

Australian Standard[®]

Arc welding equipment

**Part 1: Welding power sources
(IEC 60974-1:2000, MOD)**

STANDARDS
Australia



This Australian Standard® was prepared by Committee EL-019, Electrical Welding Plant. It was approved on behalf of the Council of Standards Australia on 19 July 2006. This Standard was published on 25 August 2006.

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- Australian Chamber of Commerce and Industry
 - Australian Industry Group
 - Australian Manufacturing Workers Union
 - Electrical Regulatory Authorities Council
 - Welding Technology Institute of Australia
-

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**Part 1: Welding power sources
(IEC 60974-1:2000, MOD)**

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PREFACE

This Standard was prepared by Standards Australia Committee EL-019, Electrical Welding Plant, to supersede AS 1966.1—1985, *Electric arc welding power sources—Transformer type*, AS 1966.2—1985, *Electric arc welding power sources—Rotary type* and AS 1966.3—1990, *Electric arc welding power sources—Plasma arc cutting and welding types*.

The objective of this Standard is to specify requirements for arc welding power sources designed for professional and industrial use.

This Standard is an adoption with national modifications and has been reproduced from IEC 60974-1:2000, *Arc welding equipment, Part 1: Welding power sources*, including its Amendment 2:2003, and has been varied as indicated to take account of Australian conditions.

Variations to IEC 60974-1:2000 are indicated at the appropriate places throughout this Standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purposes of this 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.

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The term 'informative' is used to define the application of the annex to which it applies. An informative annex is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Arc welding equipment

Part 1: Welding power sources (IEC 60974-1:2000, MOD)

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

1 Scope

This part of IEC 60974 is applicable to power sources for arc welding and allied processes designed for industrial and professional use, and supplied by a voltage not exceeding that specified in table 1 of IEC 60038, or driven by mechanical means.

This Standard is not applicable to welding power sources for manual metal arc welding with limited duty operation which are designed mainly for use by laymen and are covered by AS 60974.6.

This part of IEC 60974 specifies safety requirements for construction and performance requirements of welding power sources and plasma cutting systems.

NOTE 1 Typical allied processes are electric arc cutting and arc claying.

NOTE 2 This standard does not include electromagnetic compatibility (EMC) requirements.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60974. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 60974 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the international standard it replaces is identified as such.

AS/NZS 3112, *Approval and test specification—Plugs and socket-outlets*

AS/NZS 3191, *Electric flexible cords*

~~IEC 60038:1983, IEC standard voltages~~

AS 60038, *Standard voltages*

~~IEC 60050(151):1978, International Electrotechnical Vocabulary (IEV) — Chapter 151: Electrical and magnetic devices~~

AS 1852.151, *International electrical vocabulary, Part 151: Electric and magnetic devices*

IEC 60050(851):1991, *International Electrotechnical Vocabulary (IEV) — Chapter 851: Electric welding*