

Electric vehicle conductive charging system - Part 21-1:
Electric vehicle on-board charger EMC requirements for
conductive connection to an AC/DC supply

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 61851-21-1:2017 sisaldab Euroopa standardi EN 61851-21-1:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 61851-21-1:2017 consists of the English text of the European standard EN 61851-21-1:2017.
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ICS 43.120

English Version

**Electric vehicle conductive charging system -
Part 21-1: Electric vehicle on-board charger EMC requirements
for conductive connection to an AC/DC supply
(IEC 61851-21-1:2017)**

Système de charge conductive pour véhicules électriques -
Partie 21-1: Exigences relatives à la CEM concernant les
chargeurs embarqués pour véhicules électriques pour la
connexion conductive à une alimentation en courant
alternatif ou continu
(IEC 61851-21-1:2017)

Konduktive Ladesysteme für Elektrofahrzeuge -
Teil 21-1: EMV-Anforderungen an Bordladegeräte für
Elektrofahrzeuge mit Wechselstrom/Gleichstrom-
Versorgung
(IEC 61851-21-1:2017)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 69/507/FDIS, future edition 1 of IEC 61851-21-1, prepared by IEC/TC 69 "Electric road vehicles and electric industrial trucks" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61851-21-1:2017.

The following dates are fixed:

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standard or by endorsement
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document have to be withdrawn

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The text of the International Standard IEC 61851-21-1:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61851-21-2:— ¹	NOTE	Harmonized as EN 61851-21-2:— ² .
ISO 15118-3	NOTE	Harmonized as EN ISO 15118-3.
CISPR 16-1-4:2010	NOTE	Harmonized as EN 55016-1-4:2010 (not modified).
CISPR 16-1-4:2010/A1:2012	NOTE	Harmonized as EN 55016-1-4:2010/A1:2012 (not modified).
CISPR 16-1-4:2010/A2:2017	NOTE	Harmonized as EN 55016-1-4:2010/A2:2017 (not modified).

¹ Under preparation. Stage at the time of publication: IEC PRVC 61851-21-2:2017.

² Under preparation. Stage at the time of publication: FprEN 61851-21-2:2017.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60038 (mod)	2009	IEC standard voltages	EN 60038 ³	2011
IEC 61000-3-2	2014	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	EN 61000-3-2	2014
IEC 61000-3-3	2013	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection	EN 61000-3-3	2013
IEC 61000-3-11	2000	Electromagnetic compatibility (EMC) - Part 3-11: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems - Equipment with rated current ≤ 75 A and subject to conditional connection	EN 61000-3-11	2000
IEC 61000-3-12	2011	Electromagnetic compatibility (EMC) - Part 3-12: Limits - Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase	EN 61000-3-12	2011
IEC 61000-4-4	2012	Electromagnetic compatibility (EMC) - Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	2012
IEC 61000-4-5	2014	Electromagnetic compatibility (EMC) - Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	2014
IEC 61000-6-3	2006	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments	EN 61000-6-3	2007
+A1	2010		+A1	2011
IEC 61851-1	2010	Electric vehicle conductive charging system - Part 1: General requirements	EN 61851-1	2011

³ The title of EN 60038 is "CENELEC standard voltages".

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
CISPR 12	2007	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of off-board receivers	EN 55012	2007
+A1	2009		+A1	2009
CISPR 16-1-2	2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2: Radio disturbance and immunity measuring apparatus - Coupling devices for conducted disturbance measurements	EN 55016-1-2	2014
CISPR 16-2-1	2014	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements	EN 55016-2-1	2014
CISPR 22 (mod)	2008	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	EN 55022 +AC	2010 ⁴ 2011 ⁴
CISPR 25	2016	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers	EN 55025	2017
ISO/TR 8713	2012	Electrically propelled road vehicles - Vocabulary	-	-
ISO 7637-2	2011	Road vehicles - Electrical disturbances from conduction and coupling - Part 2: Electrical transient conduction along supply lines only	-	-
ISO 11451-1	2015	Road vehicles - Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 1: General principles and terminology	-	-
ISO 11451-2	2015	Road vehicles - Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Off-vehicle radiation sources	-	-
ISO 11452-1	2015	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 1: General principles and terminology	-	-
ISO 11452-2	2004	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part 2: Absorber-lined shielded enclosure	-	-
ISO 11452-4	2011	Road vehicles - Component test methods for electrical disturbances from narrowband radiated electromagnetic energy - Part-4: Harness excitation methods	-	-

⁴ Superseded by EN 55032:2012 (CISPR 32:2012) and EN 50561-1:2013.

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