IEC 61851-24

Edition 2.0 2023-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Electric vehicle conductive charging system – Part 24: Digital communication between a DC EV supply equipment and an electric vehicle for control of DC charging

Système de charge conductive pour véhicules électriques – Partie 24: Communication numérique entre le système d'alimentation à courant continu et le véhicule électrique pour le contrôle de la charge à courant continu

IEC 61851-24:2023-12(en-fr)

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ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM –

Part 24: Digital communication between a DC EV supply equipment and an electric vehicle for control of DC charging

FOREWORD

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IEC 61851-24 has been prepared by IEC technical committee 69: Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks. It is an International Standard.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision.

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

a) Annex A and Annex B have been updated in line with IEC 61851-23:2023 and relevant standards.

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

Draft	Report on voting
69/909/FDIS	69/914/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 61851 series, published under the general title *Electric vehicle conductive charging system*, can be found on the IEC website.

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

- reconfirmed,
- withdrawn, or
- revised.

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ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM –

Part 24: Digital communication between a DC EV supply equipment and an electric vehicle for control of DC charging

1 Scope

This part of IEC 61851, together with IEC 61851-23, applies to digital communication between a DC EV supply equipment and an electric road vehicle (EV) for control of conductive DC power transfer, with a rated supply voltage up to 1 000 V AC or up to 1 500 V DC and a rated output voltage up to 1 500 V DC.

This document also applies to digital communication between the DC EV charging/discharging station and the EV for system A, as specified in Annex A.

The EV charging mode is mode 4, according to IEC 61851-23.

Annex A, Annex B, and Annex C give descriptions of digital communications for control of DC charging specific to DC EV charging systems A, B and C as defined in IEC 61851-23.

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.

IEC 61851-23:2023, *Electric vehicle conductive charging system – Part 23: DC electric vehicle supply equipment*

ISO TR 8713, *Electrically propelled road vehicles – Vocabulary*

ISO 11898-1:2015, *Road vehicles – Controller area network (CAN) – Part 1: Data link layer and physical signalling*

ISO 11898-2:2016, *Road vehicles – Controller area network (CAN) – Part 2: High-speed medium access unit*

ISO 15118-2:2014, *Road vehicles – Vehicle-to-grid communication interface – Part 2: Network and application protocol requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO TR 8713 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/
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