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ELECTROMAGNETIC COMPATIBILITY (EMC) - PRODUCT STANDARD FOR RESISTANCE WELDING EQUIPMENT

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English version

Electromagnetic compatibility (EMC) - Product standard for resistance welding equipment

Compatibilité électromagnétique (CEM) - Norme de produit pour le matériel de soudage par résistance

Elektromagnetische Verträglichkeit (EMV) - Produktnorm für Widerstands-Schweißeinrichtungen

This European Standard was approved by CENELEC on 2004-04-01. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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 26B, Electric resistance welding.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 50240 on 2004-04-01.

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) 2005-04-01

- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-04-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 89.336/EEC. See Annex ZZ.

The contents of the corrigendum of December 2005 have been included in this copy.

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1 Scope

This standard is applicable to equipment for resistance welding and allied processes intended for use in industrial and light industrial environments which are connected to mains supplies with rated voltages up to 1 000 V a.c. rms. This standard does not define safety requirements.

Resistance welding equipment type tested in accordance with, and which has met the requirements of this standard, shall be deemed to be in compliance for all applications.

The frequency range covered is from 0 Hz to 400 GHz.

This product EMC standard for resistance welding equipment takes precedence over all aspects of the generic standards and no additional EMC tests are required or necessary.

NOTE 1 Typical allied processes are resistance hard and soft soldering or resistance heating achieved by means comparable to resistance welding equipment.

NOTE 2 Limit values are specified for only part of the frequency range.

Resistance welding equipment are classified as class A and class B equipment.

1.1 Emission

The objective of this standard is to specify:

a) test methods to be used in conjunction with EN 55011:1998 and its amendments A1:1999 and A2:2002 to determine electromagnetic emission;

b) relevant standards for harmonic current emission, voltage fluctuations and flicker.

NOTE 1 The limits in this standard may not, however, provide full protection against interference to radio and television reception when the resistance welding equipment is used closer than 30 m to the receiving antenna(e).

NOTE 2 In special cases, when highly susceptible apparatus is being used in close proximity, additional mitigation measures may have to be employed to further reduce the electromagnetic emissions.

1.2 Immunity

The objective of this standard is to define immunity requirements and test methods for continuous and transient, conducted and radiated disturbances including electrostatic discharges.

NOTE These levels do not, however, cover extreme cases which are extremely rare.

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. (New PNE text)

EN	*Title*	IEC/ISO
-	*International Electrotechnical Vocabulary - Chapter 161: Electromagnetic compatibility*	IEC 60050-161
-	*International Electrotechnical Vocabulary - Chapter 851: Electric welding*	IEC 60050-851
-	*Specification for radio disturbance and immunity measuring apparatus and methods – Part 1: Radio disturbance and immunity measuring apparatus*	CISPR 16-1