PD IEC/TS 62720:2013

BSI Standards Publication

Identification of units of measurement for computer-based processing

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The UK participation in its preparation was entrusted to Technical Committee GEL/3, Documentation and graphical symbols.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Identification des unités de mesure pour le traitement assisté par ordinateur

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CONTENTS

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IDENTIFICATION OF UNITS OF MEASUREMENT FOR COMPUTER-BASED PROCESSING

FOREWORD

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62720, which is a technical specification, has been prepared by subcommittee 3D, Product properties and classes and their identification, of IEC technical committee 3: Information structures, documentation and graphical symbols.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
3D/201/DTS	3D/209/RVC

Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International Standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

For the interpretation of documents such as data sheets, catalogues, or other product related documentation units of measure play an inconspicuous but important role. All quantitive data may be prone to misinterpretation if its unit of measure is unclear or wrong. Thus, there is a strong requirement to unambiguously identify units of measure and ensuring that each unit of measure and its underlying quantity is clearly specified.

As a consequence there is a need to provide computer interpretable identifiers for units of measure. This document assigns identifiers to many standard or non-standard units of measure currently in use.

To ensure timely and fast maintenance of the collection, the content of the document is planned to be uploaded to IEC Common Data Dictionary, thus making possible easy maintenance and fast introduction of eventually missing units of measure or quantities.

IDENTIFICATION OF UNITS OF MEASUREMENT FOR COMPUTER-BASED PROCESSING

1 Scope

This Technical Specification specifies identifiers for units to support computer-based processing of product data. It provides a survey of quantities with associated collections of internationally standardized as well as non-standardized units used in business and science.

In scope are any standard or non-standard units of measure currently in use, in two or more distinct ethno-linguistic groups or nations, at least in one domain of industry, for which an explicit method of conversion to a known standard unit of measure or its equivalent is well documented or evident from external references.

NOTE 1 The document collects units commonly used in business data. It does not purport to be complete.The standardization of units or parts thereof is out of scope.

NOTE 2 Having assigned an identifier by being mentioned in IEC 62720 does not imply that the unit of measure in question or parts thereof may be considered to be standardized.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts), *International Electrotechnical Vocabulary* (available from http://www.electropedia.org)

ISO/IEC 11179–1:2004, *Information technology – Metadata registries (MDR) – Framework – Part 1: Framework*

ISO/IEC 11179–3:2003, *Information technology – Metadata registries (MDR) – Framework – Part 3: Registry metamodel and basic attributes*

ISO/IEC 11179–5:2005, *Information technology – Metadata registries (MDR) – Framework – Part 5: Naming and identification principles*

ISO/IEC 11179–6:2005, *Information technology – Metadata registries (MDR) – Framework – Part 6: Registration*

ISO 80000 (all parts), *Quantities and units*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
quantity
property of a phenomenon, body, or substance, where the property has a magnitude that can be expressed by means of a number and a reference

Note 1 to entry: The generic concept “quantity” can be divided into several levels of specific concepts, as shown in Table 1. The left hand side of the table shows specific concepts under “quantity”. These are generic concepts for the individual quantities in the right hand column.