ICS 13.220.50, 29.060.20 SLOVENSKÁ TECHNICKÁ NORMA Júl 2016

STN	**Elektrické káble. Skúška požiarnej odolnosti nechránených elektrických káblov (klasifikácia P).**	**STN EN 50577** 34 7112

Electric cables - Fire resistance test for unprotected electric cables (P classification)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/16

Obsahuje: EN 50577:2015

122767

EUROPEAN STANDARD **EN 50577**

NORME EUROPÉENNE

EUROPÄISCHE NORM December 2015

ICS 13.220.50; 29.060.20

English Version

Electric cables - Fire resistance test for unprotected electric cables (P classification)

Câbles électriques - Essai de résistance au feu des câbles électriques non protégés (Classification P)

Kabel und Leitungen - Feuerwiderstandsprüfung an ungeschützten Kabeln und Leitungen (P-Klassifikation)

This European Standard was approved by CENELEC on 2015-11-02. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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, 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: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 50577:2015 E

Contents

Figures

European foreword

This document (EN 50577:2015) has been prepared by CLC/TC 20 "Electric cables".

The following dates are fixed:

• latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-11-02
• latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2018-11-02

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 document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

The cables are tested in a standardized representative installation, under conditions of minimum bending radius and subject to exposure to fire under conditions of the EN 1363-1 standard time/temperature curve which satisfies the requirements of Mandate M/117 for the P classification.

NOTE The test method in EN 50200 includes exposure to fire under specified conditions of constant temperature attack and satisfies the requirements of Mandate M/117 for the PH classification.

Introduction

The purpose of this test is to evaluate the ability of an electric cable to maintain electrical circuit integrity during a defined time whilst exposed to fire under conditions of the EN 1363-1 standard time/temperature curve and when installed in a standardized representative condition.

The fire exposure conditions and general arrangement in this European Standard are similar to those given in prEN 1366-11 [1], developed by CEN/TC 127, and a future document on Cable management systems (CMS) for fire resistant installations, to be developed by CLC/TC 213 [2]. Each of these standards has been developed under a Mode 4 co-operation between CEN/TC 127, CLC/TC 213 and CLC/TC 20.

The test installation has been designed such that vertical and horizontal furnaces can be used to carry out the test.

The standardized representative condition can be arranged in the following configurations:

a) a “U” or “S” in the horizontal furnace;

b) a “U” and “S” in the horizontal furnace and

c) a “U” in the vertical furnace.

Caution — The attention of all persons concerned with managing and carrying out this fire resistance test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Mechanical, electrical and operational hazards may also arise during the construction of the test elements or structures, their testing and the disposal of test residues.

An assessment of all potential hazards and risks to health should be made and safety precautions should be identified and provided. Written safety instructions should be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

1 Scope

This European Standard specifies a test method to evaluate the maintenance of circuit integrity of electric cables which have intrinsic resistance to fire under fire conditions, in order to classify the electric cable according to EN 13501-3.

The test determines the survival time for circuit integrity of the electric cable when exposed to fire under the conditions of the EN 1363-1 standard time/temperature curve.

This European Standard is used in conjunction with EN 1363-1.

This European Standard applies to electric power and control cables with rated voltage up to and including 600/1 000 V.

The cable is tested in a standardized representative installation condition.

The test does not assess the performance of the cable management system.

NOTE Optical fibre cables and copper communication cables could be tested using this test method, however verification procedures for such cables were still under development when this document has been circulated for vote (2015-07-24).

This European Standard includes field of direct application (Annex A) and rules for extended application of test results (EXAP) (Annex B).

The selection of cables to be tested for classification of a family is given in Annex B. In case the selection of the cables does not comply with Annex B, the test results are only applicable to the tested cables.

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.

EN 1363-1, *Fire resistance tests — Part 1: General requirements*

EN 13501-3, *Fire classification of construction products and building elements — Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers*[1)]

EN 50200, *Method of test for resistance to fire of unprotected small cables for use in emergency circuits*

EN 61537, *Cable management — Cable tray systems and cable ladder systems (IEC 61537)*

EN ISO 13943, *Fire safety — Vocabulary (ISO 13943)*

1) EN 13501-3 will be amended to include cables

IEC 60269-3, *Low voltage fuses — Part 3: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household or similar applications) – Examples of standardized systems of fuses A to F*