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Our Ref: **2019/00201**

Date: **20 January 2020**

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Dear Member

IEC COMMITTEE DRAFT (CD)

REPLY TO CSC@BSIGROUP.COM BEFORE 10 MARCH 2020

Please find attached:

70/146/CD IEC 62262/AMD1 ED1: Amendment 1 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

IEC National Committees have been invited to comment on the above document. As a member of the responsible BSI committee you are asked to give your comments on the document. Please send any comments that you wish to be considered for submission as UK comments to IEC by the above date.

When submitting comments **please quote Our Ref as above on any correspondence** and ensure that they are entered into the [ISO/IEC/CEN/CLC comments template](#). If you have any queries in how to use the template then please do not hesitate to contact the Committee Service Centre.

It should be noted that this is often the final stage for the submission of major technical comment on the standard, as the national comments submitted to IEC determine whether this standard can progress to the next stage, i.e. circulation as a draft international standard (CDV).

Please also bear in mind that acceptance of a draft IEC standard means agreement in principle to it being the basis of a new British Standard, as it is BSI policy to implement all IEC projects as BS IEC standards unless any of the following situations apply:

- UK voted negatively at the FDIS stage.
- There is a current BS which covers the scope of the international standard and the BS continues to be the preferred document at the national level.
- There is an implemented EN standard covering the scope of the international publication.
- The International standard is subsequently agreed for UAP procedure in CLC and publication of the EN is expected within 12 months of the availability of the IEC publication.

If we do not hear from you by the above date we will submit 'no comment' to the IEC.

Yours sincerely,

Committee Service Centre



PROJECT NUMBER: IEC 62262/AMD1 ED1	
DATE OF CIRCULATION: 2020-01-17	CLOSING DATE FOR COMMENTS: 2020-04-10
SUPERSEDES DOCUMENTS: 70/144/CD,70/145/CC	

IEC TC 70 : DEGREES OF PROTECTION PROVIDED BY ENCLOSURES	
SECRETARIAT: Germany	SECRETARY: Mr Peter Linnert
OF INTEREST TO THE FOLLOWING COMMITTEES: TC 104	PROPOSED HORIZONTAL STANDARD: <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.
FUNCTIONS CONCERNED: <input type="checkbox"/> EMC <input type="checkbox"/> ENVIRONMENT <input type="checkbox"/> QUALITY ASSURANCE <input checked="" type="checkbox"/> SAFETY	

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE: Amendment 1 - Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
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NOTE FROM TC/SC OFFICERS: 2nd CD

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11 **INTERNATIONAL ELECTROTECHNICAL COMMISSION**

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14 **DEGREES OF PROTECTION PROVIDED BY ENCLOSURES**

15 **FOR ELECTRICAL EQUIPMENT AGAINST EXTERNAL**

16 **MECHANICAL IMPACTS (IK CODE)**

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18

19 **FOREWORD**

- 20 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all
21 national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-
22 operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to
23 other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any
24 IEC National Committee interested in the subject dealt with may participate in this preparatory work. International,
25 governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC
26 collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions
27 determined by agreement between the two organizations.
- 28 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international
29 consensus of opinion on the relevant subjects since each technical committee has representation from all interested
30 National Committees.
- 31 3) The documents produced have the form of recommendations for international use and are published in the form of
32 standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that
33 sense.
- 34 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards
35 transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC
36 Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 37 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment
38 declared to be in conformity with one of its standards.
- 39 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent
40 rights. The IEC shall not be held responsible for identifying any or all such patent rights.

41 International Standard IEC 62262 has been prepared by IEC technical committee 70: Degrees of
42 protection provided by enclosures.

43 It is based on the CENELEC publication EN 50102.

44 The text of this standard is based on the following documents:

FDIS	Report on voting
70/99/FDIS	70/100/RVD

45

46 Full information on the voting for the approval of this standard can be found in the report on voting
47 indicated in the above table.

48 This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

49 The committee has decided that the contents of this publication will remain unchanged until 2008. At
50 this date, the publication will be

- 51 • reconfirmed;
- 52 • withdrawn;
- 53 • replaced by a revised edition, or
- 54 • amended.
- 55
- 56

57 **DEGREES OF PROTECTION PROVIDED BY ENCLOSURES**
58 **FOR ELECTRICAL EQUIPMENT AGAINST EXTERNAL**
59 **MECHANICAL IMPACTS (IK CODE)**
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61

62 **1 Scope**

63 *Modify the current text as follows:*

64 This standard refers to the classification of the degrees of protection provided by enclosures against
65 external mechanical impacts when the rated voltage of the protected equipment is not greater than
66 72,5 kV.

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

70 The standard can also be applicable to enclosures of equipment where no established requirements
71 are provided by a product standard.

72 The object of this standard is to give

- 73 a) the *definitions* for the degrees of protection provided by enclosures of electrical equipment as
74 regards protection of the equipment inside the enclosure against harmful effects of mechanical
75 impacts;
76 b) the *designations* for the degrees of protection;
77 c) the *requirements* for each designation;
78 d) the *tests* to be performed to verify that the enclosure meets the requirements of this standard.

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

84 For a particular type of equipment a product committee may specify different requirements provided
85 that at least the same level of safety is ensured.

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

90 **2 Normative references**

91 *Modify the referenced documents as follows:*

92 IEC 60050-826:2004, *International Electrotechnical Vocabulary – Chapter 826: Electrical installations*
93 *of buildings*

94 IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

95 IEC 60068-2-75:2014, *Environmental testing – Part 2: Tests – Test Eh: Hammer tests*

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

97 IEC 60529:1989/AMD1:1999

98 IEC 60529:1989/AMD2:2013

100 **2 Definitions**

101 *Add the following new definitions:*

102 **1.1 3.1**
103 **enclosure**

104 part providing protection of equipment against certain external influences and, in any direction,
105 protection against contact

106 [IEV 826-03-12]

107 NOTE This definition from the existing International Electrotechnical Vocabulary (IEV) needs the following explanations
108 under the scope of this standard:

109 a) enclosures provide protection of equipment against harmful effects of mechanical impacts;

110 b) barriers, shapes of openings or any other means – whether attached to the enclosure or formed by the enclosed
111 equipment – suitable to prevent or limit the penetration of the specified test probes are considered as a part of the enclosure,
112 except when they can be removed without the use of a key or tool.

113 **1.2 3.2**

114 **direct contact**

115 contact of persons or livestock with live parts

116 [IEV 826-12-03]

117

118 *Rename the following definitions accordingly.*

119

120 **4 Designations**

121 *Modify the current text as follows:*

122 The degree of protection provided by an enclosure against mechanical impacts is indicated by the IK
123 code in the following way:

124 **4.1 Arrangement of the IK code**

125 *Modify the third paragraph as follows:*

126 Characteristic group numeral (00 to 11)

127 *Secretariat's note: NC are kindly requested to comment on the introduction of this new IK11 code*
128 *providing some example of possible applications.*

129 **4.2 Characteristic group numerals of the IK code and their meanings**

130 *Modify the Table 1 as follows:*

131 **Table 1 – Relation between IK code and impact energy**

IK code	IK00	IK01	IK02	IK03	IK04	IK05	IK06	IK07	IK08	IK09	IK10	IK11
Impact energy, J	*	0,14	0,2	0,35	0,5	0,7	1	2	5	10	20	50
* Not protected according to this standard.												

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133 **6.5 Test evaluation**

134 *Add the following text at the end of the paragraph:*

135 In the absence of these criteria, at least the following acceptance criterion shall apply:

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137 – no damage likely to impair the specified IP code

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139

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