



SLOVENSKI STANDARD
SIST EN IEC 62115:2020/A11:2020

01-april-2020

Električne igrače - Varnost - Dopolnilo A11

Electric toys - Safety

Elektrische Spielzeuge - Sicherheit

Jouets électriques - Sécurité

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Ta slovenski standard je istoveten z: EN IEC 62115:2020/A11:2020

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ICS:

13.120	Varnost na domu	Domestic safety
97.200.50	Igrače	Toys

SIST EN IEC 62115:2020/A11:2020 **en,fr**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 62115:2020/A11

February 2020

ICS 13.120; 97.200.50

English Version

Electric toys - Safety

Jouets électriques - Sécurité

Elektrische Spielzeuge - Sicherheit

This amendment A11 modifies the European Standard EN IEC 62115:2020; it was approved by CENELEC on 2019-12-02. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62115:2020/A11:2020 (E)

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EN IEC 62115:2020/A11:2020 (E)73 **European foreword**

74 This European Standard (EN IEC 62115:2020/A11:2020) has been prepared by CLC/TC 61, "Safety of
75 household and similar electrical appliances".

76 The following dates are fixed:

- latest date by which this document has to be (dop) 2020-09-02
implemented at national level by publication of an
identical national standard or by endorsement
- latest date by which the national standards (dow) 2021-12-02
conflicting with this document have to be
withdrawn

77 This document supersedes EN 62115:2005.

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

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

81 NOTE The following print types are used:

82 — requirements: in roman type;

83 — test specifications: in italic type;

84 — notes: in small roman type.

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

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

88 There are no national deviations from this European Standard.

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

90 **Endorsement notice**

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

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93 1 Modifications to the Introduction

94 If the IEC Foreword or parts of it is used in the EN Foreword, the following applies: *Replace the 8th paragraph*
95 *by the following:*

96 Other safety aspects of electric toys are described in the EN 71 series of standards.

97 *Delete the 10th paragraph.*

98 *Delete "IEC" or replace it where appropriate by "CLC".*

99 2 Modifications to the Scope

100 *Replace the scope by the following:*

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

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

105 — constructional sets;

106 — **experimental sets**;

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

109 — **electric toy** computers;

110 — A doll's house having an interior lamp

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

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

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

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

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

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

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

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

121 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
122 for switch mode types), **battery chargers** (EN 60335-2-29:2010) and **battery chargers** for use by children (EN 60335-2-
123 29:2010, Annex AA) are not considered to be part of an **electric toy** even if supplied with an **electric toy**.

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

126 This European Standard does not apply to the following toys:

127 — playground equipment intended for public use;

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

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- 129 — **toy** vehicles equipped with combustion engines;
- 130 — **toy** steam engines; and
- 131 — slings and catapults;
- 132 Furthermore, it does not cover the following items, which, for the purposes of this European Standard, are not
133 considered toys:
- 134 — decorative objects for festivities and celebrations;
- 135 — products for collectors, provided that the product or its packaging bears a visible and legible indication
136 that it is intended for collectors of 14 years of age and above; examples of this category are:
- 137 — detailed and faithful scale models ;
- 138 — kits for the assembly of detailed scale models;
- 139 — folk dolls and decorative dolls and other similar articles;
- 140 — historical replicas of toys;
- 141 — reproductions of real fire arms;
- 142 — sports equipment, including roller skates, inline skates, and skateboards intended for children with a body
143 mass of more than 20 kg;
- 144 — bicycles with a maximum saddle height of more than 435 mm, measured as the vertical distance from the
145 ground to the top of the seat surface, with the seat in a horizontal position and with the seat pillar set to
146 the minimum insertion mark;
- 147 — scooters and other means of transport designed for sport or which are intended to be used for travel on
148 public roads or public pathways;
- 149 — electrically driven vehicles which are intended to be used for travel on public roads, public pathways, or
150 the pavement thereof;
- 151 — aquatic equipment intended to be used in deep water, and swimming learning devices for children, such
152 as swim seats and swimming aids;
- 153 — puzzles with more than 500 pieces;
- 154 — guns and pistols using compressed gas, with the exception of water guns and water pistols and bows for
155 archery over 120 cm long;
- 156 — fireworks, including percussion caps which are not specifically designed for toys;
- 157 — products and games using sharp-pointed missiles, such as sets of darts with metallic points;
- 158 — functional educational products, such as electric ovens, irons or other functional products operated at a
159 nominal voltage exceeding 24 V which are sold exclusively for teaching purposes under adult supervision;
- 160 — products intended for use for educational purposes in schools and other pedagogical contexts under the
161 surveillance of an adult instructor, such as science equipment;

- 162 — electronic equipment, such as personal computers and game consoles, used to access interactive
 163 software and their associated peripherals, unless the electronic equipment or the associated peripherals
 164 are specifically designed for and targeted at children and have a play value on their own, such as specially
 165 designed personal computers, key boards, joy sticks or steering wheels;
- 166 — interactive software, intended for leisure and entertainment, such as computer games, and their storage
 167 media, such as CDs;
- 168 — babies' soothers
- 169 — child-appealing luminaires;
- 170 — electrical transformers for toys
- 171 — fashion accessories for children which are not for use in play;

172

173

174 In addition, this European standard does not apply to the following types of products:

- 175 — amusement machines and personal service machines;
- 176 — professional **electric toys** installed in public places (such as shopping centres and railway stations);
- 177 — products containing heating elements intended for use under the supervision of an adult in a teaching
 178 context;
- 179 — portable luminaires for children;
- 180 — blowers for inflatable activity toys (such as blowers for bouncy castles);
- 181 — electric decorative robots
- 182 — personal protective equipment including swimming goggles, sunglasses and other eye protectors as well
 183 as bicycle and skateboard helmets;

184 3 Modification to clause 2, Normative references

185 *Add the following references:*

186 EN 71-1:2014+A1:2018, *Safety of toys — Part 1: Mechanical and physical properties*

187 EN 50410:2008 *Household and similar electrical appliances — Safety — Particular requirements for decorative*
 188 *robots*

189 4 Modification to clause 3, Definitions

190 *In term 3.6.1 Replace IEC 61032 with EN 61032:1998.*

191 *In term 3.4.2 Change definition to read:*

192 **power supply for toys**

193 power supply incorporating a **transformer for toys** not fixed to, or incorporated in, **electric toys** designed to
 194 have a **rated voltage** not exceeding 24 V direct current (d.c.) or 24 V alternating current (a.c.)

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195 Note 1 to entry: **Power supplies for toys** are hereinafter also referred to as **power supplies**.

196 5 Modification to clause 4, General requirements

197 *Replace in the second paragraph “the ISO 8124 series of standards” by “EN 71 series of standards”.*
198

199 6 Modifications to clause 5, General conditions for tests

200 6.2 Preconditioning

201 *Replace clause by the following:*

202 Prior to preconditioning, **electric toys** that require assembly are assembled in accordance with the
203 manufacturer’s instructions.

204 Each test or assessment is carried out using either a preconditioned sample or non-preconditioned sample,
205 depending on which ever sample gives the most unfavourable result. For example, it is more unfavourable not
206 to use the preconditioned sample when preconditioning has damaged the enclosure of the **electric toy**
207 creating better air cooled conditions.

208 If parts detach from the **electric toy**, they may be reattached if this creates a more unfavourable condition.

209 If the **electric toy** stops functioning such that the tests cannot be conducted then the preconditions may be
210 repeated up to two additional times on fresh samples. Should all three **electric toys** stop functioning in the
211 same way, then the tests of this standard are conducted on a non-preconditioned sample.

212 The preconditioned sample is prepared by subjecting it to the following test methods in the order specified
213 below, with batteries in position:

214 — Tension test – for all **electric toys**; Test method of EN71-1: 2014+A1:2018 clause 8.4 however, with a
215 force of $70\text{ N} \pm 2\text{ N}$ independently of the dimensions and applicable independently of age group. The force
216 shall be applied subsequently parallelly and perpendicularly to the major axis of the test component;

217 — Drop test – The drop test is not carried out on large and bulky **electric toys**;

218 **Electric toys** falling below the mass limits indicated in Table 5 shall be dropped onto a specified impact
219 surface. The number of times the **electric toy** shall be dropped and the height from which it is dropped
220 shall also be determined from Table X. The **electric toy** shall be dropped from $93\text{ cm} \pm 5\text{ cm}$, irrespective
221 of the age group. The **electric toy** shall be dropped in random orientation. The impact surface shall
222 consist of vinyl composition tile of approximately 3 mm nominal thickness laid over concrete of at least
223 64 mm thickness. The tile shall have a hardness of (80 ± 10) Shore A and the impact surface shall be at
224 least $0,3\text{ m}^2$.

Table 5 — Drop test

Age group	Mass criterion kg	Number of drops
Under 18 months	< 1,4	10
18 months and over but under 96 months	< 4,5	4

225

226 After each drop, the **electric toy** shall be allowed to come to rest and shall be examined and evaluated
227 before continuing.

228 — Tip over test – for large and bulky **electric toys**; test method of EN71: 2014+A1:2018 clause 8.6.

- 229 — Static strength test – for **electric toys** designed to bear the mass of a child; Test method of EN71:
230 2014+A1:2018 clause 8.21
- 231 — Dynamic strength test – for wheeled ride-on **electric toys**;
- 232 Load the **electric toy** for 5 min in the most onerous position with a mass on its standing or sitting surface.
233 The mass shall be $(25 \pm 0,2)$ kg for **electric toys** intended for children under 36 months and $(50 \pm 0,5)$ kg
234 for *electric toys* intended to children of 36 months and over. Secure the load to the **electric toy** in a
235 position corresponding to the normal use of the **electric toy**. Drive the **electric toy** three times at a speed
236 of $(2 \pm 0,2)$ m/s into a non-resilient step with a height of 50 mm. If the **electric toy** is intended to bear the
237 mass of more than one child at a time, test each sitting or standing area simultaneously
- 238 — Tension test for seams and materials – test method of EN71: 2014+A1:2018 clause 8.4.2.2 for **electric**
239 **toys** having textile or other flexible materials covering batteries or other electrical parts.
- 240 NOTE Compliance with EN71: 2014+A1:2018 is not checked after the preconditioning. The pre-conditions are
241 conducted in order to determine the influence on the requirements and tests of this standard.

242 7 Modifications to clause 7, Marking and Instructions

243 7.1 General

244 *Add the following paragraph at the end of 7.1:*

245 The warnings shall be preceded by the words “Warning” or “Warnings”, as appropriate (i.e. instead of repeating the word
246 “Warning” before each warning when several of the warnings in this standard are present, the word “Warnings” may be
247 used once). The word “Warning” or “Warnings” may be capitalized or followed by punctuation, e.g. an exclamation mark.

248 7.2 Markings on electric toys

249 **7.2.1 Identification** [https://standards.iteh.ai/catalog/standards/sist/4fc3f8c8-4574-487d-b238-
d6f71486cf0b/sist-en-iec-62115-2020-a11-2020](https://standards.iteh.ai/catalog/standards/sist/4fc3f8c8-4574-487d-b238-d6f71486cf0b/sist-en-iec-62115-2020-a11-2020)

250 *Delete sub-clause 7.2.1 and replace with the following informative notes:*

251 NOTE The following bullet points include information about requirements in Directive 2009/48/EC, relating to marking
252 of toys and do not constitute requirements of this European Standard. The information is not exhaustive and it is advised
253 to consult Directive 2009/48/EC and the associated guidance documents for further details.

254 — The manufacturer’s¹ name, registered trade name or registered trade mark and the address at which the manufacturer
255 can be contacted shall be indicated on the toy or, where that is not possible, on its packaging or in a document
256 accompanying the toy. This requirement applies also to the name and address etc. of any importer².

257 — Manufacturers shall ensure that their toys bear a type, batch, serial or model number or other element allowing their
258 identification, or where the size or nature of the toy does not allow it, that the required information is provided on the
259 packaging or in a document accompanying the toy.

260 — Manufacturers and importers shall ensure that the toy is accompanied by instructions and safety information in a
261 language or languages easily understood by consumers, as determined by the Member State concerned.

262 — A Member State may, within its territory, stipulate that warnings and safety instructions shall be written in a language or
263 languages easily understood by consumers, as determined by that Member State.

¹ A manufacturer is any natural or legal person who manufactures a toy or has a toy designed or manufactured, and markets that toy under his name or trademark.

² An importer is any natural or legal person established within the Community who places a toy from a third country on the Community market.

EN IEC 62115:2020/A11:2020 (E)264 **7.2.6 Symbols**

265 Modify the number of the symbol for Warning: Contains coin battery to (ISO 7010 W001 and IEC 60417 6367).

266 **7.3 Instructions and markings on Packaging**267 **7.3.2 Transformer toys and power supply toys**268 *Replace “WARNING” with “Warning” in 2nd paragraph*269 *Add the following note after the warning:*

270 NOTE Instead of 3 years 36 months can be used in the warning.

271 *3rd paragraph replace “ISO 8124-1” with “EN 71-1:2014+A1:2018”.*272 *Replace the last sentence in the third paragraph by the following:*273 This requirement does not apply to toys, which on account of their function, dimensions, characteristics or
274 properties, or on other cogent grounds, are manifestly unsuitable for children under 36 months.275 **7.3.3.1 General**276 *Replace “WARNING” with “Warning” in 4th paragraph*277 **7.3.3.2 Coin batteries**278 *Replace “WARNING” with “Warning” in 1st, 3rd and 4th paragraph.*279 *Add a note after the second paragraph:*280 Note The graphic for the **coin batteries** has a triangle which needs to be yellow, as well as the symbol for the **coin**
281 **battery** itself.282 **7.3.3.3 Button Batteries**283 *Replace “WARNING” with “Warning”* [SIST EN IEC 62115:2020/A11:2020
https://standards.iteh.ai/catalog/standards/sist/4fc3f8c8-4574-487d-b238-1f22990f1129/en-iec-62115-2020-a11-2020](https://standards.iteh.ai/catalog/standards/sist/4fc3f8c8-4574-487d-b238-1f22990f1129/en-iec-62115-2020-a11-2020)284 **7.5 Instructions for electric ride-on toys**285 *Delete the requirement and add following note:*286 NOTE See EN 71-1:2014+A1:2018 for requirement for **electric ride-on toys**.287 **7.6 Temperature warnings**288 *Replace “WARNING” with “Warning” in first and 5th paragraph.*289 Replace “The text “Not suitable for children under 3 years” may be replaced by the age warning symbol from
290 Figure B.1 of ISO 8124-1.” with “The text “Not suitable for children under 3 years” may be replaced by the age
291 warning symbol from 7.2 of EN 71-1:2014+A1:2018.”292 **8 Modification to clause 9, Heating and abnormal operation**293 **9.9 Fault conditions in electronic circuits**294 *Replace the 8th paragraph item f) including note 2 and 3 with the following:*295 f) failure of microprocessors and integrated circuits except components such as thyristors and triacs. All
296 possible output signals are considered for faults occurring within the component. If it can be shown that a
297 particular output signal is unlikely to occur, then the relevant fault is not considered.298 **9.10 Compliance criteria**299 *Replace “International Standard” by “standard” in the 4th dash of the test specification.*