

Australian/New Zealand Standard™

**Electric cables—For underground  
residential distribution systems**



Standards Australia



**STANDARDS**  
NEW ZEALAND  
*Te Kaitiaki Take Kōwhiri*

## **AS/NZS 4026:2001**

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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 18 April 2001 and on behalf of the Council of Standards New Zealand on 27 April 2001. It was published on 28 May 2001.

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Electrical Contractors Association of New Zealand  
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# Australian/New Zealand Standard™

## **Electric cables—For underground residential distribution systems**

First published as AS 4026—1992.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables, to supersede AS 4026—1992 and NZS/AS 4026-1992, *Electric cables—For underground residential distribution systems*. The Standard applies to a range of cables recommended for use by electricity distributors in underground residential distribution (URD) systems at working voltages of 0.6/1 (1.2) kV, 6.35/11 (12) kV and 12.7/22 (24) kV.

For reasons of standardization and rationalization, this Standard provides for the construction, dimensions and test requirements of only a limited range of cables.

The requirements of this Standard are compatible with and complementary to those for the range of cables covered in AS/NZS 1429.1, AS 1026 and AS/NZS 5000.1.

This Standard differs from the previous edition in the following significant ways:

- (a) This Standard has been published as a Joint Australian/New Zealand Standard.
- (b) For 6.35/11 (12) kV distribution network cables an additional 300 mm<sup>2</sup> conductor size has been included in the rationalized range.
- (c) The terms 'light duty' and 'heavy duty' in reference to metallic screens for cables complying with AS/NZS 1429.1 have been replaced by nominal short circuit ratings of 3 kA and 10 kA respectively.
- (d) For XLPE insulated 0.6/1 (1.2) kV distribution cables, separate rationalized ranges of conductor sizes have been included for Australia and New Zealand.
- (e) For XLPE insulated 0.6/1 (1.2) kV service cables, an additional 50 mm<sup>2</sup> conductor size has been included in the rationalized range.
- (f) An additional high voltage Type Test on the XLPE insulated cores of the 0.6/1 (1.2) kV service cables has been introduced.
- (g) Additional maximum continuous current rating data has been included to provide for installation at different soil temperatures.

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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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard**  
**Electric cables—For underground residential distribution systems**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies the construction of a rationalized range of cables used by electricity supply authorities in underground residential distribution (URD) systems.

## NOTES:

- 1 Cable data and recommendations to assist in the selection of the appropriate cables are provided in Appendix A.
- 2 Guidelines on information that should be supplied with enquiries or orders are provided in Appendix B.

**1.2 APPLICATION**

For the purposes of this Standard, the cables shall comply with the requirements of the following Sections, as appropriate:

Section 2	XLPE insulated 6.35/11 (12) kV and 12.7/22 (24) kV cables for use in high voltage distribution networks
Section 3	Paper insulated 6.35/11 (12) kV and 12.7/22 (24) kV cables for use in high voltage distribution networks
Section 4	XLPE insulated 0.6/1 (1.2) kV cables for use in low voltage distribution networks
Section 5	XLPE insulated 0.6/1 (1.2) kV cables for use as low voltage service cables

In addition to complying with the requirements of the particular Section of this Standard, cables shall comply with the relevant requirements of the following Standards:

Section 2	AS/NZS 1429.1, AS 1125
Section 3	AS 1026, AS 1125
Section 4	AS/NZS 5000.1, AS 1125
Section 5	AS/NZS 5000.1, AS 1125

**1.3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS

1026	Electric cables—Impregnated paper insulated—Working voltages up to and including 33 kV
1125	Conductors in insulated electric cables and flexible cords