SLOVENSKI STANDARD
SIST EN 50365:2024

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Nadomešča:
SIST EN 50365:2002

Delo pod napetostjo - Elektroizolacijske čelade za delo na nizko- in srednjenapetostnih inštalacijah

Live Working - Electrically insulating helmets for use on low and medium voltage installations

Elektrisch isolierende Helme für Arbeiten an Nieder- und Mittelspannungsanlagen

Travaux sous tension - Casques électriquement isolants pour utilisation sur installations à basse et à moyenne tension

Ta slovenski standard je istoveten z: **EN 50365:2023**

ICS:

13.260	Varstvo pred električnim udarom. Delo pod napetostjo	Protection against electric shock. Live working
13.340.20	Varovalna oprema za glavo	Head protective equipment

SIST EN 50365:2024 **en**

EUROPEAN STANDARD

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ICS 13.260; 13.340.20

Supersedes EN 50365:2002

English Version

Live Working - Electrically insulating helmets for use on low and medium voltage installations

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Elektrisch isolierende Helme für Arbeiten an Nieder- und Mittelspannungsanlagen

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

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Contents

European foreword

This document (EN 50365:2023) has been prepared by CLC/TC 78 “Equipment and tools for live working”.

The following dates are fixed:

• Latest date which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2024-12-04
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2026-12-04

This document supersedes EN 50365:2002 and all its amendments and corrigenda (if any).

EN 50365:2023 includes the following significant technical changes with respect to EN 50365:2002

— Change of scope to test helmets up to Class 2

— Update on normative references

— Definitions for *Brim*, *Crown* and *Shell*

— Helmet design types Type A and B

— Additional marking required for voltage and design type

— DC testing

— Alternative testing after production

— Removal of air hole design test

— Only electrical aspect are covered

— Addition of Annex ZZ

Terms defined in Clause 3 are given in *italic* print throughout this standard.

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

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of this document.

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.

1 Scope

This document specifies the electrical requirements and testing for *electrically insulating helmet*s that provide electrical insulating protection of head of the worker against electric shock used for when working live or near to live parts on installations not exceeding 17 000 V AC or 1 500 V DC.

The products designed and manufactured according to this document contribute to the safety of the users provided they are used by skilled persons, in accordance with EN 50110-1:2023 and/or National Regulations.

This document does not cover arc flash or additional helmet accessories such as face shields, ear defenders, lamps and voltage detectors and doesn't cover mechanical requirements and tests.

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.

EN 397:2012+A1:2012, *Industrial safety helmets*

EN 443:2008, *Helmets for fire fighting in buildings and other structures*

EN 14052:2012+A1:2012, *High performance industrial helmets*

EN 50110-1:2023, *Operation of electrical installations - Part 1: General requirements*

EN 60060-1:2010, *High-voltage test techniques - Part 1: General definitions and test requirements (IEC 60060-1:2010)*

EN 60212:2011, *Standard conditions for use prior to and during the testing of solid electrical insulating materials (IEC 60212:2010)*

EN IEC 61318:2021, *Live working - Methods for assessment of defects and verification of performance applicable to tools, devices and equipment (IEC 61318:2021)*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
brim
rim surrounding the shell

[SOURCE: ISO 3873:1977,3.4]

3.2
crown
area on the upper outside surface of the helmet centred on the top

3.3
electrically insulating helmet
safety helmet which protects the wearer against electrical shocks by preventing the passage of dangerous current through the body via the head

3.4
proof test voltage
specified value of voltage that is applied to a device, item or component for the time defined under specified conditions to assure that the electrical strength of the insulation is above a specified value

3.5
routine test
conformity test made on each individual item during or after manufacture

[SOURCE: IEC 60050-151:2001, 151-16-17]

3.6
sampling test
test performed on a number of devices taken at a random from a batch

[SOURCE: IEC 60050-151:2001, 151-16-20, modified – definition has been adapted]

3.7
shell
rigid cover which gives the helmet its shape

[SOURCE: EN 397:2012+A1:2012, 3.2]

3.8
type test
test performed on one or more devices made to a certain design to show that the design meets certain specifications

[SOURCE IEC 60050-151:2001, 151-16-16, modified – definition has been adapted]

3.9
withstand test voltage
specified value of voltage that a device, item or component must withstand without flashover, disruptive discharge, puncture or other electric failure when that value of voltage is applied under specified conditions

4 Requirements

4.1 General

*Electrically insulating helmet*s shall fulfil the following requirements.

4.2 Non-electrical requirements

4.2.1 General

This document does not cover non-electrical essential requirements.

The non-electrical requirements shall conform to the relevant standard it is certified to.

Nevertheless, the applicable non-electrical requirements shall not conflict with the electrical requirements and tests given in this document.

4.2.2 Helmet Design

*Electrically insulating helmet*s shall not consist of conductive parts or materials and have no apertures that affects the electrical insulating properties.

The crown area differs according to the types of helmets and the electrical class giving protection to the top of the head as defined by the vertical clearance distances given in Table 1 and the contour given in Figure 3.

*Electrically insulating helmet*s used on or near electrical installations shall be classified by types of design to protect the *crown* area of the head.

Type A – With a full *brim* greater than 30 mm at any point. (Figure 1).

Type B – Peak cap and no *brim* (Figure 2).

Figure 1 — Type A helmet design

a)

b)

c)

Figure 2 — Type B helmet designs