

SLOVENSKI STANDARD
oSIST prEN IEC 62626-1:2023
01-april-2023

Oprema, vgrajena v nizkonapetostne stikalne in krmilne naprave - 1. del: Dodatne zahteve za zaprta ločilna stikala v skladu s standardom IEC 60947-3 za zagotavljanje izolacije električne opreme med popravljivimi in vzdrževalnimi deli za posebno uporabo

Low-voltage switchgear and controlgear enclosed equipment - Part 1: Additional requirements for enclosed switch-disconnectors according to IEC 60947-3 to provide isolation of electrical equipment during repair and maintenance work in specific applications

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Appareillage à basse tension sous enveloppe - Partie 1: Interrupteur-sectionneur en coffret, en dehors du domaine d'application de la norme CEI 60947-3, destiné à garantir l'isolation pendant les phases de maintenance

Ta slovenski standard je istoveten z: prEN IEC 62626-1:2023

ICS:

29.130.20	Nizkonapetostne stikalne in krmilne naprave	Low voltage switchgear and controlgear
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121A/541/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: IEC 62626-1 ED2	
DATE OF CIRCULATION: 2023-01-27	CLOSING DATE FOR VOTING: 2023-04-21
SUPERSEDES DOCUMENTS: 121A/510/CD, 121A/523A/CC	

IEC SC 121A : LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR	
SECRETARIAT: France	SECRETARY: Mr Michaël LAHEURTE
OF INTEREST TO THE FOLLOWING COMMITTEES: TC 23, SC 121B	PROPOSED HORIZONTAL STANDARD: <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
FUNCTIONS CONCERNED: <input checked="" type="checkbox"/> EMC <input type="checkbox"/> ENVIRONMENT <input type="checkbox"/> QUALITY ASSURANCE <input checked="" type="checkbox"/> SAFETY	
<input checked="" type="checkbox"/> SUBMITTED FOR CENELEC PARALLEL VOTING <input type="checkbox"/> NOT SUBMITTED FOR CENELEC PARALLEL VOTING	
<p>Attention IEC-CENELEC parallel voting</p> <p>The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting.</p> <p>https://standards.iteh.ai/catalog/standards/sist/0586148d-a256-47c0-bd72-0586148d-a256-47c0-bd72-pr-en-iec-62626-1-2023</p> <p>The CENELEC members are invited to vote through the CENELEC online voting system.</p>	

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- any relevant patent rights of which they are aware and to provide supporting documentation,
- any relevant "in some countries" clauses to be included should this proposal proceed. Recipients are reminded that the enquiry stage is the final stage for submitting "in some countries" clauses. See AC/22/2007.

TITLE:

Low-voltage switchgear and controlgear enclosed equipment - Part 1: Additional requirements for enclosed switch-disconnectors according to IEC 60947-3 to provide isolation of electrical equipment during repair and maintenance work in specific applications

PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

SC121A Officers support circulation of CDV for project IEC 62626-1 ED2.

Secretary Note: NC experts are kindly requested to refer their comments to line numbers.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**LOW-VOLTAGE SWITCHGEAR AND
CONTROLGEAR ENCLOSED EQUIPMENT –**
**Part 1: Additional requirements for enclosed switch-disconnectors
according to IEC 60947-3 to provide isolation of electrical equipment
during repair and maintenance work in specific applications**

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International Standard IEC 62626-1 has been prepared by subcommittee SC121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear.

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

FDIS	Report on voting

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62626 series, published under the general title *Low-voltage switchgear and controlgear enclosed equipment*, can be found on the IEC website.

89 The committee has decided that the contents of this publication will remain unchanged until the
90 stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to
91 the specific publication. At this date, the publication will be

- 92 • reconfirmed,
- 93 • withdrawn,
- 94 • replaced by a revised edition, or
- 95 • amended.

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INTRODUCTION

99 Enclosed switch-disconnectors covered by this part of IEC 62626 are intended for use in various
100 applications, to provide isolation of electrical equipment, especially motor circuits, during repair,
101 cleaning and maintenance works.

102 Such enclosed switch-disconnectors are sometimes known as “maintenance switches”, or
103 “safety switches”. The name “safety switch” is also used for safety related position switches,
104 inspection switches and switches for other applications, which are not covered by this standard.

105 This part of IEC 62626 specifies additional requirements for enclosed switch-disconnectors
106 according to IEC 60947-3 to provide isolation of electrical equipment during repair and
107 maintenance work.

108 Enclosed switch-disconnectors according to this standard are mounted close to the equipment
109 which has to be isolated and are usually operated by instructed persons.

110 NOTE 1 The term “safety switch” is not recognized in some countries as the same meaning given in this standard.

111 NOTE 2 Switch-disconnectors do not necessarily meet the requirements for prevention of unexpected start,
112 especially if there are energy sources other than electrical.

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR ENCLOSED EQUIPMENT –

Part 1: Additional requirements for enclosed switch-disconnectors according to IEC 60947-3 to provide isolation of electrical equipment during repair and maintenance work in specific applications

122 **1 Scope**

123 This part of IEC 62626 applies to enclosed switches-disconnectors with rated voltages up to
124 1 000 V AC for repair and maintenance work or cleaning work in load circuits. Devices within
125 the scope of this standard are derived from switch-disconnectors according to IEC 60947-3.
126 Enclosed switch-disconnectors in this standard are suitable for isolation according to IEC 60947
127 series and are not supposed to be equipped with means for remote control or automatic
128 switching to avoid unexpected or accidental start. These devices are not intended to be used
129 for operational switching, quick start and stop or jogging.

130 NOTE 1 However, these kind of devices can provide the possibility to switch off electrical equipment (even in a
131 critical situation or not).

132 Devices within the scope of this standard provide isolation of electrical equipment, especially
133 in motor circuits, during repair and maintenance or cleaning works.

134 Enclosed switch-disconnectors for various applications to provide isolation of electrical
135 equipment during repair and maintenance work, named “maintenance switches”, are designated
136 hereafter as devices with:

- 137 a) different classes;
138 b) characteristics of each class;
139 c) minimum test requirements;
140 d) information to be marked on the equipment or made available by the manufacturer, for
141 example in the catalogue.

142 NOTE 2 This standard does not specify additional requirements that are necessary for the application of these
143 switches, for example, in explosive atmospheres (e.g. ATEX in Europe).

144 **2 Normative references**

145 The following documents, in whole or in part, are normatively referenced in this document and
146 are indispensable for its application. For dated references, only the edition cited applies. For
147 undated references, the latest edition of the referenced document (including any amendments)
148 applies.

149 IEC 60050 (all parts), *International electrotechnical vocabulary*. Available from:
150 <http://www.electropedia.org/>

151
152 IEC 60947-1:2020, *Low-voltage switchgear and controlgear – Part 1: General rules*

153
154 IEC 60947-3:2020, *Low-voltage switchgear and controlgear – Part 3: Switches, disconnectors,
155 switch-disconnectors and fuse-combination units*

156
157 IEC 62262:2002, *Degrees of protection provided by enclosures for electrical equipment
158 against external mechanical impacts (IK code)*
159 IEC 62262:2002/AMD1:2021

160 3 Terms, definitions, symbols and reference clauses

161 For the purposes of this document, the terms and definitions given in IEC 60050-441,
162 IEC 60947-1:2020, IEC 60947-3:2020, as well as the following apply.

163 3.1

164 (mechanical) switch

165 mechanical switching device capable of making, carrying and breaking currents under normal
166 circuit conditions which may include specified operating overload conditions and also carrying
167 for a specified time currents under specified abnormal circuit conditions such as those of short-
168 circuit

169 Note 1 to entry: A switch may be capable of making, but not breaking, short-circuit currents.

170 [SOURCE: IEC 60050-441:1984, 441-14-10]

171 3.2

172 disconnecter

173 mechanical switching device which, in the open position, complies with the requirements
174 specified for the isolating function

175 Note 1 to entry: A disconnecter is capable of opening and closing a circuit when either a negligible current is broken
176 or made, or when no significant change in the voltage across the terminals of each of the poles of the disconnecter
177 occurs. It is also capable of carrying currents under normal circuit conditions and carrying for a specified time currents
178 under abnormal conditions such as those of short circuit.

179 [SOURCE: IEC 60050-441:1984, 441-14-05, modified — Reference has been made to the
180 isolating function instead of the isolating distance.]

181 3.3

182 switch-disconnector

183 switch which, in the open position, satisfies the isolating requirements specified for a
184 disconnecter

185 [SOURCE: IEC 60050-441:1984, 441-14-12]

186 3.4

187 enclosed switch

188 switch with a dedicated enclosure, providing a specified degree of protection against certain
189 external influences

190 4 Classification

191 Devices according to this standard are classified into two classes, class 0 and class 1. Class 0
192 is the minimum requirement level, as class 1 is this required by harsh and rough/heavy duty
193 conditions, for example for chemical industries.

194 Both are specified in Table 1.

195 5 Characteristics

196 Clause 5 of IEC 60947-3:2020, applies.

197 6 Product information

198 6.1 Nature of information

199 Subclause 6.1 of IEC 60947-1:2020, applies with the following additional dashed item under list
200 of "Characteristics":



201 – corresponding class of this standard.

202 6.2 Markings

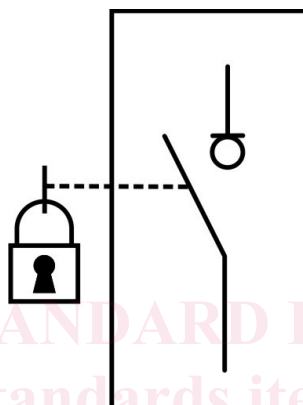
203 6.2.1 Front-marking

204 Each device shall be marked in a durable and legible manner with the following data.

205 The markings for a), b) and c) below shall be on the equipment itself or on a name-plate or
 206 name-plates attached to the device, and shall be located at a place such that they are legible
 207 from the front after mounting the equipment in accordance with the manufacturer's instructions.

208 a) Indication of the open and closed position. The open and closed position shall be
 209 respectively indicated by the graphical symbols  (IEC 60417-5008 (2002-10)) and
 210  (IEC 60417-5007 (2002-10)), see 8.1.6.1 of IEC 60947-1:2020.

211 b) Symbol for marking according to this standard, see Figure 1.



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212

213 **Figure 1 – Symbol for marking according to this standard**

214 c) A corrosion-resistant label or plate marked with the text “maintenance switch” or translated
 215 in national language. The label or plate shall be colored according to national practice.

216 The height of the text shall be at least 5 mm. The text “maintenance switch” shall be marked
 217 in a durable and legible manner and the color of the text shall be different from the color of
 218 the label or plate.

219 6.2.2 Additional marking

220 The following information shall be marked on the equipment, but does not need to be visible
 221 from the front when the device is mounted:

222 a) manufacturer's name or trade mark;

223 b) type designation or serial number;

224 c) rated operational current (or rated power) at the rated operational voltage;

225 d) value (or range) of the rated frequency;

226 e) number of this standard (IEC 62626-1) including class (see Clause 4), if the manufacturer
 227 claims compliance with this standard.

228 7 Normal service, mounting and transport conditions

229 Clause 7 of IEC 60947-3:2020 applies, as applicable.