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Responsible committee: GEL/20/17 Electric Cables - Low voltage

Interested committees:

Title: BS IEC 60245-1 Rubber insulated cables - Rated voltages up to and including 450/750 V

Part 1: General requirements

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 Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.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.	



20/2167/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER:

IEC 60245-1 ED5

DATE OF CIRCULATION:

2024-03-08

CLOSING DATE FOR COMMENTS:

2024-05-31

SUPERSEDES DOCUMENTS:

20/2160/RR

IEC TC 20 : ELECTRIC CABLES

SECRETARIAT:

Germany

SECRETARY:

Mr Walter Winkelbauer

OF INTEREST TO THE FOLLOWING COMMITTEES:

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.

Recipients of this document are invited to submit, with their comments, notification of any local regulations or technical reasons that may exist and should be considered should this proposal proceed, recognizing that failure to address such requirements could result in the need for new or existing "In Some Countries" clauses. (SEE [AC/22/2007](#) OR [NEW GUIDANCE DOC](#)).

TITLE:

Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 1: General requirements

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RUBBER INSULATED CABLES –
RATED VOLTAGES UP TO AND INCLUDING 450/750 V –****Part 1: General requirements**

FOREWORD

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IEC 60245-1 has been prepared by IEC technical committee TC 20: Electric cables. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2007 and its amendment A1:2007. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) Reference to tests according to IEC 60245-2 has been withdrawn and replaced by IEC 63294
- b) Reference to lift cable according to IEC 60245-5 has been withdrawn.
- c) Normative references have been updated.

The text of this International Standard is based on the following documents:

Draft	Report on voting
20/XX/FDIS	20/XX/RVD

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 International Standard 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.

A list of all the parts in the IEC 60245 series, published under the general title *Rubber insulated cables - Rated voltages up to and including 450/750 V*, can be found on the IEC website.

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.

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INTRODUCTION

The IEC 60245 series, published under the general title *Rubber insulated cables – Rated voltages up to and including 450/750 V*, consists of the following parts:

- Part 1: General requirements
- Part 2: Test methods has been withdrawn and replaced by the IEC 63294
- Part 3: Heat resistant silicone insulated cables
- Part 4: Cords and flexible cables
- Part 5: Lift cables has been withdrawn
- Part 6: Arc welding electrode cables
- Part 7: Heat resistant ethylene-vinyl-acetate rubber insulated cables
- Part 8: Cords for applications requiring high flexibility

This part of IEC 60245, when used in conjunction with each of the other parts of the IEC 60245 series, forms the complete standard for the type of cable specified in the specific part.

RUBBER INSULATED CABLES – RATED VOLTAGES UP TO AND INCLUDING 450/750 V –

Part 1: General requirements

1 Scope

This part of IEC 60245 applies to rigid and flexible cables with insulation, and sheath if any, based on vulcanized rubber of rated voltages U_o/U up to and including 450/750 V used in power installations of nominal voltage not exceeding 450/750 V AC.

NOTE For some types of flexible cables the term 'cord' is used.

The particular types of cables are specified in IEC 60245-3, IEC 60245-4, IEC 60245-6, IEC 60245-7, IEC 60245-8. The code designations of these types of cables are provided in the document.

The test methods specified in Parts 1 to 8 are given in IEC 63294, IEC 60332-1-2 and in the relevant parts of IEC 60811.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60228, *Conductors of insulated cables*

IEC 60245-3:XX, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 3: Heat resistant silicone insulated cables*

IEC 60245-4:XX, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 4: Cords and flexible cables*

IEC 60245-7:XX, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 7: Heat resistant ethylene-vinyl-acetate rubber insulated cables*

IEC 60245-8:XX, *Rubber insulated cables – Rated voltages up to and including 450/750 V – Part 8: Cords for applications requiring high flexibility*

IEC 60332-1-2, *Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1 kW pre-mixed flame*

IEC 60811-401, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 401: Miscellaneous tests – Thermal ageing methods – Ageing in an air oven*

IEC 60811-403, *Electric and optical fibre cables – Test methods for non-metallic materials – Miscellaneous tests – Ozone resistance test on cross-linked compounds*

IEC 60811-404, *Electric and optical fibre cables – Test methods for non-metallic materials – Miscellaneous tests – Mineral oil immersion tests for sheaths*