



SLOVENSKI STANDARD SIST EN IEC 60136:2024

01-september-2024

Mere, označevanje in preskušanje grafitnih ščetk ter mere držal ščetk za električne stroje (IEC 60136:2024)

Dimensions, marking and testing of carbon brushes and dimensions of brush-holders for electrical machinery (IEC 60136:2024)

Abmessungen, Kennzeichnung und Prüfung von Kohlebürsten und Abmessungen von Bürstenhaltern für elektrische Maschinen (IEC 60136:2024)

Dimensions, marquages et essais des balais et dimensions des porte-balais pour machines électriques (IEC 60136:2024)

Ta slovenski standard je istoveten z: EN IEC 60136:2024

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ICS:

29.160.10	Sestavni deli rotacijskih strojev	Components for rotating machines
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NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60136

June 2024

ICS 29.160.10

English Version

**Dimensions, marking and testing of carbon brushes and
dimensions of brush-holders for electrical machinery
(IEC 60136:2024)**

Dimensions, marquages et essais des balais et dimensions
des porte-balais pour machines électriques
(IEC 60136:2024)

Abmessungen, Kennzeichnung und Prüfung von
Kohlebürsten und Abmessungen von Bürstenhaltern für
elektrische Maschinen
(IEC 60136:2024)

This European Standard was approved by CENELEC on 2024-06-12. 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

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EN IEC 60136:2024 (E)

European foreword

The text of document 2/2180/FDIS, future edition 3 of IEC 60136, prepared by IEC/TC 2 "Rotating machinery" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60136:2024.

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) 2025-03-12
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2027-06-12

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The text of the International Standard IEC 60136:2024 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:

IEC 60773:2021 NOTE Approved as EN IEC 60773:2021 (not modified)

ISO 3611 NOTE Approved as EN ISO 3611

ISO 13102:2012 NOTE Approved as EN ISO 13102:2012 (not modified)

ISO 13385-1:2019 NOTE Approved as EN ISO 13385-1:2019 (not modified)

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.cencenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60276	2018	Carbon brushes, brush holders, commutators and slip-rings - Definitions and nomenclature	EN IEC 60276	2019
IEC 60560	-	Definitions and terminology of brush-holders for electrical machines	-	-
ISO 129-1	-	Technical product documentation (TPD) - Presentation of dimensions and tolerances - Part 1: General principles	EN ISO 129-1	-
ISO 197-1	1983	Copper and copper alloys - Terms and definitions - Part 1: Materials	-	-
ISO 286-2	2010	Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes - Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts	EN ISO 286-2	2010



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NORME INTERNATIONALE



Dimensions, marking and testing of carbon brushes and dimensions of brush-holders for electrical machinery

Dimensions, marquages et essais des balais et dimensions des porte-balais pour machines électriques

[SIST EN IEC 60136:2024](https://standards.iteh.ai/)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**DIMENSIONS, MARKING AND TESTING OF CARBON BRUSHES AND
DIMENSIONS OF BRUSH-HOLDERS FOR ELECTRICAL MACHINERY**

FOREWORD

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IEC 60136 has been prepared by IEC technical committee TC 2: Rotating machinery. It is an International Standard.

This third edition cancels and replaces the second edition published in 1986 and Amendment 1:1995. This edition constitutes a technical revision.

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

Title: modified.

Clause or subclause	Previous clause	Change
1	I-1	Clarification and extension of the scope.
2	None	New clause introduced.
3	None	New clause introduced.
4	I-4 and II-7.5	Addition of units and extension of marking.
5.1	I-2	Addition of cylindrical and wedge-shape brushes.
5.2	I-3	Distinction of dimensions between t , a and r .
6.1	II-7.1	Revision of the chamfer dimension table and addition of non-reversing chamfer.
6.2	II-7.2	Revision of angles dimensions and addition of typical combination of angles.
6.4	II-7.4	Clarification of the definition of the depth of insertion and modification of maximum values.
6.5	None	New subclause introducing the concept of residual material width.
7.1.2	II-8.7	Change of definition of flexibles area and diameter.
7.1.4	None	Addition of flexible protection.
7.2	II-8.1 to II-8.5	Clarification. Addition of other types of terminals.
8	Annex C	Clarification of the method of measurement of electrical resistance and addition of graphical method.
9.2 and 9.3	Clause A.3	Brush-holder: Separation of Dimensions and Control of brush box in two different subclauses.
Annex A	None	Compilation of tables with inches dimensions from the previous edition.
Annex B	None	Addition of recommended dimensions for metal-graphite grades.
Annex C	None	Explanation of stability of brushes (linked to 6.2).
Annex D	II-8.7	Addition of examples of configuration of flexibles.
Annex E	None	Addition of recommended standardization of flexibles' location
Annex F	Annex D and II-8.8	Link between the thickness of terminals and the screw diameter.
Annex G	Annex B	Simplification of the questionnaire, to include only elements defined in this document.

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

Draft	Report on voting
2/2180/FDIS	2/2189/RVD

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