

Adjustable speed electrical power drive systems —

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

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National foreword

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**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)

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CENELEC

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Foreword

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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.

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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 requirements – Rating specifications for low voltage adjustable 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.