

3133—1989 Approval and test specification—Air break switches
(In Update Services 28, 55) A4 9pp D
Specifies essential safety requirements for air break switches for approval and test purposes. It is intended to be read in conjunction with AS 3100.
Committee EL/4; Supersedes AS 3133—1983; Publication date 1989-09-11; ISBN 0 7262 5757 5.

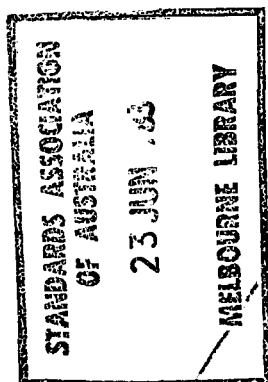
1989 ED.

AS 3133—1983
UDC 621.31:621.316.54

Australian Standard 3133—1983

Amended 1.

APPROVAL AND TEST SPECIFICATION FOR AIR BREAK SWITCHES



**PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.**

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This Australian standard was prepared by Committee EL/4, Electrical Accessories. It was approved on behalf of the Council of the Standards Association of Australia on 28 March 1983 and published on 6 June 1983.

The following interests are represented on Committee EL/4:

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Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Department of Defence Support
Department of Housing and Construction
Department of Public Works, N.S.W.
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First issued (Supplementary Series)	1941
Revised	1956
Revised	1968
AS 3133 first published	1977
Second edition	1980
Third edition	1983

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ISBN 0 7262 3006 5

STANDARDS ASSOCIATION OF AUSTRALIA
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AMENDMENT No 1
to
AS 3133—1983
Approval and Test Specification for
AIR BREAK SWITCHES

REVISED TEXT

The 1983 edition of AS 3133 is amended as follows; the amendment should be inserted in the appropriate place.

SUMMARY: The following section of the standard are covered by this amendment: Clause 4.

Published on 5 October 1984.

Page 5. Clause 4.

Add the following new paragraph:

Where the enclosure of a switch is to be tested to first characteristic numeral 5 or 6 of AS 1939 (dust test), testing shall be carried out under the conditions specified for Category 2 therein.

This amendment forms part of the specification on publication.

AMDT
No 1
OCT.
1984

PREFACE

This edition of this standard was prepared by the Association's Committee EL/4, Electrical Accessories.

It is one of a series of approval and test specifications issued by the Association. These specifications are accompanied by a general specification AS 3100, containing definitions and general requirements for electrical materials and equipment. The purpose of these specifications is to outline conditions which must be met to secure approval for the sale and use of electrical equipment in Australia. Only safety matters and related conditions are covered.

This edition is technically identical with the 1980 edition except that it incorporates Amendment No 1 to that edition which was issued in October 1982, and includes a new Clause 10A which introduces a requirement to prohibit certain arrangements for other wiring systems. This new Clause forms part of the standard 3 months from the date of publication.

This standard supersedes AS 3133—1980 from date of publication.

The Association desires to call attention to the fact that this standard does not purport to include all the necessary provisions of a contract.

This standard requires reference to the following Australian standard approval and test specifications:

- AS 3100 Definitions and General Requirements for Electrical Materials and Equipment
 AS 3121 Insulating Mouldings
 and to Australian standard—
 AS 1775 Air-break Switches, Isolators and Fuse-combination Units (up to and including 1000 V a.c. and 1200 V d.c.)

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
APPROVAL AND TEST SPECIFICATION
FOR
AIR BREAK SWITCHES

This specification shall be read in conjunction with AS 3100. (See also Clause 3, below.)

1 SCOPE. This specification applies to air break switches operated manually, mechanically, hydraulically or by other means, having current ratings not exceeding 300 A, and intended for use in electrical circuits and appliances operating at low or medium voltage.

It does not apply to the following:

- (a) Switches within the scope of other approval and test specifications or switches which are specifically excluded from compliance with AS 3133 in another approval and test specification.
- (b) Motor starters and speed controllers other than direct-on-line starting switches of the manually operated type.
- (c) Switches not intended to make or break a circuit on load, such as isolating switches and certain types of reversing switch.

2 DEFINITIONS. For the purposes of this specification the following definitions apply:

2.1 Air break switch—a mechanical device for making and breaking in air a circuit carrying a load current.

2.2 Ceiling switch—a switch for mounting on a ceiling or suitable overhead surface and operated by pulling a cord or the like attached to the switch.

2.3 Flush switch—a switch for mounting behind or incorporated with a switch-plate, the back of the plate being flush with the surface of the wall or enclosure.

2.4 Intermediate switch—a switch for controlling a circuit where more than two positions of control are required, and which generally occupies an intermediate position between the two 2-way switches used in conjunction therewith.

2.5 Isolating switch—a switch for making and breaking a circuit, when it is not on load.

2.6 Number of ways (of a switch)—the number of paths provided on each pole.

2.7 (An) Operation—a make and break on one set of contacts in the switch in the manner intended under normal conditions of use.

2.8 Pole—a conducting path in a switch equipped with a set of contacts for making, breaking and carrying the normal current through the switch.

2.9 Recovery voltage—the r.m.s. value of the normal frequency voltage, or d.c. voltage, as appropriate, which exists across the terminals of each pole of the switch after final arc extinction.

2.10 Rocker switch—a switch operated by moving an actuating member having a rocking motion, the rocker being pressed at one end to open and at the other end to close the switch contacts.

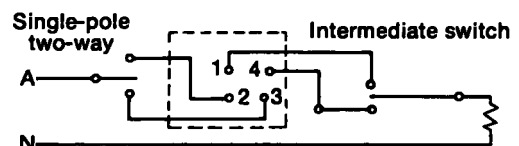
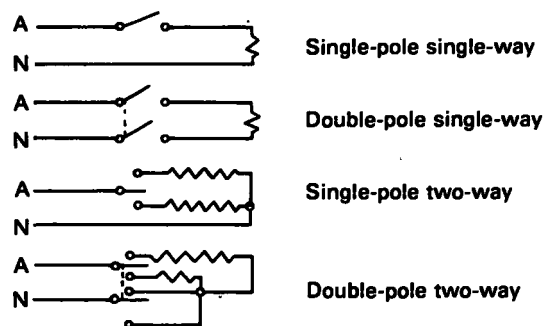
2.11 Semi-recessed switch—a switch for mounting with its base partially sunk into the surface of a wall or enclosure.

2.12 Surface switch—a switch provided with a seating surface so that when mounted it projects wholly above the surface on which it is mounted.

2.13 Tumbler switch—a switch operated by moving an actuating lever or dolly other than a rocker.

2.14 Wall switch—a flush, semi-recessed or surface switch primarily intended for mounting on or in a wall or related part of a building structure for local control of lighting and plug sockets.

2.15 Examples of switch arrangements:



(Connections are:

Position A

1 to 2

3 to 4

Position B

1 to 3

2 to 4

Other contact arrangements of intermediate switches are also available.)