

# Systémy uloženia káblov (CMS) pre káble s požiarnou odolnosťou

STN P CLC/TS 50658

37 0510

Cable management systems (CMS) providing support for cables with intrinsic fire resistance

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. 07/25

Obsahuje: CLC/TS 50658:2025

Oznámením tejto normy sa ruší TNI CLC/TR 50658 (37 0510) z decembra 2022

#### 140751

## TECHNICAL SPECIFICATION

## **CLC/TS 50658**

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

May 2025

ICS 13.220.50; 29.060.20, 91.140.50

supersedes CLC/TR 50658:2022

#### **English Version**

# Cable management systems (CMS) providing support for cables with intrinsic fire resistance

Systèmes de câblage servant à soutenir les câbles à résistance intrinsèque au feu

Führungssysteme für Kabel und Leitungen (CMS) zur Verlegung von Kabeln mit intrinsischem Feuerwiderstand

This Technical Specification was approved by CENELEC on 2025-04-07.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

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

C	ontents	Page
Eu	ıropean foreword	5
Int	roduction	6
1	Scope	7
2	Normative references	7
3	Terms and definitions	7
4	Fire resistance classification	10
5	Documentation	10
6	Rules for test	11
	6.1 Common rules	11
	6.2 CMS-support specific rules	14
7	Test report	
An	nnex A (normative) Extended application of test results to other assemblies	43
An	nex B (informative) Examples for the calculation of the tensile stress in all vertically oriented components	
۸n	nnex C (informative) Additional requirements for vertically running cable installations	
	bliography	
Fi	igures	Page
Fig	gure 1 — Typical circuit arrangement	13
Fig	gure 2 — Positioning of thermocouples	13
Fig	gure 3 — Test arrangement for cable tray system, mesh cable tray system and cable ladder 15	system
Fig	gure 4 — Trapeze system	16
Fig	gure 5 — Cantilever system with additional support at or near the end of the cantilever brack	et 16
Fig	gure 6 — Cantilever system without additional support and location of the pendants	17
tra	gure 7 — Exit out of the furnace wall showing additional gaps and the location of mineral woo peze system (Figure 4) and cantilever system with additional support at or near the cantileven acket (Figure 5)	er
Fig	gure 8 — Exit out of the furnace wall showing additional gaps and the location of mineral woo ntilever system without additional support (Figure 6)	ol for
Fig	gure 9 — Point loads	19
Fig	gure 10 — Test arrangement for cable trunking system ceiling mounted	22
Fig	gure 11 — Examples for arrangements of installations from the ceiling	23
Fig	gure 12 — Test arrangement for cable trunking system wall mounted	23
Fig	gure 13 — Examples for arrangements of installations on the wall	24
Fig	gure 14 — Test arrangement for conduit system and cable ducting system ceiling mounted	27
Fig	gure 15 — Examples for arrangements of installations from the ceiling	27
Fic	gure 16 — Test arrangement for cable ducting system and conduit system wall mounted	28

Figure 17 — Examples for arrangements of installations on the wall	8
Figure 18 — Test arrangement for cable cleats below a ceiling	1
Figure 19 — Typical arrangement for loading a ceiling mounted cleat with mandrels	2
Figure 20 — Test arrangement for cable cleats designed for use with cable tray lengths, mesh cable tray lengths, cable ladder lengths and cable trunking lengths below a ceiling	3
Figure 21 — Typical arrangements for loading a ceiling mounted cable cleat designed for use with cable tray lengths, mesh cable tray lengths, cable ladder lengths and cable trunking lengths 3	4
Figure 22 — Test arrangement for cable cleats on a wall	5
Figure 23 — Typical arrangement for loading a wall mounted cleat with mandrels	6
Figure 24 — Test arrangement for cable cleats designed for use with cable tray length, mesh cable tray length, cable ladder length and cable trunking length on a wall	7
Figure 25 — Typical arrangements for a wall mounted cable cleat designed for use with cable tray lengths, mesh cable tray lengths, cable ladder lengths and cable trunking lengths	8
Figure 26 — Horizontal or inclined ceilings4	0
Figure 27 — Horizontally running fire resistant installations on vertical or inclined wall4	0
Figure 28 — Vertically running fire resistant installations on vertical or inclined walls4	1
Figure A.1 — Examples A to G for assemblies of cable tray system, mesh cable tray system and cable ladder system supported by pendant and cantilever bracket4	
Figure A.2 — Examples A to G for assemblies of cable trunking system supported by pendant only . 4	4
Figure A.3 — Examples A to G for assemblies of cable trunking system supported by pendant and cantilever bracket	4
Figure A.4 — Examples A to G for assemblies of cable ducting system and conduit system supported by pendant only4	
Figure A.5 — Examples A to G for assemblies of cable ducting system and conduit system supported by pendant and cantilever bracket	
Figure B.1 — Examples A to G for assemblies of cable tray system, mesh cable tray system and cable ladder system supported by pendant, cantilever bracket, and additional support	
Figure C.1 — Example for effective support methods5	1
Figure C.2 — Example for effective support methods5	2

Tables	Page
Table 1 — Fire resistance classifications for CMS providing support	10
Table 2 — Minimum test duration	11
Table 3 — Minimum number of point loads per span	19
Table 4 — Limiting stress values	20
Table 5 — Extended applications of test arrangements according to Figures 11 and 13	25
Table A.1 — Results for extending the test results to other assemblies according to examples in Figures A.1 to A.5	

### **European foreword**

This document (CLC/TS 50658:2025) has been prepared by CLC/TC 213 "Cable management systems".

This document supersedes CLC/TR 50658:2022.

CLC/TS 50658:2025 includes the following significant technical changes with respect to CLC/TR 50658:2022:

- New figures have been added;
- In the 'CMS-support classification' column, the abbreviations P 15 to P 120 have been changed to Pcms 15 - Pcms 120;
- In the 'Classification of cables with intrinsic fire resistance which can be supported' column, the abbreviations P 15 to P 120 have been changed to Pca 15 Pca 120;
- The abbreviations P changed to Pcms and Pca;
- New Annex C added.

According to the present status of EN 13501-3, the P classifications listed in Table 1 and Table 2 as well as in the rest of the text are exclusively assigned to fire protection systems for cable systems and associated components in accordance with EN 1366-11. Furthermore, EN 13501-3 specifies the following classes for unprotected electrical cables and wires with their own fire protection properties:

- Pca for cables in accordance with EN 50577, EN 50582 and EN 50289-4-16;
- PHca for cables with small diameters in accordance with EN 50200, EN 50582 and EN 50289-4-16.

To clearly differentiate between the classification in EN 13501-3, the class Pcms is used in this document.

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

#### Introduction

The purpose of the test detailed in this document is to evaluate the ability of a Cable Management System (CMS) to support cables with intrinsic fire resistance enabling them to maintain their function for a specified time period whilst exposed to fire. The test is conducted under conditions of a standard time/temperature curve when the CMS is installed in a standardized representative condition.

This document for cable management products is used for electrotechnical purposes. It relates to the Council Directives on the approximation of laws, regulations and administrative provisions of the Member States relating to Low Voltage Directive 2014/35/EU through consideration of the essential requirements of this Directive.

This document is supported by separate standards to which references are made.

#### 1 Scope

This document specifies test methods for cable management systems (CMS) intended to provide support for intrinsic fire-resistant cables in order to determine their abilities to maintain the function of electrical power cables and signal/control cables for a specified duration when subjected to fire under defined conditions.

This document establishes a non-hierarchical classification for this ability.

Additional devices to fix the cable management systems providing fire resistant support (CMS-support) to the building structure for example screws, anchors etc. are not covered by this document.

CMS intended to provide support and fire protection for cables are tested according to EN 1366-11.

This document does not apply to powertrack systems.

NOTE Rules for testing CMS-support for fibre optic cables according to EN 50582 and communication cables according to EN 50289-4-16 are under consideration.

#### 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.

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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN