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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/23

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English Version

**Empty enclosures for low-voltage switchgear and controlgear
assemblies - General requirements
(IEC 62208:2023)**

Enveloppes vides destinées aux ensembles d'appareillages
à basse tension - Exigences générales
(IEC 62208:2023)

Leergehäuse für Niederspannungs-
Schaltgerätekombinationen - Allgemeine Anforderungen
(IEC 62208:2023)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62208:2023 (E)**European foreword**

The text of document 121B/180/FDIS, future edition 3 of IEC 62208, prepared by SC 121B "Low-voltage switchgear and controlgear assemblies" of IEC/TC 121 "Switchgear and controlgear and their assemblies for low voltage" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62208:2023.

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) 2024-06-06
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2026-09-06

This document supersedes EN 62208:2011 and all of its amendments and corrigenda (if any).

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This document has been prepared under a Standardization Request addressed to CENELEC by the European Commission.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62208:2023 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 standard indicated:

- IEC 60216 (series) NOTE Approved as EN 60216 (series)
- IEC 60670 (series) NOTE Approved as EN 60670 (series)
- IEC 60670-24 NOTE Approved as EN 60670-24
- IEC 60715 NOTE Approved as EN 60715
- IEC 60721-3-3:2019 NOTE Approved as EN IEC 60721-3-3:2019 (not modified)
- IEC 61000-5-7:2001 NOTE Approved as EN 61000-5-7:2001 (not modified)
- IEC 61140:2016 NOTE Approved as EN 61140:2016 (not modified)
- IEC 61439 (series) NOTE Approved as EN IEC 61439 (series)
- IEC 61439-1:2020 NOTE Approved as EN IEC 61439-1:2021 (not modified)

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

<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	2021	Environmental testing - Part 2-11: Tests - Test Ka: Salt mist	EN IEC 60068-2-11	2021
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 60364	series	Low-voltage electrical installations	HD 60364	series
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529	1991
-	-		+ corrigendum	May 1993
+ A1	1999		+ A1	2000
+ A2	2013		+ A2	2013
IEC 60695-2-10	2021	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN IEC 60695-2-10	2021
IEC 60695-2-11	2021	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT)	EN IEC 60695-2-11	2021
IEC 60695-10-2	2014	Fire hazard testing - Part 10-2: Abnormal heat - Ball pressure test method	EN 60695-10-2	2014
IEC 60695-11-5	2016	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2017

EN IEC 62208:2023 (E)

IEC TR 60890	2014	A method of temperature-rise verification of low-voltage switchgear and controlgear assemblies by calculation	-	-
IEC 62262	2002	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	2002
+ AMD	2021		+ A1	2021
ISO 178	2019	Plastics - Determination of flexural properties	EN ISO 178	2019
ISO 179-1	2010	Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test	EN ISO 179-1	2010
ISO 179-2	2020	Plastics - Determination of Charpy impact properties - Part 2: Instrumented impact test	EN ISO 179-2	2020
ISO 2409	2020	Paints and varnishes - Cross-cut test	EN ISO 2409	2020
ISO 4628-3	2016	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	2016
ISO 4892-2	2013	Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps	EN ISO 4892-2	2013
ISO 11469	2016	Plastics - Generic identification and marking of plastics products	EN ISO 11469	2016



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Edition 3.0 2023-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

**Enveloppes vides destinées aux ensembles d'appareillage à basse tension –
Exigences générales**





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IEC 62208

Edition 3.0 2023-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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General requirements**

**Enveloppes vides destinées aux ensembles d'appareillage à basse tension –
Exigences générales**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

FOREWORD

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IEC 62208 has been prepared by subcommittee 121B: Low-voltage switchgear and controlgear assemblies, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage. It is an International Standard.

This third edition cancels and replaces the second edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) consideration of the modifications introduced in IEC 61439-1:2020;
- b) alignment of test procedures with the newest relevant standards.

The text of this International Standard is based on the following documents:

Draft	Report on voting
121B/180/FDIS	121B/180/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The reader's attention is drawn to the fact that Annex A lists all of the "in-some-country" clauses on differing practices of a less permanent nature relating to the subject of this document.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

The purpose of this document is to harmonize as far as practicable all rules and requirements of a general nature applicable to empty enclosures for low-voltage switchgear and controlgear assemblies, in order to obtain uniformity of requirements and verification for empty enclosures and to avoid the need for verification in other standards.

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

1 Scope

This document applies to empty enclosures, as provided by the enclosure manufacturer, prior to the incorporation of switchgear and controlgear components by the assembly manufacturer.

This document 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 product standard in the IEC 61439 series), the rated voltage of which does not exceed 1 000 V AC or 1 500 V DC, and suitable for general use for either indoor or outdoor applications.

NOTE 1 Additional requirements could apply for specific applications.

NOTE 2 Empty enclosures according to this document are suitable for mounting of electrical components.

This document does not apply to enclosures which are covered by other specific products standards (e.g. IEC 60670-24).

Compliance with the safety requirements of the applicable product standard for the final product produced using an empty enclosure is the responsibility of the assembly manufacturer.

NOTE 3 This document could serve as a basis for other technical committees.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60068-2-11:2021, *Environmental testing – 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 60364 (all parts), *Low-voltage electrical installations*

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

IEC 60529:1989/AMD1:1999

IEC 60529:1989/AMD2:2013

IEC 60695-2-10:2021, *Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure*

IEC 60695-2-11:2021, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test methods for end-products (GWEPT)*

IEC 60695-10-2:2014, *Fire hazard testing – Part 10-2: Abnormal heat – Ball pressure test method*

IEC 60695-11-5:2016; *Fire hazard testing – Part 11-5: Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC TR 60890:2014, *A method of temperature-rise verification of low-voltage switchgear and controlgear assemblies by calculation*

IEC 62262:2002, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*
IEC 62262:2002/AMD1:2021

ISO 178:2019, *Plastics – Determination of flexural properties*

ISO 179-1:2010, *Plastics – Determination of Charpy impact properties – Part 1: Non-instrumented impact test*

ISO 179-2:2020, *Plastics – Determination of Charpy impact properties – Part 2: Instrumented impact test*

ISO 2409:2020, *Paints and varnishes – Cross-cut test*

ISO 4628-3:2016, *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 4892-2:2013, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc lamps*

ISO 11469:2016, *Plastics – Generic identification and marking of plastic products*

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