BS EN 61121:2013+A11:2019

BSI Standards Publication

Tumble dryers for household use – Methods for measuring the performance

National foreword

This British Standard is the UK implementation of EN 61121:2013+A11:2019. It is derived from IEC 61121:2012. It supersedes BS EN 61121:2013, which is withdrawn.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags [C] 〈C〉.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by [A11] 〈A11〉.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date	Text affected
31 October 2019	Implementation of CENELEC amendment A11:2019

EUROPEAN STANDARD

EN 61121:2013/A11

EUROPÄISCHE NORM

August 2019

ICS 97.060

English version

Tumble dryers for household use - Methods for measuring the performance

(IEC 61121:2012, modified)

Sèche-linge à tambour à usage domestique - Méthodes de mesure de l'aptitude à la fonction (CEI 61121:2012, modifiée)

Wäschetrockner für den Hausgebrauch - Verfahren zur Messung der Gebrauchseigenschaften (IEC 61121:2012, modifiziert)

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Management Centre: Avenue Marnix 17, B - 1000 Brussels

European foreword

This document (EN 61121:2013) consists of the text of IEC 61121:2012 prepared by IEC/SC 59D "Home laundry appliances" of IEC/TC 59 "Performance of household and similar electrical appliances", together with the common modifications prepared by CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2013-12-31
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2015-12-31

This document supersedes EN 61121:2005.

EN 61121:2013 includes the following significant technical changes with respect to EN 61121:2005:

a) a test procedure for a combined test sequence of full and **partial load** was introduced;

b) a test procedure for measuring power consumption in low power modes is introduced;

c) a formula to calculate the energy consumption of **tumble dryers** including low power modes was added;

d) control procedures for checking measured values in comparison to values declared by the manufacturer under consideration of permitted tolerances are updated.

Clauses, subclauses, notes, tables and figures which are additional to those in IEC 61121:2012 are prefixed “Z”.

Words in **bold** in the text are defined in Clause 3.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

This European Standard specifies, as far as necessary, the test methods which shall be applied in accordance with the COMMISSION DELEGATED REGULATION (EU) No 392/2012 implementing Directive 2010/30/EU the European Parliament and of the Council with regard to energy labelling of household **tumble dryers** and in accordance with the COMMISSION REGULATION (EU) No 932/2012 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household **tumble dryers**.

The procedures described in this European Standard were modified substantially compared to the previous version, e.g. with regard to **partial load**. Therefore, results of tests according to this standard cannot and shall not be directly compared to results of similar procedures of previous versions. In addition, results based on a specific reference **programme** shall not be compared to results based on other reference programs.

Annex ZA sets out the procedure to be applied for testing according to Commission Regulations with regard to energy labelling and ecodesign and provides all necessary links to all relevant clauses of this European Standard.

Annex ZB provides control procedures for checking measured values in comparison to values declared by the manufacturer under consideration of permitted tolerances.

Annex ZC lists normative references.

Endorsement notice

The text of the International Standard IEC 61121:2012 was approved by CENELEC as a European Standard with agreed common modifications

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Foreword to amendment A11

This document (EN 61121:2013/A11:2019) has been prepared by CLC/TC 59X " Performance of household and similar electrical appliances".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2020-02-23
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2022-08-23

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This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annexes ZZA and ZZB, which are integral parts of this document.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TUMBLE DRYERS FOR HOUSEHOLD USE – METHODS FOR MEASURING THE PERFORMANCE

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61121 has been prepared by subcommittee 59D: Home laundry appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This fourth edition cancels and replaces the third edition published in 2002 and Amendment 1 (2005). This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) General:

- more terms have been defined and some previous definitions have been streamlined, in addition to the correction of some symbols and equations;
- where possible, definitions and terms have been used in common with IEC 60456:2010;
- the content has been organised into a more logical and simple structure, and repetitive sections have been removed.

b) Conditions of measurement:

- the wording of various sections has been revised to reduce ambiguity;
- limits have been defined for water characteristics for automatic tumble dryers that are sensitive to conductivity as well as methods to adjust these characteristics where necessary.

c) Reproducibility and repeatability of test results:

- revision of the specification for the cotton **test load** to include suitable test materials which are currently available on the market;
- more careful definition of the process and conditions for **pre-treatment, conditioning** and **normalization**.

d) Test methods:

- accuracy of measurement has been defined for all instruments;
- limits and interpretations of the allowable **final moisture content** for each type of dryer are now defined;
- practical advice regarding the test procedure has been given with the aim of reducing ambiguity.

Words in **bold** in the text are defined in Clause 3.

This bilingual version (2013-07) corresponds to the monolingual English version, published in 2012-02.

The text of this standard is based on the following documents:

FDIS	Report on voting
59D/393/FDIS	59D/395/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

The French version of this standard has not been voted upon.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

This fourth edition has been developed in light of experience with use of the third edition of IEC 61121. The structure has been revised to ensure that this remains harmonised with the IEC 60456:2010 for clothes washers.

TUMBLE DRYERS FOR HOUSEHOLD USE – METHODS FOR MEASURING THE PERFORMANCE

1 Scope

This International Standard is applicable to household electric **tumble dryers** of the **automatic** and **non-automatic** type, with or without a cold water supply and incorporating a heating device. This excludes **tumble dryers** which use gas or other fuels as a heating source.

The object is to state and define the principal performance characteristics of household electric **tumble dryer**s of interest to users and to describe standard methods for measuring these characteristics.

NOTE This International Standard applies also to **tumble dryers** for communal use in blocks of flats or in launderettes. It does not apply to **tumble dryers** for commercial laundries.

[C] NOTE Z1 The methods of measuring the performance of tumble dryers which use gas as a heating source are covered by EN 1458-2. [C]

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60335-2-11:2008, *Household and similar electrical appliances – Safety – Part 2-11: Particular requirements for tumble dryers*

IEC 60456:2010, *Clothes washing machines for household use – Methods for measuring the performance*

IEC 60734:-[1], *Household electrical appliances – Performance – Water for testing*

IEC 62053-21:2003, *Electricity metering equipment (a.c.) – Particular requirements – Part 21: Static meters for active energy (classes 1 and 2)*

IEC 62301:2011, *Household electrical appliances – Measurement of standby power*

ISO 5167-1:2003, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full – Part 1: General principles and requirements*

ISO 80000-1:2009, *Quantities and units – Part 1: General*

[A11] *Text deleted* [A11]

[C] EN 60704-2-6, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 2-6: Particular requirements for tumble dryers (IEC 60704-2-6)* [C]

[A11] *Text deleted* [A11]

1 To be published.