



**SLOVENSKI STANDARD**  
**SIST EN 12397:2005**  
**01-januar-2005**

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Safety requirements for cableway installations designed to carry persons - Operation

Sicherheitsanforderungen für Seilbahnen für den Personenverkehr - Betrieb

Prescriptions de sécurité pour les installations a câbles transportant des personnes -  
 Exploitation

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**Ta slovenski standard je istoveten z: EN 12397:2004**

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**ICS:**

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

**SIST EN 12397:2005** **en**

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ICS 45.100

English version

## Safety requirements for cableway installations designed to carry persons - Operation

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Sicherheitsanforderungen für Seilbahnen für den Personenverkehr - Betrieb

This European Standard was approved by CEN on 10 September 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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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 12397:2004) 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 Directives.

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

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

- 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 devices.
- 7) Safety requirements for cableway installations designed to carry persons – Carriers.
- 8) Safety requirements for cableway installations designed to carry persons – Electrical installations apart from 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.

Together these form a series of standards regarding design, production, maintenance and operation of all installations for cableway installations designed to carry persons.

In respect of ski-tows, the drafting of this document has been guided by the works of the International Organisation for transportation by rope (OITAF).

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, 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 the operation of installations for passenger transportation by rope. This standard is applicable to the various types of installations and takes into account their environment.

This document applies to the operation of an installation and to the passenger transport conditions and also contains requirements for passengers.

It is applicable to individual installations or a set of installations.

It does not cover legal provisions for the transport service nor transport obligations

It includes requirements relating to the prevention of accidents and protection for workers.

It does not apply to installations for the transportation of goods nor to inclined lifts.

## 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 cableway installations designed to carry persons – Terminology.*

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

EN 1909, *Safety requirements for cableway installations designed to carry persons – Recovery and evacuation.*

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.*

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 jig back 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.*

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### 3 Terms and definitions

<https://standards.iteh.ai/catalog/standards/sist/61880108-202d-492d-97c3-604946e6764f/sist-en-12397-2005>

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

#### 3.1

##### **operator**

an operating attendant present at a specific installation, who examines the condition of the installation and conducts its maintenance

## 4 General requirements

### 4.1 Application of this standard

The requirements of this document apply to all installations along together with those of .EN 1709, EN 1908, EN 1909, 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 12408, EN 12929-1, EN 12929-2, EN 12930, EN 13107, EN 13223, EN 13243, prEN 13796-1, prEN 13796-2 and prEN 13796-3.

### 4.2 Safety principles

#### 4.2.1 General

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

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

#### 4.2.2 Hazard scenarios

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

- a) inappropriate behaviour of passengers, operating personnel and third parties;
- b) unsuitability of the passengers;
- c) incompetence of the operating personnel, absence or inadequacy of the operating regulations;
- d) insufficient or inadequate signs, instructions, information or means of communication;
- e) failure to observe signs, instructions or operating regulations;
- f) influence of ice, fog, wind, storms.

#### 4.2.3 Safety measures

The safety measures to be taken to eliminate the hazard scenarios listed under 4.2.2 are the following:

- a) use of qualified and trained operating personnel;
  - b) preparation of suitable operating requirements:
    - during normal service;
    - under exceptional circumstances;
  - c) defining and displaying passenger access and transportation measures.
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### 5 Operating arrangements

#### 5.1 Preliminary notes

The following text details the measures to be taken during operation to ensure order and safety of the transportation.

These measures shall be prepared by the operator in a document called Operating requirements drawn up by the operator and approved, if necessary, by the competent authority in accordance with local regulatory provisions. They shall cover the following points:

- name and technical data of the installation;
- operating personnel and tasks;
- documents;
- operating provisions in normal service;
- operating provisions under exceptional circumstances;
- maintenance and operational checks;
- incidents and accidents;

- evacuation plan.

In addition, the requirements for workers' protection shall be taken into account.

In order to be practicable, this document shall be adapted to the installation and the operation concerned. It shall be written in a language that is comprehensible to the operating personnel and shall be brought to their knowledge.

## 5.2 Operating personnel and tasks

### 5.2.1 General

The operating requirements shall specify the tasks to be carried out for the relevant installation and the corresponding minimum number of operating personnel required.

The following operating personnel shall be provided:

- head of operation and, where necessary, his deputies;
- operator;
- other operating personnel (conductor, station attendant etc.).

Under special conditions specified in the operating requirements, it is permissible to dispense with the continuous presence of the operator and/or attendants.

### 5.2.2 Tasks of the head of operation

The following tasks shall be carried out by the head of operation or his deputy.

During operation, the head of operation or his deputy shall be present in the area of the installations for which he is responsible. He shall be contactable at all times.

He is responsible for:

- operational safety;
- ensuring the technical requirements are met;
- the operating personnel assigned to the operation;
- the technical organization of the operation and respect of the environment.

In particular, he shall:

- decide on opening up and closing down the installation to the public as a function of the timetables and the operating conditions;
- apply and have implemented the instructions and requirements relating to the operation and maintenance of the different installations; take any measures to supplement or amend them;
- adapt the number of operating personnel to the operational requirements;
- ensure that the operators and attendants possess the necessary competence and knowledge to carry out the tasks allocated to them;