DRAFT International Standard

IEC/DIS 80000-16

ISO/TC **12**

Secretariat: **SIS**

Voting begins on:
2026-08-21

Voting terminates on:
2026-11-13

Quantities and units —

Part 16: Printing and writing rules

Grandeurs et unités —

Partie 16: Règles d'impression et d'écriture

ICS: 01.060

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Reference number
IEC/DIS 80000-16:2026(en)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Quantities and units - Part 16: Printing and writing rules

FOREWORD

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IEC 80000-16 has been prepared by IEC technical committee 25: Quantities and units in close cooperation with ISO/TC 12, Quantities and units. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
25/XX/FDIS	25/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

INTRODUCTION

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IEC 80000 consists of the following parts, under the general title *Quantities and units*:

– *Part 6: Electromagnetism* (under revision)
– *Part 13: Information science and technology*
– *Part 15: Logarithmic quantities and their units* (under preparation)
– *Part 16: Printing and writing rules* (under preparation*)*
– *Part 17: Time dependency* (under preparation).

The following parts are published by ISO:

– *Part 1: General*
– *Part 2: Mathematical*
– *Part 3: Space and time*
– *Part 4: Mechanics*
– *Part 5: Thermodynamics*
– *Part 7: Light and radiation*
– *Part 8: Acoustics*
– *Part 9: Physical chemistry and molecular physics*
– *Part 10: Atomic and nuclear physics*
– *Part 11: Characteristic numbers*
– *Part 12: Condensed matter physics*.

Note from IEC: The following items were listed in the bibliography but not cited in the text. Please find a suitable place to cite them to justify their inclusion in the bibliography:

ISO 80000-8, *Quantities and units - Part 8: Acoustics*ISO 80000-8 [1]

ISO 80000-9, *Quantities and units - Part 9: Physical chemistry and molecular physics*ISO 80000-9 [2]

ISO 80000-10, *Quantities and units - Part 10: Atomic and nuclear physics*ISO 80000-10 [3]

IEC 80000-15, *Quantities and units - Part 15: Logarithmic quantities and their units (under preparation)*IEC 80000-15 [4]

IEC 80000-17, *Quantities and units - Part 17: Time dependency (under preparation).*IEC 80000-17 [5]

Bureau International des Poids et Mesures, BIPM, The International system of units (SI), SI Brochure 9th ed. V2.01, 2022, ISBN 978-92-822-2272-0[6]

Quantities, Units, and Symbols in Physical Chemistry, IUPAC Green Book, 3rd edition, E.R. Cohen, T. Cvitas, J.G Frey, B. Holmstrom, K. Kuchitsu, R. Marquardt, I. Mills, F. Pavese, M. Quack, J. Stohner, H. Strauss, M. Takami, and A.J. Thor, RSC Publishing, 2007[7]

1 Scope

This part of IEC 80000 establishes rules for printing and writing for text where quantities, units, and their letter symbols and mathematical symbols are used.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 80000-1:2022, *Quantities and units - Part 1: General*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

– IEC Electropedia: available at https://www.electropedia.org/
– ISO Online browsing platform: available at https://www.iso.org/obp

4 General

4.1 General printing rules

General printing rules are given in ISO 80000-1:2022, clause 7.

4.2 The International System of Units, SI

The writing rules in this document are normative in the SI and, when relevant, are recommended in other cases.

The SI rests on seven base units, with names and symbols given in Table 1. Derived units are defined in terms of the base units. When derived units are defined as products of powers of the base units with the numerical factor of this product equal to one, they are called coherent derived units. In the SI, there are 22 derived units with special names and symbols, see Table 2. Together with the seven base units, they form the core of the set of SI units. All other SI units are combinations of some of these 29 units. Concerning non-SI units, some can be used together with SI units (for instance hour) Table 3, whereas other are either obsolete (for instance erg) or not accepted for use with the SI (for instance calorie, yard).), see, and units that are obsolete (for instance erg) or do not belong to the SI (for instance calorie, yard).

Table 1 – SI base units

Base quantity		Base Unit	
Name	**Typical symbol**	**Name**	**Symbol**
time	t	second	s
length	l, x, r, etc	metre	m
mass	m	kilogram	kg
electric current	I, i	ampere	A