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

GB/T 47851-2026

**Identification of units of measurement for computer-based
processing**

计算机处理的测量单位标识

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms and Definitions	
4 The relationship between quantity, unit, system of quantity, and system of units. 7.	
4.1 Overview	
4.2 International System of Measurements and International System of Units	
4.3 Other systems of measurement and units	
5 Prefixes and Prefix Symbols 8.	
5.1 Overview	
5.2 Composition of Multiples and Factors	
5.3 Usage of SI prefixes and SI prefix symbols	
5.4 Selecting SI prefixes and SI prefix symbols	
6 Unit Identification	
Appendix A (Informative) Information about the unit	
Appendix B (Normative) Identifiers of Units and Quantities	
Appendix C (Informative) Quantities and Specified Units of Measurement	
Appendix NA (Informative) Quantities and Specified Units of Measurement (Supplement)	
References	

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 TS62720:2017 "Identification of units of measurement processed by computers", and the document type is in accordance with IEC technical specifications.

It has been adjusted to become my country's national standard.

The following minimal editorial changes have been made to this document.

---Appendix A has been added as a reference in the text (see 4.3);

---Appendix B has been added as a reference in the text (see 4.4);

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 Electrical and Information Structures, Documentation and Graphic Symbols (SAC/TC27).

Introduction

To ensure the accurate interpretation of units of measurement in data tables, product catalogs, and other documents, and to avoid data corruption due to unclear or incorrect unit descriptions.

Misinterpretation necessitates the development of standardized, computer-recognizable identifiers for various standard and non-standard units of measurement.

This document assigns identifiers to a range of standard and non-standard units of measurement, ensuring that each unit and its corresponding quantity are clearly labeled.

Note that this is based on the IEC Common Data Dictionary (IEC CDD) and is maintained and updated accordingly.

Computer-processed measurement unit identifier

1 Scope

A survey of the quantity of sets of internationally standardized and non-standardized units.

This document contains any standard or non-standard units of measurement currently in use, which are used in two or more different ethnic language groups.

It is used in a country, at least in a certain industry sector, and there is a clear conversion method that can convert it to a known standard unit of measurement or its equivalent.

For this part, the conversion method is well documented or has external references.

This document compiles commonly used units in business data, but it is not exhaustive. Standardization of units or parts thereof is not within the scope of this document.

Note: The units of measurement mentioned and assigned identifiers in this document do not imply that the relevant units of measurement or parts thereof can be considered standardized.

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.

Note: GB/T 18391 (all parts) Information technology metadata registration system (MDR) [ISO/IEC 11179 (all parts)]

3 Terms and Definitions

The following terms and definitions apply to this document.

Quantity

Size can be used to represent the characteristics of a phenomenon, object, or substance through numbers and reference objects.

Note 1: The general concept of "quantity" can be divided into several specific concepts, as shown in Table 1. The left side of the table lists some specific concepts of "quantity," which are further subdivided into the table itself.

The right side refers to a more specific general concept.

Table 1 Examples of general concepts for specific quantities

Length, l

Radius, r ; radius of circle A, r_A or $r(A)$ Wavelength, λ ; wavelength of sodium D radiation, λ_D or $\lambda(D;Na)$ Energy, E Kinetic energy, T , is the kinetic energy of particle i in a given system, T_i .

Heat, Q , is the heat transferred to water sample i , Q_i .

Electric charge, Q ; proton charge, e Resistance, R ; resistance of resistor i , R_i