SLOVENSKI STANDARD
oSIST prEN IEC 62822-2:2026

01-maj-2026

Električna varilna oprema - Ocenjevanje omejitev z vidika izpostavljenosti ljudi elektromagnetnim poljem (od 0 Hz do 300 Hz) - 2. del: Oprema za obločno varjenje

Electric welding equipment - Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 GHz) - Part 2: Arc welding equipment

Elektrische Schweißeinrichtungen - Bewertung in Bezug auf Begrenzungen der Exposition von Personen gegenüber elektromagnetischen Feldern (0 Hz bis 300 GHz) - Teil 2: Lichtbogenschweißeinrichtungen

Matériels de soudage électrique - évaluation des restrictions relatives à l'exposition humaine aux champs électromagnétiques (0 Hz à 300 GHz) - Partie 2: Matériels de soudage à l'arc

Ta slovenski standard je istoveten z: **prEN IEC 62822-2:2026**

ICS:

13.280	Varstvo pred sevanjem	Radiation protection
25.160.30	Varilna oprema	Welding equipment

oSIST prEN IEC 62822-2:2026 **en**

26/783/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: **IEC 62822-2 ED2**	
DATE OF CIRCULATION: **2026-03-13**	CLOSING DATE FOR VOTING: **2026-06-05**
SUPERSEDES DOCUMENTS: **26/775/CD, 26/782/CC**	

IEC TC 26 : ELECTRIC WELDING	
SECRETARIAT: Austria	SECRETARY: Mr Josef Feichtinger
OF INTEREST TO THE FOLLOWING COMMITTEES:	HORIZONTAL FUNCTION(S):
ASPECTS CONCERNED: Safety	
☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

Attention IEC-CENELEC parallel voting

The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting.

The CENELEC members are invited to vote through the CENELEC online voting system.

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE AC/22/2007 OR NEW GUIDANCE DOC).

TITLE:

Electric welding equipment - Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 GHz) - Part 2: Arc welding equipment

PROPOSED STABILITY DATE: 2029

NOTE FROM TC/SC OFFICERS:

Project is in OSD

Link to Committee Draft for Vote (CDV) online document:

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How to access

This link leads you to the Online Standards Development (OSD) platform for National Mirror Committee's (NMC) comments. The project draft may be found further down this document.

Resource materials

We recommend NCs to review the available materials to better understand the member commenting on the OSD platform. This includes the:

- OSD NC roles overview
- How to add and submit comments to the IEC

Contact

Should you require any assistance, please contact the IEC IT Helpdesk.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Electric welding equipment - Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 GHz) - Part 2: Arc welding equipment

FOREWORD

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International Standard IEC 62822–2 has been prepared by IEC technical committee 26: Electric welding.

The text of this standard is based on the following documents:

FDIS	Report on voting
26/XX/FDIS	26/XX/RVD

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

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

A list of all parts in the IEC 62822 series, published under the general title *Electric welding equipment – Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 GHz)*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

NOTE **The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

INTRODUCTION

Concerning arc welding, IEC 62822-2:2016 [1] suggests a simplified assessment of induced electric field strength E_i and induced current density J based on the assumption that parts of the human body can be represented by homogeneous circular disk models of electric conductivity 0,2 S/m (different body parts are represented by different disk diameters). Findings that the disk model (used in the previous version of this standard IEC 62822-2:2016 [1]) leads to a systematic underestimation [2] of EMF assessment. Therefore investigations using numerical body model simulation [3] were conducted.

1 Scope

This part of IEC 62822 applies to equipment for arc welding and allied processes designed for occupational use by professionals.

NOTE 1 Typical allied processes are electric arc cutting and arc spraying.

This document specifies methods for the assessment of human exposure to magnetic fields produced by arc welding. This document covers non-thermal biological effects in the frequency range from 0 Hz to 10 MHz and defines standardized test scenarios.

NOTE 2 The general term “field” is used throughout this document for “magnetic field”.

NOTE 3 For the assessment of exposure to electric fields and thermal effects, the methods specified in IEC 62822–1 apply.

This document does not define methods for workplace assessment regarding the risks arising from electromagnetic fields (EMF). However, the EMF data that results from the application of this document can be used to assist in workplace assessment.

It does not specify any product safety requirements other than those specifically related to human exposure to electromagnetic fields.

This document is not applicable to assess the effects on medical devices.

2 Normative references

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.

IEC 60050–851:2008, *International Electrotechnical Vocabulary – Part 851: Electric welding*

IEC 60974–1, *Arc welding equipment – Part 1: Welding power sources*

IEC 61786–1, *Measurement of DC magnetic, AC magnetic and AC electric fields from 1 Hz to 100 kHz with regard to exposure of human beings – Part 1: Requirements for measuring instruments*

IEC 61786–2, *Measurement of DC magnetic, AC magnetic and AC electric fields from 1 Hz to 100 kHz with regard to exposure of human beings – Part 2: Basic standard for measurements*

IEC 62311:2019, *Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)*

IEC 62822–1, *Electric welding equipment – Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 GHz) – Part 1: Product family standard*

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050–851, IEC 60974–1 and the following, apply.

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

– IEC electropedia: available at https://www.electropedia.org/
– ISO online browsing platform: available at https://www.iso.org/obp

3.1.1
basic restrictions
exposure limit value
restrictions on exposure to electric, magnetic and electromagnetic fields that are based directly on established health effects and biological considerations

3.1.2
exposure index
EI
result of the evaluation of exposure to (both sinusoidal and non-sinusoidal) EMF, expressed as a fraction or percentage of the permissible values

Note 1 to entry: Fractions higher than 1 (100 %) represent exceeding the permissible values.

3.1.3
general public
individuals of all ages and of varying health conditions

Note 1 to entry: Varying ages and health conditions can increase the individuals susceptibilities to EMF.

3.1.4
occupational use
workers at their workplaces performing their regular or assigned job activities

Note 1 to entry: A worker is any person employed by an employer, including trainees and apprentices.

3.1.5
health effects
adverse effects, such as thermal heating or stimulation of nerve and muscle tissue as a result of human exposure to EMF

3.1.6
intracorporeal
situated or occurring within the body

3.1.7
non-thermal effects
the stimulation of muscles, nerves or sensory organs as a result of human exposure to EMF

3.1.8
reference levels
action levels
directly measurable quantities, derived from basic restrictions, provided for practical exposure assessment purposes

Note 1 to entry: Respect of the reference levels will ensure respect of the relevant basic restriction. If the reference levels are exceeded, it does not necessarily follow that the basic restriction will be exceeded.

3.1.9
sensory effects
transient disturbed sensory perceptions and minor changes in brain functions as a result of human exposure to EMF