



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

GB/T 20138-2023

**Degrees of protection provided by enclosures for electrical
equipment against external mechanical impacts (IK code)**

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020

Directives for standardization - Part 1. Rules for the structure and drafting of standardizing documents.

This document replaces GB/T 20138-2006 Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code).

Compared with GB/T 20138-2006, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- The scope of the standard is modified (see Chapter 1; see Chapter 1 of the 2006 edition);
- The IK code level IK11 is added (see 4.2);
- The assessment criteria for the test of protection against mechanical impact is added (see 6.5).

This document is identical to IEC 62262.2021 Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code).

1 Scope

This document applies to the classification of protection of the enclosure of electrical equipment with a rated voltage not exceeding 72.5 kV against external mechanical impact.

2 Normative references

The provisions of the following documents constitute the essential clauses of this document through normative references in this text. Among them, for referenced documents with dates, only the versions corresponding to the dates are applicable to this document; for referenced documents without dates, the latest versions (including all amendments) are applicable to this document.

IEC 60068-1 Environmental testing - Part 1. General and guidance

NOTE. GB/T 2421-2020 Environmental testing - General and guidance (IEC 60068-1.2013, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

ISO and IEC maintain terminology databases used for standardization at the following addresses.

The code indicates the degree of protection provided by the enclosure against external and harmful mechanical impacts.

4 Marking

If the relevant product committee decides to require the IK code to be marked, the marking requirements shall be specified in detail in its relevant product standards.

If applicable, the product standard shall also specify the marking method to be used in the following cases.

5 General test requirements

Unless otherwise specified in the relevant product standards, all enclosures under test shall be clean, new and complete, and all components shall be installed in place.

6 Test to verify the protection against mechanical impacts

The relevant product standards shall specify the assessment criteria for acceptance of the enclosures under test, in particular.

7 Test apparatus

The test shall be carried out by using a test apparatus specified in IEC 60068-2-75.

The relevant product standard shall specify which types of test apparatus are applicable.

References

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