AS/NZS 60840:2006
IEC 60840, Ed. 3 (2004)

AS/NZS 60840:2006

Australian/New Zealand Standard™

Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV)—Test methods and requirements

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-003, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 29 May 2006 and on behalf of the Council of Standards New Zealand on 2 June 2006.
This Standard was published on 14 June 2006.

The following are represented on Committee EL-003:

Australasian Railway Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Canterbury Manufacturers Association New Zealand
Department of Primary Industries, Mine Safety (NSW)
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
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This Standard was issued in draft form for comment as DR 06059.

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First published as AS/NZS 60840:2006.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 7508 X

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables.

The objective of this Standard is to specify test methods and requirements for electric cables and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV) that can be referenced in Australian/New Zealand Standards for polymeric insulated electric cables covering this voltage range.

This Standard is identical with, and has been reproduced from IEC 60840, Ed. 3 (2004), *Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV) – Test methods and requirements*.

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Australian/New Zealand Standard

Power cables with extruded insulation and their accessories for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV)—Test methods and requirements

1 Scope

This International Standard specifies test methods and requirements for power cable systems for fixed installations, for rated voltages above 30 kV (U_m = 36 kV) up to and including 150 kV (U_m = 170 kV). It also separately covers cables and accessories.

The requirements apply to single-core cables and to individually screened three-core cables and to their accessories for usual conditions of installation and operation, but not to special cables and their accessories, such as submarine cables, for which modifications to the standard tests may be necessary or special test conditions may need to be devised.

This standard does not cover transition joints between cables with extruded insulation and paper insulated cables.

2 Normative references

The following referenced documents are indispensable for the application 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.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

~~IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*~~

AS 1931.1, *High-voltage test techniques*, Part 1: *General definitions and test requirements* (identical to IEC 60060-1)

IEC 60183:1984, *Guide to the selection of high-voltage cables*

IEC 60228:1978, *Conductors of insulated cables*

IEC 60229:1982, *Tests on cable oversheaths which have a special protective function and are applied by extrusion*

IEC 60230:1966, *Impulse tests on cables and their accessories*

IEC 60287-1-1:1994, *Electric cables – Calculation of the current rating – Part 1: Current rating equations (100 % load factor) and calculation of losses – Section 1: General*

~~IEC 60332-1:1993, *Tests on electric cables under fire conditions – Part 1: Test on a single vertical insulated wire or cable*~~