

**Tuleohukatsetused. Osa 11-3: Katseleegid. 500 W leegid.  
Aparatuur ja kontrollkatsemeetodid**

**Fire hazard testing - Part 11-3: Test flames - 500 W  
flames - Apparatus and confirmational test methods**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 60695-11-3:2012 sisaldab Euroopa standardi EN 60695-11-3:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 60695-11-3:2012 consists of the English text of the European standard EN 60695-11-3:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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**Fire hazard testing -  
Part 11-3: Test flames - 500 W flames -  
Apparatus and confirmational test methods  
(IEC 60695-11-3:2012)**

Essais relatifs aux risques du feu -  
Partie 11-3: Flammes d'essai -  
Flamme de 500 W -  
Appareillage et méthodes d'essai  
de vérification  
(CEI 60695-11-3:2012)

Prüfungen zur Beurteilung  
der Brandgefahr -  
Teil 11-3: Prüfflammen -  
500-W-Prüfflamme -  
Prüfeinrichtungen und Prüfverfahren  
zur Bestätigung  
(IEC 60695-11-3:2012)

This European Standard was approved by CENELEC on 2012-09-17. 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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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
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## Foreword

The text of document 89/1113/FDIS, future edition 1 of IEC 60695-11-3, prepared by IEC/TC 89 "Fire hazard testing" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60695-11-3:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-06-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-09-17

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

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

## Endorsement notice

The text of the International Standard IEC 60695-11-3:2012 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 60695-11-2:2003	NOTE	Harmonised as EN 60695-11-2:2003 (not modified).
IEC 60695-11-4:2011	NOTE	Harmonised as EN 60695-11-4:2011 (not modified).

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60584-1	1995	Thermocouples - Part 1: Reference tables	EN 60584-1	1995
IEC 60584-2 + A1	1982 1989	Thermocouples - Part 2: Tolerances	EN 60584-2	1993 <sup>1)</sup>
IEC Guide 104	1997 <sup>2)</sup>	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-
ISO/IEC Guide 51	1999	Safety aspects - Guidelines for their inclusion in standards	-	-
ISO 13943	2008	Fire safety - Vocabulary	EN ISO 13943	2010
ASTM B187/B187M-06	-	Standard Specification for Copper, Bus Bar, - Rod, and Shapes and General Purpose Rod, Bar, and Shapes	-	-

<sup>1)</sup> EN 60584-2 includes A1 to IEC 60584-2.

<sup>2)</sup> Superseded by IEC Guide 104:2010.

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## INTRODUCTION

The best method for testing electrotechnical products with regard to fire hazard is to duplicate exactly the conditions occurring in practice. In most instances, this is not possible. Accordingly, for practical reasons, the testing of electrotechnical products with regard to fire hazard is best conducted by simulating as closely as possible the actual effects occurring in practice.

Work initiated by ACOS resulted in a series of standards that make available standardized test flames covering a range of powers for the use of all product committees needing such test flames. A needle flame is described in IEC 60695-11-5, a 50 W flame is described in IEC 60695-11-4, and a 1 kW flame is described in IEC 60695-11-2.

This international standard provides a description of the apparatus required to produce either of two 500 W test flames, and also provides a description of a calibration procedure to check that the test flame produced meets given requirements. Guidance on confirmatory tests for test flames is given in IEC 60695-11-40.

Four 500 W test flame methods were originally specified in Edition 1 of IEC/TS 60695-11-3, with the intention that users would determine a ranking preference. This process has resulted in two of these flame methods, B and D, being withdrawn, as shown below:

500 W test flame method	Flame type	Gas	Approximate flame height / mm
A	Pre-mixed	Methane	125
B	Withdrawn		
C	Pre-mixed	Methane or propane	125
D	Withdrawn		

Method A was first published in 1994 and was based on existing hardware. The flame is produced by burning methane, and the method makes use of a more tightly specified version of a burner that was used in some countries for many years.

Method C is based on non-adjustable hardware that has been specifically developed to produce a highly repeatable and stable test flame. The flame is produced by burning either methane or propane.

Both methods have been developed as technical enhancements of previous technology.



## **FIRE HAZARD TESTING –**

### **Part 11-3: Test flames – 500 W flames – Apparatus and confirmational test methods**

#### **1 Scope**

This part of IEC 60695-11 provides detailed requirements for the production of either of two 500 W nominal, pre-mixed type test flames. The approximate overall height of each flame is 125 mm.

Two methods of producing a test flame are described: Method A uses methane. Method C can use either methane or propane.

This basic safety publication is intended for use by technical committees in the preparation of standards in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications. The requirements, test methods or test conditions of this basic safety publication will not apply unless specifically referred to or included in the relevant publications.

#### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60584-1:1995, *Thermocouples – Part 1: Reference tables*

IEC 60584-2 am.1 ed.1:1989, Amendment 1, *Thermocouples – Part 2: Tolerances*

IEC Guide 104:1997, *The preparation of safety publications and the use of basic safety publications and group safety publications*

ISO/IEC Guide 51:1999, *Safety aspects – Guidelines for their inclusion in standards*

ISO/IEC 13943:2008, *Fire safety – Vocabulary*

ASTM-B187/B187M-06, *Standard Specification for Copper, Bus Bar, Rod, and Shapes and General Purpose Rod, Bar, and Shapes*