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

**GB/T 46848.2-2025**

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**Technical product documentation - Product design data  
management requirements - Part 2: Numbering principles**

技术产品文件 产品设计数据管理要求 第2部分：编号原则

**Issued on: December 31, 2025**

**Implemented on: April 1, 2026**

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**Issued by: State Administration for Market Regulation;  
Standardization Administration of the PRC**

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## 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 Part 2 of GB/T 46848 "Requirements for the Management of Product Design Data in Technical Product Documentation". GB/T 46848 has been... The following sections were published.

1.General Provisions;

2.Numbering Principles;

3.Basic Procedures;

4.Access Control;

5.Document Management;

6.Product Structure Management;

7.Approval and Issuance;

8.Change Management;

9.Storage and Maintenance. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Technical Product Documentation (SAC/TC146). This document was drafted by: CRRC Dalian Locomotive & Rolling Stock Co., Ltd., CRRC Productivity Promotion Center Co., Ltd., and the CRRC Dalian Branch. Factory 5719,

Beijing Digital Fang Technology Co., Ltd., China Aero Engine Corporation Xi'an Power Control Technology Co., Ltd., Shandong Shanda Huatian Software Co., Ltd., Beijing Aerospace Systems Engineering Research Institute, SAIC-GM-Wuling Automobile Co., Ltd., Guangxi Yuchai Machinery Co., Ltd. Limited Company, China Machinery Research Institute of Standards and Technology (Beijing) Co., Ltd. The main drafters of this document are. Wang Hong, Zhang Lichen, Pan Kanghua, Zhang Xiaolu, Yang Hao, Xiao Jiulin, Huang Songbo, Jiang Xuetao, Qu Yaning, and Zhao Bo. Gan Yutian, Li Junping, Luo Zhijian, Gao Hongwei.

With the gradual application and promotion of 3D computer-aided design (CAD) technology, and the application of model-defined design (MBD) technology in manufacturing... Within enterprises, 3D digital models have gradually replaced 2D engineering drawings, becoming the core data carrier in the product development process. This shift... This change not only reflects the evolution of technological forms, but also signifies a profound transformation in product design methodologies and management models. Because 3D models are crucial in technological information... The data management and document control methods differ significantly from the traditional two-dimensional model in terms of information expression, data organization structure, and collaborative management. The process also faces systemic restructuring. To adapt to the development approach centered on 3D digital models, this system addresses the bottlenecks in product design data management within a 3D environment. The problem is to promote the popularization and engineering application of model-based definition technology, support the digital transformation and upgrading of my country's manufacturing industry, and formulate... GB/T 46848 "Requirements for the Management of Product Design Data in Technical Product Documentation". GB/T 46848 is based on the entire lifecycle of product design data. The management process is planned to consist of nine parts.

1.General Provisions. The purpose is to stipulate the general rules for the classification, compilation, archiving, copyright, and protection of product design data. It forms the foundation and framework for the entire series of standards.

2.Numbering Principles. The purpose is to define the general principles, basic requirements, and numbering methods for product design data files. This method ensures the consistency and traceability of data file identification.

## 1 Scope

GB/T 46848.2-2025 is the Chinese national standard covering how parts, documents and models are numbered - significant versus non-significant numbering, the reuse of a number and the rule that a changed part which is no longer interchangeable must get a new one. Getting this wrong is one of the classic causes of the wrong part being fitted. It is one of the seven parts of GB/T 46848 issued together, a first edition, and it belongs with the PLM system requirements of GB/T 47688-2026. It was issued on 31 December 2025 and has

been in force since 1 April 2026, as a first edition. The document is under the responsibility of the Standardization Administration of China. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general principles and basic requirements for product design data file numbering, as well as classification numbering, subordinate numbering, and fully automated serial numbering. Numbering methods such as serial numbers. This document applies to the numbering management of data and documents such as two-dimensional drawings, three-dimensional models, design technical documents, and their related version numbers.

## 2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 24734.2-2009 General Rules for Digital Product Definition Data of Technical Product Documents - Part

## 3 Terms and Definitions

The terms and definitions defined in GB/T 46848.1 and the following terms and definitions apply to this document.

3.1 version code The number of times the approved and stored data files have been upgraded and revised is indicated.

Note. Version number is also known as "major version number".

3.2 VersionversionNo. An identifier indicating the number of times data files have been modified during the design process within the same version.

Note. The version number is automatically generated by the system and is also known as the "minor version number".

## 4 General Principles

4.1 Document number identification shall comply with the provisions of Chapter 4 of GB/T 24734.2-2009, and the following characters may be used.

a) Arabic numerals 0-9;

b) Latin letters A through Z (excluding O and I);

c) - short horizontal line;

4.2 File numbers should be concise and unique to facilitate file sharing, identification, and use, and should adhere to the following basic principles.

a) Scientific rigor;

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