Irish Standard
I.S. EN IEC 60072-1:2022

Version 1.00

Rotating electrical machines - Dimensions and output series - Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080

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National Foreword

I.S. EN IEC 60072-1:2022 V1.00 is the version of the NSAI adopted European document EN IEC 60072-1:2022, *Rotating electrical machines - Dimensions and output series - Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080,* including any Corrections, Amendments etc. to EN IEC 60072-1:2022.

This normative document by CEN/CENELEC the elaboration of which includes a public enquiry, followed by a Formal Vote of CEN/CENELEC national members and final ratification. This European Standard is published as an identical national standard and every conflicting national standard will be withdrawn. The content of a European Standard does not conflict with the content of any other EN (and HD for CENELEC).

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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I.S. EN IEC 60072-1:2022 V1.00

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60072-1

May 2022

ICS 29.160.01

Supersedes EN 50347:2001

English Version

Rotating electrical machines - Dimensions and output series - Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080 (IEC 60072-1:2022)

Machines électriques tournantes - Dimensions et séries de puissances - Partie 1: Désignation des carcasses entre 56 et 400 et des brides entre 55 et 1080 (IEC 60072-1:2022)

Abmessungen und Leistungsreihen für drehende elektrische Maschinen - Teil 1: Baugrößen 56 bis 400 und Flanschgrößen 55 bis 1080 (IEC 60072-1:2022)

This European Standard was approved by CENELEC on 2022-05-04. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 60072-1:2022 E

European foreword

The text of document 2/2059/CDV, future edition 7 of IEC 60072-1, prepared by IEC/TC 2 "Rotating machinery" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60072-1:2022.

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)	2023-02-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2025-05-04

This document supersedes EN 50347:2001 and all of its amendments and corrigenda (if any).

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.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 60072-1:2022 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 standards indicated:

IEC 60034-7 NOTE Harmonized as EN IEC 60034-7

IEC 60079-1 NOTE Harmonized as EN 60079-1

IEC 60079-7 NOTE Harmonized as EN 60079-7

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 60079-0	-	Explosive atmospheres - Part 0: Equipment - General requirements	EN IEC 60079-0	-
ISO 128-3	2020	Technical product documentation (TPD) - General principles of representation - Part 3: Views, sections and cuts	EN ISO 128-3	2020
ISO 273	-	Fasteners - Clearance holes for bolts and screws	EN 20273	-
ISO 286	series	Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes	EN ISO 286	series
ISO 1101	-	Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out	EN ISO 1101	-
ISO 2768-1	-	General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications	-	-

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IEC 60072-1

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Rotating electrical machines – Dimensions and output series – Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080

Machines électriques tournantes –Dimensions et séries de puissances – Partie 1: Désignation des carcasses entre 56 et 400 et des brides entre 55 et 1080

IEC 60072-1:2022-03(en-fr)

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ROTATING ELECTRICAL MACHINES – DIMENSIONS AND OUTPUT SERIES –

Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080

FOREWORD

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International Standard IEC 60072-1 has been prepared by IEC technical committee 2: Rotating machinery.

This seventh edition cancels and replaces the sixth edition published in 1991. This edition constitutes a technical revision.

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

a) modification of the series title;
b) complete revision on the basis of EN 50347;
c) integration of the relationships between frame size, shaft extensions, rated outputs and flange numbers;
d) additional tolerances and measurements for shafts;

e) modification of Annex A with additional frame numbers and relationships between frame size and rated power.

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

Draft	Report on voting
2/2059/CDV	2/2082/RVC

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.

A list of all parts in the IEC 60072 series, published under the general title *Rotating electrical machines – Dimensions and output series*, can be found on the IEC website.

Future documents in this series will carry the new general title as cited above. Titles of existing documents in this series will be updated at the time of the next edition.

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.

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.

ROTATING ELECTRICAL MACHINES – DIMENSIONS AND OUTPUT SERIES –

Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080

1 Scope

This part of IEC 60072 is applicable for the majority of rotating electrical machines for industrial purposes within the dimension range and output powers:

Foot- mounted: shaft heights: 56 mm to 400 mm.

Flange- mounted: pitch circle diameter of flange: 55 mm to 1 080 mm.

It specifies the fixing dimensions, shaft extension dimensions and the assignment of output powers and frame sizes.

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 60079-0, *Explosive atmospheres – Part 0: Equipment – Generel requirements*

ISO 128-3:2020, *Technical product documentation (TPD) – General principles of representation – Part 3: Views, sections and cuts*

ISO 273, *Fasteners – Clearance holes for bolts and screws*

ISO 286 (all parts), *Geometrical product specifications (GPS) – ISO code system for tolerances on linear sizes*

ISO 1101, *Geometrical product specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out*

ISO 2768-1, *General tolerances – Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp