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Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 3: Heat resistant silicone insulated cables

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CONTENTS

FOREWORD 2
1 Scope 4
2 Normative references 4
3 Terms and definitions 4
4 Heat resistant silicone insulated cable for a conductor temperature of maximum 180 °C 5
4.1 Code designation 5
4.2 Rated voltage 5
4.3 Construction 5
4.3.1 Conductor 5
4.3.2 Separator 5
4.3.3 Insulation 5
4.3.4 Outer braid 5
4.3.5 Overall diameter 5
4.4 Tests 6
4.5 Guidance on use of the cables 6
Bibliography 8

Table 1 – Dimensions of type 60245 IEC 03 6
Table 2 – Tests for type 60245 IEC 03 7

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Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 3: Heat resistant silicone insulated cables

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IEC 60245-3 has been prepared by IEC technical committee TC 20: Electric cables. It is an International Standard.

This third edition cancels and replaces the second edition published in 1994. This edition constitutes a technical revision.

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

a) reference to IEC 60245-2 for the tests has been deleted and replaced by IEC 63294;
b) normative references have been updated.

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

Draft	Report on voting
20/2272/FDIS	20/2281/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.

This document is to be used in conjunction with IEC 60245-1:2026.

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, or
– revised.

1 Scope

This part of IEC 60245 defines the particular requirements for rubber heat resistant silicone insulated cables of rated voltage of 300/500 V which apply in addition to the general requirements specified in IEC 60245-1, which apply to all cables.

The tests for cables specified in the IEC 60245 series are described in IEC 63294.

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 60245-1:2026, *Rubber insulated cables - Rated voltages up to and including 450/750 V - Part 1: General requirements*

IEC 60719, *Calculation of the lower and upper limits for the average outer dimensions of cables with circular copper conductors and of rated voltages up to and including 450/750 V*

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 60811-501, *Electric and optical fibre cables - Test methods for non-metallic materials - Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds*

IEC 60811-507, *Electric and optical fibre cables - Test methods for non-metallic materials - Mechanical tests - Hot set test for cross-linked materials*

IEC 62440, *Electric cables - Guide to use for cables with a rated voltage not exceeding 450/750 V*

IEC 63294:2021, *Test methods for electric cables with rated voltage up to and including 450/750 V*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60245-1 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/
– ISO Online browsing platform: available at https://www.iso.org/obp