ICS 33.100.10, 33.100.20 SLOVENSKÁ TECHNICKÁ NORMA Január 2021

STN	**Elektrické a hybridné cestné vozidlá Charakteristiky rádiového rušenia Medze a metódy merania na ochranu prijímačov mimo paluby pod 30 MHz**	**STN EN IEC 55036** 33 4250

Electric and hybrid electric road vehicles - Radio disturbance characteristics - Limits and methods of measurement for the protection of off-board receivers below 30 MHz

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 12/20

Obsahuje: CISPR 36:2020, EN IEC 55036:2020

132154

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 55036

September 2020

ICS 33.100.10; 33.100.20

English Version

Electric and hybrid electric road vehicles - Radio disturbance characteristics - Limits and methods of measurement for the protection of off-board receivers below 30 MHz (CISPR 36:2020)

Véhicules routiers électriques et hybrides électriques - Caractéristiques de perturbations radioélectriques - Limites et méthodes de mesure pour la protection des récepteurs exterieurs en dessous de 30 MHz (CISPR 36:2020)

Elektro- und Hybrid-Straßenfahrzeuge - Funkstöreigenschaften - Grenzwerte und Messverfahren zum Schutz von außerhalb befindlichen Empfängern unterhalb 30 MHz (CISPR 36:2020)

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Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Ref. No. EN IEC 55036:2020 E

European foreword

The text of document CIS/D/462/CDV, future edition 1 of CISPR 36, prepared by CISPR SC D "Electromagnetic disturbances related to electric/electronic equipment on vehicles and internal combustion engine powered devices" of CISPR "International special committee on radio interference" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 55036:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-05-26
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-08-26

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The text of the International Standard CISPR 36:2020 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 (series)	NOTE	Harmonized as EN 61851-21 (series)
IEC 61980 (series)	NOTE	Harmonized as prEN IEC 61980 (series) to be published
CISPR 14-1	NOTE	Harmonized as EN 55014-1
CISPR 16-1-1	NOTE	Harmonized as EN IEC 55016-1-1
CISPR 16-4-2:2011	NOTE	Harmonized as EN 55016-4-2:2011 (not modified)
CISPR 16-4-2:2011/A1:2014	NOTE	Harmonized as EN 55016-4-2:2011/A1:2014 (not modified)
CISPR 16-4-2:2011/A2:2018	NOTE	Harmonized as EN 55016-4-2:2011/A2:2018 (not modified)
CISPR 25:2016	NOTE	Harmonized as EN 55025:2017 (not modified)

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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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.

Publication	Year	Title	EN/HD	Year
CISPR 16-1-1	2015	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1: Radio disturbance and immunity measuring apparatus - Measuring apparatus	-	-
CISPR 16-1-4	2019	Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements	EN IEC 55016-1-4	2019
CISPR 16-2-3	2016	Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3: Methods of measurement of disturbances and immunity - Radiated disturbance measurements	EN 55016-2-3	2017

CISPR 36

Edition 1.0 2020-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

Electric and hybrid electric road vehicles – Radio disturbance characteristics – Limits and methods of measurement for the protection of off-board receivers below 30 MHz

Véhicules routiers électriques et hybrides électriques – Caractéristiques de perturbations radioélectriques – Limites et méthodes de mesure pour la protection des récepteurs exterieurs en dessous de 30 MHz

CISPR 36:2020-07(en-fr)

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CISPR 36

Edition 1.0 2020-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

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ELECTRIC AND HYBRID ELECTRIC ROAD VEHICLES – RADIO DISTURBANCE CHARACTERISTICS – LIMITS AND METHODS OF MEASUREMENT FOR THE PROTECTION OF OFF-BOARD RECEIVERS BELOW 30 MHz

FOREWORD

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International Standard CISPR 36 has been prepared by CISPR subcommittee D: Electromagnetic disturbances related to electric/electronic equipment on vehicles and internal combustion engine powered devices.

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

CDV	Report on voting
CISPR/D/462/CDV	CISPR/D/464A/RVC

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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

There is a specific need for documents to define acceptable low frequency performance of all electrical/electronic products. CISPR 36 has been developed to serve the electric and hybrid electric road vehicle and related industries with test methods and limits that provide satisfactory protection for radio reception.

Compliance with this document is sometimes insufficient for the protection of receivers used in the residential environment nearer than 10 m to the vehicle. It also sometimes does not provide sufficient protection for new types of radio transmissions.

ELECTRIC AND HYBRID ELECTRIC ROAD VEHICLES – RADIO DISTURBANCE CHARACTERISTICS – LIMITS AND METHODS OF MEASUREMENT FOR THE PROTECTION OF OFF-BOARD RECEIVERS BELOW 30 MHz

1 Scope

This document defines limits for 3 m measurement distance and methods of measurement that are designed to provide protection for off-board receivers (at 10 m distance) in the frequency range of 150 kHz to 30 MHz when used in the residential environment.

NOTE Protection of receivers used on board the same vehicle as the disturbance source(s) is covered by CISPR 25.

This document applies to the emission of electromagnetic energy which might cause interference to radio reception and which is emitted from electric and hybrid electric vehicles propelled by an internal traction battery (see 3.2 and 3.3) when operated on the road.

This document applies to vehicles that have a traction battery voltage between 100 V and 1 000 V.

Electric vehicles to which CISPR 14-1 applies are not in the scope of this document.

This document applies only to road vehicles where an electric propulsion is used for sustained speed of more than 6 km/h.

Vehicles where the electric motor is only used to start up the internal combustion engine (e.g. "micro hybrid") and vehicles where the electric motor is used for additional propulsion only during acceleration (e.g. "48 V mild hybrid vehicles") are not in the scope of this document.

The radiated emission requirements in this document are not applicable to the intentional transmissions from a radio transmitter as defined by the ITU including their spurious emissions.

Annex C lists work being considered for future revisions.

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.

CISPR 16-1-1:2015, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*

CISPR 16-1-4:2019, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-4: Radio disturbance and immunity measuring apparatus – Antennas and test sites for radiated disturbance measurements*

CISPR 16-2-3:2016, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 2-3: Methods of measurement of disturbances and immunity – Radiated disturbance measurements*
CISPR 16-2-3:2016/AMD1:2019