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INTERNATIONAL STANDARD

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HORIZONTAL PUBLICATION

Graphical symbols for use on equipment – Guidelines for the inclusion of graphical symbols in iec publications

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ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT – GUIDELINES FOR THE INCLUSION OF GRAPHICAL SYMBOLS IN IEC PUBLICATIONS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
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IEC 62648 has been prepared by subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Documentation, graphical symbols and representations of technical information. It is an International Standard.

This second edition cancels and replaces the first edition published in 2012 and Amendment 1:2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) new terms and definitions in IEC Guide 108 have been incorporated;
b) the designation "IEC 60417 SDB" has been introduced following the publication of IEC Supplement:2022, Annex SK;
c) Subclause 6.3 has been adapted in line with IEC Guide 108:2019, Clause 8.

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

Draft	Report on voting
3C/2497/CDV	3C/2525/RVC

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

It has the status of a horizontal publication in accordance with IEC Guide 108.

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

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- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

A graphical symbol is defined as a visually perceptible figure with a particular meaning used to transmit information independently of language. Graphical symbols are used on equipment for a wide range of purposes. The understanding of such symbols can be improved by consistent design. This is particularly important where families of symbols are used in one location or on similar equipment. Good design also helps to maintain the legibility of graphical symbols when they are reduced to small dimensions for application. Thus, there is a need for those involved in technical works to collaborate with experts in subcommittee 3C: Graphical symbols for use on equipment, of IEC technical committee 3: Documentation, graphical symbols and representations of technical information (SC 3C) responsible for developing and maintaining graphical symbols for use on equipment to be standardized in the horizontal publication IEC 60417.

This document is intended for IEC committees working on graphical symbols for use on equipment to be included in their product publications. It provides them with guidelines and requirements on how to create their own graphical symbols for use on equipment as well as on how to consult SC 3C so that these symbols are also included in advance or in parallel in IEC 60417.

This document provides commonly agreeable procedures in SC 3C and in other committees developing product publications, including graphical symbols for use on equipment in accordance with IEC Guide 108.

GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT – GUIDELINES FOR THE INCLUSION OF GRAPHICAL SYMBOLS IN IEC PUBLICATIONS

1 Scope

This document provides guidelines to help ensure that the requirement in ISO/IEC Directives, Part 2:2021, 28.6.2 is met, such that graphical symbols for use on equipment in IEC product publications are consistent with the requirements of horizontal publications IEC 60417, and ISO 7000. This document is intended to be used by any IEC and ISO committees to develop graphical symbols for use on equipment for inclusion in their product publications.

This document is based on and develops upon IEC Guide 108:~~2006~~2019, Clause ~~4~~ 8.

For the creation of new graphical symbols for use on equipment, IEC 80416-1 and ISO 80416-2 are ~~used~~ applied. For the application of standardized graphical symbols for use on equipment, IEC 80416-3 and ISO 80416-4 are ~~used~~ applied.

This horizontal publication is primarily intended for use by committees in the preparation of publications in accordance with the principles laid down in IEC Guide 108.

One of the responsibilities of a committee is, wherever applicable, to make use of horizontal publications in the preparation of its publications. The contents of this horizontal publication will not apply unless specifically referred to or included in the relevant publications.

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.

IEC 60417, *Graphical symbols for use on equipment*, available at http://www.graphical-symbols.info/equipment

IEC 80416-1:2008, *Basic principles for graphical symbols for use on equipment – Part 1: Creation of graphical symbols for registration*

IEC 80416-3~~:2002~~, *Basic principles for graphical symbols for use on equipment – Part 3: Guidelines for the application of graphical symbols*

IEC Guide 108:~~2006~~2019, ~~*Guidelines for ensuring the coherency of IEC publications – Application of horizontal standards*~~ *Guidelines for ensuring the coherence of IEC publications – Horizontal functions, horizontal publications and their application*

ISO/IEC Directives Part 1:2022, *Procedures for the technical work*

ISO/IEC Directives Part 2:~~2011~~2021, *Principles and rules for the structure and drafting of ISO and IEC documents*

ISO/IEC Directives, Supplement:~~2011~~2022, *Procedures specific to IEC*

ISO 3864-1, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

ISO 7000, *Graphical symbols for use on equipment ~~– Index and synopsis~~*, available at http://www.graphical-symbols.info/equipment

ISO 7010~~:2011~~, *Graphical symbols – Safety colours and safety signs – Registered safety signs,* available at https://www.iso.org/obp

ISO 80416-2, *Basic principles for graphical symbols for use on equipment – Part 2: Form and use of arrows*

ISO 80416-4, *Basic principles for graphical symbols for use on equipment – Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)*

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IEC 62648:2022-09(en)

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