

Masinate ohutus. Tuvastust, märgistus ja aktiveerimine. Osa 2: Nõuded märgistusele

Safety of machinery - Indication, marking and actuation
- Part 2: Requirements for marking

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61310-2:2008 sisaldab Euroopa standardi EN 61310-2:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 24.03.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 06.01.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 61310-2:2008 consists of the English text of the European standard EN 61310-2:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 24.03.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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Võtmesõnad: electrical equipment, identification, machine marking connection marking, machines, safe use, symbol

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English version

**Safety of machinery -
Indication, marking and actuation -
Part 2: Requirements for marking
(IEC 61310-2:2007)**

Sécurité des machines -
Indication, marquage et manoeuvre -
Partie 2: Exigences pour le marquage
(CEI 61310-2:2007)

Sicherheiten von Maschinen -
Anzeigen, Kennzeichen und Bedienen -
Teil 2: Anforderungen
an die Kennzeichnung
(IEC 61310-2:2007)

This European Standard was approved by CENELEC on 2007-12-01. 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, 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

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

Foreword

The text of document 44/541/FDIS, future edition 2 of IEC 61310-2, prepared by IEC TC 44, Safety of machinery - Electrotechnical aspects, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61310-2 on 2007-12-01.

This European Standard supersedes EN 61310-2:1995.

EN 61310-2:2007 includes the following significant technical changes with respect to EN 61310-2:1995:

- Annex A: additional safety signs included and updated.

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) 2008-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2010-12-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directives MD (98/37/EC) and MD (2006/42/EC). See Annex ZZ.

Annexes ZA and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61310-2:2007 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 61140	NOTE	Harmonized as EN 61140:2002 (not modified).
IEC 61346-1	NOTE	Harmonized as EN 61346-1:1996 (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 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 60027-1	1992	Letter symbols to be used in electrical technology - Part 1: General	EN 60027-1	2006
IEC 60027-2	2005	Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics	EN 60027-2	2007
IEC 60027-3	2002	Letter symbols to be used in electrical technology - Part 3: Logarithmic and related quantities, and their units	EN 60027-3	2007
IEC 60027-4	1985	Letter symbols to be used in electrical technology - Part 4: Symbols for quantities to be used for rotating electrical machines	HD 245.4 S1 ¹⁾	1987
IEC 60079-0 (mod)	2004	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements	EN 60079-0	2006
IEC 60204-1 (mod)	2005	Safety of machinery - Electrical equipment of machines - Part 1: General requirements	EN 60204-1	2006
IEC 60417	Data base	Graphical symbols for use on equipment	–	–
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
A1	1999		+ corr. May A1	1993 2000
IEC 61310-1	– ²⁾	Safety of machinery - Indication, marking and actuation - Part 1: Requirements for visual, acoustic and tactile signals	EN 61310-1	2008 ³⁾
ISO 31-0	1992	Quantities and units - Part 0: General principles	–	–

¹⁾ HD 245.4 S1 is superseded by EN 60027-4:2007, which is based on IEC 60027-4:2006.

²⁾ Undated reference.

³⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 1000	1992	SI units and recommendations for the use of their multiples and of certain other units	–	–
ISO 7000	2004	Graphical symbols for use on equipment - Index and synopsis	–	–
ISO 7010	2003	Graphical symbols - Safety colours and safety signs - Safety signs used in workplaces and public areas	–	–
ISO 12100-1	2003	Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology	EN ISO 12100-1	2003
ISO 12100-2	2003	Safety of machinery - Basic concepts, general principles for design - Part 2: Technical principles	EN ISO 12100-2	2003

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

Annex ZZA
(informative)

Coverage of Essential Requirements of Directive 98/37/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers the following essential requirements out of those given in Annex I of the EC Directive 98/37/EC, amended by Directive 98/79/EC:

- ER 1.7.2;
- ER 1.7.3.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

Annex ZZB
(informative)

Coverage of Essential Requirements of Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers the following essential requirements out of those given in Annex I of the EC Directive 2006/42/EC:

- ER 1.7.1;
- ER 1.7.1.1;
- ER 1.7.1.2.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

SOMMAIRE

AVANT-PROPOS	4
1 Domaine d'application	8
2 Références normatives	8
3 Termes et définitions	10
4 Marquage d'identification et de sécurité	10
4.1 Généralités	10
4.2 Marquage de la machine dans son ensemble	12
4.3 Marquage destiné à la sécurité d'utilisation	12
5 Utilisation des marquages	14
5.1 Généralités	14
5.2 Représentation des valeurs assignées	16
6 Marquage des liaisons	16
6.1 Généralités	16
6.2 Liaisons mécaniques	18
6.3 Liaisons des systèmes à énergie fluide	18
6.4 Liaisons électriques	18
7 Durabilité des marquages et de leurs fixations	18
Annex A (informative) Symboles graphiques et signaux de sécurité	20
Bibliographie	24

CONTENTS

FOREWORD.....	5
1 Scope.....	9
2 Normative references	9
3 Terms and definitions	11
4 Marking for identification and for safe use	11
4.1 General.....	11
4.2 Marking of complete machinery	13
4.3 Marking for safe use.....	13
5 Application of markings	15
5.1 General.....	15
5.2 Representation of rated values	17
6 Marking of connections.....	17
6.1 General.....	17
6.2 Mechanical connections	19
6.3 Connections for fluid systems.....	19
6.4 Electrical connections.....	19
7 Durability of markings and their attachment.....	19
Annex A (informative) Graphical symbols and safety signs	21
Bibliography.....	25

SÉCURITÉ DES MACHINES – INDICATION, MARQUAGE, MANŒUVRE –

Partie 2: Exigences pour le marquage

1 Domaine d'application

La présente partie de la CEI 61310 spécifie des exigences concernant le marquage des machines.

Elle définit des règles générales de marquage pour l'identification des machines, pour leur utilisation sûre, relatives aux risques mécaniques et électriques, et pour éviter les risques liés à des liaisons erronées.

2 Références normatives

Les documents de référence suivants sont indispensables pour l'application du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence (y compris les éventuels amendements) s'applique.

CEI 60027-1:1992, *Symboles littéraux à utiliser en électrotechnique – Partie 1: Généralités*

CEI 60027-2:2005, *Symboles littéraux à utiliser en électrotechnique – Partie 2: Télécommunications et électronique*

CEI 60027-3:2002, *Symboles littéraux à utiliser en électrotechnique – Partie 3: Grandeurs logarithmiques et connexes, et leurs unités*

CEI 60027-4:1985, *Symboles littéraux à utiliser en électrotechnique – Partie 4: Symboles des grandeurs relatives pour les machines électriques tournantes*

CEI 60079-0:2004, *Matériel électrique pour atmosphères explosives gazeuses – Partie 0: Règles générales*

CEI 60204-1:2005, *Sécurité des machines – Équipement électrique des machines – Partie 1: Règles générales*

CEI 60417-DB: *Symboles graphiques utilisables sur le matériel*

CEI 60529:1989, *Degrés de protection procurés par les enveloppes (Code IP)*
Amendement 1(1999)

CEI 61310-1, *Sécurité des machines – Indication, marquage, manœuvre – Partie 1: Exigences pour les signaux visuels, acoustiques et tactiles*

ISO 31-0:1992, *Grandeurs et unités – Partie 0: Principes généraux*

ISO 1000:1992, *Unités SI et recommandations pour l'emploi de leurs multiples et de certaines autres unités*

SAFETY OF MACHINERY – INDICATION, MARKING AND ACTUATION –

Part 2: Requirements for marking

1 Scope

This part of IEC 61310 specifies requirements for the marking of machinery.

It gives general rules on marking for identification of machinery, for safe use related to mechanical and electrical hazards, and for the avoidance of hazards arising from incorrect connections.

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 60027-1:1992, *Letter symbols to be used in electrical technology – Part 1: General*

IEC 60027-2:2005, *Letter symbols to be used in electrical technology – Part 2: Telecommunications and electronics*

IEC 60027-3:2002, *Letter symbols to be used in electrical technology – Part 3: Logarithmic and related quantities, and their units*

IEC 60027-4:1985, *Letter symbols to be used in electrical technology – Part 4: Symbols for quantities to be used for rotating electrical machines*

IEC 60079-0:2004, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*

IEC 60204-1:2005, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements*

IEC 60417-DB, *Graphical symbols for use on equipment*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*
Amendment 1 (1999)

IEC 61310-1, *Safety of machinery – Indication, marking and actuation – Part 1: Requirements for visual, acoustic and tactile signals*

ISO 31-0:1992, *Quantities and units – Part 0: General principles*

ISO 1000:1992, *SI units and recommendations for the use of their multiples and of certain other units*

ISO 7000:2004, *Symboles graphiques utilisables sur le matériel – Index et tableau synoptique*

ISO 7010:2003, *Symboles graphiques – Couleurs de sécurité et signaux de sécurité – Signaux de sécurité utilisés sur les lieux de travail et dans les lieux publics*

ISO 12100-1:2003, *Sécurité des machines – Notions fondamentales, principes généraux de conception – Partie 1: Terminologie de base, méthodologie*

ISO 12100-2:2003, *Sécurité des machines – Notions fondamentales, principes généraux de conception – Partie 2: Principes techniques*

3 Termes et définitions

Pour les besoins du présent document, les termes et définitions suivants s'appliquent en complément de ceux de la CEI 60310-1.

3.1

valeur assignée

valeur d'une grandeur, utilisée à des fins de spécification, correspondant à un ensemble spécifié de conditions de fonctionnement d'un composant, dispositif, matériel ou système

[VEI 151-16-08]

3.2

caractéristiques assignées

ensemble des valeurs assignées et des conditions de fonctionnement d'un composant, dispositif, matériel ou d'une machine

[VEI 151-16-11, modifiée]

3.3

marquage

apposition d'une étiquette sur un produit ou sur un emballage, principalement pour identifier le produit et certaines de ses caractéristiques relatives à la sécurité d'utilisation

4 Marquage d'identification et de sécurité

4.1 Généralités

Conformément à l'ISO 12100-2, une machine doit porter tous les marquages nécessaires pour assurer :

- qu'elle soit identifiée sans aucune ambiguïté;
- son utilisation sûre;

et des informations supplémentaires doivent être fournies, si nécessaire:

- de façon permanente sur la machine;
- contenues dans les documents d'accompagnement tels que les manuels d'instruction;
- marquées sur l'emballage.

ISO 7000:2004, *Graphical symbols for use on equipment – Index and synopsis*

ISO 7010:2003, *Graphical symbols – Safety colours and safety signs – Safety signs used in workplaces and public areas*

ISO 12100-1:2003, *Safety of machinery – Basic concepts, general principles for design – Part 1: Basic terminology, methodology*

ISO 12100-2:2003, *Safety of machinery – Basic concept, general principles for design – Part 2: Technical principles*

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