SLOVENSKI STANDARD

SIST EN 61534-1:2004

januar 2004

(istoveten EN 61534-1:2003)

Powertrack systems - Part 1: General requirements (IEC 61534-1:2003)

ICS 29.060.10; 29.140.50

Referenčna številka
SIST EN 61534-1:2004(en)

EUROPEAN STANDARD **EN 61534-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM September 2003

ICS 29.060.10; 29.120.20

English version

Powertrack systems
Part 1: General requirements
(IEC 61534-1:2003)

Systèmes de conducteurs préfabriqués
Partie 1: Exigences générales
(CEI 61534-1:2003)

Stromschienensysteme
Teil 1: Allgemeine Anforderungen
(IEC 61534-1:2003)

This European Standard was approved by CENELEC on 2003-09-01. 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, Lithuania, 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

Ref. No. EN 61534-1:2003 E

Foreword

The text of document 23/332/FDIS, future edition 1 of IEC 61534-1, prepared by IEC TC 23, Electrical accessories, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61534-1 on 2003-09-01.

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) 2004-06-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-09-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annexes A, B, C, D, F, G and ZA are normative and annex E is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61534-1:2003 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60439-2	NOTE	Harmonized as EN 60439-2:2000 (not modified).
IEC 60570	NOTE	Harmonized as EN 60570:2003 (modified).
IEC 60664-1	NOTE	Harmonized as EN 60664-1:2003 (not modified).

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.

Publication	Year	Title	EN/HD	Year
IEC 60038 (mod)	1983	IEC standard voltages [1)]	HD 472 S1 + corr. February	1989 2002
IEC 60060-1 + Corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60068-2-75	1997	Environmental testing Part 2-75: Tests - Test Eh: Hammer tests	EN 60068-2-75	1997
IEC 60112	2003	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	2003
IEC 60127-1 + Corr. March	1988 1990	Miniature fuses Part 1: Definitions for miniature fuses and general requirements for miniature fuse-links	EN 60127-1	1991
IEC 60269-1	1998	Low-voltage fuses Part 1: General requirements	EN 60269-1	1998
IEC 60417 database		Graphical symbols for use on equipment	-	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + Corr. May	1991 1993

1) The title of HD 472 S1 is: Nominal voltages for low voltage public electricity supply systems.

Publication	Year	Title	EN/HD	Year
IEC 60695-2-11	2000	Fire hazard testing Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001
IEC 60695-2-4/1	1991	Part 2: Test methods – Section 4/sheet 1: 1 kW nominal pre-mixed test flame and guidance	EN 60695-2-4/1	1993
A1	1994		A1	1996
IEC 60695-10-2	1995	Part 10-2: Guidance and test methods for the minimization of the effects of abnormal heat on electrotechnical products involved in fires - Method for testing products made from non-metallic materials for resistance to heat using the ball pressure test	-	-
IEC 60760	1989	Flat, quick-connect terminations	-	-
A1	1993		-	-
IEC 60884-1	2002	Plugs and socket-outlets for household and similar purposes Part 1: General requirements	-	-
IEC 60998-1	2002 [2)]	Connecting devices for low-voltage circuits for household and similar purposes Part 1: General requirements	-	-
IEC 60998-2-3	2002 [3)]	Part 2-3: Particular requirements for connecting devices as separate entities with insulation-piercing clamping units	-	-
IEC 60999-1	1999	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm² up to 35 mm² (included) [4)]	EN 60999-1	2000
IEC 60999-2	1995 [4)]	Part 2: Particular requirements for conductors from 35 mm² up to 300 mm²	-	-
IEC 61032	1997	Protection of persons and equipment by enclosures - Probes for verification	EN 61032	1998

2) IEC 60998-1:1993 (modified) is harmonized as EN 60998-1:1993.

3) IEC 60998-2-3:1991 is harmonized as EN 60998-2-3:1993.

4) IEC 60999-2:1995 is superseded by IEC 60999-2:2003, which is harmonized as EN 60999-2:2003.

Publication	Year	Title	EN/HD	Year
IEC 61210 (mod)	1993	Connecting devices - Flat quick-connect terminations for electrical copper conductors - Safety requirements	EN 61210	1995
ISO 1456	2003	Metallic coatings - Electrodeposited coatings of nickel plus chromium and of copper plus nickel plus chromium	-	-
ISO 2081	1986	Metallic coatings - Electroplated coatings of zinc on iron or steel	-	-
ISO 2093	1986	Electroplated coatings of tin - Specification and test methods	-	-

NORME INTERNATIONALE

INTERNATIONAL STANDARD

CEI
IEC
61534-1

Première édition
First edition
2003-06

Systèmes de conducteurs préfabriqués –

Partie 1:
Exigences générales

Powertrack systems –

Part 1:
General requirements

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International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE XA

Pour prix, voir catalogue en vigueur
For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

POWERTRACK SYSTEMS –

Part 1: General requirements

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61534-1 has been prepared by IEC technical committee 23: Electrical accessories.

The text of this standard is based on the following documents:

FDIS	Report on voting
23/332/FDIS	23/336/RVD

Full information on the voting for the approval of this standard 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.

This standard constitutes Part 1 of the IEC 61534 series, published under the general title *Powertrack systems*. The series consists of this Part 1, devoted to general requirements, and various Parts 2, devoted to particular requirements, which are still under consideration.

The committee has decided that the contents of this publication will remain unchanged until 2006-12. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

The following difference exists in the country indicated below.

– Table 4, second column, first line, the terminal shall be capable of clamping 1 mm² as a minimum (UK).

INTRODUCTION

Particular requirements for specific types of powertrack systems will be specified in the relevant Parts 2 of IEC 61534, which are still under consideration.

For a specific type of powertrack system, Part 1 is to be considered, together with the appropriate particular requirements, which will supplement or modify some of the corresponding clauses in Part 1 to provide the complete requirements for each type of system. Where no such Part 2 exists, then Part 1 applies.

POWERTRACK SYSTEMS –

Part 1: General requirements

1 Scope

1.1 This part of IEC 61534 specifies general requirements and tests for powertrack (PT) systems with a rated voltage not exceeding 277 V a.c. single phase, or 480 V a.c. two or three phase 50 Hz/60 Hz, with a rated current not exceeding 63 A. These systems are used for distributing electricity in household, commercial and industrial premises.

NOTE The extension of the scope to cover d.c. and communication systems is under consideration.

1.2 Powertrack systems, according to this standard, are intended for use under the following conditions:

– an ambient temperature in the range −5°C to +40 °C, the average value over a 24 h period not exceeding 35 °C;

– a situation not subject to a source of heat likely to raise temperatures above the limits specified above;

– an altitude not exceeding 2 000 m above sea level;

– an atmosphere not subject to excessive pollution by smoke, chemical fumes, prolonged periods of high humidity or other abnormal conditions.

In locations where special conditions prevail, as in ships, vehicles and the like and in hazardous locations, for instance, where explosions are liable to occur, special constructions may be necessary.

This standard does not apply to:

– cable trunking systems and cable ducting systems covered by IEC 61084 [8] [1)]

– busbar trunking systems covered by IEC 60439-2 [5]

– electrical supply track systems for luminaires covered by IEC 60570 [6]

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 60038:1983, *IEC standard voltages* [2)]

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

1) Figures in square brackets refer to the bibliography.

2) There exists a consolidated edition (6.2), including IEC 60038(1983) and its Amendments 1 (1994) and 2 (1997).