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Project No. 2022/01292

Responsible committee: PEL/121/1 Low voltage switchgear and controlgear

Interested committees:

Title: BS IEC 60947-3/AMD1 Amendment 1 - Low-voltage switchgear and controlgear

Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

Please notify the secretary if you are aware of any keywords that might assist in classifying or identifying the standard or if the content of this standard

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- ii) affects other national standard(s)
- iii) requires additional national guidance or information

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Responsible Committee Secretary: **Mr Simon Bounds (BSI)**Direct tel: **0208 996 7281**E-mail: simon.bounds@bsigroup.com

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/Figure/ Table/Note	Type of comment	Commend (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



121A/563/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 60947-3/AMD1 ED4

DATE OF CIRCULATION:

2023-06-09

CLOSING DATE FOR COMMENTS:

2023-09-01

SUPERSEDES DOCUMENTS:

121A/543/CD, 121A/552A/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:



Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☒ EMC

☐ ENVIRONMENT

☐ QUALITY ASSURANCE

☒ SAFETY

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TITLE:

Amendment 1 - Low-voltage switchgear and controlgear - Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units

NOTE FROM TC/SC OFFICERS:

SC121A Officers support circulation of CD3 for project IEC 60947-3/AMD1 ED4.

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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR –

PART 3: SWITCHES, DISCONNECTORS, SWITCH-DISCONNECTORS
AND FUSE-COMBINATION UNITS

AMENDMENT 1

FOREWORD

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Amendment 1 to IEC 60947-3 ED4 has been prepared by subcommittee 121A: Low-voltage switchgear and controlgear, of IEC technical committee 121: Switchgear and controlgear and their assemblies for low voltage.

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

Draft	Report on voting
XX/XX/XXXX	XX/XX/XXX

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 Amendment 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 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.

3.3 General terms

Add following terms:

3.3.11

Remotely operated equipment

switching equipment that is electrically operated from a point distant from the controlled switching device

Note 1 to entry: A remotely operated switch can have an additional feature for local and/or manual (non-electrical) operation.

Note 2 to entry: remote operation can be performed by an integral device or an auxiliary device associated with the switching device, for example, motor operator or coils.

3.3.12

operating time of a remotely operated equipment

time measured from the instant when the switching operation is initiated to; (i) the closing of the main contacts (see 3.7.44 of IEC 60947-1:2020); or (ii) the opening of the main contacts (see 3.7.39 of IEC 60947-1:2020)

Note to entry: Operating times from closed to open (opening time) and from open to closed (closing time) can be different.

4.2 According to the method of operation

4.2.2 Remotely operated equipment

Delete 'under consideration' and add the following:

- remotely operated
 - self-powered remotely operated equipment
 - externally powered remotely operated equipment

5 Characteristics

5.2 Type of equipment

Add the following dash:

- control method of the device

5.5 Control circuits

Subclause 5.5 of IEC 60947-1:2020 applies.

Add the following subclause:

5.5.3 Remote operation

The manufacturer shall declare the following:

- a) Minimum and maximum values of voltage operating limits for the control supply and, as applicable, corresponding frequency
- b) the closing time (3.7.44 of IEC 60947-1:2020)
- c) the opening time (3.7.39 of IEC 60947-1:2020)
- d) the type of operating signal
 - i) permanent signal
 - ii) single impulse
- e) information on power consumption for remote operation
 - i) nominal power consumption and duration.
 - ii) inrush power consumption and duration, if applicable.
 - iii) connection arrangement.

6 Product information

6.1 Nature of information

Modify the dash for 'rated impulse withstand voltage (see 5.3.1.3)' in 6.1 of IEC 60947-1:2020 as follows:

- rated impulse withstand voltage (see 5.3.1.3);
 - a) main power circuit of the equipment;
 - b) control circuits;

6.2 Marking

Replace Table 3 with the following;

Item	Information	Marking location
1.1	Indication of the open and close position. If symbols are used, the open position shall be indicated by graphical symbol IEC 60417-5008:2002-10 and the closed position by graphical symbol IEC 60417-5007:2002-10 (see 8.1.6.1 of IEC 60947-1:2020).	Visible
1.2	Suitability for isolation. The appropriate symbols of Table 1 shall be used.	Visible
1.3	Additional marking for disconnectors. Devices of utilization category AC-20A, AC-20B, DC-20A, DC-20B, DC-PV0 and DC-BPS0 shall be marked "Do not operate under load" adjacent to these categories, unless the device has interlocking means to prevent such an operation.	Visible
1.4	Additional marking for remotely operated equipment. The remote operating mode shall be clearly indicated on the product if a locking means in the OFF position is not provided,	Visible
2.1	Manufacturer's name or trade mark.	Marked
2.2	Type designation or catalogue reference.	Marked
2.3	Rated operational currents (or rated powers) with the corresponding rated operational voltage and utilization category, see Clause 5.3.2 and Clause 5.3.3 and/or D.5.4 and G.5.4).	Marked
2.4	Value (or range) of the rated frequency or the indication "DC" (or the symbol  IEC 60417-5031:2002-10).	Marked
2.5	For fuse-combination units, the fuse type characteristics and maximum rated current and the maximum power loss of the fuse-link.	Marked ^a
2.6	IEC 60947-3, if the manufacturer claims compliance with this document.	Marked
2.7	Degree of protection of enclosed equipment (see Annex C of IEC 60947-1:2020).	Marked
2.8	Terminals shall be identified "load" and "line", unless the connection is immaterial (see 9.3.4.4.1).	Marked
2.9	Neutral pole terminal, if applicable, shall be identified by the letter "N" (see 8.1.8.4 of IEC 60947-1:2020).	Marked
2.10	Protective earth terminal shall be identified by the symbol  IEC 60417-5019:2006-08 (see 8.1.10.3 of IEC 60947-1:2020).	Marked
2.11	"+" and "-" polarities, if applicable.	Marked
3.1	Classification of equipment if remotely controlled -remotely operated.	Literature
3.2	Rated insulation voltage.	Literature
3.3	Rated impulse withstand voltage: – Main power circuit of the equipment. Control circuits.	Literature
3.4	Pollution degree, if different from 3.	Literature
3.5	Rated duty (see 5.3.5 and Clause A.2).	Literature
3.6	Rated short-time withstand current and duration, where applicable.	Literature
3.7	Rated short-circuit making capacity, where applicable.	Literature
3.8	Rated conditional short-circuit current, where applicable.	Literature
3.9	Diagram and method of series connecting poles of mechanical switching devices for each operational rating, if applicable.	Literature
3.10	For switches in accordance with Annex D and G – appropriate connections to the PV generator or supply and load, if applicable.	Literature
3.11	For devices in accordance with Annex D and G – suitable for indoor or outdoor use.	Literature
3.12	Closing time of a remotely operated equipment	Literature
3.13	Opening time of a remotely operated equipment	Literature
3.14	Connection arrangement for remote operation	Literature