

© Copyright SEK. Reproduction in any form without permission is prohibited.

Guidelines for the verification of household appliances under energy labelling and eco design

(CENELEC Technical Report 50674:2018)

ISSN 1651-1417

ICS 97.030.00

Upplysnings om **sakinhåll** i rapporten lämnas av

SEK Svensk Elstandard.

Postadress: Box 1284, 164 29 KISTA

Telefon: 08 - 444 14 00.

E-post: sek@elstandard.se. Internet: www.elstandard.se

Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

SEK Svensk Elstandard

Box 1284
164 29 Kista
Tel 08-444 14 00
www.elstandard.se

TECHNICAL REPORT
RAPPORT TECHNIQUE
TECHNISCHER BERICHT

CLC/TR 50674

April 2018

ICS 97.030

English Version

Guidelines for the verification of household appliances under
energy labelling and eco design

Lignes directrices pour la vérification des appareils
domestiques dans le cadre de l'écoconception

Richtlinien für die Verifizierung von Geräten für den
Hausgebrauch im Hinblick auf Energiekennzeichnung und
Ökodesign

This Technical Report was approved by CENELEC on 2018-03-26.

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



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

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Procedure for appliance verification	6
4.1 Overview	6
4.2 Scope definition	7
4.3 Test laboratory selection	7
4.4 Model selection	8
4.5 Desk research	8
4.6 Sample purchase	8
4.7 Testing	8
4.8 Feedback	8
4.9 Further testing if necessary	9
4.10 Publication of the project outcome	9
5 The verification procedure stages	9
5.1 Regulations	9
Figure 1 — Two stage verification process	10
5.2 Preliminary check	11
5.3 Step 1: test of one single unit	11
5.4 Step 2: test of three additional units	12
6 Procedure for the selection of models for testing	12
6.1 Introduction	12
6.2 The “random” selection	12
6.3 The “maximum failure” selection	13
6.4 The semi-random selection	13

7	Procedure for the selection of testing laboratories.....	14
7.1	General	14
7.2	Requirements for laboratories that undertake verification testing.....	14
7.2.1	General	14
7.2.2	Independence	14
7.2.3	Competence.....	14
7.2.4	Experience	14
7.3	The selection procedure.....	14
7.4	Selection criteria	15
7.4.1	General requirements	15
7.4.2	Laboratory experience.....	15
7.4.3	Testing capacity	15
7.4.4	Available equipment for testing.....	15
7.4.5	Testing details	15
7.4.6	Reporting and documentation	16
7.5	The rating system for laboratories selection	16
Annex A (informative) Example for the selection of testing laboratories		17
A.1	Accompanying letter to the laboratories questionnaire	17
A.2	Laboratory Recognition Questionnaire for refrigerators (example).....	18
A.3	Example for a scoring system for the Questionnaire answers.....	24
Annex B (normative) Rules for supplier visits to test laboratories.....		28
Bibliography.....		29

European foreword

This document (CLC/TR 50674:2018) has been prepared by WG16 "Uncertainty" of CLC/TC 59X "Performance of household and similar electrical appliances".

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

This document is primarily for information. However, the reader should note that this Technical Report also includes some statements based directly on European eco-design and energy labelling regulations which are applicable for certain types of product at the time of writing.

This Technical Report has been developed from early experience of energy label and eco-design verification projects. It also draws on the experience of pilot projects such as the ATLETE (*Appliance Testing for Energy Label and Evaluation*) which were co-funded by the Intelligence Energy Europe Programme of the European Union. Two projects were carried out under this scheme: refrigerators (2009 to 2011) and washing machines (2012 to 2014). The projects were used to: check compliance with energy labelling and ecodesign regulations for these appliance types across the EU; improve the capacity of testing laboratories; and support cooperation among national Market Surveillance Authorities (MSAs) by demonstrating how verification projects could be undertaken.

Introduction

The European energy labelling scheme (and associated eco-design requirements) relies on performance declarations being made accurately by the suppliers of the labelled products. To ensure the integrity of the labelling scheme and to prevent abuse through overstated claims, it is a requirement of the regulations that the scheme is policed by the member states. Policing is conducted by MSAs. One of the more significant tools of the MSAs is the verification of energy label and eco-design claims. Energy labelling and eco-design regulations identify the specific claims that can be verified and the verification tolerances that should be applied. This Technical Report describes how a typical verification project can be carried out and gives specific detail on the subjects of model selection, laboratory selection and carrying out the testing procedure in two steps.

The objective of verification testing is to come to a clear and legally sound decision as to whether a product complies with the requirements given in a Regulation or if the declarations made by the supplier are incorrect.

This Technical Report is intended to be a supporting tool valid at EU/EEA level and Country level for MSAs dealing with compliance and verification issues. It aims to help optimize the available resources and increase the effectiveness of MSAs engaging in the verification process.

1 Scope

This Technical Report provides guidance for the verification testing of household and similar electrical appliances according to the Commission Regulations implementing Ecodesign Directive 2009/125/EC and Commission Delegated Regulations supplementing Energy Labelling Directive 2010/30/EU. It is also due to be suitable for succeeding documents.

This Technical Report might also be applicable to other types of energy related product and parts of it might also be applicable for the verification of product claims in schemes outside the European Union.

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.

CLC/TR 50619, *Guidance on how to conduct Round Robin Tests*