ICS 29.160.01

K 20

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家标准

GB/T 22719.1-2008

Interturn insulation of random-wound winding for AC low-voltage electricalMachines —Part 1: Test methods

交流低压电机散嵌绕组匝间绝缘 第 1 部分：试验方法

Issued on December 30, 2008 **Implemented on October 01, 2009**

Issued by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China

Standardization Administration of the People's Republic of China

Contents

Foreword.....1

1 Scope.....2

2 Normative References.....2

3 Terms and Definitions.....2

4 Test Instruments.....3

5 Test Methods.....4

6 Selection Principle of Test Connection.....7

7 Test Identification.....8

8 Automatic Testing and Automatic Identification.....10

Annex A (Informative) Comparison Method of Impulse Waveform.....12

Foreword

GB/T 22719 Interturn insulation of random-wound winding for AC low-voltage electrical machines consists of following two parts:

— Part 1: Test methods;

— Part 2: Test limits

This is Part 1 of GB/T 22719.

Annex A of this Part is informative annex.

This Standard is proposed by China Electrical Equipment Industry Association (CIBB).

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, Shanghai Electrical Apparatus Co., Ltd, Shanghai Sea Eagle Electromechanical Test Equipment Factory, Jiangmen Sincere Reduction Gear Factory Co., Ltd, Zhejiang Jinlong Electrical Machinery Stock Co., Ltd, Suzhou Jufeng Insulating Material Co., Ltd and Shanghai Shenfa Detecting Instrument Factory.

The participation drafting organizations are Guilin Electrical Science Research Institute and Harbin Electric Machinery AC-DC Motor Co., Ltd.

The chief drafting staff of this standard includes Zhang Shengde, Rong Weikang, Li Jinliang, Zhang Fei, Wu Yaqi, Liu Quan, Ye Ye, Xu Weihong, Xu Baodi, Yu Longying and Fang Jianguo.

This Part is issued for the first time.

AC Low Voltage Motor Loose Winding Inter-turn Insulation
Part 1: Test Methods

1 Scope

The part of GB/T 22719 specifies the test method of AC motor loose winding inter-turn insulation test.

The part applies to 3-phase or single phase of AC motor loose winding inter-turn insulation test whose nominal voltage is no more than 1140V.

2 Normative References

The articles contained in the following documents have become this part of GB/T 22719 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.

JB/T 9615.2-2000 Test limits of the interturn insulation on random wound winding for AC low-voltage machines

3 Terms and Definitions

For the purpose of this part, the following terms and definitions apply.

3.1

Comparison Method of Impulse Waveforms

Another method is used to test motor winding (or coil) inter-turn insulation by impulse voltage test.

The principle is directly applied impulse voltage wave with specified peak value and front time alternately (or simultaneously) on the same design tested winding (or coil) and benchmark winding (or coil) with same design, to test whether the performance of motor winding (or coil) inter-turn insulation is good or not by using whether damped oscillation waveform caused by impulse voltage has difference. See Annex A.

3.2

Reference winding (or Coil)

When using impulse waveform comparison method to test motor winding (or coil)