SVENSK STANDARD SS-EN 62246-1

Fastställd	Utgåva	Sida	Ansvarig kommitté
2011-11-09	2	1 (1+78)	SEK TK 94/95

Tungreläer –
Del 1: Artspecifikation

Reed switches –
Part 1: Generic specification

Som svensk standard gäller europastandarden EN 62246-1:2011. Den svenska standarden innehåller den officiella engelska språkversionen av EN 62246-1:2011.

Nationellt förord

Europastandarden EN 62246-1:2011

består av:

– **europastandardens ikraftsättningsdokument,** utarbetat inom CENELEC
– **IEC 62246-1, Second edition, 2011 - Reed switches - Part 1: Generic specification**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 62246-1, utgåva 1, 2003 och SS-EN 62246-2, utgåva 1, 2008, gäller ej fr o m 2014-03-17.

ICS 29.120.70

Denna standard är fastställd av SEK Svensk Elstandard,
som också kan lämna upplysningar om **sakinnehållet** i standarden.
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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 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.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62246-1

March 2011

ICS 29.120.70

Supersedes EN 62246-1:2002, EN 62246-2:2008

English version

Reed switches - Part 1: Generic specification

(IEC 62246-1:2011)

Contacts à lames souples - Partie 1: Spécification générique (CEI 62246-1:2011)

Reedschalter - Teil 1: Fachgrundspezifikation (IEC 62246-1:2011)

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62246-1:2011 E

SEK Svensk Elstandard

Foreword

The text of document 94/314/FDIS, future edition 2 of IEC 62246-1, prepared by IEC TC 94, All-or-nothing electrical relays, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62246-1 on 2011-03-17.

This European Standard supersedes EN 62246-1:2002 and EN 62246-2:2008.

This edition includes the following significant technical changes with respect to EN 62246-1:2002 and EN 62246-2:2008:

– update of references, terms and definitions;

– renumbering of clauses to bring them into a more logical order;

– inclusion of the generic specifications for all types of reed switches, but mercury wetted reed switches have been removed from the scope due to their potential for environmental impact;

– inclusion of three fundamental conformity assessment procedures for quality assessment;

– improvement of electrical endurance tests covering resistive, inductive, capacitive and filament lamp contact loads;

– renumbering of all annexes in the order they are referenced in the body of the standard;

– improvement of test procedures;

– inclusion of a new Annex C (informative) for electrical endurance test circuit, an Annex D (informative) for inrush current loads, an Annex E (informative) for conditional short-circuit current test circuit, an Annex F (informative) for electrical ratings based on classification, an Annex G (informative) for example of test arrangement for contact reliability test, an Annex H (informative) for example of test arrangement for making current capacity test and an Annex I (informative) for example of test arrangement for breaking current capacity test.

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 EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2011-12-17
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2014-03-17

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62246-1:2011 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 60027 series	NOTE	Harmonized as EN 60027 series (not modified).
IEC 60317-1	NOTE	Harmonized as EN 60317-1.
IEC 61000-4-5:2005	NOTE	Harmonized as EN 61000-4-5:2006 (not modified).
IEC 61810-1:2008	NOTE	Harmonized as EN 61810-1:2008 (not modified).
IEC 61810-2	NOTE	Harmonized as EN 61810-2.
IEC 61811-1	NOTE	Harmonized as EN 61811-1.
IEC 62246 series	NOTE	Harmonized as EN 62246 series (not modified).
ISO/IEC 17050-1	NOTE	Harmonized as EN ISO/IEC 17050-1.
ISO 9000	NOTE	Harmonized as EN ISO 9000.
ISO 9001	NOTE	Harmonized as EN ISO 9001.

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.

Publication	Year	Title	EN/HD	Year
IEC 60068-1	1988	Environmental testing - Part 1: General and guidance	EN 60068-1[1)]	1994
IEC 60068-2-1	2007	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
IEC 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-6	2007	Environmental testing - Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60068-2-7	1983	Environmental testing - Part 2: Tests. Test Ga: Acceleration, steady state	EN 60068-2-7[2)]	1993
IEC 60068-2-11	1981	Environmental testing - Part 2: Tests - Test Ka: Salt mist	EN 60068-2-11	1999
IEC 60068-2-13	1983	Environmental testing - Part 2: Tests - Test M: Low air pressure	EN 60068-2-13	1999
IEC 60068-2-14	2009	Environmental testing - Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	2009
IEC 60068-2-17	1994	Environmental testing - Part 2: Tests - Test Q: Sealing	EN 60068-2-17	1994
IEC 60068-2-20	2008	Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	EN 60068-2-20	2008
IEC 60068-2-21	2006	Environmental testing - Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	2006
IEC 60068-2-27	2008	Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60068-2-30	2005	Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005
IEC 60068-2-78	-	Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-

[1)] EN 60068-1 includes A1 to IEC 60068-1 + corr. October .

[2)] EN 60068-2-7 includes A1 to IEC 60068-2-7.

Publication	Year	Title	EN/HD	Year
IEC 60096	Series	Radio-frequency cables	-	-
IEC 60410	-	Sampling plans and procedures for inspection by attributes	-	-
IEC 60947-5-1	2003	Low-voltage switchgear and controlgear - Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1 + corr. July	2004 2005
IEC QC 001002-1	1998	IEC quality assessment system for electronic components (IECQ) - Rules of procedure - Part 1: Administration	-	-
IEC QC 001002-3	2005	IEC Quality Assessment System for Electronic Components (IECQ) - Rules of Procedure - Part 3: Approval procedures	-	-

CONTENTS

REED SWITCHES –

Part 1: Generic specification

1 Scope

This part of IEC 62246 series, which is a generic specification applies to all types of reed switches including magnetically biased reed switches of assessed quality for use in general and industrial applications.

NOTE 1 Mercury wetted reed switches are not covered by this standard due to their possible environmental impact.

It lists the tests and measurement procedures which may be selected for use in detail specifications for such reed switches. This standard also specifies the quality assessment procedures to be followed.

This standard applies to reed switches which are operated by an applied magnetic field; it is not restricted to any particular type of contact load.

NOTE 2 For elementary relays with reed switches, this standard is recommended to be used together with the standards IEC 61810-1 and IEC 61811-1 as applicable.

NOTE 3 The applications of reed switches can be covered by specific product standards and the use of the IEC 62246 series does not guarantee compliance with those standards.

NOTE 4 Where any discrepancies occur for any reasons, documents rank in the following order of authority:

a) the detail specification,

b) the sectional specification,

c) the generic specification,

d) any other international documents (for example, of the IEC) to which reference is made.

The same order of precedence applies to equivalent national documents.

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 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2:2007, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

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

IEC 60068-2-7:1983, *Basic environmental testing procedures – Part 2-7: Tests – Test Ga and guidance: Acceleration, steady state*

IEC 60068-2-11:1981, *Basic environmental testing procedures – Part 2-11: Tests – Test Ka: Salt mist*

IEC 60068-2-13:1983, *Basic environmental testing procedures – Part 2-13: Tests – Test M: Low air pressure*

IEC 60068-2-14:2009, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

IEC 60068-2-17:1994, *Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing*

IEC 60068-2-20:2008, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-21:2006, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-30:2005, *Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 + 12 h cycle)*

IEC 60068-2-78, *Environmental testing – Part 2-78: Tests – Test Cab: Damp heat, steady state*

IEC 60096 (all parts), *Radio frequency cables*

IEC 60410, *Sampling plans and procedures for inspection by attributes*

IEC 60947-5-1:2003, *Low-voltage switchgear and controlgear – Part 5-1: Control circuit devices and switching elements – Electromechanical control circuit devices*

IECQ 001002-1:1998, *IEC Quality Assessment System for Electronic Components (IECQ System) – Rules of Procedure – Part 1: Administration*

IECQ 001002-3:2005, *IEC Quality Assessment System for Electronic Components (IECQ System) – Rules of Procedure – Part 3: Approval procedures*