2023/2533

22.11.2023

COMMISSION REGULATION (EU) 2023/2533

of 17 November 2023

implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble dryers, amending Commission Regulation (EU) 2023/826, and repealing Commission Regulation (EU) No 932/2012

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

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

Having regard to Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products ([1]) and in particular Article 15(1) thereof,

Whereas:

(1) Pursuant to Article 15 of Directive 2009/125/EC the Commission is to set ecodesign requirements for energy-related products which account for significant volumes of sales and trade in the Union and which have a significant environmental impact and presenting significant potential for improvement through design in terms of their environmental impact, without entailing excessive costs.

(2) The Ecodesign Working Plan 2016-2019 ([2]) drawn up by the Commission in accordance with Article 16(1) of Directive 2009/125/EC, sets out the working priorities under the ecodesign and energy labelling framework for the years 2016 to 2019. The working plan identifies the energy-related product groups as priorities for preparatory studies and, if necessary, adoption of implementing measures. That includes household tumble dryers. Furthermore, household tumble dryers fall into the three main groups earmarked for review before the end of 2025 by the ecodesign and energy labelling working plan 2022-2024 ([3]).

(3) Measures envisaged by the Ecodesign Working Plan 2022-2024 have the potential to deliver an estimated total annual final energy savings in excess of 170 TWh in 2030, which is equivalent to reducing greenhouse gas emissions by approximately 24 million tonnes a year in 2030. For household tumble dryers, electricity savings of 0,6 TWh/year could potentially be achieved by 2030, and 1,7 TWh/year by 2040.

(4) Commission Regulation (EU) No 932/2012 ([4]) established ecodesign requirements for household tumble dryers.

(5) Article 7 of Regulation (EU) No 932/2012 requires the Commission to review that Regulation in the light of technological progress. The Commission carried out the review and analysed the technical, environmental and economic aspects of household tumble dryers as well as real-life user behaviour. The review was carried out in close cooperation with stakeholders and interested parties from the Union and third countries. The results of the review were made public and presented to the Consultation Forum established in accordance with Article 18 of Directive 2009/125/EC.

([1]) OJ L 285, 31.10.2009, p. 10.
([2]) Communication from the Commission Ecodesign Working Plan 2016-2019 (COM(2016) 773 final of 30.11.2016).
([3]) Communication from the Commission Ecodesign and Energy Labelling Working Plan 2022-2024 2022/C 182/01 (OJ C 182, 4.5.2022, p. 1).
([4]) Commission Regulation (EU) No 932/2012 of 3 October 2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household tumble driers (OJ L 278, 12.10.2012, p. 1).

(6) The environmental aspects of household tumble dryers, identified as significant for the purposes of this Regulation are the consumption of energy during the use phase, the generation of waste at the end of life, emissions to air in the production phase due to the extraction and processing of raw materials, and in the use phase due to the consumption of electricity.

(7) In the Union, annual energy consumption by household tumble dryers subject to Regulation (EU) No 932/2012 was estimated at 10,5 TWh/year in 2020. In a business-as-usual scenario, that consumption is expected to decrease to 9 TWh/year in 2030. That decrease may occur more quickly if existing ecodesign requirements are updated to remove household tumble dryers with low energy efficiency performance from the market.

(8) The EU action plan for the circular economy ([5]) and the Ecodesign and Energy Labelling Working Plan 2022-2024 underline the importance of using the ecodesign framework in order to support the move towards more resource efficient and circular economy. It is estimated that the service life-time of household tumble dryers has decreased in recent years from 14 to around 12 years and the trend is likely to continue in the absence of incentives to properly maintain and repair household tumble dryers. Therefore this Regulation should lay down appropriate requirements contributing to circular economy objectives, in particular making the availability of spare parts mandatory and improving the quality of information on self-maintenance by the end-user.

(9) The review referred to in recital (5) indicates that a large majority of tumble dryers on the market feature condensation efficiencies above 80 %. The minimum threshold for the condensation efficiency should be raised from 70 % to 80 %.

(10) Multi-drum household tumble dryers feature the same basic characteristics as household tumble dryers and should therefore be included in the scope of this Regulation.

(11) Built-in household tumble dryers are installed in cabinetry or encased by panels that, when tested for conformity, retain the heat produced inside the tumble dryer, leading to higher energy efficiencies and contributing to compliance with ecodesign requirements. The definition of built-in household tumble dryers should be improved in order to differentiate them from other household tumble dryers that are just placed under a panel but not encased by panels, and therefore cannot be tested as built-in household tumble dryers.

(12) Household tumble dryers powered by batteries which can also be connected to the mains through an AC/DC converter purchased separately, are likely to be used in mobile settings, such as but not limited to motorhomes. They should therefore be excluded from the scope of this Regulation.

(13) Specific thresholds for the low power modes of household tumble dryers should be laid down. The requirements of Commission Regulation (EU) 2023/826 ([6]) should not apply to products covered by the scope of this Regulation. Regulation (EU) 2023/826 should therefore be amended accordingly.

(14) The timeline for the new requirement on maximum power consumption in off-mode for household tumble dryers should be aligned with the timeline set out for power consumption in off-mode under Regulation (EU) 2023/826.

([5]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Closing the loop – An EU action plan for the circular economy (COM(2015) 614 final of 2.12.2015).

([6]) Commission Regulation (EU) 2023/826 of 17 April 2023 laying down ecodesign requirements for off mode, standby mode, and networked standby energy consumption of electrical and electronic household and office equipment pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 1275/2008 and (EC) No 107/2009 (OJ L 103, 18.4.2023, p. 29).

(15) The relevant product parameters should be measured using reliable, accurate and reproducible methods. Those methods should take into account recognised state-of-the-art measurement methods including, where available, harmonised standards adopted by the European standardisation organisations listed in Annex I to Regulation (EU) No 1025/2012 ([7]) of the European Parliament and of the Council.

(16) In accordance with Article 8(2) of Directive 2009/125/EC, this Regulation should specify the applicable conformity assessment procedures.

(17) To facilitate compliance checks, manufacturers, importers or authorised representatives should provide information in the technical documentation referred to in Annexes IV and V to Directive 2009/125/EC in so far as that information relates to the requirements laid down in this Regulation.

(18) Where parameters in the technical documentation specified by this Regulation are identical to the parameters in the product information sheet specified by Commission Delegated Regulation (EU) 2023/2534 ([8]), manufacturers, importers or authorised representatives should enter the corresponding data into the product database in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council ([9]) and should no longer need to provide them to market surveillance authorities as part of the technical documentation.

(19) In order to protect consumers, products that in test conditions automatically alter their performance in terms of the declared parameters should not be allowed on the market. In the same way, software updates to the product should not worsen performance in terms of the declared parameters.

(20) The verification procedure for market surveillance purposes should provide for cases where tests performed on household tumble dryers do not produce results that are valid for comparison with the values declared by the manufacturer.

(21) In accordance with Part 3, point (2), of Annex I to Directive 2009/125/EC, indicative benchmarks for best available technologies should be identified to make information on the life-cycle environmental performance of products subject to this Regulation widely available and easily accessible.

(22) The possible leakage of refrigerant contained in heat pump tumble dryers may contribute to global warming. The household tumble dryer should display in a visible place the type of refrigerant used in order to facilitate appropriate handling of the refrigerant when the appliance is being repaired, recycled or scrapped.

(23) Delegated Regulation (EU) 2023/807 ([10]) establishes a primary energy factor for electricity of 1,9 (conversion coefficient) to be applied when energy savings are calculated in primary energy terms based on final energy consumption. This primary energy factor should be applied when comparing the energy consumption for electric and gas-fired tumble dryers.

(24) This Regulation should be reviewed to assess the appropriateness and effectiveness of its provisions in achieving its goals. The timing of the review should be sufficient to allow all provisions to be implemented and produce an effect on the market.

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

([8]) Commission Delegated Regulation (EU) 2023/2534 of 13 July 2023 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household tumble dryers and repealing Commission Delegated Regulation (EU) No 392/2012 (OJ L, 2023/2534, 22.11.2023, ELI: http://data.europa.eu/eli/reg_del/2023/2534/oj).

([9]) Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling and repealing Directive 2010/30/EU (OJ L 198, 28.7.2017, p. 1).

([10]) Commission Delegated Regulation (EU) 2023/807 of 15 December 2022 on revising the primary energy factor for electricity in application of Directive 2012/27/EU of the European Parliament and of the Council (OJ L 101, 14.4.2023, p. 16).

(25) In order to facilitate the transition from Regulation (EU) No 932/2012 to this Regulation, use of the new term 'eco' should be allowed from the entry into force of this Regulation. Further, at the same time, manufacturers should be allowed to meet the requirements of this Regulation 4 months before its date of application.

(26) In order to ensure that household tumble dryers are able to be effectively repaired, the price of spare parts should be reasonable and should not discourage repair. To create transparency and incentivise the setting of reasonable prices, the indicative pre-tax price for spare parts provided pursuant to this Regulation should be accessible on a free access website.

(27) The measures provided for in this Regulation are in accordance with the opinion of the Committee set up by Article 19 of Directive 2009/125/EC.

(28) Regulation (EU) No 932/2012 should be repealed with effect from 30 June 2025,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

1. This Regulation lays down ecodesign requirements for the placing on the market or the putting into service of electric mains-operated and gas-fired household tumble dryers. It also applies to built-in household tumble dryers, multi-drum household tumble dryers and electric mains-operated household tumble dryers that can also be powered by batteries.

2. This Regulation shall not apply to:

(a) household washer-dryers and household spin-extractors;

(b) tumble dryers within the scope of Directive 2006/42/EC of the European Parliament and of the Council ([11]);

(c) battery-operated household tumble-dryers that can be connected to the mains through an AC/DC converter purchased separately.

3. The requirements in Sections 2 and 3, and Section 6, points (1)(a) and (1)(b) of Annex II shall not apply to household tumble dryers with a rated capacity for the eco programme of 3 kg or less.

Article 2

Definitions

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

(1) 'household tumble dryer' means an appliance in which textiles are dried by tumbling in a rotating drum through which heated air is passed and which is declared by the manufacturer in the declaration of conformity as complying with Directive 2014/35/EU of the European Parliament and of the Council ([12]) or with Directive 2014/53/EU of the European Parliament and of the Council ([13]);

(2) 'mains' means the electricity supply from the grid of 230 (± 10 %) volts of alternating current at 50 Hz;

(3) 'gas-fired tumble dryer' means a household tumble dryer which uses gas to heat the inside air;

([11]) Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (OJ L 157, 9.6.2006, p. 24).

([12]) Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (OJ L 96, 29.3.2014, p. 357).

([13]) Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC (OJ L 153, 22.5.2014, p. 62).

(4) 'built-in household tumble dryer' means a household tumble dryer that is designed, tested and marketed exclusively to comply with all the following characteristics:

(a) to be installed in cabinetry or encased (top and/or bottom, and sides) by panels;

(b) to be securely fastened to the sides, top or floor of the cabinetry or panels;

(c) to be equipped with an integral factory-finished face or to be fitted with a custom front panel;

(5) 'household washer-dryer' means an appliance as defined in Article 2(4) of Commission Regulation (EU) 2019/2023 ([14]);

(6) 'household spin-extractor' means an appliance in which water is removed from the textiles by centrifugal action in a rotating drum and drained through an automatic pump or by gravity and which is designed to be used principally for non-professional purposes and is also commercially known as 'spin-dryer';

(7) 'multi-drum household tumble dryer' means a household tumble dryer equipped with more than one drum, whether in separate casings or in the same casing;

(8) 'equivalent model' means a model which has the same technical characteristics relevant for the technical information to be provided, but which is placed on the market or put into service by the same manufacturer, importer or authorised representative as another model with a different model identifier;

(9) 'programme' means a series of operations that are pre-defined and which are declared by the manufacturer, importer or authorised representative as suitable for drying certain types of textile;

(10) 'model identifier' means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trade mark or the same manufacturer's, importer's or authorised representative's name;

(11) 'declared values' means the values provided by the manufacturer, importer or authorised representative for the stated, calculated or measured technical parameters in accordance with Article 4, for the verification of compliance by the Member State authorities;

(12) 'product database' means a database as defined in Article 2, point (25) of Regulation (EU) 2017/1369;

(13) 'rated capacity' means the maximum mass in kilograms, stated by the manufacturer, importer or authorised representative, at 0,5 kg intervals, of dry textiles of a particular type, which can be treated in one drying cycle of a household tumble dryer on the selected programme, when loaded in accordance with the manufacturer's instructions;

(14) 'eco programme' means a programme which is able to dry cotton laundry from an initial moisture content of the load of 60 % down to a final moisture content of the load of 0 %;

(15) 'initial moisture content' means the amount of moisture contained in the load at the beginning of the drying cycle;

(16) 'final moisture content' means the amount of moisture contained in the load at the end of the drying cycle;

(17) 'drying cycle' means a complete drying process, as defined by the required programme, consisting of a series of different operations including heating and tumbling.

For the purposes of Annexes II to V, additional definitions set out in Annex I apply.

([14]) Commission Regulation (EU) 2019/2023 of 1 October 2019 laying down ecodesign requirements for household washing machines and household washer-dryers pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1015/2010 (OJ L 315, 5.12.2019, p. 285).

Article 3

Ecodesign requirements

1. Household tumble dryers shall meet the ecodesign requirements set out in Annex II.

2. Compliance with ecodesign requirements shall be measured and calculated in accordance with the methods set out in Annex III.

Article 4

Conformity assessment

1. The conformity assessment procedure referred to in Article 8 of Directive 2009/125/EC shall follow the internal design control system set out in Annex IV to that Directive or the management system set out in Annex V to that Directive.

2. For the purposes of the conformity assessment referred to in Article 8 of Directive 2009/125/EC, the technical documentation file shall contain the declared values of parameters listed in Sections 2, 3 and 4 of Annex II to this Regulation and the details and results of the calculations carried out in accordance with Annex III to this Regulation.

3. Where the information included in the technical documentation for a particular model has been obtained by either of the following means, the technical documentation shall include the details of the 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:

(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.

4. The technical documentation shall include a list of all equivalent models, including the model identifiers.

5. The technical documentation shall include the information in the order and as set out in Annex VI to Delegated Regulation (EU) 2023/2534. For market surveillance purposes, manufacturers, importers or authorised representatives may, without prejudice to point 2(g) of Annex IV to Directive 2009/125/EC, refer to the technical documentation uploaded to the product database which contains the same information as laid down in Delegated Regulation (EU) 2023/2534.

Article 5

Verification procedure for market surveillance purposes

Member States shall apply the verification procedure set out in Annex IV to this Regulation when performing the market surveillance checks referred to in Article 3(2) of Directive 2009/125/EC.

Article 6

Circumvention

1. Manufacturers, importers or authorised representatives shall not place on the market or put into service products designed to alter their behaviour or properties when being tested, to achieve a more favourable result for any declared value of the parameters regulated in this Regulation. That includes, but is not limited to, products designed to detect they are being tested by recognising the test conditions or test cycle and to automatically alter their behaviour or properties in response, and products pre-set to alter their behaviour or properties at the time of testing.

2. Manufacturers, importers or authorised representatives shall not prescribe specific test instructions which alter the behaviour or the properties of products to achieve a more favourable result for any of the declared value of the parameters regulated in this Regulation. That includes, but is not limited to, prescribing a manual alteration of a product in preparation for the test which alters the product's behaviour or properties compared with when it is in normal use and operated by the end-user.

3. Manufacturers, importers or authorised representatives shall not place on the market or put into service products designed to alter their behaviour or properties within a short period of being put into service in a way that worsens any declared value for the parameters regulated in this Regulation.

Article 7

Software updates

1. Software or firmware updates shall not worsen any declared value for the parameters of a household tumble dryer when measured using the testing method applicable at the time of it being placed on the market or put into service.

2. No change of any declared value for the parameters of a household tumble dryer when measured using the testing method applicable at the time of it being placed on the market or put into service shall occur as a result of rejecting the update.

Article 8

Indicative benchmarks

The benchmarks for best-performing household tumble dryers available on the market at the time of entry into force of this Regulation are set out in Annex V.

Article 9

Review

The Commission shall review this Regulation in the light of technological progress and shall present the results of that review, including, if appropriate, a draft revision proposal, to the Consultation Forum by 12 December 2029.

The review shall in particular assess:

(a) the improvement potential with regard to energy and environmental performance of household tumble dryers;

(b) developments in consumer behaviour and the feasibility of a mandatory feedback mechanism on the loading of the appliance, the energy consumption and the duration of the selected programme;

(c) the effectiveness of existing requirements on resource efficiency;

(d) the appropriateness of setting additional resource efficiency requirements for products in accordance with the objectives of the circular economy, including the availability of additional spare parts and information on critical raw materials and other environmentally relevant materials;

(e) the appropriateness of setting ecodesign requirements on cabinet dryers;

(f) the appropriateness of setting requirements for reducing the spreading of microplastics.

Article 10

Amendment to Regulation (EU) 2023/826

1. In point 1 of Annex II to Regulation (EU) 2023/826:

(a) the entry 'tumble dryers and other clothes dryers' is replaced by 'clothes dryers but excluding household tumble dryers covered by Commission Regulation (EU) 2023/2533 (*);

(b) the entry 'other appliances for cooking and other processing of food, preparing beverages, cleaning, and maintenance of clothes, but excluding household dishwashers covered by Commission Regulation (EU) 2019/2022, and household washing machines and household washer-dryers covered by Commission Regulation (EU) 2019/2023' is replaced by the following:

'other appliances for cooking and other processing of food, preparing beverages, cleaning, and maintenance of clothes, but excluding household dishwashers covered by Commission Regulation (EU) 2019/2022 (*), household washing machines and household washer-dryers covered by Commission Regulation (EU) 2019/2023 (**) and household tumble dryers covered by Regulation (EU) 2023/2533;

(*) Commission Regulation (EU) 2019/2022 of 1 October 2019 laying down ecodesign requirements for household dishwashers pursuant to Directive 2009/125/EC of the European Parliament and of the Council amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1016/2010 (OJ L 315, 5.12.2019, p. 267).

(**) Commission Regulation (EU) 2019/2023 of 1 October 2019 laying down ecodesign requirements for household washing machines and household washer-dryers pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EU) No 1015/2010 (OJ L 315, 5.12.2019, p. 285).'.

2. In point 1(b) of Annex III to Regulation (EU) 2023/826:

the paragraph 'The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, or providing only a reactivation function and an indication of enabled reactivation function and information or status display shall not exceed 0,80 W, except for household tumble driers covered by Commission Regulation (EU) No 932/2012 for which this value shall be 1,00 W' is replaced by the following:

'The power consumption of equipment in any condition providing only information or status display, or providing only a combination of reactivation function and information or status display, or providing only a reactivation function and an indication of enabled reactivation function and information or status display shall not exceed 0,80 W.'.

Article 11

Repeal

Regulation (EU) No 932/2012 is repealed.

Article 12

Transitional measures

1. Until 30 June 2025, by way of derogation from the requirement in point 1.1 of Annex I to Regulation (EU) No 932/2012, the indication of the standard cotton programme shall not need to be displayed on the programme selection device or display of household tumble dryers where both the following conditions are met:

(a) the standard cotton programme is clearly identifiable in the booklet of instructions referred to in point 1.2 of Annex I to Regulation (EU) No 932/2012 and in the technical documentation referred to in Article 4(2) of that Regulation;

(b) the eco programme is clearly displayed on the household tumble dryers's programme selection device or display, in accordance with Section 1, point (b) of Annex II.

2. Where no unit belonging to the same model or equivalent models was placed on the market before 1 March 2025, the units of models placed on the market between 1 March 2025 and 30 June 2025 which comply with the provisions of this Regulation shall be considered to be in compliance with the requirements of Regulation (EU) No 932/2012.

Article 13

Entry into force and application

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

It shall apply from 1 July 2025. However, Article 6 shall apply from 12 December 2023.

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

Done at Brussels, 17 November 2023.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX I

DEFINITIONS

For the purpose of the Annexes II to V, the following definitions apply:

(1) 'air-vented tumble dryer' means a household tumble dryer that draws in fresh air, passes it over the textiles and vents the resulting moist air into the room or outside;

(2) 'condenser tumble dryer' means a household tumble dryer that includes a system, using condensation or any other means, for removing moisture from the air used for the drying process;

(3) 'heating element tumble dryer' means a household tumble dryer where the only or main means to heat the air inside is an electric resistance;

(4) 'heat pump tumble dryer' means a household tumble dryer where the only or main means to heat the air inside is a heat pump system;

(5) 'Energy Efficiency Index' or 'EEI' means the ratio of the weighted energy consumption to the standard drying cycle energy consumption of a specific household tumble dryer model;

(6) 'programme duration' means the length of time beginning with the initiation of the programme selected, excluding any user programmed delay, until an end of programme indicator is activated and the user has access to the load;

(7) 'full load' means the rated capacity of a household tumble dryer for a given programme;

(8) 'partial load' means half of the rated capacity of a household tumble dryer for a given programme;

(9) 'condensation efficiency' means the ratio between the mass of moisture condensed by a condenser tumble dryer and the mass of moisture removed from the load at the end of a drying cycle;

(10) 'off mode' means a condition in which the household tumble dryer is connected to the mains and is not providing any function, including the following conditions:

(a) conditions providing only an indication of off mode;

(b) conditions providing only functionalities intended to ensure electromagnetic compatibility pursuant to Directive 2014/30/EU of the European Parliament and of the Council ([1]);

(11) 'standby mode' means a condition where the household tumble dryer is connected to the mains, and provides only the following functions or some of those functions, which may persist for an indefinite time:

(a) reactivation function, or reactivation function and indication of enabled reactivation function;

(b) reactivation function through a connection to a network ('networked standby');

(c) information or status display;

(d) detection function for emergency measures;

(12) 'network' means a communication infrastructure with a topology of links, an architecture, including the physical components, organisational principles, communication procedures and formats (protocols);

(13) 'wrinkle guard function' means an operation of the household tumble dryer after completion of a programme to prevent excessive wrinkle building in the laundry;

(14) 'delay start' means a condition where the user has selected a specified delay to the beginning or end of the drying cycle of the selected programme;

(15) 'spare part' means a separate part that can replace a part with the same or similar function in a product;

([1]) Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (OJ L 96, 29.3.2014, p. 79).

(16) ‘professional repairer’ means an operator or undertaking which provides services of repair and professional maintenance of household tumble dryers;

(17) ‘guarantee’ means any undertaking by the dealer or a manufacturer to the consumer to either reimburse the price paid or replace, repair or handle the household tumble dryer in any way if it does not meet the specifications set out in the guarantee statement or in the relevant advertising;

(18) ‘conversion coefficient’ (CC) means the default coefficient for primary energy per kWh electricity referred to in Directive 2012/27/EU of the European Parliament and of the Council; the value of the conversion coefficient is CC = 1,9.

ANNEX II

ECODESIGN REQUIREMENTS

1. Programme requirements

Household tumble dryers shall meet the following requirements:

(a) household tumble dryers shall provide an eco programme. The stated rated capacity for the eco programme shall not be lower than the highest stated rated capacity among all the cotton programmes of the household tumble dryer;

(b) the eco programme shall be indicated as 'eco' and shall be clearly identifiable on the programme selection, on the display and through the network connection, depending on the functionalities provided by the household tumble dryer;

(c) the name 'eco 'shall be used exclusively for the eco programme and may only be complemented with the term 'cotton'. The formatting of the name is not restricted in terms of font type, font size, case sensitivity or colour. No other programme may have in its name the term 'eco';

(d) the eco programme shall be set as the default programme for automatic programme selection or any function maintaining the selection of a programme; or, where there is no automatic programme selection, it shall be available for direct selection without the need for any other selection such as a specific time or load;

(e) the indications 'normal', 'daily', 'regular' and 'standard', and their translations in all official languages of the Union, shall not be used in programme names for household tumble dryers, neither alone nor in combination with other information.

2. Energy efficiency requirements

The EEI of household tumble dryers shall not be higher than 85.

The EEI shall be calculated in accordance with Annex III.

3. Condensation efficiency requirements

The condensation efficiency of condenser tumble dryers shall not be lower than 80 %. The condensation efficiency shall be calculated in accordance with Annex III.

4. Low power modes

Household tumble dryers shall meet the following requirements:

(a) they shall have an off-mode or a standby mode or both. The power consumption in off-mode shall not exceed 0,50 W and the power consumption in standby mode shall not exceed 0,50 W; as from 9 May 2027, the power consumption in off-mode shall not exceed 0,3 W;

(b) if the standby mode includes the display of information or status, the power consumption of that mode shall not exceed 1,00 W;

(c) if the standby mode provides for a connection to a network and provides networked standby as defined in Article 2, point (10), of Regulation (EU) 2023/826, the power consumption of this mode shall not exceed 2,00 W;

(d) at the latest 15 minutes after the household tumble dryer has been switched on or after the end of any programme and associated activities, or after interruption of the wrinkle guard function, or after any other interaction with the household tumble dryer, and if no other mode including emergency measures is triggered, the household tumble dryer shall switch automatically to off-mode or to standby mode;

(e) if the household tumble dryer provides for a delay start, the power consumption of this condition, including any standby mode, shall not exceed 4,00 W. The delay start shall not be programmable by the user for more than 24h;

(f) any household tumble dryer that can be connected to a network shall provide the possibility to activate and deactivate the network connection(s). The network connection(s) shall be deactivated by default.

5. Resource efficiency requirements

(1) Availability of spare parts:

(a) for all models, units of which are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of household tumble dryers shall make available to professional repairers at least the following spare parts:

(i) gaskets and seals;

(ii) switches and knobs;

(iii) condensate pump;

(iv) motors and motor brushes;

(v) transmissions between motor and drum;

(vi) fan and fan wheels;

(vii) drums and bearings;

(viii) water piping and related equipment including hoses, valves and filters;

(ix) cables and plugs;

(x) printed circuit boards;

(xi) electronic displays;

(xii) thermostats and temperature sensors;

(xiii) software and firmware, including reset software;

(xiv) shock absorbers and springs;

(xv) heaters and heating elements;

(xvi) electric fuses (separately or bundled together).

(xvii) tension pulley;

(xviii) support roller;

(xix) pressure switches;

(b) availability of spare parts referred to in point (a), shall be ensured for a minimum period starting at the latest on 1 July 2025 or two years after the placing on the market of the first unit of the model, whichever is the later date, and ending at least 10 years after placing on the market the last unit of the model concerned. For that purpose, the list of spare parts, the procedure for ordering them and the repair instructions shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the same period and starting at the date referred to in this point;

(c) for all models, units of which are placed on the market as from 1 July 2025, manufacturers, importers or authorised representatives of household tumble dryers shall make available to professional repairers and end-users at least the following spare parts:

(i) doors, door seals, door handles, door lock assemblies and hinges;

(ii) lint filters;

(iii) air filters;

(iv) plastic peripherals;

(v) condensate tank;

(d) availability of spare parts referred to in point (c), shall be ensured for a minimum period starting on the date of placing that unit on the market and ending at least 10 years after placing the last unit of the concerned model on the market. For that purpose, the list of spare parts and the procedure for ordering them and the repair and maintenance information shall be publicly available on the free access website of the manufacturer, importer or authorised representative, at least during the same period and starting at the date referred to in this point;

(e) manufacturers, importers or authorised representatives of household tumble dryers shall ensure that the spare parts referred to in points (a) and (c) can be replaced with the use of commonly available tools and without permanent damage to the household tumble dryer;

(f) during the period referred to in points (b) and (d), manufacturers, importers or authorised representatives shall provide indicative pre-tax prices at least in euro for spare parts listed in points (a) and (c), including the indicative pre-tax price of fasteners and tools, if supplied with the spare part, on the free access website of the manufacturer, importer or authorised representative.

(2) Maximum delivery time of spare parts:

During the period of availability of spare parts, the manufacturer, importer or authorised representative shall ensure the delivery of the spare parts within 15 working days after having received the order.

(3) Access to repair and maintenance information:

(a) During the period referred to in point 1(b) the manufacturer, importer or authorised representative shall provide access to the appliance repair and maintenance information to professional repairers.

The manufacturer's, importer's or authorised representative's website shall indicate the process for professional repairers to request access to information. In order to accept such a request, the manufacturers, importers or authorised representatives may only require the professional repairer to demonstrate that:

(i) the professional repairer has the technical competence to repair household tumble dryers and complies with the applicable regulations for repairers of electrical equipment in the Member States where it operates. Reference to an official registration system as professional repairer, where such system is in place in the Member States concerned, shall be accepted as proof of compliance with this point;

(ii) the professional repairer is covered by insurance covering liabilities resulting from its activity regardless of whether this is required by the Member State;

(b) manufacturers, importers or authorised representatives shall accept or refuse the request referred to in point (a) within 5 working days;

(c) manufacturers, importers or authorised representatives may charge reasonable and proportionate fees for access to the repair and maintenance information or for receiving regular updates. A fee is reasonable if it does not discourage access by failing to take into account the extent to which the professional repairer uses the information;

(d) once the request is accepted, a professional repairer shall have access to the requested repair and maintenance information within one working day. The information may be provided for an equivalent model or model of the same family, where relevant;

(e) the repair and maintenance information shall include:

(i) the unequivocal household tumble dryer identification;

(ii) a disassembly map or exploded view;

(iii) technical manual of instructions for repair;

(iv) list of necessary repair and test equipment;

(v) component and diagnosis information (such as minimum and maximum theoretical values for measurements);

(vi) wiring and connection diagrams;

(vii) diagnostic fault and error codes (including manufacturer-specific codes, where applicable);

(viii) instructions for installation of relevant software and firmware including reset software;

(ix) information on how to access data records of reported failure incidents stored on the household tumble dryer (where applicable);

(x) electronic board diagrams;

(f) without prejudice to intellectual property rights, third parties shall be allowed to use and publish unaltered repair and maintenance information initially published by the manufacturer, importer or authorised representative and covered by point (e) once the manufacturer, importer or authorised representative terminates access to that information after the end of the period of access to repair and maintenance information.

(4) Manufacturers, importers or authorised representatives of household tumble dryers shall make available software and firmware updates for a minimum of 10 years after the placing of the last unit of a model on the market and these software and firmware updates shall be provided free of charge.

(5) Information requirements for refrigerant gases:

Without prejudice to Regulation (EU) No 517/2014 of the European Parliament and of the Council ([1]), and in particular Article 12 on labelling and product and equipment information, the chemical name or the accepted industry designation of the refrigerant gas used in heat pump tumble dryers, shall be displayed permanently in a place on the external parts of the appliance that are visible and can be easily identified by the end-user, for example on the back panel.

(6) Requirements for dismantling for material recovery and recycling while avoiding pollution:

(a) manufacturers, importers or authorised representatives shall ensure that household tumble dryers are designed in such a way that the materials and components referred to in Annex VII to Directive 2012/19/EU of the European Parliament and of the Council ([2]) can be removed from the appliance with the use of commonly available tools;

(b) manufacturers, importers or authorised representatives shall fulfil the obligations laid down in Article 15(1) of Directive 2012/19/EU.

6. Information Requirements

User and installer instructions shall be provided in the form of a user manual on a free access website of the manufacturer, importer or authorised representative, and shall include:

(1) the following general information:

(a) information that the eco programme is suitable to dry wet cotton laundry, and that this programme is used to assess the compliance with the EU ecodesign legislation;

(b) information that the eco programme is the most efficient programme in terms of energy consumption for drying wet cotton laundry;

(c) information that loading the household tumble dryer up to the maximum capacity indicated by the manufacturer for the respective programmes will contribute to energy savings;

(d) if applicable, information on how to activate and deactivate the network connection and impact on energy consumption;

([1]) Regulation (EU) No 517/2014 of the European Parliament and of the Council of 16 April 2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006 (OJ L 150, 20.5.2014, p. 195).

([2]) Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38).

(e) instructions on how to find the model information stored in the product database, as specified in Commission Delegated Regulation (EU) 2023/2534 ([3]) by means of a weblink that links to the model information as stored in the product database or a link to the product database and information on how to find the model identifier on the product;

(2) values for the following parameters:

(a) rated capacity in kg;

(b) programme duration, expressed in hours and minutes;

(c) electricity, and where applicable, gas consumption in kWh/drying cycle;

(d) final moisture content after the drying cycle;

(e) acoustic airborne noise emission of the drying cycle.

The values for the parameters set out in points (a) to (e) shall be provided for the eco programme at full load and, except for the parameter set out in point (e), at partial load and for the following programmes where they are available:

(a) synthetics dry at full load;

(b) delicates/wool drying at full load;

(c) cotton extra/very dry at full load and partial load;

(d) cotton iron dry at full load and partial load;

(e) synthetics extra/very dry at full load;

(f) synthetics iron dry at full load;

The values given for programmes other than the eco programme are indicative only;

(3) instructions to perform maintenance operations, including at least the following operations:

(a) correct installation including level positioning, connection to mains, connection to water outlet (if relevant), connection to gas (if relevant), installation of ventilation hose (if relevant);

(b) cleaning of filters, including optimal frequency, and procedure, and main consequences of insufficient cleaning of filters; the instructions shall indicate that, when cleaning the filters, the lint should be thrown in the garbage bin and not washed through the drain in order to avoid spreading microplastics in the used water system;

(c) emptying of water tank for condenser dryers in case the household tumble dryer is not connected to water outlet;

(d) periodic cleaning, including optimal frequency;

(e) door opening between drying cycles, if appropriate;

(f) foreign object removal;

(g) identification of errors, the meaning of the errors, and the action required, including identification of errors requiring professional assistance;

(h) how to access professional repair services (internet webpages, addresses, contact details).

The instructions shall also include information on any implications of self-repair or non-professional repair for the safety of the user and for the guarantee and on the minimum period during which the spare parts are available.

([3]) Commission Delegated Regulation (EU) 2023/2534 of 13 July 2023 supplementing Regulation (EU) 2017/1369 of the European Parliament and of the Council with regard to energy labelling of household tumble dryers and repealing Commission Delegated Regulation (EU) No 392/2012 (OJ L, 2023/2534, 22.11.2023, ELI: http://data.europa.eu/eli/reg_del/2023/2534/oj).

ANNEX III

MEASUREMENT AND CALCULATION METHODS

For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards whose reference numbers are published for that purpose in the *Official Journal of the European Union*, or other reliable, accurate and reproducible methods, which take into account the generally recognised state-of-the-art and are in conformity with the provisions in this Annex.

Where a parameter is declared pursuant to Article 4, its declared value shall be used by the manufacturer, importer or authorised representative for the calculations in this Annex.

The eco programme as identifiable on the programme selection, on the display and through the network connection, depending on the functionalities provided by the household tumble dryer, and with no further modification of the final moisture content setting, shall be used for the measurement and calculation of the EEI, the condensation efficiency, the programme duration, the final moisture content and the airborne acoustic noise emissions. The energy consumption, condensation efficiency, programme duration and final moisture content shall be measured concurrently.

The calculation of the weighted energy consumption, the weighted programme duration, the final moisture content and the condensation efficiency shall be done on the basis of three drying cycles at full load and four drying cycles at partial load.

1. **Energy Efficiency Index**

For the calculation of the EEI of a household tumble dryer model, the weighted energy consumption per drying cycle for the eco programme at full and partial load is compared to the standard energy consumption per drying cycle.

(a) The EEI is calculated as follows and rounded to one decimal place:

$$EEI = \frac{E_{tC}}{SE_C} \times 100$$

where

E_{tC} = weighted energy consumption per drying cycle,

SE_C = standard energy consumption per drying cycle.

(b) SE_C is calculated in kWh as follows and rounded to two decimal places:

(i) for household tumble dryers other than air-vented tumble dryers:

$$SE_C = 0,46 \times c^{0,63}$$

(ii) for air-vented tumble dryers:

$$SE_C = 0,46 \times c^{0,63} \times \left(1 - \frac{T_t}{60} \times 0,083\right)$$

where

c is the rated capacity of the household tumble dryer for the eco programme,

T_t is the weighted programme duration for the eco programme.

(c) E_{tC} is calculated in kWh as follows and rounded to two decimal places:

$$E_{tC} = 0,24 \times E_{dry} + 0,76 \times E_{dry½}$$

where

E_{dry} = energy consumption of the eco programme at full load, in kWh and rounded to two decimal places,

$E_{dry½}$ = energy consumption of the eco programme at partial load, in kWh and rounded to two decimal places.

(d) for gas-fired tumble dryers, E_{dry} and $E_{dry1/2}$ are calculated as follows

$$E_{dry} = \frac{Eg_{dry}}{CC} + Eg_{dry,a}$$

$$E_{dry½} = \frac{Eg_{dry½}}{CC} + Eg_{dry½,a}$$

where

Eg_{dry} = gas consumption of the eco programme at full load, in kWh and rounded to two decimal places,

$Eg_{dry½}$ = gas consumption of the eco programme at partial load, in kWh and rounded to two decimal places,

$Eg_{dry,a}$ = auxiliary electricity consumption of the eco programme at full load, in kWh and rounded to two decimal places,

$Eg_{dry½,a}$ = auxiliary electricity consumption of the eco programme at partial load, in kWh and rounded to two decimal places,

CC(Conversion coefficient) = 1,9.

(e) Tt for the eco programme is calculated in minutes, rounded to the nearest minute, as follows:

$$T_t = 0,24 \times T_{dry} + 0,76 \times T_{dry½}$$

where

T_{dry} = programme duration for the eco programme at full load, in minutes and rounded to the nearest minute;

$T_{dry½}$ = programme duration for the eco programme at partial load, in minutes and rounded to the nearest minute.

(f) The average final moisture content μ_t for the eco programme is calculated in percent, rounded to one decimal places, as follows:

$$\mu_t = \frac{(3 \times \mu_{dry} + 4 \times \mu_{dry1/2})}{7}$$

where

μdry = final moisture content for the eco programme at full load, in percent and rounded to one decimal place.

$\mu dry½$ = final moisture content for the eco programme at partial load, in percent and rounded to one decimal place.

2. **Condensation efficiency**

The condensation efficiency of a programme (*Ct*) is the ratio between the mass of moisture condensed and collected in the container of a condenser tumble dryer and the mass of moisture removed from the load by the programme, the latter being the difference between the mass of the wet test load before drying and the mass of the test load after drying.

C_t is calculated as a percentage and rounded to the nearest whole percent as follows:

$$C_t = 0,24 \times C_{dry} + 0,76 \times C_{dry½}$$

where

C_{dry} = average condensation efficiency of the eco programme at full load,

$C_{dry½}$ = average condensation efficiency of the eco programme at partial load.

3. **Low power modes**

The power consumption of the off mode (P_o), standby mode (P_{sm}), and where applicable delay start (P_{ds}) are measured. The measured values are expressed in W and rounded to two decimal places.

During measurements of the power consumption in low power modes, the following functions shall be checked and recorded:

(a) the display or not of information;

(b) the activation or not of a network connection.

If the standby mode includes the display of information or status, this function shall also be provided when the networked standby is provided.

If the household tumble dryer provides for a wrinkle guard function, such function shall be interrupted by opening the door of the household tumble dryer, or any other appropriate intervention 15 minutes before the measurement of power consumption.

4. **Acoustic airborne noise emission**

The acoustic airborne noise emission of the drying cycle of a household tumble dryer shall be calculated for the eco programme at full load, using harmonised standards whose reference numbers have been published for this purpose in the *Official Journal of the European Union*, or using other reliable, accurate and reproducible methods, which take into account the generally recognised state-of-the-art.

Acoustic airborne noise emissions shall be measured in dB(A) with respect to 1 pW and shall be rounded to the nearest integer.

ANNEX IV

VERIFICATION PROCEDURE FOR THE PURPOSE OF MARKET SURVEILLANCE

1. The verification tolerances set out in this Annex relate only to the verification of the declared values by Member State authorities and shall not be used by the manufacturer, importer or authorised representatives as an allowed tolerance to establish those values in the technical documentation or in interpreting these values with a view to achieving compliance or to communicate better performance by any means.

2. Where a model is not in conformity with the requirements laid down in Article 6, the model and all equivalent models shall be considered not compliant.

3. As part of verifying the compliance of a product model with the requirements laid down in this Regulation pursuant to Article 3(2) of Directive 2009/125/EC, the authorities of the Member States shall apply the following procedure:

(a) the Member State authorities shall verify one single unit of the model;

(b) the model shall be considered to comply with the applicable requirements where it meets all the following conditions:

(i) the declared values given in the technical documentation pursuant to point 2 of Annex IV to Directive 2009/125/EC, and, where applicable, the values used to calculate such declared values, are not more favourable for the manufacturer, importer or authorised representative than the results of the corresponding measurements carried out pursuant to point 2(g) of that Annex;

(ii) the declared values meet any requirements laid down in this Regulation, and any required product information published by the manufacturer, importer or authorised representative does not contain values that are more favourable for the manufacturer or importer than the declared values;

(iii) when the Member State authorities check the unit of the model, any software update system that may have been set up by the manufacturer, importer or authorised representative complies with the requirements set out in Article 7;

(iv) when the Member State authorities check the unit of the model, it complies with the programme requirements in point 1, resource efficiency requirements in point 5 and information requirements in point 6 of Annex II; and

(v) when the Member State authorities test the unit of the model, the determined values, that is to say the values of the relevant parameters as measured in testing and the values calculated from these measurements comply with:

(a) the validity criteria set out in Table 1;

(b) the respective verification tolerances set out in Table 1.

4. Where the results referred to in points (3)(b), (i), (ii) (iii) or (iv) are not achieved, the model and all equivalent models shall be considered not to comply with this Regulation.

5. If the result referred to in point (3)(b)(v) 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.

6. The model and all equivalent models shall be considered not to comply with this Regulation as soon as the determined value for the average final moisture content for the eco programme does not comply with the validity criteria as given in Table 1 for one of the three additional units referred to in point (5). In this case, the other units not yet tested do not need to be tested. The model shall be considered to comply if the determined value for the final moisture content complies with the validity criteria as given in Table 1 for each of the three additional units.

7. The model shall be considered to comply with the applicable requirements where, for the three units referred to in point (5), the arithmetical mean of the determined values complies with the respective verification tolerances set out in Table 1.

8. Where the result referred to in point (7) is not achieved, the model and all equivalent models shall be considered not in compliance with this Regulation.

9. 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 is taken on the non-compliance of the model pursuant to points (2), (4), (6) or (8).

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

11. The Member State authorities shall only apply the validity criteria and the verification tolerances that are set out in Table 1 and shall only use the procedure described in points (3) to (8) for the requirements referred to in this Annex. For the parameters in Table 1 no other validity criteria or verification tolerances, such as those set out in harmonised standards or in any other measurement method, shall be applied.

Table 1

Verification tolerances and validity criteria

Parameter	Validity criteria
Average final moisture content of the eco programme μ_t	The determined value shall be measured and calculated and be lower than 1,5 %.
Parameter	Verification tolerances
E_{dry} and $E_{dry½}$	The determined value (*) shall not exceed the declared value of E_{dry} and $E_{dry½}$ by more than 6 %.
Eg_{dry} and $Eg_{dry½}$	The determined value (*) shall not exceed the declared value of Eg_{dry} and $Eg_{dry½}$ by more than 6 %.
$Eg_{dry,a}$ and $Eg_{dry½,a}$	The determined value (*) shall not exceed the declared value of $Eg_{dry,a}$ and $Eg_{dry½,a}$ by more than 6 %.
C_t	The determined value (*) shall not be less than the declared value of C_t by more than 6 %.
T_{dry} and $T_{dry½}$	The determined value (*) shall not exceed the declared value of T_{dry} and $T_{dry½}$ by more than 6 %.
P_o	The determined value (*) of P_o shall not exceed the declared value by more than 0,10 W.
P_{sm}	The determined value (*) of P_{sm} shall not exceed the declared value by more than 10 % if the declared value is higher than 1,00 W, or by more than 0,10 W if the declared value is lower than or equal to 1,00 W.
P_{ds}	The determined value (*) of P_{ds} shall not exceed the declared value by more than 10 % where the declared value is higher than 1,00 W, or by more than 0,10 W if the declared value is lower than or equal to 1,00 W.
Acoustic airborne noise emissions	The determined value (*) shall not exceed the declared value by more than 2 dB with respect to 1 pW.

(*) Where three additional units are tested in accordance with point (5), the determined value means the arithmetical mean of the values determined for those three additional units.

ANNEX V

BENCHMARKS

At the time of entry into force of this Regulation, the best available technology on the market for household tumble dryers is identified as follows:

(1) condenser heating element tumble dryer with a rated capacity of 7 kg:

(a) energy consumption: 2,73 kWh/drying cycle for the eco programme (*);

(b) drying cycle time: 76 minutes for the eco programme (*);

(c) acoustic airborne noise emissions: 63 dB(A);

(2) heat pump tumble dryer with a rated capacity of 7 kg:

(a) energy consumption: 0,85 kWh/drying cycle for the eco programme (*);

(b) drying cycle time: 134 minutes for the eco programme (*);

(c) acoustic airborne noise emissions: 66 dB(A);

(3) air-vented heating element tumble dryer with a rated capacity of 7 kg:

(a) energy consumption: 2,58 kWh/drying cycle for the eco programme (*);

(b) drying cycle time: 76 minutes for the eco programme (*);

(c) acoustic airborne noise emissions: 69 dB(A);

(*) Calculated on the basis of a weighted average between full and partial load, where full load is multiplied by 0,24 and partial load by 0,76.

ANNEX VI

MULTI-DRUM HOUSEHOLD TUMBLE DRYERS

For multi-drum household tumble dryers, the provisions of points 1 to 4 of Annex II, following the measurement and calculation methods set out in Annex III, shall apply to each drum. The provisions of point 5 of Annex II shall apply to the multi-drum household tumble dryers as a whole. The provisions of point 6 of Annex II shall apply to each drum or to the multi-drum household tumble dryers as a whole as appropriate. The provisions of points 1 to 4 of Annex II, shall apply to each of the drums independently, except when the drums are built in the same casing and can, in the 'eco' programme, only operate simultaneously. In the latter case, these provisions shall apply to the multi-drum household tumble dryer as a whole, as follows:

(a) the rated capacity of the multi-drum household tumble dryer shall be the sum of the rated capacities of each drum;

(b) the energy consumption of the multi-drum household tumble dryer shall be the sum of the energy consumption of each drum;

(c) the Energy Efficiency Index shall be calculated using the rated capacity and energy consumption of the whole multi-drum household tumble dryer;

(d) the programme duration shall be the duration of the 'eco' programme of the drum with the largest rated capacity;

(e) the requirements on low power modes shall apply to the whole multi-drum household tumble dryer;

(f) the acoustic airborne noise emission shall be that of the whole multi-drum household tumble dryer.

The verification procedure set out in Annex IV shall apply to the multi-drum household tumble dryers as a whole, with the validity criteria and verification tolerances applying to each of the parameters determined in application of this Annex.