Elkøretøjer – Sikkerhedsspecifikationer – Del 3: Elsikkerhed

Electrically propelled road vehicles – Safety specifications – Part 3: Electrical safety

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Electrically propelled road vehicles — Safety specifications —

Part 3: Electrical safety

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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 vehicles*.

This fourth edition cancels and replaces the third edition (ISO 6469-3:2018), which has been technically revised. It also incorporates the Amendment ISO 6469-3:2018/Amd.1:2020.

The main changes are as follows:

— changes from ISO 6469-3:2018/Amd.1:2020 were implemented,

— requirements for equipotential bonding were revised.

A list of all parts in the ISO 6469 series can be found on the ISO website.

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.

Electrically propelled road vehicles — Safety specifications —

Part 3: Electrical safety

1 Scope

This document specifies electrical safety requirements for voltage class B electric circuits of electric propulsion systems and conductively connected auxiliary electric systems of electrically propelled road vehicles.

It specifies electrical safety requirements for protection of persons against electric shock and thermal incidents.

It does not provide comprehensive safety information for manufacturing, maintenance and repair personnel.

NOTE 1 — Electrical safety requirements for post-crash are described in ISO 6469-4.

NOTE 2 — Electrical safety requirements for conductive connections of electrically propelled road vehicles to an external electric power supply are described in ISO 17409.

NOTE 3 — Specific electrical safety requirements for magnetic field wireless power transfer between an external electric power supply and an electrically propelled vehicle are described in ISO 19363.

NOTE 4 — Electrical safety requirements for motorcycles and mopeds are described in the ISO 13063 series.

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 17409, *Electrically propelled road vehicles — Conductive power transfer — Safety requirements*

ISO 20653, *Road vehicles — Degrees of protection (IP code) — Protection of electrical equipment against foreign objects, water and access*

IEC 60664 (all parts), *Insulation coordination for equipment within low-voltage systems*

IEC 60990:2016, *Methods of measurement of touch current and protective conductor current*