

INTERNATIONAL STANDARD

**Winding wires - Test methods -
Part 5: Electrical properties**

CONTENTS

FOREWORD	3
INTRODUCTION	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Test 5: Electrical resistance	6
5 Test 13: Breakdown voltage	7
5.1 Principle	7
5.2 Equipment	7
5.3 Enamelled round wire	8
5.3.1 Grade 1 to grade 3 with a nominal diameter up to and including 0,500 mm	8
5.3.2 Grade of FIW 3 to FIW 9 with a nominal conductor diameter up to and including 1,600 mm	9
5.4 Enamelled round wire with a nominal conductor diameter over 0,100 mm up to and including 2,500 mm, grade 1 to grade 3	10
5.4.1 Test at room temperature	10
5.4.2 Test at elevated temperature	11
5.5 Round wire with a nominal conductor diameter over 2,500 mm	12
5.5.1 Test at room temperature	12
5.5.2 Test at elevated temperature	13
5.6 Fibre wound round wire	14
5.6.1 Test at room temperature	14
5.6.2 Test at elevated temperature	15
5.7 Rectangular wire	16
5.7.1 Test at room temperature	16
5.7.2 Test at elevated temperature	16
5.8 Overview of breakdown voltage specimen preparation	16
6 Test 14: Continuity of insulation (applicable to enamelled round and tape wrapped round wire)	17
6.1 General	17
6.2 Low-voltage continuity (nominal conductor diameter up to and including 0,050 mm, grade 1 to grade 3)	17
6.3 High-voltage continuity (nominal conductor diameter over 0,050 mm up to and including 1,600 mm, grade 1 to grade 3, and over 0,035 mm, up to and including 1,600 mm, grade 3 of FIW 3 to FIW 9)	18
6.3.1 Principle	18
6.3.2 Equipment	18
6.3.3 Procedure	22
6.3.4 Result	24
6.4 Inline high-voltage continuity (wires in accordance with grade of FIW 3 to FIW 9 with nominal conductor diameter over 0,035 mm up to and including 1,600 mm)	24
6.4.1 Principle	24
6.4.2 Equipment	24
6.4.3 Procedure	24
6.4.4 Result	25
6.5 Inline high-voltage continuity (enamelled rectangular wire)	25

7	Test 19: Dielectric dissipation factor (applicable to enamelled wire and bunched wire)	25
7.1	Principle	25
7.2	Equipment	26
7.3	Specimen	26
7.3.1	Specimen for a metal bath electrode	26
7.3.2	Specimen for a conductive suspension electrode	27
7.4	Procedure	27
7.5	Result	27
8	Test 23: Pin hole test	27
	Annex A (informative) Dissipation factor methods	29
A.1	Tangent delta – Intersection point	29
A.2	Test methods	29
A.2.1	Method A	29
A.2.2	Method B – Wire coated with a conductive film	30
A.3	Interpretation of results	30
A.3.1	General	30
A.3.2	Linear method	30
A.3.3	Logarithmic method	31
	Bibliography	32
	Figure 1 – Arrangement of cylinder and specimen for the breakdown voltage test	9
	Figure 2 – Device for twisting the specimen for breakdown voltage test	11
	Figure 3 – U-bend specimen for the breakdown voltage test (specimen placed in shot bath)	13
	Figure 4 – Coil-wound specimen for the breakdown voltage test	15
	Figure 5 – Apparatus for testing the low-voltage continuity of covering	18
	Figure 6 – High-voltage DC continuity – Pulleys for wire size 0,050 mm to 0,250 mm	19
	Figure 7 – Pulley dimensions and spacing for wire size 0,250 mm to 1,600 mm	20
	Figure 8 – Graphite fibre single brush electrode assembly	21
	Figure 9 – Graphite fibre dual brush electrode assembly	22
	Figure 10 – Suitable electrode arrangement for testing the dielectric dissipation factor	26
	Figure A.1 – Example of linear method for sole coating	31
	Figure A.2 – Example of logarithmic method for sole coating	31
	Table 1 – Rates of test voltage increase	7
	Table 2 – Loads applied to enamelled wire	8
	Table 3 – Loads and diameters of test cylinders applied to wire	10
	Table 4 – Loads applied to the wire and number of twists	11
	Table 5 – Breakdown voltage specimen preparation methods	17
	Table 6 – Fault current	19
	Table 7 – Off-line HVC test voltages for grades 1 to 3	23
	Table 8 – Off-line HVC test voltages for grade of FIW 3 to FIW 9	23
	Table 9 – In-line HVC test voltages	25

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Winding wires - Test methods -
Part 5: Electrical properties**

FOREWORD

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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*
