SLOVENSKI STANDARD
oSIST prEN IEC 63281-0:2022

01-september-2022

E-prevozniki - Terminologija in razvrstitev

E-Transporters - Terminology and classification

E-Transporteurs - Terminologie et classification

Ta slovenski standard je istoveten z: **prEN IEC 63281-0:2022**

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COMMITTEE DRAFT FOR VOTE (CDV)

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IEC TC 125 : E-TRANSPORTERS

SECRETARIAT: Belgium	SECRETARY: Mr Bram Rotthier
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.

FUNCTIONS CONCERNED:

☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☒ SAFETY

☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING

Attention IEC-CENELEC parallel voting

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The CENELEC members are invited to vote through the CENELEC online voting system.

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Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

TITLE:

E-Transporters - Terminology and classification

PROPOSED STABILITY DATE: 2026

NOTE FROM TC/SC OFFICERS:

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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E-TRANSPORTERS - TERMINOLOGY AND CLASSIFICATION

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In the case of a **new edition replacing a previous edition**, complete the following text. In the case of a first edition, delete it, as it does not apply.

This XXX edition cancels and replaces the XXX edition published in [publication_date], Amendment 1:[publication_date] and Amendment 2:[publication_date]. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) ...;

The text of this International Standard is based on the following documents:

FDIS	Report on voting
XX/XX/FDIS	XX/XX/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

The National Committees are requested to note that for this document the stability date is 20XX..

THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED AT THE PUBLICATION STAGE.

INTRODUCTION

Standardization of ‘e-Transporters’: electrically powered transport devices for use on public roads or in public spaces. These e-Transporters provide solutions for transporting passengers and/or goods.

These devices can:
• be manually controlled;
• have automated functions;
• be autonomous.

This International standard proposal has been developed in response to an increased demand throughout global for e-Transporters. The world market sizes and applications are expected to grow significantly. To date e-Transporters have not had a complete and unified standard of classification. This has created challenges for engineers, producers, operators, and others of e-Transporters. The development of a terminology and classification standard applicable to e-Transporters, will promote the standardization of e- Transporters, aid the progress of technology, improve product quality, and increase safety.

E-TRANSPORTERS - TERMINOLOGY AND CLASSIFICATION

1 Scope

This document specifies the terminology and classification of e-Transporters.

This document is applicable to ‘e-Transporters’: electrically powered transport devices for use on public roads or in public spaces. These e-Transporters provide solutions for transporting passengers and/or goods.

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.

ISO 8373:2021 Robotics — Vocabulary

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
public space

place that is accessible to the public whether it is in the public domain or privately owned

Note: Examples are roads, cycle tracks, sidewalks, public squares, parks, stations, airports, hotel, hospital, restaurant…

3.2
e-Transporter

electrically powered transport devices for use on public roads or in public spaces. These e-Transporters provide solutions for transporting passengers and/or goods

3.3
personal e-Transporter
PeT

e-Transporter that is primarily designed for transporting person(s)

3.4
cargo e-Transporter
CeT

e-Transporter that is primarily designed for transporting cargo/goods

3.5
utility e-Transporter
UeT

e-Transporter that could transport person(s), cargo(s), or both

3.6
self-balancing e-Transporter

inherently unstable e-Transporte that dynamically stabilizes in at least one direction (pitch) itself using a control system

3.7

folding system

electrical or mechanical system enabling the e-Transporter to be folded in order to change from the configuration of use (unfolded) to the configuration of storage (folded)

3.8

unfolding system

electrical or mechanical system enabling the e-Transporter to be unfolded in order to change from the configuration of storage (folded) to the configuration of use (unfolded)

3.9

manual driving mode

driving mode in which the e-Transporter is operated by direct physical human intervention

Note: examples are:

- push button
- joy stick/steering column
- throttle lever
- touch control (eg. a touch display of a mobile phone used on the e-Transporter)
- body posture changes on the e-Transporter

3.10

autonomous driving mode

driving mode in which the e-Transporter function accomplishes its assigned mission without the need for direct human intervention

3.11

semi-autonomous driving mode

driving mode in which motions are determined by combination of the autonomous driving function and manual user inputs given at the same time

Note: In this operating mode, the manual user input can override the autonomous driving function (e.g., speed control, lane keep assist) or the autonomous driving function can override manual user input (e.g., emergency braking for safety related object detection and automatic avoidance).

[ISO 8373: 2021, definition 6.13.3, modified — definition and note to entry modified]

3.12

rated load

maximum allowed weight of the person(s) and cargo(s) transported by the e-Transporter, as defined by the manufacturer

3.13

warning indicators and signals

visual or audible devices to

a) inform users of the safety status of the e-Transporter

Note: For example, lights or beeping sounds to indicate a function is working correctly, or lights or beeping sounds which operate to indicate a malfunction or condition which may become a serious or is immediately serious.

b) alert third parties to the presence of the e-Transporter

Note: For example, lights or reflectors which make the e-Transporter more easily visible, or an audible device to alert third parties to the presence of the e-Transporter.

3.14

brake

part of the braking system where the forces opposing the movement of the e-Transporter is developed

3.15

braking system

combination of parts consisting of the control, transmission, and brake, whose function it is to progressively reduce the speed of a moving e-Transporter, bring it to a halt, and keep it stationary when halted, the electric motor can be a part of the system

3.16

direct braking system

system actuated directly by the user (for example, a brake handle or a brake pedal)

3.17

indirect braking system

system actuated without voluntary action by the user (for example, braking activated by a gyroscopic system or through the detection of obstacles/anomalies) or automatically actuated

3.18

parking device

device to maintain the e-Transporter in a stationary position

3.19

localization

Identify or distinguish the position of the e-Transporter on the environment map

3.20

navigation

process includes all or part of path planning, localization, mapping and providing the direction of travel

Note: navigation includes path planning to realize the movement from pose to pose and the whole area coverage

[ISO 8373: 2021, definition 8.6, modified — definition and note to entry modified]

3.21

pose

combination of position and orientation in space

[ISO 8373: 2021, definition 5.5, modified — notes to entry removed]

3.22

cruising time

The maximum time that an e-Transporter can drive under defined conditions

3.23

cruising distance

The maximum distance that an e-Transporter can drive under defined conditions

4 Classification

4.1 General

e-Transporters can be classified as the following parameters.

4.2 Self-balancing function

According to the self-balancing function, e-Transporter can be classified into:

a) Self-balancing e-Transporter