AS 60265.2—2005

Australian Standard™

High-voltage switches

Part 2: High-voltage switches for rated voltages of 52 kV and above (IEC 60265-2, Ed 1.0(1988) MOD)

STANDARDS AUSTRALIA

This Australian Standard was prepared by Committee EL-007, Power Switchgear. It was approved on behalf of the Council of Standards Australia on 16 March 2005. This Standard was published on 18 May 2005.

The following are represented on Committee EL-007:

Australian British Chamber of Commerce
Australian Electrical and Electronic Manufacturers Association
Energy Networks Association
Engineers Australia
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Part 2: High-voltage switches for rated voltages of 52 kV and above (IEC 60265-2, Ed 1.0(1988) MOD)

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-007 Power Switchgear, to supersede AS 1025.2—1989.

The objective of this Standard is to establish requirements for a.c. switches and switch-disconnectors having, making and breaking current ratings at rated voltages of 52 KV and above, for in-door and outdoor installations.

This Standard is Part 2 of a two-Part Standard consisting of the following:

AS		
60265	High-voltage switches	
60265-1	Part 1:	Switches for rated voltages above 1 kV and less than 52 kV
60265-2	Part 2:	High-voltage switches for rated voltages of 52 kV and above (this Standard)

This Standard is an adoption with national modifications and has been reproduced from IEC 60265-2, Ed.1.0(1988), *High-voltage switches Part 2 High-voltage switches for rated voltages of 52 kV and above*, incorporating its Corrigendum 1:1990, Amendment 1:1994 and Amendment 2:1998. It has been varied as indicated to take account of Australian conditions and it has been brought into line with the latest edition of AS 2650—2005, *Common specifications for high voltage switchgear and controlgear standards*.

Australian variations include the introduction of type testing, upon agreement between the manufacturer and user, for partial discharge, dielectric dissipation factor and radio interference voltage; routine testing, upon agreement between manufacturer and user, for partial discharge and dielectric dissipation factor, and an Australian annex listing items to be agreed between the purchaser and the user.

This Standard differs from the Standard it supersedes in the following major areas:

(a) 'Terminals' (clause 5.10) has been deleted.

(b) 'Independent Manual Operation' (clause 5.7) has been added and following clauses 5.7 to 5.9 are renumbered.

(c) Clauses 5.11 to 5.18 have been added.

(d) Clauses 6.7 to 6.10 have been added.

(e) Table IX 'Suggested maximum permissible switching overvolatges when switching capacitive and inductive currents' has been deleted.

(f) Condition of switch after breaking tests (subclause 6.101.15) has been updated.

(g) Condition of switch during and after short-circuit making test (subclause 6.101.16) item c) has been updated.

(h) Tests for limited-purpose and special-purpose switches (subclause 6.102.3), requirements for mechanical endurance tests for frequently operated switches have been added.

(i) 'Quality control during manufacture' has been replaced by (Clause 11) 'Safety'.

(j) Annex ZA 'Items subject to agreement between the manufacturer and user' has been added.

(k) References have been updated.

(l) IEC 60265-2, Ed.1.0 (1988) Corrigendum 1: 1990, Amendment 1:1994 and Amendment 2: 1998 have been incorporated.

Variations to IEC 60265-2, Ed.1.0(1988) are indicated at the appropriate places throughout this standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

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 Standard'.

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

(d) Any French text on figures should be ignored.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian table, figure or text that is added (and identified by shading) is part of this standard.

1 Scope

This standard is applicable to three-phase alternating-current switches, having making and breaking current ratings, for indoor and outdoor installations, for rated voltages 52 kV and above; and for rated frequencies up to and including 60 Hz.

This standard is also applicable to the operating devices of these switches and to their auxiliary equipment.

Note 1 - Switches for gas insulated switchgear are covered by this standard.

Note 2 - Switches having a disconnecting function and called switch-disconnectors are also covered by IEC 62271-102.

Note 3 - Earthing switches are not covered by this standard. Earthing switches forming an integral part of a switch are covered by IEC 62271-102.

1.101 Object

The main object of this standard is to establish requirements for switches used in transmission and distribution systems. General purpose switches for this application shall comply with the following service applications:

— carrying rated normal current continuously;
— carrying short-circuit currents for a specified time;
— switching of mainly active loads;
— switching of no-load transformers;
— switching of the charging current of unloaded cables, overhead lines or busbars;
— switching of closed-loop circuits;
— making short-circuit currents.

A further object of this standard is to establish requirements for limited-purpose and special-purpose switches used in transmission and distribution systems.

Limited-purpose switches shall comply with one or more of the service applications indicated above.

Special-purpose switches may comply with one or more of the service applications indicated above and, in addition, shall be suitable for one or more of the following applications:

— switching single capacitor banks;
— switching back-to-back capacitor banks;
— switching shunt reactors including secondary or tertiary reactors switched from the primary side of the transformer;