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Connectors for electrical and electronic equipment – Tests and measurements – Part 99-003: Endurance test schedules – Test 99c: Test schedule for balanced single-pair connectors separating (unmating), under electrical load

Connecteurs pour équipements électriques et électroniques – Essais et mesures – Partie 99-003: Programmes d'essais d'endurance – Essai 99c: Programme d'essai des connecteurs à une seule paire symétrique lors de la séparation (désaccouplement) sous charge électrique



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONNECTORS FOR ELECTRICAL AND ELECTRONIC
EQUIPMENT – TESTS AND MEASUREMENTS –**
**Part 99-003: Endurance test schedules –
Test 99c: Test schedule for balanced single-pair connectors
separating (unmating) under electrical load**

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IEC 60512-99-003 has been prepared by subcommittee 48B: Electrical connectors, of IEC technical committee 48: Electrical connectors and mechanical structures for electrical and electronic equipment. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
48B/3058/FDIS	48B/3065/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 60512 series, published under the general title *Connectors for electrical and electronic equipment – Tests and measurements*, can be found on the IEC website.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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CONNECTORS FOR ELECTRICAL AND ELECTRONIC EQUIPMENT – TESTS AND MEASUREMENTS –

Part 99-003: Endurance test schedules – Test 99c: Test schedule for balanced single-pair connectors separating (unmating) under electrical load

1 Scope

This part of IEC 60512 is used for the assessment of connectors within the scope of SC 43B that are used in balanced single-pair communication cabling with remote power, for example, IEEE 802.3 remote powering applications for point-to-point connections.

The object of this document is to detail a test schedule to determine the ability of sets of single-pair connectors as defined in the IEC 63171 series to withstand a minimum of 100 mechanical operations with electrical load, where an electrical current is being passed through the connector in accordance with IEC 60512-9-3 during the separation (unmating) step.

This document does not cover multidrop powering applications of single-pair connectors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60050-581, *International Electrotechnical Vocabulary (IEV) – Part 581: Electromechanical components for electronic equipment*

IEC 60512-1, *Connectors for electrical and electronic equipment – Tests and measurements – Part 1: Generic specifications*

IEC 60512-1-1, *Connectors for electronic equipment – Tests and measurements – Part 1-1: General examination – Test 1a: Visual examination*

IEC 60512-2-1, *Connectors for electronic equipment – Tests and measurements – Part 2-1: Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level method*

IEC 60512-3-1, *Connectors for electronic equipment – Tests and measurements – Part 3-1: Insulation tests – Test 3a: Insulation resistance*

IEC 60512-4-1, *Connectors for electronic equipment – Tests and measurements – Part 4-1: Voltage stress tests – Test 4a: Voltage proof*

IEC 60512-9-3:2011, *Connectors for electronic equipment – Tests and measurements – Part 9-3: Endurance tests – Test 9c: Mechanical operation (engaging and separating) with electrical load*

IEC 60512-11-7, *Connectors for electronic equipment – Tests and measurements – Part 11-7: Climatic tests – Test 11g: Flowing mixed gas corrosion test*