

Svenska Elektriska Kommissionen, SEK

Fastställt	Utgåva	Sida	Ingår i
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Arbete med spänning – Handverktyg för lågspänning

Live working –

Hand tools for use up to 1000 V a.c. and 1500 V d.c.

Som svensk standard gäller europastandarden EN 60900:2004. Den svenska standarden innehåller den officiella engelska språkversionen av EN 60900:2004.

Nationellt förord

Europastandarden EN 60900:2004

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 60900, Second edition, 2004 - Live working - Hand tools for use up to 1000 V a.c. and 1500 V d.c.**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60900, utgåva 1, 1994, SS-EN 60900/A1, utgåva 1, 1996, SS-EN 60900/A11, utgåva 1, 1997 och SS-EN 60900/A2, utgåva 1, 2002, gäller ej fr o m 2007-04-01.

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.

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

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EUROPEAN STANDARD

EN 60900

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2004

ICS 29.260.99; 13.260; 29.240.20

Supersedes EN 60900:1993 + A1:1995 + A11:1997 + A2:2002

English version

**Live working –
Hand tools for use up to 1 000 V a.c. and 1 500 V d.c.
(IEC 60900:2004)**

Travaux sous tension –
Outils à main pour usage jusqu'à
1 000 V en courant alternatif et
1 500 V en courant continu
(CEI 60900:2004)

Arbeiten unter Spannung -
Handwerkzeuge zum Gebrauch
bis AC 1 000 V und DC 1 500 V
(IEC 60900:2004)

This European Standard was approved by CENELEC on 2004-03-16. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 78/547/FDIS, future edition 2 of IEC 60900, prepared by IEC TC 78, Live working, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60900 on 2004-03-16.

This European Standard supersedes EN 60900:1993 + A1:1995 + A11:1997 + A2:2002.

This new EN 60900

- adds requirements concerning interchangeable tools, where the used components are from different manufacturers;
- adds requirements and test values concerning insulating tools;
- includes bit-screwdrivers;
- includes screwdrivers with screw retaining devices;
- enlarges conditioning and test possibilities of the dielectric test;
- clarifies questions concerning quality assurance and
- includes the number of the standard with the year of publication (four digits) into the marking requirements.

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) 2005-01-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2007-04-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60900:2004 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 60743	NOTE	Harmonized as EN 60743:2001 (not modified).
ISO 9001	NOTE	Harmonized as EN ISO 9001:2001 (not modified).

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 Where 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 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60212	1971	Standard conditions for use prior to and during the testing of solid electrical insulating materials	HD 437 S1	1984
IEC 60417	database	Graphical symbols for use on equipment	-	-
IEC 61318	2003	Live working - Quality assurance plans applicable to tools, devices and equipment	-	-
IEC 61477	2001	Live working - Minimum requirements for the utilization of tools, devices and equipment	EN 61477	2002
A1	2002		A1	2002
ISO 1174-1	1996	Assembly tools for screw and nuts - Driving squares Part 1: Driving squares for hand socket tools	-	-
ISO 9654	1989	Pliers and nippers for electronics - Single-purpose nippers - Cutting nippers	-	-
ISO 9655	1989	Pliers and nippers for electronics - Single-purpose nippers - Pliers for gripping and manipulating	-	-
ISO 9656	1989	Pliers and nippers for electronics - Test methods	-	-
ISO 9657	1989	Pliers and nippers for electronics - General technical requirements	-	-

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LIVE WORKING – HAND TOOLS FOR USE UP TO 1 000 V AC AND 1 500 V DC

1 Scope

This International Standard is applicable to insulated and insulating hand tools used for working live or close to live parts at nominal voltages up to 1 000 V a.c. and 1 500 V d.c.

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 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

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

IEC 60417-DB:2002¹, *Graphical symbol for use on equipment*

IEC 61318:2003 *Live working – Quality assurance plans applicable to tools, devices and equipments*

IEC 61477:2001, *Live working – Minimum requirements for the utilization of tools, devices and equipment*
Amendment 1 (2002)²

ISO 1174-1:1996, *Assembly tools for screw and nuts – Driving squares – Part 1: Driving squares for hand socket tools*

ISO 9654:1989, *Pliers and nippers for electronics – Single-purpose nippers – Cutting nippers*

ISO 9655:1989, *Pliers and nippers for electronics – Single-purpose nippers – Pliers for gripping and manipulating*

ISO 9656:1989, *Pliers and nippers for electronics – Test methods*

ISO 9657:1989, *Pliers and nippers for electronics – General technical requirements*

¹ "DB" refers to the IEC on-line database.

² There exists a consolidated edition 1.1 (2002) that includes edition 1 and its amendment.