BS EN IEC 62115:2020+A11:2020

BSI Standards Publication

Electric toys - Safety

National foreword

This British Standard is the UK implementation of EN IEC 62115:2020+A11:2020. It is derived from IEC 62115:2017. It supersedes BS EN 62115:2005+A12:2015, which will be withdrawn on 7 February 2023.

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 amendment. For example, text altered by CENELEC amendment A11 is indicated by ⟦A11⟩ ⟨A11⟩.

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

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EUROPEAN STANDARD

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EN IEC 62115:2020+A11

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English Version

Electric toys - Safety
(IEC 62115:2017 + COR1:2019)

Jouets électriques - Sécurité
(IEC 62115:2017 + COR1:2019)

Elektrische Spielzeuge - Sicherheit
(IEC 62115:2017 + COR1:2019)

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

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European foreword

The text of document 61/5319/FDIS, future edition 2 of IEC 62115, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62115:2020.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2020-08-21
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This document supersedes EN 62115:2005 and all of its amendments and corrigenda (if any).

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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 Annex ZZ, which is an integral part of EN 62115:2020/A11:2020.

Endorsement notice

The text of the International Standard IEC 62115:2017+COR1:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60086-1	NOTE	Harmonized as EN 60086-1
IEC 60086-2	NOTE	Harmonized as EN 60086-2
IEC 60335-2-82	NOTE	Harmonized as EN 60335-2-82
IEC 60598-2-10	NOTE	Harmonized as EN 60598-2-10

Foreword to amendment A11

This European Standard (EN IEC 62115:2020/A11:2020) has been prepared by CLC/TC 61, "Safety 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)	2020-09-02
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2021-12-02

This document supersedes EN 62115:2005.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports essential safety requirements of EC Directive 2009/48/EC.

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

NOTE The following print types are used:

— requirements: in roman type;

— test specifications: in italic type;

— notes: in small roman type.

Words in bold in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

There are no special national conditions causing a deviation from this European Standard.

There are no national deviations from this European Standard.

Annexes ZA, ZB and ZZ have been added by CLC/TC 61.

Endorsement notice

The text of the International Standard IEC 62115:2017/COR1:2019 was approved by CENELEC as a European Standard with agreed common modifications.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRIC TOYS – SAFETY

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 62115 has been prepared by subcommittee IEC technical committee 61: Safety of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 2003, Amendment 1 (2004) and Amendment 2 (2010). This edition constitutes a technical revision.

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

– the general conditions for tests has been rewritten and modified (Clause 5);
– the criteria for reduced testing has been modified (Clause 6);
– warnings for toys using button batteries or coin batteries have been added (7.3.3.2, 7.3.3.3);
– warnings on ride-on toys have been added (7.5);
– the requirements concerning accessibility of batteries have been updated (13.4.1 and 13.4.2);
– added requirements to cover toys placed above a child (13.4.4);

– added requirements to cover toys connected to other equipment (13.9);
– modified the requirements for safety of toys incorporating optical radiation sources (Annex E), to include requirements for using the technical LED data sheet for checking compliance with the specified accessible emission limits (AEL);
– updated the details for measurements of the optical radiation from the toy (Annex E);
– introduced an informative Annex I concerning measurement methods for toys with an integrated field source generating EMF;
– included a normative Annex J concerning safety of remote controls for electric ride-on toys.

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

FDIS	Report on voting
61/5319/FDIS	61/5371/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.

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

NOTE 1 The following print types are used:

– requirements: in roman type;
– *test specifications: in italic type;*
– notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and associated noun are also in bold.

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.

NOTE 2 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

The contents of the corrigendum of August 2019 have been included in this copy.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

As a general rule, electric toys are designed and manufactured for particular categories of children. Their characteristics are related to the age and stage of development of the children and their intended use presupposes certain capabilities.

Accidents are frequently due to an electric toy either being given to a child for whom it is not intended or being used for a purpose other than for which it was designed. This standard does not eliminate parental responsibility for the appropriate selection of electric toys. It is assumed that when choosing an electric toy or a game, account is taken of the physical and mental development of the child who will be playing with it.

The aim of this standard is to reduce risks when playing with electric toys, especially those risks that are not evident to users. However, it has to be recognized that some electric toys have risks inherent in their use that cannot be avoided. Consideration has been given to reasonably foreseeable use, bearing in mind that children are not generally as careful as adults.

While this standard applies to new electric toys, it nevertheless takes into account the wear and tear of electric toys in use.

The fact that an electric toy complies with this standard does not absolve parents and other persons in charge of a child from the responsibility of supervising the child. Supervision is also necessary when children of various ages have access to the same electric toy.

This standard covers the whole range of electric toys from small button battery or coin battery operated lights to large ride-on electric toys powered by rechargeable batteries. This results in different requirements and tests according to the type of electric toy. For some electric toys, testing can be reduced if particular criteria are met (see Clause 6).

Other safety aspects of electric toys are described in the [A11] EN 71 [A11] series of standards.

An electric toy that complies with the text of this standard will not necessarily be judged to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

[A11] *Text deleted* [A11]

[A11] The European Committee for Electrotechnical Standardization (CLC) [A11] draws attention to the fact that it is claimed that compliance with this document may involve the use of a patent.

[A11] CLC [A11] takes no position concerning the evidence, validity and scope of this patent right.

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IEC (http://patents.iec.ch) maintains an on-line database of patents relevant to its standards. Users are encouraged to consult the database for the most up to date information concerning patents.

ELECTRIC TOYS – SAFETY

1 Scope

〈A11〉 This European Standard specifies safety requirements for **electric toys** that have at least one function dependant on electricity, **electric toys** being any product designed or clearly intended, whether or not exclusively, for use in play by children of less than 14 years of age.

NOTE 1 Examples of electric toys also within the scope of this standard are

— constructional sets;

— **experimental sets;**

— functional **electric toys** (an **electric toy** which performs and is used in the same way as a product, appliance or installation intended for use by adults, and which may be a scale model of such product, appliance or installation);

— **electric toy** computers;

— A doll's house having an interior lamp

Additional requirements for **experimental sets** are given in Annex A.

Additional requirements for **electric toys** incorporating optical radiation sources are given in Annex E.

Measurement methods for **electric toys** generating Electromagnetic fields (EMF) are given in Annex I.

Additional requirements for the safety of remote-controls for **electric ride-on toys** are given in Annex J.

If the packaging is intended to have play value, then it is considered to be part of the **electric toy**.

This European Standard only covers the safety aspects of **electric toys** that relate to an electrical function.

NOTE 2 The EN 71 series of standards address other aspects of the safety of toys. Other horizontal product standards may also apply to toys.

This standard covers the safety of **electric toys** taking power from any source, such as batteries, transformers, solar cells and inductive connections.

NOTE 3 **Transformers for toys** (EN 61558-2-7:2007 for linear types or EN 61558-2-7:2007 and EN 61558-2-16:2013 for switch mode types), **battery chargers** (EN 60335-2-29:2010) and **battery chargers** for use by children (EN 60335-2-29:2010,Annex AA) are not considered to be part of an **electric toy** even if supplied with an **electric toy**.

NOTE 4 This standard is not intended to assess the safety of batteries however it does address the safety of the **electric toy** with the batteries inserted.

This European Standard does not apply to the following toys:

— playground equipment intended for public use;

— automatic playing machines, whether coin operated or not, intended for public use;

— **toy** vehicles equipped with combustion engines;

— **toy** steam engines; and

— slings and catapults;

Furthermore, it does not cover the following items, which, for the purposes of this European Standard, are not considered toys:

— decorative objects for festivities and celebrations;

— products for collectors, provided that the product or its packaging bears a visible and legible indication that it is intended for collectors of 14 years of age and above; examples of this category are:

  — detailed and faithful scale models ;

  — kits for the assembly of detailed scale models;