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Safety of machinery - Cableway installations designed for the transport of material and specially designated persons - General safety requirements

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. 09/25

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Safety of machinery - Cableway installations designed for the transport of material and specially designated persons - General safety requirements

Sécurité des machines - Installations à câbles destinées au transport de matériel et personnes spécifiquement désignées - Exigences de sécurité générale

Sicherheit von Maschinen - Seilbahnen für die Beförderung von Material und eigens benannten Personen - Allgemeine Sicherheitsanforderungen

This European Standard was approved by CEN on 14 March 2025.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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EN 17639:2025 (E)**European foreword**

This document (EN 17639:2025) has been prepared by Technical Committee CEN/TC 242 "Safety requirements for cableway installations designed to carry persons", the secretariat of which is held by AFNOR.

This European Standard shall be awarded the status of a national standard, either through the publication of an identical text or through endorsement, before November 2025, and any conflicting national standards must be withdrawn before November 2025.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directives, see Annex ZA, which is an integral part of this document.

Feedback or questions regarding this document should be directed to the user's national standards institute. A complete list of these institutes is available on the CEN website.

In accordance with the CEN CENELEC Rules of Procedure, the national standards institutes of the following countries are required to adopt this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, the Republic of Northern Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This document is a Type-C-standard, as defined in EN ISO 12100:2010.

The affected cableways and the hazards covered are defined within the scope of this document.

In preparing this standard, it was assumed that:

- a) negotiations have taken place between the operator and the manufacturer about specific conditions of use and the place of use of the cableway in terms of health and safety;
- b) only qualified individuals operate, clean, check, maintain, inspect and repair cableways;
- c) the installation site allows the cableway to be operated safely;
- d) no components have specific requirements:
 - 1) have been made from material of adequate strength and durability and of appropriate quality;
 - 2) operate mechanically without any faults;
 - 3) have been measured in line with standard engineering expertise and calculation procedures, including all types of malfunction and taking into account appropriate safety factors.
- e) the geological conditions have been determined and taken into account in accordance with standard engineering expertise and calculation procedures.

In the event that requirements under this Type C standard differ from those specified in Type A and Type B standards, the requirements of this Type C standard will take precedence.

This document covers cableways for the transport of material and specially designated persons. These cableways are intended exclusively to open up the area in order to supply goods and dispose of waste as well as to sustain operations that are difficult to access. Supplying mountain huts and shelters is an example of operational concern/how a cableway installation of this kind can be used.

Employees and the immediate family members of the operator, as well as persons connected to the operator's actual operational activities at the site of the cableway or who need the cableway to be transported in the public interest may be included in the list for carriage for in-house reasons.

NOTE Transporting a larger group of people is only permitted if cableways in accordance with Regulation (EU) 2016/424 are used.

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1 Scope

This Type C standard document is to be used for fixed cableways driven by an electric motor and operating as single-cable or bi-cable aerial ropeways operating on a single-track or dual-track for transport

- of goods to supply goods to and dispose of waste from mountain huts and shelters and
- of specially designated persons.

The particular characteristics of these cableways are their low usage (on average 6 trips per operating day), low speed (up to 4 m/s) and the limited group of people using the cableway. There is no transport obligation.

This document is not applicable to:

- cableways primarily designed, constructed or operated mainly for the transport of persons and subject to Regulation (EU) 2016/424;
- portable cableways;
- lifts;
- funicular railways;
- fixed and portable equipment used exclusively for leisure and enjoyment purposes and not for the transport of persons;
- water ski lifts;
- agricultural and forestry installations;
- rope crane installations and crane installations;
- mining installations or other installations set up and used for industrial purposes;
- drilling equipment.

This document deals with the significant hazards arising from the construction and operation of the aforementioned cableways and measures to eliminate or reduce these hazards, provided that these cableways are used in accordance with their intended purpose and that the remaining residual risk has been anticipated and accepted by the manufacturer.

In the event that there are changes to the existing cableways, these changes shall be assessed in terms of their impact on safety in accordance with EN ISO 12100:2010. If this assessment shows that the intended changes do not constitute a significant change pursuant to the Machinery Directive, the requirements under this document shall apply in all cases to the assemblies/components concerned.

In the following sections, for reasons of simplification, the term cableway is used on its own to cover the types of equipment covered by this standard.

This document does not cover:

- Hazards caused by noise, in particular by the release of airborne noise;
- Hazards caused by vibration;
- Explosion hazards;

— Hazards caused by electromagnetic influences (EMC).

NOTE 1 Directive 2014/30/EU regarding electromagnetic compatibility may be used for machinery or components in accordance with this standard. This standard is not intended as a means of proving compliance with the basic health and safety requirements of the aforementioned directive or the aforementioned hazards.

The requirements under this document do not apply to equipment and systems manufactured or placed on the market before the date that this document is published.

2 Normative references

The following documents are referred to in the text in such a way that some or all of them are 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 795:2012, *Personal fall protection equipment — Anchor devices*

EN 1090-1:2009+A1:2011, *Execution of steel structures and aluminium structures — Part 1: Assessment and verification of constancy of performance of steel components and aluminium components for structural use*

EN 1090-2:2018+A1:2024, *Execution of steel structures and aluminium structures — Part 2: Technical requirements for the execution of steel structures*

EN 1907:2017, *Safety requirements for cableway installations designed to carry persons — Terminology*

EN 1908:2015, *Safety requirements for cableway installations designed to carry persons — Tensioning devices*

EN 12385-4:2002+A1:2008, *Steel wire ropes — Safety — Part 4: Stranded ropes for general lifting*

EN 12385-8:2002, *Steel wire ropes — Safety — Part 8: Stranded hauling and carrying-hauling ropes for cableway installations designed to carry persons*

EN 12385-9:2002, *Steel wire ropes — Safety — Part 9: Locked track ropes for cableway installations designed to carry persons*

EN 12927:2019, *Safety requirements for cableway installations designed to carry persons — Ropes*

EN 12929-1:2015, *Safety requirements for cableway installations designed to carry persons — General requirements — Part 1: Requirements for all installations*

EN 12929-2:2015, *Safety requirements for cableway installations designed to carry persons — General requirements — Part 2: Additional requirements for reversible bi-cable aerial ropeways without carrier truck brakes*

EN 12930:2015, *Safety requirements for cableway installations designed to carry persons — Calculations*

EN 13107:2015, *Safety requirements for cableway installations designed to carry persons — Civil engineering works*

EN 13223:2015, *Safety requirements for cableway installations designed to carry persons — Drive systems and other mechanical equipment*

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EN 13243:2015, *Safety requirements for cableway installations designed to carry persons — Electrical equipment other than for drive systems*

EN 13411-4:2021, *Terminations for steel wire ropes — Safety — Part 4: Metal and resin socketing*

EN 13411-6:2004+A1:2008, *Terminations for steel wire ropes — Safety — Part 6: Asymmetric wedge socket*

EN 13796-1:2017, *Safety requirements for cableway installations designed to carry persons — Carriers — Part 1: Grips, carrier trucks, on-board brakes, cabins, chairs, carriages, maintenance carriers, tow hangers*

EN 17064:2018, *Safety requirements for cableway installations designed to carry persons — Prevention and fight against fire*

EN 60204-1:2018, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2016, modified)*

EN 60947-5-1:2017, *Low-voltage switchgear and control gear — Part 5-1: Control circuit devices and switching elements — Electromechanical control circuit devices (IEC 60947-5-1:2016)*

EN IEC 62061:2021,¹ *Safety of machinery — Functional safety of safety-related control systems (IEC 62061:2021)*

EN 62305:2015 (all parts),² *Protection against lightning*

EN ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13849-1:2015, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2015)*

EN ISO 13849-2:2012, *Safety of machinery — Safety-related parts of control systems — Part 2: Validation (ISO 13849-2:2012)*

EN ISO 13850:2015, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2015)*

EN ISO 13854:2019,³ *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body (ISO 13854:2017)*

EN ISO 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones from being reached by upper and lower limbs (ISO 13857:2008)*

EN ISO 14118:2018, *Safety of machinery — Prevention of unexpected start-up (ISO 14118:2017)*

EN ISO 14120:2015, *Safety of machinery — Guards — General requirements for the design, construction and application of fixed and movable guards (ISO 14120:2015)*

¹ Amended by EN IEC 62061:2021/A1:2024.

² Under revision.

³ EN ISO 13854 (2019) is the successor to the withdrawn EN 349.

EN ISO 14122:2016 (all parts), *Safety of machinery — Permanent means of access to machinery*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN