AS/NZS 60269.4.0:2000
IEC 60269-4:1986
IEC 60269-4:1986/Amd.1:1995

Australian/New Zealand Standard™

Low-voltage fuses

Part 4.0: Supplementary requirements for fuse-links for the protection of semiconductor devices

Standards Australia
STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/7, Power Switchgear. It was approved on behalf of the Council of Standards Australia on 20 September 2000 and on behalf of the Council of Standards New Zealand on 24 November 2000. It was published on 6 December 2000.

The following interests are represented on Committee EL/7:

Australasian Railway Association
Australian British Chamber of Commerce
Australian Electrical and Electronic Manufacturers Association
Electricity Supply Association of Australia
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This Standard was issued in draft form for comment as DR 99433.

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Part 4.0: Supplementary requirements for fuse-links for the protection of semiconductor devices

Originated as AS 2005.40—1989.
Jointly revised and redesignated AS/NZS 60269.4.0:2000.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 3616 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/7, Power Switchgear to supersede AS 2005.40—1989.

The objective of this Standard is to provide supplementary requirements for those stated in AS/NZS 60269.1:2000 for fuse-links for application in equipment containing semi-conductor devices for circuits of rated voltages up to 1000 V a.c. or circuits of nominal voltages up to 1500 V d.c. and also, in so far as they are applicable, for circuits of higher voltages and to establish the characteristics of semi-conductor fuse-links in such a way that they can be replaced by other fuse links having the same characteristics, provided that their dimensions are identical.

This Standard is Part 4.0 of a series which, when complete, will consist of the following:

AS/NZS		
60269	Low-voltage fuses	
60269.1	Part 1:	General requirements
60269.2.0	Part 2.0:	Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)
60269.2.1	Part 2.1:	Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)– Sections I to V: Examples of types of standardized fuses
60269.3.0	Part 3.0:	Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)
60269.3.1	Part 3.1:	Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)–Sections I to IV
60269.4.0	Part 4.0:	Supplementary requirements for fuse-links for the protection of semi-conductor devices (this Standard)
60269.4.1	Part 4.1:	Supplementary requirements for fuse-links for the protection of semi-conductor devices–Section 1 to III

This Standard is identical with and has been reproduced from IEC 60269-4:1986, *Low-voltage fuses* Part 4: *Supplementary requirements for fuse-links for the protection of semiconductor devices* incorporating Amendment 1:1995.

Text altered by Amendment 1:1995 is indicated by a vertical bar in the right-hand margin.

This Standard differs from AS 2005.40—1989 by the addition of the text of IEC 60269-4 Amendment 1:1995 only.

A reference to an International Standard identified in the normative references clause by strikethrough (~~example~~) is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (example). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter.

In view of the fact that this Standard should be read together with AS/NZS 60269.1, *Low-voltage fuses*, Part 1: *General requirements*, the numbering of its clauses and sub-clauses is made to correspond to the latter. Regarding the tables, their numbering also corresponds to that of AS/NZS 60269.1, however, when additional tables appear, they are referred to by capital letters, for example, Table A, Table B, etc.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

(d) French text on figures should be ignored.

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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Any IEC table, figure or passage of text that is struck-through is not part of this Standard. Any Australian/New Zealand table, figure or passage of text that is added (and identified by shading) is part of this Standard.

1 General

Fuse-links for the protection of semiconductor devices shall comply with all requirements of IEC Publication 60269-1, if not otherwise indicated hereinafter, and shall also comply with the supplementary requirements laid down below.

1.1 Scope

These supplementary requirements apply to fuse-links for application in equipment containing semiconductor devices for circuits of rated voltages up to 1 000 V a.c. or circuits of nominal voltages up to 1 500 V d.c. and also, in so far as they are applicable, for circuits of higher nominal voltages.

Notes

1. - Such fuse-links are commonly referred to as "semiconductor fuse-links".

2. - In most cases, a part of the associated equipment serves the purpose of a fuse-base. Owing to the great variety of equipment, no general rules can be given; the suitability of the associated equipment to serve as a fuse-base should be subject to agreement between the manufacturer and the user. However, if separate fuse-bases or fuse-holders are used, they should comply with the appropriate requirements of IEC Publication 60269-1.

1.2 Object

The object of these supplementary requirements is to establish the characteristics of semiconductor fuse-links in such a way that they can be replaced by other fuse-links having the same characteristics, provided that their dimensions are identical. For this purpose, this standard refers in particular to:

1.2.1 The following characteristics of fuses:

a) their rated values;

c) their temperature rises in normal service;

d) their power dissipation;

e) their time-current characteristics;

f) their breaking capacity;

g) their cut-off current characteristics and their I^2t characteristics;

h) their arc voltage limits.