AS/NZS 1660.3:1998
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Test methods for electric cables, cords and conductors

Method 3: Electrical tests

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/3, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 22 October 1997 and on behalf of the Council of Standards New Zealand on 3 October 1997. It was published on 5 January 1998.

The following interests are represented on Committee EL/3:

Australian Electrical and Electronic Manufacturers Association
Australian Railways Association
Department of Defence, Australia
Electrical regulatory authorities
Electricity Supply Association of Australia
Institution of Engineers, Australia
Ministry of Commerce, New Zealand
New Zealand Electrical Contractors Association
New Zealand Electrical and Electronic Manufacturers Federation
Office of Energy, N.S.W.
Testing interests

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/3, Electric Wires and Cables, to supersede AS 1660.3—1993. It is one of a set of tests for electric cables included in the AS/NZS 1660 series. Details of the series are given in Appendix A.

This Standard incorporates Amendment No. 1 (February 2001). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure, or part thereof affected.

The objective of this Standard is to set out electrical tests for component parts and complete cables, cords and conductors.

This Standard differs from the 1993 edition as follows:

(a) A spark test procedure has been added.

(b) Each partial discharge test cycle has been limited to three minutes maximum.

(c) Volume resistivity at elevated temperature has been added.

(d) The Standard is published as a Joint Australian/New Zealand Standard.

In the preparation of this Standard, reference was made to IEC 885, *Electrical test methods for electric cables*, Part 1: 1987, *Electrical tests for cables, cords and wires for voltages up to and including 450/750 V*, Part 2: 1987, *Partial discharge tests*, Part 3: 1988, *Test methods for partial discharge measurements on lengths of extruded power cable* and IEC 502:1994, *Extruded solid dielectric insulated power cables for rated voltages from 1 kV up to 30 kV*. Acknowledgment is made for assistance received from these sources.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE This Standard sets out electrical tests for component parts and complete cables, cords and conductors.

NOTE: See individual cable Standards for test results criteria. A list of the test methods in the AS/NZS 1660 series is given in Appendix A.

1.2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1018 Partial discharge measurements

1042 Direct-acting indicating electrical measuring instruments and their accessories

1931 High voltage test techniques
1931.1 Part 1: General definitions and test requirements
1931.2 Part 2: Measuring systems

AS/NZS
1660 Test methods for electric cables, cords and conductors
1660.4 Method 4: Complete cable and flexible cord

3191 Approval and test specification—Electric flexible cords

1.3 DEFINITIONS For the purpose of this Standard, the definitions given in the relevant cable Standard or as given in a Clause of this Standard apply.

1.4 TESTING TEMPERATURE Unless otherwise specified, all tests shall be conducted at ambient temperature.

1.5 SELECTION OF SPECIMENS All specimens used for testing shall be taken at least 300 mm from the end of a factory length of finished cable, except where the test is conducted on the total length of the cable or core.

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