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INTERNATIONAL STANDARD

Winding wires - Test methods -
Part 5: Electrical properties

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC 60851-5 has been prepared by IEC technical committee 55: Winding wires. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2008, Amendment 1:2011 and Amendment 2:2019. This edition constitutes a technical revision.

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

a) Subclauses 5.3.1 and 5.3.2 modified to expand the conductor size range for the loads applied during cylinder method testing for dielectric breakdown voltage of enameled wires and for fully insulated wires.
b) Addition of subclause 6.5 for inline continuity testing of rectangular wire (under consideration).

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

Draft	Report on voting
55/2089/FDIS	55/2117/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 60851 series, under the general title *Winding wires - Test methods*, can be found on the 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– withdrawn, or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.

INTRODUCTION

This part of IEC 60851 forms an element of a series of standards which deals with insulated wires used for windings in electrical equipment. The series has three groups describing:

a) winding wires – test methods (IEC 60851);

b) specifications for particular types of winding wires (IEC 60317);

c) packaging of winding wires (IEC 60264).

1 Scope

This part of IEC 60851 specifies the following tests:

– Test 5: Electrical resistance;
– Test 13: Breakdown voltage;
– Test 14: Continuity of insulation;
– Test 19: Dielectric dissipation factor;
– Test 23: Pin hole.

For definitions and general notes on methods of test, Clause 3 of IEC 60851-1:2021 applies.

This part of IEC 60851 also specifies methods for determining the dissipation factor of enamelled winding wire, provided in Annex A.

2 Normative references

There are no normative references in this document.

Bibliography

IEC 60296, *Fluids for electrotechnical applications - Mineral insulating oils for electrical equipment*

IEC 60851-1:2021, *Winding wires – Test methods – Part 1: General*

IEC 60851-6:2012, *Winding wires - Test methods - Part 6: Thermal properties*

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