

Australian Standard[®]

**Low voltage fuses—Fuses with
enclosed fuse—links**

**Part 30: Supplementary
requirements for fuses for use by
unskilled persons (fuses mainly
for household and similar
applications)**

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The following interests are represented on Committee EL/6:

Australian–British Chamber of Commerce
Australian Electrical and Electronic Manufacturers Association
Bureau of Steel Manufacturers of Australia
Electrical Contractors Associations of Australia
Electricity Supply Association of Australia
Independent Electrical Switchboard Manufacturers Association
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PREFACE

This Standard was prepared by Standards Australia's Committee on Industrial Switchgear and Controlgear to supersede AS 2005.3–1980, *Fuses with enclosed fuse-links (up to and including 1000 V a.c. and 1500 V d.c.)*, Part 3: *Fuses for household and similar applications*.

It is based on IEC 269–3, *Low-voltage fuses*, Part 3: *Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)*, and IEC document 32B(Central Office)69, covering standardized fuse systems (intended for publication as IEC 269–3–1), Section II B.

This Standard is to be read in conjunction with AS 2005.10.

The clause and table numbers in this Standard are the same as those used in AS 2005.10. Additional tables herein are numbered 1 and 2 to distinguish them from the table numbers in AS 2005.10. Sections and Clauses of AS 2005.10 not amended herein, are not repeated in this Standard, hence the clause numbers herein are not consecutive.

Where this Standard deviates technically from the above IEC documents by way of additional or different requirements the deviation is highlighted by the underlining of, or a rule in the margin against, each clause, figure, or portion thereof affected. The deviations are as follows:

- (a) Clause 1.3 added.
- (b) Section 4 classifies fuse-links according to voltage and current ratings.
- (c) Clause 5.5 covers minimum values of rated power acceptance for all fuse-holders.
- (d) Figure 1 includes 10 A, 25 A, 40 A, and 50 A Type I fuse-links, and identifying colours. The maximum power dissipation for 80 A fuse-links is 6 W. IEC 5 A and 45 A fuse-links are not included.
- (e) Figure 2 specifies maximum rated currents from 10 A to 50 A and corresponding minimum rated power acceptance values.
- (f) Figure 3 shows maximum dimensions only. The minimum rated power acceptance for 80 A Type IIa fuse-holders is 6 W.
- (g) Figure 4 shows time/current zones for the rated currents in Figure 1.
- (h) Clause 6.2 specifies identification colours in accordance with Figure 1.
- (i) In Clause 7.1.4, the words 'the rated current of the fuse-holder' replace 'a pre-determined value' in IEC 269–3.
- (j) Clause 7.9 requires a degree of protection of at least IP2X.
- (k) Figure 5 includes type Ia, Ib, Ic and Id fuse-links.

Editorial amendments to the above IEC documents have been made in this Standard to clarify some of the IEC text.

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CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE AND APPLICATION	4
1.2 OBJECT	4
1.3 REFERENCED DOCUMENTS	4
SECTION 4 CLASSIFICATION	5
SECTION 5 CHARACTERISTICS OF FUSES	
5.2 RATED VOLTAGE	6
5.3 RATED CURRENT	6
5.5 RATED POWER DISSIPATION OF A FUSE-LINK AND RATED POWER ACCEPTANCE OF A FUSE-HOLDER	6
5.6 LIMITS OF TIME/CURRENT CHARACTERISTICS	8
SECTION 6 MARKINGS	
6.2 MARKINGS OF FUSE-LINKS	11
6.4 MARKINGS OF GAUGE-PIECES	11
SECTION 7 STANDARD CONDITIONS FOR CONSTRUCTION	
7.9 PROTECTION AGAINST ELECTRIC SHOCK	12
SECTION 8 TESTS	
8.3 VERIFICATION OF TEMPERATURE RISE AND POWER DISSIPATION	13
8.4 VERIFICATION OF OPERATION	13
8.5 VERIFICATION OF BREAKING CAPACITY	13
8.11 MECHANICAL AND MISCELLANEOUS TESTS	13

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Australian Standard

Low voltage fuses—Fuses with enclosed fuse-links

Part 30: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE AND APPLICATION

1.1.1 Scope This Standard specifies supplementary requirements of 'gG' fuses for use by unskilled persons for domestic and similar applications with rated currents not exceeding 100 A and rated voltages not exceeding 500 V a.c., having fuse-links with cylindrical contact surfaces.

1.1.2 Application Fuses complying with this Standard shall also comply with all requirements of AS 2005.10, unless otherwise specified.

NOTE: Sections and Clauses of AS 2005.10, without amendment, are not repeated in this Standard (see Preface).

If fuses designed for use by unskilled persons are intended to be used where fuses for use by authorized persons are usually installed, they should also comply with the appropriate requirements of AS 2005.20, AS 2005.21.1, AS 2005.21.2, or AS 2005.29.

1.2 OBJECT The object of this Standard is to specify markings, standard conditions for construction, tests, and the following characteristics, additional to those specified in AS 2005.10:

- (a) Dimensions.
- (b) Rated voltage.
- (c) Rated power-dissipation of fuse-links and rated power-acceptance of fuse-holders.
- (d) Time/current characteristics.
- (e) Gates, I^2t and conventional times and currents.
- (f) Rated breaking capacity.

1.3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS	
1939	Degrees of protection provided by enclosures for electrical equipment (IP Code)
2005	Low voltage fuses—Fuses with enclosed fuse-links
2005.10	Part 10: General requirements
2005.20	Part 20: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)—Common requirements
2005.21.1	Part 21.1: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)—Standardized fuse systems—Fuses with fuse-links with blade contacts
2005.21.2	Part 21.2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)—Standardized fuse systems—Fuses with fuse-links for bolted connections
2005.29	Part 29: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application)—Standardized fuses with compact dimensions
IEC	
685	Connecting devices (junction and/or tapping) for household and similar fixed electrical installations
685-2-2	Part 2: Particular requirements—Screw-type terminals for connecting copper conductors