



NSAI
Standards

Irish Standard
I.S. EN ISO 8205:2021

Resistance welding equipment - Water-cooled secondary connection cables(ISO 8205:2021)

I.S. EN ISO 8205:2021

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NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

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National Foreword

I.S. EN ISO 8205:2021 is the adopted Irish version of the European Document EN ISO 8205:2021, Resistance welding equipment - Water-cooled secondary connection cables(ISO 8205:2021)

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EUROPEAN STANDARD

EN ISO 8205

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2021

ICS 25.160.30

Supersedes EN ISO 8205-1:2002, EN ISO 8205-2:2002,
EN ISO 8205-3:2012

English Version

Resistance welding equipment - Water-cooled secondary connection cables(ISO 8205:2021)

Matériel de soudage par résistance - Câbles
secondaires refroidis par eau (ISO 8205:2021)

Widerstandsschweißeinrichtungen - Wassergekühlte
Sekundäranschlusskabel (ISO 8205:2021)

This European Standard was approved by CEN on 26 March 2021.

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EN ISO 8205:2021 (E)

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European foreword

This document (EN ISO 8205:2021) 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of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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

This document supersedes EN ISO 8205-1:2002, EN ISO 8205-2:2002 and EN ISO 8205-3:2012.

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Endorsement notice

The text of ISO 8205:2021 has been approved by CEN as EN ISO 8205:2021 without any modification.

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INTERNATIONAL STANDARD

**ISO
8205**

First edition
2021-03

Resistance welding equipment — Water-cooled secondary connection cables

*Matériel de soudage par résistance — Câbles secondaires refroidis
par eau*



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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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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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition cancels and replaces ISO 8205-1:2002, ISO 8205-2:2002 and ISO 8205-3:2012.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: <https://committee.iso.org/sites/tc44/home/interpretation.html>.

Resistance welding equipment — Water-cooled secondary connection cables

1 Scope

This document gives specifications for single- and double-conductor secondary connection cables used for resistance welding and allied processes. These specifications include requirements for electrical, mechanical and cooling characteristics of the cables and their test procedures.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

double-conductor connection cable

cable comprising two conductors providing an electrical link between the secondary terminals of a welding transformer and the welding set (manual or robotized guns) and designed so as to have as low an electrical reactance as possible

3.2

single-conductor connection cable

cable comprising one conductor providing an electrical link between the secondary terminals of a welding transformer and the welding set (manual or robotized guns)

4 Classification

4.1 Form of the end lugs

Double-conductor water-cooled connection cables are classified into two types, A-1 and A-2, in accordance with the form of the end lugs (see [5.1.3](#)).

Single-conductor water-cooled connection cables are classified into three types, C-1, C-2 and D, in accordance with the form of the end lugs (see [5.2.3](#)).

4.2 Resistance and reactance

Double-conductor, water cooled connection cables are classified into two types, A-1 and A-2, with power factor $\cos\varphi \geq 0,95$ as shown in [Figure 1](#).

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