

Irish Standard I.S. EN ISO 10656:2021

Resistance welding equipment -Transformers - Integrated transformers for welding guns (ISO 10656:2016)

© CEN 2021 No copying without NSAI permission except as permitted by copyright law.

#### I.S. EN ISO 10656:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

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

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on: Published:

EN ISO 10656:2021 2021-01-13

This document was published ICS number:

under the authority of the NSAI
and comes into effect on:

29.180

NOTE: If blank see CEN/CENELEC cover page

25.160.30

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W NSAI.ie
 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

#### National Foreword

I.S. EN ISO 10656:2021 is the adopted Irish version of the European Document EN ISO 10656:2021, Resistance welding equipment - Transformers - Integrated transformers for welding guns (ISO 10656:2016)

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

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

**EUROPEAN STANDARD** 

**EN ISO 10656** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

January 2021

ICS 25.160.30; 29.180

### **English Version**

# Resistance welding equipment - Transformers - Integrated transformers for welding guns (ISO 10656:2016)

Matériel de soudage par résistance - Transformateurs - Transformateurs incorporés pour pinces à souder (ISO 10656:2016)

Widerstandsschweißeinrichtungen - Transformatoren - Integrierte Transformatoren für Schweißzangen (ISO 10656:2016)

This European Standard was approved by CEN on 6 December 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

# EN ISO 10656:2021 (E)

Contents	Page	5
Euronean foreword		3

EN ISO 10656:2021 (E)

# **European foreword**

The text of ISO 10656:2016 has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10656:2021 by 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 July 2021, and conflicting national standards shall be withdrawn at the latest by July 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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## **Endorsement notice**

The text of ISO 10656:2016 has been approved by CEN as EN ISO 10656:2021 without any modification.

This is a free page sample. Access the full version online.

This page is intentionally left blank

This is a free page sample. Access the full version online. I.S. EN ISO 10656:2021

# INTERNATIONAL STANDARD

ISO 10656

2016-05-01 Corrected version 2016-08-15

Second edition

# Resistance welding equipment — Transformers — Integrated transformers for welding guns

Matériel de soudage par résistance — Transformateurs — Transformateurs incorporés pour pinces à souder



Reference number ISO 10656:2016(E)



# **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

Contents		Page	
Fore	eword		iv
1	Scop	De	1
2		1	
3	Dim	ensions and characteristics of transformers	1
4	Add 4.1 4.2 4.3	itional equipment Grounding provision Thermal protection Output current sensing coil	6 6
5	5.1 5.2 5.3	king General Rating plate Colour of exterior finish	
6	Desi	ignation	8
7	7.1 7.2	Type tests	
Ann	ex A (ir	nformative) Secondary current and duty cycle	10
		hy	11

## 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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: <a href="www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

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

This second edition cancels and replaces the first edition (ISO 10656:1996), which has been technically revised. It also incorporates the Technical Corrigendum ISO 10656:1996/Cor. 1:2000.

This corrected version of ISO 10656:2016 incorporates the following corrections:

- the example of a designation in <u>Clause 6</u> has been dated with the year of publication;
- a key has been added to Figure A.1.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 6 via your national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org">www.iso.org</a>.

# Resistance welding equipment — Transformers — Integrated transformers for welding guns

# 1 Scope

This International Standard specifies additional requirements to those given in ISO 5826 for single-phase transformers used in AC welding. It is intended to be used in conjunction with ISO 5826, whose requirements it amends.

#### 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

IEC 60417-DB, Graphical symbols for use on equipment<sup>1)</sup>

# 3 Dimensions and characteristics of transformers

The dimensions and characteristics of transformers shall be in accordance with

- Table 1 for 50 Hz transformers,
- Table 2 for 60 Hz transformers,
- Figures 1 and 2 for type H transformers, and
- Figures 3 and 4 for type J transformers.

The cooling water flow rate, Q, shall be 4 l/min.

The transformers are suitable for duty cycles up to 20 % (see Annex A).

-

<sup>1)</sup> See the ISO Online browsing platform: available at <a href="http://www.iso.org/obp">http://www.iso.org/obp</a>



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

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation