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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 755-2008/IEC 60034-1: 2004

Replace GB 755-2000

**Rotating electrical machines—Rating and
performance**

旋转电机 定额和性能

(IEC 60034-1: 2004, IDT)

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China**

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Foreword

“Subclause 8.10 Limits of temperature and of temperature rise” in Clause 8 of this standard, “Subclause 9.2 Withstand voltage test”, “Subclause 9.6 Safe operating speed of cage induction motors”, “Subclause 9.7 Overspeed” in Clause 9, “Subclause 11.1 Protective earthing of machines” in Clause 11, “Clause 13 Electromagnetic compatibility (EMC)” and “Clause 14 Safety” are mandatory, the rest are recommendatory. The table and specification above subclause are all mandatory.

This standard is identical to IEC 60034-1: 2004 *ROTATING ELECTRICAL MACHINES - Part 1: Rating and performance* (Eleventh Edition).

This Standard is the basic standard of rotary motors, which specifies the basic performance and technical requirements of motors. As for the related products, in addition that the content required particularly shall be listed in the technical standards of such products, the rest shall meet this Standard.

This Standard replaces GB 755-2000.

Compared with GB 755-2000, this Standard has the following changes:

- a) It takes the water temperature as the reference temperature of the cooling medium, with the specific temperature value unchanged, while the submersible motor not considered in the past shall be included in the scope.
- b) Added the distortion requirements on the harmonic current factor measurement of load circuit.
- c) Given that the insulation of Level A and Level E is no longer or less used in the production, deleted the content about the insulation of Level A and Level E and added the allowable temperature rise of insulation structure of Level F by 5K for the AC motors of 200kW.
- d) As the correction of temperature rise has been changed due to different voltage values, added the voltage and reduced the correction.

- e) Added the test items for motor inspection.
- f) Modified the terms of the emitter voltage tests.
- g) Modified the provisions on the minimum torque of cage induction motors.
- h) Added the requirements on the maximum safe operating speed of cage induction motors.
- i) Replaced the telephone harmonic factor (THF) of synchronous motor with the total harmonic distortion (THD) of synchronous motor.
- j) Modified the tolerance table.
- k) Simplified the term sheet required in EMC.

As specified in Article 6.5 of this Standard, the temperature of the cooling water shall not be higher than 25°C, but based on the natural environment in China, the temperature of the cooling water shall not be higher than +33°C (if necessary).

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

This Standard is proposed by China Electrical Equipment Industrial Association.

This Standard is under the jurisdiction of National Technical Committee (SAC/TC 26) on Electric Rotating Machinery of Standardization Administration of China.

The responsible drafting organizations are Shanghai Electrical Apparatus Research Institute (Group)Co., Ltd; Shandong Huali Electric Motor Group Co., Ltd; Beijing B.J. Electric Motor Co., Ltd; Zhejiang Jinlong Machinery Stock Co., Ltd; Hebei Electric Motor Co., Ltd; Xi'an Simo Motor Sale And Repair Co.,Ltd; Shandong Qilu Electrical-machinery Manufacturing Co., Ltd; Industry Corporation Yongji Electric Machine Factory of China CNR Corporation Limited; Weiling Qingjiang Motor Group Co., Ltd; Wuxi Huada Motor Co., Ltd; Xiangtan Electric Manufacturing Co., Ltd; Wolong Motor Group Co., Ltd; CSIC Electrical Machinery Science & Technology Co., Ltd; Lu'an JiangHuai Motor Co., Ltd; Tellhow Sci-tech Co., Ltd; Shanxi Anti-explosion Motor (Group) Co., Ltd; Shanghai Dianke Motor Technology Co., Ltd.

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This standard replaces the following historical editions issued:

- GB 755-1987;
- GB 755-2000.

Rotating electrical machines—Rating and performance

1 Scope

This standard is applicable to all rotating electrical machines except those covered by other IEC standards, for example, IEC 60349.

Machines within the scope of this standard may also be subject to superseding, modifying or additional requirements in other publications, for example, GB 3836 (IEC 60079), and GB/T 7060 (IEC 60092).

NOTE If particular clauses of this standard are modified to meet special applications, for example machines subject to radioactivity or machines for aerospace, all other clauses apply insofar as they are compatible.

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 (excluding corrections) 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 156-2007 Standard voltage (IEC 60038:2002,MOD)

GB/T 755.2-2003 Methods for determining losses and efficiency of rotating electrical machinery from tests(excluding machines for traction vehicles) (IEC 60034-2:1996,IDT)

GB 1971-2006 Rotating electrical machines—Terminal markings and direction of rotation (IEC 60034-8:2002,IDT)

GB/T 1993-1993 Cooling methods for rotating electrical machines (eqv IEC 60034-6:1991)

GB/T 2900.25-2008 Electrotechnical terminology - Rotating electrical machines (IEC 50(411):1996)

GB/T 4026-2004 Basic and safety principles for man-machine interface, marking and

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