

SVENSK STANDARD SS-EN 62275

FastställdUtgåvaSidaAnsvarig kommitté2015-05-1321 (1+36)SEK TK 23

© Copyright SEK. Reproduction in any form without permission is prohibited.

Buntband för elinstallationer

Cable management systems – Cable ties for electrical installations

Som svensk standard gäller europastandarden EN 62275:2015. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62275:2015.

Nationellt förord

Europastandarden EN 62275:2015

består av:

- europastandardens ikraftsättningsdokument, utarbetat inom CENELEC
- IEC 62275, Second edition, 2013 Cable management systems -Cable ties for electrical installations

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62275, utgåva 1, 2009, gäller ej fr o m 2018-01-19.

Denna standard är fastställd av SEK Svensk Elstandard, som också kan lämna upplysningar om **sakinnehållet** i standarden. Postadress: Box 1284, 164 29 KISTA Telefon: 08 - 444 14 00. E-post: sek@elstandard.se. Internet: www.elstandard.se

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK Svensk Elstandard

Box 1284 164 29 Kista Tel 08-444 14 00 www.elstandard.se

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 62275

February 2015

ICS 29.120.10; 29.120.99

Supersedes EN 62275:2009

English Version

Cable management systems - Cable ties for electrical installations (IEC 62275:2013, modified)

Systèmes de câblage - Colliers pour installations électriques (IEC 62275:2013, modifiée) Kabelführungssysteme - Kabelbinder für elektrische Installationen (IEC 62275:2013, modifiziert)

This European Standard was approved by CENELEC on 2015-01-19. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2015 CENELEC All rights of exploitation in any form and by any means reserved worldwide for CENELEC Members.

Ref. No. EN 62275:2015 E

SEK Svensk Elstandard

Foreword

This document (EN 62275:2015) consists of the text of IEC 62275:2013 prepared by SC 23A "Cable management systems" of IEC/TC 23 "Electrical accessories", together with the common modifications prepared by CLC/TC 213 "Cable management systems".

The following dates are fixed:

- latest date by which the document has to be (dop) 2016-01-19 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2018-01-19 with the document have to be withdrawn

This document supersedes EN 62275:2009.

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 62275:2013 was approved by CENELEC as a European Standard with agreed common modifications.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 62275:2006 NOTE Harmonized as EN 62275:2009 (modified).

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	<u>Year</u>
IEC 60068-2-6	2007	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60695-11-5	2004	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2005
IEC 60216-4-1	2006	Electrical insulating materials - Thermal endurance properties - Part 4-1: Ageing ovens - Single-chamber ovens	EN 60216-4-1	2006
ISO 4892-2	2006	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	EN ISO 4892-2	2006
ISO 9227	2012	Corrosion tests in artificial atmospheres - Salt spray tests	EN ISO 9227	2012

FOF	REWORD			4
1	Scope			6
2	Normativ	ve reference	es	6
3	Terms a	nd definitio	ns	6
4	General	requiremer	nts	7
5	General	notes on te	ests	8
6	Classific	ation		12
	6.1		to material	
	••••	6.1.1	Metallic component	
		6.1.2	Non-metallic component	
		6.1.3	Composite component	
	6.2		to loop tensile strength for cable ties and mechanical strength evices	
		6.2.1	Loop tensile strength for cable ties	
		6.2.2	Type 1 – Retains at least 50 % of declared loop tensile strength for cable ties and mechanical strength for fixing devices after test conditions	12
		6.2.3	Type 2 – Retains 100 % declared loop tensile strength for cable ties and mechanical strength for fixing devices after test conditions	12
	6.3	According	to temperature	13
		6.3.1	According to maximum operating temperature for application given in Table 4	13
		6.3.2	According to minimum operating temperature for application given in Table 5	13
		6.3.3	According to minimum temperature during installation as declared by the manufacturer	13
	6.4		to contribution to fire for non-metallic and composite cable ties	13
		6.4.1	Flame propagating	13
		6.4.2	Non-flame propagating	13
	6.5	According	to environmental influences	14
		6.5.1	According to resistance to ultraviolet light for non-metallic and composite components	14
		6.5.2	According to resistance to corrosion for metallic and composite components	14
7	Marking	and docum	entation	14
8	Construe	ction		15
9	Mechani	cal properti	ies	15
	9.1	Requireme	ents	15
	9.2	Installation	ı test	15
	9.3 Minimum installation temperature test for cable ties			
	9.4			
	9.5	Loop tensi	le strength test for cable ties classified according to 6.2.2	18
		9.5.1	As-received condition	18
		9.5.2	After heat ageing	18
		9.5.3	After temperature cycling	18

	9.6	Loop ter	nsile strength test for cable ties classified according to 6.2.3	
		9.6.1	As-received condition	
		9.6.2	After heat ageing	
		9.6.3	After temperature cycling	
	9.7	9.6.4 Moobooi	After vibration test for metallic cable ties	
	9.7	9.7.1	ical strength test for fixing devices As-received	
		9.7.1	After heat ageing	
		9.7.3	After temperature cycling	
10	Contribu		re	
11			fluences	
	11.1		nce to ultraviolet light	
	11.2		nce to corrosion	
12	Electror	nagnetic	compatibility	30
			Compliance checks to be carried out for cable ties and fixing	
			h IEC 62275:2006	
Bibl	iography			33
Figu	ıre 1 – R	eference	thickness for cable ties	9
Figu test		ypical arra	angements for cable tie orientation on split mandrel for tensile	
Figu	ure 3 – To	est appar	atus for cable tie impact test	17
Figu	ure 4 – Ty	ypical arra	angement for the vibration test	21
Figu	ure 5 – Ty	ypical arra	angement of test assembly for fixing device test	23
Figu	ure 6 – A	rrangeme	nt for the needle flame test	26
-		-	nded sample repositioning for ultraviolet light and water exposure.	
Tab	le 1 – Sta	abilisatior	n time for samples	8
Tab	le 2 – Te	st mandro	el diameter	10
Tab	le 3 – Lo	op tensile	e strength	12
Tab	le 4 – Ma	aximum o	perating temperature for application	13
Tab	le 5 – Mi	nimum op	perating temperature for application	13
Tab	le 6 – En	iergy valu	es of hammer	18
Tab	le A.1 – I	Required	compliance checks	31

INTERNATIONAL ELECTROTECHNICAL COMMISSION

CABLE MANAGEMENT SYSTEMS – CABLE TIES FOR ELECTRICAL INSTALLATIONS

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 for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62275 has been prepared by subcommittee 23A: Cable management systems, of IEC technical committee 23: Electrical accessories.

This second edition cancels and replaces the first edition published in 2006 and constitutes a technical revision. It incorporates additional tables, an annex and figures as well as revisions to such that appeared in the first edition. In places the text has been substantially altered including:

- revised and updated normative references,
- integral cable ties and fixing devices,
- change in the range of the diameter of the test mandrel,
- general notes on tests,
- mechanical properties and associated tests as well as tests for resistance to ultraviolet light and corrosion.

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

FDIS	Report on voting	
23A/693/FDIS	23A/695/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.

In this publication, the following print types are used:

- Requirements proper: in roman type.
- Test specifications: in italic type.
- Notes: in smaller roman type.

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.

CABLE MANAGEMENT SYSTEMS – CABLE TIES FOR ELECTRICAL INSTALLATIONS

1 Scope

This International Standard specifies requirements for metallic, non-metallic and composite cable ties and their associated fixing devices used for the management and support of wiring systems in electrical installations.

Cable ties and associated fixing devices may also be suitable for other applications and where so used, regard should be taken of any additional requirements.

This standard does not contain requirements that evaluate any electrical insulation properties of the cable tie or mechanical protection of the cables provided by the cable tie.

This standard does not consider the mechanical interface of a fixing device to a solid surface such as a wall or ceiling.

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 60068-2-6:2007, Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)

IEC 60695-11-5:2004, Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance

IEC 60216-4-1:2006, *Electrical insulating materials* – *Thermal endurance properties* – *Part 4- 1: Ageing ovens* – *Single-chamber ovens*

ISO 4892-2:2006, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps*

ISO 9227:2012, Corrosion tests in artificial atmospheres – Salt spray tests