ICS 17.220.20 SLOVENSKÁ TECHNICKÁ NORMA Január 2023

STN	**Postupy merania úrovní magnetických polí generovaných elektronickými a elektrickými zariadeniami v automobilovom prostredí s ohľadom na expozíciu osôb Časť 1: Nízkofrekvenčné magnetické polia**	**STN EN IEC 62764-1** 36 7930

Measurement procedures of magnetic field levels generated by electronic and electrical equipment in the automotive environment with respect to human exposure - Part 1: Low-frequency magnetic fields

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. 12/22

Obsahuje: EN IEC 62764-1:2022, IEC 62764-1:2022

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62764-1

October 2022

ICS 17.220.20

English Version

Measurement procedures of magnetic field levels generated by electronic and electrical equipment in the automotive environment with respect to human exposure - Part 1: Low-frequency magnetic fields (IEC 62764-1:2022)

Procédures de mesure de l'exposition humaine aux niveaux de champs magnétiques générés par les accessoires électroniques et électriques dans l'environnement automobile - Partie 1: Champs magnétiques à basse fréquence (IEC 62764-1:2022)

Verfahren für die Messung von magnetischen Feldern, die von elektrischen und elektronischen Geräten und Einrichtungen in der Straßenfahrzeugumgebung erzeugt werden, in Bezug auf die Exposition von Personen - Teil 1: Niederfrequente magnetische Felder (IEC 62764-1:2022)

This European Standard was approved by CENELEC on 2022-10-20. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 62764-1:2022 E

European foreword

The text of document 106/575/FDIS, future edition 1 of IEC 62764-1, prepared by IEC/TC 106 "Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62764-1:2022.

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) 2023-07-20
•	latest date by which the national standards conflicting with the document have to be withdrawn	(dow) 2025-10-20

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of the International Standard IEC 62764-1:2022 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 standard indicated:

ISO/IEC 17025 NOTE Harmonized as EN ISO/IEC 17025

IEC 62226-1 NOTE Harmonized as EN 62226-1

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.

Publication	Year	Title	EN/HD	Year
IEC 61786-1	-	Measurement of DC magnetic, AC magnetic and AC electric fields from 1 Hz to 100 kHz with regard to exposure of human beings - Part 1: Requirements for measuring instruments	EN 61786-1	-
IEC 62311	2019	Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)	EN IEC 62311	2020

IEC 62764-1

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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MEASUREMENT PROCEDURES OF MAGNETIC FIELD LEVELS GENERATED BY ELECTRONIC AND ELECTRICAL EQUIPMENT IN THE AUTOMOTIVE ENVIRONMENT WITH RESPECT TO HUMAN EXPOSURE –

Part 1: Low-frequency magnetic fields

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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IEC 62764-1 has been prepared by IEC technical committee 106: Methods for the assessment of electric, magnetic and electromagnetic fields associated with human exposure. It is an International Standard.

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

Draft	Report on voting
106/575/FDIS	106/579/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/standardsdev/publications.

A list of all parts in the IEC 62764 series, published under the general title *Measurement procedures of magnetic field levels generated by electronic and electrical equipment in the automotive environment with respect to human exposure*, 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,
- replaced by a revised edition, or
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document 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

This document specifies a methodology for determining the exposure to multiple magnetic field sources for passenger cars and light commercial vehicles including standardized operating conditions and measurement volumes and/or surfaces.

MEASUREMENT PROCEDURES OF MAGNETIC FIELD LEVELS GENERATED BY ELECTRONIC AND ELECTRICAL EQUIPMENT IN THE AUTOMOTIVE ENVIRONMENT WITH RESPECT TO HUMAN EXPOSURE –

Part 1: Low-frequency magnetic fields

1 Scope

This part of IEC 62764 applies to the assessment of human exposure to low-frequency magnetic fields generated by automotive vehicles. For plug-in vehicles, this includes the electric vehicle supply equipment (EVSE) and associated cables provided by the car manufacturer. This excludes the charging station.

This document specifies the measurement procedure for the evaluation of magnetic field exposures generated by electronic and electrical equipment (excluding intentionally transmitting radio frequency antennas) in selected automotive environments, for passenger cars and commercial vehicles of categories M1 and N1 as defined in ECE/TRANS/WP.29/78/Rev.3 [1][1], with respect to human exposure. It provides standardized operating conditions and defines recommended measurements to assess compliance with the applicable exposure requirements.

This document covers the frequency range 1 Hz to 100 kHz and is applicable to any type of engine and/or internal energy source.

This document does not include procedures for assessment of human exposure to electromagnetic fields generated by wireless power transfer (WPT) equipment operating in automotive environments. Exposure assessment procedures for WPT equipment are covered by IEC PAS 63184 [2]. Magnetic field transients shorter than 200 ms occurring when electrical functions are activated are not considered in this document.

Abnormal operation of the vehicle or its equipment is not taken into consideration.

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 61786-1, *Measurement of DC magnetic, AC magnetic and AC electric fields from 1 Hz to 100 kHz with regard to exposure of human beings – Part 1: Requirements for measuring instruments*

IEC 62311:2019, *Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)*

[1] Numbers in square brackets refer to the Bibliography.