except for beverage coolers and ice-cream freezers: if the appliance contains only frozen compartment(s) or only unfrozen compartment(s), only the relevant pictograms, as set out in point 1.2 VII, VIII, IX and X, shall be shown and centred between the internal divider below the annual energy consumption and the bottom of the energy label;
- the number of the regulation shall be 100 % black and in Verdana Regular 6 pt.

## ANNEX IV

## Measurement methods and calculations

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards, or other reliable, accurate and reproducible methods, which take into account the generally recognised state-of-the-art methods and are in line with the following provisions set out below. The reference numbers of these harmonised standards have been published for this purpose in the *Official Journal of the European Union*.

- 1. General conditions for testing:
- (a) the ambient conditions shall correspond to Set 1, except for ice-cream freezers and gelato scooping cabinets which shall be tested in ambient conditions corresponding to Set 2, as set out in Table 2.
- (b) where a compartment can be set to different temperatures, it shall be tested at the lowest operating temperature.
- (c) refrigerated vending machines with compartments with variable volumes shall be tested with the net volume of the compartment with the highest operating temperature adjusted to its minimum net volume.
- (d) for beverage coolers, the specified cooling speed shall be according to the half reload recovery time.

|       | Dry bulb<br>temperature, °C | Relative<br>humidity, % | Dew point, °C | Water vapour<br>mass in dry air,<br>g/kg |
|-------|-----------------------------|-------------------------|---------------|--|
| Set 1 | 25                          | 60                      | 16,7          | 12,0                                     |
| Set 2 | 30                          | 55                      | 20,0          | 14,8                                     |

**Table 2: Ambient conditions** 

- 2. Determination of the EEI:
- (a) For all refrigerating appliances with a direct sales function, the EEI, expressed in % and rounded to the first decimal place, is the ratio of the AE (in kWh/a) and the reference SAE (in kWh/a) and is calculated as:

$$EEI = AE / SAE.$$

(b) The *AE*, expressed in kWh/a and rounded to two decimal places, is calculated as follows:

$$AE = 365 \times E_{daily};$$

with:

- $E_{daily}$  is the energy consumption of the refrigerating appliance with a direct sales function over 24 hours, expressed in kWh/24h and rounded to three decimal places.
- (c) The *SAE is* expressed in kWh/a and rounded to two decimal places. For refrigerating appliances with a direct sales function with all compartments having the same temperature class and for refrigerated vending machines, the *SAE* is calculated as follows:

$$SAE = 365 \times P \times (M + N \times Y) \times C;$$

For refrigerating appliances with a direct sales function with more than one compartment having different temperature classes, with the exception of refrigerated vending machines, the *SAE* is calculated as follows:

$$SAE = 365 \times P \times \sum_{c=1}^{n} (M + N \times Y_c) \times C_c;$$

where:

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- (1) c is the index number for a compartment type ranging from 1 to n, with n being the total number of compartment types.
- (2) The values of M and N are given in Table 3.

| Category   | Value for M | Value for N |
|--|-------------|-------------|
| Beverage coolers   | 2,1         | 0,006       |
| Ice-cream freezers   | 2,0         | 0,009       |
| Refrigerated vending machines                              | 4,1         | 0,004       |
| Gelato-scooping cabinets                                   | 25,0        | 30,400      |
| Vertical and combined<br>supermarket refrigerator cabinets | 9,1         | 9,100       |
| Horizontal supermarket<br>refrigerator cabinets            | 3,7         | 3,500       |
| Vertical and combined supermarket freezer cabinets         | 7,5         | 19,300      |
| Horizontal supermarket freezer<br>cabinets                 | 4,0         | 10,300      |
| Roll-in cabinets (from 1 March 2021)                       | 9,2         | 11,600      |
| Roll-in cabinets (from 1                                   | 9,1         | 9,100       |

#### Table 3: M and N values

(3) The values of C, the temperature coefficient are given in Table 4.

#### Table 4: Temperature conditions and corresponding temperature coefficient values, C

| (a) Supermarket cabinets |                      |   |   |   |                |  |
|--------------------------|----------------------|---|---|---|----------------|--|
| Category                 | Temperature<br>class | Highest<br>temperature<br>of warmest<br>M-package<br>(°C) | Lowest<br>temperature<br>of coldest M-<br>package<br>(°C) | Highest<br>minimum<br>temperature of<br>all M-package<br>(°C) | Value for<br>C |  |
| Vertical,                | M2                   | $\leq +7$   | $\geq -1$   | n.a.  | 1,00           |  |
| combined                 | H1 and H2            | $\leq$ +10  | $\geq -1$   | n.a.  | 0,82           |  |
| supermarket              | M1                   | $\leq +5$   | $\geq -1$   | n.a.  | 1,15           |  |

|   | 1        |                  | -    |                   |           |                 | 1                   |             | 1        |
|---|----------|------------------|------|-------------------|-----------|-----------------|---------------------|-------------|----------|
| refrigerator  |          |                  |      |                   |           |                 |                     |             |          |
| cabinets  | M        | )                |      | < 17              |           | 1               |                     |             | 1.00     |
| Horizontal  |          | and U2           |      | $\leq \pm 10$     |           | - <u> </u><br>1 | n.a.                |             | 1,00     |
| refrigerator  | пі       |                  |      | $\leq \pm 10$     |           | - <u> </u><br>1 | 11.a.               |             | 0,92     |
| cabinets  | M1       | l                |      | $1 \le +5$        | 2         | -1              | n.a.                |             | 1,08     |
| Vertical and  | L1       |                  |      | <-15              | n         | a.              | <-1                 | 8           | 1.00     |
| combined  | L2       |                  |      | <-12              | n         | .a.             | <-1                 | 8           | 0.90     |
| supermarket   |          |                  |      | 1                 | n         | .a.             |                     | -           | - ,      |
| freezer   | L3       |                  |      | $\leq -12$        |           |                 | $\leq -1$           | 5           | 0,90     |
| cabinets  |          |                  |      |                   |           |                 |                     |             |          |
| Horizontal  | L1       |                  |      | ≤-15              | n         | .a.             | $\leq -12$          | 8           | 1,00     |
| supermarket   | L2       |                  |      | <u>i≤−12</u>      | n         | .a.             | $\leq -12$          | 8           | 0,92     |
| freezer   | L3       |                  |      | <-12              | n         | .a.             | <-1                 | 5           | 0.92     |
| cabinets  |          |                  |      | ·_ ·-             |           |                 |                     |             |          |
| (b) Gelato-scoo   | ping     | g cabinets       |      | _                 |           | T               | <b>[*</b> _],4      |             |          |
|   |          | Highest          |      | Lowes             | st        | H               | lighest             |             |          |
| Tomporature   |          | temperature      | of   | temperatu         | ire of    | form            | nimum<br>oroturo of |             |          |
| aloss   | <i>:</i> | warmest M        | -    | coldest           | М-        | all M           | I nackaga           | Va          | ue for C |
| Class   |          | package          |      | packag            | ge        |                 | (°C)                |             |          |
|   |          | (°C)             |      | (°C)              | _         |                 | ( C)                |             |          |
| G1  |          | -10              |      | -14               |           |                 | n.a.                |             | 1,00     |
| G2  |          | -10              |      | -16               |           |                 | n.a.                |             | 1,00     |
| G3  |          | -10              |      | -18               |           |                 | n.a.                |             | 1,00     |
| L1  |          | -15              |      | n.a.              |           |                 | -18                 |             | 1,00     |
| L2  |          | -12              |      | n.a.              |           |                 | -18                 |             | 1,00     |
| L3  |          | -12              |      | n.a.              |           |                 | -15                 |             | 1,00     |
| S Special classification 1,00                             |          |                  |      |                   | 1,00      |                 |                     |             |          |
| (c) Refrigerated vending machines                         |          |                  |      |                   |           |                 |                     |             |          |
|   |          |                  | Max  | imum measu        | red pro   | auct            | Va                  | l           | C        |
| Temperature class**temperature $(T_v)$<br>(°C)Value for C |          |                  |      | C                 |           |                 |                     |             |          |
| Category 1  |          |                  | 7    |                   |           |                 |                     |             |          |
| Category 2  |          |                  | 12   |                   | 2         |                 | ]                   |             |          |
| Category 3  |          |                  | 3    |                   |           |                 | 1+(                 | $(12-T_V)/$ | 25       |
| Category 4  |          |                  |      |                   | )/2*      |                 |                     |             |          |
| Category 6  |          |                  |      | $(T_{V1}+T_{V2})$ | )/2*      |                 |                     |             |          |
| (d) other refrig  | erat     | ing appliances v | vith | a direct sales    | s functio | n               |                     |             |          |
| Category  |          |                  |      |                   |           |                 | Value for           | С           |          |

Other appliances

Notes:

\* For multi-temperature vending machines,  $T_V$  shall be the average of  $T_{V1}$  (the maximum measured product temperature in the warmest compartment) and  $T_{V2}$  (the maximum measured product temperature in the coldest compartment).

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\*\* category 1 = refrigerated closed fronted can and bottle machines where the products are held in stacks, category 2 = refrigerated glass fronted can and bottle, confectionery & snack machines, category 3 = refrigerated glass fronted machines entirely for perishable foodstuffs, category 4 = refrigerated multi-temperature glass fronted machines, category 6 = combination machines consisting of different categories of machine in the same housing and powered by one chiller.

n.a = not applicable

- (4) Coefficient Y is calculated as follows:
  - (a) for beverage coolers:

 $Y_c$  is the equivalent volume of the compartments of the beverage cooler with target temperature *Tc*, (*Veq*<sub>c</sub>), calculated as follows:

 $Y_c = Veq_c = GrossVolume_c \times ((25 - Tc)/20) \times CC;$ 

where Tc is the average compartment classification temperature of the compartment and CC is the climate class factor. The values for Tc are set out in Table 5. The values for CC are set out in Table 6.

# Table 5: Temperature classes and corresponding average compartment temperatures (*Tc*) for beverage coolers

| Temperature class | <i>Tc</i> (°C) |
|-------------------|----------------|
| K1                | +3,5           |
| К2                | +2,5           |
| К3                | -1,0           |
| K4                | +5,0           |

 Table 6: Operating conditions and CC values for beverage coolers

| Warmest ambient<br>temperature (°C) | Ambient relative humidity<br>(%) | СС   |
|-------------------------------------|----------------------------------|------|
| .+25                                | 60                               | 1,00 |
| +32                                 | 65                               | 1,05 |
| +40                                 | 75                               | 1,10 |

(b) for ice-cream freezers:

 $Y_c$  is the equivalent volume of compartments of the ice-cream freezer with target temperature Tc, ( $Veq_c$ ), calculated as follows:

 $Y_c = Veq_c = NetVolume \times ((12 - Tc)/30) \times CC;$ 

where Tc is the average compartment classification temperature of the compartment and CC is the climate class factor. The values for Tc are set out in Table 7. The values for CC are set out in Table 8.

# Table 7: Temperature classes and corresponding average compartment temperatures (*Tc*) for ice-cream freezers

| Tempera   | ture class   |                |
|---|--|----------------|
| Warmest M-package<br>temperature colder or equal<br>to in all tests (except lid<br>opening test) (°C) | Warmest M-package<br>maximum temperature rise<br>allowed during the lid<br>opening test (°C) | <i>Tc</i> (°C) |
| -18   | 2  | -18,0          |
| -7  | 2  | -7,0           |

# Table 8: Operating conditions and corresponding CC values for ice-cream freezers

| maximum CC |  | Minimum | Maximum | СС |
|------------|--|---------|---------|----|
|------------|--|---------|---------|----|

|                        | Ambient<br>temperatur<br>e (°C) | Ambient<br>relative<br>humidity<br>(%) | Ambient<br>Temperatu<br>re (°C) | Ambient<br>relative<br>humidity<br>(%) |      |
|------------------------|---------------------------------|--|---------------------------------|--|------|
| Ice-cream freezer with |                                 |  | 30                              | .55                                    | 1,00 |
| transparent lid        | 16                              | 80                                     | 35                              | 75                                     | 1,10 |
|                        |                                 |  | 40                              | 40                                     | 1,20 |
| Ice-cream freezer with |                                 |  | 30                              | .55                                    | 1,00 |
| non-transparent lid    | 16                              | 80                                     | 35                              | 75                                     | 1,04 |
|                        |                                 |  | 40                              | 40                                     | 1,10 |

(c) for refrigerated vending machines:

Y is the net volume of the refrigerated vending machine, which is the sum of the volumes of all compartments within which the products directly available for vending are contained and the volume through which the products pass during the dispensing process, expressed in litres (L) and rounded to the nearest integer.

(d) for all other refrigerating appliances with direct sales function:

 $Y_c$  is the sum of the TDA of all compartments of the same temperature class of the refrigerating appliance with a direct sales function, expressed in square meters (m<sup>2</sup>), and rounded to two decimal places.

(5) The values for P are set out in Table 9.

#### Table 9: *P* values

| Cabinet type  | Р    |
|---|------|
| Integral supermarket cabinets                               | 1,10 |
| Other refrigerating appliances with a direct sales function | 1,00 |

## ANNEXV

## **Product information sheet**

Pursuant to point 1(b) of Article 3, the supplier shall enter into the product database the information as set out in Table 10.

#### Table 10: Product information sheet

| Supplier's name or trademark:   |   |         |                             |         |  |
|---|---|---------|-----------------------------|---------|--|
| Supplier's address <sup>b</sup> :   |   |         |                             |         |  |
| Model identifier:   |   |         |                             |         |  |
| Use:  | Display an  | id sale |                             |         |  |
| Type of refrigerating appliance with a direct sale  | es function:  |         |                             |         |  |
| [Beverage coolers/ Ice-cream freezers/ Gelato-scooping cabinet/ supermarket cabinet/ refrigerated vending machines]   |   |         |                             |         |  |
| Cabinet family code, according to the harmonised standards or other reliable, accurate and reproducible methods in accordance with Annex IV.  |   |         |                             |         |  |
| Product specific parameters   |   |         |                             |         |  |
| (Beverage coolers: fill in point 1, ice-cream freezers: fill in point 2, Gelato-scooping cabinet: fill in point 3, supermarket cabinet: fill in point 4, refrigerated vending machines: fill in point 5. If the refrigerating appliance with a direct sales function contains compartments working at different temperatures, or a compartment that can be set to different temperatures, the lines shall be repeated for each compartment or temperature setting): |   |         |                             |         |  |
| 1. Beverage coolers:  |   |         |                             |         |  |
| Gross volume (dm <sup>3</sup> or L)   | Ambient conditions for which the appliance is suitable (according to Table 6) |         |                             |         |  |
| Gross volume (dm <sup>2</sup> or L)   | Warmest temperature<br>(°C)   |         | Relative humdity (%)        |         |  |
| X   | Х   |         | Х                           |         |  |
| 2. Ice-cream freezers with [transparent lid/non-transparent lid]:   |   |         |                             |         |  |
|   | Ambient conditions for which the appliance is suitable (according to Table 8) |         |                             |         |  |
| Net volume (dm <sup>3</sup> or L)   | Temperature range (°C)  |         | Relative humidity range (%) |         |  |
|   | minimum   | maximum | minimum                     | maximum |  |
| X   | Х   | X       | Х                           | Х       |  |
| 3. Gelato-scooping cabinet  |   |         |                             |         |  |
| Total display area (m <sup>2</sup> )  | Temperature class (according to Table 4(b))                                   |         |                             |         |  |
| X,XX  | [G1/ G2/ G3/ L1/ L2/ L3/ S]   |         |                             |         |  |

4. [Integral/Remote] [horizontal/vertical (other than semi-vertical)/semi-vertical/combined] supermarket cabinet, roll-in: [yes/no]:

| Total display area (m <sup>2</sup> ) | Temperature class (according to Table 4(a))      |
|--------------------------------------|--|
| X,XX                                 | [refrigerator: [M2/H1/H2/M1]/freezer:[L1/L2/L3]] |

5. Refrigerated vending machines, [refrigerated closed fronted for cans and bottles where the products are held in stacks/ refrigerated glass fronted for [can and bottle, confectionery & snack/ entirely for perishable foodstuffs]/ multi-temperature for [fill in the type of foodstuffs it is intended for]/ combination machines consisting of different categories of machine in the same housing and powered by one chiller for [fill in the type of foodstuffs it is intended for]]:

| Volume (dm <sup>3</sup> or L)                        |                             | Temperature class (ad   | Temperature class (according to Table 4(c)) |  |  |  |
|--|-----------------------------|---|---|--|--|--|
| X  |                             | category  | category [1/2/3/4/6]                        |  |  |  |
| General product pa                                   | arameters:                  | I   |   |  |  |  |
| Parameter  | Value                       | Parameter   | Value                                       |  |  |  |
| Annual energy<br>consumption<br>(kWh/a) <sup>d</sup> | x,xx                        | Recommended<br>temperature(s) for<br>optimised food storage<br>(°C) (These settings<br>shall not contradict the<br>temperature conditions<br>set out in Annex IV,<br>Table 4, 5 or 6, as<br>applicable) | X   |  |  |  |
| EEI  | X,X                         | Energy efficiency class   | [A/B/C/D/E/F/G] <sup>c</sup>                |  |  |  |
| Light source param                                   | neters <sup>a,b</sup> :     |   |   |  |  |  |
| Type of light source                                 |                             | [type]  | [type]                                      |  |  |  |
| Energy efficiency class                              |                             | [A/B/C/D/E/F/G] °   | [A/B/C/D/E/F/G] °                           |  |  |  |
| Minimum duration                                     | of the guarantee offered    | d by the supplier <sup>b</sup> :  |   |  |  |  |
| Additional information                               | ation:                      |   |   |  |  |  |
| The weblink to the s                                 | supplier's website, where t | the information in point 3 of Ar  | nnex II of Commission                       |  |  |  |

Regulation (EU) 2019/XXX<sup>1</sup> [*OP-please insert the Regulation number of C(2019)2127*]<sup>b</sup> is found:

<sup>a</sup> as determined in accordance with Commission Delegated Regulation (EU) 2019/XXX [OP – please insert Regulation number of  $C(2019)1805]^2$ .

 $^{\rm b}$  changes to these items shall not be considered relevant for the purposes of paragraph 4 of Article 4 of Regulation (EU) 2017/1369.

<sup>c</sup> if the product database automatically generates the definitive content of this cell the supplier shall not enter these data.

<sup>d</sup> if the refrigerating appliance with a direct sales function has different compartments working at different temperatures, the annual energy consumption of the integrated unit shall be provided. If separate refrigeration systems provide cooling for separate compartments of the same unit, the energy consumption associated with each sub-system shall also be provided where possible.

<sup>&</sup>lt;sup>1</sup> Commission Regulation (EU) 2019/XXX [*OP* – please enter the full OJ-L reference of Regulation C(2019)2127].

<sup>&</sup>lt;sup>2</sup> Commission Delegated Regulation (EU) 2019/XXX [OP – please insert the full OJ-L Regulation C(2019)1805]).

# ANNEX VI

#### **Technical documentation**

- 1. The technical documentation referred to in point 1(d) of Article 3 shall include the following elements:
  - (a) the information as set out in Annex V;
  - (b) the information as set out in Table 11;

#### Table 11: Additional information to be included in the technical documentation

A general description of the refrigerating appliance with direct sales function model, sufficient for it to be unequivocally and easily identified:

| Product specifications                |       |  |                |  |  |
|---------------------------------------|-------|--|----------------|--|--|
| General product specifications:       |       |  |                |  |  |
| Parameter                             | Value | Parameter                                      | Value          |  |  |
| Annual energy<br>consumption (kWh/a)  | X,XX  | Standard annual energy<br>consumption (kWh/a)  | X,XX           |  |  |
| Daily energy<br>consumption (kWh/24h) | X,XXX | Ambient conditions                             | [Set 1/ Set 2] |  |  |
| М                                     | X,X   | N  | X,XXX          |  |  |
| Temperature coefficient<br>(C)        | X,XX  | Y  | X,XX           |  |  |
| Р                                     | X,XX  |  |                |  |  |
| Climate class factor $(CC)^{a}$       | X,XX  | Target temperature $(Tc)$<br>(°C) <sup>a</sup> | X,X            |  |  |
| Additional information:               |       | · · ·  |                |  |  |

The references of the harmonised standards or other reliable accurate and reproducible methods applied:

Where appropriate, identification and signature of the person empowered to bind the supplier:

A list of equivalent models, including model identifiers:

<sup>a</sup> Only for beverage coolers and ice-cream freezers

- 2. 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.

## ANNEX VII

## Information to be provided in visual advertisements, in technical promotional material or other promotional material, in distance selling except distance selling on the internet

- 1. In visual advertisements for refrigerating appliances with a direct sales function, for the purposes of ensuring conformity with the requirements laid down in point 1(e) Article 3 and point (c) of Article 4, the energy efficiency class and the range of energy efficiency classes available on the label shall be shown as set out in point 4 of this Annex.
- 2. In technical promotional material or other promotional material for refrigerating appliances with a direct sales function, for the purposes of ensuring conformity with the requirements laid down in point 1(f) Article 3 and point (d) of Article 4 the energy efficiency class and the range of energy efficiency classes available on the label shall be shown as set out in point 4 of this Annex.
- 3. Any paper based distance selling of refrigerating appliances with a direct sales function must show the energy efficiency class and the range of energy efficiency classes available on the label as set out in point 4 of this Annex.
- 4. The energy efficiency class and the range of energy efficiency classes shall be shown, as indicated in Figure 1, with:
  - (a) an arrow containing the letter of the energy efficiency class, in white, Calibri Bold and in a font size at least equivalent to that of the price, if the price is shown, in all other cases clearly visible and legible font size;
  - (b) the colour of the arrow matching the colour of the energy efficiency class;
  - (c) the range of available energy efficiency classes in 100 % black; and
  - (d) the size shall be such that the arrow is clearly visible and legible. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow, with a border of 0,5 pt in black around the arrow and the letter of the energy efficiency class.

By derogation, if the visual advertisement, technical promotional material or other promotional material or paper based distance selling is printed in monochrome, the arrow can be in monochrome in that visual advertisement, technical promotional material, other promotional material or paper based distance selling.



# Figure 1: Coloured/monochrome left/right arrow, with range of energy efficiency classes indicated

- 5. Telemarketing based distance selling must specifically inform the customer of the energy efficiency class of the product and of the range of energy efficiency classes available on the label, and that the customer can access the full label and the product information sheet through a free access website, or by requesting a printed copy.
- 6. For all the situations mentioned in points 1 to 3 and 5, it must be possible for the customer to obtain, on request, a printed copy of the label and the product information sheet.

# ANNEX VIII

# Information to be provided in the case of distance selling through the Internet

- 1. The appropriate label made available by suppliers in accordance with point 1(g) of Article 3 shall be shown on the display mechanism in proximity to the price of the product, if the price is shown, and in all other cases in proximity to the product. The size shall be such that the label is clearly visible and legible and shall be proportionate to the size specified in point 4 of Annex III. The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down 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.
- 2. The image used for accessing the label in the case of a nested display, as indicated in Figure 2, 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 on the arrow in white, Calibri Bold and in a font size equivalent to that of the price, if the price is shown, in all other cases a clearly visible and legible font size; and
  - (c) have the range of available energy efficiency classes in 100 % black; and,
  - (d) have one of the following two formats, and its size shall be such that the arrow is clearly visible and legible. The letter in the energy efficiency class arrow shall be positioned in the centre of the rectangular part of the arrow, with a visible border in 100 % black placed around the arrow and the letter of the energy efficiency class:



# Figure 2: Coloured left/right arrow example, with range of energy classes indicated

- 3. In the case of a nested display, the sequence of display of the label shall be as follows:
  - (a) the image referred to in point 2 of this Annex shall be shown on the display mechanism in proximity to the price of the product, if the price is shown, and in all other cases in proximity to the product;
  - (b) the image shall link to the label set out in Annex III;
  - (c) the label shall be displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
  - (d) the label shall be 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 shall apply;
  - (f) the label shall cease to be displayed 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, shall be the energy efficiency class of the product in a font size equivalent to that of the price, if the price is shown, and in all other cases a clearly visible and legible font size.
- 4. The electronic product information sheet made available by suppliers in accordance with point 1(h) of Article 3 shall be shown on the display mechanism in proximity to the price of the product, if the price is shown, and in all other cases in proximity to the product. The size shall be such that the product information sheet is clearly visible and legible. The product information sheet may be displayed using a nested display or by referring to the product database, in which case the link used for accessing the product information sheet shall clearly and legibly indicate 'Product information sheet'. If a nested display is used, the product information sheet shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

# ANNEX IX

# Verification procedure for market surveillance purposes

The verification tolerances set out in this Annex relate only to the verification of the declared 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.

Where a model has been designed to be able to detect it is being tested (e.g. by recognizing the test conditions or test cycle), and to react specifically by automatically altering its performance during the test with the objective of reaching a more favourable level for any of the parameters specified in this Regulation or included in the technical documentation or included in any of the documentation provided, the model and all equivalent models shall be considered not compliant.

When verifying the compliance of a product model with the requirements laid down in this Regulation, the authorities of the Member States shall apply the following procedure:

- (1) The Member State authorities shall verify one single unit of the model.
- (2) The model shall be considered to comply with the applicable requirements if:
  - (a) the values given in the technical documentation pursuant to point 3 of Article 3 of Regulation (EU) 2017/1369 (declared values), and, where applicable, the values used to calculate these values, are not more favourable for the supplier than the corresponding values given in the test reports; and
  - (b) the values published on the label and in the product information sheet are not more favourable for the supplier than the declared values, and the indicated energy efficiency class is not more favourable for the supplier than the class determined by the declared values; and
  - (c) when the Member State authorities test the unit of the model, the determined values (the values of the relevant parameters as measured in testing and the values calculated from these measurements) comply with the respective verification tolerances as given in Table 12.
- (3) If the results referred to in points 2(a) and (b) are not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.
- (4) If the result referred to in point 2(c) is not achieved, the Member State authorities shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more equivalent models.
- (5) The model shall be considered to comply with the applicable requirements if for these three units, the arithmetical mean of the determined values complies with the respective tolerances given in Table 12.
- (6) If the result referred to in point 5 is not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.
- (7) The Member State authorities shall provide all relevant information to the authorities of the other Member States and to the Commission without delay once a decision has been taken on the non-compliance of the model according to points 3 and 6.

The Member State authorities shall use the measurement and calculation methods set out in Annex IV.

The Member State authorities shall only apply the verification tolerances set out in Table 12 and shall only use the procedure described in points 1 to 7 for the requirements referred to in this Annex. For the parameters in Table 12, no other tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

| Parameters  | Verification<br>tolerances  |  |  |
|---|---|--|--|
| Net volume, and net compartment volume where applicable           | The determined value <sup>a</sup> shall not be more than 3 % or 1 L lower – whichever is the greater value – than the declared value. |  |  |
| Gross volume, and gross<br>compartment volume where<br>applicable | The determined value <sup>a</sup> shall not be more than 3 % or 1 L lower – whichever is the greater value – than the declared value  |  |  |
| TDA, and compartment TDA where applicable                         | The determined value <sup>a</sup> shall not be more than 3 % lower than the declared value.   |  |  |
| E <sub>daily</sub>  | The determined value <sup>a</sup> shall not be more than 10 % higher than the declared value  |  |  |
| AE  | The determined value <sup>a</sup> shall not be more than 10 % higher than the declared value.   |  |  |

| Table 12: | Verification | tolerances | for | measured | parameters |
|-----------|--------------|------------|-----|----------|------------|
|-----------|--------------|------------|-----|----------|------------|

<sup>a</sup> in the case of three additional units tested as prescribed in point 4, the determined value means the arithmetical mean of the values determined for these three additional units.