

Teknisk rapport

SIS-ISO/TR 8713:2020

**Eldrivna vägfordon – Terminologi
(ISO/TR 8713:2019)**

**Electrically propelled road vehicles – Vocabulary
(ISO/TR 8713:2019)**



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Språk: engelska/English

Utgåva: 2

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Dokumentet är framtaget av kommittén El- och hybridfordon, SIS/TK 517.

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Denna tekniska rapport är inte en svensk standard. Detta dokument innehåller den engelska språkversionen av ISO/TR 8713:2019, utgåva 2.

Detta dokument ersätter SIS- ISO/TR 8713:2012, utgåva 1.

This Technical Report is not a Swedish Standard. This document contains the English language version of ISO/TR 8713:2019, edition 2.

This document supersedes SIS- ISO/TR 8713:2012, edition 1.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviations	25
Annex A (informative) Topic specific list	27
Bibliography	37

SIS-ISO/TR 8713:2020 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22 *Road vehicles*, Subcommittee SC 37 *Electrically propelled road vehicles*.

This edition of ISO/TR 8713 cancels and replaces the first edition (ISO 8713:2012), which has been technically revised and includes the following main changes:

- addition of all terms and definitions from ISO/TC 22/SC 37 standards;
- addition of source information for terms/definitions not developed in ISO/TC 22/SC 37;
- provision of information on standards using the relevant term and defining a master;
- adaptation of structure to the ISO/IEC Directives Part 2, 2016 edition;
- provision of a list of abbreviations used in this document.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document establishes a vocabulary of terms and the related definitions used in ISO standards for electrically propelled road vehicles.

It provides support for the development of new standards and for the review of existing standards.

This document lists terms as defined in ISO/TC 22/SC 37 publications. For each term, the master publication is assigned based on an ISO/TC 22/SC 37 decision. Other publications of ISO TC 22/SC 37 may contain definitions for those terms as well. This document replicates the definition for the term from the master publication without any change. The master publication and the other publications are listed with each term.

ISO/TC 22/SC 37 decided that project leaders of projects using the term should align themselves with the content of the definition under the leadership of the project leader from the master publication. ISO/TC 22/SC 37 prioritizes a consistent use of definitions for terms.

The terms and definitions are listed in alphabetical order. A topic specific list is given in [Annex A](#).

Electrically propelled road vehicles — Vocabulary

1 Scope

This document establishes a vocabulary of terms and the related definitions used in ISO/TC 22/SC 37 standards.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

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

3.1

acceleration ability (v1 to v2)

shortest time required to accelerate the vehicle from speed v1 to speed v2

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 8715:2001.

3.2

alignment

relative position of primary to secondary device

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO/PAS 19363:2017.

3.3

alignment check

confirmation that the primary and secondary devices are properly positioned relative to each other

Note 1 to entry: Proper positioning is done to assure sufficient system functionality (e.g. system efficiency, EMF/EMC limits, safety requirements etc.).

[SOURCE: IEC 61980-2]

Note 2 to entry: Master publication in ISO/TC 22/SC 37: ISO/PAS 19363:2017.

3.4

applicable driving test

ADT

single driving test schedule which is specified for each region

EXAMPLE Chassis dynamometer test cycle for light-duty vehicles in Japan (JC08), New European Driving Cycle (NEDC), Urban Dynamometer Driving Schedule (UDDS).

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 23274-2:2012, also defined in ISO 23274-1:2013 and ISO 23828:2013.

SIS-ISO/TR 8713:2020 (E)

3.5 auxiliary electric system

vehicle system, other than for vehicle propulsion, that operates on electric energy

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-3:2018, also defined in ISO 6469-2:2018 and ISO 6469-4:2015.

3.6 balance of electric circuit

remaining section of an electric circuit when all electric power sources that are energized (RESS and fuel cell stacks) are disconnected

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-3:2018, also defined in ISO 17409:2015.

3.7 basic insulation

insulation of hazardous live parts which provides basic protection

Note 1 to entry: This concept does not apply to insulation used exclusively for functional purposes.

Note 2 to entry: Where insulation is not provided by solid insulation only, it is complemented with protective barriers or protective enclosures to prevent access to live parts in order to achieve basic protection.

[SOURCE: IEC 60050-195:1998, 195-06-06, modified — “hazardous-live-parts” written as “hazardous live parts”]

Note 3 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-3:2018, also defined in ISO 17409:2015 and ISO/PAS 19363:2017.

3.8 basic protection

protection against electric shock under fault-free conditions

[SOURCE: IEC 60050-195:1998, 195-06-01]

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-3:2018.

3.9 battery control unit BCU

electronic device that controls, manages, detects or calculates electric and thermal functions of the battery system and that provides communication between the battery system and other vehicle controllers

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 12405-4:2018.

3.10 battery pack

energy storage device that includes cells or cell assemblies normally connected with cell electronics, power supply circuits and overcurrent shut-off device, including electrical interconnections, interfaces for external systems

Note 1 to entry: Examples of external systems are cooling, voltage class B, auxiliary voltage class A and communication.

Note 2 to entry: Master publication in ISO/TC 22/SC 37: ISO 12405-4:2018.

3.11 battery system

energy storage device that includes cells or cell assemblies or battery pack(s) as well as electrical circuits and electronics

Note 1 to entry: Battery system components can also be distributed in different devices within the vehicle.

Note 2 to entry: Examples of electronics are the BCU and contactors.

Note 3 to entry: Master publication in ISO/TC 22/SC 37: ISO 12405-4:2018, also defined in ISO/PAS 19363:2017.

3.12

bus

vehicle designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 t

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-1:—¹⁾.

3.13

capacity

total number of ampere-hours that can be withdrawn from a fully charged RESS under specified conditions

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 6469-1:—²⁾, also defined in ISO 12405-4:2018.

3.14

case A

connection of an EV to the a.c. supply network (mains) utilizing a supply cable and plug permanently attached to the EV

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 17409:2015, also defined in ISO 6469-2:2018.

3.15

case B

connection of an EV to the a.c. supply network (mains) utilizing a detachable cable assembly with a vehicle connector and a.c. EV supply equipment

Note 1 to entry: Master publication in ISO/TC 22/SC 37: ISO 17409:2015, also defined in ISO 6469-2:2018.

3.16

case C

connection of an EV to the a.c. supply network (mains) utilizing a supply cable and vehicle connector permanently attached to the EV supply equipment

Note 1 to entry: Only case C is applicable for mode 4 (see IEC 61851-1).

Note 2 to entry: Master publication in ISO/TC 22/SC 37: ISO 17409:2015, also defined in ISO 6469-2:2018.

3.17

cell electronics

electronic device that collects and possibly monitors thermal or electric data of cells or cell assemblies and contains electronics for cell balancing, if necessary

Note 1 to entry: The cell electronics can include a cell controller. The functionality of cell balancing can be controlled by the cell electronics or by the BCU.

Note 2 to entry: Master publication in ISO/TC 22/SC 37: ISO 12405-4:2018.

3.18

charge balance of RESS

change of charge in RESS during fuel consumption measurement

Note 1 to entry: Normally expressed in ampere hours (Ah).

Note 2 to entry: Master publication in ISO/TC 22/SC 37: ISO 23274-2:2012, also defined in ISO 23274-1:2013, ISO 23828:2013 and ISO/TR 11955.

1) Under preparation. Stage at the time of publication: ISO/FDIS 6469-1:2019.

2) Under preparation. Stage at the time of publication: ISO/FDIS 6469-1:2019.