AS 1966.1—1985

Australian Standard®

Electric arc welding power sources

Part 1: Transformer type

This Australian standard was prepared by Committee EL/19, Electric Welding Plant. It was approved on behalf of the Council of the Standards Association of Australia on 17 January 1985 and published on 10 May 1985.

The following interests are represented on Committee EL/19:

Australian Electrical and Electronic Manufacturers Association

Australian Welding Institute

Confederation of Australian Industry

Electricity Supply Association of Australia

University of New South Wales

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

AS 1966.1—1985

Australian Standard®

Electric arc welding power sources

Part 1: Transformer type

First published (as AS C97)	1942
Revised	1964
AS 1966 first published	1976
AS 1966.1 first published	1985

PUBLISHED BY STANDARDS AUSTRALIA (STANDARDS ASSOCIATION OF AUSTRALIA) 1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 3699 3

PREFACE

This standard was prepared by the Association's Committee on Electrical Welding Plant to supersede in part AS 1966—1976, Electric Arc Welding Machines.

Being published concurrently with this standard is AS 1966.2, Electric Arc Welding Power Sources, Part 2—Rotary Type, which supersedes the remainder of AS 1966—1976.

This standard makes many changes to AS 1966—1976, the most significant of which concerns the requirements for rated load voltage (Clause 1.7.3) which have been expanded to include the three welding processes designated MMAW, GTAW and GMAW (see Table 1.1).

Where local conditions and practices have allowed, IEC and ISO requirements have been included.

© Copyright – STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on an appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

		Page
SECTION	1. Scope and General	
1.1	Scope	5
1.2	Application	5
1.3	Referenced Documents	5
1.4	Definitions	5
1.5	Safety Requirements	6
1.6	Service Conditions	7
1.7	Rating and Classification	7
SECTION	2. Performance Requirements	
2.1	Open-Circuit Voltage	10
2.2	Maximum Short-Circuit Input Current	10
2.3	Tolerance on Applied Input Voltage	10
2.4	Power Factor Correction	10
2.5	Output Current Regulator	10
2.6	Voltage Regulations of Multi-operator Welding Power Sources	10
2.7	Temperature Limits	10
SECTION	3. Design and Construction	
3.1	General	12
3.2	Transformers	12
3.3	Rectifiers	13
3.4	Operator Controls	13
3.5	Ierminals	13
5.0 3.7	Loading of Multi operator Welding Dower Sources	13
3.7	Indication and Accuracy of Load Current for Manual Metal_Arc	15
5.8	Welding Power Sources	14
SECTION	4.	
4.1	General	15
4.2	Information to be Marked on Transformer Type Welding Power	
4.2	Sources	15
4.3	Information to be Marked on Transformers and Regulators	15
4.4	Power Factor Correction Markings	16
4.5		16
SECTION	5. Tests	
5 1	General Requirements for Tests	17
5.1	Insulation Resistance Test	17
5.3	High Voltage Test	18
5.4	Test of Earthing Connection	18
5.5	Test for Open-circuit Voltage	18
5.6	Temperature-rise Test	18
5.7	Test for Minimum Output Current	18
5.8	Test for Rated Input Current	18
5.9	Test for Transformer Voltage Regulation (Multi-operator Welding	
	Power Sources only)	18
5.10	Earth Leakage Test	18
5.11	Test for Maximum Short-circuit Input Current	19
5.12	Test for Maximum Output Current	19
5.13	Test of Power Rectifier Assembly	19



This is a free preview. Purchase the entire publication at the link below:

Product Page

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation