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

GB 23313-2009

**Electrical equipment of industrial machines - Electromagnetic
compatibility - Emission limits**

工业机械电气设备 电磁兼容 发射限值

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Table of Contents

3 Introduction...	4
1 Scope...	5
2 Normative references...	5
3 Terms and definitions...	6
4 Measurement conditions...	7
5 Product documentation...	7
6 Applicability...	8
7 Emission limits...	8

Foreword

All technical contents of this standard are mandatory. This standard was proposed by China Machinery Industry Federation. This standard shall be under the jurisdiction of the National Industrial Machinery Electrical System Standardization Technical Committee (SAC/TC 231). The main drafting organizations of this standard. Beijing Machine Tool Research Institute, Beijing Kaiendi CNC Technology Co., Ltd., Beijing Hollysys Motor Technology Co., Ltd., Guangzhou CNC Equipment Co., Ltd., National Machine Tool Quality Supervision and Inspection Center, Zhejiang Kaida Machine Tool Group Co., Ltd. The main drafters of this standard. Huang Zuguang, Yang Hongli, Wang Jian, Zhang Yujie, Zhao Qinzhi, He Yujun.

1 Scope

GB 23313-2009 is the Chinese national standard on electrical equipment of industrial machines - electromagnetic compatibility - emission limits, in the field of electrical engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 19 March 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2010. Classification: ICS 29.020, CCS J09. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the EMC emission limits for industrial mechanical, electrical and electronic equipment and control systems (hereinafter referred to as "equipment"). This standard applies to industrial machinery electrical, electronic equipment, control systems or

components of electrical (electronic equipment) and control systems, whose rated power supply voltage does not exceed AC 1000 V or DC 1500 V, meanwhile the rated frequency does not exceed 200 Hz. If there are related special products or product-type electromagnetic compatibility (EMC) emission standards, the product standards or product-type standards will take precedence over this standard, in all aspects. The electromagnetic emission limits and measurement methods, which are stipulated in this standard, reflect the basic electromagnetic compatibility requirements. After selection, it can ensure that the electromagnetic disturbance, which is generated by equipment working normally in industrial places, will not hinder the normal operation of other equipment. This standard specifies test requirements for each type of port considered. Note

1. When the equipment is used, within 30 m from the receiving antenna of a radio or television receiver, the limits specified in this standard may not adequately protect them from interference. Note

2. In special cases, such as when highly sensitive devices are used nearby, in order to avoid interference with them, it may be necessary to adopt additional attenuation measures to the equipment, in order to further reduce electromagnetic emissions to lower than the specified limits.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Standard; however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 4365-2003 Electrotechnical terminology - Electromagnetic compatibility (

IEC 60050 (161).1990, IDT)

GB 4343.1-2003 Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part

3 Terms and definitions

The terms and definitions as defined in GB/T 4365-2003 and GB 4824, as well as the following terms and definitions, apply to this standard.

3.1 Port A specific interface -- between a device and the external electromagnetic environment (see Figure 1).

4 Measurement conditions

Unless otherwise specified in the basic standard, the equipment shall be measured under the specified working conditions of the equipment and under the working state, that can produce the maximum electromagnetic emission.

5 Product documentation

5.1 Product documents to be provided by the supplier Unless the equipment complies with the provisions of GB 17799.3-2001, the supplier shall expressly indicate, in written warning, that this equipment is not suitable for residential, commercial, light industrial environments.

5.2 Documents available upon request of the buyer or user A list of auxiliary equipment, which is connected to the equipment under test and complying with the emission limit requirements of this standard.

6 Applicability

The relevant ports of the equipment shall be measured according to the provisions in Table 1.