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Üldnõuded**

**Empty enclosures for low-voltage switchgear and  
controlgear assemblies - General requirements**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 62208:2012 sisaldab Euroopa standardi EN 62208:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 62208:2012 consists of the English text of the European standard EN 62208:2011.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.10.2011.	Date of Availability of the European standard is 28.10.2011.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English version

**Empty enclosures for low-voltage switchgear  
and controlgear assemblies -  
General requirements  
(IEC 62208:2011)**

Enveloppes vides destinées aux  
ensembles d'appareillage  
à basse tension -  
Exigences générales  
(CEI 62208:2011)

Leergehäuse für Niederspannungs-  
Schaltgerätekombinationen -  
Allgemeine Anforderungen  
(IEC 62208:2011)

This European Standard was approved by CENELEC on 2011-09-23. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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**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 17D/442/FDIS, future edition 2 of IEC 62208, prepared by SC 17D, "Low-voltage switchgear and controlgear assemblies", of IEC TC 17, "Switchgear and controlgear" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62208:2011.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2012-06-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2014-09-23

This document supersedes EN 62208:2003.

EN 62208:2011 constitutes a technical revision and includes the following significant technical changes with respect to EN 62208:2003:

- consideration of the restructured series of standards EN 61439;
- alignment of test procedures with the newest relevant standards.

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

## Endorsement notice

The text of the International Standard IEC 62208:2011 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 60216 series	NOTE	Harmonized in EN 60216 series.
IEC 60670 series	NOTE	Harmonized in EN 60670 series.
IEC/TR 60890	NOTE	Harmonized as CLC/TR 60890.
IEC 61000-5-7:2001	NOTE	Harmonized as EN 61000-5-7:2001 (not modified).
IEC 61439 series	NOTE	Harmonized in EN 61439 series.

## 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 60068-2-2	2007	Environmental testing - Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-11	1981	Environmental testing - Part 2: Tests - Test Ka: Salt mist	EN 60068-2-11	1999
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 60085	2007	Electrical insulation - Thermal evaluation and designation	EN 60085	2008
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60695-2-10	2000	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN 60695-2-10	2001
IEC 60695-2-11	2000	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001
IEC 61439-1	2011	Low-voltage switchgear and controlgear assemblies - Part 1: General rules	EN 61439-1	2011
IEC 62262	2002	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	2002
ISO 178	2001	Plastics - Determination of flexural properties	EN ISO 178	2003
ISO 179	Series	Plastics - Determination of Charpy impact properties	EN ISO 179	Series
ISO 2409	2007	Paints and varnishes - Cross-cut test	EN ISO 2409	2007
ISO 4628-3	2003	Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 3: Assessment of degree of rusting	EN ISO 4628-3	2003
ISO 4892-2 + A1	2006 2009	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	EN ISO 4892-2 + A1	2006 2009
ISO 11469	2000	Plastics - Generic identification and marking of plastic products	EN ISO 11469	2000

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# EMPTY ENCLOSURES FOR LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ASSEMBLIES – GENERAL REQUIREMENTS

## 1 Scope

This International Standard applies to empty enclosures, prior to the incorporation of switchgear and controlgear components by the user, as supplied by the enclosure manufacturer.

This standard specifies general definitions, classifications, characteristics and test requirements of enclosures to be used as part of switchgear and controlgear assemblies (e.g. in accordance with the IEC 61439 series), the rated voltage of which does not exceed 1 000 V a.c. or 1 500 V d.c., and suitable for general use for either indoor or outdoor applications.

NOTE 1 Additional requirements may apply for specific applications.

NOTE 2 The United States of America (USA) uses enclosure "Type" designations according to NEMA 250. The NEMA Enclosure Type designations specify additional environmental requirements for conditions such as corrosion, rust, icing, oil, and coolants. For this reason, the IEC Enclosure Classification Designations IP are used with an enclosure Type designation number appropriate for these markets.

This standard does not apply to enclosures, which are covered by other specific products standards (e.g. IEC 60670 series).

Compliance with the safety requirements of the applicable product standard is the responsibility of the assembly manufacturer.

NOTE 3 This standard may serve as a basis for other technical committees.

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

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

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

IEC 60085:2007, *Electrical insulation – Thermal evaluation and designation*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*<sup>1</sup>

IEC 60695-2-10:2000, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure*

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<sup>1</sup> There is a consolidated edition 2.1 (2001) that includes IEC 60529 (1989) and its Amendment 1 (1999).



IEC 60695-2-11:2000, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test methods for end-products*

IEC 61439-1:2011, *Low-voltage switchgear and controlgear assemblies – Part 1: General rules<sup>2</sup>*

IEC 62262:2002, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

ISO 178:2001, *Plastics – Determination of flexural properties*

ISO 179 (all parts), *Plastics – Determination of Charpy impact properties*

ISO 2409:2007, *Paints and varnishes – Cross-cut test*

ISO 4628-3:2003, *Paints and varnishes – Evaluation of degradation of coatings – Designation of quantity and size of defects, and of intensity of uniform changes in appearance – Part 3: Assessment of degree of rusting*

ISO 4892-2:2006, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc sources*  
Amendment 1 (2009)

ISO 11469:2000, *Plastics – Generic identification and marking of plastic products*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **empty enclosure**

enclosure intended for support and installation of electrical equipment, whose internal space provides suitable protection against external influences as well as a specified degree of protection against approach to or contact with live parts and against contact with moving parts

NOTE 1 Throughout this standard, the word enclosure is used for empty enclosure.

NOTE 2 The terms boxes, cubicles, desks or cabinets are alternative terms for enclosures.

#### 3.2

##### **protected space**

internal space or portion of the internal space of the enclosure as specified by the manufacturer intended for the mounting of switchgear and controlgear for which the specified protection is provided by the enclosure

#### 3.3

##### **cover**

external part of the enclosure

#### 3.4

##### **door**

hinged or sliding cover

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<sup>2</sup> To be published.