





**COMMISSION DELEGATED REGULATION (EU) No 1059/2010**  
**of 28 September 2010**  
**supplementing Directive 2010/30/EU of the European Parliament**  
**and of the Council with regard to energy labelling of household**  
**dishwashers**

(Text with EEA relevance)

*Article 1*

**Subject matter and scope**

This Regulation establishes requirements for the labelling of and the provision of supplementary product information on electric mains-operated household dishwashers and electric mains-operated dishwashers that can also be powered by batteries, including those sold for non-household use and built-in household dishwashers.

*Article 2*

**Definitions**

In addition to the definitions laid down in Article 2 of Directive 2010/30/EU, the following definitions shall apply for the purpose of this Regulation:

- (1) ‘household dishwasher’ means a machine which cleans, rinses, and dries dishware, glassware, cutlery and cooking utensils by chemical, mechanical, thermal, and electric means and which is designed to be used principally for non-professional purposes;
- (2) ‘built-in household dishwasher’ means a household dishwasher intended to be installed in a cabinet, a prepared recess in a wall or a similar location, requiring furniture finishing;
- (3) ‘place settings’ means a defined set of crockery, glass and cutlery for use by one person;
- (4) ‘rated capacity’ means the maximum number of place settings together with the serving pieces, as stated by the supplier, which can be treated in a household dishwasher on the programme selected, when loaded in accordance with the supplier’s instructions;
- (5) ‘programme’ means a series of operations that are pre-defined and are declared as suitable by the supplier for specified levels of soil or type of load, or both, and together form a complete cycle;
- (6) ‘programme time’ means the time that elapses from the initiation of the programme until the completion of the programme, excluding any end-user-programmed delay;
- (7) ‘cycle’ means a complete cleaning, rinsing, and drying process, as defined for the selected programme;

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- (8) ‘off-mode’ means a condition where the household dishwasher is switched off using appliance controls or switches accessible to and intended for operation by the end-user during normal use to attain the lowest power consumption that may persist for an indefinite time while the household dishwasher is connected to a power source and used in accordance with the supplier’s instructions; where there is no control or switch accessible to the end-user, ‘off-mode’ means the condition reached after the household dishwasher reverts to a steady-state power consumption on its own;
- (9) ‘left-on mode’ means the lowest power consumption mode that may persist for an indefinite time after completion of the programme and unloading of the household dishwasher without any further intervention by the end-user;
- (10) ‘equivalent household dishwasher’ means a model of household dishwasher placed on the market with the same rated capacity, technical and performance characteristics, energy and water consumption and airborne acoustical noise emissions as another model of household dishwasher placed on the market under a different commercial code number by the same supplier;
- (11) ‘end-user’ means a consumer buying or expected to buy a household dishwasher;
- (12) ‘point of sale’ means a location where household dishwashers are displayed or offered for sale, hire or hire-purchase.

*Article 3***Responsibilities of suppliers**

Suppliers shall ensure that:

- (a) each household dishwasher is supplied with a printed label in the format and containing information as set out in Annex I;
- (b) a product fiche, as set out in Annex II, is made available;
- (c) the technical documentation as set out in Annex III is made available on request to the authorities of the Member States and to the Commission;
- (d) any advertisement for a specific model of household dishwasher contains the energy efficiency class, if the advertisement discloses energy-related or price information;
- (e) any technical promotional material concerning a specific model of household dishwasher which describes its specific technical parameters includes the energy efficiency class of that model;

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- (f) an electronic label in the format and containing the information set out in Annex I is made available to dealers for each household dishwasher model placed on the market from 1 January 2015 with a new model identifier. It may also be made available to dealers for other household dishwasher models;

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- (g) an electronic product fiche as set out in Annex II is made available to dealers for each household dishwasher model placed on the market from 1 January 2015 with a new model identifier. It may also be made available to dealers for other household dishwasher models.

**▼ B***Article 4***Responsibilities of dealers**

Dealers shall ensure that:

- (a) each household dishwasher, at the point of sale, bears the label provided by suppliers in accordance with Article 3(a) on the outside of the front or top of the household dishwasher, in such a way as to be clearly visible;

**▼ M1**

- (b) household dishwashers offered for sale, hire or hire-purchase where the end-user cannot be expected to see the household dishwasher displayed, are marketed with the information provided by suppliers in accordance with Annex IV. Where the offer is made through the internet and an electronic label and an electronic product fiche have been made available in accordance with Article 3(f) and 3(g) the provisions of Annex VIII shall apply instead;

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- (c) any advertisement for a specific model of household dishwasher contains a reference to its energy efficiency class, if the advertisement discloses energy-related or price information;
- (d) any technical promotional material concerning a specific model of household dishwasher which describes its specific technical parameters includes a reference to the energy efficiency class of that model.

*Article 5***Measurement methods**

The information to be provided pursuant to Articles 3 and 4 shall be obtained by reliable, accurate and reproducible measurement methods, which take into account the recognised state-of-the-art measurement methods.

*Article 6***Verification procedure for market surveillance purposes**

Member States shall apply the procedure laid down in Annex V when assessing the conformity of the declared energy efficiency class, the annual energy consumption, annual water consumption, drying efficiency index, programme time, power consumption in off-mode and left-on mode, duration of the left-on mode and airborne acoustical noise emissions.

**▼B***Article 7***Revision**

The Commission shall review this Regulation in the light of technological progress no later than four years after its entry into force. The review shall in particular assess the verification tolerances set out in Annex V.

*Article 8***Repeal**

Directive 97/17/EC shall be repealed from 20 December 2011.

*Article 9***Transitional provisions**

1. Articles 3(d), (e), 4(b), (c) and (d) shall not apply to printed advertisement and printed technical promotional material published before 30 March 2012.
2. Household dishwashers placed on the market before 30 November 2011 shall comply with the provisions set out in Directive 97/17/EC.
3. If an implementing measure for Directive 2009/125/EC of the European Parliament and of the Council <sup>(1)</sup> with regards to ecodesign requirements for household dishwashers was adopted, household dishwashers which comply with the provisions of this implementing measure with respect to the cleaning efficiency requirements and with the provisions of this Regulation, and which are placed on the market or offered for sale, hire or hire-purchase before 20 December 2011 shall be regarded as complying with the requirements of Directive 97/17/EC.

*Article 10***Entry into force and application**

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

It shall apply from 20 December 2011. However, Articles 3(d), (e), 4(b), (c) and (d) shall apply from 20 April 2012.

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

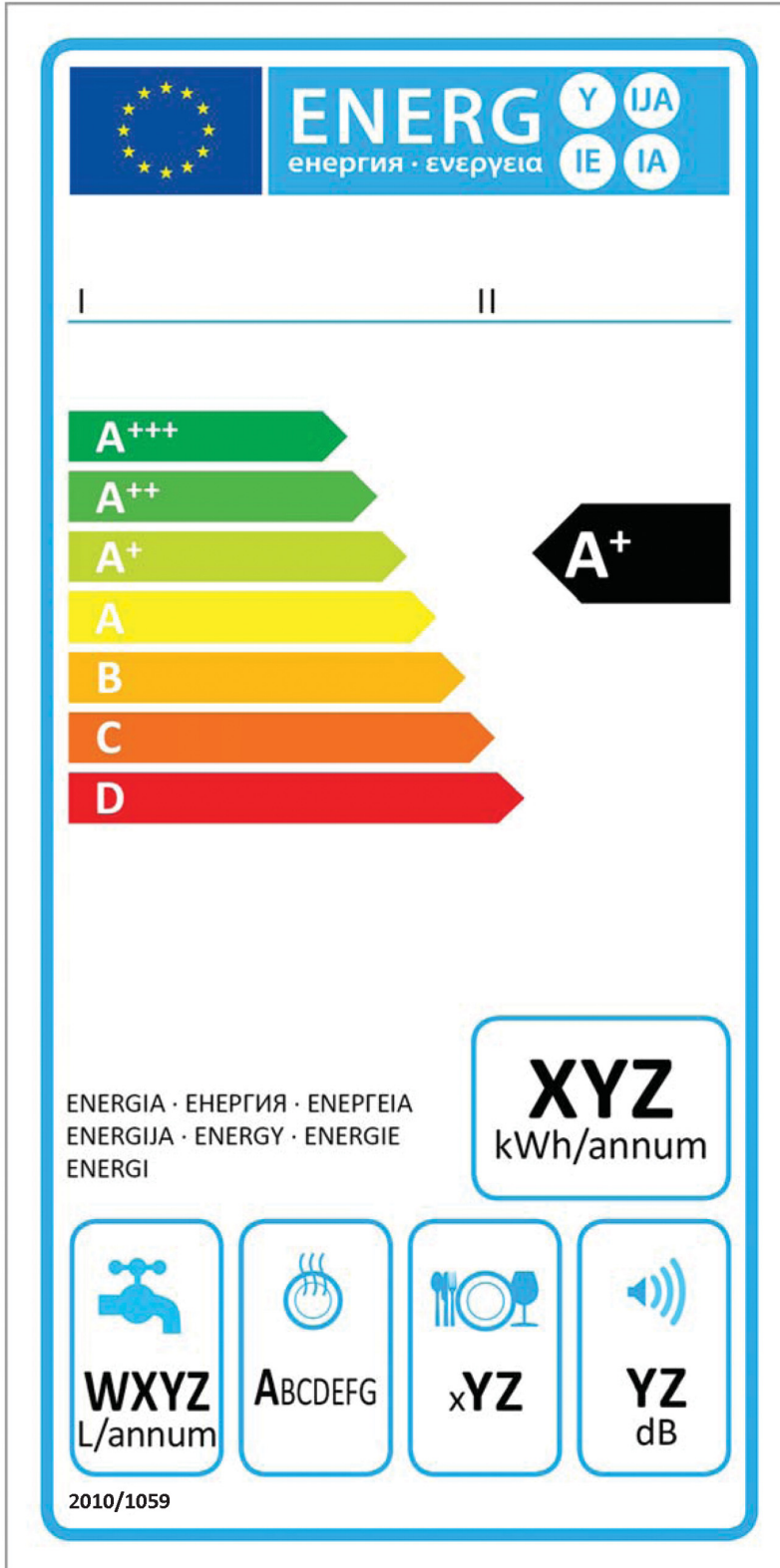
<sup>(1)</sup> OJ L 285, 31.10.2009, p. 10.

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ANNEX I

Label

1. LABEL



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- (1) The following information shall be included in the label:
- I. supplier's name or trade mark;
  - II. supplier's model identifier, where 'model identifier' means the code, usually alphanumeric, which distinguishes a specific household dishwasher model from other models with the same trade mark or supplier's name;
  - III. the energy efficiency class determined in accordance with point 1 of Annex VI; the head of the arrow containing the energy efficiency class of the household dishwasher shall be placed at the same height as the head of the arrow of the relevant energy efficiency class;
  - IV. annual energy consumption ( $AE_C$ ) in kWh per year, rounded up to the nearest integer and calculated in accordance with point 1(b) of Annex VII;
  - V. annual water consumption ( $AW_C$ ) in litres per year, rounded up to the nearest integer and calculated in accordance with point 3 of Annex VII;
  - VI. the drying efficiency class determined in accordance with point 2 of Annex VI;
  - VII. rated capacity in standard place settings, for the standard cleaning cycle;
  - VIII. airborne acoustical noise emissions expressed in dB(A) re 1 pW and rounded to the nearest integer.
- (2) The design of the label shall be in accordance with point 2. By way of derogation, where a model has been granted an 'EU Ecolabel' under Regulation (EC) No 66/2010 of the European Parliament and of the Council <sup>(1)</sup>, a copy of the EU Ecolabel may be added.

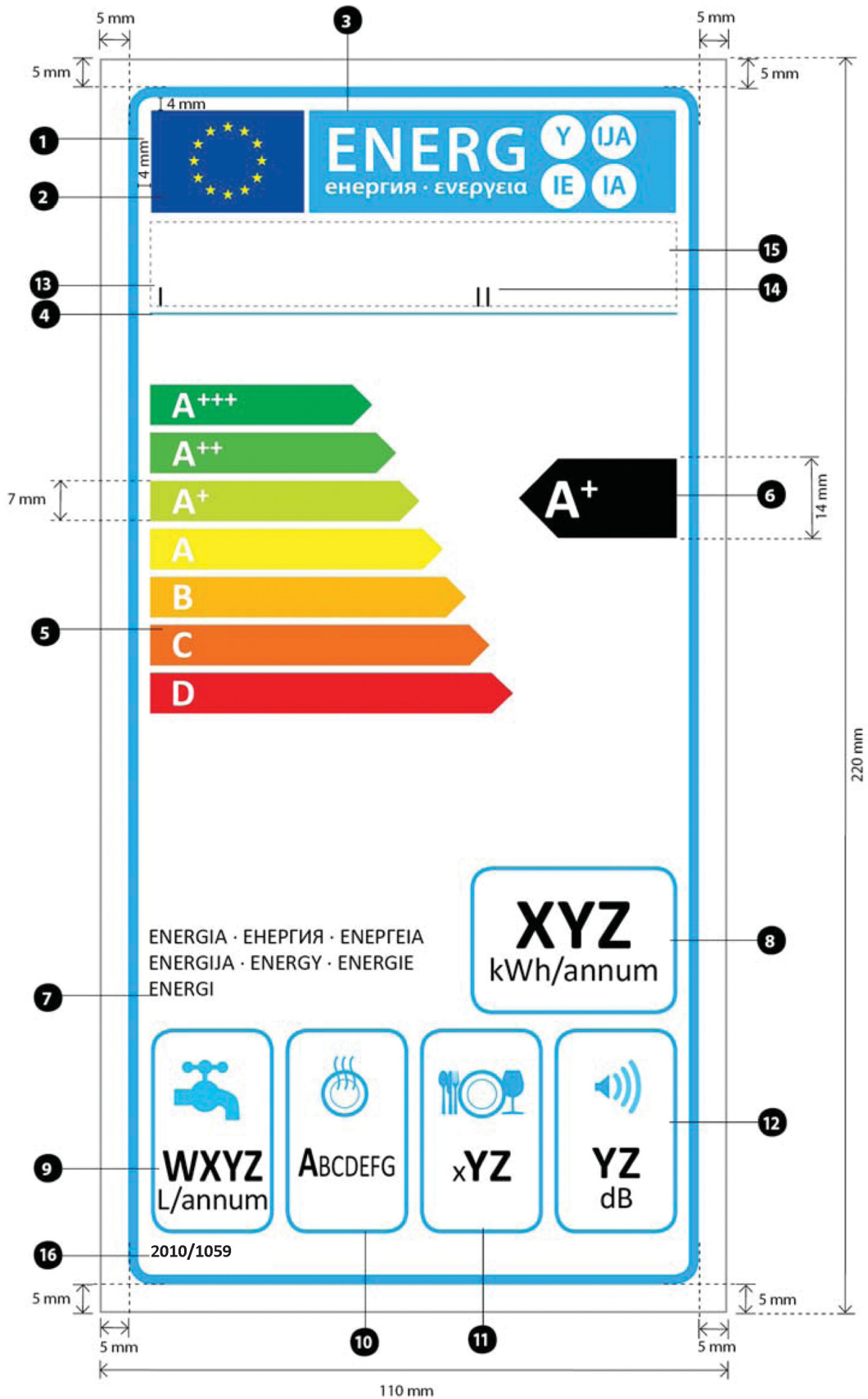
**2. LABEL DESIGN**

The design of the label shall be as in the figure below.

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<sup>(1)</sup> OJ L 27, 30.1.2010, p. 1.

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Whereby

- (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 must nevertheless remain proportionate to the specifications above.
- (b) The background shall be white.
- (c) Colours shall be CMYK — cyan, magenta, yellow and black, following this example: 00-70-X-00: 0 % cyan, 70 % magenta, 100 % yellow, 0 % black.
- (d) The label shall fulfil all of the following requirements (numbers refer to the figure above):

**1 Border stroke:** 5 pt — colour: Cyan 100 % — round corners: 3,5 mm.

**2 EU logo** — colours: X-80-00-00 and 00-00-X-00.

**3 Energy logo:** colour: X-00-00-00. Pictogram as depicted; EU logo and energy logo (combined): width: 92 mm, height: 17 mm.

**4 Sub-logos border:** 1 pt — colour: Cyan 100 % — length: 92,5 mm.

**5 A-G scale**

— **Arrow:** height: 7 mm, 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 class: 00-X-X-00.

— **Text:** Calibri bold 18 pt, capitals and white; '+' symbols: Calibri bold 12 pt, capitals, white, aligned on a single row.

**6 Energy efficiency class**

— **Arrow:** width: 26 mm, height: 14 mm, 100 % black.

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

**7 Energy**

— **Text:** Calibri regular 11 pt, capitals, 100 % black.

**8 Annual energy consumption**

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

— **Value:** Calibri bold 37 pt, 100 % black.

— **Second line:** Calibri regular 17 pt, 100 % black.

**▼ B****9 Annual water consumption:**

— **Pictogram as depicted**

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

— **Value:** Calibri bold 24 pt, 100 % black; and Calibri regular 16 pt, 100 % black.

**10 Drying efficiency class:**

— **Pictogram as depicted**

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

— **Value:** Calibri regular 16 pt, horizontal scale 75 %, 100 % black; and Calibri bold 22 pt, horizontal scale 75 %, 100 % black.

**11 Rated capacity:**

— **Pictogram as depicted**

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

— **Value:** Calibri bold 24 pt, 100 % black; and Calibri regular 16 pt, 100 % black.

**12 Noise emissions:**

— **Pictogram as depicted**

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

— **Value:** Calibri bold 24 pt, 100 % black; and Calibri regular 16 pt, 100 % black.

**13 Supplier's name or trade mark****14 Supplier's model identifier**

**15** The supplier's name or trademark and model identifier should fit in a space of 92 × 15 mm.

**16 Numbering of the Regulation:** Calibri bold 9 pt, 100 % black.



## ANNEX II

### Product fiche

1. The information in the product fiche of the household dishwasher 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, meaning the code, usually alphanumeric, which distinguishes a specific household dishwasher model from other models with the same trade mark or supplier's name;
  - (c) rated capacity, in standard place settings, for the standard cleaning cycle;
  - (d) energy efficiency class, in accordance with point 1 of Annex VI;
  - (e) where the household dishwasher has been awarded an 'EU Ecolabel' under Regulation (EC) No 66/2010, this information may be included;
  - (f) annual energy consumption ( $AE_C$ ) in kWh per year, rounded up to the nearest integer and calculated in accordance with point 1(b) of Annex VII. It shall be described as 'Energy consumption "X" kWh per year, based on 280 standard cleaning cycles using cold water fill and the consumption of the low power modes. Actual energy consumption will depend on how the appliance is used.';
  - (g) the energy consumption ( $E_\nu$ ) of the standard cleaning cycle;
  - (h) the power consumption in off-mode and left-on mode ( $P_o$  and  $P_l$ );
  - (i) annual water consumption ( $AW_C$ ), in litres per year, rounded up to the nearest integer and calculated in accordance with point 3 of Annex VII; it shall be described as: 'Water consumption "X" litres per year, based on 280 standard cleaning cycles. Actual water consumption will depend on how the appliance is used.';
  - (j) drying efficiency class determined in accordance with point 2 of Annex VI expressed as 'Drying efficiency class "X" on a scale from G (least efficient) to A (most efficient)'. Where this information is provided in a table, this may be expressed by other means provided it is clear that the scale is from G (least efficient) to A (most efficient);
  - (k) indication that the 'standard programme' is the standard cleaning cycle to which the information in the label and the fiche relates, that this programme is suitable to clean normally soiled tableware, and that it is the most efficient programme in terms of combined energy and water consumption;
  - (l) programme time for the standard cleaning cycle, in minutes and rounded to the nearest integer;
  - (m) the duration of the left-on mode ( $T_l$ ) if the household dishwasher is equipped with a power management system;
  - (n) airborne acoustical noise emissions expressed in dB(A) re 1 pW and rounded to the nearest integer;
  - (o) if the household dishwasher is intended to be built-in, an indication to this effect.
2. One fiche may cover a number of household dishwasher models supplied by the same supplier.
3. The information contained in the fiche may be given in the form of a copy of the label, either in colour or in black and white. Where this is the case, the information listed in point 1 not already displayed on the label shall also be provided.

*ANNEX III***Technical documentation**

1. The technical documentation referred to in Article 3(c) shall include:
  - (a) the name and address of the supplier;
  - (b) a general description of the dishwasher model, sufficient for it to be unequivocally and easily identified;
  - (c) where appropriate, the references of the harmonised standards applied;
  - (d) where appropriate, the other technical standards and specifications used;
  - (e) identification and signature of the person empowered to bind the supplier;
  - (f) technical parameters for measurements as follows:
    - (i) *energy consumption*;
    - (ii) *water consumption*;
    - (iii) *programme time*;
    - (iv) *drying efficiency*;
    - (v) *power consumption in 'off-mode'*;
    - (vi) *power consumption in 'left-on mode'*;
    - (vii) *'left-on mode' duration*;
    - (viii) *airborne acoustical noise emissions*;
  - (g) the results of calculations performed in accordance with Annex VII.
2. Where the information included in the technical documentation file for a particular household dishwasher model has been obtained by calculation on the basis of design, or extrapolation from other equivalent household dishwashers, or both, the documentation shall include details of such calculations or extrapolations, or both, and of tests undertaken by suppliers to verify the accuracy of the calculations undertaken. The information shall also include a list of all other equivalent household dishwasher models where the information was obtained on the same basis.

**▼B***ANNEX IV***Information to be provided in the cases where end-users cannot be expected to see the product displayed**

1. The information referred to in Article 4(b) shall be provided in the following order:
  - (a) the energy efficiency class, as defined in point 1 of Annex VI;
  - (b) the rated capacity in standard place settings for the standard cleaning cycle;
  - (c) the annual energy consumption ( $AE_C$ ) in kWh per year, rounded up to the nearest integer and calculated in accordance with point 1(b) of Annex VII;
  - (d) the annual water consumption ( $AW_C$ ) in litres per year, rounded up to the nearest integer and calculated in accordance with point 3 of Annex VII;
  - (e) the drying efficiency class in accordance with point 2 of Annex VI;
  - (f) airborne acoustical noise emissions in dB(A) re 1 pW and rounded to the nearest integer;
  - (g) if the model is intended to be built-in, an indication to this effect.
2. Where other information contained in the product fiche is also provided, it shall be in the form and order specified in Annex II.
3. The size and font in which all the information referred in this Annex is printed or shown shall be legible.

▼ M2*ANNEX V***Product compliance verification by market surveillance authorities**

The verification tolerances set out in 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.

When verifying the compliance of a product model with the requirements laid down in this Delegated Regulation, for the requirements referred to in this Annex, 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 Article 5(b) of Directive 2010/30/EU (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 pursuant to point (iii) of the abovementioned Article; and
  - (b) the values published on the label and in the product fiche 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 1.
- (3) If the results referred to in points 2(a) or (b) are not achieved, the model and all models that have been listed as equivalent household dishwasher models in the supplier's technical documentation shall be considered not to comply with this Delegated 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 different models that have been listed as equivalent models in the supplier's technical documentation.
- (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 1.
- (6) If the result referred to in point 5 is not achieved, the model and all models that have been listed as equivalent household dishwasher models in the supplier's technical documentation shall be considered not to comply with this Delegated 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 after a decision being taken on the non-compliance of the model according to points 3 and 6.

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Member States' authorities shall use measurement procedures which take into account the generally recognised, state-of-the-art, reliable, accurate and reproducible measurement methods, including methods set out in documents whose reference numbers have been published for that purpose in the *Official Journal of the European Union*. The Member State authorities shall use the measurement and calculation methods set out in Annex VII.

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

Table 1

**Verification tolerances**

Parameters	Verification tolerances
Annual energy consumption ( $AE_C$ )	The determined value shall not exceed the declared value of $AE_C$ by more than 10 %.
Water consumption ( $W_t$ )	The determined value shall not exceed the declared value of $W_t$ by more than 10 %.
Drying efficiency index ( $I_D$ )	The determined value shall not be less than the declared value of $I_D$ by more than 19 %.
Energy consumption ( $E_t$ )	The determined value shall not exceed the declared value of $E_t$ by more than 10 %. Where three additional units need to be selected, the arithmetic mean of the determined values of these three units shall not exceed the declared value of $E_t$ by more than 6 %.
Programme time ( $T_t$ )	The determined value shall not exceed the declared values $T_t$ by more than 10 %.
Power consumption in off mode and left-on mode ( $P_o$ and $P_l$ )	The determined value of power consumption $P_o$ and $P_l$ of more than 1,00 W shall not exceed the declared values of $P_o$ and $P_l$ by more than 10 %. The determined value of power consumption $P_o$ and $P_l$ of less than or equal to 1,00 W shall not exceed the declared value of $P_o$ and $P_l$ by more than 0,10 W.
Duration of left-on mode ( $T_l$ )	The determined value shall not exceed the declared value of $T_l$ by more than 10 %.
Airborne acoustical noise emissions	The determined value shall meet the declared value.



## ANNEX VI

## Energy efficiency classes and drying efficiency classes

## 1. ENERGY EFFICIENCY CLASSES

The energy efficiency class of a household dishwasher shall be determined on the basis of its Energy Efficiency Index (*EEI*) as set out in Table 1.

The Energy Efficiency Index (*EEI*) of a household dishwasher shall be calculated in accordance with point 1 of Annex VII.

Table 1

## Energy efficiency classes

Energy efficiency class	Energy Efficiency Index
A+++ (most efficient)	$EEI < 50$
A++	$50 \leq EEI < 56$
A+	$56 \leq EEI < 63$
A	$63 \leq EEI < 71$
B	$71 \leq EEI < 80$
C	$80 \leq EEI < 90$
D (least efficient)	$EEI \geq 90$

## 2. DRYING EFFICIENCY CLASSES

The drying efficiency class of a household dishwasher shall be determined on the basis of its Drying Efficiency Index (*I<sub>D</sub>*) as set out in Table 2.

The Drying Efficiency Index (*I<sub>D</sub>*) shall be calculated in accordance with point 2 of Annex VII.

Table 2

## Drying efficiency classes

Drying efficiency class	Drying Efficiency Index
A (most efficient)	$I_D > 1,08$
B	$1,08 \geq I_D > 0,86$
C	$0,86 \geq I_D > 0,69$
D	$0,69 \geq I_D > 0,55$
E	$0,55 \geq I_D > 0,44$
F	$0,44 \geq I_D > 0,33$
G (least efficient)	$0,33 \geq I_D$





ANNEX VII

**Method for calculating the Energy Efficiency Index, the Drying Efficiency Index and water consumption**

1. CALCULATION OF THE ENERGY EFFICIENCY INDEX

For the calculation of the Energy Efficiency Index (*EEI*) of a household dishwasher model, the annual energy consumption of the household dishwasher is compared to its standard annual energy consumption.

- (a) The Energy Efficiency Index (*EEI*) is calculated as follows and rounded to one decimal place:

$$EEI = \frac{AE_C}{SAE_C} \times 100$$

where:

$AE_C$  = annual energy consumption of the household dishwasher;

$SAE_C$  = standard annual energy consumption of the household dishwasher.

- (b) The annual energy consumption ( $AE_C$ ) is calculated in kWh/year as follows and rounded to two decimal places:

(i)

$$AE_C = E_t \times 280 + \frac{\left[ P_o \times \frac{525\,600 - (T_t \times 280)}{2} + P_l \times \frac{525\,600 - (T_t \times 280)}{2} \right]}{60 \times 1\,000}$$

where:

$E_t$  = energy consumption for the standard cycle, in kWh and rounded to three decimal places;

$P_l$  = power in 'left-on mode' for the standard cleaning cycle, in W and rounded to two decimal places;

$P_o$  = power in 'off-mode' for the standard cleaning cycle, in W and rounded to two decimal places;

$T_t$  = programme time for the standard cleaning cycle, in minutes and rounded to the nearest minute;

280 = total number of standard cleaning cycles per year;

- (ii) Where the household dishwasher is equipped with a power management system, with the household dishwasher reverting automatically to 'off-mode' after the end of the programme,  $AE_C$  is calculated taking into consideration the effective duration of 'left-on mode', according to the following formula:

$$AE_C = E_t \times 280 + \frac{\{(P_l \times T_l \times 280) + P_o \times [525\,600 - (T_l \times 280) - (T_l \times 280)]\}}{60 \times 1\,000}$$

where:

$T_l$  = measured time in 'left-on mode' for the standard cleaning cycle, in minutes and rounded to the nearest minute;

280 = total number of standard cleaning cycles per year.

**▼ B**

(c) The standard annual energy consumption ( $SAE_C$ ) is calculated in kWh/year as follows and rounded to two decimal places:

(i) for household dishwashers with rated capacity  $ps \geq 10$  and width > 50 cm:

$$SAE_C = 7,0 \times ps + 378$$

(ii) for household dishwashers with rated capacity  $ps \leq 9$  and household dishwashers with rated capacity  $9 < ps \leq 11$  and width  $\leq 50$  cm:

$$SAE_C = 25,2 \times ps + 126$$

where:

$ps$  = number of place settings.

## 2. CALCULATION OF THE DRYING EFFICIENCY INDEX

For the calculation of the Drying Efficiency Index ( $I_D$ ) of a household dishwasher model, the drying efficiency of the household dishwasher is compared to the drying efficiency of a reference dishwasher, where the reference dishwasher shall have the characteristics indicated in the generally recognised state-of-the-art measurement methods, including methods set out in documents, the reference numbers of which have been published for that purpose in the *Official Journal of the European Union*.

(a) The Drying Efficiency Index ( $I_D$ ) is calculated as follows and rounded to two decimal places:

$$\ln I_D = \frac{1}{n} \times \sum_{i=1}^n \ln \left( \frac{D_{T,i}}{D_{R,i}} \right)$$

$$I_D = \exp(\ln I_D)$$

where:

$D_{T,i}$  = drying efficiency of the household dishwasher under test for one test cycle ( $i$ );

$D_{R,i}$  = drying efficiency of the reference dishwasher for one test cycle ( $i$ );

$n$  = number of test cycles,  $n \geq 5$ .

(b) The drying efficiency ( $D$ ) is the average of the wet score of each load item after completion of a standard cleaning cycle. The wet score is calculated as shown in Table 1:

Table 1

Number of water traces ( $W_T$ ) or wet streak ( $W_S$ )	Total wet area ( $A_w$ ) in mm <sup>2</sup>	Wet score
$W_T = 0$ and $W_S = 0$	Not applicable	2 (most efficient)
$1 < W_T \leq 2$ or $W_S = 1$	$A_w < 50$	1
$2 < W_T$ or $W_S = 2$ or $W_S = 1$ and $W_T = 1$	$A_w > 50$	0 (least efficient)

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## 3. CALCULATION OF THE ANNUAL WATER CONSUMPTION

The annual water consumption ( $AW_C$ ) of a household dishwasher is calculated, in litres and rounded up to the nearest integer, as:

$$AW_C = W_t \times 280$$

where:

$W_t$  = water consumption for the standard cleaning cycle, in litres and rounded to one decimal place.

▼ **M1***ANNEX VIII***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(f) shall be shown on the display mechanism in proximity to the price of 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 2 of Annex I. 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.
- (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 on the arrow the energy efficiency class of the product in white in a font size equivalent to that of the price; and
  - (c) have 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 shall be shown on the display mechanism in proximity to the price of the product;
  - (b) the image shall link to the label;
  - (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;

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- (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.
- (5) The appropriate product fiche made available by suppliers in accordance with Article 3(g) shall be shown on the display mechanism in proximity to 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 the fiche shall clearly and legibly indicate 'Product fiche'. If nested display is used, the product fiche shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.