

Svenska Elektriska Kommissionen, SEK

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Arbete med spänning – Elektriskt ledande kläder

Live working –

Conductive clothing for use at nominal voltage up to 800 kV a.c. and ± 600 kV d.c.

Som svensk standard gäller europastandarden EN 60895:2003. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60895:2003.

Nationellt förord

Europastandarden EN 60895:2003

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60895, Second edition, 2002^{*)} - Live working - Conductive clothing for use at nominal voltage up to 800 kV a.c. and ± 600 kV d.c.**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare utgiven svensk standard SS-EN 60895, utgåva 1, 1996 gäller ej fr o m 2006-07-01.

^{*)} Corrigendum, February 2003, till IEC 60895:2002, är inarbetat i texten.

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

Svenska Elektriska Kommissionen, SEK, 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.

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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

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EUROPEAN STANDARD

EN 60895

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2003

ICS 13.260;29.240;29.260.99

Supersedes EN 60895:1996

English version

**Live working –
Conductive clothing for use at nominal voltage
up to 800 kV a.c. and \pm 600 kV d.c.
(IEC 60895:2002 + corrigendum 2003, modified)**

Travaux sous tension –
Vêtements conducteurs pour usage
jusqu'à 800 kV de tension nominale
en courant alternatif et \pm 600 kV
en courant continu
(CEI 60895:2002 + corrigendum 2003,
modifiée)

Arbeiten unter Spannung –
Leitfähige Kleidung für die Verwendung
bei Nenn-Wechselspannungen bis 800 kV
und Gleichspannungen bis 600 kV
(IEC 60895:2002 + Corrigendum 2003,
modifiziert)

This European Standard was approved by CENELEC on 2003-07-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 78/469/FDIS, future edition 2 of IEC 60895, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60895 on 2003-07-01.

A draft amendment, prepared by the Technical Committee CENELEC TC 78, Equipment and tools for live working, was submitted to the formal vote and was approved by CENELEC for inclusion into EN 60895 on 2003-07-01.

This European Standard supersedes EN 60895:1996 and constitutes a technical revision of several sections:

- the scope has been extended to cover the use of conductive clothing to ± 600 kV d.c.;
- revision of the electrical resistance requirements of the fabrics used in conductive clothing;
- revision of the testing procedures for complete clothing.

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) 2004-07-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2006-07-01

This European Standard was prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports the essential requirements of Directive 89/686/EEC.

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annexes A, B, C and ZA are normative and annexes D and E are informative.

Annex ZA has been added by CENELEC.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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 60050-151	2001	International Electrotechnical Vocabulary (IEV) Part 151: Electrical and magnetic devices	-	-
IEC 60050-651	1999	Part 651: Live working	-	-
IEC 60050-826	1982	Chapter 826: Electrical installations of buildings	HD 384.2 S2 1)	2001
IEC 60212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials	HD 437 S1	1984
IEC 60417	data-base	Graphical symbols for use on equipment	-	-
IEC 60456 (mod)	1998	Clothes washing machines for household use - Methods for measuring the performance	EN 60456	1999
IEC 60743	2001	Live working - Terminology for tools, equipment and devices	EN 60743	2001
IEC 61318/TR2	1994	Live working - Guidelines for quality assurance plans	-	-
IEC 61477	2001	Live working - Minimum requirements for the utilization of tools, devices and equipment	EN 61477	2002
ISO 2859-1	1999	Sampling procedures for inspection by attributes Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection	-	-

1) HD 384.2 S2 includes A1:1990 + A2:1995 + A3:1999 to IEC 60050-826.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 3175	Series	Textiles - Professional care, drycleaning and wetcleaning of fabrics and garments	EN ISO 3175	Series
ISO 3290	2001	Rolling bearings - Balls - Dimensions and tolerances	-	-
ISO 6330	2000	Textiles - Domestic washing and drying procedures for textile testing	EN ISO 6330	2000
ISO 9000	2000	Quality management systems - Fundamentals and vocabulary	EN ISO 9000	2000
ISO 9001	2000	Quality management systems - Requirements	EN ISO 9001	2000
ISO 9004	2000	Quality management systems - Guidelines for performance improvements	EN ISO 9004	2000

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LIVE WORKING – CONDUCTIVE CLOTHING FOR USE AT NOMINAL VOLTAGE UP TO 800 kV AC AND ±600 kV DC

1 Scope

This International Standard is applicable to conductive clothing, either assembled from component parts or forming a single complete clothing, worn by (electrically) skilled persons during live working (especially bare-hand working) at a nominal power system voltage up to 800 kV a.c. and ±600 kV d.c.

It is applicable to conductive jackets, trousers, coveralls (one-piece clothing), gloves or mitts, hoods, shoes, overshoe socks and socks.

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 60050-151:2001, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60050-651:1999, *International Electrotechnical Vocabulary (IEV) – Part 651: Live working*

IEC 60050-826:1982, *International Electrotechnical Vocabulary (IEV) – Chapter 826: Electrical installations of buildings*

IEC 60212:1971, *Standard conditions for use prior to and during the testing of solid electrical insulating materials*

IEC 60417 (all parts), *Graphical symbols for use on equipment*

IEC 60456:1998, *Clothes washing machines for household use – Methods for measuring the performance*

IEC 60743:2001, *Live working – Terminology for tools, equipment and devices*

IEC 61318/TR2:1994, *Live working – Guidelines for quality assurance plans*

IEC 61477:2001, *Live working – Minimum requirements for the utilization of tools, devices and equipment*

ISO 2859-1:1999, *Sampling procedures for inspection by attributes – Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3175:(all parts), *Textiles – Professional textile cleaning and finishing*

ISO 3290:2001, *Rolling bearings – Balls – Dimensions and tolerances*