SLOVENSKI STANDARD
SIST-TP CLC/TR 61800-6:2008
01-januar-2008

Elektriļ ni pogonski sistemi z nastavljivo hitrostjo - 6. del: Vodilo za ugotavljanje tipov obratovalnih obremenitev in ustreznih tokovnih vrednosti (IEC/TR 61800-6:2003)

Adjustable speed electrical power drive systems - Part 6: Guide for determination of types of load duty and corresponding current ratings (IEC/TR 61800-6:2003)

Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl - Teil 6: Richtlinie zur Bestimmung von Lastspielarten und entsprechenden Strombemessungen (IEC/TR 61800-6:2003)

Entranements lectriques de puissance vitesse variable - Partie 6: Guide de dtermination du type de rgime de charge et de dimensionnement en courant correspondant (IEC/TR 61800-6:2003)

Ta slovenski standard je istoveten z: CLC/TR 61800-6:2007

ICS:

29.130.01	Stikalne in krmilne naprave na splošno	Switchgear and controlgear in general
29.200	Usmerniki. Pretvorniki. Stabilizirano elektriļ no napajanje	Rectifiers. Convertors. Stabilized power supply

SIST-TP CLC/TR 61800-6:2008 en

TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

CLC/TR 61800-6

February 2007

ICS 29.130

Supersedes EN 61136-1:1995

English version

Adjustable speed electrical power drive systems – Part 6: Guide for determination of types of load duty and corresponding current ratings

(IEC/TR 61800-6:2003)

Entraînements électriques de puissance à vitesse variable – Partie 6: Guide de détermination du type de régime de charge et de dimensionnement en courant correspondant (CEI/TR 61800-6:2003)

Elektrische Leistungsantriebssysteme mit einstellbarer Drehzahl – Teil 6: Richtlinie zur Bestimmung von Lastspielarten und entsprechenden Strombemessungen (IEC/TR 61800-6:2003)

This Technical Report was approved by CENELEC on 2006-09-02.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the 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. CLC/TR 61800-6:2007 E

Foreword

The text of the Technical Report IEC/TR 61800-6:2003, prepared by SC 22G, Adjustable speed electric drive systems incorporating semiconductor power converters, of IEC TC 22, Power electronic systems and equipment, was submitted to vote and was approved by CENELEC as CLC/TR 61800-6 on 2006-09-02.

This Technical Report supersedes EN 61136-1:1995.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the Technical Report IEC/TR 61800-6:2003 was approved by CENELEC as a Technical Report without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

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 60146-1-1	- [1]	Semiconductor convertors - General requirements and line commutated convertors Part 1-1: Specifications of basic requirements	EN 60146-1-1	1993 [2]
IEC 61800-1	- [1]	Adjustable speed electrical power drive systems Part 1: General requirements - Rating specifications for low voltage adjustable speed d.c. power drive systems	EN 61800-1	1998 [2]
IEC 61800-2	- [1]	Adjustable speed electrical power drive systems Part 2: General requirements - Rating specifications for low voltage adjustable frequency a.c. power drive systems	EN 61800-2	1998 [2]

[1] Undated reference.

[2] Valid edition at date of issue.

RAPPORT TECHNIQUE

TECHNICAL REPORT

CEI
IEC
TR 61800-6

Première édition
First edition
2003-03

Entraînements électriques de puissance à vitesse variable –

Partie 6:
Guide de détermination du type de régime de charge et de dimensionnement en courant correspondant

Adjustable speed electrical power drive systems –

Part 6:
Guide for determination of types of load duty and corresponding current ratings

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE P

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

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS –

Part 6: Guide for determination of types of load duty and corresponding current ratings

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 technical report may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. However, a technical committee may propose the publication of a technical report when it has collected data of a different kind from that which is normally published as an International Standard, for example “state of the art”.

IEC 61800-6, which is a technical report, has been prepared by subcommittee 22G: Semi-conductor power converters for adjustable speed electric drive systems, of IEC technical committee 22: Power electronics systems and equipment.

This first edition cancels and replaces IEC 61136-1, issued in 1992, and constitutes a technical revision.

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

Enquiry draft	Report on voting
22G/85/DTR	22G/100/RVC

Full information on the voting for the approval of this technical report 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 2008. At this date, the publication will be

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

ADJUSTABLE SPEED ELECTRICAL POWER DRIVE SYSTEMS –

Part 6: Guide for determination of types of load duty and corresponding current ratings

1 General

1.1 Scope and object

This technical report provides alternative methods for specifying ratings for adjustable speed electrical power drive systems (PDS) and in particular their basic drive modules (BDM).

It is not intended to cover adjustable speed drives for traction purposes.

General rules for rating specification for low voltage adjustable speed d.c. power drive systems are contained in IEC 61800-1, and for low voltage adjustable frequency a.c. power drive systems in IEC 61800-2.

1.2 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 60146-1-1, *Semiconductor convertors – General requirements and line commutated convertors – Part 1-1: Specifications of basic requirements*

IEC 61800-1*, Adjustable speed electrical power drive systems – Part 1: General requirments – Rating specifications for low voltage adjustables speed d.c. power drive systems*

IEC 61800-2*, Adjustable speed electrical power drive systems – Part 2: General requirements – Rating specifications for low voltage adjustable frequency a.c. power drive systems*

2 Terms, definitions and symbols

2.1 Terms and definitions

For the purpose of this technical report the definitions given in IEC 61800-1, IEC 61800-2 and IEC 60146-1-1 as well as the following, apply.

2.1.1
equilibrium temperature
steady-state temperature reached by a component of a converter under specified conditions of load and cooling

NOTE Steady-state temperatures are in general different for different components. The times necessary to establish the steady state are also different and proportional to thermal time constants.