

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

Ljusarmatur – Säkerhet – Del 2-20: Särskilda fordringar på ljuskedjor

*Luminaires –
Part 2-20: Particular requirements –
Lighting chains*

Som svensk standard gäller europastandarden EN 60598-2-20:2010. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60598-2-20:2010.

Nationellt förord

Europastandarden EN 60598-2-20:2010

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60598-2-20, Third edition, 2010 - Luminaires - Part 2-20: Particular requirements - Lighting chains**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden ska användas tillsammans med SS-EN 60598-1, utgåva 7, 2008.

Tidigare fastställd svensk standard SS-EN 60598-2-20, utgåva 3, 1997, SS-EN 60598-2-20/A1, utgåva 1, 1998, SS-EN 60598-2-20/A1 C1, utgåva 1, 1999, SS-EN 60598-2-20/A2, utgåva 1, 2004 och SS-EN 60598-2-20/A2 C1 utgåva 1, 2004, gäller ej fr o m 2013-04-01.

ICS 29.140.40

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven 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 standardiseringssarbetet 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

Utdriften 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).

Standardiseringssarbetet 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 standardiseringssverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtidens 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 60598-2-20

April 2010

ICS 29.140.40

Supersedes EN 60598-2-20:1997 + A1:1998 + corr. Dec.1998 + A2:2004 + corr. Sep.2004

English version

Luminaires -
Part 2-20: Particular requirements -
Lighting chains
(IEC 60598-2-20:2010, modified)

Luminaires -
Partie 2-20: Règles particulières -
Guirlandes lumineuses
(CEI 60598-2-20:2010, modifiée)

Leuchten -
Teil 2-20: Besondere Anforderungen -
Lichtketten
(IEC 60598-2-20:2010, modifiziert)

This European Standard was approved by CENELEC on 2010-04-01. 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 Central Secretariat 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 Central Secretariat 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 34D/946/FDIS, future edition 3 of IEC 605989-2-20, prepared by SC 34D, Luminaires, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote.

A draft amendment prepared by the Technical Committee CENELEC TC 34Z, Luminaires and associated equipment and was simultaneously submitted to the formal vote.

The combined texts were approved by CENELEC as EN 60598-2-20 on 2010-04-01.

This European Standard supersedes EN 60598-2-20:1997 + A1:1998 + A2:2004.

This standard is to be used in conjunction with EN 60598-1:2008.

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

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2011-01-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2013-04-01

Annexes ZA and ZB have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60598-2-20:2010 was approved by CENELEC as a European Standard with agreed common modifications as given below.

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

IEC 61347-1 NOTE Harmonized as EN 61347-1.

COMMON MODIFICATIONS



Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application 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.

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60083	-	Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC	-	-
IEC 60227	Series	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V - Part 1: General requirements	-	-
IEC 60238 + A1	2004 2008	Edison screw lampholders	EN 60238 + corr. January + A1	2004 2005 2008
IEC 60245	Series	Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 1: General requirements	-	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60598-1 (mod)	2008	Luminaires - Part 1: General requirements and tests	EN 60598-1 + A11	2008 2009
IEC 60811-3-1 + A1 + A2	1985 1994 2001	Common test methods for insulating and sheathing materials of electric cables - Part 3: Methods specific to PVC compounds - Section 1: Pressure test at high temperature - Tests for resistance to cracking	EN 60811-3-1 + A1 + A2	1995 1996 2001
IEC 61184	-	Bayonet lampholders	EN 61184	-
IEC 61347-2-11	2001	Lamp controlgear - Part 2-11: Particular requirements for miscellaneous electronic circuits used with luminaires	EN 61347-2-11 + corr. January	2001 2002

CONTENTS

20.1	Scope	5
20.2	Normative references	5
20.3	General test requirements	6
20.4	Definitions	6
20.5	Classification of luminaires	6
20.6	Marking	6
20.7	Construction	7
20.8	Creepage distances and clearances	10
20.9	Provisions for earthing	10
20.10	Terminals	10
20.11	External and internal wiring	10
20.12	Protection against electric shock	12
20.13	Endurance tests and thermal tests	16
20.14	Resistance to dust and moisture	17
20.15	Insulation resistance and electric strength	17
20.16	Resistance to heat, fire and tracking	17
	Annex A (informative) Tumbling barrel test	18
	Bibliography	19
	Figure 1 – Example of a suitable connection for lighting chains	14
	Figure 2 – Example of test device suitable for checking security of lampholder contacts	15
	Figure 3 – Example of test device suitable for winding a flexible pipe	16
	Table 1 – Characteristics of the lighting chains	11

LUMINAIRES –

Part 2-20: Particular requirements – Lighting chains

20.1 Scope

This part of IEC 60598 specifies requirements for lighting chains fitted with series- or parallel- or a combination of series/parallel-connected incandescent lamps for use either indoors or outdoors on supply voltages not exceeding 250 V.

NOTE 1 A Christmas tree chain is an example of a lighting chain fitted with series or series/parallel connected lamps.

A chain for illuminating ski-tracks or promenades is an example of a lighting chain fitted with parallel connected lamps.

NOTE 2 For lighting chains fitted with lampholders of the push-in type, the appropriate requirements of this part of IEC 60598 apply.

NOTE 3 In some countries, the term "strings" is used instead of "chains".

NOTE 4 For lighting chains with non-standardised lamps (e.g. lamps of the push-in type) the lamps are regarded as a part of the lighting chain and consequently included in the testing (and thereby in the certificate, if any).

20.2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60083, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*

IEC 60227 (all parts), *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V*

IEC 60238:2004, *Edison screw lampholders*¹⁾
Amendment 1 (2008)

IEC 60245 (all parts), *Rubber insulated cables – Rated voltages up to and including 450/750 V*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60598-1:2008, *Luminaires – Part 1: General requirements and tests*

IEC 60811-3-1:1985, *Common test methods for insulating and sheathing materials of electric cables – Part 3: Methods specific to PVC compounds – Section One: Pressure test at high temperature – Tests for resistance to cracking*
Amendment 1 (1994)
Amendment 2 (2001)

IEC 61184, *Bayonet lampholders*

¹⁾ There exists a consolidated edition 8.1 (2008) that comprises IEC 60238 (2004) and its Amendment 1 (2008).

IEC 61347-2-11, *Safety of lamp controlgear – Part 2-11: Particular requirements for miscellaneous electronic circuits used with luminaires*

