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Australian Standard®
1125—1986

CONDUCTORS IN INSULATED ELECTRIC CABLES AND FLEXIBLE CORDS

STANDARDS ASSOCIATION OF AUSTRALIA
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This Australian standard was prepared by Committee EL/3—Electric Wires and Cables. It was approved on behalf of the Council of the Standards Association of Australia on 22 October 1985 and published on 6 January 1986.

The following interests are represented on Committee EL/3:

Australian Electrical and Electronic Manufacturers Association

Confederation of Australian Industry

Department of Aviation

Department of Defence

Department of Industrial Relations, New South Wales

Electrical Contractors Associations of Australia

Electrical Testing Laboratories

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AUSTRALIAN STANDARD

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AS 1125—1986

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PREFACE

This edition of this standard was prepared by the Association's Committee on Electric Wires and Cables in conjunction with the Association's Committees on Wiring Rules, Paper Insulated Cables and Ship Building Cables. It supersedes AS 1125—1974.

The conductors specified herein have identical nominal cross-sectional areas, with corresponding conductors specified in IEC 228 (see below). This standard includes conductors for which IEC make no provision, namely the Milliken conductors and the solid sectoral circular conductor.

The copper conductors for ships cables, specified in Section 2, are dimensionally identical with those specified in Amendment No 1 (1969) of IEC 92-3 (see below).

This standard differs from the previous edition in the following ways:

(a) To align with IEC practice but with an exception for rope lay conductors in flexible cables (Table 2.7), the cross-sectional area of conductors, the minimum number of wires and the maximum resistance are specified, where previously the actual number and nominal diameter of wires were specified.

(b) To align generally with IEC practice, only one value of resistance is quoted for each particular conductor, corresponding to the values specified previously for multicore cables.

Resistance values align with the values specified in IEC 228 with the exception of the resistance specified for 0.75 mm^2 flexible cord conductors, where lower resistance is specified to accommodate the established design practice for appliances in Australia.

(c) Plated and coated conductors have been included in this edition.

(d) The values of tensile strength specified in Table 2.2 and Table 4.2 have been amended to be more precise.

(e) A new table (Table 2.6) has been included, specifically for cables with thin insulation, e.g. fluoropolymer insulated cables.

Attention is drawn to the fact that the conductors specified represent (with the exception of conductors for special purposes) the overall range in the types of metals currently specified. It does not necessarily follow that each of the types and sizes of conductors is to be used for a particular cable. The individual specification for such cable will specify the size and type of conductors that are applicable, from the range given in this standard.

It is intended that further sections will be added to this standard from time to time as the need arises, and in order to provide for conductors made of metal(s) not at present included.

In the preparation of this standard, consideration was given to the following standards:

IEC 228	Conductors of Insulated Cables
IEC 92-3	Electrical Installations, in Ships [Part 3: Cables (construction, testing and installations)]
BS 6360	Conductors in Insulated Cables and Cords
BS 2627	Wrought Aluminium for Electrical Purposes—Wire
BS 3988	Wrought Aluminium for Electrical Purposes—Solid Conductors for Insulated Cables

Acknowledgement is made of the assistance received therefrom.

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