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GB/T 17285-2022 / IEC 61293:2019

Replacing GB/T 17285-2009

**Marking of Electrical Equipment with Ratings Related to
Electrical Supply – Safety Requirements**

(IEC 61293:2019, IDT)

电气设备电源特性的标记 安全要求

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 *Directives for Standardization – Part 1: Rules for the Structure and Drafting of Standardizing Documents*.

This Document replaced GB/T 17285-2009 *Marking of Electrical Equipment with Ratings Related to Electrical Supply - Safety Requirements*. Compared with GB/T 17285-2009, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications:

- a) Increase the scope of application of this Document (see Clause 1 of this Edition);
- b) Change the basic requirements for marking (see 4.1 of this Edition; 3.1 of the 2009 Edition);
- c) Add marking requirements for the characteristics of the power supply system (see 4.2.2 of this Edition);
- d) Add marking requirements for equipment ratings (see 4.2.3 of this Edition);
- e) Add marking requirements for other characteristics (see 4.2.4 of this Edition);
- f) Add single-value marking requirements (4.3.2 of this Edition);
- g) Add marking requirements for limit values (see 4.3.3 of this Edition);
- h) Change the value range (see 4.3.5 of this Edition; 3.4.3 of the 2009 Edition);
- i) Add marking requirements for tolerances (see 4.3.6 of this Edition);
- j) Add requirements for marking consistency (see Clause 5 of this Edition);
- k) Add application notes to Table A.1 (see Clause 6 of this Edition);
- l) Add examples of letter codes and graphic symbols for intermediate conductors (see Table A.1 of this Edition).

This Document equivalently adopts IEC 61293:2019 *Marking of Electrical Equipment with Ratings Related to Electrical Supply – Safety Requirements*.

This Document made the following editorial modifications:

- Delete Annex B; since its contents belong to other country practice, and is irrelevant to China's technical conditions.

Please note some contents of this Document may involve patents. The issuing agency of this Document shall not assume the responsibility to identify these patents.

Marking of Electrical Equipment with Ratings Related to Electrical Supply – Safety Requirements

1 Scope

This Document establishes minimum requirements and general rules on marking electric equipment with ratings and other characteristics to enable the proper and safe selection and installation of electric equipment related to any supply of electricity.

The object of this Document is to:

- provide general requirements for the marking of the characteristics related to any supply system, such as voltage, current, frequency and power, without any restrictions;
- provide technical committees with uniform methods for the marking of electrical ratings of products.

This Document is primarily intended for application by technical committees when specifying minimum markings of ratings related to any electrical supply of equipment, sub-assemblies and components, but it is also for application by product manufacturers for marking their products.

NOTE: For further markings see ISO/IEC Guide 51.

This Document is primarily intended for use by technical committees in the preparation of standards in accordance with the principles laid down in IEC Guide 108.

One of the responsibilities of a technical committee is, wherever applicable, to make use of horizontal standards in the preparation of its publications. The contents of this horizontal standard will not apply unless specifically referred to or included in the relevant publications.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

ISO 7000 Graphical Symbols for Use on Equipment – Registered Symbols

environmental conditions in operation. Consideration should also be given to the visibility of the marking during normal operation of the equipment.

A marking shall not be placed on a part intended to be removed, except where the marking is placed on an enclosure which is intended to be removed in order to install the equipment and put back in place once the equipment is installed.

Requirements as to the material, method and location of the marking for the different product types are the responsibility of the relevant technical committee.

Some equipment requires the marking of both input and output characteristics. In such cases, consideration shall be given to provide markings for output as well as for input characteristics.

Some electric equipment may be designed for use on more than one supply voltage or frequency. On some equipment, the user may be required to make adjustments for use on a supply system with a given nominal voltage. Some equipment is designed to operate on several nominal voltages or over a voltage range without any adjustment and is marked accordingly. In such cases the equipment shall be properly marked so that the user can apply the equipment in a safe way.

If special requirements as to the power quality of the power supply are necessary for the safe operation of the equipment, such requirements shall be provided as markings.

Ratings shall be marked with standard abbreviations according to IEC 60445 or with standard graphical symbols taken from IEC 60417, IEC 60617 or ISO 7000. Examples of such standard abbreviations are shown in Table A.1.

Physical quantities shall be expressed using only the numerical value and their decimal multiples and submultiples followed by the unit symbol as specified in IEC 60027, IEC 80000 (all parts), or ISO 80000 (all parts).

International Standards shall only use SI units, as given in the various parts of ISO 80000 and IEC 80000.

Dimensions and tolerances shall be indicated in an unambiguous manner.

4.2 Marking of electric equipment with its characteristics

4.2.1 General

Equipment shall be marked as specified in 4.1 with rated values and other characteristics related to any electricity supply.

Each technical committee shall select the characteristics listed in 4.2 necessary to enable the proper and safe application of equipment. Ratings and other characteristics which are not necessary may be omitted.

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