



**SLOVENSKI STANDARD**  
**SIST EN 1909:2005**  
**01-januar-2005**

JUfbcgfbY'nU hYj Y'nUj] b]y\_Y'bUdfUj Y'nUdfYj cn'cgYV'È'ndfUnb]hYj ]b'fYyYj Ub^Y

Safety requirements for cableway installations designed to carry persons - Recovery and evacuation

Sicherheitsanforderungen für Seilbahnen für den Personenverkehr - Räumung und Bergung

Prescriptions de sécurité pour les installations a câbles transportant des personnes - Récupération et évacuation **(standards.iteh.ai)**

Ta slovenski standard je istoveten z: <sup>SIST EN 1909:2005</sup> **EN 1909:2004**  
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**ICS:**

45.100 U] i^{ æ Á æ ã } æ^ Cableway equipment

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ICS 45.100

English version

## Safety requirements for cableway installations designed to carry persons - Recovery and evacuation

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This European Standard was approved by CEN on 23 August 2004.

CEN 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 Central Secretariat or to any CEN 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 CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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## Foreword

This document (EN 1909:2004) has been prepared by Technical Committee CEN/TC 242 "Safety requirements for passenger transportation by rope", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2005, and conflicting national standards shall be withdrawn at the latest by April 2005.

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 Directive(s), see informative Annex ZA, which is an integral part of this document.

This document contains a bibliography.

This document forms part of the standards programme approved by the CEN Technical Board on safety requirements for cableway installations designed to carry persons:

- 1) Safety requirements for cableway installations designed to carry persons – Terminology.
- 2) Safety requirements for cableway installations designed to carry persons - General requirements.
- 3) Safety requirements for cableway installations designed to carry persons – Calculations.
- 4) Safety requirements for cableway installations designed to carry persons - Ropes.
- 5) Safety requirements for cableway installations designed to carry persons - Tensioning devices.
- 6) Safety requirements for cableway installations designed to carry persons – Drive systems and other mechanical equipment.
- 7) Safety requirements for cableway installations designed to carry persons - Carriers.
- 8) Safety requirements for cableway installations designed to carry persons - Electrical equipment other than for drive systems.
- 9) Safety requirements for cableway installations designed to carry persons - Civil engineering works.
- 10) Safety requirements for cableway installations designed to carry persons – Pre-commissioning inspection, maintenance and operational inspection and checks.
- 11) Safety requirements for cableway installations designed to carry persons – Recovery and evacuation.
- 12) Safety requirements for cableway installations designed to carry persons - Operation.
- 13) Safety requirements for cableway installations designed to carry persons - Quality assurance.

This series of standards forms a complete set with regard to the design, manufacture, construction, maintenance and operation of all cableway installations for designed to carry persons.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania,

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Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This document specifies the safety requirements applicable to carrier recovery and passenger evacuation from cableway installations designed to carry persons, with the exception of ski-tows. This standard is applicable to various types of installations and takes into account their environment.

This document establishes the requirements relating to the methods and equipment to be used to ensure the safety of passengers on cableways in the event of extended stoppage of the installation.

It covers only the situation resulting from immobilization of the carriers, even if the passengers are not in immediate danger.

It does not cover specific operations resulting from an accident.

It includes requirements relating to the prevention of work accidents and to worker protection.

It does not apply to installations for the transportation of goods by rope or to inclined lifts.

It does not deal with construction provisions relating to carriers.

## 2 Normative references

The following referenced documents are indispensable for the application 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 1709, *Safety requirements for cableway installations designed to carry persons - Pre-commissioning inspection, maintenance and operational inspection and checks.*

prEN 1907:2004, *Safety requirements for passenger transportation by rope - Terminology.*

EN 1908, *Safety requirements for cableway installations designed to carry persons - Tensioning devices.*

EN 12397, *Safety requirements for cableway installations designed to carry persons – Operation.*

EN 12408, *Safety requirements for cableway installations designed to carry persons - Quality assurance.*

EN 12927-1, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 1 : Selection criteria for ropes and their end fixings.*

EN 12927-2, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 2 : Safety factors.*

EN 12927-3, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 3 : Long splicing of 6 strand hauling, carrying-hauling and towing ropes.*

EN 12927-4, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 4 : End fixings.*

EN 12927-5, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 5 : Storage, transportation, installation and tensioning.*

EN 12927-6, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 6 : Discard criteria.*

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EN 12927-7, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 7 : Inspection, repair and maintenance.*

EN 12927-8, *Safety requirements for cableway installations designed to carry persons - Ropes - Part 8 : Magnetic rope testing (MRT).*

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

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

EN 12930, *Safety requirements for cableway installations designed to carry persons - Calculations.*

EN 13107, *Safety requirements for cableway installations designed to carry persons - Civil engineering works.*

EN 13223, *Safety requirements for cableway installations designed to carry persons - Drive systems and other mechanical equipment.*

EN 13243, *Safety requirements for cableway installations designed to carry persons - Electrical equipment other than for drive systems.*

prEN 13796-1, *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.*

prEN 13796-2, *Safety requirements for cableway installations designed to carry persons - Carriers - Part 2 : Slipping resistance tests for grips.*

prEN 13796-3, *Safety requirements for cableway installations designed to carry persons - Carriers - Part 3 : Fatigue testing*

EN 60268-5, *Sound system equipment. Part 5: Loudspeakers.*

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### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 1907:2004 and the following apply.

**3.1 evacuation plan**  
document containing all the provisions relating to the human and material resources and to the procedures to be implemented for the evacuation of the passengers

**3.2 evacuation drive**  
drive system for an evacuation installation or any other evacuation system

**3.3 operations centre**  
position from which the evacuation operations are directed

**3.4 control centre**  
position on the installation from which recovery of the carriers is controlled



## 4 Symbols and abbreviations

This document does not include either symbols or abbreviations.

## 5 General requirements

### 5.1 Application of this standard

The requirements of this document apply to all installations together with those of EN 1709, EN 1908, EN 12397, EN 12408, EN 12927-1, EN 12927-2, EN 12927-3, EN 12927-4, EN 12927-5, EN 12927-6, EN 12927-7, EN 12927-8, EN 12929-1, EN 12929-2, EN 12930, EN 13107, EN 13223, EN 13243, prEN 13796-1, prEN 13796-2 and prEN 13796-3.

### 5.2 Safety principles

#### 5.2.1 General

The safety principles set out in EN 12929-1 apply.

In addition, the following hazard scenarios and safety measures relative to the scope of this document are to be taken into consideration.

#### 5.2.2 Hazard scenarios

The following events may lead to hazardous situations which may be avoided or limited by the safety requirements of this document:

- prolonged exposure of persons to bad weather conditions as for example, wind, cold, etc...;
- prolonged immobilisation;
- incompetence, unfitness, carelessness or failure on the part of the evacuation personnel;
- non-existence or inadequacy of organization;
- unsuitable, inadequate or improperly used equipment;
- unreasonable behaviour of the passengers;
- lack of self-sufficiency of the passengers.

#### 5.2.3 Safety measures

In order to meet the hazard scenarios mentioned in 5.2.2, the following safety measures shall be taken.

All cableways shall be designed, constructed and operated in such a way that, in the event of extended stoppage, it is possible to inform the passengers quickly and to ensure their return to safety within a reasonable time, without compromising their safety or the safety of the evacuation personnel.

In such circumstances, it is preferable to recover the carriers. Failing this, the passengers shall be evacuated in accordance with the provisions of a previously established evacuation plan.