AS/NZS IEC 60332.3.23:2021
IEC 60332-3-23:2018

Australian/New Zealand Standard™

Tests on electric and optical fibre cables under fire conditions

Part 3.23: Test for vertical flame spread of vertically-mounted bunched wires or cables — Category B

Documents
Document Sharing Hub

Full document details: AS NZS IEC 60332.3.23-2021

AS/NZS IEC 60332.3.23:2021

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-003, Electric Cables and Wires. It was approved on behalf of the Council of Standards Australia on 12 October 2021 and by the New Zealand Standards Approval Board on 6 October 2021.

This Standard was published on 29 October 2021.

The following are represented on Committee EL-003:

Australian Cablemakers Association
Australian Industry Group
Aviation and Marine Engineers Association, New Zealand
Electrical Compliance Testing Association of Australia
Electrical Regulatory Authorities Council, Australia
Engineers Australia
Institute of Electrical Inspectors, Australia
Master Electricians NZ
National Electrical and Communications Association, Australia
Queensland University of Technology
WorkSafe New Zealand

This Standard was issued in draft form for comment as DR AS/NZS IEC 60332.3.23:2021.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au

www.standards.govt.nz

ISBN 978 1 76113 555 2

Documents
Document Sharing Hub

Full document details: AS NZS IEC 60332.3.23-2021

Australian/New Zealand Standard™

Tests on electric and optical fibre cables under fire conditions

Part 3.23: Test for vertical flame spread of vertically-mounted bunched wires or cables — Category B

Originated in Australia as SAA Int 88001—1988.
Jointly revised and redesignated as AS/NZS 1660.5.1:1998.
Jointly revised and redesignated, in part, as AS/NZS IEC 60332.3.23:2017.
Second edition 2021.

© IEC Geneva Switzerland 2021 — All rights reserved
© Standards Australia Limited/the Crown in right of New Zealand, administered by the New Zealand Standards Executive 2021

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of either the IEC or the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth) or the Copyright Act 1994 (New Zealand). If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please see the contact details on the back cover or the contact us page of the website for further information.

Documents
Document Sharing Hub

Full document details: AS NZS IEC 60332.3.23-2021

Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Cables and Wires, to supersede AS/NZS IEC 60332.3.23:2017.

The objective of this document is to cover category B for methods of test for the assessment of vertical flame spread of vertically-mounted bunched wires or cables, under defined conditions.

This document relates to cables installed on the test ladder to achieve a nominal total volume of non-metallic material of 3.5 l/m of test sample. The flame application time is 40 min. The method of mounting uses the front of the standard ladder. The category is intended for general use where medium volumes of non-metallic material are required to be evaluated.

The test is intended for type approval testing. The requirements for the selection of cables for testing are given in Annex A. The flame spread is measured as the extent of damage of the cable sample. This procedure can be used to demonstrate the cable's ability to limit flame spread. A recommended performance requirement is given in Annex B.

This document is identical with, and has been reproduced from, IEC 60332-3-23:2018, *Tests on electric and optical fibre cables under fire conditions – Part 3-23: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category B*.

As this document has been reproduced from an International Standard, the following applies:

(a) In the source text "this part of IEC 60332" should read "this document".

(b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

Documents
Document Sharing Hub

© Standards Australia Limited/Standards New Zealand 2021

Full document details: AS NZS IEC 60332.3.23-2021

NOTES

Documents
Document Sharing Hub

Full document details: AS NZS IEC 60332.3.23-2021

CONTENTS

FOREWORD....3
INTRODUCTION....5
1 Scope....6
2 Normative references....6
3 Terms and definitions....6
4 Test apparatus....7
4.1 General....7
4.2 Ignition source....7
5 Test procedure....7
5.1 Test sample....7
5.2 Determination of the number of test pieces....7
5.3 Mounting of the test sample....8
5.3.1 Cables having at least one conductor above 35 mm^2....8
5.3.2 Cables having conductors 35 mm^2 and below and optical cables....9
5.4 Flame application time....9
6 Evaluation of test results....9
7 Performance requirements....10
8 Retest procedure....10
9 Test report....10
Annex A (normative) Guidance on cable selection for type approval testing....12
Annex B (informative) Recommended performance requirements....13
Bibliography....14

Figure 1 – Spaced cables mounted on the front side of the standard ladder....11
Figure 2 – Touching cables mounted on the front side of the standard ladder (arrays of cables in contact)....11

Table A.1 – Summary of test conditions....12

Documents
Document Sharing Hub

© Standards Australia Limited/Standards New Zealand 2021

Full document details: AS NZS IEC 60332.3.23-2021