TECHNICAL SPECIFICATION SPÉCIFICATION TECHNIQUE TECHNISCHE SPEZIFIKATION

CEN/TS 115-4

September 2020

ICS 91.140.90

Supersedes CEN/TS 115-4:2015

English Version

Safety of escalators and moving walks - Part 4: Interpretations related to EN 115 family of standards

Sécurité des escaliers mécaniques et trottoirs roulants - Partie 4 : Interprétations relatives aux normes de la famille EN 115

Sicherheit von Aufzügen und Fahrtreppen - Teil 4: Auslegungen zur Normenreihe EN 115

This Technical Specification (CEN/TS) was approved by CEN on 19 July 2020 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (CEN/TS 115-4:2020) has been prepared by Technical Committee CEN/TC 10 "Lifts, escalators and moving walks", the secretariat of which is held by AFNOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 115-4:2015.

Interpretations 138 till 150 are added in this edition compared to CEN/TS 115-4:2015.

EN 115 is divided into the following parts:

- EN 115-1, Safety of escalators and moving walks Part 1: Construction and installation;
- EN 115-2, Safety of escalators and moving walks Part 2: Rules for the improvement of safety of existing escalators and moving walks;
- CEN/TR 115-3, Safety of escalators and moving walks Part 3: Correlation between EN 115-1:2008+A1:2010 and EN 115-1:2017 [Technical Report];
- CEN/TS 115-4, *Safety of escalators and moving walks Part 4: Interpretations related to EN 115 family of standards* [Technical specification; the present document].

This document is a collection of interpretations related to the EN 115 series. For the time being, this collection of interpretations relates to EN 115-1. According to the progress in working out interpretations, this document will be amended and/or completed.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Standards reflect the consensus of the best European expertise and are prepared with highest care. Product standards cannot be formulated in such a way that they describe all possible technical solutions and therefore exclude all uncertainties regarding the understanding of the required provisions. On the other hand, technology is in a permanent evolution, the progress of which cannot be incorporated into standards quickly enough.

Interpretations are a practical way to give:

- a) answers to questions regarding the understanding of clauses in standards;
- feedback to the CEN-Committee responsible for a standard about the practical experiences resulting from the use of the standard;
- c) guidance to further development and improvement of standards following:
 - 1) experience, especially accidents and incidents;
 - 2) progress in technology;
 - 3) state of the art.

1 Scope

This document is a collection of interpretations related to the EN 115 series. This document collects interpretations to EN 115-1:2008+A1:2010 and EN 115-1:2017. Interpretations to other standards of the EN 115 series will be added when they are available.

Interpretations aim to improve the understanding of the clause(s) they are referring to and by that facilitating common understanding between manufacturers, lift installers, notified bodies, inspection bodies and national authorities.

Interpretations do not have the same status as the European standards to which they are related. However, the application of interpretations give to the interested parties confidence that the relevant European standard has not been wrongly applied.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 115-1:2008+A1:2010, Safety of escalators and moving walks - Part 1: Construction and installation

EN 115-1:2017, Safety of escalators and moving walks - Part 1: Construction and installation

EN 349, Safety of machinery - Minimum gaps to avoid crushing of parts of the human body

EN 1929-1, Basket trolleys - Part 1: Requirements and tests for basket trolleys with or without a child carrying facility

EN 1990:2002, Eurocode - Basis of structural design

EN 1990:2002/A1:2005, Eurocode - Basis of structural design

EN 1991-1-1, Eurocode 1: Actions on structures - Part 1-1: General actions - Densities, self-weight, imposed loads for buildings

EN 1993-1-1:2005, Eurocode 3: Design of steel structures - Part 1-1: General rules and rules for buildings

EN 1998-1:2004, Eurocode 8: Design of structures for earthquake resistance - Part 1: General rules, seismic actions and rules for buildings

EN 13501-1:2007, Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 13823, Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

EN ISO 13857:2008, Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)

3 List of interpretations

3.1 General

The following lists show the valid interpretations contained in this document.

3.2 Lists of interpretations pertaining to EN 115-1

The interpretations related to EN 115-1 are listed in Tables 1 and 2.

Table 1 shows the list of interpretations in their numerical order.

Table 2 shows the list of interpretations in order of the clauses of EN 115-1:2008+A1:2010 and EN 115-1:2017.

These interpretations are detailed in Clause 4.

Table 1 — List of interpretations in numerical order

Interpretation number	Related clause/ subclause	Date of validity	Keywords
101	5.3.1	2012-03-14	Increased height of the web on step treads side
102	5.5.2.4, 5.5.3.3	2012-03-14	Form of 25 cm ² area
103	5.5.3.3	2012-03-14	Load on skirting
104	5.12.2.1.3, 5.12.2.2.2	2012-03-14	Automatic restart in two-direction mode
Y 105	A.2.1	2012-03-14	Unrestricted area, fixed stairs, building height
106	5.12.2.5	2012-03-14	Number of inspection control on site
107	A.2.4	2012-03-14	Rigid deflectors
103 104 105 106 107 108 109 109 109 109 110 111 111 111 111 111	I.1	2012-03-14	Barrier to prevent access of shopping trolleys and baggage carts
109	5.4.3.2	2012-03-14	Testing of steps and pallets drive
110	5.2.1.2	2012-03-14	Stiffness of exterior panel
111	5.12.2.2.4.1 Table 6 h)	2012-03-14	Stopping of succeeding escalators
112	5.3.5	2012-03-14	Measurement of step to step gap
113	5.9	2012-03-14	Fire protection of steps and pallets
114	5.6.2.1	2012-03-14	Handrail clearances
115	A.2.5	2012-03-14	Unrestricted area at the exit
116	5.12.2.2.4.1 Table 6 h), A.2.5	2012-03-14	Area of exit
117	A.2.5, I.2	2012-03-14	Additional stop switch at handrail level - Building interfaces to escalator/moving walk
118	5.8.2.1, A.3.5	2012-03-14	Standing area in machinery spaces
119	A.2	2012-03-14	Fixed devices in unrestricted areas
120	Annex I	2012-03-14	Barriers to prevent shopping trolleys access
121	5.4.2.2.2	2014-11-14	Auxiliary braking system
122	5.3.6	2014-11-14	Location detection missing step device
123	5.4.2.1.1.1, 5.4.2.1.1.3, 5.12.1.2.1.1	2014-11-14	Electrical braking with inverter
124	5.4.1.3.2	2014-11-14	Safety factor of driving elements

Interpretation number	Related clause/ subclause	Date of validity	Keywords
125	4.9, 5.7.2.1	2014-11-14	 2 horizontal steps ≤ 6 m vs. 3 horizontal steps > 6 m; Lower escalator transition curve, exit/entry
126	5.3.3.2.2	2014-11-14	Step riser, inserts
127	5.7.3.2.6	2014-11-14	Comb switch
128	5.12.2.1.1	2014-11-14	Starting with passengers on the step/pallet band
129	5.12.2.1.3	2014-11-14	Automatic initiation of starting
130	5.7.2.1	2014-11-14	Landing, vertical difference, consecutive steps
131	5.5.3.4 d), Annex K	2014-11-14	Friction coefficient, material
132	A.2.2	2014-11-14	Measure b ₁₂
133	5.5.3.4	2014-11-14	Skirt deflector
134	3.1.19, 5.4.1.2	2014-11-14	Definition of nominal speed
135	5.4.2.3	2014-11-14	Excessive speed
136	A.2.5	2014-11-14	Unrestricted area
137	A.2.5	2014-11-14	Unrestricted area
138	5.3.5	2019-09-30	Clearance between two consecutive steps
139	J.2	2019-09-30	Testing and assessing anti-slip properties
140	5.3.3.3.1/5.3.3.3.2	2019-09-30	Step / pallet test frequency
141	5.5.2.1	2019-09-30	Vertical height of the balustrade
142	5.12.3 (EN 115-1:2017)	2019-09-30	Stop device – Disconnection of the power supply
143	5.4.3.2 and 6 (EN 115-1:2017)	2019-09-30	Step/pallet chain – nominal infinite fatigue life
144	5.4.2.2.2 (EN 115-1:2017)	2019-09-30	Auxiliary braking system / verification according Table 11
145	5.1 and Annex M (EN 115-1:2017)	2019-09-30	Seismic – requirements for Escalators / Moving walks vs. Building
146	Annex M (EN 115-1:2017)	2019-09-30	Seismic – requirements for Escalators / Moving walks vs. Building
147	Annex M (EN 115-1:2017)	2019-09-30	Seismic – requirements for Escalators / Moving walks vs. Building
148	Annex M (EN 115-1:2017)	2019-09-30	Seismic – requirements for Escalators / Moving walks vs. Building
149	Annex M (EN 115-1:2017)	2019-09-30	Loading during a seismic event
150	Annex M, M.2.2 – M.2.4 (EN 115-1:2017)	2019-09-30	Structural requirements for seismic conditions