

AS/NZS 3008.1.1:1998

Australian/New Zealand Standard®

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**Electrical installations—  
Selection of cables**

**Part 1.1: Cables for alternating  
voltages up to and including  
0.6/1 kV—Typical Australian  
installation conditions**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/1, Wiring Rules. 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 14 November 1997. It was published on 5 February 1998.

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The following interests are represented on Committee EL/1:

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Australian Electrical and Electronic Manufacturers Association  
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Communications Electrical Plumbing Union, Australia  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/1, Wiring Rules, to supersede AS 3008.1—1989, *Electrical installations—Selection of cables*, Part 1: *Cables for alternating voltages up to and including 0.6/1 kV*. This Standard (Part 1.1) is applicable to Australian installation conditions where the nominal ambient air and soil temperatures are 40°C and 25°C, respectively. Part 1.2 is applicable to New Zealand installation conditions where the nominal air and soil temperatures are 30°C and 15°C respectively. Each Part is a complete Standard and requires no reference to the other.

Part 2 will deal with cables for use with alternating voltages over 1 kV.

The objective of the Standard is to specify current-carrying capacity, voltage drop and short-circuit temperature rise of cables, to provide a method of selection for those types of electric cables and methods of installation which are in common use at working voltages up to and including 0.6/1 kV at 50 Hz a.c.

This Standard differs from the 1989 edition as follows:

- (a) Cables with a conductor operating temperature of 110°C have been added.
- (b) Aluminium sheathed MIMS cables have been deleted, tables for copper sheathed MIMS cables have been revised and their sheath operating temperature has been changed to 100°C.
- (c) Paper insulated cables have been deleted.
- (d) Voltage drop tables for tinned copper conductors have been deleted.
- (e) References have been added for aerial bundled cables.
- (f) The tables apply to Australian installation conditions.
- (g) Tables have been recalculated to IEC 287, *Electric cables—Calculation of the current rating* (all Parts), based on conductor, insulation and sheath dimensions in the relevant Australian/New Zealand Standards and Australian ambient temperatures, except as detailed in Clause 3.1.2. The current ratings for insulated aerial cables are generally based on IEC 287 and on methods proposed by Dr V.T. Morgan of the CSIRO. The work carried out by Dr V.T. Morgan was sponsored by ESAA and AEEMA.

In the preparation of this Standard, reference was made to IEC 287 and acknowledgment is made of the assistance received from that source.

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

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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