

ICS 29.030

CCS K 14



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

GB/T 43344-2023

**Specification for magnetic materials (iron and steel) for use in
relays**

继电器用磁性材料（铁和钢）规范

(English Translation)

Issued on: November 27, 2023

Implemented on: June 1, 2024

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Category	2
5 Name	2
6 General requirements	3
6.1 Production process	3
6.2 Form of supply	3
6.3 Delivery status	3
6.4 Surface condition	4
7 Technical requirements	4
7.1 Magnetic properties	4
7.2 Geometric properties and tolerances	5
8 Inspection	12
8.1 General	12
8.2 Sampling	12
8.3 Sample preparation	13
8.4 Test methods	13
9 Complaints	14
10 Ordering Information	14
Reference	15

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document is equivalent to IEC 60404-8-10:2009 "Magnetic Materials Part 8-10: Individual Material Specification Magnetic Materials for Relays" Materials (iron and steel)":

This document has made the following minimal editorial changes:

---In order to coordinate with the existing standards, the name of the standard is changed to "Specification for Magnetic Materials (Iron and Steel) for Relays":

Please note that some content in this document may be subject to patents: The publisher of

this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the general requirements, magnetic properties, geometric characteristics and tolerances, and inspection procedures for magnetic materials used in relays:

This document applies to pure iron, non-alloy steel and alloy steel and ferritic stainless steel products delivered in a semi-process or full-process state:

manufacture:

Note: These materials correspond to Class A, Class B, Class C and Class D3 of IEC 60404-1 respectively:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

ISO 286-1 Geometric Product Specification (GPS) Linear Dimensional Tolerances ISO Code System Part 1: Tolerances, Deviations and Fits Part 1: Basis of tolerances, deviations and fits] Note: GB/T 1800.1-2020 Product Geometric Technical Specification (GPS) Linear Dimensional Tolerance ISO Code System Part 1: Tolerances, Deviations and Fits Basics (ISO 286-1:2010, MOD) requirements) Note: GB/T 17505-2016 General technical requirements for delivery of steel and steel products (ISO 404:2013, MOD) ments) Note: GB/T 18253-2018 Types of inspection documents for steel and steel products (ISO 10474:2013, IDT) Note: GB/T 2900.60-2002 Electrical Terminology Electromagnetics (eqv IEC 60050-121:1998) and components) Note: GB/T 9637-2001 Electrical Terminology Magnetic Materials and Components (eqv IEC 60050-221:1990) IEC 60404-1 Magnetic materials classification (Magnetic materials-Classification) Note: GB/T 21219-2007 Classification of magnetic materials (IEC 60404-1:2000, IDT) Note: GB/T 13888-2009 Method for measuring coercive force of magnetic materials in open magnetic circuit (IEC 60404-7:1982, IDT) IEC 60404-9 Magnetic materials Part 9: Methods for determination of geometric properties of electromagnetic steel plates and strips (Magnetic and strip)

3 Terms and definitions

The following terms and definitions as defined in IEC 60050-121, IEC 60050-221 and IEC 60404-9 apply to this document: