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Standards

Irish Standard  
I.S. EN IEC 60519-8:2020

# Safety in installations for electroheating and electromagnetic processing - Part 8: Particular requirements for electroslag remelting furnaces

**I.S. EN IEC 60519-8:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN IEC 60519-8:2020 is the adopted Irish version of the European Document EN IEC 60519-8:2020, Safety in installations for electroheating and electromagnetic processing - Part 8: Particular requirements for electroslag remelting furnaces

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EUROPEAN STANDARD

**EN IEC 60519-8**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 25.180.10

Supersedes EN 60519-8:2005 and all of its amendments  
and corrigenda (if any)

English Version

**Safety in installations for electroheating and electromagnetic  
processing - Part 8: Particular requirements for electroslag  
remelting furnaces  
(IEC 60519-8:2020)**

Sécurité dans les installations destinées au traitement  
électrothermique et électromagnétique - Partie 8: Exigences  
particulières pour fours de refusion sous laitier  
électroconducteur  
(IEC 60519-8:2020)

Sicherheit in Elektroerwärmungsanlagen und Anlagen für  
elektromagnetische Bearbeitungsprozesse - Teil 8:  
Besondere Anforderungen für Elektroschlacke-  
Umschmelzöfen  
(IEC 60519-8:2020)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

## **EN IEC 60519-8:2020 (E)**

### **European foreword**

The text of document 27/1127/FDIS, future edition 3 of IEC 60519-8, prepared by IEC/TC 27 "Industrial electroheating and electromagnetic processing" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60519-8:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-03-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-06-11

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IEC 60779 NOTE Harmonized as EN 60779

## **Annex ZA**

(normative)

### **Normative references to international publications with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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Clause 2 of IEC 60519-1:2020 is applicable with the following additions:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60519-1	-	Safety in installations for electroheating and electromagnetic processing - Part 1: General requirements	EN IEC 60519-1	-

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**IEC 60519-8**

Edition 3.0 2020-05

# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**

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**Safety in installations for electroheating and electromagnetic processing –  
Part 8: Particular requirements for electroslag remelting furnaces**

**Sécurité dans les installations destinées au traitement électrothermique  
et électromagnétique –  
Partie 8: Exigences particulières pour fours de refusion sous laitier  
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**IEC 60519-8**

Edition 3.0 2020-05

# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**

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**Safety in installations for electroheating and electromagnetic processing –  
Part 8: Particular requirements for electroslag remelting furnaces**

**Sécurité dans les installations destinées au traitement électrothermique  
et électromagnétique –  
Partie 8: Exigences particulières pour fours de refusion sous laitier  
électroconducteur**

INTERNATIONAL  
ELECTROTECHNICAL  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **SAFETY IN INSTALLATIONS FOR ELECTROHEATING AND ELECTROMAGNETIC PROCESSING –**

#### **Part 8: Particular requirements for electros slag remelting furnaces**

#### **FOREWORD**

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International Standard IEC 60519-8 has been prepared by IEC technical committee 27: Industrial electroheating and electromagnetic processing.

This third edition cancels and replaces the second edition published in 2005. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the structure has been redrafted according to IEC 60519-1:2020;
- b) the Scope has been redrafted;
- c) the terms and definitions, normative references and bibliography have been updated and completed;
- d) all requirements and content from IEC 60519-8:2005 that have been included in IEC 60519-1:2020 have been removed to avoid any duplication.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
27/1127/FDIS	27/1129/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 60519 series, published under the general title *Safety in installations for electroheating and electromagnetic processing*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

This part of IEC 60519 is to be read in conjunction with Part 1. It supplements or modifies the corresponding clauses of Part 1. Where the text indicates a “modification” of, “addition” to or a “replacement” of the relevant provision of Part 1, these changes are made to the relevant text of Part 1. Where no change is necessary, the words “This clause of Part 1 is applicable” are used. When a particular subclause of Part 1 is not mentioned in this part, that subclause applies as far as is reasonable. When a particular subclause of Part 1 is not applicable, the word “Void” is used.

Additional specific provisions to those in Part 1, given as individual clauses or subclauses, are numbered starting from 101.

NOTE The following numbering system is used:

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

The scope of this document covers very different types and designs of equipment used for many different purposes by the industry. It is intended to cover all industrial equipment based on electrosag heating of the workload, with examples described in Clause 1.

## **SAFETY IN INSTALLATIONS FOR ELECTROHEATING AND ELECTROMAGNETIC PROCESSING –**

### **Part 8: Particular requirements for electroslag remelting furnaces**

#### **1 Scope**

This clause of Part 1 is modified as follows.

*Modification:*

This part of IEC 60519 specifies particular safety requirements for electroslag remelting equipment and installations.

This document specifies safety requirements applicable to mainly electroheating installations for remelting and, in some cases, for refining processes of metals through direct resistance heating of a conductive slag.

The object of this document is to specify the particular requirements for the safety of persons in or around an electroslag remelting furnace. The general requirements are included in IEC 60519-1.

#### **2 Normative references**

This clause of Part 1 is applicable except as follows.

*Addition:*

IEC 60519-1, *Safety in installations for electroheating and electromagnetic processing – Part 1: General requirements*

#### **3 Terms and definitions**

This clause of Part 1 is applicable except as follows.

##### **3.2 Equipment and state of equipment**

*Addition:*

###### **3.2.101**

###### **electroslag remelting furnace**

remelting furnace in which the charge, usually a consumable electrode, is remelted by direct resistance heating of an electrical conductive molten slag

Note 1 to entry: The slag is contained in a mould (crucible).

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