

**Tööstuslikud mikrolaine-kuumutuspaigaldised.
Katsetusmeetodid väljundvõimsuse kindlakstegemiseks**

Industrial microwave heating installations - Test methods for
the determination of power output

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 61307:2011 sisaldab Euroopa standardi EN 61307:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 29.07.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.07.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 61307:2011 consists of the English text of the European standard EN 61307:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 29.07.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 22.07.2011.

The standard is available from Estonian standardisation organisation.

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English version

**Industrial microwave heating installations -
Test methods for the determination of power output
(IEC 61307:2011)**

Installations industrielles de chauffage à
hyperfréquence -
Méthodes d'essai pour la détermination de
la puissance de sortie
(CEI 61307:2011)

Industrielle Mikrowellen-
Erwärmungsanlagen -
Messverfahren für die Bestimmung der
Ausgangsleistung
(IEC 61307:2011)

This European Standard was approved by CENELEC on 2011-06-22. 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.

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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

The text of document 27/761/CDV, future edition 3 of IEC 61307, prepared by IEC TC 27, Industrial electroheating, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61307 on 2011-06-22.

This European Standard supersedes EN 61307:2006.

EN 61307:2011 includes the following significant technical changes with respect to EN 61307:2006:

- a) it covers how to measure not only the microwave power output of all typical equipment designs, but also the system efficiency, including the standby and hibernation modes;
- b) the handling of the former A and B types of equipment is replaced by measurements of the available microwave power output and microwave workload power, respectively.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) 2012-03-22
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2014-06-22

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61307:2011 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60335-2-25	NOTE	Harmonized as EN 60335-2-25.
IEC 60335-2-90	NOTE	Harmonized as EN 60335-2-90.
IEC 60705	NOTE	Harmonized as EN 60705.
IEC 61010-2-010	NOTE	Harmonized as EN 61010-2-010.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-221	1990	International Electrotechnical Vocabulary -	-	-
+ A1	1993	Chapter 221: Magnetic materials and		
+ A2	1999	components		
+ A3	2007			
IEC 60050-726	1982	International Electrotechnical Vocabulary - Chapter 726: Transmission lines and waveguides	-	-
IEC 60050-841	2004	International Electrotechnical Vocabulary - Part 841: Industrial electroheat	-	-
IEC 60519-6	-	Safety in electroheat installations - Part 6: Specifications for safety in industrial microwave heating equipment	EN 60519-6	-

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INDUSTRIAL MICROWAVE HEATING INSTALLATIONS – TEST METHODS FOR THE DETERMINATION OF POWER OUTPUT

1 Scope

This International Standard specifies test methods for the determination of the available microwave output power and the efficiency of frequency conversion from the electrical input in industrial microwave heating installations.

This standard also specifies test methods for assessing the microwave power deposition in the microwave workload – the microwave workload power, in microwave-only installations.

This standard is applicable to industrial microwave heating equipment and installations in the frequency range from 300 MHz to 300 GHz.

This standard relates to industrial microwave heating equipment operating under normal load.

This standard does not apply to appliances for household and similar use (covered by IEC 60335-2-25), commercial use (covered by IEC 60335-2-90) or laboratory use (covered by IEC 61010-2-010).

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.

IEC 60050-221:1990, *International Electrotechnical Vocabulary – Chapter 221: Magnetic materials and components*
Amendment 1 (1993)
Amendment 2 (1999)
Amendment 3 (2007)

IEC 60050-841:2004, *International Electrotechnical Vocabulary – Part 841: Industrial electroheat*

IEC 60050-726:1982, *International Electrotechnical Vocabulary – Chapter 726: Transmission lines and waveguides*

IEC 60519-6, *Safety in electroheat installations – Part 6: Specifications for safety in industrial microwave heating equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 60519-6 and IEC 60050-841 as well as the following apply.

3.1

calorimetric power meter

calorimeter power meter

power meter which uses temperature rise in a medium as a means of measuring absorbed power