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AS/NZS 3008.1.2:1998

Australian/New Zealand Standard™

Electrical installations—Selection of cables

Part 1.2: Cables for alternating voltages up to and including 0.6/1 kV—Typical New Zealand 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 11 February 1998 and on behalf of the Council of Standards New Zealand on 12 February 1998. It was published on 5 May 1998.

The following interests are represented on Committee EL/1:

The Association of Consulting Engineers, Australia
Australian Building Codes Board
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association, New Zealand
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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 1.2) is applicable to New Zealand installation conditions where the nominal ambient air and soil temperatures are 30°C and 15°C, respectively. Part 1.1 is applicable to Australian installation conditions where the nominal air and soil temperatures are 40°C and 25°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) Tables apply to New Zealand 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 New Zealand 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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CONTENTS

Page

FOREWORD 8

SECTION 1 SCOPE AND GENERAL
1.1 SCOPE AND APPLICATION 9
1.2 ALTERNATIVE SPECIFICATIONS 9
1.3 REFERENCED AND RELATED DOCUMENTS 10
1.4 DEFINITIONS 11

SECTION 2 CABLE SELECTION PROCEDURE
2.1 GENERAL 12
2.2 SELECTION PROCESS 12
2.3 DETERMINATION OF MINIMUM CABLE SIZE BASED ON CURRENT-CARRYING CAPACITY CONSIDERATIONS 12
2.4 DETERMINATION OF MINIMUM CABLE SIZE BASED ON VOLTAGE DROP CONSIDERATIONS 13
2.5 DETERMINATION OF MINIMUM CABLE SIZE BASED ON THE SHORT-CIRCUIT TEMPERATURE CONSIDERATIONS 14

SECTION 3 CURRENT-CARRYING CAPACITY
3.1 RATINGS 15
3.2 TYPES OF CONDUCTORS 15
3.3 TYPES OF CABLE 16
3.4 INSTALLATION CONDITIONS 18
3.5 EXTERNAL INFLUENCES ON CABLES 21

SECTION 4 VOLTAGE DROP
4.1 GENERAL 64
4.2 DETERMINATION OF VOLTAGE DROP FROM MILLIVOLTS PER AMPERE METRE 64
4.3 DETERMINATION OF VOLTAGE DROP FROM CIRCUIT IMPEDANCE 65
4.4 DETERMINATION OF VOLTAGE DROP FROM CABLE OPERATING TEMPERATURE 66
4.5 DETERMINATION OF VOLTAGE DROP FROM LOAD POWER FACTOR 67
4.6 DETERMINATION OF VOLTAGE DROP IN UNBALANCED MULTIPHASE CIRCUITS 68

SECTION 5 SHORT-CIRCUIT PERFORMANCE
5.1 GENERAL 88
5.2 FACTORS GOVERNING THE APPLICATION OF THE TEMPERATURE LIMITS 88
5.3 CALCULATION OF PERMISSIBLE SHORT-CIRCUIT CURRENTS 89
5.4 INFLUENCE OF METHOD OF INSTALLATION 89
5.5 MAXIMUM PERMISSIBLE SHORT-CIRCUIT TEMPERATURES 90

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