

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

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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**EN IEC 62764-1**

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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)

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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**

**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

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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

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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](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
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



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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**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**

**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**



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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



**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**

**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**

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## CONTENTS

FOREWORD .....	5
INTRODUCTION .....	7
1 Scope .....	8
2 Normative references .....	8
3 Terms, definitions and abbreviated terms .....	9
3.1 Terms and definitions .....	9
3.2 Abbreviated terms .....	9
4 Measurement procedure .....	9
4.1 Measurement phases .....	9
4.2 Measuring conditions .....	10
4.3 Test site .....	10
4.4 Vehicle set-up .....	10
4.5 Measurement locations .....	10
4.5.1 General .....	10
4.5.2 Inside the vehicle .....	11
4.5.3 Outside the vehicle .....	12
5 Measurement technique .....	12
5.1 Measuring equipment .....	12
5.2 Measurement of the magnetic field exposure .....	12
6 Measurement procedure .....	12
6.1 Vehicle in stationary mode .....	12
6.1.1 General .....	12
6.1.2 Phase 1: vehicle preparation and set-up .....	12
6.1.3 Phase 2: vehicle measurement .....	13
6.2 Vehicle in driving mode .....	13
6.2.1 General .....	13
6.2.2 Phase 1: vehicle preparation and set-up .....	13
6.2.3 Phase 2: vehicle measurement (at constant speed) .....	13
6.2.4 Phase 3: additional measurements .....	14
6.3 Vehicle in dynamic mode .....	14
6.3.1 General .....	14
6.3.2 Phase 1: vehicle preparation and set-up .....	14
6.3.3 Phase 2: vehicle measurement .....	14
6.4 Vehicle in plug-in charging mode .....	15
6.4.1 General .....	15
6.4.2 Phase 1: vehicle preparation and set-up .....	15
6.4.3 Phase 2: vehicle measurement .....	15
7 Assessment of measurement uncertainty .....	16
8 Test report .....	16
9 Exposure assessment .....	16
Annex A (informative) Practical measurement advice .....	17
Annex B (informative) Maximum extents of measurement volumes inside the vehicle .....	18
B.1 Motivation .....	18
B.2 Anthropometrical information .....	18
B.3 Maximum extents of measurement volumes .....	19



Annex C (informative) Measurement errors due to source proximity and probe orientation .....	20
C.1 Background.....	20
C.2 Magnitude of proximity and orientation related errors .....	20
C.3 Dipole source contributions to uncertainty parameters .....	22
Annex D (informative) Uncertainty estimation.....	24
D.1 General.....	24
D.2 Uncertainty budget.....	24
Annex E (informative) Justification of measurement distances .....	26
E.1 General.....	26
E.2 Models and numerical methods .....	26
E.2.1 Vehicle model and exposure scenarios .....	26
E.2.2 Human model .....	27
E.2.3 Computational method .....	28
E.3 Computational results .....	28
E.4 Conclusions .....	32
Annex F (informative) Magnetic field levels during acceleration and deceleration.....	33
F.1 Example results .....	33
F.2 Test description .....	33
F.3 Conclusion.....	33
Bibliography.....	35
Figure 1 – Example of test volumes taking account of all body parts for a left-hand drive vehicle .....	11
Figure 2 – Plug-in charging cable positioning.....	15
Figure A.1 – Disc spacer around two types of measurement probes.....	17
Figure A.2 – Hemispherical spacer around two types of measurement probes .....	17
Figure B.1 – Summary of relevant anthropometrical data .....	18
Figure C.1 – Span (error bars) and mode (O) of error distributions for magnetic dipole .....	21
Figure C.2 – Span (error bars) and mode (O) of error distributions for linear current.....	21
Figure C.3 – Comparison of predicted error distribution percentiles (O) and fitted models (lines) as a function of $s$ (distance/radius) .....	23
Figure E.1 – Schematic explanation and geometry of the vehicle cabin.....	27
Figure E.2 – Schematic diagram of electrical motor .....	27
Figure E.3 – Definition of each part of the human body model.....	28
Figure E.4 – Magnetic field distribution and measuring points .....	29
Figure F.1 – Results obtained on a car with a full electric powertrain .....	34
Figure F.2 – Results obtained on a car with a parallel hybrid electric powertrain .....	34
Table C.1 – Summary of CDF percentile model fitting parameters for dipole source.....	22
Table C.2 – CDF percentiles for dipole source at $s = 3,545$ .....	23
Table D.1 – Uncertainty budget example of the evaluation of magnetic field exposures .....	25
Table E.1 – Comparison of the ratio of magnetic field and ICNIRP 1998 reference level, and current density and basic restriction for the wire cable .....	30
Table E.2 – Comparison of the ratio of magnetic field and ICNIRP 1998 reference level, and current density and basic restriction for the electrical motor.....	30

Table E.3 – Comparison of the ratio of magnetic field and ICNIRP 2010 reference level, and internal electric field and basic restriction for the wire cable.....	31
Table E.4 – Comparison of the ratio of magnetic field and ICNIRP 2010 reference level, and internal electric field and basic restriction for the electrical motor.....	31

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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**

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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](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://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](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

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## 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]<sup>1</sup>, 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)*

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