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## Principer för grafiska symboler för användning på utrustning – Del 3: Vägledning vid tillämpning

*Basic principles for graphical symbols for use on equipment –  
Part 3: Guidelines for the application of graphical symbols*

Som svensk standard gäller europastandarden EN 80416-3:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 80416-3:2002.

### Nationellt förord

Europastandarden EN 80416-3:2002<sup>\*)</sup>

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 80416-3, First edition, 2002 - Basic principles for graphical symbols for use on equipment - Part 3: Guidelines for the application of graphical symbols**

utarbetad inom International Electrotechnical Commission, IEC.

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<sup>\*)</sup> EN 80416-3:2002 ikraftsattes 2003-03-26 som SS-EN 80416-3 genom offentliggörande, d v s utan utgivning av något svenskt dokument.

### *Standarder underlättar utvecklingen och höjer elsäkerheten*

Det finns många fördelar med att ha gemensamma tekniska regler för bl a säkerhet, prestanda, dokumentation, utförande och skötsel av elprodukter, elanläggningar och metoder. Genom att utforma sådana standarder blir säkerhetskraven tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

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Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

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Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

### **SEK Svensk Elstandard**

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

Principes élémentaires pour les symboles  
graphiques utilisables sur le matériel  
Partie 3: Guide pour l'application  
des symboles graphiques  
(CEI 80416-3:2002)

Allgemeine Grundlagen für Graphische  
Symbole auf Einrichtungen  
Teil 3: Leitfaden zur Anwendung  
Graphischer Symbole  
(IEC 80416-3:2002)

This European Standard was approved by CENELEC on 2002-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

## CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

### Foreword

The text of document 3C/917/FDIS, future edition 1 of IEC 80416-3, prepared by SC 3C, Graphical symbols for use on equipment, of IEC TC 3, Information structures, documentation and graphical symbols, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 80416-3 on 2002-10-01.

The following dates were fixed:

- latest date by which the EN has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2003-07-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 2005-10-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annex ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 80416-3:2002 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60617 (Series)    NOTE    Harmonized as EN 60617 (Series) (not modified).

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u>     | <u>Title</u>                                                                                                                       | <u>EN/HD</u> | <u>Year</u>        |
|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|
| IEC 80416-1        | - <sup>1)</sup> | Basic principles for graphical symbols for use on equipment<br>Part 1: Creation of symbol originals                                | EN 80416-1   | 2001 <sup>2)</sup> |
| ISO 80416-2        | - <sup>1)</sup> | Part 2: Form and use of arrows                                                                                                     | EN 80416-2   | 2001 <sup>2)</sup> |
| ISO 3864-1         | - <sup>1)</sup> | Graphical symbols - Safety colours and safety signs<br>Part 1: Design principles for safety signs in workplaces and public areas   | -            | -                  |
| IEC 60073          | - <sup>1)</sup> | Basic and safety principles for man-machine interface, marking and identification - Coding principles for indicators and actuators | EN 60073     | 2002 <sup>2)</sup> |
| ISO/DIS 7010       | 2001            | Graphical symbols - Safety signs in workplaces and public areas                                                                    | -            | -                  |
| ISO 7000           | - <sup>1)</sup> | Graphical symbols for use on equipment - Index and synopsis                                                                        | -            | -                  |
| IEC 60417          | Series          | Graphical symbols for use on equipment                                                                                             | EN 60417     | Series             |

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<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

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## INTRODUCTION

A graphical symbol is a visually perceptible figure used to transmit information independently of language. Graphical symbols are used on equipment for a wide range of purposes. For such symbols, consistency in the design of families of symbols used in one location or on similar equipment is an important issue. Equally important is the legibility of symbols when they are reduced to small dimensions. Thus, there is a need to standardize the principles for creating graphical symbols for use on equipment to ensure visual clarity and consistency, and thereby to improve recognition.

This multi-part standard addresses the basic rules used to create graphical symbols for use on equipment, including line thickness, form and use of arrows, negation elements, and use of the basic pattern which serves as a guideline for drawing. These design principles are required to be used for all graphical symbols for use on equipment which are standardized in ISO 7000 and IEC 60417.

IEC 80416-3 has been produced to provide the guidelines required when graphical symbols are applied on equipment for use in a specific context, for supporting documentation and for other International Standards.

## BASIC PRINCIPLES FOR GRAPHICAL SYMBOLS FOR USE ON EQUIPMENT –

### Part 3: Guidelines for the application of graphical symbols

#### 1 Scope

International Standard 80416 is a multi-part standard which provides principles and guidelines for the creation and application of graphical symbols for use on equipment.

This part of IEC 80416 provides guidelines for the application of graphical symbols for use on equipment in order to maintain visual clarity and overall consistency when such graphical symbols are applied. It stipulates the permissible extent by which a symbol original may be modified in reproduction for actual use on equipment.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 80416-1, *Basic principles for graphical symbols for use on equipment – Part 1: Creation of symbol originals*

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

ISO/FDIS 3864-1:2001, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs in workplaces and public areas*

IEC 60073, *Basic and safety principles for man-machine interface, marking and identification – Coding principles for indication devices and actuators*<sup>1</sup>

ISO/DIS 7010:2001, *Graphical symbols – Safety signs in workplaces and public areas*

ISO 7000, *Graphical symbols for use on equipment – Index and synopsis*

IEC 60417 (all parts), *Graphical symbols for use on equipment*

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<sup>1</sup> New edition to be published.