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

中华人民共和国国家标准

GB/T 4772.1-1999

idt IEC 72-1: 1991

**Dimensions and output series for rotating electrical
machines—Part 1: Frame numbers 56 to 400 and
flange number 55 to 1080**

旋转电机尺寸和输出功率等级 第1部分：

机座号 56~400 和凸缘号 55~1080

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Foreword

GB/T 4772 *Dimensions and output series for rotating electrical machines* consists of following three parts:

Part 1 (GB/T 4772.1): Frame numbers 56 to 400 and flange numbers 55 to 1080

Part 2 (GB/T 4772.2): Frame numbers 355 to 1000 and flange numbers 1180 to 2360

Part 3 (GB/T 4772.3): Small built-in motors- Flange numbers BF10 to BF50

This standard is part one of GB/T 4772 *Dimensions and output series for rotating electrical machines*.

This standard is identical to IEC 72-1: 1991 *Dimensions and output series for rotating electrical machines Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080*.

This standard will replace GB/T 4772.1-1984 *Dimensions and output series for rotating electrical machines -Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1 080* and GB/T 4826-1984 *Motor power class*.

Annex A, Annex B and Annex C of this Standard are informative annex.

This Standard is proposed by State Administration of Machinery Industry

This Standard is under the jurisdiction of National Technical Committee on Electric Rotating Machinery of Standardization Administration of China.

The responsible drafting organization is Shanghai Electrical Apparatus Research Institute (Group) Co., Ltd.

The chief drafting staff of this standard include Qu Zufang.

IEC FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

This part of the International Standard IEC 72 has been prepared by Sub-Committee 2B: Mounting dimensions and output series, of IEC Technical Committee No. 2: Rotating machinery. This sixth edition of IEC 72-1 replaces the fifth edition of IEC 72 (1971) and its Amendments Nos. 1 and 2, issued in 1977 and 1981 respectively. The text of this part is based on the following documents:

Six Months' Rule ^o	Reports on Voting ^o	Two Months' Procedure ^o	Reports on Voting ^o
2B(CO)51 ^o	2B(CO)56 ^o	2B(CO)60 ^o	2B(CO)65 ^o
2B(CO)52 ^o	2B(CO)57 ^o	— ^o	— ^o
2B(CO)61 ^o	2B(CO)66 ^o	2B(CO)68A ^o	2B(CO)71 ^o
2B(CO)62 ^o	2B(CO)67 ^o	— ^o	— ^o
2B(CO)70 ^o	2B(CO)73 ^o	— ^o	— ^o

Full information on the voting for the approval of this can be found in the Voting Reports indicated in the above table. Annexes A, B and C have the status of a report; annex is informative.

The following publications are quoted in this part of IEC 72:

IEC 34-1:1983, Rotating electrical machines — Part 1: Rating and performance

IEC 34-8:1972, Rotating electrical machines — Part 8: Terminal markings and direction of rotation machines

IEC 50(411): 1973, International Electrotechnical Vocabulary (IEV) — Chapter 411:
Rotating machines

ISO 273:1979, Fasteners — Clearance holes for bolts and screws

ISO 496:1973, Driving and driven machines — Shaft heights

ISO/R 773:1969, Rectangular or square parallel keys and their corresponding keyways
(dimensions in millimetres)

ISO/R 775:1969, Cylindrical and 1/10 conical shaft ends

ISO 1101:1983, Technical drawings — geometrical tolerancing — tolerancing of form,
orientation, location and run-out —Generalities, definitions, symbols, indications on
drawings

ISO 2768:1973, Permissible machining variations in dimensions without tolerance
indication

Dimensions and output series for rotating electrical machines—Part 1: Frame numbers 56 to 400 and flange number 55 to 1080

1 Scope

This part of IEC 72 covers the majority of rotating electrical machines for industrial purposes within the dimension range:

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

Flange-mounted: — pitch circle diameter of flange: 55 mm to 1080 mm

It gives tables of fixing dimensions, shaft extension dimensions and output powers. Maximum permissible torques for continuous duty on a.c. motors are listed for various shaft diameters.

NOTE—The dimensions for machines with shaft heights 355 mm and 400 mm, given in this standard, are included among the values given in GB/T 4772.2.

2 Normative References

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications or revisions made thereafter shall not be applicable to this Standard. For the undated documents so quoted, the latest editions shall be applicable to this Standard.

GB/T 755-1987 General requirements for rotating electrical machines

GB/T 1095-1979 Parallel keys—Dimensions of cross sections and keyways

GB/T 1096-1979 Plain parallel keys--Types and dimensions

GB/T 1182-1996 Geometrical tolerancing-Generalities, definitions, symbols, indications on drawings (eqv ISO 1101: 1996)

GB/T 1569-1990 Cylindrical ends of axles (neq ISO/R 775: 1969)

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