AS/NZS 5112:2015

Australian/New Zealand Standard™

Tunnel type terminal neutral bars for low voltage switchboards—Requirements for termination of copper conductors up to 50 mm^2

STANDARDS Australia

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PAEREWA AOTEAROA

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-004, Electrical Accessories. It was approved on behalf of the Council of Standards Australia on 7 September 2015 and on behalf of the Council of Standards New Zealand on 3 September 2015.
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The following are represented on Committee EL-004:

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-004, Electrical Accessories.

The objective of this Standard is to provide requirements and methods of test for tunnel type terminal neutral bars for low voltage switchboards for termination of copper conductors up to 50 mm^2.

The Standard is suitable for referencing in AS/NZS Standards associated with low voltage installations.

The essential safety requirements in AS/NZS 3820, *Essential safety requirements for electrical equipment* that could be applicable to terminals for low voltage switchboard circuits are covered by this Standard.

The term ‘informative’ has been used in this Standard to define the application of the appendices to which it applies. An ‘informative’ appendix is only for information and guidance.

CONTENTS

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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1 SCOPE

This Standard specifies requirements and methods of test for tunnel type terminal neutral bars for low voltage switchboards for termination of copper conductors up to 50 mm^2. It applies to bars of the tunnel terminal type for connection to copper conductors—

(a) of the rigid, stranded or flexible type; and

(b) with a cross-sectional area of 1.0 mm^2 up to and including 50 mm^2.

NOTES:

1 Preferred current ratings are 63 A, 80 A, 100 A and 125 A.

2 This Standard is for tunnel terminal type neutral bars for use as components in switchboards, panel boards, load centres, meter boxes and the like.

3 The current ratings in this Standard apply to bars with a maximum temperature rise of 45 K when tested at ambient temperature in open air.

The ratings obtained in this Standard are applicable to switchboards with an internal air temperature rise of up to 25 K.

NOTE: Refer to Appendix A of this document for further details.

2 NORMATIVE REFERENCES

The following are the normative documents referred to in this Standard:

NOTE: Documents for informative purposes are listed in the Bibliography.

AS/NZS	
1567	Copper and copper alloys—Wrought rods, bars and sections
3000	Wiring Rules
3100	Approval and test specification—General requirements for electrical equipment
60695	Fire hazard testing
60695.2.11	Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products (IEC 60695-2-11:2000, MOD)

3 TERMS AND DEFINITIONS

For the purpose of this Standard, the terms and definitions given in in AS/NZS 3000 and AS/NZS 3100 and the following apply.

3.1 Conductor, prepared

A conductor which has been cut and the insulation of which has been removed over a certain length and fitted with an eyelet, cable lug, shoelace ferrule or the like.

3.2 Conductor, unprepared

A conductor which has been cut and the insulation of which has been removed over a certain length for insertion into a terminal.

NOTE: A conductor, the shape of which is arranged for introduction into a terminal, is considered to be an unprepared conductor, e.g. the strands may be twisted or formed into a ‘U’ shape.