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

GB 5226.3-2005

**Safety of machinery-Electrical equipment of machines-Part
11:Requirements for HV equipment for voltages above
1000Va.c.or 1500Vd.c.and not exceeding 36kV**

机械安全 机械电气设备 第11部分：电压高于1000Va.c.或1500Vd.c.但不超过36kV的高压设备的技术条件

(English Translation)

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Foreword

In this Part, Clause 1, Clause 2, Clause 3, 4.5, 12.3 and Clause 18 are recommended, and the remaining is mandatory.

GB 5226 Safety of Machinery - Electrical Equipment of Machines is divided into the following

parts.

---Part 1.General Requirements;

---Part 11.Requirements for HV Equipment for Voltages above 1,000 Va.c. or 1,500 Vd.c. and Not Exceeding 36 kV;

---Part 31.Particular Safety and EMC Requirements for Sewing Machines, Units and Systems;

---Part 32.Requirements for Hoisting Machines.

This is Part 11 of GB 5226.It equivalently adopts IEC 60204-11.2000 Safety of Machinery - Electrical Equipment of Machines - Part 11.Requirements for HV Equipment for Voltages above 1,000 Va.c. or 1,500 Vd.c. and Not Exceeding 36 kV (English Version).

This Part equivalently translates IEC 60204-11.2000.

In this Part, Annex A, Annex B, Annex C, Annex D and Annex E are informative.

This Part was proposed by China Machinery Industry Federation.

This Part shall be under the jurisdiction of National Technical Committee on Industrial Machinery Electrical System of Standardization Administration of China (SAC/TC 231).

The drafting organizations of this Part. School of Mechanical Engineering, Beijing Union University; Beijing Beikai Electric Co., Ltd.

1 Scope

This Part of GB 5226 applies to the electrical and electronic equipment and systems of machines,

including a group of machines working together in a coordinated manner, but excluding higher

level system aspects (i.e., communications between systems).

2 Normative References

The clauses of the following documents become clauses of this Part through the normative references in this Part of GB 5226. In terms of references with a specified date, all subsequent

amendments (excluding errata content) or revisions do not apply to this Part. However, the various parties that reach an agreement in accordance with this Part are encouraged to explore

whether the latest versions of these documents are applicable. In terms of references without a

date, the latest versions apply to this Part.

3 Definitions

NOTE The index lists, in alphabetical order, the terms defined in this clause and indicates where they are used in the text of this Part of GB 5226.

4 General Requirements

Electrical equipment shall be installed in accordance with the supplier's instructions, and ergonomic principles should be taken into account.

5 Incoming Supply Conductor Terminations, Devices for

Disconnecting and Switching off, and Means for Earthing

For each incoming HV supply, means shall be provided to earth and short-circuit all live conductors by connecting them to the earthing system (e.g., for work on the HV

equipment).

6 Protection against Electric Shock

Protection against direct contact with live parts, parts with insulation for functional purposes only and with parts which can be considered to have a hazardous potential (for examples of such parts see 7.1.1 of HD 637.1999) shall be provided as follows.

7 Protection of HV Equipment

Overcurrent protection shall be provided where the current in a machine circuit can exceed either the rating of any component or the current-carrying capacity of the conductors, whichever

is the lesser value. The ratings or settings to be used are detailed in 7.2.6.

8 Equipotential Bonding

Where the continuity of the protective bonding circuit can be interrupted by means of removable

current collectors or plug/socket combinations, the protective bonding circuit shall not be interrupted before the live conductors have been disconnected, and shall be reestablished before

any live conductor is reconnected. This also applies to removable or withdrawable plug-in units

(see also 14.4).

9 Control Circuits and Control Functions

The requirements of Clause 9 of GB 5226.1-2002 apply except where the LV control circuits are covered by other standards. Control circuits directly connected to high-voltage circuits (e.g.,

thyristor gate circuits) shall be electrically separated from low voltage circuits by the use of an

interface technique such as optical coupling or transformer coupling.

10 Operator Interface and Machine-mounted Control Devices

The requirements of Clause 10 of GB 5226.1-2002 apply, but the minimum degree of protection

against direct contact shall be IPXXDH for operator interface and machine-mounted control devices (see also 6.2, protection against direct contact).

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