

English Version

## Cycles - Electrically power assisted cycles - Anti-tampering measures

Cycles - Cycles à assistance électrique - Mesures anti-débridage

Fahrräder - Elektromotorisch unterstützte Räder - Maßnahmen zum Schutz vor Manipulationen - Reproduzierbare Tests zur Fälschungsbekämpfung

This Technical Specification (CEN/TS) was approved by CEN on 23 January 2023 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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<b>Contents</b>		<b>Page</b>
<b>European foreword.....</b>		<b>3</b>
<b>1</b>	<b>Scope.....</b>	<b>4</b>
<b>2</b>	<b>Normative references.....</b>	<b>4</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>4</b>
<b>4</b>	<b>Anti-tampering requirements.....</b>	<b>4</b>
<b>4.1</b>	<b>General.....</b>	<b>4</b>
<b>4.2</b>	<b>Requirements for powertrain anti-tampering.....</b>	<b>5</b>
<b>4.3</b>	<b>Test procedures for powertrain anti-tampering.....</b>	<b>5</b>

## European foreword

This document (CEN/TS 17831:2023) has been prepared by Technical Committee CEN/TC 333 “Cycles”, the secretariat of which is held by UNI.

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## 1 Scope

This document is intended to cover anti-tampering requirements of EN 15194:2017, 4.2.17. It provides reproducible test methods recognized by the market aiming at protecting safety and fighting tampering of electric power assisted cycles.

## 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 15194:2017, *Cycles - Electrically power assisted cycles - EPAC Bicycles*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15194:2017, with the exception of 3.72 ("anti-tampering measures"), and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1 anti-tampering measures

technical requirements and specifications which, as far as possible, prevent tampering

### 3.2 tampering

modification of the EPAC's powertrain which may prejudice safety or which may affect the regulatory status of the EPAC

### 3.3 powertrain

EPAC components and systems that store or transmit power assistance and deliver it to the road surface, including the motor(s), the motor management systems, external sensors (e.g. wheel speed) or any other control module, and the transmission and its control, including either a drive shaft or belt drive or chain drive, and the driven wheel tyre (radius)

## 4 Anti-tampering requirements

### 4.1 General

All EPACs shall include anti-tampering measures. The manufacturer shall permit modifications necessary for the diagnosis, servicing, inspection, retrofitting or repair of the vehicle.

NOTE This document focuses on anti-tampering measures and does not address the issue of counterfeiting.