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MÕELDUD KÖISTEPAIGALDISTELE. KANDURID. OSA 3:  
VÄSIMUSKATSED

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 13796-3:2017 sisaldab Euroopa standardi EN 13796-3:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 13796-3:2017 consists of the English text of the European standard EN 13796-3:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

## Safety requirements for cableway installations designed to carry persons - Carriers - Part 3: Fatigue testing

Prescriptions de sécurité pour les installations à câbles  
transportant des personnes - Véhicules - Partie 3 :  
Essais de fatigue

Sicherheitsanforderungen an Seilbahnen für den  
Personenverkehr - Fahrzeuge - Teil 3:  
Ermüdungsversuche

This European Standard was approved by CEN on 1 December 2014.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European Foreword

This document (EN 13796-3:2017) 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 given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights or similar rights. CEN and/or CENELEC shall not be held responsible for identifying all or some of these patent rights.

This document replaces EN 13796-3:2005.

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 the EU Directive(s) 2000/9/EC.

For relationship with the EU Directive 2000/9/EC, see informative Annex ZA, which is an integral part of this document.

EN 13796 comprises the following parts under the general title *Safety requirements for cableway installations designed to carry persons – Carriers*:

- *Part 1: Grips, carrier trucks, on-board brakes, cabins, chairs, carriages, maintenance carrier, tow-hangers*
- *Part 2: Slipping resistance test for grips*
- *Part 3: Fatigue testing*

The most significant changes compared to the previous edition of EN 13796-3 are as follows:

- in Clause 7, 6th indent, the manufacturing tests pursuant to EN 13796-1 and the results thereof are added to the documents requested to the testing laboratory manufacturer by replacing the testing procedure stipulated in Subclause 11.1;
- in Subclause 11.1, the methods for inspecting test specimens following the test are amended.

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:

- EN 1907, *Safety requirements for cableway installations designed to carry persons — Terminology*
- EN 12929 (all parts), *Safety requirements for cableway installations designed to carry persons — General requirements*
- EN 12930, *Safety requirements for cableway installations designed to carry persons — Calculations*;
- EN 12927 (all parts), *Safety requirements for cableway installations designed to carry persons — Ropes*;
- EN 1908, *Safety requirements for cableway installations designed to carry persons — Tensioning devices*

- EN 13223 *Safety requirements for cableway installations designed to carry persons — Drive systems and other mechanical equipment*
- EN 13796 (all parts), *Safety requirements for cableway installations designed to carry persons — Carriers*
- EN 13243, *Safety requirements for cableway installations designed to carry persons — Electrical equipment other than for drive systems*
- EN 13107, *Safety requirements for cableway installations designed to carry persons — Civil engineering work*
- EN 1709, *Safety requirements for cableway installations designed to carry persons — Pre-commissioning inspection, maintenance and operational inspection and checks*
- EN 1909, *Safety requirements for cableway installations designed to carry persons — Recovery and evacuation*
- 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*

Together these form a series of standards regarding design, manufacture, construction, maintenance and operation of all cableway installations 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, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of Serbia, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Former Yugoslav Republic of Macedonia, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies the safety requirements applicable to carriers for cableway installations for passenger transportation. This standard is applicable to the various types of installations and takes into account their environment.

This European Standard sets out the requirements to be met for fatigue tests for carriers of unidirectional monocable aerial ropeways of capacity not greater than 16 persons according to EN 13796-1.

This standard does not apply to installations for the transportation of goods nor to lifts.

## 2 Normative references

The following referenced documents, in whole or in part, are referenced in the normal manner for this document and are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document applies (including any amendments).

EN 1907, *Safety requirements for cableway installations designed to carry persons – Terminology*

EN 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*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions provided in EN 1907 and EN 13796-1 apply.

## 4 Symbols and abbreviations

$\Delta\varepsilon$	Range of elongation	( $\mu\text{m}/\text{m}$ )
$\varepsilon_m$	Mean elongation	( $\mu\text{m}/\text{m}$ )
$\varepsilon_u$	Lower limit of elongation	( $\mu\text{m}/\text{m}$ )
$\varepsilon_{\text{stat}}$	Elongation due to static loading ( $G + Q$ )	( $\mu\text{m}/\text{m}$ )
$\Delta F$	Range of load	(kN)
$F_m$	Mean load	(kN)
$F_u$	Minimum load	(kN)
$G$	Self-weight of carrier	(kN)
$N$	Number of cycles	(-)
$Q$	Useful load	(kN)