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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 4772.1-2025

**Dimensions and output series for rotating electrical machines -
Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080
(English Translation)**

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020

"Directives for standardization - Part 1.Rules for the structure and drafting of standardizing documents".

This document is Part 1 of GB/T 4772 "Dimensions and output series for rotating electrical machines". The following parts of GB/T 4772 have been published.

- Part 1.Frame numbers 56 to 400 and flange numbers 55 to 1080;
- Part 2.Frame numbers 355 to 1000 and flange numbers 1180 to 2360;
- Part 3.Small built-in motors - Flange numbers BF10 to BF50.

This document replaces GB/T 4772.1-1999 "Dimensions and output series for rotating electrical machines - Part 1.Frame numbers 56 to 400 and flange numbers 55 to 1080".

Compared to GB/T 4772.1-1999, in addition to structural adjustments and editorial changes, the major technical changes are as follows.

- ADD the motor dimension symbols such as AC' and BC (see Chapter 4);
- CHANGE the motor dimension symbol description (see Chapter 5; Chapter 4 of the 1999 edition);
- CHANGE the installation dimension tables for foot-mounted motors and flange-mounted motors (see Tables 1 and 2; Tables 1 and 3 of the 1999 edition);
- CHANGE the tables of key, keyway, shaft dimensions, adding dimensions for D values of 120 to 150 (see Table 3; Table 4 of the 1999 edition);
- CHANGE the shaft-to-foot parallelism (see 8.2; C4.1 of the 1999 edition);
- CHANGE the parallelism of the keyway to the shaft axis (see 8.3; C5.1 of the 1999 edition);
- CHANGE the lateral displacement of the keyway (see 8.4; C5.2 of the 1999 edition);
- CHANGE the shaft runout test method (see 9.2; C6.2 of the 1999 edition);

- ADD test methods for shaft parallelism to the foot plane, keyway parallelism to the shaft axis, keyway lateral displacement (see 9.5, 9.6, 9.7);
- CHANGE the preferred rated output power table (see Table 6; Table 7 of the 1999 edition);
- ADD the relationship between frame number, shaft extension, rated power, flange number (see Chapter 11).

This document identically adopts IEC 60072-1:2022 "Rotating electrical machines - Dimensions and output series - Part 1. Frame number 56 to 400 and flange numbers 55 to 1080".

This document has been modified for the following minimal editorial purposes.

- To align with existing standards, CHANGE the standard title to "Dimensions and output series for rotating electrical machines - Part 1. Frame numbers 56 to 400 and flange number 55 to 1080".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Electrical Equipment Industry Association.

This document shall be under the jurisdiction of the National Technical Committee for Standardization of Rotating Electrical Machines (SAC/TC 26).

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Ltd.

1 Scope

This document applies to rotating motors for most industrial applications, with the following size and power ranges.

- Foot-mounted. Shaft height. 56 mm ~ 400 mm;
- Flange-mounted. Flange base circle diameter. 55 mm ~ 1080 mm.

This document specifies the correspondence between mounting dimensions, shaft extension dimensions, output power ratings and frame numbers.

2 Normative references

The contents of the following documents, through normative references, constitute essential provisions of this document. For dated references, only the version corresponding to that date applies to this document. For undated references, the latest version (including all amendments) applies to this document.

ISO 128-3:2022 Technical product documentation (TPD) - General principles of representation - Part 3.Views, sections and cuts

Note: The referenced content in ISO 128-3:2022 does not technically differ from that in ISO 128-3:2020.

ISO 273 Fasteners - Clearance holes for bolts and screws

Note: GB/T 5277-1985 Fasteners - Clearance holes for bolts and screws (ISO 273:1979, IDT)

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

Note: GB/T 1800 (all parts) Geometrical product specifications (GPS) - ISO code system for tolerances on linear sizes

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

Note: GB/T 1182-2018 Geometrical product specifications (GPS) - Geometrical tolerancing - Tolerances of form, orientation, location and run-out (ISO 1101:2017, MOD)