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

Interested committees:

Title: BS IEC 60947-3 Ed.4.0 AMD1. 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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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 Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.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/511/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:
IEC 60947-3/AMD1 ED4

DATE OF CIRCULATION:
2022-06-10

CLOSING DATE FOR COMMENTS:
2022-09-02

SUPERSEDES DOCUMENTS:
121A/508/RR

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

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 - 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 CD1 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.

1 Scope

Replace the first paragraph with the following:

This part of IEC 60947 applies to switches, disconnectors, switch-disconnectors and fuse-combination units and their dedicated accessories to be used in low-voltage distribution circuits and motor circuits of which the rated voltage does not exceed 1 000 V AC or 1 500 V DC.

This document also covers switches, disconnectors, switch-disconnectors and fuse combination units with multiple ratings below and above 1000V AC and 1500V DC, but not exceeding 1500V AC and 2000V DC.

4.2 According to the method of operation

4.2.2 Remotely operated equipment

Delete 'under consideration' and add the following:

- remote operation (see 3.6.7 of IEC 60947-1:2020)

5 Characteristics

5.1 Summary of characteristics

Add following dashes to paragraph two:

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

5.2 Type of equipment

Add the following dashes:

- control method of the device
- method to power the motor, if applicable
 - a) self-powered motor by the main power circuit
 - b) external-powered motor by an auxiliary power circuit, a.c. or d.c.
- method to power the magnetic drive, if applicable

- a) self-powered magnetic drive by the main power circuit
- b) external-powered magnetic drive by an auxiliary power circuit, a.c. or d.c.

5.5 Control circuits

Subclause 5.5 of IEC 60947-1:2020 applies.

Add the following subclause:

5.5.3 Remote operation

The minimum and maximum values of voltage or voltage and frequency operating limits shall be stated by the manufacturer. These limits shall correspond to the limits for the remote control devices.

The manufacturer shall state the following:

- a) the closing time (3.7.44 of IEC 60947-1:2020)
- b) the opening time (3.7.39 of IEC 60947-1:2020)
- c) the type of operating signal
 - i) permanent signal
 - ii) single impulse
- d) information on power consumption for remote operation
 - i) control power
 - ii) motor / magnetic coil

It shall be possible to clearly choose hand operation or remote operation mode.

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 equipment;
 - b) control circuits of a remotely operated equipment, if applicable;

6.2 Marking

Replace item 15 in Table 3 with the following;

Item	Information	Marking location ^a
15	Rated impulse withstand voltage: – Main equipment. – Control circuits of remotely operated equipment.	Literature

Add following text in Table 3:

Item	Information	Marking location ^a
25	Classification of equipment if remotely controlled – REMOTE	Visible
26	Operating time of a remotely operated switch - ON	Literature
27	Operating time of a remotely operated switch - OFF	Literature
28	Type of operating signal if remotely operated: – Permanent signal. – Single impulse.	Literature
29	Details of power consumption for remote operation – Control circuit. – Motor or magnet.	Literature
30	Minimum and maximum values of voltage operating limits for the control supply and, as applicable, corresponding frequency	Literature

8.2 Performance requirements

8.2.1.1 General

Add following paragraph at the end of the subclause:

In the case of remotely operated equipment;

a) the operating mechanism shall include an interlock to prevent simultaneous hand and remote operation;

or

b) the mechanism(s) shall be lockable or stable in the OFF position (remote functionality disconnected in manual mode).

Add new subclause:

8.2.1.5 Power operated equipment

Subclause 9.3.3.2.1 of IEC 60947-1:2020, power operated equipment, applies.

Add the following:

All devices that are remotely operated shall be of the independent power operated type.

8.2.4.1 Making and breaking capacities

Add Footnote f in table 4:

f when a device is suitable for dependent or semi-independent manual operation and remote operation the making and breaking capacities shall be verified by conducting the full test sequence both manually and remotely. Two samples may be used. When a device is suitable for independent manual operation and remote operation it shall be verified using the manually independent or remote mode of operation.