AS/NZS 1429.2:1998

Australian/New Zealand Standard®

Electric cables—Polymeric insulated

Part 2: For working voltages above 19/33 (36) kV up to and including 76/132 (145) kV

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 17 November 1997 and on behalf of the Council of Standards New Zealand on 17 November 1997. It was published on 5 February 1998.

The following interests are represented on Committee EL/3:

Australasian Railways Association
Australian Electrical and Electronic Manufacturers Association
Department of Defence, Australia
Electrical regulatory authorities
Electricity Supply Associated 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.
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This Standard was issued in draft form for comment as DR 97035.

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First published as AS/NZS 1429.2:1998.

PUBLISHED JOINTLY BY:

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Homebush NSW 2140 Australia

STANDARDS NEW ZEALAND
Level 10, Radio New Zealand House,
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Wellington 6001 New Zealand

ISBN 0 7337 1722 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/3, Electric Wires and Cables, to complement AS 1429.1—1993, *Electric cables—Polymeric insulated*, Part 1: *For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV*.

The objective of this Standard is to specify requirements for single-core cross-linked polyethylene insulated cables for fixed installations operating at voltages above 19/33(36) kV up to and including 76/132(145) kV.

In the preparation of this Standard, consideration was given to the following publications and acknowledgment is made of the assistance received:

IEC

229 Tests on cable oversheaths which have a special protective function and are applied by extrusion

502 Extruded solid dielectric insulated power cables for rated voltages from 1 kV up to 30 kV

840 Tests for power cables with extruded insulation for rated voltages above 30 kV (U_m = 36 kV) up to 150 kV (U_m = 170 kV)

811 Common test methods for insulating and sheathing materials of electric cables (all parts)

AEIC

CS7 Specifications for crosslinked polyethylene insulated shielded power cables rated 69 through 138 kV

The nominal cross-sectional areas of the conductors specified herein are identical with the values specified in AS 1125, *Conductors in insulated electric cables and flexible cords*. Additional conductor sizes referenced are specified in IEC 228, *Conductors of insulated cables*. The dimensions for non-metallic sheath thicknesses are based on the values recommended in IEC 502. Certain tests and criteria in this Standard are more stringent than those in IEC 840.

One type of insulation compound is specified in this Standard, namely insulation comprising cross-linked polyethylene (XLPE).

Although the Standard provides tables of insulation thicknesses and the necessary information to establish precisely the dimensions of the cable protective coverings, no cable dimension tables are provided owing to the variety of cable constructions that could affect such dimensions.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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