Australian Standard®

Adjustable speed electrical power drive systems

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

This Australian Standard® was prepared by Committee EL-027, Power Electronics. It was approved on behalf of the Council of Standards Australia on 29 June 2007.
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The following are represented on Committee EL-027:

- Australian Communications and Media Authority
- Australian Electrical and Electronic Manufacturers Association
- Bureau of Steel Manufacturers of Australia
- Department of Defence (Australia)
- Energy Networks Association
- Monash University

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-027, Power Electronics.

The objective of this Standard is to provide designers, manufacturers, specifiers, purchasers and users with alternative methods for specifying ratings of variable speed drives and in particular their basic drive modules.

This Standard is identical with, and has been reproduced from IEC 61800-6, Ed.1.0 (2003), *Adjustable speed electrical power drive systems—Part 6: Guide for determination of types of load duty and corresponding current ratings*.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'IEC 61800-6' should read 'AS 61800.6'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

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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.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

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

AS 60146.1.1, *Semiconductor converters,* Part 1.1: *General requirements and line commutated converters—Specifications of basic requirements* (identical to IEC 60146.1.1)

~~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*~~

AS 61800.1, *Adjustable speed electrical power drive systems,* Part 1: *General requirements—Rating specifications for low voltage adjustable speed d.c. power drive systems* (identical to IEC 61800-1)

~~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*~~

AS 61800.2, *Adjustable speed electrical power drive systems,* Part 2: *General requirements—Rating specifications for low voltage adjustable frequency a.c. power drive systems* (identical to IEC 61800-2)