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Kapslingsklasser för elektrisk materiel - Skydd mot yttre mekanisk påverkan på höljen (IK-beteckning)

Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

Som svensk standard gäller europastandarden EN 50102: 1995. Den svenska standarden innehåller den officiella engelska språkversionen av EN 50102: 1995.

ICS 29.020

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EN 50102

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Descriptors: Electrical equipment, enclosure for electrical equipment, degree of protection, mechanical impact, classification, tests, test conditions, control

English version

Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

Degrés de protection procurés par les enveloppes de matériels électriques contre les impacts mécaniques externes (Code IK)

Schutzarten durch Gehäuse für elektrische Betriebsmittel (Ausrüstung) gegen äußere mechanische Beanspruchungen (IK-Code)

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CENELEC

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

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Foreword

This European Standard was prepared by CENELEC BTTF 68-3, Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code).

The text of the draft, based on document BT(FR/NOT)141, was submitted to the formal vote in June 1994 and was approved by CENELEC as EN 50102 on 1994-12-06.

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) 1997-04-15

- latest date by which national standards conflicting with the EN have to be withdrawn (dow) 1997-04-15

Contents

Introduction

This standard describes a system for classifying the degrees of protection provided by enclosures for electrical equipment against external mechanical impacts. Whilst this system is suitable for use with most types of electrical equipment, it should not be assumed that all the listed degrees of protection are applicable to a particular type of equipment. The manufacturer of the equipment should be consulted to determine the degrees of protection available and the parts of equipment to which the stated degree of protection applies,

The adoption of this classification system, wherever possible, should promote uniformity in methods of describing the protection provided by the enclosure and in the tests to prove the various degrees of protection. It should also reduce the number of types of test devices necessary to test a wide range of products.

1 Scope

This standard refers to the classification of the degrees of protection provided by enclosures against external mechanical impacts when the rated voltage of the protected equipment is not greater than 72.5 kV.

This standard is only applicable to enclosures of equipment where the specific standard establishes degrees of protection of the enclosure against mechanical impacts (expressed in this standard as impacts).

The object of this standard is to give :

a) the *definitions* for degrees of protection provided by enclosures of electrical equipment as regards protection of the equipment inside the enclosure against harmful effects of mechanical impacts;

b) the *designations* for the degrees of protection;

c) the *requirements* for each designation;

d) the *rests* to be performed to verify that enclosure meets the requirements of this standard.

It will remain the responsibility of individual Technical Committees to decide on the extent and manner in which the classification is used in their standards and to define “enclosure” as it applies to their equipment. However, it is recommended that for a given classification the tests do not differ from those specified in this standard. If necessary, complementary requirements may be included in the relevant product standard.

For a particular type of equipment a Product Committee may specify different requirements provided that at least the same level of safety is ensured.

This standard deals only with enclosures that are in all other respects suitable for their intended use as specified in the relevant product standard and which from the point of view of materials and workmanship ensure that the claimed degrees of protection are maintained under the normal conditions of use.

This standard is also applicable to empty enclosures provided that the general test requirements are met and that the selected degree of protection is suitable for the type of equipment.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

Publication	Year	Title	EN/HD	Year
IEC 50 (826)	1982	International Electrotechnical Vocabulary - Chapter 826: Electrical installations of buildings		
IEC 68-1	1988	Environmental testing Part 1: General and guidance	HD 323.1 S2 EN 60068-1	1988 1994
IEC 68-2-62 A1	1991 1993	Part 2: Test methods Test Ef : Impact, pendulum hammer	EN 60068-2-62	1995
IEC 68-2-63	1991	Part 2: Test methods Test Eg: Impact spring hammer	EN 60068-2-63	1994
ISO 1052	1982	Steel or general engineering purposes	-	-
ISO 2039/2	1987	Plastics - Determination of hardness Part 2: Rockwell hardness	-	-