



NSAI
Standards

Irish Standard
I.S. EN ISO 669:2016

Resistance welding - Resistance welding equipment - Mechanical and electrical requirements (ISO 669:2016)

I.S. EN ISO 669:2016

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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National Foreword

I.S. EN ISO 669:2016 is the adopted Irish version of the European Document EN ISO 669:2016, Resistance welding - Resistance welding equipment - Mechanical and electrical requirements (ISO 669:2016)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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EUROPEAN STANDARD

EN ISO 669

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2016

ICS 25.160.30

English Version

Resistance welding - Resistance welding equipment - Mechanical and electrical requirements (ISO 669:2016)

Soudage par résistance - Matériel de soudage par
résistance - Exigences mécaniques et électriques (ISO
669:2016)

Widerstandsschweißen -
Widerstandsschweißeinrichtungen - Mechanische und
elektrische Anforderungen (ISO 669:2016)

This European Standard was approved by CEN on 2 January 2016.

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EN ISO 669:2016 (E)

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European foreword

This document (EN ISO 669:2016) has been prepared by Technical Committee ISO/TC 44 “Welding and allied processes” in collaboration with Technical Committee CEN/TC 121 “Welding and allied processes” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2016, and conflicting national standards shall be withdrawn at the latest by September 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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The text of ISO 669:2016 has been approved by CEN as EN ISO 669:2016 without any modification.

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INTERNATIONAL STANDARD

ISO 669

Third edition
2016-02-15

Resistance welding — Resistance welding equipment — Mechanical and electrical requirements

*Soudage par résistance — Matériel de soudage par résistance —
Exigences mécaniques et électriques*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*.

This third edition cancels and replaces the second edition (ISO 669:2000), which has been technically revised.

Resistance welding — Resistance welding equipment — Mechanical and electrical requirements

1 Scope

This International Standard defines and specifies certain identified electrical and mechanical characteristics of equipment used for

- resistance spot welding,
- projection welding,
- resistance seam welding,
- upset welding¹⁾, and
- flash welding²⁾.

This International Standard specifies the information to be given in equipment specifications and the test methods to be used for measuring those characteristics.

Not all requirements apply to all types of equipment.

The following types of power sources are included:

- single phase with alternating welding current;
- single phase with rectified welding current by rectification of the output of the welding transformer;
- single phase with inverter welding transformer;
- three phase with rectified welding current by rectification of the output of the welding transformer;
- three phase with a current rectification in the input of the welding transformer (sometimes called frequency convertor);
- three phase with inverter welding transformers.

This International Standard does not apply to welding transformers that are separate from the equipment.

NOTE Safety requirements for resistance welding equipment are covered by IEC 62135-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5826:2014, *Resistance welding equipment — Transformers — General specifications applicable to all transformers*

ISO 17657-2, *Resistance welding — Welding current measurement for resistance welding — Part 2: Welding current meter with current sensing coil*

1) Often referred to by the non-preferred term, butt welding.

2) Often referred to by the non-preferred term, flash butt welding.

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