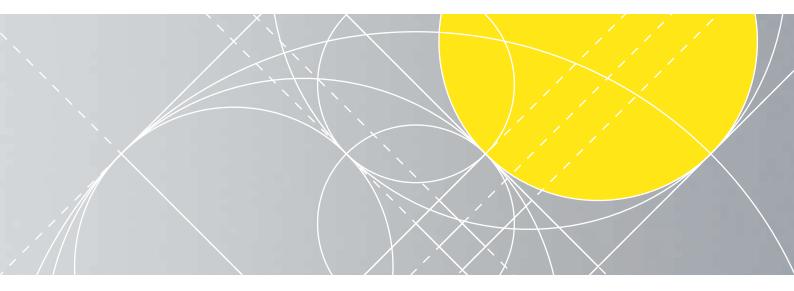


AS IEC 61800.5.1—2013 IEC 61800-5-1, Ed.2.0 (2007) IEC 61800-5-1:2007/AMD1:2016 (Incorporating Amendment No. 1)



Adjustable speed electrical power drive systems

Part 5.1: Safety requirements—Electrical, thermal and energy



AS IEC 61800.5.1-2013

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Preface

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

(A) This Standard incorporates Amendment No. 1 (March 2022). The start and end of changes introduced by the Amendment are indicated in the text by tags including the Amendment number 1.

Amendment No. 1 to this Standard was prepared by the Standards Australia Committee EL-027, Power Electronics.

The objective of this Standard is to specify requirements for adjustable speed power drive systems, or their elements, with respect to electrical, thermal and energy safety considerations. Unless specifically stated, the requirements of this Standard apply to all parts of the Power Drive Systems (PDS), including the complete drive module (CDM)/ basic drive module (BDM).

A) This Standard is identical with, and has been reproduced from, IEC 61800-5-1, Ed.2.0 (2007), *Adjustable speed electrical power drive systems – Part 5-1: Safety requirements – Electrical, thermal and energy* and its Amendment No. 1 (2016) which has been added at the end of the source text.

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- (a) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (b) In the source text "this part of IEC 61800" should read "this part of AS 61800".
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

| Reference to International Standard | | Australian or Australian/New Zealand Standard | |
|-------------------------------------|---|---|---|
| IEC | | AS | |
| 60034 (all parts) | Rotating electrical machines | 60034 (all parts) | Rotating electrical machines |
| 60034-1 | Part 1: Rating and performance | 60034.1 | Part 1: Rating and performance |
| 60034-5 | Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code)—Classification | 60034.5 | Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code)—Classification |
| 60068 | Environmental testing | 60068 | Environmental testing |
| 60068-2-6 | Part 2-6: Tests—Test Fc: Vibration (sinusoidal) | 60068.2.6 | Part 2.6: Tests—Test Fc: Vibration (sinusoidal) |
| 60068-2-78 | Part 2-78: Tests—Test Cab: Damp heat, steady state | 60068.2.78 | Part 2.78: Tests—Test Cab: Damp heat, steady state |
| 60204 | Safety of machinery—Electrical equipment of machines | 60204 | Safety of machinery—Electrical equipment of machines |

| 60204-11 | Part 11: Requirements for HV equipment for voltages above 1000 V a.c or 1500 V d.c and not exceeding 36 kV | 60204.11 | Part 11: Requirements for HV equipment for voltages above 1000 V a.c or 1500 V d.c and not exceeding 36 kV (IEC 60204-11, Ed. 1.0 (2000) MOD) |
|--------------------|--|--------------------|---|
| 60417 | Graphical symbols for use on equipment | 60417 | Graphical symbols for use on equipment |
| | | AS/NZS | |
| 60695 | Fire hazard testing | 60695 | Fire hazard testing |
| 60695-2-10 | Part 2-10: Glowing/hot-wire based test methods—Glowwire apparatus and common test procedure | 60695.2.10 | Part 2.10: Glowing/hot-wire based test methods—Glowwire apparatus and common test procedure |
| 60695-2-13 | Part 2-13: Glowing/hot-wire based test methods—Glowwire ignitability test method for materials | 60695.2.13 | Part 2.13: Glowing/hot-wire based test methods—Glowwire ignitability test method for materials |
| 60695-11-10 | Part 11-10: Test flames—50 W horizontal and vertical flame test methods | 60695.11.10 | Part 11.10: Test flames—50 W horizontal and vertical flame test methods |
| 60695-11-20 | Part 11-20: Test flames—500 W flame test methods | 60695.11.20 | Part 11.20: Test flames—500 W flame test methods |
| | | AS | |
| 60947 | Low-voltage switchgear and controlgear | 60947 | Low-voltage switchgear and controlgear |
| 60947-7-1: 2002 | Part 7-1: Ancillary equipment— Terminal blocks for copper conductors | 60947.7.1: 2004 | Part 7.1: Ancillary equipment— Terminal blocks for copper conductors |
| 60947-7-2: 2002 | Part 7-2: Ancillary equipment— Protective conductor terminal blocks for copper conductors | 60947.7.2: 2002 | Part 7.2: Ancillary equipment— Protective conductor terminal blocks for copper conductors |
| | | AS/NZS | |
| 60990:1999 | Methods of measurement of touch current and protective conductor current | 60990:2002 | Methods of measurement of touch current and protective conductor current |
| | | AS | |
| 61800 | Adjustable speed electrical power drive systems | 61800 | Adjustable speed electrical power drive systems |
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