AS 62271.301:2022

Australian STANDARD®

STANDARDS Australia

High-voltage switchgear and controlgear

Part 301: Dimensional standardization of terminals

AS 62271.301:2022

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Australian Industry Group
Energy Networks Australia
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High-voltage switchgear and controlgear

Part 301: Dimensional standardization of terminals

Originated as AS 2395—1980.
Revised and redesignated as AS 62271.301—2005.
Second edition 2022.

Preface

This Standard was prepared by the Standards Australia Committee EL-007, Power Switchgear to supersede AS 62271.301—2005.

The objective of this document is to provide requirements for terminals for high-voltage indoor and outdoor switchgear assemblies and ancillary equipment such as are employed in connection with the generation, transmission, distribution and utilization of electric power.

The major change in this edition is the addition of terminal numbers 21 to 27 in Table 2.

IEC/TR 62271-301 gives dimensions of terminals of cylindrical shape. The IEC sizes have been adopted in this document, including those variants added in the second edition of IEC/TR 62271-301 in 2019. For terminals of rectangular shape, the second edition includes more and different options to those in the previous 2004 edition of IEC/TR 62271-301. This document has retained the terminal palm configurations of the previous 2005 edition.

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

Contents

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Part 301: Dimensional standardization of terminals

1 Scope

This document specifies dimensions and configuration for terminals intended for use on indoor and outdoor high-voltage switchgear and switchgear assemblies such as are employed in connection with the generation, transmission and distribution of electric power. It also applies to the ancillary equipment, such as busbars, used in conjunction with the switchgear.

In particular, this document sets out —

(a) specifications for standard shapes and dimensions for palm terminals, for a range of assigned standard alternating current ratings up to 3 150 A for copper and 5 000 A for aluminium;

(b) dimensions for cylindrical terminals with assigned current ratings up to 4 000 A; and

(c) dimensions for rectangular terminals with assigned current ratings up to 5 000 A.

This document does not apply to terminals internal to switchgear, switchboards and similar, where the connection may be an integral part of the design. It also does not apply to palm terminals having current ratings exceeding 5 000 A and cylindrical terminals having current ratings exceeding 4 000 A.

This document does not require all connections on to terminals to be made with fasteners. Other methods may be more appropriate, and reference should be made to AS 2067:2016 Appendix C, for a description of these.

NOTE The intention of this document is to establish a set of dimensions of terminations for equipment for ease of assembly and interchangeability. In this context, it is appreciated that equipment to which the terminals are applicable will have a current rating in accordance with the particular Standard to which it is tested. Service experience has indicated that despite the various metals and their alloys used in equipment terminals, it is practicable to assign nominal current ratings to terminals of various sizes and coordinate a terminal to an item of equipment having the same current rating.

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.

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

AS 1100.201, *Technical drawing, Part 201: Mechanical engineering drawing*

IEC 60059, *IEC standard current ratings*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
may
indicates the existence of an option

3.2
shall
indicates a mandatory requirement