

INTERNATIONAL STANDARD

ISO 7284

Second edition
1993-07-15

Resistance welding equipment — Particular specifications applicable to transformers with two separate secondary windings for multi-spot welding, as used in the automobile industry

*Matériel de soudage par résistance — Spécifications particulières
applicables aux transformateurs à deux enroulements secondaires séparés
pour soudage multipoints, utilisés dans l'industrie automobile*



Reference number
ISO 7284:1993(E)

AVA Documents
Document Sharing Hub

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 7284 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Sub-Committee SC 6, *Resistance welding*.

This second edition cancels and replaces the first edition (ISO 7284:1984), table 3 of which has been technically revised so as to be in alignment with IEC values.

Annex A forms an integral part of this International Standard.

© ISO 1993

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Resistance welding equipment — Particular specifications applicable to transformers with two separate secondary windings for multi-spot welding, as used in the automobile industry

1 Scope

This International Standard gives specifications relating to the particular types of transformers specified in clause 3. It complements ISO 5826 which gives general specifications applicable to all transformers.

This International Standard applies to transformers with two separate secondary windings for electric resistance welding machines for multi-spot welding, as used in the automobile industry.

NOTE 1 By agreement between the manufacturer and the user, this International Standard may also be applied to those transformers for multi-spot welding used in other industries or for other types of welding machines where possible. ISO 5826 is applicable in all cases.

2 Normative references

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

ISO 669:1981, *Rating of resistance welding equipment*.

ISO 5826:1983, *Transformers for resistance welding*

machines — General specifications applicable to all transformers.

IEC 423:1973, *Outside diameters of conduits for electrical installations and threads for conduits and fittings.*

3 Types of transformer

This International Standard covers the types of transformer given in table 1 characterized by the secondary no-load voltage U_{20} , the secondary permanent current I_{2p} and, for information, by the continuous output S_p and/or the rated power at a duty factor of 50 % (S_{50}).

Transformers may optionally have a rotary switch for the secondary no-load voltage U_{20} .

The power on which the definition of the transformer type is based is the primary power, i.e. the sum of the powers of both the secondary windings.

4 General requirements

Unless otherwise specified, those requirements of ISO 5826 not modified by this International Standard shall be met.

5 Positions of the rotary switch

The rotary switch shall be either on the transformer in one of the five positions shown in figure 1 or separate from the transformer (position 6).

Table 1 — Types of transformer, electrical characteristics

U_{20} without rotary switch V	U_{20} with rotary switch Position	V	I_{2p} kA	S_p kVA	S_{50} kVA
5,0	1 2 3 4	3,0 3,6 4,2 5,0	5,6	28	40
7,1	1 2 3 4	5,0 5,6 6,3 7,1	6,3	45	63
10,0	1 2 3 4	7,1 8,0 9,0 10,0	7,1	71	100

NOTES

1 The selection of the secondary voltage is made on the primary side by means of a rotary switch or a set of connectors. In the following clauses, only rotary switch assemblies are shown.

2 For requirements concerning the secondary permanent current I_{2p} and the secondary no-load voltage U_{20} , see ISO 5826.

6 Dimensions**6.1 Transformers**

The dimensions of the transformers shall be as shown in figure 2 and as given in table 2.

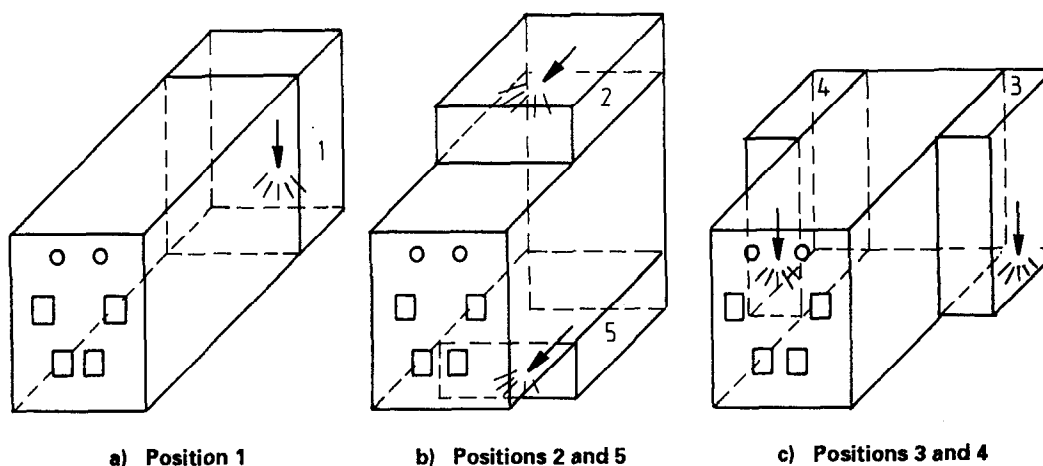
Table 2 — Dimensions l_1 , l_2 and l_3 as a function of the secondary permanent current

Dimensions in millimetres

Transformer	Dimension		
I_{2p} kA	l_1	l_2	l_3
5,6	500	224	408
6,3	550	280	458
7,1	660	400	568

6.2 Rotary switch

The dimensions of the rotary switch when it is separate from the transformer shall be as shown in figure 3.

**Figure 1 — Positions of the rotary switch**