

**Takistus- ja kaarkeevitusseadmete ja
nendega seotud protsesside seost inimesele
toimivate elektromagnetväljade (0 Hz kuni
300 GHz) põhipiirangutega näitav
tooteperekonnastandard**

Product family standard to demonstrate
compliance of equipment for resistance welding,
arc welding and allied processes with the basic
restrictions related to human exposure to
electromagnetic fields (0 Hz – 300 GHz)

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

<p>Käesolev Eesti standard EVS-EN 50445:2008 sisaldab Euroopa standardi prEN 50445:2007 ingliskeelset teksti.</p>	<p>This Estonian standard EVS-EN 50445:2008 consists of the English text of the European standard prEN 50445:2007.</p>
<p>Standard on kinnitatud Eesti Standardikeskuse 24.03.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p>	<p>This standard is ratified with the order of Estonian Centre for Standardisation dated 24.03.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p>
<p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 13.02.2008.</p>	<p>Date of Availability of the European standard text 13.02.2008.</p>
<p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>The standard is available from Estonian standardisation organisation.</p>

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Võtmesõnad:

Standardite reprodutseerimis- ja levitamisoigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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**Product family standard to demonstrate compliance of equipment
for resistance welding, arc welding and allied processes with the basic
restrictions related to human exposure to electromagnetic fields
(0 Hz - 300 GHz)**

Norme de famille de produit pour
démontrer la conformité d'un équipement
pour le soudage par résistance,
le soudage à l'arc et les techniques
connexes avec les restrictions de base
concernant l'exposition des personnes
aux champs électromagnétiques
(0 Hz - 300 GHz)

Produktfamiliennorm zur
Konformitätsprüfung von Einrichtungen
zum Widerstandsschweißen,
Lichtbogenschweißen und artverwandten
Prozessen in Bezug auf die bei der
Exposition durch elektromagnetische
Felder anzuwendenden Basisgrenzwerte
(0 Hz - 300 GHz)

This European Standard was approved by CENELEC on 2008-02-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 26A, Electric arc welding equipment.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50445 on 2008-02-01.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2009-02-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-02-01

This European Standard is to be read in conjunction with EN 50444 and EN 50505. The latter was prepared by the Technical Committee CENELEC TC 26B, Electric resistance welding.

This European Standard has been prepared under mandates M/305 and M/351 given to CENELEC by the European Commission and the European Free Trade Association.

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1 Scope

This product family standard applies to equipment for resistance welding, arc welding and allied processes designed for use in industrial or domestic environments, including welding power sources, wire feeders and ancillary equipment, e.g. torches, liquid cooling systems and arc striking and stabilising devices.

NOTE 1 Allied processes are for example resistance hard and soft soldering, resistance heating by means comparable to resistance welding equipment, electric arc cutting and arc spraying.

The frequency range covered is 0 Hz to 300 GHz.

This product family standard may be used to demonstrate compliance with the requirements of Directive 2006/95/EC [1] (needed for placing electric welding equipment on the European market), with regard to the limitation of human exposure to electromagnetic fields (EMF). There are additional requirements in the Directive, which are not included in this product family standard.

NOTE 2 The Directive 2006/95/EC [1], Article 2, stipulates that the Member States take all appropriate measures to ensure that electrical equipment may be placed on the market only if, having been constructed in accordance with good engineering practice in safety matters in force in the Community.

This product family standard may also be used for assessment regarding the requirements of Directive 2004/40/EC [3] on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) or Recommendation 1999/519/EC [2] on the limitation of exposure of the general public to electromagnetic fields, provided that no other relevant field sources are present in close proximity. If other relevant field sources are present, additional assessment is necessary.

NOTE 3 It should be noted that the supplier of specific equipment might not know the overall exposure environment in which the equipment is being used. This product family standard can only be used to assess human exposure from the specific equipment under evaluation when being used in accordance with the suppliers guidelines.

NOTE 4 Assessment procedures for workplaces with multiple field-sources may be found in EN 50499 [7].

Other standards may apply to products covered by this product family standard. In particular this standard can not be used to demonstrate electromagnetic compatibility with other equipment; nor does it specify any product safety requirements other than those specifically related to human exposure to electromagnetic fields.

NOTE 5 Procedures to demonstrate compliance are not specified for the whole frequency range.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 50392	Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz – 300 GHz)
EN 50444	Basic standard for the evaluation of human exposure to electromagnetic fields from equipment for arc welding and allied processes
EN 50505	Basic standard for the evaluation of human exposure to electromagnetic fields from equipment for resistance welding and allied processes
EN 60974-1	Arc welding equipment – Part 1: Welding power sources (IEC 60974-1)
EN 60974-6	Arc welding equipment – Part 6: Limited duty manual metal arc welding power sources (IEC 60974-6)